

Decision Support Unit (DSU)

Élan's work in Access to Finance and
Agricultural non-perennials in the DRC

Sector Study

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About the Decision Support Unit (DSU)

The DSU is a FCDO-financed project implemented by Oxford Policy Management (OPM) in the DRC. It is designed as a support function to FCDO's overall management of its Private Sector Development (PSD) programme. The DSU provides evidence and analysis aimed ultimately at improving the programme's overall impact of increasing incomes for the poor in the DRC. In addition, the DSU provides an external learning role targeting improved implementation practices of the broader development community working in the field of economic development.

Executive Summary

The UK government made a substantive investment in seeking to catalyse the economy of the Democratic Republic of Congo (DRC) through its £100 million Private Sector Development (PSD) programme. Over half of this was through the Élan DRC project.¹ Élan was a £53 million market development project implemented by Adam Smith International (ASI) from 2014 to 2021. There was a first phase, known as 'Élan 1.0', from January 2014 to July 2019, and a second phase, 'Élan 1.2', from August 2019 to July 2021. The second phase saw some geographical re-targeting, stopping work in the southern region of Katanga for example. It also had half the annual budget of the first phase, and faced the challenges of the Coronavirus-19 pandemic (henceforth 'Covid').

The main purpose of this report on Élan's agriculture non-perennial (AgNP) and access to finance (A2F) sectors is to examine the extent to which market system changes were achieved and sustained in both sectors, and whether this led to wider impacts beyond the businesses and organisations with which Élan undertook partnerships. The study is based on an in-depth document review together with key informant interviews in the capital city Kinshasa, and in Haut Katanga and Lualaba provinces in the southern region of DRC, and interviews undertaken remotely, including with Élan intervention partners operating in Zambia, Kenya, and in the Kivu provinces of eastern DRC. In total 56 people were spoken to across 42 institutions between October and December 2022. The main challenges to this research have included availability of certain stakeholders, particularly some of the partners in the A2F sector including some of the mobile money operators in the market.

Background: Development of the Élan portfolio

Élan was an ambitious project with a “complexity-based business case” developed as a pilot under DFID's 'An Initial Application of Complex Systems Tools to Aid Delivery' programme. DFID believed the best way to 'respond to complexity' would be via a multi-faceted and flexible programming approach. The Business Case included a 'problematique' on key constraints firms in DRC faced and the issues driving them, which included multiple market, government, and coordination failures linked to access to finance, market development, the business environment, and corruption. DFID wrote that “feedback loops [generate] vicious circles or traps”, where, “fundamentally, these traps stem from two sources: the nascent stage of the private sector itself; and the predatory nature of the state”.² Élan and its sister project, Essor, were mainly expected to tackle private sector and regulatory challenges respectively. Élan would do so by following a Making Markets Work for the Poor (M4P) approach, also known as a market systems development (MSD) approach, providing a holistic view of market systems including their rules and supporting functions, and the 'core' of transactions with a focus on demand and supply-side constraints in the key markets or sectors of interest.

¹ There were two other sub-programmes (which are often called, as with Élan, as “projects”) of the PSD programme: **Essor**, a £35 million flexible facility aiming to improve the DRC's business enabling environment, implemented by PricewaterhouseCoopers (PwC), which ran from January 2015 to January 2022; and the **Decision Support Unit (DSU)**, implemented by Oxford Policy Management (OPM), which produced annual reviews, evaluations, learning and adaptation activities. The DSU began implementation in August 2016 and will complete in August 2023. This study is a deliverable of the DSU project.

² DFID (2013) PSD Programme Business Case

Élan undertook extensive market scoping in its inception phase in 2013, including the identification and selection of sectors based on factors such as their potential growth, impact on poor beneficiaries, impact on women, and risks faced.³ Élan's focus sectors evolved based on early implementation experiences, and by the third year, the mature portfolio included interventions in: agriculture perennials (AgP – cash crops such as coffee), renewable energy, river transport (RT), agriculture non-perennials (AgNP – mainly staple crops such as maize and rice), and access to finance (A2F).⁴ Under Élan 1.0, A2F was split between a branchless banking (BB) and small and medium enterprise (SME) A2F sectors, which were then combined under Élan 1.2. The RT sector work ceased at the end of Élan 1.0, while the cross-border trade (CBT) sector was added.

Élan's interventions were mainly partnerships with private sector actors via grants or technical assistance, generally cost sharing a particular investment around the development or expansion of a product or service. Sector strategies were organised by 'market system changes' (MSCs), simple qualitative statements of the changes that Élan sought to bring about, and Élan conceptualised systemic change using the Adopt-Adapt-Export Respond (AAER) framework, which sets out how innovations spread from an initial intervention and partner to achieve broader changes in a market system.⁵

A more limited number of interventions related to governance and advocacy around regulatory changes. Where the project sought to bring about regulatory changes, it did so by supporting business associations with their advocacy work. In part this was because Élan's sister project, Essor, was designed to work more directly with government on business environment reform. The PSD programme design envisaged closer collaboration between Élan and Essor. However, the two projects largely worked independently on separate issues with little interconnection. There were some exceptions, including in work in the A2F sector on leasing and insurance.

The two sectors of focus for this study, AgNP and A2F, were the main contributors for the main quantitative impact targets of Élan – the number of beneficiaries, and net additional income change (NAIC) for these beneficiaries. Out of a total of 1.03 million estimated beneficiaries by the end of Élan, the AgNP and A2F sectors would contribute close to two-thirds, with 30 percent or just over 300,000 beneficiaries each. As shown in Figure 1, for AgNP, direct beneficiaries from interventions predominated, and were split across both the Élan 1.0 and Élan 1.2 phases of the project. A2F beneficiaries were mainly indirect, principally stemming from just one intervention during Élan 1.0.⁶ Élan estimated AgNP led to £18.3 million of net attributable income change (NAIC),⁷ 39 percent of the overall NAIC Élan claimed. A2F generated an estimated £9 million of NAIC, 19 percent of the total.⁸ This gives an indication of scale, although verification exercises undertaken by the DSU (2017, 2018c, 2020a, 2020b) have found some issues with estimates.⁹

³ ASI (2013c) DRC Market Development Component: Scoping report

⁴ Sector studies have also been completed by the DSU for work of Élan in the Renewable Energy (RE) sector (see DSU, 2021), and the perennial agriculture (AgP) sector (see DSU, 2019).

⁵ See Nippard et al. (2014) "Adopt-Adapt-Expand-Respond"

⁶ Indirect impact was NAIC over and above the direct impacts of the interventions. In practice, Élan mainly estimated this as sustainable impact beyond the period of project support but via the same partner.

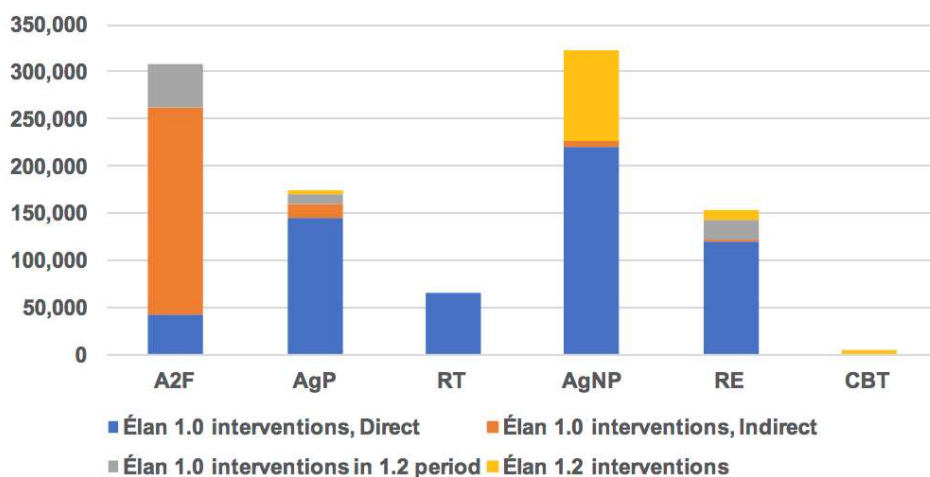
⁷ The main quantitative impact indicator, as expressed in the logframe, impact 3 was: "Cumulative aggregate additional NAIC among poor producers/farmers, entrepreneurs and business people".

⁸ Élan (2019d) PWIG; and Élan (2021g) Results Tracker.

⁹ The purpose of this study is not to verify NAIC. Although it does explore the impact of interventions and this includes how NAIC was estimated.

Target beneficiaries were those defined as “poor”, although a formal definition was not applied until the Élan 1.2 phase when the World Bank’s USD 3.20 purchasing power parity (PPP) poverty line was used. Élan’s most detailed study on its beneficiaries in 2018 found 66-74 percent of estimated beneficiaries to live under the World Bank’s international poverty line of USD 1.90 PPP; with 81-88 percent under the USD 3.20 PPP poverty line.¹⁰

Figure 1: Élan estimated beneficiaries split by sector, 2013-2021



Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

In total, around half of Élan’s expenditure was spent on the two sectors of focus for this study, AgNP and A2F. Including the proportion of Élan’s central costs, the AgNP sector costs comprised £16.5 million (30.7 percent of Élan’s total); and A2F sector costs came to £11 million (20.5 percent of the total).

Findings on the Agriculture non-perennials (AgNP) sector

The agricultural sector provides a central pillar to the development of the DRC, is vital for food security, to transform productivity, build jobs and livelihoods, and form a basis for mitigation and adaptation to climate change. Élan believed there was massive potential for Congolese agriculture compared to its poor historical performance. Low productivity in agriculture was the major cause of rural poverty, and tackling constraints could allow Élan to have significant impact for its targeted beneficiary group. As per Élan’s (2021i) Programme Closure Report (PCR), “the DRC has over 80 million hectares of agricultural land and almost half of Africa’s fresh water reserves, yet, in spite of this incredible potential, the agricultural sector is defined by stagnation and food insecurity. Yields in the DRC lag well behind regional benchmarks; for example, average maize yields in the DRC are estimated at 0.77 tonnes per hectare ($t\ ha^{-1}$) compared to $2.00\ t\ ha^{-1}$ in Kenya.”¹¹

The south of Congo provides the most amenable land for such a transformation, given that most of the northern half of the country is covered by the Congo rainforest, of which preservation is crucial not just for the Congolese people but for the world’s population as a whole. Geographically therefore, most AgNP interventions were undertaken

¹⁰ Élan (2018g) “Poverty Profiling Report”. The USD 3.20 line is used for lower-middle income countries.

¹¹ Averages for West and Central Africa put maize yields at $1.5\ t\ ha^{-1}$, compared to $2.4\ t\ ha^{-1}$ in Eastern and Southern Africa, and $7.5\ t\ ha^{-1}$ in West and Central Asia, Source: Erenstein et al. (2022).

in the southern region centred on Lubumbashi in Haut-Katanga province and neighbouring Lualaba province, as well as in the more densely populated eastern region with a focus on Ituri, North Kivu and South Kivu provinces.¹²

Based on its analysis of constraints and opportunities, Élan targeted the market system changes in the AgNP sector set out in Table 1 with changes between the first and second phases of the project.

Table 1: Élan Market System Changes (MSCs) in AgNP across the two phases

MSCs Élan 1.0 (2015-2018)	MSCs Élan 1.2 (2019-2021)
MSC 2.1: Inputs suppliers provide quality inputs and advisory services to SHFs	MSC AGNP1 - Input suppliers provide quality inputs and value-adding services to smallholder farmers
MSC 2.2: Agribusinesses and mines provide access to pre-financed inputs and services to SHFs	
MSC 2.3: Agribusinesses provide access to secured markets to SHFs	MSC AGNP2 - Smallholder farmers, processors and traders have increased access to markets
MSC 2.4: Agribusinesses access finance	<i>This MSC was removed as it crossed with Access to Finance work</i>
MSC 2.5: Agribusinesses develop industry-wide awareness and advocate for a more favourable tax regime	MSC AGNP3 - Industry stakeholders organize and advocate for an improved business environment

Source: Élan (2016d) “2016 Annual Report”. Élan (2021i) “Programme Closure Report”.

In its work on inputs, Élan principally focused on improving the seed that smallholder farmers (SHFs) as a beneficiary group would use. For Élan’s seed interventions there were two main types of partner: i) local firms producing open-pollinated variety (OPV) seed, for maize and rice; and ii) only in maize, international companies such as Seed Co from South Africa and NASECO from Uganda, who already produced ‘elite’ hybrid seeds and imported into DRC. Élan would support local firms with production, as well as with marketing and distribution. International companies would be supported just with marketing and distribution, although there was ambition for Seed Co and NASECO to ultimately produce hybrid seed in the DRC.¹³ These interventions were framed under the Market System Change (MSC) 2.1. In total 17 out of 26 interventions were on inputs, the majority focussing on SHF use of improved seed.

Mining companies and larger farms were used by Élan to develop AgNP interventions such as outgrower schemes (OGS) and contract farming models. Mining provided an opening for Élan interventions, given that mining companies had legal responsibilities to develop 500 hectare (ha) of land each. The mining sector obligation was catalysed to implement and improve OGS. The south of DRC also includes a handful of very large farms, another entry point for Élan as they provided a large market for improved seed, for contract

¹² For a map of provinces, see Figure 40 in Annex G.

¹³ As the main paper will set out, hybrid seeds are dominant in more developed agricultural economies, however need to be bought every season as on-farm breeding leads to yield losses of 50 percent by the third-generation of seed offspring. OPV seed varieties are a ‘by-product’ of the hybrid production process, and have yields around 20-25 percent less than hybrids (Masuka et al., 2017). However, OPV are cheaper and yields decline less if bred on-farm, so they can be preferred in many sub-Saharan African countries where SHFs have low purchasing power. Traditional or farm-saved seeds are produced on the farm but yield less than OPVs or hybrids. The full potential yield gains from improved seeds require inputs such as fertiliser to be used.

farming models, and for the collateral management agreement (CMA) model used within the A2F sector (see below). Élan’s AgNP interventions included five OGS, four involving larger farmers and one involving a mining company (SEK), which were framed under MSC 2.2 and 2.3. The AgNP sector also included some sector-wide advocacy work with seed associations (COPROSEM), and developing seed sector strategies for the southern and eastern regions (with The African Seed Access Index, TASAI).

The study has looked into these interventions and MSCs in some depth in order to assess findings against the Evaluation Questions (EQs). The findings for the AgNP sector are summarised in Table 2.

Table 2: Findings on Evaluation Questions (EQs), for the AgNP sector

Question	Assessment
Relevance	
A2: To what extent was Élan and the interventions it supported appropriately designed to meet the needs of stakeholders and target beneficiaries?	<ul style="list-style-type: none"> • Élan’s focus on AgNP was relevant because of its prominence in the economy and the number of poor people involved. Estimates from Élan showed a vast majority (98 percent) of AgNP beneficiaries to live below USD 1.90 PPP per day. • The approach evolved, with an increasing focus on seed. Seed sector analysis was strong with detailed diagnosis underpinning interventions, and highly relevant to yields, productivity and incomes of the smallholder farmer (SHF) beneficiary group.
A3: To what extent did the intervention logic and assumptions of the Élan project (and its interventions) hold during implementation?	<ul style="list-style-type: none"> • The approach to support international seed companies to grow sales of hybrid maize seed, and local firms to establish open-pollinated variety (OPV) seed production was logical. SHFs have very limited purchasing power so seeds were more affordable than fertilisers. • OGS and contract farming models were less systemic, relying on a higher degree of subsidy to finance inputs and provide services to SHF beneficiaries. • A more limited focus on sector policy meant many sector constraints were not addressed.
Effectiveness	
B2: To what extent has Élan led to improvements in market systems?	<ul style="list-style-type: none"> • Limited improvements were made to DRC’s seed sector. Smallholder farmers’ access to quality hybrid seeds has improved and more so than access to quality locally-produced OPV seeds, but imported hybrid seeds remain less affordable to poor and low-income farmers. • An agreement with INERA on liberalisation of the production of foundation seed was an important systemic step by Élan. • Local seed companies supported saw increases in production and sales with support from Élan, but remain small. They face issues such as unpaid invoices from provincial government and no longer access the finance from banks Élan facilitated. • Some OGS and contract farming schemes were effective during the period of project support, but were short-lived. There were issues including buyers not upholding agreements with farmers, and the schemes lacked profitability. • Advocacy in the sector supported by Élan has not been sufficient to overcome sector constraints such as certification (SENASSEM), varietal development (INERA), and funding (MINAGRI), costly and cumbersome import processes, and the proliferation of fake and illegal seeds.
Impact	

Question	Assessment
<p>D1: What improvements in income delivered to target beneficiaries, contribution to poverty reduction, and any additional or unplanned impact can be attributed to Élan?</p>	<p>Better quality inputs, in most cases seeds, were expected to increase yields and in turn expected to increase revenue. The extent of improved yields, and consequently, increased revenue was expected to outweigh any additional costs associated with higher quality inputs faced by farmers.</p> <p>Overall, Élan reported that 323,060 SHFs benefited from its interventions in the AgNP sector (of whom 28 percent were women), increasing net income by £16 million with an average benefit of £50 per beneficiary. Based on the poverty profile of beneficiaries, this was a notable improvement. However, reported incomes may not have been sustained (See Question E1).</p>
<p>B3/D2: What factors have influenced the results and impact achieved?</p>	<p>A variety of factors have affected the level of impact, including:</p> <ul style="list-style-type: none"> • Better yields from hybrid seeds compared to OPV seeds. • The quality of OPV seed produced by local seed companies. • The profitability of business models introduced or supported. • The proportion of sales to SHFs versus sales to government, NGOs and mining companies, is not clear, but overall, less seeds were sold to SHFs. • Seed system constraints create information asymmetry where farmers can be unclear on the quality of seeds purchased. Branding is an incomplete solution as proper certification is non-existent, trust networks are therefore key with agro-dealers playing a central role. These factors limit impact.
Sustainability	
<p>E1: To what extent have the results of Élan in terms of market systems change been sustained?</p>	<p>A small proportion of Élan's partners have continued with the new practices that they began with project support. Only the hybrid seed interventions with Seed Co and NASECO could be considered significant enough to signal changes at the market system level.</p> <p>The following issues affect sustainability:</p> <ul style="list-style-type: none"> • The advocacy body COPROSEM (provincial seed council) for the Southern region has not met since Élan ended and progress on the seed sector strategy and seed law remain slow. Constraints in seed certification (SENASEM), varietal turnover and improvement (INERA), regulation and funding (MINAGRI) all still remain, restricting growth in the sector. • For the international seed companies', Seed Co and NASECO, hybrid seed sales continue to grow despite the challenges. Sales growth is linked to provincial government subsidies in the southern region, but sales to SHFs appear to be growing in the eastern region. Both companies signal they may produce in the DRC in coming years which would be a major positive step for the agricultural sector as a whole. • Local (DRC) seed companies are surviving but remain small. The quality of the OPV seed produced is questionable given the quality control agency (SENASEM) is under-funded and under-capacitated. While local seed companies would like to move into production of hybrid seed, the feasibility of this is likely limited at least in the short or medium term. • The OGS and contract farming models were not sustainable. In one case a mining company was sold and new owners did not continue the input-subsidy initiative. • The contract farming model was also outside of large farms' main commercial business, while constraints and costs meant there were insufficient incentives for them to continue.

Findings on the, Access to Finance (A2F) sector

Élan’s focus on the A2F sector started from trying to address very low financial inclusion in the DRC. Financial inclusion according to a FinScope survey in 2014 was among the lowest in the world, with just 32 percent of the sample having access to formal financial services, and 54 percent classified as financially excluded.¹⁴ The majority of the access that existed was based on payments and remittances, mainly using money transfer operators (MTOs), with which mobile money would directly compete. Access to insurance and credit were very low, with 99 percent and 91 percent of adults respectively completely excluded from use of these services. Only 10 percent had formal savings account access. Formal employment, higher income and urban status were found to be highly correlated with greater financial inclusion across all service types.¹⁵

Access to credit, particularly for MSMEs, and for farmers and agricultural sector businesses was very limited. As of 2014, there were 18 licensed banks holding 95 percent of the total assets in the financial system, and the IMF found that “credit has been increasing fast but remains scarce, expensive, short-term, and highly concentrated.”¹⁶ The DRC had just 34 deposit accounts for every 1,000 adults, with only neighbouring Republic of Congo and South Sudan having less. In 2012, the DRC also had among the lowest value of deposits with- and outstanding loans from commercial banks as a proportion of GDP, at 9 percent and 4.7 percent respectively. In comparison, Zambia had 19.2 percent of outstanding deposits, and 12.8 percent of outstanding loans from commercial banks as a proportion of GDP.¹⁷

Based on its analysis of constraints and opportunities, Élan targeted the following market system changes in the A2F sector.

¹⁴ CENFRI et al. (2016b) Financial Inclusion Roadmap 2016 – 2021.

¹⁵ CENFRI et al. (2016c) Making Access Possible, Presentation of results

¹⁶ IMF (2014) DRC Financial System Stability Assessment

¹⁷ IMF (2023) Financial Access Survey. In 2012 only Sierra Leone, Central African Republic (CAR) and Chad had lower deposits with commercial banks as share of GDP than DRC. Only Sierra Leone, Guinea and Afghanistan had lower loans from commercial banks as share of GDP.

Table 3: Élan Market System Changes (MSCs) in A2F

Élan 1.0 MSCs 2017	Élan 1.2 MSCs 2020
MSC3.1: MNOs and Financial institutions develop financial education programs and other tools to increase confidence in mobile money and other digital financial services	MSC AF1 - FSPs offer education, products and services appropriate to low-income female and male consumers and entrepreneurs, including those with disabilities
MSC3.2: MNOs and financial institutions offer appropriate products/services to poor consumers and entrepreneurs	MSC AF2 - Financial services stakeholders collaborate and advocate to improve the sector's business environment.
MSC3.3: MNOs and financial institutions improve agents' quality of service and expand agents network to serve poor consumers and ensure supply chain digitalisation	
MSC4.1: Financial institutions market adapted and innovative financial products	MSC AF3 - Strengthened and increased capacities of investment intermediaries help to attract investment in female- and male-owned SMEs in the DRC
MSC4.2: Consulting companies provide technical assistance in business management to SME owners.	

Source: Élan (2017d) Annual Report. Élan (2021i) "Programme Closure Report".

At the time that Élan commenced, the mobile banking sub-sector was fast growing and early market engagement with Vodacom provided the basis for collaboration on a 'bottom of pyramid' consumer strategy. While the banking sector reached 6 percent of the adult population in 2014, in contrast 55 percent of the population had mobile network coverage and 23 percent were using mobile phones. Experience from Kenya had shown the potential of mobile banking for increasing financial inclusion.¹⁸ Early sector studies found that customer awareness on the functions of mobile money as well as trust with the new services were low. This led to a central Élan A2F intervention around mobile money customer awareness bringing together the three mobile money players that had begun operating in the DRC in 2012: Vodacom, Airtel and Tigo.

The microfinance sector was small, with total loans of USD 95 million, but with a promising market leader in FINCA, the largest microfinance institution (MFI) who were also becoming more innovative in agent banking solutions through its 'FINCA Express' model. Several partnerships were undertaken, which included support in expanding this agent network, particularly in rural areas of the south, with alignment to AgNP intervention locations (in Haut Katanga and Lualaba provinces). FINCA were also supported by Élan in mobile banking innovations, in particular with an intervention promoting collaboration between FINCA and Vodacom to release a small, unsecured loan product ('Lona o Defa').

An early study funded by Élan on SME finance found only one, relatively smaller player, ProCredit Bank, to be targeting those on low income and small or very small businesses.¹⁹ Work in the AgNP and River Transport sector led to interventions with ProCredit (which through acquisition later became Equity Bank Congo and then Equity BCDC), including a guarantee fund to support SME lending. Élan would link SMEs to the bank and also provide technical assistance, while the guarantee fund would keep interest

¹⁸ ASI (2013c) DRC Market Development Component: Scoping report

¹⁹ Élan & ALTAI Consulting (2014) "Consumer financial needs & behaviour assessment in DRC".

rates down and reduce collateral requirements. Equity BCDC credit Élan with supporting to expand their agricultural lending team as a result of this early work.

A second, more innovative initiative in SME Finance was on collateral management agreements (CMAs). The CMA model extended the type of collateral that could be used. The CMA interventions supported by Élan would involve stocks of maize, stored in a warehouse and verified by a third party then allowing credit for working capital to be released. A first CMA with Bank of Africa (BOA) in Goma was based on SHFs storing maize, but with small volumes, the scheme failed. A second CMA with a large farm and maize processor, GoCongo in Lubumbashi, was more successful, facilitating over USD 1.2 million in working capital loans from Equity BCDC over three seasons.

A final strand of work was on coordination and regulatory issues, particularly through supporting sector advocacy. This included work with the Digital Credit and Savings Working Group (DCSWG), an advocacy group set up to improve the ‘digital ecosystem’ for financial services, to promote a wider range of services and support regulatory change in this regard. Interventions to support the financial sector with payment ‘aggregators’, MaxiCash and Infoset, also supported the digital payments market. A significant achievement for the project was improving interoperability among mobile money providers (the ability to send payments from an account with one provider to an account with another provider), with agreements facilitated by Élan.

Summary findings: evaluation questions

The study has looked in depth at the A2F sector and its portfolio interventions. Findings against the Evaluation Questions (EQs) for the study are summarised in Table 4.

Table 4: Findings on Evaluation Questions (EQs), for the A2F sector

Question	Assessment
Relevance	
<p>A2: To what extent was Élan and the interventions it supported appropriately designed to meet the needs of stakeholders and target beneficiaries?</p> <p>A3: To what extent did the intervention logic and assumptions of the Élan project (and its interventions) hold during implementation?</p>	<p>Élan’s selection of the sector and sub-sectors of mobile money and SME finance were relevant to the needs of the poor in DRC. Élan’s analysis of opportunities in A2F were supported by good evidence. The design of specific interventions, and selection of partners, were in some cases less appropriate to achieve the objectives of the project. For instance:</p> <ul style="list-style-type: none"> • Although the poor were the target group, the initial growth stage of mobile money benefitted urban and better-off people first, in part because of demand for transfer services, existing financial inclusion rates, mobile network coverage and relatively high liquidity of urban agent networks. • Élan aimed to reach rural areas through tie-ups with a large and innovative MFI, which may have been a model with less chance of systemic change and replication due to it being an effective subsidy for rural expansion. • SME lending was developed in a less strategic and more ad hoc manner than the mobile money interventions. Élan partnered with one bank and supported a high-rate of subsidy (credit guarantee) that may have provided short-term impact. Banks remain risk averse with respect to the agricultural and MSME sectors of the DRC economy, with high interest rates and collateral requirements.
Effectiveness	

Question	Assessment
<p>B2: To what extent has Élan led to improvements in market systems?</p>	<p>Élan’s portfolio produced mixed results in terms of market system changes, particularly changes that benefit poor and marginalised groups and MSMEs.</p> <ul style="list-style-type: none"> • The most significant progress in system change was via interoperability of the digital payment system including between competing mobile money providers. Élan helped to catalyse bilateral interoperability and also supported some innovative partnerships for digital payment solutions (MaxiCash / Infoset) undertaken during the Covid period of Élan 1.2. Élan reported that mobile money operators have changed their marketing approaches due to Élan’s support on awareness campaigns. • Élan claimed large NAIC / beneficiary estimates from the mobile money campaign. However, overall, Élan’s contribution to fast rates of growth in mobile money usage since 2013 is unclear, which in all likelihood would have happened anyway. • Some interventions provided system change, but not necessarily in a way to benefit the poor. For example, the CMA with GoCongo, Comexas and Equity Bank was successful and provided proof of the concept, but did not benefit poor SHFs as transaction costs for them to store maize and access finance were found to be too high. • Some business models introduced by Élan have not been profitable e.g. while loans facilitated with Equity Bank were a limited success, support could not overcome the causes of high costs of finance and collateral requirements. The Lona o Defa small loans product (a collaboration with FINCA and Vodacom) has increased numbers of users but faces issues including high default rates, and is not yet profitable. • For a number of interventions, effectiveness is unclear, particularly due to weak impact evaluation methods used by Élan. This includes support to FINCA to promote their agent network. While FINCA has increased its geographic network and lending, it is unclear whether rural poor people have benefited from this growth as intended. • Other contextual factors influenced changes in the market. For instance, mobile money usage increased during Covid, and the pandemic also helped to open up regulatory space around digital finance as government came to see its benefits.
<p>Impact</p>	
<p>D1: What improvements in income delivered to target beneficiaries, contribution to poverty reduction, and any additional or unplanned impact can be attributed to Élan?</p>	<p>Overall, Élan reported that 306,408 poor people benefited from its interventions in the A2F sector (of which 31 percent were women), increasing net income by £9.1 million or an average benefit of £30 per beneficiary.</p> <p>Élan concluded that the mobile money campaign generated a large majority of A2F beneficiaries, whose income increased indirectly and after Élan’s support concluded. Benefit was based on cost savings for customers compared to them making remittances via money transfer operators (MTOs), however the strength of evidence was limited.</p>
<p>B3/D2: What factors have influenced the results and impact achieved?</p>	<p>Factors affecting the breadth and depth of impact included:</p> <ul style="list-style-type: none"> • The appropriateness of the intervention designs, and their underlying assumptions, about how poor and disadvantaged communities and individuals were supposed to benefit. • Élan’s efforts were hampered by major systemic constraints such as the high rate of dollarization, which limits lending and creates complexities for payment systems.

Question	Assessment
	<ul style="list-style-type: none"> Some interventions were systemic but did not have quantitative impact measured, including interoperability among mobile money providers. This was mainly due to their timing and a lack of clarity on impact pathways.
Sustainability	
<p>E1: To what extent have the results of Élan in terms of market systems change been sustained?</p>	<p>There is some evidence of sustainable practice changes among Élan's partners, but the extent to which interventions overcame system constraints, or been replicated appears limited. For the interventions that have been sustained it is mostly the non-poor who are likely to be benefiting.</p> <ul style="list-style-type: none"> There is increasing innovation in the digital finance space including tie-ups with MFIs and MNOs (FINCA and Vodacom), and other MFIs such as SMICO following this route. Élan made a credible contribution to towards growth in this space. Progress on interoperability continues to be made but issues remain including costs of interoperable transfer, 'know your customer' protocols, and costs of the National Switch including the role of the Central Bank (BCC). Equity BCDC has continued to expand its agricultural lending portfolio, and is now the second biggest bank in DRC. It has a target of 30 percent of lending to go to agriculture in coming years (a target for all countries in which they operate, not just the DRC). They credit Élan with kick-starting the growth of their agricultural lending team in DRC. Overall, mobile money access has continued to expand in the DRC and now reaches one-fifth of the adult population with an active account. This is a rapid rate of increase, although Élan's contribution to this is likely relatively limited. It is possible that some interventions that have not continued may trigger further innovation. For instance, the CMA was successful for a number of seasons until recently being discontinued due to high costs of verification. It could potentially be reinstated with minimal facilitation. Equity BCDC also say they have developed a similar product aimed at smaller firms, although the product is not yet on the market, suggesting that the experience could trigger further innovation. Facilitation of the digital finance working group (DCSWG) was handed over to the Fonds pour l'inclusion financière en RDC (Fund for Inclusive Finance in DRC, FPM) but as of late 2022, had not convened since Élan ended.

Overall learning points and recommendations

Élan's sector work in AgNP and A2F provided some important successes. This includes the continued presence and growth of regional hybrid seeds producers (NASECO and Seed Co), the CMA model, and improvements to bilateral interoperability and support to innovative service providers in the digital finance market. The work provides a good legacy and the UK's investment in the two sectors is testament to the hard work of the Élan team and partners, who operated in a very difficult context.²⁰ It also provides a foundation that can be built upon, not least as the markets remain fragile and many systemic constraints remain, particularly the more binding constraints in the DRC of infrastructure, logistics, and

²⁰ Though this study does not make a value for money or cost benefit analysis assessment of Élan.

governance. Lessons can be drawn from the experience that feed into some recommendations. These include:

Lesson 1: Programme structures and designs need to support the objectives

An important overall lesson has been on the relative balance between private sector engagement and a focus on policy-related issues including laws and regulations, as well as ‘supporting functions’ and capacity of public sector bodies (for example, SENASEM, who are responsible for enforcement of the quality of seeds). In theory, the PSD programme provided a twin approach to dealing with private and public sector-driven constraints. A lack of coordination between Élan and Eссор to develop and implement ‘twin approaches’ in constraints in particular sectors weakened the overall PSD programme and undermined its complexity-aware principles. Élan and Eссор largely worked independently on separate parts of the market systems, with a few exceptions.

Over time, Élan gradually increased their focus on the regulatory side of both the AgNP and A2F sectors, in an effort to address binding constraints in each market. It mostly did not work with government directly but through business associations or working groups. For instance, it worked with TASA and developing seed sector strategies with the seed councils (COPROSEM) in Haut Katanga and the Kivu provinces, including attempting to promote advocacy to promote passing of the draft seed law. In A2F, the bilateral interoperability work came late in the first phase of Élan 1.0, while in the second phase the Digital Credit and Savings Working Group (DCSWG) was a forum to interface with the BCC and promote sector advocacy. Similar initiatives were promoted in the humanitarian contexts of eastern DRC for ‘markets in crisis’ and payments in particular during the Covid pandemic. Such approaches would have had more time to be effective if they had begun nearer to the start of the project.

Lesson 2: Increased focus on policy related constraints is necessary to change market systems

The policy and regulatory initiatives of Élan had some small successes but have not been effectively sustained. Since Élan ended in 2021, the COPROSEM body (in Lubumbashi) has not met and sector coordination remains weak, while the DCSWG have also not held meetings, although FPM, to whom Élan passed on the working group, say they intend to reinvigorate the platform.

The DRC does not have a seed system that can produce modern hybrid seed, and barriers to trade mean the prices of hybrid seed on the market are higher than in regional / neighbouring countries. Élan only interacted with the major systemic constraints on the margin. The national research institution (INERA) and the national seed certification body (SENASEM), remain chronically under-funded and lack sufficient capacity to develop new varieties, produce breeder and foundation seeds, or to certify seeds. This is also true of other institutions such as in agricultural statistics (under MINAGRI), a dormant national maize research centre (CRM), and in agriculture funding more broadly.²¹ The result is that most seed that is identified as certified is actually not quality seed, or may not be,²² and fake seeds, counterfeits and illegal imported seeds are ubiquitous in the market. It is then very

²¹ As relayed to us in interview with the Ministry of Agriculture provincial office in Lubumbashi.

²² In late 2022, we visited the SENASEM laboratory in Lubumbashi which clearly had not been fully operational for many years. There was only one sample on site for example.

challenging for professional seed companies to compete, and the poor quality of seed in the market further weakens farmer demand for improved seed, creating a vicious cycle of underinvestment in seed production and distribution.²³

Lesson 3: A focus on achieving impact at beneficiary-level within project lifetimes may deter projects from work and learning on critical system-level constraints

The entry points for Élan were more frequently private sector companies. A strong rationale was that policy reform was uncertain, government unpredictable, and reform can take many years to achieve.²⁴ The private sector's capacity to innovate, achieve scale and change market systems was therefore more likely to lead to system change, particularly for the period of time in which Élan had to implement. While this was a rational theory of change (ToC) for the Élan project, the approach was often found to not provide a coherent framework to market systems change, particularly as Élan continued to work with 'second movers', with very limited examples of replication occurring without some form of subsidy from the project ('expand' or 'response' within the AAER framework).

Élan faced trade-offs in how to prioritise its resources and where and how to adapt its strategies. While there were some good examples, there were cases where the NAIC targets may have distorted decision-making, while also lowering the focus on good quality evidence and learning. This report found extensive issues with NAIC estimates, as had previous DSU reports.²⁵ This included in weak methodologies used and a lack of external studies commissioned, resulting in questionable claims for NAIC. While it is possible this was driven by logframe targets, the bigger concern is that opportunities for learning were curtailed. For example, which seeds were most appropriate for the SHF beneficiary group? What were the relative advantages and disadvantages of OPV and hybrid seed? How effective were models to roll out rural agent networks to promote A2F and financial inclusion? Good quality data on such questions would have helped Élan to learn, and be better prepared to tackle the many challenges in promoting system change.

Future programming

The findings and learning points specified provide several possible routes for future programming. Some ideas are provided in Table 5 below, and while these are provided as recommendations they are also, more importantly, areas for discussion and further thought and development. The nine years of Élan provide a wide and rich set of learning and experiences. The recommendations below are provided for each sector, for market systems and complexity programming, and for learning and monitoring and results measurement (MRM).

²³ A situation akin to that set out in Akerlof (1970) "The Market for Lemons: Quality Uncertainty and the Market Mechanism".

²⁴ The draft seed law, was initially written more than 15 years ago and although revised to align with the provisions of the COMESA and SADC harmonised seed trade regulations, was submitted to Parliament in 2018 and is still awaiting deliberation. It has not been passed for (apparently petty) political reasons rather than technical challenges or constraints. Source: USAID (2019) SEEDCLIR report.

²⁵ In particular, DSU (2017, 2018c, 2020a, 2020b).

Table 5: Study recommendations for FCDO

Recommendation	Related learning points
AgNP	
<p>R1: The DRC seed system remains nascent and progress that has been made is fragile. Where possible, the production and distribution of hybrid seed in the DRC should remain a central pillar for future programming as seed quality remains a binding constraint for farmers to improve yields.</p> <p>R2: The focus in agriculture should include larger farmers if transformation is the objective. Such farmers are already achieving high yields in the DRC and a greater area of land under their management is likely essential for transformation in the sector's productivity.</p> <p>R3: Constraints in the seed system are heavily related to under-funding of key institutions such as INERA and SENASEM. Programming should seek to address these constraints and the market failures they lead to (for example, information asymmetries on seed quality).</p>	<ul style="list-style-type: none"> • Interventions related to importing quality hybrid seed were more successful than those producing and selling locally grown OPV seed, principally because international companies had higher capabilities than local businesses. • Provincial governments are major buyers of seed, something that may disincentivise SHFs from purchasing quality seed themselves. • There are challenges to marketing of OPV seeds due to their intellectual property being limited. Hybrid seeds are easier to brand and package effectively while maintaining consistent products. However, both require good quality assurance.
A2F	
<p>R4: Equity BCDC's ambitions presents a major opportunity to grow agricultural lending in the DRC with large lending targets in place for coming years. Future programming in A2F should consider how to support the Bank in achieving growth objectives while also seeking to ensure that smaller and poorer farmers and MSMEs can also benefit (including overcoming the collateral requirements they face), while the protection of the environment also remains strong.</p> <p>R5: The digital finance eco-system continues to provide the most dynamic growth sector in the finance industry that interfaces with ordinary and poorer consumers. Many opportunities remain and can be catalysed, particularly in digitising more of the everyday payments consumers make.</p> <p>R6: Innovation in financial services remains the most likely route to improve financial inclusion, including for relatively untapped sectors such as MSME lending and micro-insurance. Future focus on these areas will require strong expertise to support profitable and impactful opportunities.</p>	<ul style="list-style-type: none"> • Élan's efforts to promote SME and agriculture lending had limited success but pilot interventions did stimulate some innovation in the sector (particularly the credit guarantee model, micro-loans via mobile phone, and the CMA model). • Agricultural sector firms, farms and MSMEs continue to face high costs of capital and high collateral requirements, compared to their ability to pay and their stock of assets. Continued innovation in products and systems (to credit scoring, types of collateral etc.) are required to address these groups. • Financial inclusion remains low in the DRC, particularly for savings, insurance and lending. Many everyday payments are still not possible to make by digital means.
Market systems and complexity	
<p>R7: There should be greater reflection on the PSD programme experience in terms of the balance between business environment reform and market development. The diagnosis that both are important still holds, but effective system change requires close and coordinated working to achieve across the public and private sectors.</p>	<ul style="list-style-type: none"> • Élan focused mainly on working with businesses and avoided interactions with government and may have missed opportunities to address critical constraints required for market systems changes. • A combined PSD approach of focussing on both government and the private

Recommendation	Related learning points
<p>R8: There will be complex interplay between the Congolese agriculture sector and the threats from climate change over coming years. This provides a strong case for maintaining a focus on many of the Élan project's goals and the complexity-driven approach it used. Future programming should carefully seek to balance support for resilience to the changing climate (including improved and 'climate-resilient' seeds), and support to climate change mitigation (including avoidance/reduction of deforestation).</p>	<p>sector remains highly relevant in the DRC, but requires closer coordination between the two for success.</p> <ul style="list-style-type: none"> • Agriculture is critical for climate change adaptation, but also poses threats in terms of emissions due to linkages with deforestation in the DRC.
Learning and MRM	
<p>R9: Good quality and timely analysis related to market systems changes is imperative to help strategy development and adaptation. Donors should moderate their demands for beneficiary impact data to the context of the programme, its objectives and realistic timeframes so to create positive incentives for implementers.</p> <p>R10: Development projects operating in market systems should seek and maintain high standards in the quality of impact evaluation and learning. In agriculture, a strong understanding of measuring yields including via counterfactual studies is vital for effective learning and adaptive programming.</p>	<ul style="list-style-type: none"> • Élan's management systems and practices systematically over-estimated the number of beneficiaries and level of increased income, most likely because of incentives the logframe provided. • Élan's evaluations, although many in number, were not high quality, and often did not use rigorous methods or external third-party providers to avoid over-optimism bias in estimates generated.

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List of abbreviations

A2F	Access to finance
AAER	Adopt Adapt Expand Respond, systems change framework
AgP	Agriculture perennials sector
AgNP	Agriculture non-perennials sector
AML / CFT	Anti-money laundering / Combating the Financing of Terrorism
AR	Annual Review
ASI	Adam Smith International
APSK	Association of Seed Producers of Katanga (Association des Producteurs de Semences du Katanga)
ATM	Automated teller machine
BB	Branchless banking
BCC	Banque Centrale du Congo (Central Bank of the DRC)
BCDC	Banque Commerciale du Congo – which subsequently merged with Equity Bank Congo to become Equity BCDC
BDS	Business development services
BOA	Bank of Africa
BOP	Bottom of pyramid
CAGR	Compound annual growth rate
CAPAM	Comité d’Acheteurs des Produits Agricoles de Moba
CAR	Central African Republic
CBA	Cost-benefit analysis
CBT	Cross-Border Trade sector
CDF	Congolese Franc
CEO	Chief Executive Officer
CGAP	Consultative Group to Assist the Poor
CIMMYT	International Maize and Wheat Improvement Center
CMA	Collateral Management Agreement

COMESA	Common Market for Eastern and Southern Africa
COPROSEM	Provincial Seed Council (Conseil Provincial Semencier)
CRM	Maize Research Center (Centre de Recherche du Maïs)
CSR	Corporate social responsibility
DFID	Department for International Development
DRC	Democratic Republic of Congo
DCSWG	Digital Credit and Savings Working Group
DSU	Decision Support Unit (for the FCDO DRC PSD Programme)
EAC	East African Community
EAGC	Eastern Africa Grain Council
ESA	Eastern and southern Africa
FAO	Food and Agriculture Organization of the United Nations
FCDO	Foreign, Commonwealth and Development Office
FDI	Foreign direct investment
FEWSNET	Famine Early Warning Systems Network
FGD	Focus group discussion
FPM	Fonds pour l'inclusion financière en RDC (Fund for Inclusive Finance in DRC)
FSP	Financial service provider
FSSR	Financial Sector Stability Review
GCB	Global Corruption Barometer
GBP	British Pound
GDP	Gross Domestic Product
GNI	Gross National Income
GSMA	Global System for Mobile Communications Association
ha	Hectare
HDI	Human Development Index
HNI	Human Network International
ID	Identification

IDP	Internally displaced person
IFC	International Finance Corporation
IITA	International Institute for Tropical Agriculture
INERA	Institut National pour l'Etude et la Recherche Agronomique - National Institute for Agricultural Research and Studies
IP	Intellectual property
kg	Kilogram
km	Kilometre
KPI	Key performance indicator
KYC	Know your customer
M&E	Monitoring and evaluation
M4P	Making Markets Work for the Poor
MFI	Micro-finance institution
MINAGRI	Ministry of Agriculture
MM	Mobile money
MNO	Mobile network operator
MOU	Memorandum of understanding
MPI	Multidimensional poverty index
MRM	Monitoring and results measurement
MSC	Market System Change
MSD	Market systems development approach
MTE	Mid-term evaluation
MTO	Money transfer operator
NAIC	Net Attributable Income Change
NARS	National agricultural research system
NERICA	New Rice for Africa (rice variety)
NGO	Non-governmental organisation
NPK	Nitrogen, Phosphorous, Potassium (fertiliser)
NPL	Non-performing loan

OAF	One Acre Fund
OGS	Outgrower scheme
OHADA	Organisation for the Harmonisation of Business Law in Africa (Organisation pour l'harmonisation en Afrique du droit des affaires)
OPHI	Oxford Poverty and Human Development Initiative
OPM	Oxford Policy Management
PA	Partnership Agreement
PCR	Programme Closure Report (or Project Closure Report)
PPO	Product Placement Officer
PPP	Purchasing power parity
PSD	Private Sector Development
PWIG	(Élan's) Project Wide Implementation Guide
RE	Renewable Energy sector
RT	River Transport sector
SACCO	Savings and Credit Cooperative Organisation
SADC	Southern African Development Community
SEK	Société d'Exploitation de Kipoi
SENASEM	National Seed Service (Service National des Semences)
SHF	Smallholder farmer
SME	Small and Medium Enterprise
SSA	Sub-Saharan Africa
t	Metric Tonne
t ha ⁻¹	Metric Tonne per hectare
TASAI	The African Seeds Access Index
TFM	Tenke Fungurume Mining
TMB	Trust Merchant Bank
ToC	Theory of Change
UNAGRICO	Union Nationale des Agriculteurs Congolais
UNILU	University of Lubumbashi

UPOV	International Union for the Protection of New Varieties of Plants
USAID	United States Agency for International Development
USD	United States Dollars
USSD	Unstructured Supplementary Service Data
WFP	World Food Programme
ZMK	Zambian Kwacha

1 Introduction

This report provides an evaluation of Élan’s work in the Access to Finance (A2F) and Agriculture Non-Perennials (AgNP) sectors, in the Democratic Republic of Congo (DRC) between 2014 and 2021. The Élan project was part of the UK’s Private Sector Development (PSD) Programme. The PSD programme began its implementation phase in 2014 and consists of three projects:

- **Élan**, a £50 million market development project, implemented by Adam Smith International (ASI). The project began its implementation phase in January 2014, following a two-year scoping and design phase. The project’s first phase had a completion date of December 2018, extended to July 2019, and became known as Élan 1.0. A second phase of the project was referred to as Élan 1.2, and began in August 2019. The project ended in July 2021.
- **Essor**, a £35 million flexible facility, aiming to improve the DRC’s business enabling environment, which was implemented by PwC. It began implementation in January 2015 with an original completion date of January 2020. After an extension, it then completed in January 2022.
- The **Decision Support Unit (DSU)**, which has supported the other projects and FCDO with annual reviews, evaluations, learning and adaptation activities, intended to improve implementation and increase impact. The DSU is implemented by Oxford Policy Management (OPM). It began in August 2016 and will complete in August 2023. (This study is a deliverable of the DSU).

Élan aimed to facilitate the growth of more inclusive markets in targeted sectors, taking a market system approach.²⁶ This study focuses on two of the main sectors in which the Élan project worked, A2F and AgNP. The purpose of the study is to examine the extent to which market system changes were achieved and sustained through an in-depth review of both sectors. This has been based on interviews in the DRC and extensive document review and analysis.

The study traces the pathways between Élan’s activities and the market system changes achieved. The aim has been to determine evidence of plausible contribution to change. The focus is on contribution, in recognition of the complexity of market systems, the challenges in the DRC context, and the many other factors affecting system change beyond Élan’s work. The underlying factors constraining development are complex, as are the pathways to making markets more inclusive to the poor.

The **structure of this report** follows the sequence of the evaluation questions in line with the other sector studies done to date,²⁷ as follows:

- The Introduction (this **Section 1**) introduces the study including the evaluation questions, with a brief summary of the methodology and its limitations.
- **Section 2** outlines a brief introduction to the Élan project, the development of the sector approach and the allocation of resources to the AgNP and A2F sectors. It goes on to Élan’s theory of change (ToC) for both sectors, including the evolution between Élan 1.0 and Élan 1.2. It briefly explores the status of each sector at the time interventions

²⁶ Originally, this was based on the Making Markets Work for the Poor (M4P) methodology(s). DFID (2013) PSD Programme Business Case.

²⁷ The Renewable Energy (RE) sector (DSU, 2021), and perennial agriculture (AgP) sector (DSU, 2019).

commenced, particularly the basis of the project's understanding and sector analysis that underpinned each ToC.

- **Section 3** is the central chapter on Élan's work in the AgNP sector, this includes on the relevance of design in meeting the key constraints in the market and needs of target beneficiaries (Section 3.1); the effectiveness of interventions and extent to which systemic change was achieved (Section 3.2); the impact that can be estimated achieved (Section 3.3); and the sustainability of changes brought about (Section 3.4).
- **Section 4** is the central chapter on Élan's work in the A2F sector. This presents findings on relevance (Section 4.1), effectiveness (Section 4.2), impact (Section 4.3) and sustainability (Section 4.4), following the same structure as for AgNP.
- Lastly, **Section 5** aims to provide some conclusions and lessons from the Élan experience for both sectors, highlighting the most successful changes brought about, and some of the challenges and shortfalls in the work. The goal is to try to inform elements of FCDO's future programming, either building on the successes of Élan or learning lessons from the work in the agriculture and finance sectors over the 2013-2021 period.
- **Annex A** and **Annex B** set out references and interviewees respectively. **Annex C** and **Annex D** set out a full list of interventions for the AgNP and A2F sectors respectively. **Annex E** sets out a more in-depth look at a selection of the most important partnerships Élan undertook. **Annex F** sets out some additional analysis and **Annex G** sets out additional data, tables and figures, which at times will be useful for the more interested reader but are considered too detailed for the main body of the report.

1.1 Evaluation questions

The DSU have followed a consistent approach to the evaluation of Élan since beginning work on the PSD programme in 2016. This included in an extensive mid-term evaluation (MTE) in 2017.²⁸ A final programme evaluation design paper set out the approach and selection for Sector Studies, including selection of AgNP and A2F.²⁹ These studies will feed into the final PSD programme evaluation, planned for 2023.

The evaluation questions covered in this study are as follows:

Relevance:

- A2: To what extent was Élan and the interventions it supported appropriately designed to meet the needs of stakeholders and target beneficiaries?
- A3: To what extent did the intervention logic and assumptions of the Élan project (and its interventions) hold during implementation?

Effectiveness:

- B2: To what extent has Élan led to improvements in market systems?
- B3: What factors have influenced the results achieved?

Impact:

²⁸ DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes

²⁹ AgNP was selected for the "largest (equal) proportion of direct cost budget and largest cumulative NAIC by sector". A2F was selected for "significant market system change expected by Élan". Renewable Energy was also selected and the report completed as DSU (2021).

- D1: What improvements in income delivered to target beneficiaries, contribution to poverty reduction, and any additional or unplanned impact can be attributed to Élan?
- D2: What factors influenced the impact?

Sustainability:

- E1: To what extent have the results of Élan in terms of market systems change been sustained?

In addition to this, a core question was added as:

Future FCDO programming: What are the implications for FCDO's future programming that may include the AgNP and A2F sectors in the DRC?

Combining the AgNP and A2F sectors into one report

Research on the two sectors has been carried out in tandem and it has been found to be beneficial to combine the findings in a single report. While the original intention was for one report for each sector, a significant degree of cross-over has been found. A large part of the A2F sector grew out of partnerships that had begun in the AgNP sector in the southern region and provinces of Haut Katanga and Lualaba. This was particularly the case in the work aiming to promote lending to small and medium enterprises (SMEs). Some of the most important contributions made in A2F have big implications for the AgNP sector and future potential. The report follows the same structure for both sectors.

1.2 Methodology

The study aims to assess the extent to which the performance of market systems in each sector has been changed due to Élan's interventions. The study was conducted in three phases: i) data collection and field preparation, ii) field data collection, and iii) reporting. The next Section 1.2.1, provides a brief overview of this process, Section 1.2.2 provides a summary of some of the limitations of the approach, and Section 1.2.3 provides some notes on the concepts of system change that underpin the research.

1.2.1 Phases of the research process

The initial work for this study included an extensive document collation and review process. This involved re-establishing the Élan database of files from three separate mass downloads. There was a lot of duplication in files, but ultimately a large bank of information could be found and organised. This included documentation specific to interventions including Partnership Agreements, monitoring reports, and intervention-specific evaluations mainly undertaken by the Élan monitoring and evaluation (M&E) team; documentation that provided an overview of sector work including data on costs and progress on logical framework indicators, quarterly and annual reports, programme completion reviews (PCRs), and Élan's external learning studies on sector work; and documentation from third party sources, including academic papers that provide theoretical and empirical underpinning to intervention design and analysis.

Phase 1 – Data collection and field preparation

The initial document review informed the fieldwork phase to ensure the most efficient use of limited fieldwork time. In more detail, the review included:

- 1. Review of sector level documentation:** The review looked to identify all relevant interventions, and particularly those located in the provinces of Haut Katanga and Lualaba, and in Kinshasa, where fieldwork would take place.³⁰ Interventions were prioritised where had been claims of specific achievement of market changes as per Élan's AAER framework, and this included some businesses that may have replicated elements of Élan's interventions even if they did not have a direct partnership with the project.³¹ The review also used the DSU's mid-term evaluation (MTE) of Élan during late 2017, which included detailed analysis of sector interventions at that time.³² A wide-ranging review of other research and market reports was also undertaken to develop an understanding of the current state of each market, including key technical points such as on hybrid and open-pollinated variety (OPV) seeds in the AgNP sector, and on interoperability in the A2F sector.
- 2. Preliminary analysis:** Data gathered through the document review was collated according to the evaluation sub-questions and the MSC framework. The process of collating data helped to identify areas of specific interest to further explore with interviewees during fieldwork, and to develop interview-specific background and semi-structured questionnaires, to be set out for each separate stakeholder. Findings from the document review included on the following:
 - o identification of assumptions that led to the design of interventions;
 - o understanding of the relevance of the sector and how interventions were designed to achieve changes and meet the needs of market actors and target beneficiaries; and
 - o identification of external factors, including contextual changes, that could have affected the interventions and achievement of market system changes and end-beneficiary outcomes.
- 3. Preliminary ex-Élan staff and consultant interviews** were undertaken, including with Élan's sector leads for AgNP and A2F, as well as the overall leadership of the project. These interviews were used to gain sector overviews, understand the most significant MSCs from the ex-staff members' perspectives, and to gain recommendations for subsequent interviewees.
- 4. Final selection of interventions** with a list of stakeholders for interview. Previous contact lists were used including from the MTE and previous Annual Reviews (ARs), and extensive searching was done ensure the right individuals were found for each institution. This finally included 35 institutions in AgNP and 21 in A2F, of which a sub-set were finally interviewed (see Annex B).

Phase 2 – Field data collection

Fieldwork was primarily undertaken between October and December 2022, with in-person DRC visits in late October and early November, and remote interviews undertaken in the rest of the period.

- 1. Identification of stakeholders for interviews.** Once the long-list of institutions was in place, every means available was used to contact selected stakeholders. This included

³⁰ The Kivu provinces in the east of DRC were important with some AgNP and A2F interventions, however it was not considered practical or safe to travel there, while resource constraints also meant that fieldwork was only feasible in one area outside of Kinshasa. The southern ex-Katanga region had many more interventions and therefore was the better geographical selection for this particular study.

³¹ In particular, those identified in PCRs. Élan (2018c) was the most useful source in this regard.

³² DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes

emails where possible, but also phone and in-person follow-up, with extensive preparation done in the Haut Katanga and Lualaba provinces in particular.

2. **Sector and intervention key informant interview guides were prepared** and refined when in the field. These allowed for semi-structured interviews, to cover the interventions with Élan but also the state of the institution and the sector more broadly.
3. **Field trip arrangements** were made including travel and interview schedules. When in Lubumbashi, a trip to Lualaba province was undertaken with overnight stay in Likasi. This allowed some farmers to be spoken to, as well as important stakeholders in a non-urban setting including agro-dealers and some of Élan's remote partners.
4. **Primary data collection** was carried out using primarily key informant semi-structured qualitative interviews. In total 56 people were spoken to across 42 institutions (see Annex B). Written notes were taken during interviews, and typed up there and then where possible. Interviews were recorded on three occasions in order to help with the write-up, recordings were deleted once this was completed, and permission from the interviewees was sought first.

Phase 3 – Reporting

The final phase of drafting and analysis for this final report was undertaken in the November 2022 to January 2023 period. This has involved a combination of synthesis of the document review and data analysis, and the primary data that was collected in the Phase 2 of fieldwork. The period has involved:

1. **More detailed document review for the two sectors** including review of relevant documentation for interventions covered in most detail in this report including partnership agreements, quarterly progress and closure reports, monitoring data and impact study reports, and a wide range of other documentation (see Annex A for the full list of the documents cited, though more were consulted).
2. **Data analysis** has been undertaken for a range of sections in the report. This included collation of intervention specific information, for example reviewing the annual reports and results of the micro-finance institution (MFI) partner FINCA, collating mobile money usage rates from a range of sources, and analysis of evaluation data from Élan for a sub-set of interventions.
3. **Structuring findings around the study evaluation questions** has been the final stage. The evaluation design following the relevance, effectiveness, impact, sustainability framework, has at times required some repetition, but this has been kept to a minimum where possible with cross-references used. A great deal of relevant information has been gathered, but where it has been deemed to be too detailed for the main report, it has been put into the report's annexes.

1.2.2 Study limitations

Several limitations were envisaged prior to fieldwork, and during the study process some risks materialised. The main risks related to the availability of key informants. In general, it was easier to secure interviews in the field with stakeholders from the AgNP sector in Lubumbashi and surroundings, than for the A2F interviews that were mainly in Kinshasa. In particular, it was difficult to get interviews with mobile network operators (MNOs) who provide mobile money services. An interview was finally secured with Vodacom, remotely after the DRC trip was complete, but it was not possible to talk to Airtel or Orange. While Vodacom publish good data on DRC market performance in their annual reports, this is less the case for the other two main MNOs. Mobile money performance has therefore been

pieced together from a variety of sources but there is not a single source of accurate information on sector performance, making this is a challenging process.

The main additional limitations faced relate to the breadth and depth of evidence that could be collected, and the impact on some triangulation and analysis. Key limitations include:

- The limited geographic coverage of the fieldwork reduced the ability to draw insights related to differences across geographic locations. Greater coverage of North Kivu and South Kivu would have been useful to look at the differences in the seed system there compared to the Lubumbashi region. It is known that humanitarian actors play a greater role in the former, but it was not possible to probe this in much detail.
- Interviews could only be obtained with a small sample of direct beneficiaries, namely some farmers in Lualaba province. If resources were less of a constraint it would have been useful to have more discussions with more beneficiaries on agricultural yields, input use and behaviour changes, as well as on financial inclusion, the use of mobile money and challenges with the existing agent network. Secondary data has been used to fill some of the gaps, but there is also a relative dearth of this in the DRC, for example there has not been a comprehensive household survey measuring poverty across the country since 2012.
- Businesses where Élan had claimed some replication were much harder to track down and interview than those they had worked with directly. This limited the ability to verify replication claims. In part this was due to often only having specific contact details on the Élan partner contacts. But is also because there is a lot of goodwill towards Élan from individuals that had worked on interventions they supported.³³
- While it was possible to piece together and rebuild an extensive amount of documentation, the main aggregation documents used to monitor impact, namely the Programme Wide Intervention Guide (PWIG), did not provide a clear set of references for where numbers were derived from. This made it difficult to understand where claims on beneficiary numbers and on the net attributable income change (NAIC) indicator were derived from. These came from a mixture of internal studies, some externally commissioned impact studies, and self-reported information from partners; however, it was not always possible to match the source data used.

1.2.3 Market systems change conceptual framework

Élan's sector strategies were organised around Market System Changes (MSCs), simple qualitative statements of the changes the project sought to bring about. The MSCs were used mainly as a way to organise each sector's portfolio of interventions, rather than providing an objective benchmark as to how to measure change. Élan more formerly conceptualised its systemic change using the Adopt-Adapt-Export Respond (AAER) framework, which aims to describe how innovation spreads from an initial intervention (Adopt) to achieve broader change in a market system (Adapt), particularly through replication (Expand), but also through regulatory response (Respond).³⁴

³³ While this is not addressed in the evaluation questions in the main report, it should be noted that a lot of partners spoke very highly of the Élan team.

³⁴ See Nippard et al. (2014) "Adopt-Adapt-Expand-Respond: a framework for managing and measuring systemic change processes"

The DSU had various criticisms of the MSC approach over the course of the project.³⁵ This included the degree of Élan involvement in partnerships at the Adapt or Expand phase, leading to a category of ‘Assisted Expand’ being used for interventions that were still facilitated by an Élan partnership (either through technical support or some form of grant subsidy).³⁶ At its heart the discussion was linked to the degree of effective subsidy that an innovation, product or service would receive, and at what point it could be said to be sustainable.

As Élan has now completed it is simpler to assess whether sustainable system change has taken place, including whether Élan’s old partners are continuing, expanding or adapting innovations, products and services that the project supported, and whether there is evidence of any replication, further adaptation or responses in the market, including in policy and regulatory change.

As set out in Box 1, different approaches have been used to model and assess market system change. Within the Making Markets Work for the Poor (M4P) context, which was the starting approach for the Élan project, the AAER framework is common. However, other approaches can also be used. Loveridge (2022) synthesised approaches and categorised the types of changes that a market systems approach might lead to. Some of these can be seen as the goals of a programme – changing Practices and Policy; while others are the means to such change, e.g. Resource flows, Relationships and Connections; and then there are the deeper changes in people and institutions that underpin such changes, e.g. in Power Dynamics and Mental Models.

Due to the large amount of material to review across the AgNP and A2F sectors, this report has simplified the approach to assessing market system change (MSC). It does so by integrating the approach with the EQs, starting with mapping the Relevance of the MSCs the project sought to achieve, the characteristics of the target group, and assumptions underpinning the theory of change (ToC). Assessments for each sector’s Effectiveness then look at the Policy and Practice changes; the Impact of the changes Élan brought about for the target groups of beneficiaries; and finally, the Sustainability of changes made.

³⁵ For example, in the 2016 AR, “at present the programme still lacks a full definition of terms such as sector, sub-sector or market system. The terms ‘market system constraint’ and ‘market system change’ are used to describe any constraints or changes identified in a market system.” Source: DFID/DSU (2016) Élan Annual Review 2016

³⁶ For example, in Élan (2018c) PCR. Annex 7 Assessing Systemic Change.

Box 1: Types of market system changes

While there are several definitions of market systems change, they all seek to articulate how markets perform or behave. For a Making Markets Work for the Poor (M4P) programme, results are considered in terms of how poor and marginalised people and communities participate and benefit from markets. Market system change and systemic change are often used synonymously. The latter captures the notion that changes in the system need to be significant so that many more marginalised people are benefiting more from market activities. There are therefore elements of breadth, depth, and timing in any assessment.

Loveridge (2022) provides a synthesis of approaches to assessing market systems change and sets out the following typology of changes:

i) Policies: government, institutional and organisational rules, regulations, and priorities that guide the entity's own and others' actions.

ii) Practices: activities of institutions, coalitions, networks, and other entities targeted to improving social and environmental progress. Also, within the entity, the procedures, guidelines, or informal shared habits that comprise their work.

iii) Resource flows: How money, people, knowledge, information, and other assets such as infrastructure are allocated and distributed.

iv) Relationships and connections: quality of connections and communication occurring among actors in the system, especially among those with differing histories and viewpoints.

v) Power dynamics: The distribution of decision-making power, authority, and both formal and informal influence among individuals and organisations.

vi) Mental models: deeply held beliefs and assumptions and taken-for-granted ways of operating that influence how we think, what we do, and how we talk.

2 Background

This chapter sets out some sectoral context for the Élan project, the approach to sector selection, and the design of sector approaches and theories of change (TOCs) for the AgNP and A2F sectors. This includes the broad context and policy environment, the analysis Élan undertook, the constraints identified and the strategies followed.

2.1 General background to the DRC and Élan's portfolio

The DRC has the fourth largest populace in Africa and the largest of francophone African, and has the fourth highest poverty rate on the planet on the World Bank's main extreme poverty measure.³⁷ The population of the DRC was estimated to be 92.4 million in 2021, which is a rapid growth from an estimated 71.4 million in 2013 when Élan was in its inception phase. The proportion in extreme poverty is estimated at 70 percent, double the 35 percent average for the sub-Saharan Africa (SSA) region.³⁸ GDP per capita in 2021 was estimated at USD 584, less than half the average for Least Developed Countries (USD 1,177) and one-third the SSA average (USD 1,646).³⁹

Just over half the population is estimated to be rural where poverty rates are higher than in urban areas, particularly on measures of the multidimensional poverty index (MPI). While the rural population saw a decline from 65 percent of the total in the year 2000 to 54 percent in 2021, implying significant rural-urban migration, still 50 million people live rurally in the DRC.⁴⁰ The vast majority of the rural and urban workforce participate in the informal economy. The rural population depends heavily on the agricultural sector, yet the lack of infrastructure, low levels of technology adoption, and the lack of investment mean productivity is low.⁴¹ An estimate used by Élan at its outset in 2013 had 60 percent of the urban population living in poverty, compared to 65 percent of the rural population, although on measures of the MPI those in rural areas appear to be much more disadvantaged than this gap suggests (see Section 3.1.1).⁴²

The PSD programme aimed to address an array of binding constraints and the 'low level equilibrium' of the DRC economy. When applying a growth diagnostic framework, Ulloa et al. (2009) found growth to be constrained by government failures; lack of access to finance; poor infrastructure particularly in electricity; as well as conflict and insecurity. These constraints are interlinked, for example in the southern Katanga region, access to finance was found to be extremely limited in agriculture and a binding constraint to private investment and raising productivity (with the possible exception of large foreign firms that can self-finance). At the same time, corruption had become "a perverse market solution to an economy with distortive taxation and regulations" as well as being "symptomatic of the poverty and the low wages in the public sector".⁴³ Constraints were interconnected, with low

³⁷ World Bank (2022c) WDI data indicator SI.POV.DDAY (excludes Uzbekistan due to a data anomaly).

³⁸ Extreme poverty is defined as living below the International Poverty Line of USD 2.15 per day at purchasing power parity (PPP) 2017 prices; and was recently updated by the World Bank from USD 1.90 per day in September 2022 (see World Bank, 2022a), updating from 2011 to 2017 prices. The DRC poverty rate at the old measure was 77 percent. However, both figures are based only on 2012 data.

³⁹ World Bank (2022c) WDI data indicator NY.GDP.PCAP.CD

⁴⁰ World Bank (2022c) WDI data indicator SP.RUR.TOTL.ZS

⁴¹ Mahrt and Nanivazo (2016) "Growth and Poverty in the DRC"

⁴² DRC Enquêtes 1-2-3 data collection 2012, as reported in Mahrt and Nanivazo (2016).

⁴³ Ulloa et al. (2009) DRC, Study of Binding Constraints

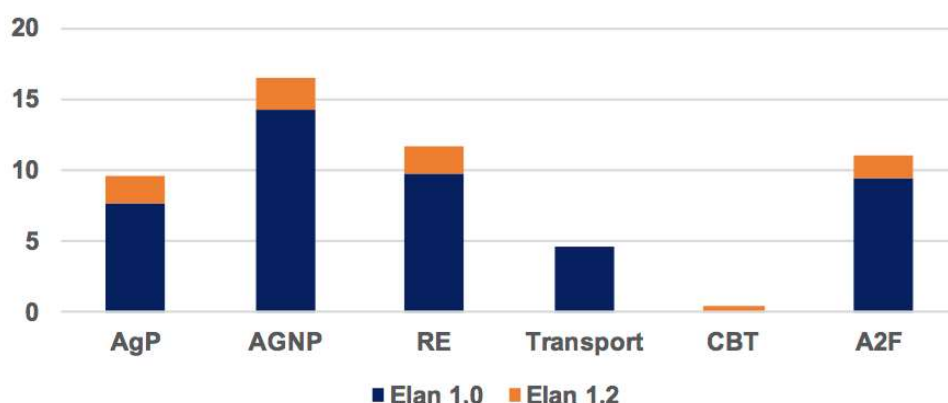
growth leading to low government revenues, and little incentive for positive reform to the regulatory environment. This ‘low level equilibrium’ in development provided a strong rationale for the holistic PSD programme DFID designed.

The combination of multiple market and state failures meant Élan faced complex challenges in designing its portfolio. The Business Case for the PSD Programme set out the constraints firms face, and the issues driving them in a ‘problematique’ (see Figure 36 in Annex G). This included the market, government, and coordination failures outlined with links to access to finance, market development, the business environment, and corruption; “feedback loops generating vicious circles, or traps”. Where, “fundamentally, these traps stem from two sources: the nascent stage of the private sector itself; and the predatory nature of the state”.⁴⁴

2.1.1 Élan’s sectoral split

Élan undertook extensive market scoping in the Inception phase in 2013, and also evolved its portfolio of work over time. It primarily worked via ‘sectors’, and while there was change in the first years of the project, the mature portfolio for Élan 1.0 was structured by: Agriculture perennials (AgP - cash crops such as coffee), Renewable Energy (RE), River Transport (RT), Agriculture non-perennials (AgNP – maize and rice mainly), and Access to Finance (A2F). The sectors remained the same in Élan 1.2, with the exception of the removal of the RT sector, and an added focus on a Cross-border Trade (CBT) sector. Within sectors, partnerships were designed with Partnership Agreements setting out scopes of work, primarily with private sector actors. Modalities included grants or technical assistance, which were in general cost sharing a particular investment around the expansion or innovation of a product or service. The overall estimated cost of the Élan project was £53.6 million.⁴⁵

Figure 2: Élan estimated spend split by sector, 2013-2021 (GBP millions)⁴⁶



Source: Élan 1.0 estimates based on Élan (2018b). Élan 1.2 on Élan (2020a).

⁴⁴ DFID (2013) PSD Programme Business Case.

⁴⁵ This includes the proportion of Élan’s fees, core and programme development costs.

⁴⁶ Costs from the Core budget (£17.2 million) and Programme Development budget (£3.3 million) are distributed between the sectors according to proportionate spend. The total Élan spend of £53.6 million comes from Adam Smith International’s (ASI) contractual values listed on Devtracker, for Activity IDs: GB-1-203161-103, GB-1-203161-110 and GB-1-203161-112. The total contractual value for Élan 1.0 was £45.6 million, with £8 million for Élan 1.2.

Around half of Élan total spend was in the two sectors that this study focuses on (see Figure 2). It is estimated AgNP expenditure made up 31 percent of the total, the highest of any sector, and A2F made up 21 percent, the third highest by sector.

2.1.2 Élan 1.0 (2014-2018)

Élan developed a broad portfolio across its range of sectors. Between 2014 and 2018, Élan entered 170 partnerships across six sectors, sat within 86 interventions (see Table 6).⁴⁷ Of the total interventions in the final Élan 1.0 portfolio, around 80 percent were started in the 2014-2016 period, with 2016 the peak year.⁴⁸ The DSU found at the stage of the Élan mid-term evaluation (MTE), “in a difficult and risky environment, Élan was correct in casting a wide net and starting a large number of pilots to find out what can work, but breadth should not be achieved at the cost of depth of analysis”. At that stage, the DSU recommended that Élan rationalise the portfolio to allow resources to focus on the challenging issues of expansion and replication, and to increase the likelihood that the systemic change and the intended impact results would be realised.⁴⁹

Table 6: Élan 1.0 interventions by sector

Sectors	provinces	Sector scope (number)	
1. Agriculture perennial (AgP)	North Kivu, Equateur, Ituri	MSCs	5
		Interventions	14
2. Agriculture Non-perennial (AgNP)	Katanga, Lualaba, Tanganyika, North and South Kivu, Sud Ubangi, Equateur, Mongala, Kinshasa	MSCs	5
		Interventions	33
3. River Transport	Equateur	MSCs	3
		Interventions	4
4. Access to Finance – SMEs	North Kivu, Equateur, Katanga	MSCs	2
		Interventions	6
5. Access to Finance – Branchless banking (BB)	Kinshasa, Katanga, Equateur, Kongo Central, Sud Ubangi	MSCs	3
		Interventions	9
6. Renewable Energy (RE)	Kinshasa, Equateur, North and South Kivu, Sud Ubangi, Katanga	MSCs	4
		Interventions	19

Source: Élan (2019d) PWIG

Élan’s search for scale and results led to expansion and at times working with the same (more capable) partners for multiple interventions. In 2017, the DSU found that “lessons from the preceding years of implementation have formed a platform for Élan’s articulation of its strategy for reaching scale in affecting sustainable systemic change”. This strategy was based on diversifying the project’s investment through 1) achieving scale through ‘big’ actors; 2) working with first movers; 3) supporting second movers; 4) strengthening support functions in markets; and 5) reforming the rules regulating

⁴⁷ DFID/DSU (2018a) Élan Annual Review 2018

⁴⁸ Élan (2019d) PWIG

⁴⁹ DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes

markets.⁵⁰ In practice this meant several partners had more than one intervention, and some carried through from Élan 1.0 into Élan 1.2.

2.1.3 Élan 1.2 (2019-2021)

Geographical re-targeting by DFID led to shifts for the second phase. In Élan 1.2, 27 new partnerships were formed across the refined sectors. This included that the previous split of A2F SMEs and A2F branchless banking (BB) were consolidated as a combined A2F sector. Élan 1.2 saw geographical realignment, based on DFID’s new country strategy and provincial footprint. This meant that Élan was no longer mandated to work in the south / Katanga region, and interventions would be focused in the provinces of North Kivu, South Kivu, Kasai Centrale, and Kasai.⁵¹ This had implications for Élan’s AgNP work in particular, as it had been so focussed in the south, particularly in Haut Katanga and Lualaba provinces; work that was discontinued for Élan 1.2.

The early 2020 declaration of the Coronavirus-19 pandemic (henceforth ‘Covid’), and associated global economic slowdown, led to significant re-design. Élan was asked by FCDO to design interventions that would address some of the ongoing and future effects of the pandemic and a £2 million ‘Covid-19 facility’ was formed, taking up a quarter of the second phase allocation. This provided a radical shift for the project, and limited the degree of systemic change ambition of sectors for Élan 1.2, with less interventions overall as shown in Table 7. As a result of the reorganisation of the portfolio linked to the Covid pandemic, a number of the planned interventions were closed early.

Table 7: Élan 1.2 interventions by sector

Sectors and sub-sectors	provinces	Sector scope	
1. Agriculture perennial (AgP)	North Kivu, South Kivu	MSCs	3
		Interventions	7
2. Agriculture Non-perennial (AgNP)	North Kivu, South Kivu, Kasai, Kasai Central	MSCs	3
		Interventions	7
3. Cross-border trade (CBT)	North Kivu, South Kivu	MSCs	3
		Interventions	3
4. Access to Finance (A2F)	Kinshasa, North Kivu, South Kivu	MSCs	3
		Interventions	4
5. Renewable Energy (RE)	North Kivu, South Kivu, Kasai, Kasai Central	MSCs	3
		Interventions	6

Source: Élan (2021g)

The DSU found in 2020 that Élan successfully and quickly adjusted its operations to Covid. This included use of remote working practices, and the design and launch of new interventions aimed to address economic effects of the pandemic.⁵² Covid interventions made up 31 percent of the 2020 portfolio and used at least 40 percent of the 2020 project budget to implement.⁵³ However, non-Covid interventions also faced a more challenging

⁵⁰ DFID/DSU (2017) Élan Annual Review 2017

⁵¹ FCDO/DSU (2020a) Élan Annual Review 2020

⁵² Ibid. FCDO/DSU (2020a) Élan Annual Review 2020

⁵³ It was agreed with FCDO that they were not required to contribute to the outcome and impact targets.

context. DRC's GDP growth fell from 4.4 percent in 2019 to 1.7 percent in 2020, with a decline in GDP when extractives are excluded from the figures.⁵⁴

2.2 Élan's AgNP strategy

The targeting of the AgNP sector was initially focused on the rice sub-sector, and on seeds, before combining to a broader strategy of inputs and extension services, including a larger focus on maize. While the sector was defined as 'Inputs', fertiliser and pesticide were not a focus. Instead it was seeds that would become central to the AgNP sector work for both Élan 1.0 and Élan 1.2. A number of other interventions were piloted; notably, outgrower schemes (OGS) with larger farmers and contract farming with mining companies. A collateral management agreement (CMA) intervention was also initially included in the AgNP sector, and was later integrated as the core of the Small and Medium Enterprise (SME) Access to Finance (A2F) sector (see Section 2.3.2). By late 2015, five constraints were identified for AGNP that were tied to the Market System Changes the project would aim to bring about:⁵⁵

- Inadequate access to inputs and services by smallholder farmers (SHFs);
- SHFs have limited access to markets;
- Both SHFs and agro-businesses have limited access to finance;
- Lack of innovative marketing and distribution techniques; and
- Tax regime not adequate.

The constraints were linked to the five Market System Changes (MSCs) for the AgNP sector specified for the Élan 1.0 period by 2016. These were consolidated to three MSCs for the Élan 1.2 second phase (see Table 8). There was a significant cross-over between AgNP and A2F through the MSC 2.4 for agribusiness to access finance and ultimately all work in this area was considered as part of the A2F sector.

Table 8: Élan Market System Changes (MSCs) in AgNP across the two phases

MSCs Élan 1.0 (2015-2018)	MSCs Élan 1.2 (2019-2021)
MSC 2.1: Inputs suppliers provide quality inputs and advisory services to SHFs	MSC AGNP1 - Input suppliers provide quality inputs and value-adding services to smallholder farmers
MSC 2.2: Agribusinesses and mines provide access to pre-financed inputs and services to SHFs	
MSC 2.3: Agribusinesses provide access to secured markets to SHFs	MSC AGNP2 - Smallholder farmers, processors and traders have increased access to markets
MSC 2.4: Agribusinesses access finance	This MSC removed due to A2F crossover
MSC 2.5: Agribusinesses develop industry-wide awareness and advocate for a more favourable tax regime	MSC AGNP3 - Industry stakeholders organize and advocate for an improved business environment

Source: Élan (2016d) "2016 Annual Report". Élan (2021i) "Programme Closure Report".

⁵⁴ IMF (2022a) Article iv Country Report – for 2021 growth rate and non-extractives growth rate for 2020. GDP Growth for 2019 and 2020 - World Bank (2022c) WDI data indicator NY.GDP.MKTP.KD.ZG

⁵⁵ Élan (2015a) 2015 Annual Report Year 2 Report Year 3 Business Plan

2.2.1 State of the sector: Agricultural non-perennials (AgNP)

At the heart of Élan’s approach to the AgNP sector was a clear articulation of the massive potential of Congolese agriculture compared to its very poor historical performance. Low productivity in agriculture was the major cause of rural poverty, and therefore tackling constraints in the sector could allow Élan to have significant impact for its targeted beneficiary group. As per Élan’s (2021i) Programme Closure Report (PCR), “the DRC has over 80 million hectares of agricultural land and almost half of Africa’s fresh water reserves, yet, in spite of this incredible potential, the agricultural sector is defined by stagnation and food insecurity. Yields in the DRC lag well behind regional benchmarks; for example, average maize yields in the DRC are estimated at 0.77 tonnes per hectare ($t\ ha^{-1}$) compared to 2.00 $t\ ha^{-1}$ in Kenya.”⁵⁶

Improved seeds became the major focus of the AgNP sector portfolio. This was referred to in both Élan 1.0 and Élan 1.2 PCRs, as: “the cornerstone of Élan’s agricultural strategy, seed sales to smallholder farmers”. The use of improved seeds would increase yields and therefore generate net attributable income change (NAIC) for smallholder farmer (SHF) beneficiaries and Élan would claim its most significant market systems changes in this area for the AgNP sector. Élan claimed that the sector had taken off with their support, that companies were more profitable, and that continued growth and investment in the sector could be expected in coming years as a result.⁵⁷

As per the initial analysis of Élan, supply of seed to SHFs in the DRC was dominated by informal channels, meaning there was a need for commercialisation of the seed market system. This is true of many SSA countries, where many resource-poor farmers obtain seeds through informal systems, using seeds that they have produced themselves (farm-saved seeds) or obtaining seeds through gift, barter or cash from neighbours, families or local markets. The proportion of farmers using farm-saved seeds is higher in the DRC than elsewhere in SSA due to weak organisation of the formal market system in both the private and public sectors.⁵⁸ Given that Congolese SHFs in the past two decades have emerged, or continue to be affected by intense conflict and social distress, this can be viewed as a rational strategy, i.e. to prioritise survival rather than investing in commercialisation.⁵⁹ SHFs thus prioritise seed that is tolerant to local conditions, and this may imply risk aversion in terms of trying new seeds. However, in practice, resource constraints may play an equally important role in impeding formalisation. Table 9 presents the basic characteristics of formal and informal seed systems, highlighting what a departure it is to head to a more formal system.⁶⁰ Box 2 provides a description of OPV, hybrid and

⁵⁶ The 0.77 tonnes per hectare ($t\ ha^{-1}$) figure is used in a number of Élan’s summary documents, although not clearly sourced. Yields are low in the DRC but it is not always clear if the figure relates to maize, or a weighted average of staples. There is a low amount of reliable data on production or yield and this was confirmed in interview for this study with the Ministry of Agriculture. However, averages for West and Central Africa put maize yields at 1.5 $t\ ha^{-1}$, the lowest in comparable data of global regions. This compares to yields of 2.4 $t\ ha^{-1}$ in Eastern and Southern Africa, 3.3 $t\ ha^{-1}$ in South Asia, 7.1 $t\ ha^{-1}$ in Europe, 7.5 $t\ ha^{-1}$ in West and Central Asia, and 10.8 $t\ ha^{-1}$ in North America. Source: Erenstein et al. (2022). Various studies undertaken internally by Élan during the project period found low baseline yields although they were variable (see Section 3.3.2 for more detail).

⁵⁷ The PCR also claimed “and the business environment should improve through their involvement in public-private dialogue. INERA, the government of the DRC, and development agencies have all responded constructively in their engagements with seed providers.” Élan (2018d) PCR. The term “cornerstone” for the seeds work was also referred to in the Élan 1.2 PCR (Élan, 2021i).

⁵⁸ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan” Seed Sector Annex 2.6

⁵⁹ Misiko (2010) “Indigenous seed institutions in fragile communities”

⁶⁰ Other countries in the region such as Kenya, Zambia and Zimbabwe have much stronger formal systems and a history of supporting farmers that has been dormant for many years in the DRC, and this presented a major challenge for Élan to stimulate some transformation.

farm-saved seeds and the key differences between them. OPV and hybrid seeds would be the targets for Élan’s interventions.

Box 2: The difference between farm-saved, OPV and hybrid varieties of seeds

There are three main seed types referred to throughout this report:

Hybrid varieties: Also known as ‘elite’ seeds, hybrid varieties are produced by specialised companies or research institutions. Conventional hybrids are produced through crossing genetically diverse inbred lines, with progeny said to exhibit ‘hybrid rigour’. They are specifically bred to maximise yield and for other characteristics such as disease- and/or pest-resistance and/or reduced vulnerability to drought. Hybrids are dominant in more developed agricultural economies, and in the United States for example, maize hybrids tend to be phased out and replaced by the private sector every three to four years (Rutsaert et al., 2021). Hybrid seeds lose much of their genetic gains if reproduced (i.e. bred on the farm), with yield losses of 50 percent by the third-generation of seed offspring (Masuka et al., 2017). Many hybrid maize seeds have been developed and continue to be improved for the SSA region by institutions such as the International Maize and Wheat Improvement Center (CIMMYT) among others.

Improved Open-pollinated variety (OPV) varieties: Improved OPV seed varieties are developed by companies or research institutions, although to a lesser extent than hybrid seeds. OPVs are a ‘by-product’ of the hybrid parental line development process, and have lower yields, around 20-25 percent lower than hybrids (Masuka et al., 2017). They have one main advantage over hybrids in that they do not lose genetic gains so quickly having had less inbreeding. This means farmers can re-use seeds for two or three seasons with only marginal reduction in yields, which may make them more attractive for more resource-constrained farmers such as SHFs prevalent in much of the SSA region.

Farm-saved seeds (‘traditional OPVs’): Also known as ‘landraces’, traditional seeds are produced from open pollinated crops on the farm. Farmers may produce their own or access the seed through informal channels or markets. Informal farmer-saved seed may still have been ‘improved’, in as much as having many generations of development and gradual improvement with adaptation to the local environment. Farm-saved seeds can be maintained by communities with complex social arrangements (Misiko, 2010, sets this out for the Yangambi rice-farming area in central DRC). However, the absence of controlled breeding means farm-saved seeds have few genetic advantages compared to hybrids or OPVs produced by research institutions or private companies, and generally will have significantly lower yields. Maintaining OPVs without yield loss depends on the degree of isolation from pollen contamination by seed admixture with other varieties, conditions that are often difficult for SHFs to control (Masuka et al., 2017).

Table 9: Formal and informal seed system characteristics

Characteristic	Formal system	Informal (popular or farmer) system
Goals	Distribute high quality seed of modern, high yielding varieties	Obtain seed to sustain the farm every season
Quality of seed	Variable, but usually high	Variable, but can be high for many crops
Public sector	Source seed, research and certification	Not necessarily involved
Private sector	Multiplication and distribution by registered enterprises	All activities. Distribution by farmers, registered or unregistered traders and vendors. May be role for co-operatives.
Seed type	Formal, certified seed, often hybrid	Common or farm-saved seed, occasionally open pollinated varieties (OPV)

Source: Adapted from Bentley et al. (2011)

2.2.2 Élan 1.0 theory of change for AgNP

In line with the PSD programme's overall goal to increase incomes of poor men and women, Élan's work in AgNP focused on smallholder farmers (SHFs). In the seed sub-sector, Élan sought three main system changes to reach this group:

1. improved availability of sustainable sources of appropriate foundation seeds (including via regulatory changes in ability to produce seeds);
2. distribution and marketing of improved seeds by private seed businesses (supply-side changes); and
3. increased confidence and willingness of smallholders to invest in improved seeds (demand side changes)

Together, these changes were expected to increase SHF's use of improved seed varieties, which would increase production (through greater yield and decreased crop loss), which would in turn contribute to increased incomes.

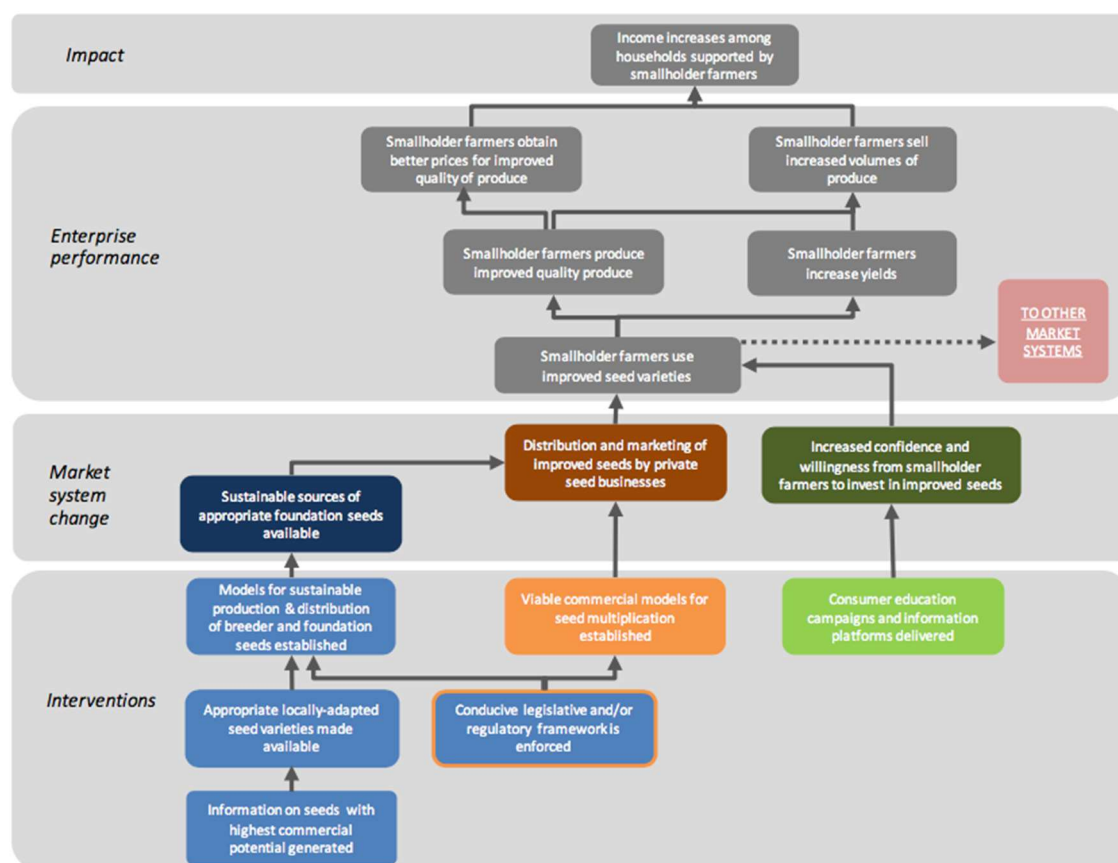
After early evolution in the agricultural portfolio, in early 2016 seeds, other inputs, rice, and maize, were all integrated into one sector to be called AgNP.⁶¹ In 2013 when the project was being designed, Élan treated Agriculture as a 'broad sector', and 'sub-sectors' were considered with potential for future interventions. Initially only rice and beans were selected (more detail is provided in Evolution of the AgNP sector portfolio in Annex F). Maize was not initially selected, mainly because it scored lower in Élan's selection methodology on 'pro-poor income potential', competitiveness, and growth rates compared to the other sectors analysed such as rice. By November 2013, a seeds sector was added for the 2014 Business Plan and beans was removed. By January 2015 and the Year 2 Business Plan, the seed sector had become 'agricultural inputs and services', and Maize was also added as a sector.

Élan undertook early analysis of the seeds market providing a strong empirical underpinning for its work in the sector. This included that: "high quality seed is the foundation for robust agricultural production. Based on international experiences, depending on the crop, seeds alone can increase yields by 5-20 percent and when coupled with other productivity enhancing inputs they can boost yields up to 45 percent. These figures are even higher for the DRC given the pervasive use of degenerated old seed varieties by smallholder farmers."⁶² Analysis highlighted challenges including a public-sector monopoly and decades of mismanagement; as well as distortion by donor and government programmes in giveaways involving low quality or fraudulent seeds. Access to improved seed was therefore limited and consumer confidence low. Élan's theory of change (ToC) (Figure 3) hypothesised improved seed varieties could lead to increased yields and therefore increase incomes of poor SHFs through its market system changes.

⁶¹ Élan (2016c) Q1 2016 report

⁶² ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan"

Figure 3: Initial theory of change (ToC) for seeds sector, from 2013



Source: ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

The seed sector was later extended to include other inputs and extension services, including as the use of outgrower scheme (OGS) interventions. Extension services were explored further via the other pillar of what would become the AgNP sector, the Rice sector. This would be via OGS, a key entry point for interventions in rice, as well as for the multiplication of rice seeds. OGS would aim to provide a broader range of support to SHFs, with extension services and other inputs such as fertiliser, pesticide, or mechanised services. The rice sector ToC also included work on a ‘conducive legislative and/or regulatory framework’ and ‘tax reform advocacy and dialogue’, with a view to achieving more holistic market system change.⁶³

Élan 1.0 interventions, overview

The combined AgNP sector work on seeds, rice and maize, and other inputs and extension services meant Élan’s initial focus was broad; but over time, seeds became the dominant focus of work. By the end of the first phase in 2018, maize had more frequently been a focus than rice, and seeds interventions constituted more than half of the 33 interventions, with OGS representing 15 percent of interventions (see Table 10). The work on seeds can be split between interventions focussing on local production of open pollinated variety (OPV) seeds, and regional companies (from South Africa, Zambia or Uganda) selling hybrid seeds.⁶⁴ Outside of the seed sector, interventions were less

⁶³ More detail is provided in Evolution of the AgNP sector portfolio in Annex F.

⁶⁴ See Box 2 in Section 2.2.1 for summary definitions of hybrid and OPV seed.

concentrated, including in advocacy; information and media campaigns to educate farmers; weights and measures; and on broader inputs (in addition to seeds). A similar split carried on into Élan 1.2 but with fewer interventions. In practice this also meant that by far the greatest share of the AgNP sector work was focussed on the first of the five MSCs - MSC2.1: Inputs suppliers provide quality inputs and advisory services to SHFs.

Table 10: Élan 1.0 and 1.2, AgNP interventions by type

Intervention type	Functions	Élan 1.0	Élan 1.2
Local seeds interventions	Seed multiplication and distribution	15	1
Regional seeds interventions	Seed marketing and distribution	4	1
OGS / contract farming	Inputs provision and extension	5	-
Advocacy / business environment	Advocacy / changes to weights and measures	3	1
Info provision / education	Consumer education	2	2
Inputs distribution	Logistics and supply	2	1
Demo plots	Marketing of seed	1	-
Warehouse	Support to onion value chain	1	-
Covid food data analysis	Research on food product prices and supply in markets in Kinshasa	-	1

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2020d).

Seeds sector work

The initial entry point for the seed sector was the National Agricultural Research Institute (INERA), who had a monopoly on producing foundation seeds in the DRC.

The first business plan identified some clear strategies that would form the basis of the local seeds work for the whole project period. This included focussing on linkages with INERA to ensure that locally adapted seed varieties could be made available, combined with partnerships on breeder and foundation seeds with commercial seed multiplication to be developed.⁶⁵

The move to liberalise foundation seed production came alongside support to the very nascent local seed production sector. This work came to form the first and most important local seed intervention which combined work with INERA and an initial 'long list' of 20 local seed companies that was whittled to those with the best capacity to expand in maize seed production for OPV, particularly in the Haut Katanga province. This led to the longest running partnerships of the Élan project with Mimosa and Bon Berger. The work in the south was replicated in some other regions but never to the same scale (in Equateur and Mongala), with some work on horticulture seeds as well (two interventions in the west). Some work on rice in the east was carried out, with Ets Munga forming the most important partnership.

Regional seed producers were also supported, and as they already had mastered production of hybrid seeds, the focus was on marketing and distribution. The initial analysis identified the potential of foreign partners, and these partnerships came to include Seed Co from 2015 (from South Africa), Zamseed in 2016 (from Zambia), and then

⁶⁵ ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan", Seed Sector Annex 2.6

NASECO (from Uganda) and Kamano seeds in 2017 (also from Zambia), mainly focussing the sale and distribution of maize hybrid seed.

Outgrower schemes (OGS), contract farming and work with mining companies

OGS were developed based on leveraging larger players to provide and finance inputs and extension services to SHFs. The idea for OGS came out of the initial rice sector,⁶⁶ with plans to start a pilot with SOCAM, a large rice farmer in Equateur province. This pilot fell through,⁶⁷ but Élan continued to seek opportunities to pilot the model. Élan advertised calls for proposals in rice and maize, with early pilots in 2014 with Mbeko Shamba in maize, and in 2015 an OGS with Regina Mundi in maize, and an OGS with RTMK in rice.⁶⁸ The model was later used with Mulagricom in rice. Beyond this, for a variety of reasons, OGS did not become the main intervention type for AgNP (see Section 3.2.2). Figure 4 sets out the geographical focus of Élan 1.0 interventions.⁶⁹

The initial seeds sector analysis also highlighted the potential of working with mining companies, based on the legal requirement that these companies had to cultivate 500 hectares (ha) of food crop annually, either themselves or through local farmers. This legal requirement could be leveraged alongside the corporate social responsibility (CSR) goals of the companies to support the local seed industry. The opportunity was taken with a partnership with the mining company SEK. SEK would commit to pre-financing inputs to farmers in the communities around the mine, and an inputs supplier, Seed Co, would provide inputs as well as training and extension services to the smallholder farmers. Subsequently there were other miners working tangentially with interventions, including with the seed producer Bon Berger.

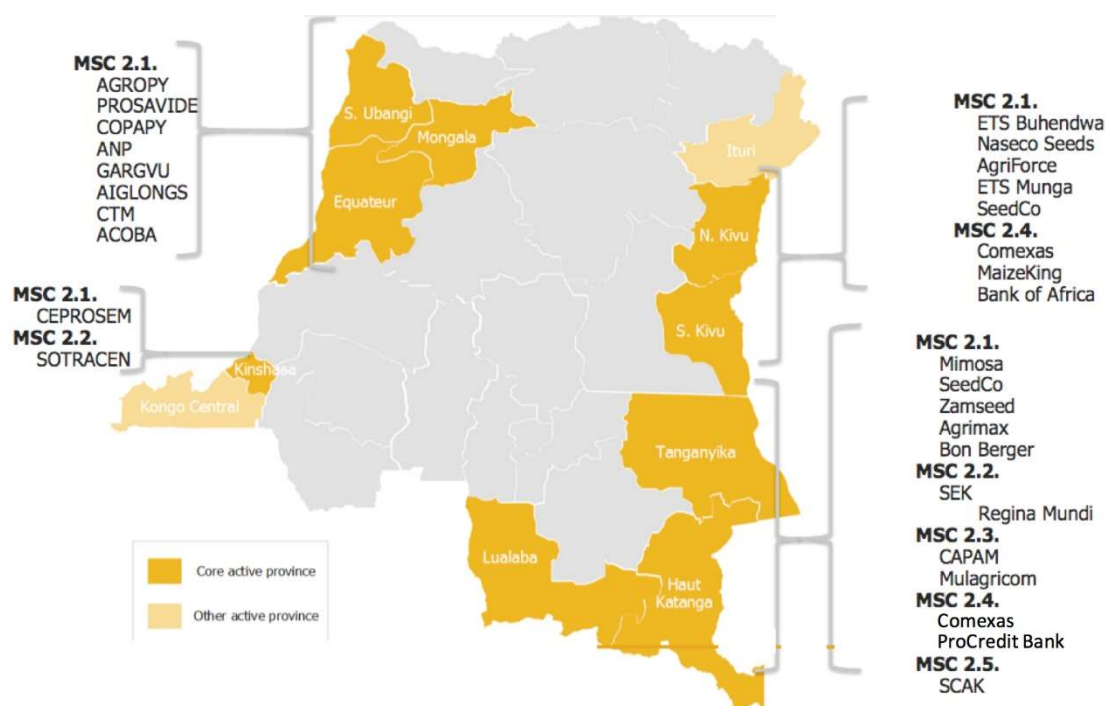
⁶⁶ More detail is provided in Evolution of the AgNP sector portfolio in Annex F.

⁶⁷ Élan (2014a) Q3 2014 report

⁶⁸ A model Élan had tested in the AgP sector (AP03, AP07, AP08, AP09) particularly for coffee production.

⁶⁹ Interventions included under MSC 2.4 on finance would be absorbed into the A2F sector and are discussed in Section 2.3.2.

Figure 4: Élan 1.0 geographic focus (2015/16)



Source: Élan (2016d) 2016 Annual Report

Regulatory interventions

Élan also set out plans to work on the regulatory environment and support functions for the agriculture sector. This included “groundwork for a more conducive legislative and regulatory framework for private sector participation in seeds will be completed” within the initial seed sector plan; and “evidence on the impact of the current tax regime will be generated and disseminated, forming the basis for informed advocacy to achieve a more enabling environment” in the rice sector.⁷⁰ Élan’s analysis of the seed sector in early 2014 noted the need for a simple and clear seed law, to include minimum quality standards for seeds, and rules for certification.⁷¹ It was expected that a law would facilitate new variety registration, and outline clear and simple import procedures, while the law protecting intellectual property (IP) for new varieties should be implemented.

Although, the seed law was seen as a major constraint in the sector, Élan did not support advocacy efforts until later in the project. Élan chose to work on regulatory changes via supporting others rather than working with the government directly. Some of the work on advocacy was not captured under an ‘intervention’ heading.

2.2.3 Élan 1.2 theory of change for AgNP

Élan updated its ToC for the implementation of Élan 1.2 (2019-2021) in response to learning from Élan 1.0 (see Figure 37 in Annex G). Élan also revised its MSC objectives and removed the MSCs that had framed the OGS interventions. Some more focus was placed on media campaigns to promote good practices, which was mainly via an intervention with Viamo to provide messages on good agricultural practices via mobile phone technology.

⁷⁰ Élan (2014b) notes a delay to this rice work and tax in the RT sector had taken precedence.

⁷¹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

Advocacy was also emphasised and continued some of the work that occurred late in the Élan 1.0 period (2017-2018), particularly through work with the African Seeds Access Index (TASAI), as well as local seed associations / provincial seed councils in Kivu and Katanga (COPROSEM) to advocate for the national seed law.⁷² The number of interventions in Élan 1.2 was far fewer than in the first phase, reflecting the lower budget but also the Covid challenges as discussed in Section 2.1.

One of the main changes for Élan 1.2, was the reduced geographical focus, which meant ending work in the south in Haut Katanga and Lualaba provinces, while continuing in North Kivu, South Kivu and Kasai Central provinces. Former Élan staff noted this was regrettable, particularly because of the greater systemic change potential in the southern region in terms of agricultural transformation. However, with lower budgets, it is not clear whether it would have been possible to sustain the project across such a large geographical area. Seeds interventions became focussed on the eastern region with two main interventions, continuing partnerships started during Élan 1.0, namely NASECO for maize seed, and Ets Munga for rice seed.

Covid had a big impact on AgNP sector work as for all sectors, and there was one intervention added focussing on food security in light of Covid. As noted in the Élan 1.2 PCR, “the Covid-19 Crisis has had a significant impact on the food supply chain. Following the primary impact of travel restrictions and border closures, the price of imported goods increased, certain goods became scarce, credit institutions reduced their tolerance for risk, and the Congolese Franc devaluated against the USD. This led to reduced purchasing power for the people of Congo and food price fluctuations. The intervention focused on providing information on the availability of food and stock in different key markets in Kinshasa’s food supply chain.”⁷³ Despite this research, it is not clear this led to any tangible changes to the AgNP portfolio, though this is likely as the project had so little time left.

2.3 Élan’s A2F strategy

Élan began its work in access to finance (A2F) at the start of the project, and identified mobile money (MM) or ‘mobile-banking’ as an area with high potential to increase financial inclusion in the DRC and improve the livelihoods of poor beneficiaries. Mobile banking placed third among potential sectors on Élan’s sector ranking methodology in 2013 and was classified as a sector to “proceed” with. This was due to particularly high scores on ‘growth potential’ and ‘competitiveness’ (the highest among 27 sectors assessed) and good scores on other indicators including pro-poor potential, where “from the poor’s perspective, cost savings result not only from lower banking fees but also from the convenience and time saved through eliminating the need for them to travel and wait for transactions at the closest bank branch.”⁷⁴ Low density of the existing branch network and fast growth of mobile phone ownership, combined with the rapid progress of mobile money elsewhere in SSA, particularly in countries such as Kenya, made MM an obvious focus for a project such as Élan.⁷⁵

⁷² Work on COPROSEM never appeared to be given an intervention code, suggesting it had limited focus.

⁷³ Élan (2021i) “ÉLAN RDC Programme Closure Report”

⁷⁴ ASI (2013b) Market Systems Analysis Report

⁷⁵ Although experiences had varied in growth of mobile money; in Kenya and Tanzania, Safaricom had launched the mobile money service M-Pesa in both but saw different trajectories. Within the first 14 months of launch in Kenya, there were 2.7 million users and 3,000 agents. In Tanzania, there were only 280,000 users and 930 agents. This has been linked to market, branch and agent structure and liquidity of the network, population density and other demand-side and regulatory factors. See Davies (2017).

Work in MM was combined with interventions on agent banking to form the ‘A2F branchless banking (BB)’ sector.⁷⁶ A second A2F sector emerged from Élan’s early work in agriculture, which became known as **Small and Medium Enterprises (SME) Finance**.⁷⁷ Élan 1.0 had three MSCs for the A2F BB sector by 2016 (MSC 3.1, 3.2 and 3.3) and two MSCs for the A2F SME sector (MSC 4.1 and 4.2). These were consolidated and reshaped under one A2F sector with three MSCs for Élan 1.2 (see Table 11).

Table 11: Élan Market System Changes (MSCs) in A2F

Élan 1.0: MSC 2016	Élan 1.0: MSC 2017	Élan 1.2: MSC 2020
MSC3.1: Increased confidence in mobile money	MSC3.1: MNOs and Financial institutions develop financial education programs and other tools to increase confidence in mobile money and other digital financial services	MSC AF1 - FSPs offer education, products and services appropriate to low-income female and male consumers and entrepreneurs, including those with disabilities
MSC3.2: MNOs and financial institutions offer appropriate products/services to poor consumers and entrepreneurs	No change	MSC AF2 - Financial services stakeholders collaborate and advocate to improve the sector's business environment.
MSC3.3: MNOs and financial institutions improve agents’ quality of service and expand agents network to serve poor consumers	MSC3.3: MNOs and financial institutions improve agents’ quality of service and expand agents network to serve poor consumers and ensure supply chain digitalisation	
MSC4.1: Financial institutions market adapted and innovative financial products	No change	MSC AF3 - Strengthened and increased capacities of investment intermediaries help to attract investment in female- and male-owned SMEs in the DRC
MSC4.2: Consulting companies provide technical assistance in business management to SME owners.		

Source: Élan (2016d, 2017d) Annual Reports. Élan (2021i) “Programme Closure Report”.

2.3.1 Status of the sector, Access to Finance (A2F)

Financial inclusion at the start of the Élan project

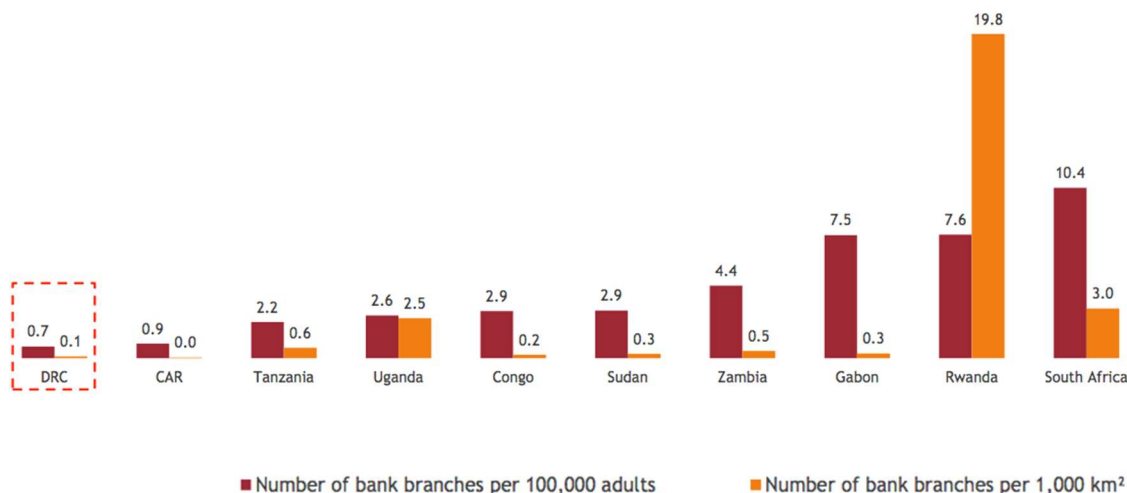
The Élan project began in a context where financial inclusion in the DRC was low, in absolute and relative terms. This included very low density of the branch network in terms of the number of branches in proportion to the population and in their geographical density (see Figure 5). The DRC had just 34 deposit accounts for every 1,000 adults, enough for 3.4 percent market penetration, with only neighbouring Republic of Congo and South Sudan having less. In 2012, the DRC also had among the lowest value of deposits with- and outstanding loans from commercial banks as a proportion of GDP, at 9 percent and 4.7 percent respectively. In comparison, Rwanda had 15.8 percent, Zambia had 19.2 percent,

⁷⁶ The work was organised under the ‘branchless banking’ heading from the Élan (2016h) Q2 2016 report.

⁷⁷ And also was known as ‘A2F - SME Finance’. There was a significant cross-over between AgNP and A2F through the MSC 2.4 for agribusiness to access finance, which was consolidated under the A2F SME sector. The cross-over is the main reason that our study combines both sectors into one report.

and Kenya had 28.4 percent of outstanding deposits with commercial banks as a proportion of GDP. Outstanding loans from commercial banks as a proportion of GDP were 12.7, 12.8 and 24.4 percent in Zambia, Rwanda and Kenya respectively; far higher than in the DRC.⁷⁸

Figure 5: Distribution and density of commercial banks (2012), DRC and selected countries



Source: Élan & ALTAI Consulting (2014), drawing on IMF data.

The DRC financial system was (and is) both small and fragile, linked to a high rate of dollarization. As comparative indicators show and as the IMF put it in their 2014 Financial System Stability Assessment report: “the Congolese financial system is shallow and underdeveloped”.⁷⁹ Banks dominated the sector with the 18 licensed banks at that time holding 95 percent of the total assets in the financial system, and the IMF also found that “credit has been increasing fast but remains scarce, expensive, short-term, and highly concentrated.”⁸⁰ The DRC is also highly dollarized, which limits financial system growth, particularly in terms of the risks of lending to MSMEs, as set out in Box 3, as well as constraining the effectiveness of the government’s monetary policy.

⁷⁸ IMF (2023) Financial Access Survey. In 2012 only Sierra Leone, Central African Republic (CAR) and Chad had lower deposits with commercial banks as share of GDP than DRC. Only Sierra Leone, Guinea and Afghanistan had lower loans from commercial banks as share of GDP.

⁷⁹ IMF (2014): “The total financial system assets account for USD 3.8 billion, of which total bank assets are estimated at USD 3.6 billion (some 13 percent of GDP). Banking sector deposits are estimated at USD 2.6 billion (some 9 percent of GDP), also about 95 percent of the total financial system”.

⁸⁰ Ibid. IMF (2014) DRC Financial System Stability Assessment

Box 3: Dollarization of the DRC economy

The DRC economy has been highly dollarized, more than almost any other country; an extreme circumstance for a country with the 16th highest population on the planet. Dollarization is caused by the relative willingness of residents to hold foreign currency (usually, the global reserve currency, the US Dollar, USD), relative to domestic currency, the Congolese Franc (CDF) in this case. Concerns about loss in value of financial assets lead residents to hold a large proportion (or all) their assets in foreign currency. This is caused by perceptions of inflation and/or exchange rate depreciation reducing the real value of financial assets. If residents (households/banks) expect these to occur they may choose to hedge this risk. Concerns about political instability, conflict, and associated potential collapse of the financial system and exchange rate regime with possibility of debt default, all increase likelihood of dollarization. It has also been found that economies with relatively high entrepreneurial activity are more prone to high rates of dollarization (Mwase and Kumah, 2015).

In the DRC, as of 2014, about 90 percent of banking sector deposits and lending were in USD. High dollarization contributed to a weak monetary policy transmission mechanism and increased systemic exposure to liquidity shocks, given that banks' minimum regulatory requirements are defined in domestic currency and the BCC has only a limited capacity to provide liquidity in USD. While strongly advocated by the International Monetary Fund (IMF, 2014, 2022a, 2022c), DRC authorities' plans to promote de-dollarization have needed to be careful to trigger a flight of USD deposits and that USD buffers are adequate (IMF, 2014). This is a major constraint on the growth of the financial system, in particular constraining risk-taking of financial institutions (see Section 4.2.1).

Very few financial institutions specialised in services to the poor or to MSMEs. An early study carried out by Élan aimed to give an overview of the financial sector including on its “fragmented” banking sector. Of the top 11 banks, making up 92 percent of assets, 95 percent of deposits and 89 percent of loans and advances (as shown in Figure 39 in Annex G), the study found only one relatively smaller player, ProCredit Bank, to be targeting those on low income and small or very small businesses. The microfinance sector was even smaller, with total loans valued at USD 95 million, equivalent to USD 2.6 for every adult. This compared to the microfinance sector providing USD 36 of loans per adult in Ghana, and USD 180 in Kenya. FINCA was identified as by far the largest microfinance institution (MFI), particularly in terms of number of borrowers (over 84,000 compared to under 25,000 for the second largest player, Mecreco).⁸¹

The financial sector was found to be highly concentrated in Kinshasa, with 40 percent of assets held, 30 percent of the country's bank branches, and 91 percent of accounts at MFIs or cooperatives in the capital city.⁸² There was also concentration in other economic zones such as the Lubumbashi area. However, access to formal financial services for large areas, particularly those known as ‘deep rural’, was low or non-existent.

The most detailed consumer research on financial inclusion from the FinScope Survey in 2014, found just 32 percent of a sample population had access to formal financial services, and 54 percent were classified as financially excluded.⁸³ Thus placed “the DRC at the bottom of the financial inclusion spectrum compared to regional peers” (as shown in Figure 6).⁸⁴ The survey sample was taken from economically active areas, covering around half of the population, and excluding much of the rural population,

⁸¹ The average loan size for FINCA was USD 272 and they had 14 branches (which was the second largest network after Mecreco, which had 42 branches). Élan & ALTAI Consulting (2014).

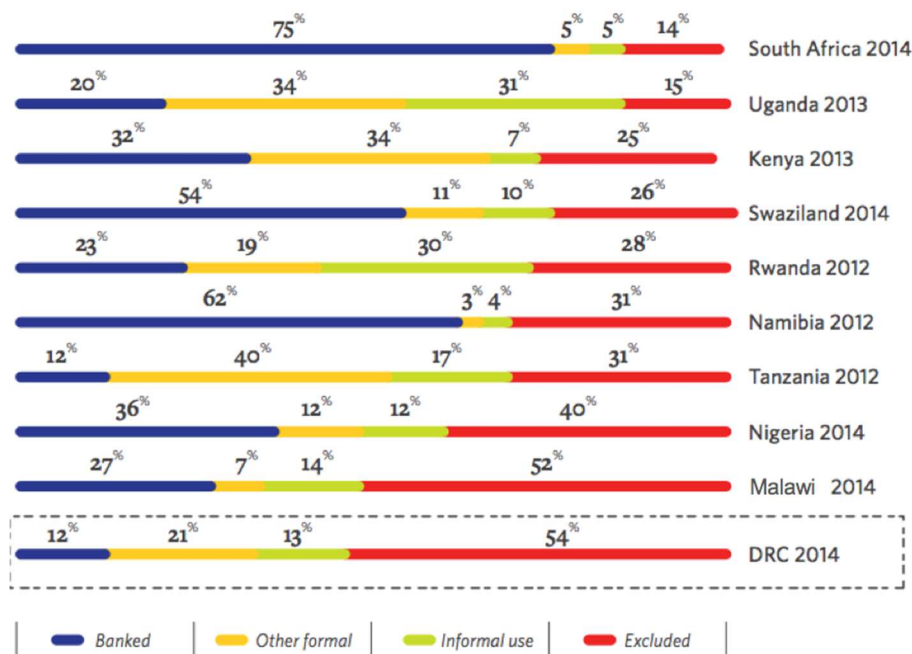
⁸² Élan & ALTAI Consulting (2014) “Consumer financial needs & behaviour assessment in DRC”.

⁸³ Unfortunately, the 2014 FinScope survey remains the most recent comprehensive financial inclusion survey undertaken in the DRC.

⁸⁴ CENFRI et al. (2016b) Financial Inclusion Roadmap 2016 – 2021

implying even the low levels of financial inclusion are likely to have been over-estimated. It was estimated that of 40 million adults in the DRC at the time, 14.8 million used any type of financial service, 7 million used at least one formal financial service, while only 1.1 million adults used more than one type of financial service.⁸⁵

Figure 6: Financial inclusion in the DRC and in regional comparison (2012-2014)



Source: CENFRI et al. (2016b), from FinScope surveys.

Farmers, MSMEs and the informally employed were found to have lower access rates, when segmenting for different sub-groups within the FinScope 2014 survey,⁸⁶ compared to the formally employed. The most excluded group was dependents (as shown in Figure 49 in Annex G). Other FinScope findings included:

- **Access to insurance and credit were very low**, with 99 percent and 91 percent respectively completely excluded.
- **Payments or remittances was the most likely formal service that people accessed**, an estimated 25 percent had formal access (mainly from money transfer operators – MTOs; see below).
- **Farmers had lower mobile phone ownership than other groups**, 43 percent compared to 63 percent for the informally employed; with less access to MM.
- **When including informal access, savings was the most common service**. Though only 10 percent had formal savings account access, 17 percent accessed savings from informal channels, and 29 percent from family and friends.
- **Formal employment, higher income and urban status were highly correlated with greater financial inclusion** across all service types.⁸⁷

Consumer barriers to access financial services in the FinScope 2014 survey were found to include proximity, with the low geographical density of services meaning most

⁸⁵ Ibid. CENFRI et al. (2016b) Financial Inclusion Roadmap 2016 – 2021

⁸⁶ The DRC survey was “based on population in “economically active” areas”; this varies for other country FinScope surveys, meaning the figures are not all directly comparable. CENFRI et al. (2016b).

⁸⁷ CENFRI et al. (2016c) Making Access Possible, Presentation of results

would need to travel over 60 minutes to the nearest bank or ATM.⁸⁸ A further challenge was on financial literacy, with a majority finding financial services to be too complex (69 percent), while issues with trust were also found, particularly for insurance claims. Only 37 percent of FinScope respondents indicated that they trust banks, and 20 percent trusted Savings and Credit Cooperative Organisations (SACCOs) or MFIs.⁸⁹

Access to mobile money at the start of the Élan project

The mobile money sector was fledgling but fast growing at the time Élan began its work. Mobile money was introduced in the DRC in February 2012 with the Airtel Money product soon to be followed by Tigo Cash in March 2012 and Vodacom's M-Pesa in July 2012. Orange launched their own product in 2014, and in 2016, Orange acquired Tigo, meaning three providers would predominate in the market.⁹⁰

According to GSMA data, there were 16.2 million mobile phone customers as of December 2012; there were 2.8 million registered mobile money users, and 372,000 'active customers' of mobile money, defined as those using services within the previous 90 days.⁹¹ By the 2014 FinScope, mobile money usage was estimated at 920,000 (2.3 percent of adults). Of these users, around half (450,000) also had financial access via a bank account. This meant that for 470,000 people at that time, "mobile money is playing a role in extending formal account services".⁹² According to the DRC Central Bank (BCC), by the end of 2014 there were 10.1 million mobile money accounts, with 1.9 million active, and USD 34 million of transactions were going through them.⁹³

The largest provider of formal payments at the time of FinScope 2014 survey were money transfer operators (MTOs), a regulated sector of agents with a network across the country, outside of the bank branch network. They operated across an estimated 389 branches and served 24 percent of adults at the time, with 67 percent of remittance receivers indicating they received remittances via MTOs.⁹⁴ MTOs were viewed as an effective cash distribution channel and were trusted for money transfers, with 70 percent of remittance receivers identifying MTOs as the provider they would most trust to receive their money.⁹⁵ However, MTOs provided limited options to enable savings or other financial services.⁹⁶

Mobile money would have to compete with MTOs, with the advantage that the time taken using local transfer offices could be reduced. Focus groups had found concerns

⁸⁸ An estimated 73 percent of people did not know where the closest ATM is and 65 percent did not know where the closest bank branch. CENFRI et al. (2016c) Making Access Possible, Presentation of results

⁸⁹ Ibid. CENFRI et al. (2016c) Making Access Possible, Presentation of results

⁹⁰ Vodacom with M-Pesa, Airtel with Airtel Money, and Orange with Orange Money. Another provider, Africell, offered services (as Afrimoney) but on a much smaller scale in terms of market share.

⁹¹ GSMA – Enabling Mobile Money Policies in the RDC – March 2014, reported in CENFRI et al. (2016c).

⁹² CENFRI et al. (2016d) Making Access Possible, Diagnostic Report

⁹³ BCC (2014) "Rapport sur la Supervision des Intermédiaires Financiers 2013/2014".

⁹⁴ CENFRI et al. (2016d) Making Access Possible, Diagnostic Report

⁹⁵ According to the 2014 FinScope survey, the largest portion of remittances was sent through money transfer operators (MTOs). With 23 percent receiving remittances directly in cash from family and friends. In contrast, just 4 percent of receivers received remittances via a bank and 2 percent via a mobile phone transfer. Ibid. CENFRI et al. (2016d) Making Access Possible, Diagnostic Report

⁹⁶ Soficom was the largest MTO, and had expanded in the early 2000s when companies started using their services to handle payroll, receive payments from distributors or trade partners, pay taxes to local administration or manage suppliers' payments outside Kinshasa. In response to this demand, the company established points of service in each key city of DRC. They subsequently expanded, and Soficom illustrates the potential for MTOs to expand their financial services offerings in a growing DRC economy. Ibid. CENFRI et al. (2016d) Making Access Possible, Diagnostic Report

on the security of receiving money via MTOs, including the fear of being robbed after leaving the transfer office.⁹⁷ Mobile money providers were competitive with MTOs on transfer fees for collective remittance costs (transfer and withdrawal), with both more competitive than banks for lower value transfers (see Table 12). However, mobile money would also have the potential to reduce travel and associated total transactional costs.

Table 12: Money transfer fee comparison across providers, MTOs and mobile money (2013-2015)

Service type	Cost to transfer USD 100	Cost to withdraw USD 100	Cost as a percentage of transfer
Banks	USD 15-USD 30		15-30%
MTOs	USD 1-USD 5		1-5%
M-Pesa	USD 0.4	USD 1.25	1.65%
Tigo Cash	USD 0.5	USD 1	1.5%
Orange Money	USD 0.55	USD 1.7	2.35%
Airtel Money	0	USD 1.21	1.21%

Source: CENFRI et al. (2016d) for MM providers; and GSMA (2013) for MTO and bank costs.

2.3.2 Élan 1.0 theory of change for A2F

Theory of change for mobile money / branchless banking

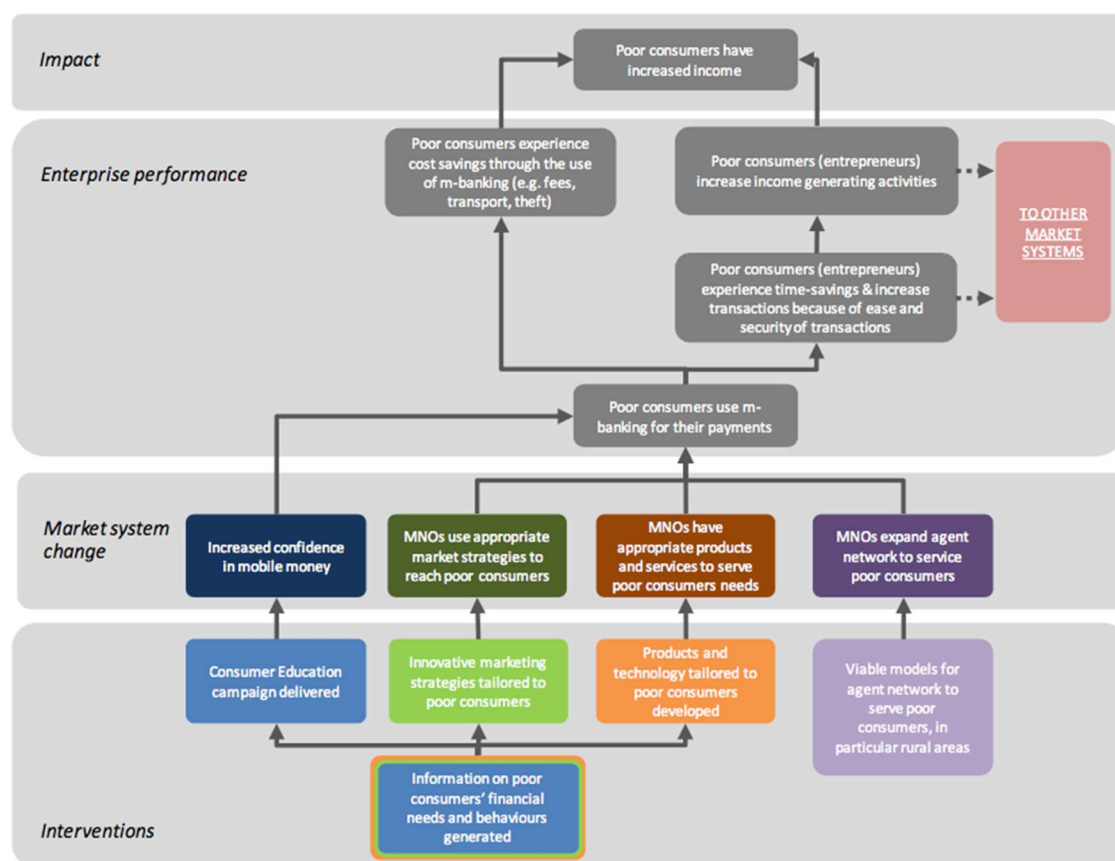
The theory of change (ToC) for the A2F mobile banking sector was based on addressing the constraint of a lack of user awareness and knowledge of mobile money. Élan hypothesised that greater familiarity with mobile money services gained from improved mobile network operator (MNO) marketing and consumer education would promote user trust. This would drive greater usage, and more mobile money transactions would generate time and cost savings, and increase income-generating activities; altogether increasing the income of the poor.⁹⁸ This analysis would provide the basis for the mobile money A2F ToC set out in Figure 7. This had been strengthened by the perceived opportunity for early intervention, as the project team had discussions with Vodacom during 2013, and there was “positive engagement” around a ‘bottom of pyramid’ (BOP) consumer strategy: “Vodacom’s regional sales manager of M-Pesa has expressed interest and willingness in collaborating with [Élan] to develop a BOP consumer oriented strategy. There is also potential for [Élan] to look at synergies with the retail sector to identify retail agents who can also serve as mobile money agents.”⁹⁹

⁹⁷ GSMA (2013) “Mobile Money in the Democratic Republic of Congo: Market insights”.

⁹⁸ ASI (2013b) Market Systems Analysis Report

⁹⁹ Ibid. ASI (2013b) Market Systems Analysis Report

Figure 7: Mobile money sector theory of change (ToC)



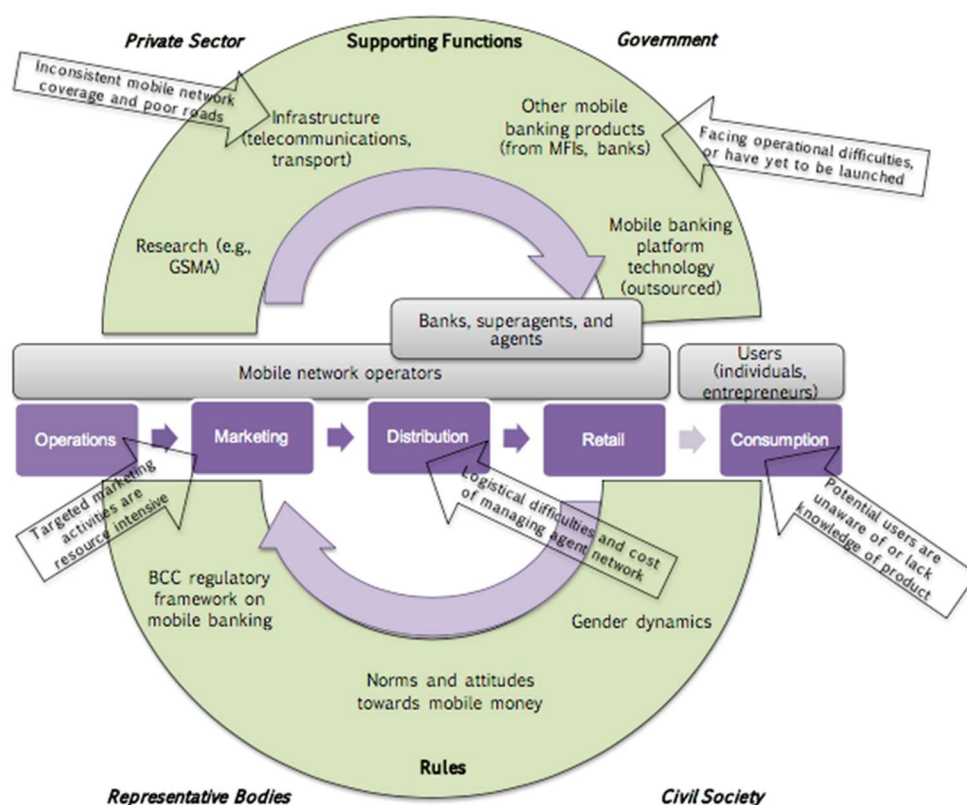
Source: ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

Expanding agent networks was the other area of what would become the A2F branchless banking (BB) sector. By the time of Élan’s January 2015 business plan, agents would become a bigger focus and this would include the collaborations with the MFI, FINCA. According to this plan, “Élan will also provide technical assistance to support the development of new and innovative strategies for expanding agent networks and ensuring that these appropriately [serve] poor consumers”.¹⁰⁰ This led to a pilot with Orange and Umoja, and a small pilot with Tigo. Later, in 2016, the agent concept would be expanded to the larger partnerships with FINCA, which had much higher budgets than any other A2F interventions.

Élan’s early sector diagnosis highlighted a number of other sector constraints that were not incorporated into interventions on the ToC. As shown in the initial systems map for mobile banking market in Figure 8, using the Making markets work for the poor (M4P) ‘doughnut’ diagram, other constraints included “logistical difficulties and cost of management agent network”, and “inconsistent mobile network and coverage and poor roads”, and neither of these would become central to the work of the A2F sector. While the diagram also includes mention of the BCC regulatory framework, this did not initially lead to direct work on any regulatory aspects of the financial system. However, much later in the project, in 2018, Élan would facilitate important discussions on bilateral interoperability for the MNO mobile money providers (see Section 4.2.1).

¹⁰⁰ Élan (2015a) 2015 Annual Report Year 2 Report Year 3 Business Plan

Figure 8: Élan’s initial systems map for the mobile-banking market



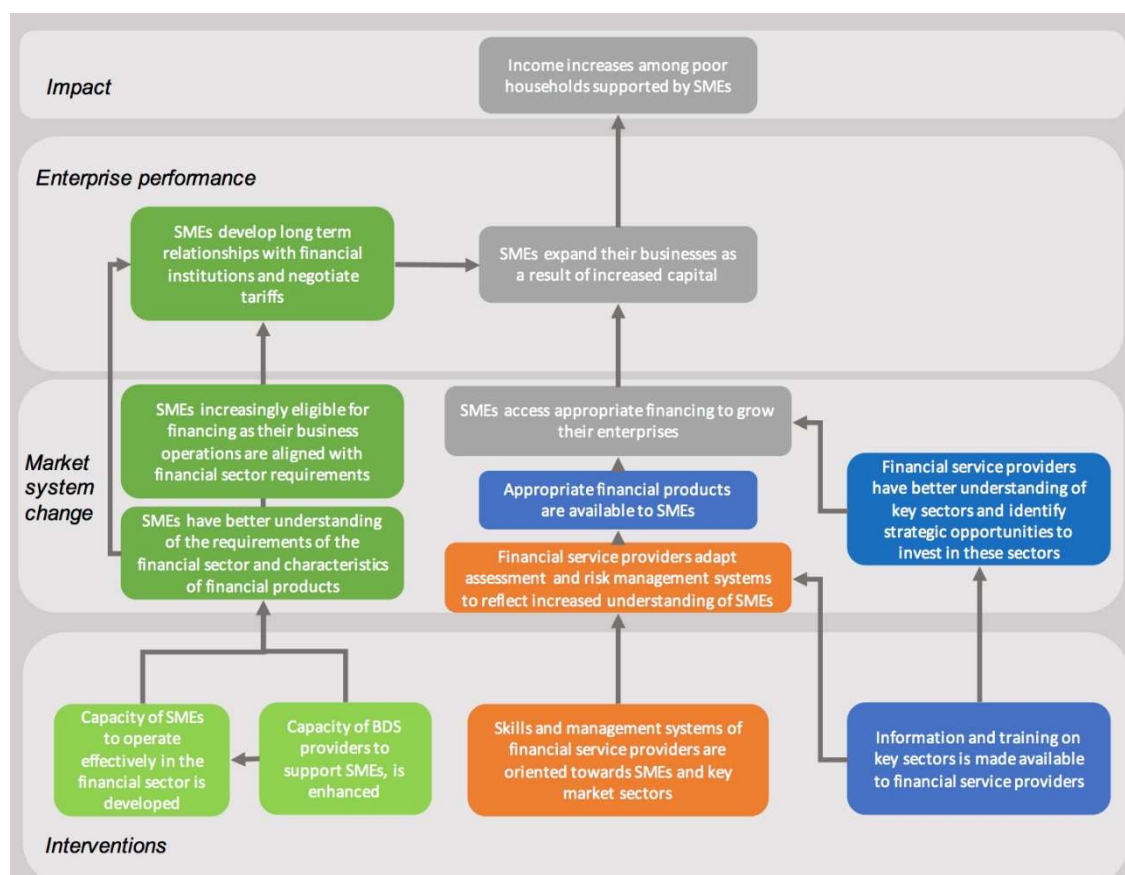
Source: ASI (2013b) Market Systems Analysis report

Theory of change for SME finance

Some of the Élan project’s early work in the Transport and AgNP sectors, particularly interventions involving ProCredit Bank, evolved into the SME finance sector workstream.¹⁰¹ The SME finance work would look at the capacity and willingness of SMEs themselves, as well as capacity of business development services (BDS) providers, as shown in the sector ToC in Figure 9. This would aim to ensure SMEs would have better understanding of the requirements of the financial sector and ultimately allow SMEs to access more finance, and invest and grow as a result, ultimately leading to increased income for the poor. On the supply-side, linkages with financial service providers would be made, with “pilot projects with bankable partners”, increasing appetite for lending to SMEs, and new products and services being provided to target that market.

¹⁰¹ ProCredit Bank was purchased by the Kenyan bank Equity Bank in 2015, but was only rebranded as Equity Bank Congo (EBC) in 2018. Subsequently, in December 2020, Equity Bank Congo (EBC) purchased Banque Commerciale du Congo (BCDC) to form a new bank Equity BCDC.

Figure 9: A2F SMEs theory of change (ToC)



Source: Élan (2015a) 2015 Annual Report Year 2 Report Year 3 Business Plan

The SME finance work included support to innovative new products such as Collateral Management Agreements (CMAs). Élan would promote “Appropriate financial products” to SMEs which later became the MSC 4.1 of “innovative new products”. To support the introduction of new products, information and training would be offered to financial service providers and to the concerned SMEs. The products in question would seek to overcome the absence of available collateral or insufficient collateral value, a significant issue facing growth-oriented SMEs. This included the creation of a credit line for coffee exporters backed by coffee stock,¹⁰² and by the middle of 2015, it included support to maize processors with a CMA intervention with Bank of Africa (BOA). BOA opened a line of credit for a total amount of USD 10,000 to Maizeking and SMC, guaranteed by 48 metric tonnes of clean and dried maize stored in COMEXAS’ warehouse in Goma.¹⁰³

Other support to SME finance was facilitated through guarantee funds. Partnership agreements (PAs) between Élan and ProCredit Bank began by looking at loans to whaleboat operators on the River Congo,¹⁰⁴ the first in July 2015, to put in place a loan product. This was followed by a broader agreement for a guarantee fund mechanism from February 2016 to August 2017. Élan would broker relationships between ProCredit and SMEs to

¹⁰² Élan (2014b) Q2 2014 report

¹⁰³ BOA provided a credit line to a cocoa exporter, BTC, with an innovative product (loan against consignment letter from a well-known transporter). BTC faced problems in finding international buyers for its export container after its client pulled out, forcing it to request a rescheduling of its credit line from BOA. (Élan 2015a, 2015e, 2015g, 2016d).

¹⁰⁴ Whaleboat, or baleinière in French, is a long narrow rowing boat, formerly used in whaling.

“demonstrate the strategic opportunities involved in investing in pro-poor market sectors”.¹⁰⁵ This subsidised lending and allowed Élan to facilitate A2F for some of its intervention partners, including seed producers, outgrower schemes, agro-dealers and to continue the work with the river transport sector.¹⁰⁶

Insurance and leasing

Élan also had work and ambitions in both insurance and leasing although not developed into fully fledged interventions despite a lot of development (see Section 4.2.1). Various leasing products were explored but did not reach the market.

Élan 1.0 interventions

By the end of the first phase, Élan 1.0, the most frequent intervention type had been in **agent banking**, including two interventions with FINCA, one with Orange, one with Tigo, and two smaller interventions with Mulimayi Mwema and Oxus. This was followed by the credit guarantees, which focussed on the river transport sector but also included significant cross-over with the AgNP sector, dominated by the partnership with ProCredit Bank. The mobile money campaign was supplemented by an information campaign with HNI / Viamo. As shown in Table 13, there was then a shift for Élan 1.2, particularly to respond to Covid.

Table 13: Élan 1.0 and 1.2, A2F interventions by type

Intervention type	Functions	Élan 1.0	Élan 1.2
Agent banking	Increasing agent networks, focus on rural areas, including for MM providers	6	-
Credit guarantees and matching SME and banks	Increase lending to SMEs, lower collateral requirement, support SMEs to meet requirements.	3	-
Information / Marketing campaign	Increasing confidence in use of financial services (particularly mobile money)	2	-
Collateral management agreements (CMAs)	Access to working capital, leveraging stock in warehouse	2	-
Promotion of improved digital payment systems	Interoperability / innovative payment systems	1	1
Habitat for Humanity	Promote housing finance	1	-
Investment advisory	Investment promotion services	-	1
Mobile money loan product		-	1
Cash transfers in humanitarian contexts		-	1
Covid interventions		-	6

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2020d).

¹⁰⁵ Élan (2015a) 2015 Annual Report Year 2 Report Year 3 Business Plan

¹⁰⁶ In AgNP - Mimosa, Bon Berger, and Mulagricom, all benefited from the partnership with ProCredit.

2.3.3 Élan 1.2 theory of change for A2F

There was a shift in the A2F work in the Élan 1.2 period from 2019 and the scope of work was reduced. As shown in Figure 38 in Annex G, this was even as the previously separate A2F BB and A2F SME sectors were combined into one A2F sector. The focus became more around 'digital finance', in terms of development of products and services, including a mobile loan product as the main example; development of a 'digital ecosystem', particularly through a Digital Savings and Credit Working Group (DSCWG); and a new focus on investment promotion for new foreign direct investment (FDI), apparently via a single intervention with an investment advisory provider. The project had wanted to continue some agent banking initiatives, with two partnerships with the MFIs, FINCA and SMICO, however both were delayed due to Covid safeguards and were ultimately cancelled.

Élan 1.2 interventions

Élan 1.2's interventions built on the first phase but undertook fewer activities than planned due to the onset of the Covid pandemic in early 2020. Some planned interventions did not proceed while Covid-specific interventions were implemented, making up the largest category as shown in Table 13 above. Most did not contribute to Élan's market systems change objectives and are not covered by this study.

Covid interventions were less tangential to systemic challenges faced by the financial sector, with a couple of exceptions in digital payments. The Covid interventions that were put under the A2F heading, included 'digital payment awareness', crisis response, a cash guarantee scheme, a 'Covid household survey' and business survey. The most innovative of the schemes that connected to the project's longer term goals was with the digital payment providers Maxicash and Infoset, which would provide an interim solution to interoperable payments (also known as 'aggregators'), to be available through Unstructured Supplementary Service Data (USSD). This also led to discussions with the Central Bank at a time when the National Switch was close to launching, and bilateral interoperability for MNOs was also beginning.¹⁰⁷

Changes to the geographical focus of Élan in the second phase of Élan 1.2 hindered support to the more successful of the SME finance interventions. This was the reduced geographical focus away from the south, while remaining on the eastern and central regions, particularly the provinces of North Kivu, South Kivu and Kasai Central. This had the consequence of removing the agricultural focus from the southern interventions, and meant that work on the CMA in Haut Katanga with GoCongo, Equity BCDC and COMEXAS would not be continued, as well as the support provided to AgNP interventions that had included financing elements.

¹⁰⁷ Élan (2021n) 2020 Annual Report, 2021 Business Plan - "Because they are able to aggregate payments across operators, our partners Infoset and Maxicash are perceived as potential threats to individual financial service providers' (FSPs) market share. They have been faster than banks and mobile money operators on interoperability."

3 Agriculture non-perennials (AgNP)

3.1 Relevance of Élan's AgNP work

Evaluation questions:

- A2: To what extent was Élan and the interventions it supported appropriately designed to meet the needs of stakeholders and target beneficiaries?
- A3: To what extent did the intervention logic and assumptions of the Élan project (and its interventions) hold during implementation?

Sub-questions:

- How important (market actors including target beneficiary) were the MSCs that Élan chose to address to stakeholders?
- How appropriate were the interventions to target the constraints?

Key findings:

- Élan's focus on AGNP was relevant because of its prominence in the economy and the number of poor people involved. Estimates from Élan showed a vast majority of AgNP beneficiaries to live below USD 1.90 PPP per day (98 percent).
- The approach evolved, with an increasing focus on seed. Seed sector analysis was strong with detailed diagnosis underpinning interventions, and highly relevant to yields, productivity and incomes of the smallholder farmer (SHF) beneficiary group.
- The approach to support international seed companies to grow sales of hybrid maize seed, and local firms to establish open-pollinated variety (OPV) seed production was logical. SHFs have very limited purchasing power so seeds were more affordable than fertilisers.
- OGS and contract farming models were less systemic, relying on a higher degree of subsidy to finance inputs and provide services to SHF beneficiaries.
- A more limited focus on sector policy meant many sector constraints were not addressed.

Élan was designed to address systemic constraints in market systems in order to benefit poor people in the DRC. This section describes the target beneficiary group who comprise both poor consumers and producers. In the agriculture sector, beneficiaries were predominantly smallholder farmers (SHFs) who both produce and consume so there is an important cross-over as discussed below.

3.1.1 Needs of target beneficiaries

In 2012, surveys estimated 77 percent of the DRC's population were living under the poverty line as defined by USD 1.90 per person per day at purchasing power parity (PPP).¹⁰⁸ The proportion was revised to 70 percent using the World Bank's new threshold of

¹⁰⁸ Unfortunately, more recent poverty estimates from nationally representative surveys are not available.

USD 2.15 PPP; but this is still double the average for the SSA region.¹⁰⁹ Élan 1.0 did not initially use a specified poverty line to describe its target beneficiaries, although its poverty profiling study in 2018 analysed beneficiaries according to USD 1.90 and USD 3.20 per person per day lines, and found beneficiary proportions roughly at par with the 2012 survey (see Table 14).¹¹⁰ For the second phase, Élan 1.2, USD 3.20 PPP was used as the point of reference, with 81-88 percent of beneficiaries found under that line.

Table 14: Poverty Lines (2012) and estimated proportion of Élan beneficiaries (2018)

Poverty Line	Criteria	% of population below (2012)	Number below line (millions, 2021)	% of Élan beneficiaries below (2018)
National poverty line		63.9%	59	
International poverty line	USD 1.90 (2011 PPP) per person per day	76.6%	71	66-74%
Lower Middle Income	USD 3.20 (2011 PPP) per person per day	91%	84	81-88%
Upper Middle Income	USD 5.50 (2011 PPP) per person per day	97.7%	90	

Source: World Bank (2019) – Poverty and equity brief. Élan (2018g) “Poverty Profiling Report”.

The estimates imply upwards of 59 million people to be living in poverty in the DRC as of 2021 with a greater proportion in rural areas. On the DRC’s national poverty line, 60 percent of the urban population is estimated to be poor, compared to 65 percent of the rural population.¹¹¹ The rural-urban divide is starker when using a multidimensional poverty index (MPI), where the rural poor suffer worse outcomes on years of schooling, child mortality, water and sanitation access, nutrition, and access to electricity among others.¹¹² In Élan’s 2018 beneficiary analysis, the sectors with more rural focus were found to have much poorer beneficiaries. Based on Élan’s poverty profiling ‘estimated income’ methodology, AgNP beneficiaries had just USD 0.59 per person per day at PPP.¹¹³ This placed them at just one-fifth of the estimated national average income in 2018, and implied the vast majority of the smallholder farmer (SHF) beneficiary group were highly likely to be living in extreme poverty.¹¹⁴ Across Élan’s 2018 survey, most AgNP interventions surveyed had upwards of 95 percent of beneficiaries under the USD 1.90 poverty line, and 99 or 100 percent under the USD 3.20 poverty line, significantly higher than the A2F sector (see Section 4.1.1).¹¹⁵

Élan’s analysis of the needs of the SHF beneficiary group

Élan’s analysis began from the diagnosis of low yields and the high potential of improved seeds. Non-perennial crops such as maize and rice are central for food security, poverty reduction and nutrition. As early analysis from Élan on the seed sector put it: “with over 70 percent of the Congolese workforce engaged in agriculture, which is the sector with

¹⁰⁹ World Bank (2022c) WDI data SI.POV.DDAY. See World Bank (2022a) for updated methodology.

¹¹⁰ Élan (2018g) “Poverty Profiling Report”

¹¹¹ DRC Enquêtes 1-2-3 data collection 2012, as reported in Mahrt and Nanivazo (2016).

¹¹² See Figure 46 in Annex G. OPHI (2013) “DR Congo OPHI Country Briefing 2013”

¹¹³ See Figure 47 in Annex G. Élan (2018g) “Poverty Profiling Report”

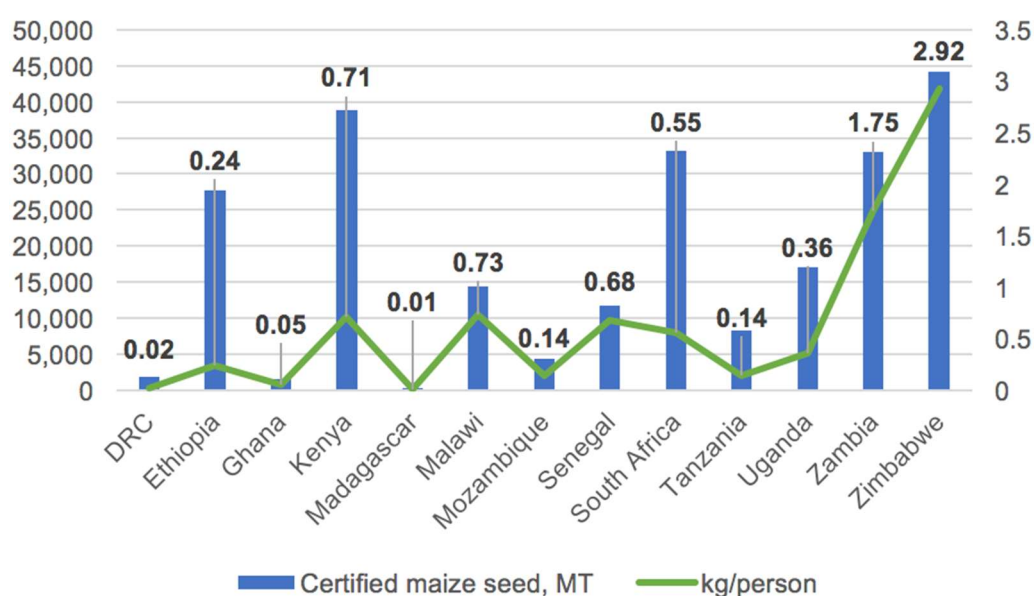
¹¹⁴ National average from World Bank (2022c) WDI data indicator NY.GDP.PCAP.PP.CD

¹¹⁵ See Table 40 in Annex G. Élan (2018g) “Poverty Profiling Report”

the highest potential for alleviating poverty, seeds could be transformational for the poor.”¹¹⁶ This presented a case that productivity and well-functioning value chains start with the seed that farmers plant. Agriculture accounted for 20 percent of GDP in 2019 but was estimated to employ over 60 percent of Congolese adults,¹¹⁷ and was considered by Élan to be the sector with the highest potential for alleviating poverty. A vibrant seed system with improved seeds accessible to farmers could increase production and income through higher yields. Élan stated, for example, that better performing rice varieties yield around 6-8 tonnes per hectare (t ha⁻¹) versus a pre-existing average of around 2.2 t ha⁻¹ in the Ruzizi Plain in South Kivu.¹¹⁸

Seed production in the DRC is lower than almost any country. TASAI (2018a) estimated total production of certified seed at just 0.02 kg per person in the DRC in 2016, lower than comparable countries apart from Madagascar. This is based on total seed production of just under 2,000 t; just 5 percent of that produced in Kenya or Zambia.

Figure 10: TASAI benchmarked data on certified seed production in total (metric tonnes MT), and kilograms (kg) of certified maize seed per person (2016 estimates)



Source: TASAI (2018a). World Bank (2022c) WDI data for population estimates.

Early in the project, analysis on the seed sector by Élan found SHFs in the DRC cultivate small plots of land (less than 1 hectare) with limited technical and financial capacity. SHFs are often not aware of the benefits of using good quality seeds, and do not use chemical fertilisers or pesticides. The market at Élan’s outset did not sustain a reliable supply of good seeds, particularly for those in more remote areas. Extension services from the Ministry of Agriculture were mostly non-existent and not helping farmers with information or training on the use of ‘elite’ hybrid seeds, or even on available varieties suitable for use in

¹¹⁶ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”. It should be noted that more advanced agricultural economies are dominated by hybrid seeds, while many improved open-pollinated varieties (OPVs) are also prevalent in SSA. A summary of the difference between these types of seed is provided in Box 2 in Section 2.2.1 above.

¹¹⁷ International Trade Administration (2022). Agriculture as share of GDP in 2019 figure from BCC (2021).

¹¹⁸ Although such large yields would not be possible without the use of other inputs such as fertiliser. ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

the various provinces of DRC.¹¹⁹ This had linkages to food security, with around 26.4 million people are projected to be acutely food insecure as of early 2023 with 3.4 million children estimated to be acutely malnourished.¹²⁰ While this is linked to variable rainfall, insecurity and prevalence of internally displaced people (IDPs), food insecurity is underpinned by low productivity in agriculture.¹²¹

Given most SHFs in the DRC are poor, quality inputs can be difficult to afford, a major challenge to improving access. As set out in Box 4, while seeds are an important driver of productivity, fertiliser can be equally important. According to former Élan staff in interview for this study, the relatively higher cost of fertiliser was one reason seeds were placed at the heart of the AgNP sector work. In 2018, it is estimated that a full package of inputs and costs for land preparation for maize, including the seed cost, would be around USD 1,000 per ha., and costs have since increased.¹²² SHFs in the DRC do not have purchasing power for such an investment, and access to finance for most SHFs is non-existent (see Section 4.1.2). As a result, outgrower schemes (OGS) and contract farming that leveraged others' resources were seen as the only routes to get SHFs to use sufficient quantities of inputs and achieve the higher yield potentials available, in large part explaining the evolution of Élan's AgNP portfolio.

Box 4: The role of fertiliser in productivity

Seeds are a key driver of productivity, but are only one input to improve farmer crop yields. Agricultural practices such as tillage, correct spacing, weeding, pest management etc., are all important. Depending on the soil conditions, fertilisers are perhaps the most critical factor for transforming and achieving maximum potential yields. It has been estimated that up to 150 kg of Nitrogen (N) fertiliser application per hectare (kg/ha) has a linear impact in increasing yields, and the highest yields come from N-rates of 200-250 kg/ha. This is also true of phosphorous and potassium (the P and K respectively in NPK fertiliser), and micro-nutrients such as magnesium and zinc also have impact on yields, with small quantities needed depending on soil composition (Yara, 2022).

Devkota et al. (2016) in Nepal find that with sound agronomy and high rates of fertiliser (180:60:60 kg NPK per ha), maize grain yields in field experiments exceeded 8 t ha⁻¹ with hybrid seeds and 6 t ha⁻¹ with OPV seeds. Setimela et al. (2017, 2018) find that yields in 'low-yielding environments' in SSA characterised by farmers using low fertiliser application, yields are 3-6 t ha⁻¹ less than under optimal agronomic management conditions. Average application of fertiliser in SSA is found to be just 5 to 10 kg per ha, far below the rates that are used in more advanced agricultural economies (ibid.).

¹¹⁹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014. In contrast, a small number of large commercial farming companies used elite hybrid seeds, together with fertilisers and plant protection products, as well as having access to mechanisation.

¹²⁰ WFP (2023) DRC summary

¹²¹ See Food security in the DRC in Annex F.

¹²² This estimate also roughly tallied with that from analysis on DRC agriculture for USAID by O'Donnell et al. (2015): "To farm 1.0 ha optimally, a farmer requires 25 kg of hybrid-maize seed (USD 125), 300 kg of urea (USD 300) and 300 kg of NPK (USD 300), totalling USD 725. The rest of the inputs consist mostly of family labor". This is higher today given increases in fertiliser prices, even doubling, as a result of the War in Ukraine; see Baffes and Koh (2022).

3.1.2 Needs of businesses

Seed sub-sector

Élan identified that there was a small group of farmers engaged in seed multiplication of OPV seeds in Haut Katanga, who would form the core partners for the local seed company interventions. These were referred to as '20 small producers or so farming 10 hectares or so', who would predominate in Élan's interventions in the local seed sector.¹²³ Local organisation existed with the 20 farmers under the Katanga Seed Producers Association (APSK). There was also a provincial seed council (COPROSEM), formed in 2005, which provided a potential vehicle for advocacy on seed policy. The producers had low production capacity but demonstrated there could be a market for OPV seeds. For Élan, these farmers had potential to become formalised and establish as local seed companies, particularly if they developed their marketing and sales capacity.¹²⁴ Needs of the companies identified included for access to bank credit, as very limited access to finance was available.

A market for elite hybrid seeds was also being developed by foreign seed companies entering the DRC market (Zamseed, Seed Co, and Pannar were identified). The largest of these companies, Seed Co, had entered the DRC market in 2012. The imported hybrid seeds from these companies were sold to more advanced, large-scale farmers with the technical and financial means to benefit, while some medium-sized farmers were also purchasing these seeds. Élan identified needs of these companies including improvement to the policy environment, and growing demand from farmers for hybrid seeds. The latter would require farmers to use more fertilisers and plant protection products in order to see the full yield benefits of hybrids. Seed companies would need to build their distribution network with adequate logistics (storage and transportation), and to transact with professional agro-input dealers. Élan also identified the need for seed imports to be facilitated, with administrative and customs rules clearly defined and applied; as well as for foreign seed companies to be allowed to buy or lease land with long term contracts, in order to set up seed production facilities, breeding facilities and marketing activities.¹²⁵

Maize sector

Low use and low quality of inputs, and a lack of access to agronomic knowledge and best practices were key reasons set out for low performance of the maize sector, exacerbated by effects of climate change.¹²⁶ Further, an estimated 80 percent of Katanga's local production is undertaken by female farmers, and as farming is generally not mechanised, this is a large physical burden to the other many challenges poor women face.¹²⁷ Three particular types of farmers were identified in the maize sector:¹²⁸

- Small growers, with less than 1 ha, with yields of less than 1 t ha⁻¹, using farm-saved seeds;
- medium-size growers, with 2 to 10 ha, and yields of 1.2 to 2 t ha⁻¹, using certified OPV seeds produced in Katanga; and

¹²³ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹²⁴ Ibid. Élan (2015b) Seed Legislation and Regulatory Environment

¹²⁵ Ibid. Élan (2015b) Seed Legislation and Regulatory Environment

¹²⁶ Although the DRC is less affected than many countries in SSA, particularly as it has lower temperature increase projections (see Figure 44 and Figure 45 in Annex G).

¹²⁷ Letellier et al. (2020) "Addressing food insecurity in the DRC"

¹²⁸ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

- large mechanised farms, often larger than 150 ha, sometimes over 1,000 ha, with yields of 6 to 7 t ha⁻¹, who would only use hybrid seeds.

Geographically, maize seed supply was mainly restricted to the Lubumbashi region, because of poor logistics elsewhere, though there was more limited analysis of supply in the eastern provinces. Élan chose to work with some of the larger farmers in the southern region who could then support close-by SHFs. This included Mbeko Shamba, a milling company and seed producing company with a 5,000 ha farm; and for the CMA intervention (that would move to the A2F sector in terms of its classification), Go Congo, who now have a maize farm of over 3,000 ha, and process flour and also produce biscuits (see Section 4.2.2).

Rice sector

Rice was central to the initial analysis of Élan but did not end up becoming such a big part of the AgNP portfolio as maize (as set out in Section 3.2.2). The focus was on the eastern region, in particular the 80,000 ha in the DRC portion of the Ruzizi Plain, a valley shared between Rwanda, Burundi and the DRC. Rice consumption in South Kivu province was estimated at over 30,000 tonnes per year, of which one-third was made up by local production.¹²⁹ The production of rice in the eastern DRC was estimated to involve up to 45,000 smallholder rice producers cultivating 12,000 tonnes of paddy on between 4,000 to 6,000 ha. According to the statistics available, the average household plot size was estimated to range from 0.35 to 0.40ha, and the average yields in the region were found to be at 2.2 t ha⁻¹, implying farmers producing 800 to 900 kg of rice per year. Élan's analysis estimated that households would consume 10-30 percent and sell the rest. Producers could be categorised into three groups: (1) smallholder farmers affiliated with farmer associations, (2) individual smallholder farmers, and (3) one single vertically integrated company with production and processing facilities. Rice cultivation was dominated by SHF producers who were affiliated with associations.¹³⁰ Ultimately this preponderance of SHF producers may have limited the number of partners for Élan to work with in the rice sector.

Mining companies

Élan also targeted mining companies as under the Mining for Agriculture initiative, these companies were obliged by provincial government (in Haut Katanga and Lualaba provinces) to support 500 ha of land each agricultural season.¹³¹ It has been estimated that mining companies represent about 16 percent of the seed purchases in the province (from 2018 data),¹³² with imported maize hybrids making up most of the seed they purchase. In general, mining companies would provide input credit to farmers along with a technological package, the cost of which would be recovered in kind when the crop is harvested. In Lualaba province, in 2018, USAID found that five of six mining companies participated in the Mining for Agriculture initiative.¹³³ There was though apparently little enforcement on the quality of implementation of the initiative, and this would mainly rely on the CSR objectives of each mining company. This was viewed as a potential entry point by Élan and led to the SEK-Seed Co intervention.

¹²⁹ Rice remains a large import for the DRC worth USD 94 million in 2021, according to UN Comtrade data.

¹³⁰ ASI (2013b) Market Systems Analysis Report

¹³¹ The Mining for Agriculture initiative derived from a decree by the Governor of the former Katanga province.

¹³² USAID (2019) SEEDCLIR report.

¹³³ These were TFM, MMG, BAZANO, BOSSMINING, RUASHI MINING – USAID (2019) SEEDCLIR report.

3.1.3 Appropriateness of interventions to meet needs

Élan’s interventions aimed to address the elements of the AgNP system that constrained farmers and SHFs in particular from achieving higher yields. Given the relative affordability of improved seeds compared to other inputs, and their centrality as a starting point to the modernisation, formalisation and commercialisation of agriculture, seeds were a very well argued and logical starting point for intervention. The focus on seeds also demonstrated a good degree of adaptation by the Élan team, as set out, in terms of the evolution of analysis on rice, maize and inputs, and ultimately combining them. This was because seeds were a binding constraint on SHF yields. Seeds ended up forming over half the interventions that élan implemented in the AgNP sector.

Élan also subsidised the development of OGS and contract farming, particularly in 2014-2016, but found challenges to sustainability with these models. While the schemes generated demand for seed, they were less likely to lead to systemic change in the market because of the subsidy involved and requirement for SHFs to live in proximity to the large farms or mines. As of Élan’s 2017 Sector Strategy for AgNP the limitations of the OGS pilots had become clear: “the NAIC per SHF of OGS is high but there are clear limitations in terms of OGS outreach. OGS is not a sustainable long-term strategy to provide inputs to smallholder farmers but it is currently very relevant to the DRC context.”¹³⁴ The lack of sustainability was borne out in practice (see Section 3.4).

Capacity of and needs of smallholders

At Élan’s outset, a large majority of SHFs (over 90 percent) were assumed to not be using improved seed, and this group would likely only provide a market for OPV seeds at best, due to the lower price of OPV compared to hybrid seeds.¹³⁵ OPV seeds also have an advantage in that once the crop is harvested, additional seed can be saved on the farm, and for two to three seasons there is minimal yield loss (see Box 2 in Section 2.2.1).¹³⁶ Given low purchasing power of SHFs, OPV seeds could therefore be more appropriate. However, it is not clear Élan ever produced a cost-benefit analysis (CBA) for SHFs on seed choice to greater evidence this assumption. This would have required accurate data on the yield difference between OPVs and hybrid seeds, particularly for the low input use (in fertiliser etc.) that would likely be the norm for most SHFs in DRC.

The approach of promoting local OPV seeds was validated by international experience to some extent.¹³⁷ Maize is the most important cereal and widely cultivated staple in SSA with a central role in regional food security. The relative prevalence of hybrid seeds vis-à-vis OPV and local seeds varies considerably across countries (as shown in Table 39 in Annex G). Available data suggests the DRC has a low proportion of both OPV

¹³⁴ Élan (2017a) 2017 Sector Strategy for AgNP

¹³⁵ Locally produced certified seeds of OPV maize varieties were sold at 2 USD/kg. Imported hybrid maize seeds in comparison were more expensive and sold at a price of 5 USD/kg.

¹³⁶ With a “seed rate” of 25 kg per ha for maize, this implies a different cost per hectare of maize cultivation for the two types of seed – USD 50 for OPV seeds, which could last for two or three seasons, as opposed to USD 125 for hybrid seeds, which could only be used for one season.

¹³⁷ Smale et al. (2011) note that while hybrids typically have higher achievable yield under recommended crop management, OPVs may be more suitable in the socio-economic context of SSA’s smallholder agriculture. Pixley and Banziger (2001) note that in low-yield farming systems (below 1.5 t ha⁻¹) and where hybrid seed and fertiliser prices are high relative to the price of grain, the highest return to investment may come from the use of improved OPV seed, due to it being cheaper and more recyclable than hybrids. They found that the improved OPVs are particularly advantageous if the money saved by using OPV instead of hybrid seed is used to purchase additional inputs such as fertiliser, herbicide or hiring additional labour.

and hybrid seed being used (Section 3.3.3). According to Westengen et al. (2014), while in developed countries 98-100 percent of the maize area is planted with hybrid seeds, most maize area in SSA is planted with local varieties, farm saved seeds of improved OPVs. Abate et al. (2017) looked at 13 African countries in the 2013/2014 main crop season and found nearly 500 maize cultivars grown in total, with approximately 32 percent hybrid, 23 percent improved OPVs, and 46 percent local varieties.¹³⁸

Farmers in the DRC, as across SSA countries, are among the poorest in the world, with limited cash income or asset wealth, a key reason why government subsidy programmes have been put in place.¹³⁹ Provincial government schemes have aimed to increase the access and use of improved farm inputs, including the 'Village Agricole' scheme operational in the Haut Katanga and Lualaba provinces. From the demand side, lack of purchasing power is the main reason behind low (and sometimes declining) quantity demanded of improved maize seed.

Élan identified a lack of trust and knowledge of improved seeds among SHFs as a need to be addressed. Smallholders could often be reluctant to pay for improved seeds, choosing to use lower-yielding home-saved seeds instead. Even where farmers had access to improved seeds, they may lack the skills and knowledge to store them in adequate conditions and fully take advantage during cultivation.¹⁴⁰ This led Élan to specify that consumer education, information and feedback mechanisms between potential users and market actors in the seed system would be needed to generate demand for quality seeds from SHFs.¹⁴¹

Access to products

Élan estimated that only 10 percent of a potential market for 5,000 tonnes of improved maize seeds in the southern region of Katanga was being met at the outset of the project. See sales were estimated to be closer to 500 tonnes, with 250 tonnes of imported (mainly hybrid) seeds and 250 tonnes of locally produced OPV seeds. The remaining potential market was estimated to be covered by farm-saved seeds.¹⁴² Both the supply of and demand for seed were found to be challenges to address.

While both imported hybrids and local OPV seed were available on the market, fundamental characteristics made these markets very different. When hybrid varieties are acquired by a private company from sources such as public or international research institutions, the receiving company demands an exclusive use right for a period determined by the biological longevity of the variety. For OPVs, such rights are usually not given as the seed can be reproduced with the same level of genetic purity and used by the farmers. Market shares of OPVs cannot be easily maintained.¹⁴³ This potentially limited the size of the local firms producing OPVs and their ability to expand.

¹³⁸ The overall weighted average age of the cultivars was 15 years, with hybrids and OPVs being 13 and 18 years, respectively. This suggests a low turnover rate of improved varieties.

¹³⁹ Kassie et al. (2013) "Political and economic features of the maize seed industry in southern Africa".

¹⁴⁰ International evidence shows other potential routes to improve customer demand. For example, in Shiferaw et al. (2008), collective action in Tanzania, defined as membership of a crop production group, was found to significantly reduce the likelihood of facing capital constraints in purchasing improved seeds. Such membership also increased the probability of improved seed adoption particularly for larger farms.

¹⁴¹ ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan" Seed Sector Annex 2.6

¹⁴² Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹⁴³ Kassie et al. (2013) "Political and economic features of the maize seed industry in southern Africa".

Foundation seed

Élan correctly identified the importance of foundation seeds at the project's outset,¹⁴⁴ and that liberalisation of the seed sector as in other countries could increase private engagement in the production and marketing of foundation seed (via the Katanga OPV intervention). Over the long term, a more liberalised seed sector was expected to relieve pressure on public institutions while ensuring that adequate volumes of foundation seeds are available for the multiplication and commercial seed sale to farmers. The research institution INERA had the mandate to produce foundation seeds, with very few other producers, for example the University of Lubumbashi (UNILU) was one, and also identified as a potential partner. INERA, in practice, had an effective monopoly on the production of breeder and foundation seeds despite its inability to fulfil this mandate. Changing this was a priority for Élan and a successful early step in systemic change.¹⁴⁵ Even where INERA has developed new varieties, or produced foundation seeds, these are often only available to producers within a 50km radius of INERA's nine research stations or centres, and INERA released seed varieties of maize, beans, groundnut and soybean were found to be simply not available by a USAID project in eastern Congo.¹⁴⁶

In the DRC, as elsewhere, the lack of foundation seed is due to the national agricultural research system (NARS) being understaffed and underfunded.¹⁴⁷

Insufficient germplasm and basic seed is developed and thus small and local companies, which depend heavily on the NARS, are forced to have a shallow business profile. To address this would require strategic investment in the public NARS to support indigenous seed companies. Other potential major sources of foundation seed, such as international research institutions and seed companies, also did not produce and/or avail sufficient foundation seed to local companies. Seed companies in the DRC therefore faced a challenging environment in which to achieve any significant quantities of supply.

Regulation of the seed sector

Élan's early seed sector analysis also outlined that in the absence of an approved seed law, there would be no framework to delineate the roles between the public and private sector in the seed system. The seed law had been stalled at the National Assembly for over a year by early 2014. The lack of legislative clarity, alongside weak understanding of the business case and models for private investment in the seed sector, hampered private sector involvement and innovation in the seed value chain.¹⁴⁸ The national seed certification body, SENASEM, was known to be under-funded and lacking in capacity to adequately certify seed. In order to relieve this, Élan would seek to 'provide evidence for the benefits of policy, legal and regulatory reform and implementation' to the government in

¹⁴⁴ As per ASI (2013a): "The formal seed system encompasses three stages: breeder, foundation and certified seeds. In order to produce commercial quantities of seed, seed needs to undergo a series of multiplication steps which advances it along these stages. Insufficient breeder and foundation seeds at earlier stages will constrain volumes in later stages.... Breeder seed is produced from nucleus seed under the supervision of a qualified plant breeder (e.g. typically from a research institute or university). The genetic purity of breeder seed crop should be at 100 percent. Foundation seed is the progeny of breeder seed and has a slightly lower genetic purity. Finally, certified seed is the progeny of foundation seed."

¹⁴⁵ See Box 5 in Section 3.2.2. ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan" Seed Sector Annex 2.6

¹⁴⁶ USAID (2010) "Seed System Security Assessment: Northern Katanga"

¹⁴⁷ Angola and Malawi are cited as examples in Kassie et al. (2013) "Political and economic features"

¹⁴⁸ ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan" Seed Sector Annex 2.6

order to advocate for an improved regulatory environment. This would mainly be via provincial seed councils (COPROSEM) in Katanga and Kivu.

The weakness of SENASEM also played a role in low consumer confidence and trust in improved seeds, affecting the demand and willingness of farmers to pay. Corruption in seed certification meant some seeds were stamped as certified even when they did not meet the appropriate standards.¹⁴⁹ To address low consumer confidence and trust, Élan's approach was to support the private sector with marketing, distribution, demonstration plots and other strategies to stimulate demand (for both regional and local seed interventions), rather than to support SENASEM directly. This meant that the constraints in certification would not be directly addressed by Élan interventions (see Enforcement of the quality of seed in DRC in Annex F).

Subsidised seeds distributed by NGOs and humanitarian agencies

Another key potential distortion in the seed sector is purchases by government and NGOs.¹⁵⁰ Issues include distributing seeds to farmers at the wrong time of year, where farmers who received seed late would not be able to plant at the optimal time, and this could seriously hamper productivity. Farmers could also be reluctant to purchase seed that was in the commercial market because they hoped to receive free or subsidised seed. Consequently, commercial retail sales of seed may then be reduced or seed be purchased at a non-optimal time if farmers realised that they would not be beneficiaries of subsidised handouts.

Élan's early analysis included on the questionable quality of 'certified' seeds distributed by humanitarian agencies, which had given seeds a bad image among farmers. Many of the seeds distributed by development programmes were of poor quality, with some seeds even having lost their ability to germinate.¹⁵¹ At the same time, free handouts of seeds, as part of humanitarian aid, had built expectations among farmers that government and donors should continue subsidising the provision of seeds. This was a particular issue in the more humanitarian context of eastern DRC, and would be an area for intervention.

Other important practices

The supply chain for seeds including storage of seed along the supply chain are also important but were less an emphasis of Élan's AgNP sector work. If seeds are stored under poor conditions where there is heat, moisture or insects, they become grain, or vegetative mass and are no longer seeds.¹⁵² Strengthening extension services would also therefore be important to ensure good storage of seed along the supply chain.¹⁵³ Storage of

¹⁴⁹ CBT RD Congo (2010) "Etude Préparatoire du PIC 2010-2013"

¹⁵⁰ As set out in Kassie et al. (2013) "Political and economic features of the maize seed industry".

¹⁵¹ CBT RD Congo (2010) "Etude Préparatoire du PIC 2010-2013"

¹⁵² ASI (2013a) "DFID DRC Market Development Component 2014 Business Plan" Seed Sector Annex 2.6. Furthermore, Barriga and Fiala (2018) look at the issue of low quality seed in Uganda, in particular whether sellers are purposefully faking or adulterating inputs, or whether there are poor storage processes along the supply chain. They did so by testing seeds along the maize supply chain for purity, germination and genetic similarity. They found no evidence that the quality of seeds deteriorates along the supply chain, but did find a drop in the quality after seed left breeders. They note their results were consistent with mishandling and poor storage of seeds, possibly related to temperature control once the seeds left the breeders. They cautioned on too much focus on certification to reduce the possibility of adulteration, but rather to focus on improving handling of inputs.

¹⁵³ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

seeds was integrated into some Élan interventions with local seed companies but was not a major focus, particularly along the value chain to farmers.

3.1.4 Extent to which assumptions held in AgNP sector

Assumptions underpinning Élan’s AgNP sector work partially held true, particularly around the poverty of beneficiaries in the sector, although many constraints were challenging to address by working with the private sector. There were several key assumptions for how Élan could affect market systems and generate what they called Market System Changes (MSCs). These were largely founded in the theory of market systems programmes and M4P, although as noted would also require the MSCs to be clearly defined and well-founded. Table 15 outlines brief findings on five assumptions, following the MTE approach. This includes a summary of the assessment in 2018 from the MTE as well as an assessment made for this study.¹⁵⁴ This largely draws on findings in subsequent sections on Results (Section 3.2), Impact (Section 3.3) and Sustainability (Section 3.4).

Table 15: Assessment of assumptions underpinning Élan’s AgNP sector

Assumptions	Assessment of MTE (2018)	Assessment now (2022)
1. The binding constraints to increasing economic activity that perpetuate poverty can be addressed by MSCs.	MSCs could be addressed apart from MSC2.5 on regulatory environment. Private partnerships can generate system change but engagement with government needed. AgNP vulnerable sector given it is a low priority of government.	Risks of government intervention were realised. Insufficient attention to weak regulation meant market failures are still rife in the seeds sector. Mining OGS and contract farming initiatives lacked sustainability.
2. Pro-poor MSCs can be brought about through partnership interventions with (private) partners.		There were some good cases of pro-poor MSCs, changing the seed system, particularly for NASECO in the Kivu area with a strong SHF focus.
3. There is a cascade of effects from MSCs that ultimately benefit poor and women producers and/or consumers.	More positive for OPV seeds than input-intensive hybrids, the latter may be inappropriate for low-income SHFs in Katanga, possibly better in Kivu. Mixed results in OGS schemes. Little focus on poor as consumers and food security in general.	Benefits of many AgNP interventions in terms of income change (NAIC) likely overestimated in many cases. Some of the impact on poor may have been indirect via government subsidy schemes.
4. The benefits of Élan pilot interventions will be sustainable.	Seed supplier interventions more sustainable, particularly in OPVs	Regional seed company interventions more sustainable than local companies. Mining companies relying on CSR much less sustainable.
5. Adoption of new practices by pilot partners will be sufficient to achieve expansion and response	Input-intensive investments not necessarily feasible for SHFs, possibly better in Kivu than in Katanga. Local OPV seed	Barriers to local production of quality hybrid seeds remain high. Local OPV production hampered by supply and

¹⁵⁴ DSU (2018a, 2018b) MTE and MTE Technical Annexes.

Assumptions	Assessment of MTE (2018)	Assessment now (2022)
including beyond the period of project implementation.	suppliers seem viable. Lack of spontaneous replication or expansion.	demand-side factors, most acutely by weak regulation. Pilots insufficient to reach sustainable system change.

3.2 Effectiveness of Élan’s AgNP work

Evaluation question:

- B2: To what extent has Élan led to improvements in market systems?
- B3: What factors have influenced the results achieved?

Sub-questions:

- How, and how much, have targeted constraints and MSCs changed during the period of Élan’s support?
- How, and how much, have Élan’s interventions changed policies and practices, leading to benefits for market actors including poor and marginalised target groups?

Key findings:

- Limited improvements were made to DRC’s seed sector. Smallholder farmers’ access to quality hybrid seeds has improved and more so than access to quality locally-produced OPV seeds, but imported hybrid seeds remain less affordable to poor and low-income farmers.
- An agreement with INERA on liberalisation of the production of foundation seed was an important systemic step by Élan.
- Local seed companies supported saw increases in production and sales with support from Élan, but remain small. They face issues such as unpaid invoices from provincial government and no longer access the finance that Élan facilitated.
- Some OGS and contract farming schemes were effective during the period of project support, but were short-lived. There were issues including buyers not upholding agreements with farmers and lacked profitability.
- Advocacy in the sector supported by Élan has not been sufficient to overcome sector constraints such as certification (SENASA), varietal development (INERA), and funding (MINAGRI), costly and cumbersome import processes, and the proliferation of fake and illegal seeds.

This section presents findings on effectiveness in policy (Section 3.2.1) and practices (Section 3.2.2). Overall, this review agrees with the relative positioning of Élan’s final self-assessments that there were some successes in sustaining some progress in the production of seed, however the agricultural sector including the market for seeds saw little progress in terms of policy, and the sector remains very nascent.

Élan’s self-assessment

Élan’s self-assessment on its effectiveness in the AgNP sector in June 2021 scored its own contribution to system change as highest in ‘Practices of market actors and business models’, and in ‘norms and informal rules’, both classified as making

‘Progress’.¹⁵⁵ They particularly highlighted progress on the seed sector and reach to SHFs. This was followed by a (lower) ‘Strengthening’ score for ‘investment of market actors’, for ‘relationships and connections between market actors’, and for ‘participation of poor and marginalised people in the market’.¹⁵⁶ Here they highlighted work in sector advocacy with COPROSEM. Less progress was acknowledged in the area of ‘policies and formal rules’, classified as still ‘Beginning’.¹⁵⁷ Élan’s claims to effectiveness were backed up by its own studies and internally commissioned evaluations as part of its project M&E structures, as well as final assessments of its work in the sector through the ‘Sector Study’,¹⁵⁸ ‘Legacy Sessions’,¹⁵⁹ and other learning briefs produced.¹⁶⁰

In the final review, nearly all of the claims for systemic change made by Élan were in the seeds sector, and it was clear that a strong case for system change was no longer made for the intervention area of OGS and contract farming.

3.2.1 Policy in Agriculture

In the context of the AgNP sector, relevant policy-related systems change principally involves the government of the DRC’s regulatory approach to the seeds sector given its centrality to the intervention portfolio. This section looks at the overall policy environment and the work that Élan undertook to try to improve it.

Overall, progress was slow in policy-related areas of the AgNP sector. Élan took time before making policy a focus, and only really started via partnership with TASAI in 2016/2017, while the majority of the portfolio remained working with private sector market actors. There was one MSC identified within Élan 1.0 on regulation and one in Élan 1.2, the latter with a greater focus on advocacy.¹⁶¹ There is little evidence the work in taxation had any successes, even as advocacy became a bigger focus over time. However, while the constraints in the sector’s regulatory environment were identified at the outset in 2013/2014, many remained by the end of the Élan project period and today. Élan identified the risks in this area in 2013, including in delays for the government to pass the Seed Law. The risk was real, as the law had still not passed by late 2022.¹⁶²

The year 2020 also brought new challenges in the political economy context. While the political situation remained relatively stable for most of the year under a power sharing agreement, a power struggle erupted in late 2020 when the President Felix Tshisekedi declared he would seek a new coalition including those opposed to the former President Joseph Kabila. An implication of this was delay to policy decisions.¹⁶³ This may have slowed down progress on the Seed Law, a key policy area for AgNP sector. However, the Covid downturn may have also stimulated some rare innovation in the policy environment,

¹⁵⁵ Both scoring 7.5 out of 10 in their framework. Élan (2021c)

¹⁵⁶ Both scoring 5 out of 10 in their framework. Élan (2021c)

¹⁵⁷ Both scoring 2.5 out of 10 in their framework. Élan (2021c)

¹⁵⁸ Élan (2021c) “Élan Sector Studies – Agriculture Non-Perennial”

¹⁵⁹ Élan (2021h) Legacy sessions, AgNP

¹⁶⁰ Élan (2021a) “A Quarter-Billion Dollar Industry? The DRC Seed Sector”. Élan (2021b) “A,B, Seeds: The Fundamentals Of Seed Sector Development in the DRC”. Élan (2021d) “Seed Legislation in the DRC: Why it is Needed Now”. Élan (2021e) “Seed investment in the DRC”. Élan (2021f) Sector Overview: Grain and Horticulture.

¹⁶¹ For Élan 1.0 this was MSC2.5: Agribusinesses develop industry-wide awareness and advocate for a more favourable tax regime. The MSC for Élan 1.2 was MSC AGNP3 – Industry stakeholders organise and advocate for an improved business environment.

¹⁶² ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan” Seed Sector Annex 2.6

¹⁶³ FCDO/DSU (2020a) Élan Annual Review 2020

particularly on digital payments, with progress on the National Switch, and potentially also to approval of bilateral interoperability in mobile money, a key policy-related achievement in the A2F sector (see Section 4.2.1).

Overall seed policy environment

The absence of a seed law in the DRC was identified as a constraint at the start of Élan, as well as the lack of a law for the protection of new varieties of plants. This meant there were no clear definitions of seeds (as opposed to commercial grain) or minimum quality standards for seeds. Article 16 of the Agriculture law, enacted in 2011, stipulated that agricultural land could be leased to Congo nationals or DRC companies only, which could be a limitation for foreign seed companies to set up and produce in the country. There were also no clear stipulations on varietal protection, which was another barrier to investment as intellectual property (IP) could not be sufficiently protected.¹⁶⁴

Impetus from DRC's membership of regional bodies has not been a sufficient push to pass the draft seed law.¹⁶⁵ The DRC is a member of both the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), and the government had taken steps to draft a domestic legal framework aligned with the harmonised seed trade regulations established by these organisations.¹⁶⁶ The law could harmonise rules and technical standards related to seeds, including in control and certification and trade, however this is yet to materialise.

Élan's analysis also found issues with the draft seed law, for example in insufficient recognition of the provincial level. A priority for Élan was that seed companies should be able to accomplish formalities at the level of the province, rather than at the national level. The process for approval of seeds would need to be sped up to increase the number of elite varieties available to farmers, and Élan believed that seed varieties already accepted in the official catalogue of a neighbouring country with similar agro-climatic conditions (Zambia, Uganda, South Africa) should be considered officially as accepted in the official catalogue of DRC.¹⁶⁷ Élan's analysis was that the draft law would be more restrictive as it would request that imported varieties would first need to be tested by public DRC institutions before they can be included into the official catalogue of varieties.¹⁶⁸

Élan's main work on seed policy mainly began in 2016/2017 and carried on into Élan 1.2. Élan wanted to bring in an impartial and authoritative actor to generate good data on the seed policy environment and to drive coordination and seed industry development. The African Seed Access Index (TASAI) monitors 20 indicators that are essential to seed industry development at a national level, and Élan helped to fund the first study on the DRC with data collected on the market in 2016.¹⁶⁹ The index publishes a scorecard on the vibrancy of the formal seed sector in many African countries and, as such, is a useful tool for

¹⁶⁴ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹⁶⁵ Ibid. Élan (2015b) Seed Legislation and Regulatory Environment Annex.

¹⁶⁶ USAID (2019) SEEDCLIR report

¹⁶⁷ Analysis for USAID also found issues, as in the draft: "SENASEM must sample and certify the quality of final packaged seed. However, the draft seed regulations also require sampling by SENASEM between harvest and conditioning. This type of sampling should only be done at the request of the seed conditioner, which should have access to their own seed testing facilities according to regulations. This requirement creates undue interference by SENASEM in an area that should be the sole responsibility of the seed company." USAID (2019) SEEDCLIR report

¹⁶⁸ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹⁶⁹ TASAI is a collaborative initiative between Market Matters, Inc. and Cornell University.

policy makers, development agencies, seed companies and farmers.¹⁷⁰ The TASAI Seed Index report clarified a number of areas where the DRC was lagging regional comparator countries, particularly in low scores for seed inspection and related efforts to stamp out fake seed (see below). On the seed inspection score only Senegal scored lower, with ESA countries all scoring higher than DRC. On the fake seed measure, DRC ranked the lowest of the 13 countries assessed by the TASAI. It also ranked lowest on the 'quality of the national seed traders' association'.

Advocacy work

Following the TASAI report, Élan partnered again with them to develop a seed sector strategy. The work built on TASAI's research and aimed to develop and validate a framework to guide sector stakeholder activities. It took six months to assemble stakeholders and build momentum for framework dialogue, and this led to a 13-point strategy document that was validated with private, public and humanitarian stakeholders at workshops in Kinshasa, Lubumbashi, Goma and Bukavu (see Table 21 in Section 3.4 for a summary of the strategy). Efforts would include formalisation of the provincial seed councils (COPROSEM) in Goma and Lubumbashi, improving coordination between COPROSEM and humanitarian actors in eastern DRC, developing rural agro-dealer networks, and strengthening of extension services for smallholder farmers.¹⁷¹

COPROSEM had already existed for some time, but were only "minimally active".¹⁷² It is not clear that this has necessarily changed, despite the brief period when Élan made it more active – the COPROSEM body in Haut Katanga has now not met for two years.¹⁷³ However, Élan made claims that it was more successful in North and South Kivu, and may have led to improvements in coordination of humanitarian actors in seed purchases (see below). Efforts to use COPROSEM to push for the draft Seed Law to be passed appear to have not had any traction (see below). USAID (2019) observed: "with only limited coordination among seed sector stakeholders at the national and provincial levels, stakeholders have been unable to mount a concerted lobbying effort that can generate the political will for reform."¹⁷⁴

Enforcement of the quality of seeds

Production of certified seed in the DRC is regulated and should be accredited by National Seed Service (Service National des Semences – SENASEM), but it is under-resourced. While SENASEM's mandate includes the inspection of production sites prior to planting and additional inspections throughout the growing cycle, it lacks the powers and resources to properly regulate the seed sector.¹⁷⁵ The resulting informality of the sector is one of the underlying causes of many of the challenges experienced such as the presence of fake seed, unfair competition, and the corruption that is apparently endemic in emergency seed supply.¹⁷⁶ SENASEM seed inspectors are not sufficiently resourced to perform their

¹⁷⁰ TASAI (2018a) "TASAI Appendix 1", Sep 2018 version

¹⁷¹ Élan (2021b) "A,B, Seeds: The Fundamentals Of Seed Sector Development in the DRC".

¹⁷² Élan (2021c) "Élan Sector Studies – Agriculture Non-Perennial"

¹⁷³ AgNP sector interviews conducted for this study in October and November 2022.

¹⁷⁴ USAID (2019) SEEDCLIR report

¹⁷⁵ In most cases, SENASEM staff have no means of transportation to access seed fields and many fields are not inspected or certified, with the result that most seed that is identified as certified is actually not quality seed.

Source: USAID (2019) SEEDCLIR report

¹⁷⁶ USAID (2019) SEEDCLIR report

functions.¹⁷⁷ Fake seed has therefore become a significant problem affecting the seed industry in the DRC, and was mentioned in several interviews undertaken for this study, and according to TASAI (2018a), in 2016, seed producers in DRC reported a total of 185 cases of fake seed, higher than other country in their index. For more analysis on this issue see Enforcement of the quality of seed in DRC in Annex F.

Seed variety release

Varietal release for new seed varieties in DRC has been very slow, limiting the speed of innovation in the sector. In terms of the release of varieties in the last three years (as of 2016), TASAI estimated that six varieties of maize had been released in DRC, far lower than other countries in the region such as Zambia (36) or Tanzania (44).¹⁷⁸ New releases were also less likely to be commercialised in volumes that would replace older varieties in the market, and may therefore not be sufficient to develop farmer confidence in improved seeds.¹⁷⁹

Élan supported an update of the national seed catalogue with the help of TASAI.¹⁸⁰ The last available version of the national catalogue was not up-to-date, produced in circa 2012.¹⁸¹ The update saw 30 new varieties added and 20 varieties removed.¹⁸² Stakeholders in Lubumbashi spoken to for this study were not aware of a catalogue update. However, NASECO added their flagship Bazooka maize seed to the catalogue, which may be important to facilitate their growth in the eastern DRC (see Section 3.2.2). For more on this issue see Seed variety release in the DRC in Annex F.

Donor role in seed sector and progress in humanitarian seed supply

The seed market is driven by frequent tenders for the purchase of emergency relief seed, and, in particular, much of the seed produced in eastern DRC stems from development-oriented donor projects and NGOs that support seed contract growers. The presence of donor funding and weak regulation of seed quality has, according to USAID (2019), resulted in a seed market flooded with seed speculators and poor-quality products masquerading as certified seed. In this environment, seed companies producing high-quality seed for sale to farmers have struggled to establish a long-term presence.¹⁸³

Élan aimed to address the questionable quality of ‘certified’ seeds distributed by humanitarian agents, which had given seeds a bad image among farmers.¹⁸⁴ This was initially an indirect strategy for Élan, by promoting and demonstrating a local private sector could produce quality seeds, the poor practices of NGOs could be shown to be ineffective. However, Élan took on a more active role following its work with TASAI. TASAI (2017) found that NGOs and other agents who purchase low-quality seed for the relief market were a key source of fake seed. Because prices in the relief market tend to be lower than in regular markets, traders have an incentive to buy grain either locally or from the neighbouring countries and sell it as seed. In addition, respondents mentioned that seed producers who

¹⁷⁷ TASAI (2017) “TASAI Country Report – Democratic Republic of the Congo”

¹⁷⁸ TASAI (2018a) “TASAI Appendix 1”, Sep 2018 version

¹⁷⁹ Élan (2021d) “Seed legislation in the DRC”, July 2021

¹⁸⁰ Article 29 of the 2011 Agriculture law stipulates that there is a national catalogue of seed varieties, which is a dynamic document that needs to be updated regularly.

¹⁸¹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹⁸² Élan (2021c) “Élan Sector Studies – Agriculture Non-Perennial”. Catalogue available: MINAGRI (2019).

¹⁸³ USAID (2019) SEEDCLIR report

¹⁸⁴ CBT RD Congo (2010) “Etude Préparatoire du PIC 2010-2013”

do not have sufficient capacity to produce quality-certified seed often resort to selling grain as seed.¹⁸⁵ According to data collected by TASA as reported by Élan, average prices offered by NGOs in the DRC for seed in 2016 ranged from USD 0.60 to USD 0.90 per kg of OPV maize seed, compared to market prices of USD 1.50 per kg (see Table 16).¹⁸⁶ While interventions may be well-intentioned, this seed distribution may have stifled investment. In 2016, actors of the Food Security Cluster distributed an estimated 920 tonnes of seed to smallholder farmer communities in eastern DRC.¹⁸⁷

Table 16: Prices of maize seeds, comparison by region and humanitarian vs. commercial rates in eastern DRC

Region	OPV maize (USD per kg)	Hybrid maize (USD per kg)
East DRC – Commercial rate	1.50	1.70
East DRC – Humanitarian rate	0.90	No data
South DRC	2.50	4.00
North DRC	0.85	N.a.

Source: Élan (2021) A.B Seeds report, May 2021

Élan found that humanitarian actors intervene in ways that do not adequately consider private sector dynamics and stifle the development of a private seed industry in the country.¹⁸⁸ According to Élan’s (2021i) PCR: “Élan collaborated with Mercy Corp’s FARM programme to strengthen the seed industry” to help tackle this issue, where improving seed sector coordination was one of the key stepping stones for a more efficient seed sector. Together with Mercy Corps, Élan was able to gain formal recognition of COPROSEM, which was “granted legal status”, in North Kivu by the provincial government.¹⁸⁹ Work in early 2019 aimed to facilitate COPROSEM bringing actors together to tackle the challenges created by humanitarian seed purchases, better mapping of producers, understanding market prices and strengthening quality control.¹⁹⁰ Unfortunately, this was one of the areas of progress that was difficult to verify due to the relatively minimal number of respondents spoken to from the Kivu region (see Section 1.2.2 on study limitations). However, one interview found that while Mercy Corps’ Food Security Project had tried to replicate the approach of Élan to work with seed multipliers, and purchased seed from them. However, they decided to abandon the idea as they found it built dependency for the seed multipliers. They instead work mainly through agro-dealers to access seed, and only work now with seed multipliers via capacity building.

Policy progress

Despite efforts in drafting the seed law and in advocacy around seed legislation, this situation had not changed by the end of the project period. At the outset, Élan noted that regulations relevant to the seed sector were being introduced by simple “arretes

¹⁸⁵ TASA (2017) “TASA Country Report – Democratic Republic of the Congo”

¹⁸⁶ Élan (2021b) “A,B, Seeds”

¹⁸⁷ Ibid. Élan (2021b) “A,B, Seeds”

¹⁸⁸ Ibid. Élan (2021b) “A,B, Seeds”

¹⁸⁹ Sperling et al. (2008) note that the key for improving seed aid is a better understanding of how local seed markets function, as these provide a core of seed security in normal and stress periods. They recommend for example vouchers for seed purchase, rather than outright seed distribution.

¹⁹⁰ Élan (2019a) “Enhanced Collaboration in the Agricultural Sector”

ministeriels” and decrees, which are not as strong as a law and are apparently not adequately enforceable.¹⁹¹ Very little progress has been made in this area.

The lack of progress on the seed law severely limited Élan’s progress in reducing the number and severity of constraints facing the sector. For example, the DRC is not a signatory of the International Union for the Protection of New Varieties of Plants (UPOV) Treaty,¹⁹² and without seed legislation this may make the country a risky place to do business in the seed sector. According to Élan there was growing urgency in government to address this and has also been pushed by the World Bank and the FAO.¹⁹³ The outcome of the TASAI intervention was a proposal of a revised Seed Law tabled in the National Assembly of the DRC in 2017. Between 2018 and the end of 2020, TASAI and Élan RDC put more focus on improving the proposition of the seed legislation with the Hon. MP Eve Bazaiba helping to lobby for the re-tabling of the reviewed legislation. Meetings were organised with the Ministry of Agriculture, and a decree-law was identified as the most viable next step.¹⁹⁴

3.2.2 Practices

The main goal of the AgNP sector interventions was to improve the inputs that farmers use, and the majority of interventions were put under MSC 2.1 – Inputs suppliers provide quality inputs and advisory services to SHFs. The production of seeds was the principal entry point. This was combined with OGS interventions (which generally were grouped under MSC 2.2 – Agribusinesses and mines provide access to pre-financed inputs and services to SHFs); and in some cases, the models were combined, also including access to finance (MSC 2.4) for seed companies. Interventions in Table 17 are listed with the level of AAER (Adopt-Adapt-Expand-Respond) Élan claimed in the 2018 PCR.

Table 17: Élan’s assessment of systemic change using AAER framework

Intervention partner	Adopt	Adapt	Expand	Respond
Bon Berger; MSC 2.1, 2.2, 2.4	✓ Local seeds	✓	✓	
Mimosa; MSC 2.1, 2.4	✓ Local seeds	✓	✓	
CAPAM; MSC 2.3	✓ Weights	✓		

¹⁹¹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

¹⁹² As with many other SSA countries, see: APBEBES (2021)

¹⁹³ Élan (2021e) "Seed investment in the DRC"

¹⁹⁴ Élan (2021d) “Seed legislation in the DRC”, July 2021- “Clearly, the conclusion for a decree as an option did not meet the complete adherence of the group advocating for a seed law. Considering the classification of laws in the DRC, the Supreme Law is the constitution. The next tier of legislation is that of laws passed by the National Assembly, followed by the Ordinance-Law issued by the President of the Republic. At national government level, issued legislations are Decree-Laws. Legally speaking they all carry the same weight regarding their functionality. However, the level of ease with which each one can be amended is considered as the key to a sustainable regulatory instrument. Decree-Laws can be replaced as cabinets change which concerns the groups advocating for a seed law. From Élan’s perspective, the perception of stability of the legal instrument should be very solid and beyond any suspicion or doubt. A seed law passed by the National Assembly would provide stronger guarantees for a stable and sustainable regulatory framework, however progress through a decree would still be a welcomed advancement.”

Intervention partner	Adopt	Adapt	Expand	Respond
The African Seed Access Index (TASAI); MSC 2.5	✓ Data / advocacy			
EAGC; MSC 2.3, 2.5	✓ Linkages			
FADIP; MSC 2.1	✓ Local seeds (rice)			
Maydive; MSC 2.1	✓ Local seeds	✓		
Mbeko Shamba; MSC 2.1, 2.2	✓ OGS	✓		
N'senga Lutanga; MSC 2.1	✓ Local seeds			
Safari International; MSC 2.1	✓ Local seeds	✓		
Agriforce; MSC 2.1, 2.2		✓	✓ Local seeds (vegetables)	
Regina Mundi; MSC 2.2		✓ OGS		
ANP; MSC 2.1			✓ Local seeds	
Ceprosem; MSC 2.1			✓ Local seeds (vegetables)	
ESOU; MSC 2.1			✓ Local seeds	
Ets Munga; MSC 2.1			✓ Local seeds (rice)	
Gargvu; MSC 2.1			✓ Local seeds	
Kamano Seed; MSC 2.1			✓ Regional seeds	
Mulagricom; MSC 2.2			✓ OGS, rice	
Mulimaji Mwema; MSC 2.1			✓ Agro-dealer extension	
NASECO; MSC 2.1			✓ Regional seeds	
Prosavide; MSC 2.1			✓ Local seeds	
RTMK; MSC 2.2			✓ OGS, rice	
Seed Co; MSC 2.1			✓ Regional seeds	

Intervention partner	Adopt	Adapt	Expand	Respond
SEK ; MSC 2.2			✓ Contract farm	
INERA ; MSC 2.1				✓ Foundation seed / regulation
UNILU ; MSC 2.1				✓ Foundation seed
Ministry of Agriculture ; MSC 2.1				✓ Purchased seed

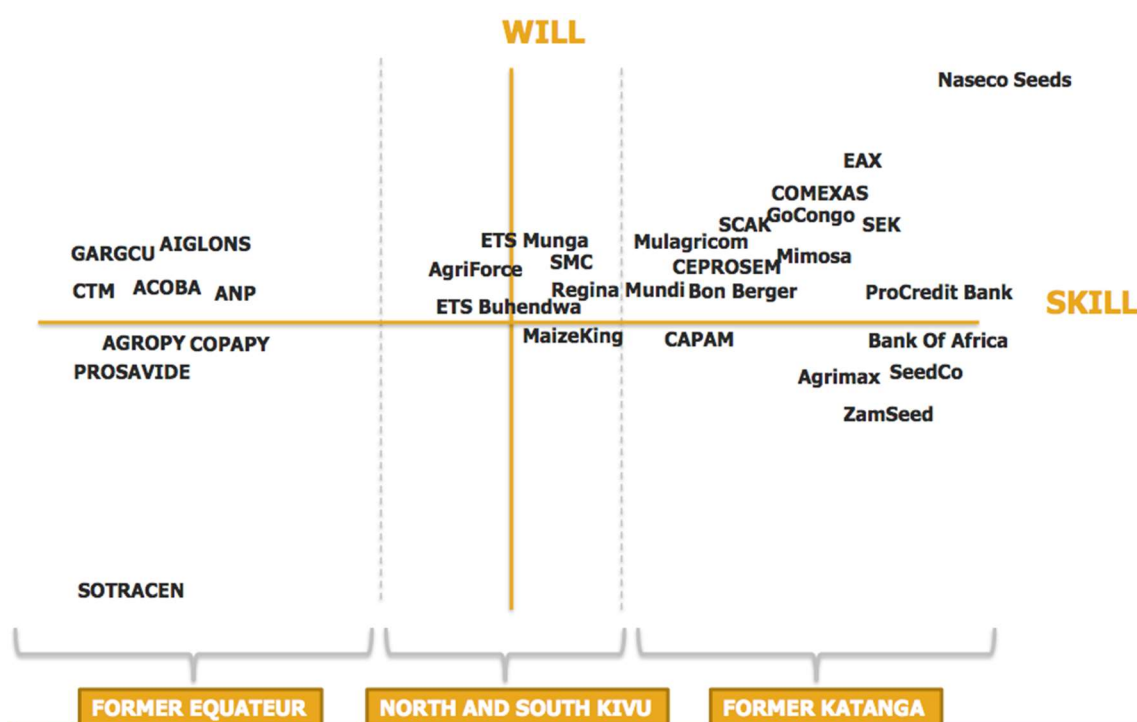
Source: Élan (2018c) PCR. Annex 7 Assessing Systemic Change

Élan’s seed sector work can be classified as combining:

- a) support to the nascent (or dormant) local production of OPV seeds, through local companies while also engaging public support institutions such as INERA; and
- b) support to international/regional companies to enter, sustain and expand in the DRC market, in sales and distribution of hybrid seeds.

The needs of the two seed partner types were different, as reflected in the interventions designed. As shown in Table 17, local companies (Bon Berger, Mimosa, Safari International, Maydive) tended to be classified by Élan as ‘Adopt’, with continued support leading to ‘Adapt’ and ‘Expand’. The companies had to master production of certified OPV seed, and were then supported with marketing to sell increased volume of this seed. Support to international companies tended to be classified by Élan as ‘Expand’ (Kamano Seed, Seed Co, NASECO), as these companies already had mastery of production, with challenges around marketing and distribution, particularly tackling the constraints of the DRC market that perhaps were less pronounced in their home markets or other regional countries (for example, in Zimbabwe, South Africa, or Uganda).

Figure 11: Will-Skill framework to assess AgNP partners



Source: Élan (2016d) 2016 Annual Report

Capacity of Élan’s private sector partners in AgNP was found to be highly variable. Élan used a tool known as the ‘Will-Skill’ framework, to assess the capacity of partners. This framework provides a crude but useful assessment on the keenness of a firm to innovate/adapt/promote a particular product or service (‘Will’), and the firm’s underlying capacity to achieve the changes required (‘Skill’). Figure 11 shows this assessment for AgNP partners as of early 2017.¹⁹⁵ According to Élan, the private sector landscape in the AgNP sector was characterised by “the weakness of partners, many of whom suffered from either limited willingness to adopt the proposed changes or a lack of skills to drive the changes or both. This, coupled with the limited lifespan of the project, necessitated a more directly hands-on approach to increase the confidence level of the stakeholders to embark on the proposed changes.”¹⁹⁶ As shown in Figure 11, local seed producers (Mimosa, Bon Berger, Ets Munga etc.) had lower ratings on ‘skill’ than the international companies (NASECO, Seed Co and Zamseed) or the financial institutions worked with (ProCredit Bank, Bank of Africa). In addition, the capacity of partners was assessed to be higher in the south / former Katanga region than in the Kivus, while the north / former Equateur region was found to have significantly lower capacity.

Stimulating the market for local seed producers to multiply OPV seeds, Katanga

Élan began its OPV seeds work with a long list of existing multipliers of seed, the ‘20 small producers’ that formed the Association of seed producers in Katanga (APSK) and then Élan narrowed these down to those with most potential, which became six – Bon

¹⁹⁵ The framework can be used to select between potential partners, while the analysis here is more about classifying the partners that Élan already had set up interventions with.

¹⁹⁶ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

Berger, FADIP, Maydive, Mimosa, Safari International and Nsenga Lutanga.¹⁹⁷ The OPV seeds intervention began at a time of challenges for the partners involved, with two of the six found to have produced insufficient quality after the first season,¹⁹⁸ three also noted they had challenges with unpaid invoices from government. The work with Élan was co-financed where the farmers would grow seed on 2 ha with Élan financing 1 ha and the farm owner financing the other, mainly for maize seed production.¹⁹⁹ At the end of the first round of contracts, Élan continued to work with two out of the original six (Bon Berger and Mimosa) to “become seed companies” with a range of support provided (i.e. to formalise and grow their operations). The intervention was a limited success as set out in Box 5, with more detail set out in Annex E.

The early successes of the local seeds intervention were taken by Élan to provide a strong proof of concept. As a result, Élan continued with “replication of the Mimosa model” – both in the East region (with Agriforce and Ets Munga in South Kivu), in the Northern region (with Gargvu, ANP, and Prosavide) and in the West region (with Ceprosem, in vegetable seed; and ESOU). As shown above in Figure 11, capacity of the companies in the North and West was rated to be very low, although Élan estimated that all of the partners produced and sold additional seed as a result of the interventions. It has not been possible to look closely at how successful these interventions were, although the largest in terms of investment and estimated benefits was Ets Munga, and this is discussed below (see Section 3.3.2).

Box 5: Élan’s local maize seed interventions

The starting pillar of the first local seeds intervention was the role of INERA, the research institute. This was via the Haut Katanga provincial branch of INERA is at Kipopo, around 15 kilometres (km) from Lubumbashi, a branch that also serves Lualaba province. The INERA centre is reliant on donor funding, receiving no operating budget from government, and it struggles without electricity or equipment even to maintain its collection of seed varieties.²⁰⁰ The variety of OPV maize seed known as “Babungo” was the main focus of intervention. INERA provided breeder seeds of Babungo to the six OPV partners. Élan supported this for the 2014/2015 growing season with INERA to provide capacity building for the seed producers. In that season, about 9 tonnes of “quality foundation seed” was produced by the private sector. Élan then worked to secure an agreement with INERA to allow private sector entities to produce foundation seed, a role INERA had previously monopolised. Liberalisation of foundation seed production would be critical for the sector to increase quantity of OPV commercial seed production.

Mimosa and Bon Berger were the most successful from the original six partners. Mimosa took a lead in producing foundation seed and with Bon Berger dominated APSK seed production. Élan started new partnerships with the two for the 2015/2016 season. Interventions focussed on marketing including through demonstration plots, field visits, and new points of sale. Mimosa negotiated agreements with four agro-dealers along the main Lubumbashi–Kolwezi axis to stock its products. Élan also supported Mimosa to obtain a loan from ProCredit Bank (which became Equity Bank) to support expansion, with a warehouse facility to store seed. Mimosa repaid in full, and in interview for this study were very positive on the work of Élan, including on business development

¹⁹⁷ Nsenga Lutanga did not reach quality targets set and Élan exited the partnership. FADIP produced good quality rice seed but ended after the death of the owner. Source: Élan (2018c) PCR. Annex 7.

¹⁹⁸ This included Nsenga Lutanga, as above. For Maydive – “Maydive produced groundnut foundation seed on 1.5ha and marketed through the platform APSK. The commitment of each participant was tested and Maydive produced unsatisfactory results. The collaboration was therefore discontinued.” - Élan (2018c) PCR. Annex 7 Assessing Systemic Change. No reason was given for discontinuing with Safari in Élan documents, one person in interview suggested they might not have required further support.

¹⁹⁹ The other seed crops involved were beans D6K, groundnut MGV4 (Maydive took the lead on groundnut), rice NERICA7 (FADIP took lead), and soybean TGX6.

²⁰⁰ USAID (2019) SEEDCLIR report

support (BDS) they received (short courses on management, accounting, production planning and commercialisation), which allowed them to formalise and grow their business.

The support saw Mimosa increase from 10 tonnes of seed before intervention to 60 tonnes for the 2016/2017 season, and Bon Berger from 9 tonnes pre-intervention to 47 tonnes in 2016/2017. However, the firms could not sell between a third and a half of their maize seed in that season despite the marketing efforts. Demand remained driven by NGOs, mining companies and government. Mimosa secured orders from the provincial government for seeds for the subsidised inputs initiative known as 'Village Agricole', but government did not pay invoices worth USD 30,000, a major challenge for the company.

Mimosa and Bon Berger saw upgrades to their processes, and Bon Berger implemented an OGS known as the One Acre Fund (OAF) model. This also involved ProCredit Bank and 400 SHFs to multiply maize seed production. Bon Berger could not continue with the credit facility once the subsidy and guarantee from Élan had ended, and now they work with just 45 farmers. The combined production of the APSK is 60 tonnes as of 2022, the majority (40-50 tonnes) from Mimosa, and most of the rest from Bon Berger. While the two have maintained some of the scale that Élan helped them achieve, overall OPV maize seed sales are possibly lower now than a decade ago. According to a number of interviews this is largely due to provincial governments 'distorting the market' with expansion of Village Agricole input purchases, reducing effective demand from SHFs.

The largest system change from the local seeds intervention is likely to still be the initial achievement of liberalising the production of foundation seed. Mimosa took a lead role in producing foundation seed, and this seed has been used to stimulate OPV production by another older (previously dormant) company in Lualaba province – SAGRICIM.²⁰¹ Despite this, commercial seed multipliers complained about the quality of the foundation seed which they use to breed commercial seed for sale to farmers.²⁰² For their part, in interview for this study, INERA were unhappy with the multipliers, they felt the original agreement had been for them to come back to INERA every three years, which had not happened.²⁰³ INERA had struggled to sell foundation seed produced on 10 ha of land and had since reduced the amount they are producing. In interview, Mimosa also noted that they had subsequently looked to secure base seeds from another provider; ideally, they would like to procure seed from CIMMYT Zimbabwe.

Overall it is not clear that the market for OPV seeds is significantly different from the start of Élan in 2014. At that time, Élan estimated 250 tonnes of locally produced OPV seeds in the Katanga region.²⁰⁴ Production in the south region in 2022 was 60 tonnes of OPV from APSK, which is predominantly from the two firms Élan supported most: Mimosa and Bon Berger.²⁰⁵ Other than SAGRICIM and Mbeko Shamba it is not clear there are any other significant producers in the region. There is little evidence of growth in the market. USAID found in 2019: "of the initial 20 [APSK] members, only 10 are still active today due to a host of issues such as unpaid invoices from provincial and national government, competition from subsidised seeds from Zambia, low access to affordable credit, and

²⁰¹ SAGRICIM is a parastatal, and in interview for this study noted they have very large ambitions including for production of hybrid seed. It is unclear how realistic these ambitions are without financing.

²⁰² DFID/DSU (2015) Élan Annual Review 2015

²⁰³ The original Partnership Agreement between Élan and INERA did not mention anything beyond the initial 2014/2015 season.

²⁰⁴ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

²⁰⁵ USAID estimated that 64.5 ha was used for maize seed in the 2017-2018 season, and 65.5 ha in the following 2018-2019 season in Haut-Katanga (and 20.5 ha and 37.3 ha for other seeds in those two seasons respectively). The production of maize seed was estimated at 158.6 tonnes in 2017-2018 season with Mimosa the largest producer with around one-third of production. This was down from the 2016-2017 season when 194.7 tonnes of maize seed was produced. Source: USAID (2019) SEEDCLIR report.

dilapidated road and communication infrastructure.”²⁰⁶ However, the work of Élan was recognised in the same 2019 analysis whereby: “[APSK] members’ natural market reaches into Lualaba province following the main mining road axis from Lubumbashi to Kolwezi through Likasi. Along this axis, there is an increasing presence of APSK member sale points. Recently some members began introducing demonstration fields along the main road network servicing the mining industry with the support of the Élan project. Points of sale were also set up, and stalls were established in weekly village markets.”²⁰⁷ Despite this, during the project period there were a large amount of unsold seeds,²⁰⁸ and seed sales in the south region for OPV seeds has fallen from the Élan peaks, and both Mimosa and Bon Berger were unable to maintain their credit facilities with Equity Bank (Equity acquired ProCredit Bank which originally provided the loans).

In interviews, there were a broad range of views on the quality of locally produced OPV seeds. Mimosa appeared to have a good reputation. However, Mimosa’s seed is distributed and sold as ‘Babungo’, the variety. As such, ‘Babungo’ seeds could come from Mimosa or downstream from another multiplication provider, including SAGRICIM in Lualaba, or other local farmers from APSK. There are instances of Babungo being reported as poor quality seed, and while this may be linked to provincial government of Lualaba purchases from SAGRICIM, for a farmer the seeds’ provenance will not always be clear. The goal of improving the marketing of local seed may therefore have been hampered by the nature of OPV seeds as opposed to hybrid seeds, in that the intellectual property (IP) for OPV cannot be captured,²⁰⁹ and branding may always therefore be difficult. In addition, with SENASEM not properly carrying out its role of testing and certification, there is effectively no genuine quality assurance for seed on the market. Farmers therefore still face major information asymmetry in the seed market, and this provides one large advantage to the hybrid seed from regional companies, which can be more easily branded and therefore trusted.

Attracting international seed companies to expand distribution in the DRC

Élan also worked to promote use of hybrid seeds, aiming to support international seed companies operating in or entering the DRC market, and to try to incentivise their expansion. The largest in terms of volume of maize seed sales (by far) was the South African company Seed Co. They had entered the DRC market in 2012, and Élan partnered with Seed Co in 2015 via two interventions.²¹⁰ The first focussed on supporting them to expand outreach to SHFs. This was through contracts with input resellers, the use of field

²⁰⁶ USAID (2019) SEEDCLIR report

²⁰⁷ Ibid. USAID (2019) SEEDCLIR report

²⁰⁸ As the USAID (2019) SEEDCLIR report noted “Renewed marketing efforts under the UK Aid-funded Élan RDC project did not result in the expected sales of maize seed, and 45 percent of the maize seed certified in 2017 could not be sold.”

²⁰⁹ This is because of the easy reproducibility of OPV seeds, a property not shared with hybrid seed.

²¹⁰ At the outset of the intervention, the CEO of Seed Co Zambia listed a number of barriers to the Élan team on the development of their seed business in the DRC: i) the absence of a seed law and an unregulated market with fake seeds in the market; ii) unclear and costly laws and regulations, especially “variable” customs costs and timelines (valid documents not always recognised by customs etc.), leading it to take one month to import seeds from Zambia; iii) poor infrastructure and the interlinked difficulty to reach clients; and, iv) unfair competition from government, the FAO and NGOs, who purchase seeds and give free of charge to growers, or re-sell them at discounted price on the market (Élan, 2015b). In interviews for this study with Seed Co, it was clear all of these four challenges still remain. Seed Co face challenges with fraud, with Seed Co bags being filled with farm-saved seeds and sold as original Seed Co hybrid seeds. They also now have the challenge of competing with their own seed that has been illegally imported, and sold for lower prices on the market and via agro-dealers (as illegal imports did not face custom costs). The new seed law could help to fight unfair practices and enforce quality standards, but has not yet been passed.

demonstration plots, and a network of commission-based field agents; aiming to expand points of sale and therefore sales volumes to SHFs. The second intervention was a partnership with Société d'Exploitation de Kipoi (SEK), a copper and cobalt mining company. As part of its CSR, SEK wanted to set up a contract farming model where it would pre-finance inputs for farmers. Farmers would repay after harvest and Seed Co would supply inputs (seed, fertiliser, and other inputs), agronomic advice and monitor farmers to encourage repayment. More detail on the interventions is in Annex E.1.

As the start of the intervention, Seed Co planned to expand to 5,000 tonnes of seed sales within four years. Linked to the many challenges faced, sales have increased more gradually, from 260 tonnes of hybrid maize seed sales at the point of collaboration with Élan to around 1,000 tonnes today (2022). While sales have increased, this has largely been down to growth in input purchases from the provincial governments of Lualaba and Haut Katanga. The target beneficiary group of SHFs has not grown significantly as a market segment and demand this group remains limited, which is likely due to the relatively high price of hybrid seeds rather than awareness which may have increased. The contract farming model with SEK ended in early 2018, and while mining companies provide a steady market for seeds, there is little evidence they do so in a systemic way such as the intervention had intended. The SEK mine was sold and it is unclear the new Chinese owners continue with the CSR obligations or not. Seed Co are yet to reach the threshold (2,000 tonnes, or over 1,000 tonnes for three years in a row) that they believe they need to reach to set up a processing facility for hybrid seeds in the DRC. However, there is some optimism from Seed Co that this may be achievable in coming years if the increases in sales volumes continue.

Élan aimed to replicate its model of supporting regional companies to reach SHFs with hybrid seed with interventions with Kamano Seed and Zamseed. Both companies were also importing hybrid seed to sell on the DRC market in the Katanga region. The South African seed company, Pannar, was also competing in the same market but never became a direct partner of Élan. Unfortunately, all three companies no longer run offices in Lubumbashi, although Pannar still have some sales through their local partner Katanga Mboleo.²¹¹ The difficulties these companies faced in generating sufficient demand highlight the relative success of Seed Co in becoming a market leader and growing seed sales over time.

NASECO provided a different business model to Seed Co, operating in the eastern provinces and with a more direct to SHFs sales strategy. The Ugandan-based seed producer, focussed on North Kivu, South Kivu and Ituri provinces. NASECO is an acclaimed regional seed company as set out in Annex E.2, particularly for maintaining high sales to SHFs in their home market of Uganda, in Burundi, and since their entry to the DRC in 2015. This in part may be linked to the cheaper selling price of their hybrid seeds – USD 2.20 per kg, compared to USD 5 per kg for Seed Co (for example) – and may also be linked to the characteristics of the eastern region, in particular the relative density of population and SHFs. The company developed the 'Bazooka' hybrid maize variety at its research facility in Uganda in collaboration with CIMMYT to better serve SHFs. The variety was selected for its ability to produce in a low-nitrogen environment and deliver a robust yield in different ecologies; suitability up to 1,900 meters; and tolerance to lethal maize necrosis and fall armyworm.²¹² The Bazooka variety became listed in the DRC seed catalogue in 2019 and is

²¹¹ USAID (2019) SEEDCLIR report

²¹² Ibid. USAID (2019) SEEDCLIR report.

apparently valued by farmers for its 'double cob'. According to NASECO, yields even without fertiliser can be 4-5 t ha⁻¹, while with fertiliser can be 7-8 t ha⁻¹.

Élan's interventions with NASECO focussed on supporting their marketing strategy and the use of demonstration plots to persuade SHFs on the merits of the Bazooka hybrid seed. NASECO employed Product Placement Officers (PPOs) to establish demonstration plots, promote seeds and train SHFs on good agriculture practices. The PPOs would identify agro-dealers and supply them with seeds to distribute. Over 400 agro-dealers were trained in business and agriculture practices to sell seeds and advise farmers on agriculture practices, and the firm set up a close to 9,000 demonstration plots as part of the intervention.

NASECO have seen good growth during and after the period of Élan support. They increased volumes from 55.5 tonnes in 2017 to 125 tonnes in 2018. By 2019, according to USAID (2019), "NASECO is the most important hybrid maize seed company in eastern DRC, and it accounts for at least 75 percent of all hybrid seed sales in eastern DRC". Since then they have continued with compound annual growth rates of 10 percent, to reach 180 tonnes in 2022. They hope to continue expansion and have a target of 350 tonnes in 2023. Unlike other hybrid seed partners, it is claimed that the vast majority of these sales reach the target group of SHFs. However, Élan's impact assessments and interviews by DSU find that most SHFs buy quite small quantities, as low as 1-2 kg, which implies enough maize seed for application on up to 1/10th of a hectare. According to NASECO farmers can rent small amounts of land for profitable production of maize using the hybrid seeds.

NASECO aim to produce in the DRC to reduce logistics costs. This is via a warehouse and processing facility located in South Kivu, but it is not clear this has yet become operational or that they have produced hybrid seeds in the DRC.²¹³ NASECO focuses on hybrid maize production but has also produced and sold limited quantities of climbing bean and wheat seed. They credit Élan with helping them push in the DRC market to achieve the sales they have done.

Large farmers, and producers and processors adopt and expand OGS and contract farming models

Élan's support to outgrower schemes (OGS) originated in the rice and maize sectors to catalyse the resources and expertise of larger farms to support SHFs in their production and resources from mining companies who had obligations under the Mining for Agriculture initiative.²¹⁴ The with pilots established with Mbeko Shamba (maize) in 2014,²¹⁵ Regina Mundi (maize) and RTMK (rice) in 2015,²¹⁶ and finally with

²¹³ NASECO basic seed production is based across Lake Albert in north-western Uganda.

²¹⁴ Mining companies were obliged by the provincial government to support 500 ha of maize crop each agricultural season.

²¹⁵ Mbeko Shamba was a promising partner for Élan, as a milling company and seed producing company with a 5,000 ha farm. Élan collaborated with them from September 2014 to September 2015 to improve SHFs' access to quality inputs and services, with a full package provided including technical assistance. Farmers received Pannar hybrid maize seeds, fertilisers (NPK and urea), herbicides and pulverising equipment. Land preparation was also mechanised. The OGS pre-existed Élan, but with the scheme, 55 SHFs would benefit on 50 ha of land provided, with Élan committing to pre-finance inputs, to be reimbursed at harvest. This was to be adapted in 2015 to be based on a loan from ProCredit Bank

²¹⁶ The RTMK rice OGS was also based on Élan and the farm subsidising the pre-financing of inputs, combined with technical assistance. RTMK started an OGS scheme with SHFs that participated in the Élan pilot of the 2014/15 season with the aim of increasing its supply pool by increasing the output of the SHFs. Élan estimated that 969 SHFs benefited of the scheme and saw their revenues increase by 60 percent, with RTMK purchasing 2,400 tonnes of paddy rice from the participating farmers.

Mulagricom (rice).²¹⁷ The aim was also for OGS to be integrated with the seed interventions, including an intervention with Bon Berger and an NGO, the One Acre Fund (see Annex E.4) and Seed Co with mining company SEK (see above). Some schemes involved access to finance for inputs, others also offered technical assistance such as GAP training for farmers.

During Élan’s support, some of the SHFs involved achieved higher yields than average and increased income. However, none of the outgrower schemes have met their expected levels of performance. Most are no longer operational and where businesses are still operating schemes (which may have existed before Élan’s support) these are mostly small. A wide range of factors have affected the schemes:

- Bank interest rates at 30 percent were unaffordable to SHF (Mbeko Shamba).²¹⁸
- Issues and disputes with land ownership and governance (Mbeko Shamba).²¹⁹
- Insufficient yield increases meant schemes were not financially viable for the business, even if yields increased for farmers (Mbeko Shamba; Regina Mundi).²²⁰
- Political interference in the scheme (RTMK).²²¹
- Businesses not upholding agreement with farmers, e.g. paying agreed price (RTMK).²²²
- Supply side logistics (Mulagricom).
- High price of renting machinery to mechanise harvests (Mulagricom).
- Poor quality of demonstration fields and yield targets not met (Regina Mundi).²²³
- Conflict with the community (SEK – Seed Co).²²⁴

Élan’s strategy to pursue the OGS and contract farming models had clear short term NAIC goals but had a weaker systemic case. The schemes could leverage resources, and farmers could see larger benefits with a bigger package of support (fertiliser, GAP etc.). However, it was not clear the schemes would be replicable, and the number of beneficiaries tended to be small. It perhaps shows the strong adaptive approach of Élan that the project realised these limitations. For example, as Élan’s 2017 Sector Strategy for AgNP put it: “the NAIC per SHF of OGS is high but there are clear limitations in terms of OGS outreach. OGS is not a sustainable long-term strategy to provide inputs to smallholder farmers.”²²⁵

In interview, Mbeko Shamba noted that donors are still interested in these schemes, but often have unrealistic expectations in terms of beneficiary numbers. They also noted the challenges to SHFs of land titling as a fundamental constraint. This is something they would be willing to work on, for example transferring some of their land title to SHFs,

²¹⁷ The Mulagricom rice OGS intervention in 2016 aimed for 15 ha, and would expand to 100 ha for the 2016/2017, although it is not clear if this second target was ever met and the scheme no longer operates. For its own production, Mulagricom has expanded, from 1 ha to 30-50 ha over the past five years, and this was helped by support from Élan including in packaging and some basic machinery for processing (for de-husking). Demand for the rice they produce is very high and the issues they have remain on the supply side including with logistics, as well as the high price of renting machinery to mechanise harvests.

²¹⁸ Élan (2015c) Final monitoring and measurement report Mbeko Shamba farm intervention.

²¹⁹ Ibid.

²²⁰ Élan (2016b) Rapid monitoring report, Regina Mundi

²²¹ Élan (2018c) PCR. Annex 7 Assessing Systemic Change. Earlier DSU analysis had found that this was because it was financed partially by a prominent opposition leader.

²²² Élan (2016a) “Projet d’appui aux petits producteurs de riz de Kashobwe par RTMK” Evaluation report.

²²³ Élan (2016b) Rapid monitoring report, Regina Mundi

²²⁴ DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes

²²⁵ Élan (2017a) 2017 Sector Strategy for AgNP

however it is not something easily supported by the regulatory environment and traditional approach to land governance.

3.3 Impact of Élan's AgNP work

Evaluation question:

- D1: What improvements in income delivered to target beneficiaries, contribution to poverty reduction, and any additional or unplanned impact can be attributed to Élan?
- D2: What factors influenced the impact?

Sub-questions:

- To what extent did Élan's work result in material increased income for target beneficiaries?
- To what extent did Élan contribute to unplanned or additional impacts?

Key findings:

- Impact of seed interventions was based on SHF yields increasing to deliver impact in income (NAIC). However, yield impact measurement was of poor quality, limiting the ability to measure impact robustly.
- It is likely that the international seed interventions have delivered good impact for SHFs with higher potential yields from hybrid seeds compared to OPV seed, led by Seed Co in the southern region, and NASECO in the eastern region in particular.
- The quality of the OPV seed produced by local seed companies is not clear, and the destination of sales (between government, NGOs, mining companies, and SHFs) was not clearly logged, limiting impact assessment.
- Other large NAIC impact estimates for weights and measures (CAPAM) and information campaigns (Viamo) were unreliable and methodologically very weak.
- Seed system constraints create information asymmetry with farmers unclear on the quality of seeds purchased. Branding is an incomplete solution as proper certification is non-existent, trust networks are key with agro-dealers playing a central role.

The PSD programme design envisaged that Élan would increase poor people's income through changing market systems. Élan's definition of systems change included the businesses that it worked with adopting new practices, with adoption being defined as a business signing a partnership agreement with Élan. In the short-term Élan expected to create impact for poor people (either as consumers or producers) directly by intervening in the market via its net attributable income change (NAIC) indicators. Once new practices took hold and spread to other businesses or actors,²²⁶ more impact could be created 'indirectly' of interventions. Élan's logframe defined impact as the NAIC measure, and while other changes may have occurred these largely were not monitored.

This section analyses impact in terms of progress against the two main logframe indicators: 1) the number of poor people "benefiting from" interventions (Section 3.3.1); and 2) the

²²⁶ Élan's market systems framework indirect impact would come via the phases of Adapt, Respond and Expand (following the initial 'Adopt' phase), with mechanisms being the replication of other actors ('copying' an innovation for example), or momentum in the sector leading to positive regulatory changes.

amount by which their income increased (Section 3.3.2). Overall, it is found there were shortfalls in Élan’s impact estimates, with a relative absence of rigor.²²⁷

3.3.1 Number of poor people benefiting from the AgNP interventions

Élan’s overall target was to increase the income of 1 million people, including 250,000 women, with cumulative income increases of £88 million by 2020.²²⁸ The AgNP sector interventions would contribute an estimated 323,000 beneficiaries by the project end, one-third of whom were women. This represented 31 percent of the beneficiary total for Élan, and unlike other sectors such as A2F (see Section 4.3), would be more represented by direct as opposed to indirect impact. The AgNP sector would also contribute 39 percent of the total NAIC Élan claimed by its end, £18.3 million out of a total of £47.5 million for the whole project covering both phases up to 2021. Élan’s estimated results for the sector can be broadly categorised into:

- a) areas with **lower beneficiary numbers but high NAIC per beneficiary**, OGS / contract farming being the main area of intervention for this category;
- b) areas with **very high beneficiary numbers with lower NAIC per beneficiary**, led by the intervention with CAPAM on weights and measures and Viamo on information provision; and
- c) the seeds interventions which were **in the middle in terms of both beneficiary numbers and NAIC per beneficiary**.

Table 18 sets out how the estimates were split by the type of intervention, while Table 19 lists the interventions with the highest numbers of beneficiaries (16 interventions accounting for 96 percent of AgNP beneficiaries in total).

Table 18: AgNP number of beneficiaries and NAIC (£) by intervention type

Intervention type	Number of Beneficiaries	Share of beneficiaries	NAIC (£) total (millions)	Average NAIC per beneficiary (£)
Information provision / education	58,597	18.1%	0.74	13
Regional seeds	46,409	14.4%	4.46	96
Local seeds	84,572	26.2%	7.27	86
OGS / Contract farming	4,259	1.3%	1.28	300
Input distribution	13,912	4.3%	0.84	61
Advocacy / business environment	114,392	35.4%	3.65	32
Warehouse	920	0.3%	0.08	86
Total	323,060		18.32	57

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

²²⁷ A finding in line with previous studies by the DSU including DSU (2017, 2018c, 2020a, 2020b).

²²⁸ FCDO/DSU (2022) PSD programme Annual Review 2022

CAPAM on weights and measures, and Viamo on information provision

In terms of beneficiaries, the Viamo information provision campaign intervention (from Élan 1.2) and the CAPAM weights intervention, stand out with the highest numbers. This is partly because relatively little was claimed by Élan in terms of systemic changes for these interventions, yet they generate over half of the total beneficiaries from the AgNP sector.

Claims on beneficiary numbers for the CAPAM and Viamo interventions appear weak. CAPAM is a syndicate of buyers of commodities in Tanganyika province. Élan's intervention focussed on an awareness campaign to promote a new standardised weight measure, the 'Bumba'. For the Viamo intervention, farmers could make telephone calls to access agriculture-related content (pre-recorded voice messages, for example on how to tackle the pests). In both cases, evaluation studies were undertaken but with unclear and/or weak methodologies. For CAPAM, Élan's claims included that close to 55,000 tonnes of grain had been traded during the 2016 to 2018 period of intervention,²²⁹ and the evaluation found farmers selling using the 'Bumba' to receive USD 1.54 more 'per bag' with USD 3.80 of NAIC per beneficiary.²³⁰ Extrapolation was used for 2017 with new beneficiaries and a growing NAIC per beneficiary, to average £31 by the project end,²³¹ with no new evidence collected to verify these assumptions.²³² The Viamo study simply recorded numbers of calls made by type of call, and in interview, Viamo noted they do not measure how callers use information from their service. The extent of benefit to those calling is unclear and did not test the intervention logic from this to achieving NAIC.²³³

²²⁹ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

²³⁰ Élan (2017c) "Standardisation des unités de mesure: Impact sur le revenu de producteurs"

²³¹ The DSU's Annual Review in 2017 also noted a lack of evidence that the NAIC per beneficiary estimate was plausible. DFID/DSU (2017) Élan Annual Review 2017

²³² The DSU's verification exercise (DSU, 2018c) said "DSU retains a concern about the intervention logic but is unable to test this empirically". The evaluation Élan (2017c) report shows misunderstanding of basic statistics and resulting miscalculations, for example adding sub-groups shares for the prevalence of X, to get a percentage for a whole group prevalence of X, rather than using a weighted average of sub-groups.

²³³ Élan (2020e) "Analytical report on the dissemination of agriculture information"

Table 19: AgNP interventions with the largest number of beneficiaries listed in order

Intervention	Type	Number of beneficiaries	Share of AgNP beneficiaries	% women	Total NAIC (£ millions)	NAIC per beneficiary (£)
NP05: CAPAM	Advocacy / bus environment	112,184	35%	42%	3.52	31
NP103: Viamo	Information provision	48,109	15%	6%	0.63	13
NP32, NP102: NASECO	Regional seeds	35,226	11%	45%	1.72	49
NP23: Team Work	Local seeds	34,354	11%	7%	0.12	3
NP24, NP101: Ets Munga	Local seeds	24,466	8%	46%	4.31	176
NP12, NP110: AgriForce	Input distribution	13,895	4%	36%	0.84	61
NP110: Radio	Information provision	10,488	3%	63%	0.10	10
NP01: Seed Co	Regional seeds	10,206	3%	36%	2.66	260
NP20: AGROPY, COPAPI, PROSAVIDE	Local seeds	7,394	2%	15%	0.32	44
NP02: APSK / Mimosa	Local seeds	6,749	2%	30%	1.42	211
NP28: Ceprose	Local seeds	2,221	1%	40%	0.37	164
NP35: ACT	Advocacy / bus environment	2,208	1%	85%	0.13	59
NP19: ANP, GARGVU	Local seeds	1,864	1%	10%	0.04	21

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

Seeds intervention impact for beneficiaries

The majority of the other interventions with the highest beneficiary numbers were in seeds.²³⁴ The main route to calculating beneficiary numbers was to estimate the number of SHFs purchasing seeds, most or all of these SHFs were assumed to be beneficiaries with NAIC. Impact evaluations were used to estimate yields, though these appear to be of variable quality. In summary, for the main seeds interventions looked at more closely for this study, there is a mixture in terms of plausibility:

- For the Mimosa seeds intervention, 6,749 beneficiaries were estimated in total. While no clear split was provided between the other APSK companies involved, Mimosa was the largest member and made up most of the sales and beneficiary numbers. In 2017, 1,600 beneficiaries were estimated with USD 92 NAIC per beneficiary. Mimosa's sales that

²³⁴ Annexes to this report provide summaries of the main interventions, on market system changes and results achieved including impact estimates; see Annexes E.1, E.2, E.3, and E.4.

year were around 43 tonnes implying 27 kg of (maize) seed per beneficiary, enough for 1 ha of land. Estimates were based on an evaluation study which found maize **yields of 1.43 t ha⁻¹ for farmers using the ‘Babungo’ seed produced and sold by Mimosa, which compared to 0.96 t ha⁻¹ before using the seed.**²³⁵ Beneficiary numbers were based on sales figures (see below in Section 3.3.2 on the ‘Babungo’ evaluation for Mimosa and Bon Berger). Mimosa generated indirect impact by selling foundation seed to the likes of SAGRICIM in Lualaba province who would go on to supply the Village Agricole programme there. SHFs who received the seed via such subsidy programmes were counted as beneficiaries.

- For the Bon Berger interventions, beneficiary numbers were estimated at 1,550. The OAF OGS model was estimated to lead to increases of yield **from 0.67 tonnes per hectare (t ha⁻¹) to 3.25 t ha⁻¹**, generating a USD 98 net gain, a model which included use of inputs such as fertiliser. The local seeds distribution intervention had higher numbers of beneficiaries and NAIC per beneficiary than the OGS. It is unclear why NAIC per beneficiary for NP30 was higher than for Mimosa when it appeared to be based on the same study showing yields of 1.43 t ha⁻¹ for farmers who had been sold the ‘Babungo’ seed.
- For the Seed Co marketing intervention, 10,206 beneficiaries were estimated. Given the company’s high volumes of seed sales this is possible, although it is unclear if sales to SHFs were accurately captured. Current (2022) estimates of sales to SHFs are 100 tonnes, which implies 10 kg per farmer if 10,000 SHFs were purchasing. This is plausible, but an additional consideration for Seeds Co and other international seeds partnerships is on the additionality of Élan in contributing to sales, and it appears 100 percent attribution was applied.
- For the NASECO interventions, 35,226 beneficiaries were estimated by Élan. In 2018 this included 25,000 beneficiaries, a year in which NASECO seed sales were 125 tonnes. Élan therefore was modelling up to 5 kg of maize seeds per farmer, and USD 50 of benefit in NAIC for each. While the numbers are high, given NASECO sell small volumes per farmer and that their yield claims are also high, this may be plausible (see Section 3.3.2).

Élan did not create a log of sales or yield estimates, making it difficult to understand all their estimates, including the NAIC estimates. Another relatively high impact intervention was with the horticulture seed provider Ceprosem, near Kinshasa. This provides a case study in how NAIC estimates were generated, as the intervention had a very high benefit-cost ratio of approximately 45:1. A close look at the calculations finds a number of issues including a poorly matched treatment and comparison group, and differences in surveys for the two groups used.²³⁶

Overall, it appears that beneficiary numbers for AgNP were most likely over-estimated, and the rigour of estimates could at times be quite poor. The two largest interventions by beneficiaries, Viamo and CAPAM, were problematic as set out, and some of the seed interventions also. While many SHFs may have purchased seeds as a result of the AgNP sector interventions, the sustainability (see Section 3.4) of sales may be limited, and the sector remains very nascent in both the supply and demand for seeds.

²³⁵ Élan (2017b) “Accès indirect à la variété améliorée de la semence Locale BABUNGO”

²³⁶ See Anomalies in NAIC calculations, example of Ceprosem (NP28) in Annex F).

3.3.2 Increased incomes as a result of AgNP interventions

Intertwined with the number of those benefiting, is the income change beneficiaries achieved as measured by NAIC. When multiplied, these two figures give the total NAIC estimate for each intervention. As shown in Table 38 in Annex G, AgNP was the sector with the highest NAIC across both phases of Élan. On average, the figures imply an average of £57 NAIC per beneficiary for AgNP, a sizeable claim given the (relative and absolute) poverty of the target beneficiaries (as set out in Section 3.1.1 above).

Compared to other sectors (particularly A2F, see Section 4.3), the AgNP estimated impact was based on a large range of interventions. Five interventions were estimated to have generated over £1 million of NAIC, and a further nine interventions from £250,000 to £700,000 of NAIC (see Annex C for the full list). Interventions involving OGS or contract farming had the highest NAIC per beneficiary figures as shown in Table 20. Slightly lower NAIC per beneficiary was estimated for seeds interventions, however, they generated the most total NAIC (64 percent) by virtue of larger beneficiary numbers than for OGS. The highest aggregate NAIC was estimated to be from Ets Munga, selling rice seeds in the eastern region (see below for more detail), with £4.3 million; then CAPAM with £3.5 million; Seed Co with £2.7 million; NASECO with £1.7 million; followed by the APSK/Mimosa intervention with £1.4 million. Cumulatively these five partnerships made up three-quarters of the total estimated NAIC for the AgNP sector.

The OGS interventions, were based on providing access to a fuller range of inputs than just seeds, also combining this with extension services, resulting in higher NAIC per beneficiary. Leveraging pre-financing from a large farm, mining company or financial institution, SHFs could pay back in kind at harvest time, and still make a return. This fuller package would lead to higher yields than if using improved seeds alone. In the majority of cases the interventions would involve hybrid seeds, which would be standard practice on large farms, and provide higher yield potential.²³⁷ This was the case for the SEK intervention (for example, using Seed Co hybrid seeds; also for Mbeko Shamba who have their own hybrid seeds; and for the likes of Mulagricom, where Élan would introduce hybrid seeds (the NERICA variety in that case).

Table 20: AgNP interventions ordered by NAIC per beneficiary (£)

Intervention	Type	Number of beneficiaries	% women	Total NAIC (£)	NAIC per beneficiary (£)
NP13: SEK – Seed Co	OGS / Contract farming	704	25%	662,863	942
NP03: Mbeko Shamba	OGS / Contract farming	243	42%	98,275	404
NP30: Bon Berger	Local seeds	1,550	43%	570,895	368
NP08: Mulagricom	OGS / Contract farming	202	40%	71,725	355
NP01: Seed Co	Regional seeds	10,206	36%	2,657,490	260
NP02: APSK / Mimosa	Local seeds	6,749	30%	1,420,772	211
NP24 / NP 101: Ets Munga	Local seeds	24,466	46%	4,314,201	176

²³⁷ Although Élan never clearly documented the yield differences between hybrids and OPVs

Intervention	Type	Number of beneficiaries	% women	Total NAIC (£)	NAIC per beneficiary (£)
NP28: Ceprose	Local seeds	2,221	40%	365,010	164
NP07: RTMK	OGS / Contract farming	2,667	56%	417,340	157
NP33: KAMANO Seed	Regional seeds	216	45%	31,124	144
NP11: Agrisem	Local seeds	185	22%	20,626	111
NP09: AFRP	Warehouse	920	70%	79,216	86
NP14: JOB SEED CO JSC	Local seeds	1,000	20%	74,037	74
NP31: Zamseed	Regional seeds	761	53%	54,194	71
NP34: Mulimayi Mwema (service agricole)	Input distribution	17	35%	1,185	70

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

Maize interventions

International evidence points to higher yields of hybrid maize seeds, with greater poverty-reducing benefits than for OPV or local seeds (see Box 6). As noted, Élan took a mixed approach between hybrid seeds involving regional companies, and OPV local seeds interventions. The OPV focus was justified by their affordability, and also by the absence of a local hybrid seed sector. However, Élan did not appear to use its position to generate robust evidence on differences in yields. There was no systematic approach used across the project either in terms of methodology, selection of comparison groups (which were sometime used and sometimes not), or measurement of yield on the ground. There was no log of yields across the different interventions, and (apparently) no clear synthesis of findings in order to learn lessons on the relative yields and benefits of the work on hybrids and OPVs, including whether or not a wider package of inputs was used.

Box 6: Advantages of growing hybrid maize seeds from international evidence

Studies have found that maize growers who use hybrid seeds are strongly advantaged relative to those who do not. For example, Ali et al. (2020) find that hybrid maize adopters had higher grain yields leading to 2-3 percent lower poverty rates for adopters in Pakistan. Smale et al. (2015) in Zambia found that women interviewed in maize-growing households planting hybrid seed had more diverse diets. Mathenge et al. (2014) found in Kenya that the use of hybrid seed contributed to higher annual income, to raising the value of assets, and reduced the depth of poverty.

Investments in hybrid seeds can make sense therefore even for a SHF beneficiary group. Smale and Mason (2014) in a survey of farmers in Zambia, find that the use of maize hybrids is associated with higher values of household income, assets, farm and processing equipment, and livestock. Farmers adopting hybrids also face less deprivation compared to farmers in nearby villages. The study found that each kg of hybrid seed planted was associated with a 32,000 ZMK (USD 8) increase in total household income on average. This is more than the price of hybrid seed in the capital city, Lusaka, which ranged from 4,300 to 12,000 ZMK (USD 1-3) per kg during the study period. They found that each kg of hybrid seed planted by a smallholder maize-growing household is associated with an average increase of 29,000 ZMK (about 7 USD) in total asset values, and 3,000 ZMK (about 0.75 USD) in the value of farm and processing equipment. The severity of poverty was found to be 0.17 percentage points lower, on average, per kg of hybrid maize used.

Élan's various studies can be pieced together to provide some data and comparisons across the different interventions. The highest yields were seen in two of the OGS evaluations:

- The Mbeko Shamba intervention had estimated **average yields for SHF beneficiaries of 4.9 t ha⁻¹ for maize**.²³⁸ Despite this the Mbeko Shamba intervention had issues including risks around disputes on land ownership.²³⁹
- The SEK contract farming intervention using Seed Co seeds, also **found yields of 4.9 t ha⁻¹, increasing from 1 t ha⁻¹ prior to the campaign**. Higher yields were linked to the 'full package' of support provided to SHFs and NAIC was found to be £942 per beneficiary involved.²⁴⁰ The SEK intervention closed with the sale of the mine in early 2018, and also had seen tensions with the community (see Annex E.1).

The hybrid seed distribution interventions saw slightly lower yields than the OGS, as would be expected (due to the absence of support with inputs). This included:

- The final assessment of Seed Co found the seed distribution intervention for **hybrid seeds saw increased yields, at 2.8 t ha⁻¹ on average compared to around 1 t ha⁻¹ beforehand**. This was estimated to be worth USD 232 per SHF based on the additional maize produced less associated costs.²⁴¹
- During Élan 1.0, NASECO's hybrid maize seeds were found to increase **maize yields from 1.8 t ha⁻¹ to 3.3 t ha⁻¹ in North Kivu**, and slightly less in South Kivu. Farmers on average planted on 0.13 ha of land, and an actual yield impact of 115 kg was found, valued at USD 50 in South Kivu, and 205 kg extra yield in North Kivu valued at USD 76.²⁴²
- The evaluation of the second, Élan 1.2 intervention, with NASECO, had a treatment group of 'adopters' and a comparison group of 'non-adopters'. This was the most ambitious evaluation Élan undertook with an external partner leading.²⁴³ The study found **yields of 4.0 t ha⁻¹ for users of NASECO's Bazooka seed, and 3.5 t ha⁻¹ for those using local seed**.²⁴⁴ It was found the vast majority of farmers (97-98 percent) across the two groups did not use chemical fertiliser, demonstrating either high yield and potentially very good soils in the localities evaluated, or overestimates of yields in fieldwork. There was also found to be a difference in agronomist support – with 70 percent of treatment group receiving this support compared to 5 percent of the comparison. It is not clear whether the treatment effect was mediated by this support, or just the impact of the improved seeds (see Annex E.2).²⁴⁵
- For the One Acre Fund (OAF) model used with Bon Berger (see Annex E.4), 'Babungo' OPV seeds were used (with Bon Berger sourcing foundation seed from Mimosa). An evaluation report **estimated yields using these seeds at 3.25 t ha⁻¹ compared to a counterfactual yield of 0.67 t ha⁻¹** for farmers in the OAF model. This led to an

²³⁸ Élan (2015c) Final monitoring and measurement report Mbeko Shamba farm intervention.

²³⁹ Élan (2015c) "Final monitoring and measurement report for the 2015 partnership".

²⁴⁰ Élan (2016f) "Projet pour l'amélioration des moyens de subsistance"

²⁴¹ Élan (2017j) "Accès à la semence de qualité– SEEDCO"

²⁴² Élan (2017k) "Mid-term evaluation of NASECO (NP32)"

²⁴³ Élan & IES (2021) "Impacts of improved rice and corn seeds adoption on smallholder households"

²⁴⁴ This may suggest methodological issues. The report acknowledges challenges in sampling. Adopters were selected from agro-dealers, while agronomists were used to find non-adopters. There were 314 maize farmers in the total sample (219 for the treatment group, and 95 comparison group), and no matching method was used, the authors noting that the comparison group sample was too small for propensity score matching. The report has insufficient detail to fully assess the quality of the evaluation. Élan & IES (2021).

²⁴⁵ A study on seeds in Tanzania using a 'double blind' methodology, found most of the impact of a seed intervention to be from the extension services and improved practices as opposed to genetic gain. Bulte et al. (2014).

estimated USD 98 net gain following reimbursement, lower than yields seen for the hybrid seed interventions.²⁴⁶

- The main evaluation for the local seeds distribution interventions in Lualaba and Haut Katanga provinces (Mimosa and Bon Berger) were based on surveys carried out in 2017. The study found **maize yields of 1.43 t ha⁻¹, which compared to 0.96 t ha⁻¹ before using the Babungo seed**. As farmers were planting on average of 0.7 ha, this implied 0.34 t of additional maize per beneficiary, valued at USD 116.²⁴⁷ The survey found a surprisingly high figure of 93 percent of farmers who adopted the Babungo seed used fertiliser, including 98 percent in Haut Katanga and 56 percent in the Lualaba. However, the study had covered SHFs using Babungo regardless of source and around half of users had received seed via the 'Village Agricole' provincial government subsidy programme, which would also likely provide fertiliser.²⁴⁸

Rice interventions

Rice interventions made up three of those yielding the highest NAIC per beneficiary. RTMK, the initial rice OGS, had NAIC per beneficiary of £157; Mulagricom had an estimated £355 per beneficiary; and the combined Ets Munga interventions averaged £176 per beneficiary. All figures were again based on yield impacts. The RTMK rice OGS intervention was based on Élan and the farm subsidising the pre-financing of inputs (NERICA 7 improved hybrid seeds; and the fertilisers NPK and Urea), combined with training and coaching to SHF associations for better use of farming techniques. The evaluation found yield to increase from 1.5 t ha⁻¹ to 2.07 t ha⁻¹, although was found to have methodological limitations in a previous study by the DSU.²⁴⁹ According to Élan's evaluation issues leading to the discontinuation included that the price initially agreed with RTMK and the producers was not respected.²⁵⁰ "Political interference" led to the scheme being stopped in September 2016.²⁵¹

The intervention with Mulagricom in Lualaba province faced challenges and according to interviews for this study was largely discontinued. The intervention in 2016 aimed for OGS covering 15 ha, which would expand to 100 ha for the 2016/2017 season, although it is not clear if this second target was ever met and the scheme no longer operates. Yields for SHFs from the initial scheme were found to reach 2.4 t ha⁻¹, although it is unclear how this was measured and the DSU previously found weak evidence for this intervention.²⁵²

The largest total NAIC estimate for the whole of Élan came from the combined estimates for the Élan 1.0 and 1.2 estimates for Ets Munga, though due to issues with the evaluation including in matching of treatment and comparison groups, this is likely an over-estimate. Estimates included £481,000 of NAIC during the first phase (all of which during 2018 according to the PWIG), and £3.8 million of NAIC for the second phase. The intervention was not looked at in the previous verification exercises on NAIC by the

²⁴⁶ Élan (2017h) "Bon Berger One Acre Fund, Performance et impact"

²⁴⁷ Élan (2017b) "Accès indirect à la variété améliorée de la semence Locale BABUNGO"

²⁴⁸ Élan (2018e) "Accès à la semence de qualité- BABUNGO"

²⁴⁹ DSU (2017) "Verification and Results Assessment: ÉLAN".

²⁵⁰ Élan (2016a) "Projet d'appui aux petits producteurs de riz de Kashobwe par RTMK" Evaluation report.

²⁵¹ Élan (2018c) PCR. Annex 7 Assessing Systemic Change. Earlier DSU analysis had found that this was because it was financed partially by a prominent opposition leader.

²⁵² Élan (2016g) "Pilot monitoring report: Project to set up a system allowing access to agricultural inputs". This was also found in the previous DSU assessment where: "the robustness of the results is uncertain as there is no document about the selection of participants in the intervention as well as supporting evidence of the assumptions behind the intervention." The overall rating by the DSU in 2017 for NP08 was "Low" in terms of the confidence with results estimates. DSU (2017) "Verification and Results Assessment: ÉLAN".

DSU.²⁵³ As set out in Box 7, the evaluation was likely flawed, the yields achieved implausible, and the very high impact measured likely over-estimated.

Box 7: Impact assessment of the most successful rice intervention, Ets Munga

The Ets Munga intervention aimed to produce improved seed on 20 ha of land in 2016-2017, doubling the land used in 2015, and then expand and consolidate its distribution network in the Ruzizi plains. By 2018, Élan claimed they had made 200 tonnes (t) of seed sales, with 8,000 SHFs benefiting (Élan, 2018c), and this increased to 279 t by 2020, with 10,000 expected to be purchasing (Élan, 2020k). The initial evaluation claimed that 91 out of 120 t had been financed by Élan, with the focus on the rice type 'TOXI 3154 known locally as "Munga Jenga Jamaa" (Élan, 2017l).

The evaluation of the first phase found **yields of the improved variety of 8.5 t ha⁻¹, compared to 4.9 t ha⁻¹ for the local variety**, with average production increasing from 1.2 t to 2.1 t of paddy rice (as an average of 0.23 ha was farmed) (Élan, 2018i). Estimated attributable NAIC was USD 168 after deducting additional costs of using improved seeds. The Élan 1.2 evaluation found **7 t ha⁻¹ yields for adopters compared to 5 t ha⁻¹ for non-adopters**, and NAIC of USD 233 per adopter. The evaluation did not use any matching and there were differences between the two groups that might have driven some of the differences. For example, the treatment group were more likely to own land (29 percent against 8 percent for the comparison group). The treatment group of adopters also had a far higher prevalence of using phytosanitary products, and in addition, 64 percent of adopters used chemical fertiliser compared to just 11 percent of non-adopters (Élan, 2020b).

While the yields are not impossible, they seem high for both adopters and non-adopters. For example, in one simple sense check, the highest yields noted in the DRC updated seed catalogue, for any variety of rice listed, were 5 t ha⁻¹ under control conditions (MINAGRI, 2019). Available surveys from elsewhere in Africa also would suggest that the 8.5 t ha⁻¹ estimate for Ets Munga is extremely high. Surveys have found for example the highest yields of NERICA varieties in Cameroon with very high fertiliser applications reach 5.5 t ha⁻¹ (Djomo Sime et al., 2017). A maximum yield of 6 t ha⁻¹ was found in an extensive survey comparing yields of different rice varieties in varying regions of Ethiopia (Seyoum et al., 2011).

In summary, the very high NAIC of the Ets Munga interventions of £4.3 million in total (23 percent of AgNP NAIC) is likely to be an overestimate.

3.3.3 Factors influencing impact

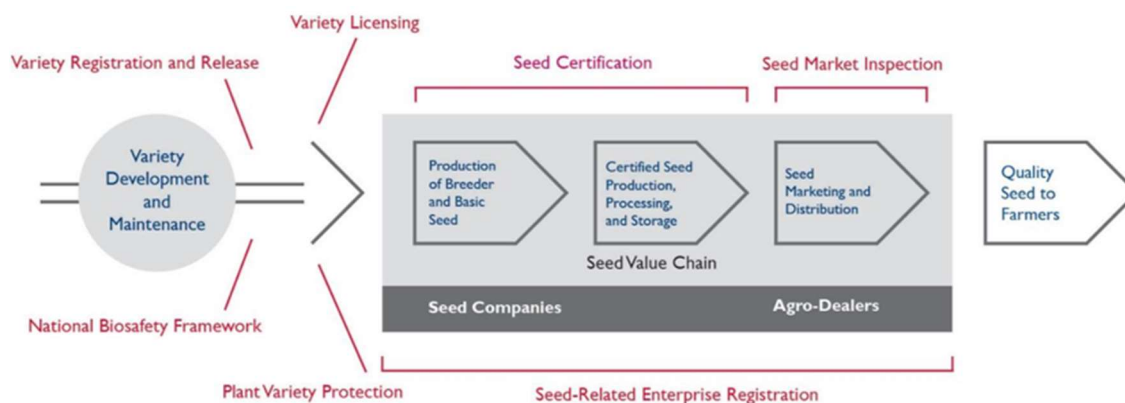
The DRC is a challenging environment to develop markets and in the agriculture sector there were only marginal improvements over Élan's implementation period. In AgNP, Élan mainly focused on private sector partnerships, with less attention to the policy and regulatory environment. Lack of progress in these areas mean that legislation has still not been passed that would secure funding for sector enforcement and quality assurance of seeds by SENASEM, or catalyse research from INERA or CRM. The government's policy environment has not been favourable to the agriculture sector, and it is clearly not viewed as a priority. Legislation on seeds has been in limbo and the efforts of Élan did not appear to have much success in changing this (see Section 3.2.1).

The weak regulatory environment and low resourcing to enforcement institutions creates many challenges including illegal and counterfeit seeds, both of which place constraints on the ability of formal businesses to compete and be profitable in the market. On the demand-side these issues impinge on the ability of consumers to distinguish the quality of the products they are purchasing. As set out in USAID (2019) and illustrated in Figure 12, an enabling environment for the commercial seed sector requires regulatory

²⁵³ DSU (2017, 2018c, 2020a, 2020b)

procedures and institutions present including plant variety licensing and protection, and processes for seed certification and market inspection.²⁵⁴ As in Section 3.4.1, most of these functions are ineffective or non-existent in the DRC, with little improvement.

Figure 12: Illustration of the enabling environment for seed



Source: Fintrac Inc., within USAID (2019) SEEDCLIR report

The implications of the weak enabling environment include that farmers are not able to easily identify quality seeds. This places emphasis on relationships of trust but create risks associated with information asymmetries, notably the market for lemons.²⁵⁵ Regardless of the exact estimates of quantitative impact, a greater focus on other systemic issues influencing impact would therefore have been beneficial. This includes aspects of seed systems such as varietal turnover and fraud, on more accurate data, as well as implications of climate change, and logistics.

A number of respondents for this study noted the issue of fraudulent seeds. This had created challenges for seed companies, for agro-dealers and for farmers. While some Élan documents note the issue of fraud in the humanitarian seed sector, but the issue was also prevalent in the southern region. The issue was most pressing for Seed Co as the dominant market player, and for whom actors were most keen to fraudulently supply their seeds (re-bagging grain or other seed in Seed Co bags).²⁵⁶ This makes the regulation and proper checking of seed more important, and therefore the role of SENASEM. This was not successfully addressed by Élan interventions despite some efforts in the area of advocacy (see Section 3.4).

In the medium to long-term, greater investment in agricultural data on yields, would be beneficial. In interview for this study, the MINAGRI set out that their statistics department is extremely under-funded and under-capacitated, yield measurement is infrequent, poorly resourced and unlikely to produce accurate data. The absence of data is a major challenge in even diagnosing issues in the sector. It was also something that Élan could have done

²⁵⁴ More analysis on these issues is provided in Enforcement of the quality of seed in DRC, Seed variety release in the DRC, and Varietal turnover of seed, in Annex F.

²⁵⁵ Akerlof (1970) "The Market for Lemons: Quality Uncertainty and the Market Mechanism"

²⁵⁶ When looking at the issue of fraud in seeds in Kenya, Gharib et al. (2021) find that without training on purchasing seed, farmers did not discount compromised bags of seed; however, farmers who received training, were willing to pay 15 percent less for compromised bags. They concluded that education and outreach may be required for packaging innovations to increase investments in high-quality hybrid seed that can help enhance the productivity of smallholder farmers. This was not a direct part of Élan interventions, and there may have been other issues with the branding of the OPV seed produced and sold as 'Babungo', given that it could be produced by multiple providers. The seed may have therefore seen variation in quality that was not picked up in evaluation.

more about in terms of investment in their own studies, were not all of clearly good quality. In the context of climate change and the challenges it brings, investment in good data systems is perhaps more important than ever.

Climate change and yields

There was very little specific work by Élan on the impact of climate change on yields and the resulting implications for the seed system, including how different climatic zones in the DRC would be affected. While the DRC is not projected to be as badly affected as some other SSA countries in the short-term, particularly as it has lower temperature increase projections,²⁵⁷ it is still already affected, as everywhere, as seen in recent assessments of food security.²⁵⁸ Few farmers in the DRC have access to irrigation, so rainfall variability will remain a major risk for farmers every season, and likely be exacerbated by climate change (including by too much rainfall / inundation, which can lead to crop failures). Climate projections suggest that elevated temperatures, especially in the drought-prone areas of SSA, are highly likely to result in significant yield losses in tropical/subtropical maize. For more detail on this issue see Climate change and yields within Annex F.

Barriers in seed systems such as the speed of varietal turnover

Maize hybrid seeds are being improved every single year, making varietal turnover key to maximising yields over time. In an evaluation for farmer conditions conducted in Kenya and Rwanda, Worku et al. (2020) find that new stress-tolerant maize hybrids had much better grain-yield performance than the best commercial checks under SHF growing environments. They also found that recently developed hybrids out-performed the best performers from previous rigorous studies,²⁵⁹ showing the progress in increasing genetic gain under diverse management environments of eastern Africa. Despite the need for turnover, this has been found to be slow in SSA. More detail on this can be found on this issue, see Varietal turnover of seed in Annex F.

Trade, transport and logistics

Issues with borders and trade, as well as transport and logistics remain major constraints in the DRC, which Élan did not address. According to AGRA et al. (2019), formal imports of seed in 2016 came to just over 3,700 tonnes for the whole of the DRC, which included 2,100 tonnes of maize seed, 1,180 tonnes of soybean seed, and 180 tonnes of rice seed. The total volume of imports exceeds stated sales by seed companies because some of the imports are by agro-dealers, government agencies and NGOs who distribute directly to farmers. The same source estimates just over 150 tonnes of informal imports, the majority of which is maize (140 tonnes). However, these statistics are likely underestimated as importers are reluctant to disclose the information. Informal imports come in from both Uganda and Rwanda in the eastern region, and by Zambia in the southern region.

Seed Co in particular highlighted the issue of illegal imports during interview, as well as challenges at the border they are facing. This included agencies responsible for quality control with no ability to undertake the role, and linked to this rent-seeking and serious delays. The issues at the border increase costs of importation that feed into the sale price of seed in DRC, while the issue of illegal imports means they also have to compete with seeds

²⁵⁷ See Figure 44 and Figure 45 in Annex G.

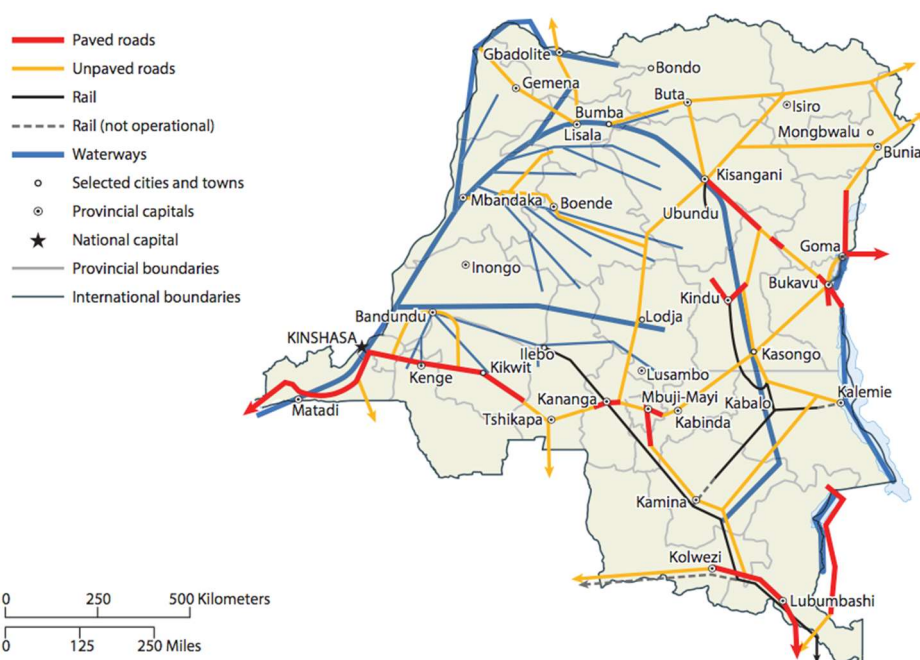
²⁵⁸ USAID / FEWSNET (2022a), which notes lower than average rainfall in the eastern region.

²⁵⁹ Setimela et al. (2017) "On-farm yield gains with stress tolerant maize in eastern and southern Africa".

that have not had to add on these costs. Agro-dealers may not have strong incentives to not sell illegal imports.

Transport limitations make it difficult for companies to expand into new regions and farmers to access seed.²⁶⁰ Each economic centre in DRC operates largely independently, and competing in one area does not imply that a business will be able to compete elsewhere. There are also major gaps in infrastructure linking to what are sometimes called the ‘deep rural’ areas of DRC. Élan’s early analysis found farmers located far away from Lubumbashi did not have the financial means to purchase certified seeds, due to the extra costs of transport.²⁶¹ Transport infrastructure in the DRC places enormous costs on intra-country and cross-border trade, with key economic centres such as Kinshasa and Lubumbashi not even connected by paved road networks as shown in Figure 13.

Figure 13: Transport infrastructure in the DRC



Source: World Bank (2018) “Democratic Republic of Congo Urbanization Review”

3.4 Sustainability of Élan’s AgNP work

Evaluation question:

- E1: To what extent have the results of Élan in terms of market systems change been sustained?

Sub-questions:

- Does there continue to be investment in project supported models and building internal operational capacity for the models?

²⁶⁰ See Figure 41 and Figure 43 in Annex G on the locations of economic activity and the distinct economic poles according to World Bank (2018) “DRC Urbanization Review”.

²⁶¹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

- To what extent have changes in policies and practices and impact achieved by Élan continued without Élan support, and been resilient to changes in the market system?
- What are the key factors helping or hindering their sustainability and resilience?

Key findings:

- Attempts to improve advocacy created a seed sector strategy for the southern and eastern regions. At least in the southern region, progress on the 2018 Strategy remains poor and the advocacy body, COPROSEM, has not met for two years.
- Constraints on seed certification (SENASEM), varietal turnover and improvement (INERA), regulation and funding (MINAGRI), all remain. Issues with importing seeds at the border may have increased over time.
- The international seed companies, Seed Co and NASECO continue to grow despite the challenges, and the quantity of hybrid seed on the market has increased as a result. This is linked to provincial government subsidy in the southern region, but there appears to be a growing market of SHF purchases in the eastern region. Both companies could produce in the DRC in coming years.
- Local seed companies are surviving but remain small, and there are question-marks over the quality of the OPV seed they are producing. They would like to produce hybrid seed but the path to this outcome remains a long one.
- OGS and contract farming models have not been sustained. In some cases, this was because a mining company was sold, in others because large farms found too many constraints and costs in support SHFs through OGS, and this was also outside their core business of commercial farming.

At the outset of the PSD programme, the market systems design goal was for Élan to facilitate “large-scale and sustainable improvements in the market systems in which the poor participate”.²⁶² This section sets out findings on the degree of sustainability the Élan results achieved, as set out in terms of changes in practices, policy and resource flows generated by interventions (Section 3.2), and in terms of the impact achieved for the intended beneficiaries (Section 3.3). Sustainability is looked at via the ‘policy level’ (Section 3.4.1), and at the ‘firm level’ (Section 3.4.2).

3.4.1 Sustainability at policy level

As set out in Davies (2017), in the context of economic governance, one can think of sustainability operating at two levels:

- **Reform-level sustainability** where reforms achieved during the lifetime of the programme stay in-place and continue to be implemented effectively.
- **System-level sustainability** where the underlying processes and functions which generated the reforms continue to operate.

In the case of the AgNP sector, Élan did not have major successes during the lifetime of the project in meaningful reforms to the policy or regulatory environment. There were two main claims, firstly, revisions of the Seed Law in 2018, but the Law has still not passed by the end of the project or today (see Section 3.2.1). Secondly, the Catalogue of seeds was updated and published online with support of TASAI, facilitated by Élan. The

²⁶² DFID (2013) PSD Programme Business Case

update saw 30 new varieties added while 20 others were removed.²⁶³ Stakeholders in Lubumbashi spoken to for this study were not aware of a catalogue update. However, NASECO added their flagship Bazooka maize seed to the catalogue, which may be important to facilitate their growth in the eastern DRC.²⁶⁴

The means to achieve system-level sustainability in the seed sector was through support to the seed councils (COPROSEM) in both the southern and eastern regions. This included the development of seed sector strategies, with funding provided to TASAI for these to be completed.²⁶⁵ Table 21 provides a brief assessment of progress against this 2018 strategy for the Southern Region.²⁶⁶

Systemic constraints identified in the Seed Strategy still remain, and in some cases, have worsened. The brief review of progress on COPROSEM provides a simple snapshot that the main systemic constraints identified by TASAI and built into the regional strategy. According to interviews for this study:

- Issues in importation of seeds, according to one of the international seed companies, have worsened over time with more DRC agencies involved and additional rent seeking taking place.
- The draft seed law was written more than 15 years ago and although revised to align with provisions of COMESA and SADC harmonised seed trade regulations and submitted again to Parliament in 2018, is still awaiting deliberation.²⁶⁷
- COPROSEM in the Southern region has not met in the past two years, so the advocacy body itself does not presently exist in practice, meaning there is very little leadership in the sector including to provide voice for sector advocacy.
- INERA is struggling, with no financing from the state, and expressed frustration in interview over the role of the local seed companies and their willingness to bypass them for foundation seed. This was their only source of revenue. They lack sufficient capacity to develop new varieties.
- SENASEM faces the same capacity constraints as previously identified. They certify some seed including from local companies supported by Élan (Mimosa and Bon Berger), but there is no sense that the service provides serious or scientifically-robust quality-assurance of seeds sold on the market.
- APSK appears weaker now than at the start of Élan, although it had been having issues even then. Most of the original companies are not active or only at a very small scale. Mimosa and Bon Berger are still the only significant actors.

²⁶³ Élan (2021c) “Élan Sector Studies – Agriculture Non-Perennial”. Catalogue available: MINAGRI (2019).

²⁶⁴ See Annex E.2. ‘Babungo’ OPV from the local seeds intervention had been in the Catalogue’s 2012 version.

²⁶⁵ TASAI (2018b, 2018c)

²⁶⁶ Unfortunately, insufficient information was available to do a similar exercise for the eastern region TASAI strategy (TASAI, 2018c).

²⁶⁷ It has not been passed for (apparently petty) political reasons rather than technical challenges or constraints. Source: Interviews as well as the USAID (2019) SEEDCLIR report.

Table 21: Progress against the Seed Sector strategy for the Southern Region

Strategy within Seed Sector Strategy	Progress
Strategy 1: Review and Enact the DRC Seed Law	Still not passed.
Strategy 2: Strengthen Seed Production Systems Convert the Maize Research Center (CRM) into a seed company	Not happened.
Strategy 3: Strengthen local private seed companies Develop training modules on seed business management	Élan provided capacity assistance, not continued.
Strategy 4: Clarify and organize cross-border seed trade mechanisms Clearly define the import requirements of plant materials, Disseminate information on import requirements	Still major issues on cross-border seed trade, some worsening according to Seed Co.
Strategy 5: Strengthen COPROSEM COPROSEM is a provincial seed council established under the draft Seed Law. According to the draft law, the main tasks of COPROSEM are to guide seed policy and plan and implement seed activities at the provincial level. a. Formalize COPROSEM's organizational status by: b. Confirm COPROSEM as the main convener of the seed sector platform meetings for Haut-Katanga province,	COPROSEM has not met in the past two years in the Lubumbashi area.
Strategy 6: Strengthen the National Seed Service (SENASEM) a. Availing more financial and logistical resources to SENASEM to perform its core functions of seed b. Developing a protocol for private seed inspection services that will spell out their requirements	SENASEM very weak, under-resourced, providing only a token role of inspection, i.e. no scientific process of quality control.
Strategy 7: Strengthen national and provincial breeding programs a. Link INERA, UNILU and local seed companies to various private and public producers of foundation seed. b. Increase the number and productivity of breeders in INERA and UNILU. INERA and UNILU should contact c. Facilitate UNILU to start producing hybrid maize seed.	INERA doing less breeding following end of Élan. UNILU have a small role. Local companies would prefer to source internationally from CIMMYT.
Strategy 8: Strengthen urban and rural agro-dealer networks	Not clear.
Strategy 9: Strengthen national and provincial seed associations a. Convene meeting of seed producers. The meeting would bring together all categories of seed producers b. Develop a plan of action for provincial seed associations including a list of the priority actions for APSK	APSK much weaker now and no longer fully operational as an entity (only Mimosa and Bon Berger working).
Strategy 10: Streamline the variety registration and release process	Not clear.
Strategy 11: Strengthen agricultural extension services for farmers	No clear progress.
Strategy 12: Increasing access to finance for local seed companies and agro-dealers	Major challenges on A2F remain.

Source: TASA I (2018b) Seed Sector Strategy for the Southern Region of the DRC

A tension faced in the policy work of Élan was in the degree to which the role of government could be included. Élan attempted to work on the system more broadly including the legal framework for seed, and advocacy from local players, for example via COPROSEM, INERA and SENASEM. However, government officials themselves said agriculture is simply not a priority for the government of DRC, which leads to the major

funding challenges faced, including for other agencies under the MINAGRI, such as agricultural statistics, and the dormant national maize research centre (CRM).²⁶⁸

There are likely to no scientifically robust, quality control inspections of the seed offered for sale in the DRC market. SENASEM does not have the resources to provide seed inspection services at the scale required by law, and their staff have no means of transportation to access seed fields.²⁶⁹ The result is that most seed that is identified as certified is actually not quality seed, or may not be.²⁷⁰ This means that fake seeds, counterfeits and illegal imported seeds are ubiquitous in the market.²⁷¹ It is then very challenging for professional seed companies to compete, and the poor quality of seed in the market further weakens farmer demand for improved seed, creating a vicious cycle of underinvestment in seed production and distribution.²⁷²

Provincial governments provide intermittent (though irregular) subsidy and purchases of large volumes of seed in Haut-Katanga and Lualaba provinces, creating another challenge for a sustainable local seed sector. Seed subsidies are double-edged, as they both create a market for improved seed, but also distort the market and incentives for farmers, and may cause more issues where the quality control of the distributed seeds is weak.²⁷³ For one ex-team member of Élan, the increasing role of provincial government in the market has undone the progress the project had made, by distorting the market and disincentivising investment.

3.4.2 Sustainability at firm level

There is evidence of good sustained and improving performance of the two largest seed producers (Seed Co and NASECO) including since Élan closed. Figure 14 summarises the findings on seed sales for the main intervention partners studied for this report (see Annex E), which are the four main maize seed partners in terms of the NAIC and beneficiary claims Élan made over the course of the project (see Section 3.3). All the firms saw increases in the main period of intervention, notably the 2016/2017 to 2018/2019 period, as most of the interventions were covered in Élan 1.0. NASECO also saw an extension into Élan 1.2 with interventions into 2020/2021, and also saw sales increase in those years.²⁷⁴

²⁶⁸ As relayed to us in interview with the Ministry of Agriculture provincial office in Lubumbashi.

²⁶⁹ USAID (2019) SEEDCLIR report.

²⁷⁰ We visited the SENASEM laboratory in Lubumbashi which clearly had not been fully operational for many years. There was only one seed sample on site for example.

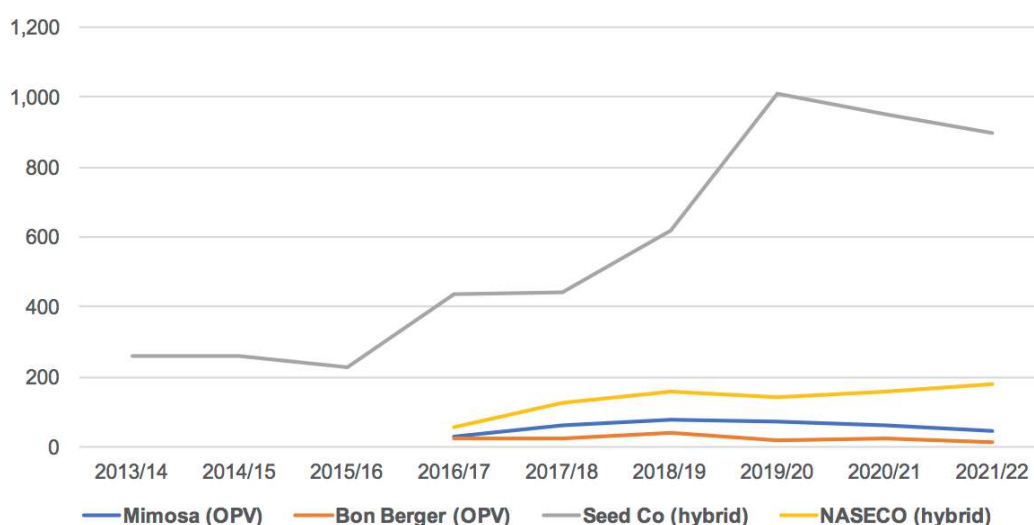
²⁷¹ The ubiquity of fake seeds is the reason given by several seed companies for choosing to suspend their commercial seed business activities in the DRC. Source: USAID (2019) SEEDCLIR report.

²⁷² A situation akin to that set out in Akerlof (1970) "The Market for Lemons"

²⁷³ At least of one of Élan's partners had also not been paid by government for a large order, an additional challenge.

²⁷⁴ Davies (2017) categories of sustainability can be extended in terms of the sustainability of innovations in practice changes of private sector actors, as well as behaviours of intended beneficiaries. One factor is whether the innovation, product or service that the programme works on continues and at what scale; and a more complex factor is whether other changes are generated with causal attribution to the programme activities. The longer any causal change the more difficult attribution is to assess.

Figure 14: Estimated sales of maize seed (t) for Élan’s main seed partners, 2013-2022



Source: Mixture of Élan documentation, DSU interviews and USAID (2019), see Annex E for more detail.

Sustainability of local OPV interventions

The degree of sustainability in the local OPV market has been more limited. As noted, Élan had calculated a potential market for 5,000 tonnes of improved seeds in Katanga [per year], with the actual market for seeds at the outset estimated to be closer to 500 tonnes, with 250 tonnes of imported (mainly hybrid) seeds and 250 tonnes of locally produced OPV seeds.²⁷⁵ It is not clear that the market for OPV seeds is significantly different from the start of Élan in 2014. This study estimates production in the south region in 2022 of 60 tonnes of OPV maize seed, from members of APSK, which is predominantly from the two firms Élan supported most: Mimosa and Bon Berger.²⁷⁶ Other than SAGRICIM and Mbeko Shamba it is not clear there are any other significant producers in the region.²⁷⁷ There is no sense of an exponential increase in the Katanga region, and it could be said that the OPV seed market is stagnating.

The liberalisation of the market for foundation seed was a systemic step, and allowed Mimosa to expand but the scale of operation remains very small. Mimosa have provided foundation seed to SAGRICIM in Lualaba, a once dormant company, although a parastatal. SAGRICIM have sold seed to the provincial government in Lualaba for the Village Agricole initiative.²⁷⁸ In the sense that Élan’s two main partners, The local OPV seed

²⁷⁵ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

²⁷⁶ USAID estimated that 64.5 ha was used for maize seed in the 2017-2018 season, and 65.5 ha in the following 2018-2019 season in Haut-Katanga (and 20.5 ha and 37.3 ha for other seeds in those two seasons respectively). The production of maize seed was estimated at 158.6 tonnes in 2017-2018 season with Mimosa the largest producer with around one-third of production. This was down from the 2016-2017 season when 194.7 tonnes of maize seed was produced. Source: USAID (2019) SEEDCLIR report.

²⁷⁷ According to USAID (2019) SEEDCLIR report, “Mbeko Shamba stopped commercial seed production due to problems with the fraudulent use of its brand. The company now only produces seed for its own use and for affiliated farmers.”

²⁷⁸ According to USAID (2019) SEEDCLIR report, “[SAGRICIM] runs the only surviving seed farm from the original World Bank program for seed farm privatization from 1989-1992... SAGRICIM restarted seed producing activities in 2016 following the election of the new provincial government and its request for maize and bean seed to support agricultural development activities under the new provincial development strategy. Although production was interrupted in 2017-2018 for political reasons, the 2018-2019 season has seen new orders for seed resulting in 60 hectares of Babungo maize seed production and 5 hectares of D6 Kenya bean seed. The provincial government delivered the seed to farmers for free in 2017.”

producers, Mimosa and Bon Berger, are surviving in a very challenging environment, including for example suffering from non-payment for large provincial government contracts (in Mimosa's case), there is some practical sustainability of Élan's work in the sector. Mimosa credit Élan with increasing their capacity, formalising the business, and upgrading their warehouse, all still operational if not expanding much. Unfortunately, however, neither Bon Berger nor Mimosa continue with the access to finance that Élan facilitated (see Section 4.4 on A2F). As Bekkers and Zulfiqar (2020) note, programmes should "consciously try to avoid activities that merely create temporary shifts in incentives or behaviours." It is arguable whether Élan did so in the OPV market, particularly in the strategies around marketing and direct sales to SHFs. It appears the market remains dominated by government, NGO, and mining company purchases. SHFs may benefit from hand-outs resulting from these purchases, as Élan modelled (see Section 3.3.2), however this is not the ToC that Élan started with. If not harmful, it has not catalysed a sustainable local seed market beyond the very small scale operational today.

Sustainability of international hybrid interventions

The degree of sustainability in the hybrid seed market has been much more successful in both the southern region with Seed Co and the eastern region with NASECO. In the southern Katanga region, Élan estimated a market size of 250 tonnes of imported (mainly hybrid) seeds in 2013,²⁷⁹ and this has increased in size to around 1,000 tonnes, which is dominated by Seed Co.²⁸⁰ Seed Co say they can reach 1,300 tonnes "in a good year". In the eastern region, NASECO have increased sales to 180 tonnes in 2022 from just 55 tonnes in 2017.²⁸¹ Unlike for other intervention partners of Élan, it is claimed that the vast majority of these sales go directly to the target group of SHFs. According to NASECO in interview, they hope to continue strong growth and have a sales target of 350 tonnes of maize hybrid seed sales for 2023.

NASECO has already invested in producing in the DRC, while Seed Co still intend to do so when conditions are right and they reach sufficient sales volume. NASECO's relative success may in part be to the relatively low price of the hybrid seeds they sell, as well as the relatively dense population in the Kivu provinces, meaning that higher volumes of SHFs can be reached in spite of the infrastructure challenges. Seed Co still mainly rely on government purchases and larger commercial farmers. There is some evidence of a market from more commercialised farmers for Seed Co seeds, and according to an agro-dealer we spoke to, the seeds are popular with more advanced farmers, however affordability is an issue particularly with the global situation and rising fertiliser prices and in the past year hybrid seed sales to SHFs were falling.²⁸² Seed Co say they still intend to produce in the DRC but require 1,000 tonnes in sales for three years running or to reach 2,000 tonnes of sales.²⁸³

Sustainability of OGS and contract farming schemes

The sustainability of both the OGS and contract farming schemes Élan supported has been very weak. As of Élan's 2017 Sector Strategy for AgNP the limitations of the OGS pilots had become clear: "the NAIC per SHF of OGS is high but there are clear limitations in

²⁷⁹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

²⁸⁰ Another importer, Pannar, is much smaller in the DRC market, but it has not been possible to get any exact estimate of their current sales.

²⁸¹ Implying a compound annual growth rate (CAGR) of sales was 27 percent from 2017 to 2022.

²⁸² See Baffes and Koh (2022) "Fertilizer prices expected to remain higher for longer"

²⁸³ These two figures were those given to us by two senior Seed Co staff members in separate interviews.

terms of OGS outreach. OGS is not a sustainable long-term strategy to provide inputs to smallholder farmers but it is currently very relevant to the DRC context.”²⁸⁴ This has been borne out in that none of the original OGS supported are operational, at least not on the scale that Élan had promoted via the interventions. Mulagricom did not continue its OGS after Élan’s support; the SEK mine was sold and discontinued the contract farming model in 2018; the TFM mine link with Bon Berger was discontinued after a single season; and Mbeko Shamba work with a much smaller number of families than before.

²⁸⁴ Élan (2017a) 2017 Sector Strategy for AgNP

4 Access to Finance

4.1 Relevance of Élan's A2F work

Evaluation question:

- A2: To what extent was Élan and the interventions it supported appropriately designed to meet the needs of stakeholders and target beneficiaries?
- A3: To what extent did the intervention logic and assumptions of the Élan project (and its interventions) hold during implementation?

Sub-questions

- How important (market actors including target beneficiary) were the MSCs that Élan chose to address to stakeholders?
- How appropriate were the interventions to target the constraints?

Key findings:

- Élan was correct that mobile money provided a major opportunity to increase financial inclusion in the DRC, and a very well-evidenced case on this was made.
- The initial growth stage of mobile money would likely affect urban and better-off people first, in part because of demand for transfer services, existing financial inclusion rates, mobile network coverage and liquidity of urban agent networks.
- Élan aimed to reach rural areas through tie-ups with a large and innovative MFI, which may have been a model with less chance of systemic change and replication.
- SME lending was developed in a less strategic and more ad hoc manner. It led to a good tie up with one bank but based on a high-rate of subsidy (credit guarantee) that may have provided short-term impact but limited systemic change potential.

As set out in Section 2.3, Élan had high expectations from the outset that addressing systemic constraints in financial market systems could benefit poor people in the DRC. This section describes the target beneficiary group who in the A2F sectors were principally poor consumers as well as micro, small and medium enterprises (MSMEs). As with the AgNP chapter this begins with the needs of beneficiaries (Section 4.1.1), needs of businesses (Section 4.1.2), the appropriateness of design to meeting the needs of these groups (Section 4.1.3), and then an assessment of how Élan's assumptions held over the course of implementation (Section 4.1.4).

4.1.1 Needs of target beneficiaries

Élan's work on branchless banking (BB) initially focussed on mobile money, and was primarily framed as targeting 'poor consumers', unlike in AgNP where they were also often 'poor producers'. It was clear at the outset that those who already were financially included were more likely to be urban and employed in the formal economy, and much more likely to come from the upper quintile of the income distribution. However, it was also recognised that the rate of financial inclusion was very low, with only 12 percent of adults in the DRC 'banked' according to the FinScope 2014 survey, and 21 percent using 'other formal services', primarily remittance services provided by money transfer operators (MTOs)

(see Section 2.3.1). As the 2014 survey had drawn on a sampling frame that was not representative of much of the DRC rural population, the rates of financial exclusion at the time were likely significantly higher than FinScope estimated. At that time, just 2.4 percent of the adult population was found to be using mobile money services with an active account,²⁸⁵ therefore growth in mobile money usage would not necessarily translate into greater financial inclusion.²⁸⁶

Élan’s analysis began from the diagnosis of low access to finance, and that access was concentrated in urban areas.²⁸⁷ The geographical focus was therefore important, and this would particularly lead the A2F BB sector work around agent banking, including the FINCA interventions, as well as the A2F SME work with a rural / farming focus (see Section 4.1.2 below). According to the DRC’s national poverty line, 60 percent of the urban population was estimated to be poor, compared to 65 percent of the rural population in 2012.²⁸⁸ However, as noted, the rural-urban divide was much starker when using a multidimensional poverty index (MPI).²⁸⁹

A2F beneficiaries were found to be less likely to be in poverty than for other sectors of Élan’s work. As set out in Section 3.1.1, in 2012, surveys estimated 77 percent of the DRC’s population were living under the USD 1.90 per person per day purchasing power parity (PPP) poverty line.²⁹⁰ Élan undertook its own poverty profiling study in 2018 to analyse beneficiaries, and based on this work A2F beneficiaries had the highest income among the sectors in which the project worked. A2F beneficiaries were estimated to have average income per person per day of USD 3.38 (compared to USD 0.59 in the AgNP sector),²⁹¹ placing them above the estimated national average income in 2018.²⁹² A2F interventions surveyed had between 52 and 71 percent of beneficiaries under the USD 1.90 poverty line.²⁹³ This was based on just three interventions – FINCA, and the mobile money campaign, the latter being the stand-out A2F intervention that generated a large majority of beneficiaries (see Section 4.3.1).

Mobile money, potential benefits

A range of potential benefits could come from mobile money access, mainly due to more efficient and less costly remittances. The rationale for benefits set out by Élan included that income benefits would accrue to the poor through two main channels: (1) direct cost-savings through reduced fees, travel costs, risks of theft and insecurity, and (2) growth and expansion of income generating activities by poor entrepreneurs (arising from time-savings and increased transactions through mobile money). Poor individuals and households were said to make “heavier use of remittances, alternative payment and transfer services to mobile money”, which could be insecure or prohibitively expensive. Cheaper

²⁸⁵ CENFRI et al. (2016d) Making Access Possible, Diagnostic Report

²⁸⁶ As new mobile money users were more likely to come from the 33 percent already ‘financially included’.

²⁸⁷ “Outreach is primarily urban focused, as bank branches and outlets are concentrated in urban centres (56 percent in Kinshasa, 13 percent in Katanga, 10 percent in Bas Congo). MFIs and [SACCOs] target the poor and currently serve 416,000 savers and 190,000 borrowers, the majority of whom are in Kinshasa or the Kivus”. ASI (2013b) Market Systems Analysis Report

²⁸⁸ DRC Enquêtes 1-2-3 data collection 2012, as reported in Mahrt and Nanivazo (2016).

²⁸⁹ OPHI (2013) “DR Congo OPHI Country Briefing 2013”. See Figure 46 in Annex G.

²⁹⁰ Revised to 70 percent using the World Bank’s new threshold of USD 2.15 PPP. World Bank (2022c) WDI data SI.POV.DDAY. See World Bank (2022a) for updated methodology.

²⁹¹ Using a PPP-weighted measure. Élan (2018g). See Figure 47 in Annex G.

²⁹² USD 1,234 A2F beneficiary average annual income with a PPP measure, compared to a USD 1,073 national average. National average from World Bank (2022c) WDI data indicator NY.GDP.PCAP.PP.CD

²⁹³ Élan (2018g) “Poverty Profiling Report”. See Table 40 in Annex G.

mobile money services would provide direct cost savings through cheaper transfer fees than other options such as via MTOs.²⁹⁴ A range of other benefits from mobile money were hypothesised including improvements in savings, insurance and even intra-household dynamics (as set out in Box 8, and in more detail, see Potential benefits of mobile money in Annex F). Threats of loss, from rent-seeking, theft, and costs of storing or transferring physical cash would also be reduced when using mobile money. Reduced risks of money transfer were said to be most important for women, “allowing them to safeguard money from both thieves and their husbands”.²⁹⁵

Box 8: Benefits of mobile money

A range of studies were used by Élan to justify the potential benefits from mobile money use. Household and business outcomes can therefore be affected through several different channels, as categorised by Aron (2015):

- **Reducing transactions costs and increasing remittances:** Mobile money reduces the time and cost of sending and receiving money including over distances where there are poor and expensive transport links. Mobile money users have been found to have higher remittances, consumption, profits from production, and reduced rates of poverty (Kikulwe et al., 2014; Suri and Jack, 2016).
- **Reducing asymmetric information and improved transparency:** The record of financial transactions that mobile money provides creates greater transparency, and a ‘financial history’ for those previously unbanked. This provides a means to create credit scores for customers and potentially other services such as loans.
- **Increasing saving and changing the nature of saving:** Mobile money should offer safe storage than keeping money as cash. Even without payment of interest, the safety of mobile money has been found to increase savings rates (Mbiti and Weil, 2011).
- **Risk and insurance:** Informal networks can be expanded by access to mobile money transfers, particularly as they can cover larger distances between family members. As mobile money allows small and more frequent transfers of money this can lead to greater ability to manage negative shocks (Jack and Suri, 2014).
- **Changing family dynamics and changing social networks:** Mobile money can change relative family bargaining power. Aker et al. (2014) for example measured improved household bargaining power for women in Niger via mobile transfers, with resulting welfare improvements.
- **Improving efficiency:** Mobile money can facilitate trade by making it easier for people to make and receive payments for goods and services. This provides benefits to consumers and MSMEs, and could improve investment decisions.

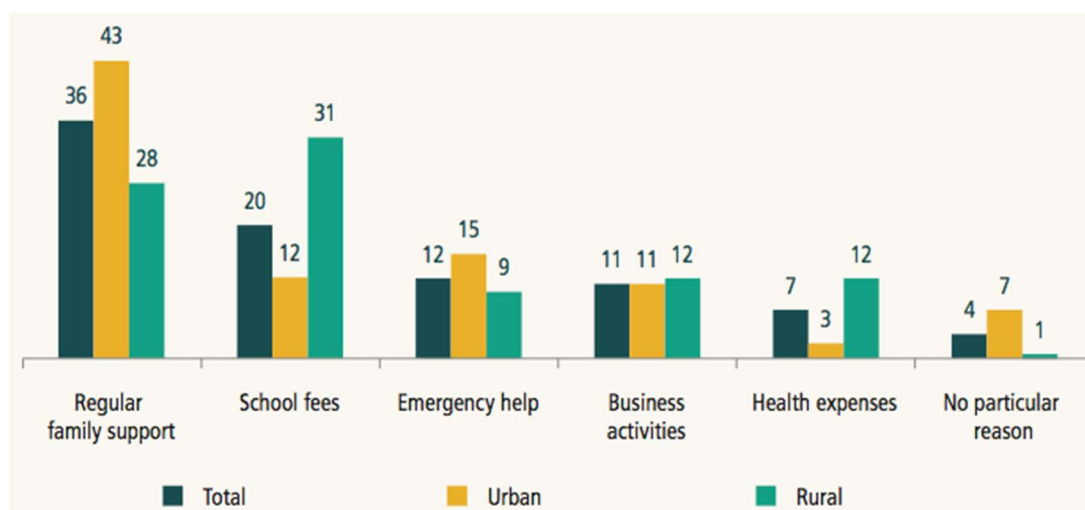
Élan presented evidence in the DRC context that mobile money would compete well with existing transfer services. In the GSMA (2013) survey, 53 percent of households reported to have received a money transfer in the previous three months, and nearly two-thirds of those remitting sent money to another province in that period. As shown in Figure 15, the most common reason for sending was regular family support, followed by school fees. The survey also found, as with the FinScope 2014 survey, that MTOs were the most common means of sending, and that a competitive transfer market already in place (with

²⁹⁴ Although analysis on the gap in costs suggested direct fees might not be that large (see Table 12 in Section 2.3.1) with mobile money operators charging a range estimated at USD 1.2-USD 2.35 in total for a USD 100 transfer, compared to USD 1-USD 5 for the same transfer via the MTO networks. Source: CENFRI et al. (2016d) for MM providers; and GSMA (2013) for MTO and bank costs.

²⁹⁵ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

Western Union and MoneyGram dominating international remittances but also offering domestic options). However, focus group participants in the GSMA research said they wasted lots of time at local transfer offices waiting to make a transfer, indicating a gap in the market for mobile money providers. Ease, speed and safety were named as the main priorities for selecting a transfer option, and found to be more important than the cost. This highlighted the need for trust in mobile money.

Figure 15: Reasons for sending money (for “most often” transfers)



Source: GSMA (2013) “Mobile Money in the DRC: Market insights”.

Knowledge of mobile money was found to be a critical constraint in terms of use its use. Individuals reported paying their bills at the provider office, with further time and cost taken for these processes. The predominance of cash in such payments left rooms for scams and theft. Despite this, trust in the stability of mobile money services and of the financial system in general was found to be limited.²⁹⁶ There was also low awareness of mobile money reported with 42 percent of respondents saying they did not know how they could access mobile money services. This evidence was used to justify the awareness campaign that would form the main intervention in the sector by Élan.

4.1.2 Needs of businesses

The other strands of the A2F sector work was focussed on SMEs. Élan’s work on A2F for SMEs was explicitly aimed at increasing financing for businesses. The GSMA (2013) study had emphasised that MSMEs in the DRC, as with households, were heavily dependent on cash for transactions and payments. Salaries were largely paid in cash, and also many bill payments.

Élan also set out mobile money impacts on businesses particularly as MSMEs mainly dealt in cash.²⁹⁷ For example, a study of mobile money usage on MSMEs in Tanzania found that business owners benefited from the time saved from not having to go to the bank and also from the increased efficiency in transactions with suppliers and buyers, allowing them to increase the number of orders and sales.²⁹⁸ However, in the DRC, the GSMA (2013) study found that small business owners reported paying suppliers almost exclusively in cash and

²⁹⁶ GSMA (2013) “Mobile Money in the Democratic Republic of Congo: Market insights”.

²⁹⁷ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

²⁹⁸ Bangens and Söderbergh (2011) “Mobile money transfers and usage”

in person, and acknowledged that the time required can be significant. Business owners had a number of concerns with mobile money as an alternative, which included issues such as the ease of deleting SMS messages (and therefore loss of a record for a financial transaction), difficulty of correcting errors without an agent present, and network failures. Network issues was a common response in the GSMA (2013) research, for example a question such as: “What happens with my money if I am in the middle of a transaction and the network goes down?” came up frequently with decision-makers and small business owners.

Mobile money agents employed by the MNOs were themselves MSMEs, and Élan viewed this as another potential beneficiary group, where “the number of poor who have the opportunity to become agents is projected to grow especially as services expand into rural areas”. As the network was already estimated to involve 18,000 individuals in 2013, this represented a significant opportunity to expand and increase incomes.²⁹⁹ Agents would receive a small commission on new registrations, and on both cash-in and cash-out transactions, on a monthly basis. However, the agent network itself could be a challenge for mobile money operators, in terms of the rate of expansion but also as a cause for mistrust. This could be via unreliability of service (due to poor screening or training) or fraud (for example, if they obtained the PINs of their users).³⁰⁰

SME access to credit

MSMEs have low access to credit in the DRC, with very low rates compared to international comparator countries. As set out in Section 2.3.1, access to finance for MSMEs has been limited, with banks in the DRC often finding profitability to be higher on commissions for transactions, particularly larger foreign exchange trades centred on the mining sector. This has limited the growth of credit, and the DRC places in the lowest countries in the world in terms of credit as a proportion of GDP (see Section 2.3.1). Collateral values of 200 percent of the loan size make borrowing prohibitive for many MSMEs, particularly in agriculture. The cost of credit is also high. In the river sector, for example, estimated credit used for fuel would be received at interest rates varying between 18 and 50 percent.³⁰¹

4.1.3 Appropriateness of interventions to meet needs

Élan’s interventions aimed to address specific factors that they diagnosed as important to improve financial inclusion among both individuals and SMEs. Mobile banking would reach the poor as consumers, as well as potential workers including as mobile banking agents. MSMEs could benefit from mobile money use in trade, as well as through increased access to credit linked to SME finance interventions.

A strong case was made by Élan for the potential of pro-poor outreach in the mobile banking sector, especially given increasingly proportion of the poor with access to mobile phones. Élan began with less initial focus on the SME finance sector, which was more of an evolution over time, particularly coming out of the AgNP and Transport sector interventions (reflecting the need for better access to affordable credit by partners in these sectors). It can

²⁹⁹ ASI (2013b) Market Systems Analysis Report

³⁰⁰ Mudiri (2012) “Fraud in Mobile Financial Services”

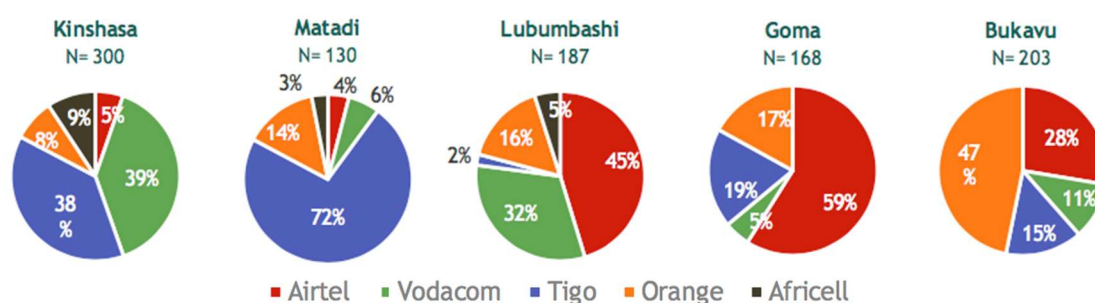
³⁰¹ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

be said that the SME finance sector was more opportunistic and not necessarily built on such a large body of evidence as Élan’s mobile money work.

Increasing access to and usage of mobile money

The case for mobile money to have a pro-poor focus was only limited by the reality that the market was at such a nascent stage, and the user base was still quite low. As such, Élan was clear that MNOs would be concentrating on marketing to likely early adopters of mobile money (more urban and affluent) in the short and medium term.³⁰² In addition, due to the need for network coverage, this was also integrated into the MNOs own geographical coverage strategies with associated infrastructure costs of extending into new areas.³⁰³ Research funded by Élan later found significant differences in market shares for the MNO providers in different regions, which may have then had an impact in how roll-out could be expected to evolve (see Figure 16). In practice, the mobile money strategy was much more likely to impact on urban than rural areas.³⁰⁴

Figure 16: Network coverage and dominance in different major cities (mobile phone)



Source: Altai Consulting (2016) “Opportunités Offertes Par Le Mobile Money”

According to Élan in 2013, MNOs projected that mobile service penetration rates could reach 12-15 percent of the population over the subsequent five years. This would equal around 10-13 million users or about one-third of the urban population.³⁰⁵ The predominance of consumer information and awareness as a strategy was logical but did not perhaps make a convincing case that all trust issues would be allayed, particularly where they were based on consumers’ experiences with agent networks. Furthermore, Élan’s early analysis had emphasised that “marketing to the [bottom of pyramid, BoP segment] needs to be different”, and instead take one village at a time and build on a word of mouth basis. “Above the line marketing”, including billboards and TV/radio spots, would be less likely to generate new ‘BoP consumers’, and rather, ‘below the line’ “BoP marketing includes village-level tactics such as demonstrations in public places or among small groups, leveraging village politics and networks or encouraging positive word-of-mouth through adopters”.³⁰⁶

The payment of civil servant salaries was often cited as a reason and opportunity for growth in the early stages of the project. As per Élan’s early political economy analysis

³⁰² Ibid. ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

³⁰³ For network coverage estimates see Figure 50 in Annex G.

³⁰⁴ “Current users of mobile money in the DRC are heavily skewed towards males and better-off market segments in urban centres such as Kinshasa, Lubumbashi and Goma”. ASI (2013a).

³⁰⁵ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”. This was not set up as a rigorous counterfactual for Élan’s work to promote consumer awareness and contribute to faster uptake. This also limits the ability to clearly estimate the impact of the mobile money campaign (see Section 4.3, also see Annex E.6 for more information).

³⁰⁶ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

the use of mobile banking to pay salaries of civil servants and the military had had profound implications for state patronage networks. Prior to this, salaries had been paid in bulk to senior officials, who then distributed them. This system afforded these officials and commanders opportunities for embezzlement and patronage, and the loss of these opportunities met with stiff opposition.³⁰⁷ The mention of salary payments reduced during Élan's implementation period, and it is not clear whether this was linked to the political economy issues highlighted.

Work on agent banking including that leading to FINCA interventions, was more targeted, with local specificity of agents supported, as opposed to the national coverage of the mobile money campaign intervention. By specifying for outreach in particular areas, there was more likelihood that Élan could influence rural financial inclusion. This was generally done alongside the geographical focus of the AgNP sector in particular (see Section 4.2.2), and meant that in effect, Élan was combining interventions. Such combinations of interventions may have increased the chances of short-term impact, but were then potentially less effective in piloting a strategy and demonstrating systemic impact.³⁰⁸

Access to finance for SMEs

Access to finance for SMEs was created as an opportunistic portfolio of interventions, with ongoing learning leading to tailoring of the approach over time. The work that ultimately came to predominate in Élan's reporting on the SME finance sector was on Collateral Management Agreements (CMAs). The CMA model creates a system where agricultural stock can be placed under the control of a third-party holder, and the stock can be recognised as collateral and used to leverage loans, generally for working capital (see Box 10 in Section 4.2.2). Élan facilitated two CMA interventions, the first in Kivu with smallholders, which did not succeed, and a more successful pilot with in Haut Katanga with a large commercial maize farmer, GoCongo. The initial experiments CMAs were not successful or sustained, however the final CMA in Katanga with GoCongo and Equity BCDC, was a limited success, with some potential systemic impact (see Section 4.2.2 and Section 4.4). It could be argued that the opportunistic and adaptive approach led to the more successful intervention, and this might not have been possible by more detailed design up-front.

Élan's broader SME lending work, which included the loan guarantee provided to ProCredit Bank, was again the result of trials in the transport sector and then extension to AgNP intervention partners. The idea of linking SMEs to financial institutions and vice versa, providing capacity support, and then providing an effective subsidy to lending, was always likely to lead to short-term increases in access to credit. The systemic change case would then be that the banks in question would learn from the opportunity, better tailor their products, and grow confidence in the SME sector as a result. This case was optimistic but there may be some evidence that it was justified (see Section 4.4.2), particularly with Equity BCDC, both in product lines and a focus on the SME sector, as well as the agricultural sub-sector in particular. Despite this, there was a gap in strong analysis of constraints to lending to SMEs, including even on the definitions of SMEs,³⁰⁹ which appears relatively absent in Élan's documentation. The strategy appears to have been led much

³⁰⁷ ASI (2013b) Market Systems Analysis Report

³⁰⁸ I.e. two interventions may have supported one another, but not been successful on their own. Such a scenario would limit potential of testing systemic impact and ensuring sustainability of market system changes.

³⁰⁹ As well as their respective needs based on turnover, formality, investment size, and sector of the economy

more by the interventions, and the articulation of the broader system was vague, which was not the case for mobile money in comparison.

Targeting poor female consumers

Élan also set out an early case that mobile money had greater potential for poor female consumers, and women in general. Women in the DRC “have historically faced both legal and cultural barriers in accessing finance and controlling their own income”. Mobile money could provide security and privacy and for women to gain more control over their earnings within the household. Women would have the potential opportunity to benefit by becoming agents.³¹⁰ Women agents were said to be underrepresented in mobile money agent networks and made up 5-10 percent of agents.³¹¹ Despite this analysis, it is not clear that A2F interventions had a particular focus on women and the proportion of female beneficiaries was not especially high (see Section 4.3.1).

4.1.4 Extent to which assumptions held in A2F sector

Élan’s assumptions underpinning work in the A2F sector varied in the degree to which they held true; the mobile money sector was dynamic and fast-growing, while barriers to A2F for the poor, for MSMEs and in agriculture were more pervasive than had been assumed. There were several key assumptions for how Élan could affect market systems and generate what they called Market System Changes (MSCs). Table 22 outlines brief findings on five assumptions for the A2F sector, following the MTE approach and includes a summary of the assessment in 2018 from the MTE as well as an assessment made for this study.³¹² This largely draws on findings in subsequent sections on Results (Section 4.2), Impact (Section 4.3) and Sustainability (Section 4.4).

Table 22: Assessment of assumptions underpinning Élan’s A2F sector

Assumptions	Assessment of MTE (2017)	Assessment now (2022)
1. The binding constraints to increasing economic activity that perpetuate poverty can be addressed by MSCs.	CMA has changed market system, however not working for SHFs. Unclear on river transport boat operators in terms of trickle down. Pro-poor benefits of BB, not clear how savings are spent.	With focus on confidence in mobile money, more complex issues such as liquidity and a trustworthy agent network were missed. Innovations in finance positive but not targeting the poorest.
2. Pro-poor MSCs can be brought about through partnership interventions with (private) partners.	CMA in Kivu failed; demand-side solution for supply-side problem. Trickle down from river boat operators unclear. BB pilots addressed binding constraints and benefits should be realised.	Mobile money roll-out was likely to reach relatively richer Congolese first, linked to network coverage and agent liquidity. However, case still valid for pro-poor changes. Valid case to work with banks and MFIs to promote MSME lending.

³¹⁰ ASI (2013b) Market Systems Analysis Report

³¹¹ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

³¹² DSU (2018a, 2018b) MTE and MTE Technical Annexes.

Assumptions	Assessment of MTE (2017)	Assessment now (2022)
3. There is a cascade of effects from MSCs that ultimately benefit poor and women producers and/or consumers.	CMA is costly, and need SHFs to deposit large amounts to work for them. Pro-poor benefits of transport work unclear. BB / mobile services reaching poor to some extent	Cascade for mobile money based on cost savings, which were not rigorously evidenced. CMA did not benefit SHFs as originally intended. Very little work to specifically target women.
4. The benefits of Élan pilot interventions will be sustainable.	CMA viable for commercial operators Clearly high demand for BB / mobile services. Extent of targeting of poor still unclear and access may still be a challenge	CMA model was a moderate success but not currently sustained, though could be reinvigorated. Mobile money growth continues with some innovation in digital finance market supported by Élan. Interoperability positive. MFIs still small. Rural and MSME finance still limited.
5. Adoption of new practices by pilot partners will sufficient to achieve expansion and response including beyond the period of project implementation.	CMA highly scalable if applied to commercial farmers. If boat operators can repay loans, could see value of loans increase. Should see growing demand for BB / mobile services.	Challenge of very few market players with interest in agricultural finance. However, Equity BCDC now have big ambitions to address this. Collective action challenges such as credit registries, and contextual challenge of dollarization not addressed, meaning deep causes of financial exclusion remain.

4.2 Effectiveness of Élan’s A2F work

Evaluation question:

- B2: To what extent has Élan led to improvements in market systems?
- B3: What factors have influenced the results achieved?

Sub-questions:

- How, and how much, have targeted constraints and MSCs changed during the period of Élan’s support?
- How, and how much, have Élan’s interventions changed policies and practices, leading to benefits for market actors including poor and marginalised target groups?

Key findings:

- The mobile money awareness campaign led to changes in the operators’ approach to marketing according to Élan, although longer-term attribution here is unclear.
- Élan’s collaboration with FINCA was at a time of extension of their agent network in line with a strategy to promote more digital services. FINCA has increased in size but it is unclear how much rural customers have been part of this growth.

- The second CMA intervention with GoCongo, COMEXAS and Equity Bank was successful and provided proof of the concept, however not in a way to impact poorer SHFs.
- Support to interoperability has contributed to significant progress in the digital payment system, both through convening players, bilateral interoperability for MNOs, and also innovative partnerships for ‘aggregators’ undertaken during the Covid period of Élan 1.2.
- The loans facilitated with ProCredit (then Equity Bank) were a limited success but could not overcome the causes of high costs of finance and collateral requirements.

This section presents findings on A2F sector effectiveness in policy (Section 4.2.1), and in practices (Section 4.2.2). Overall, this review agrees with the relative positioning of Élan’s final self-assessments that there were some successes in the policy environment, particularly on interoperability; however, the sector saw little progress in promoting access to finance for the target beneficiary groups of the poor and MSMEs. Progress was slow in leasing and insurance sub-sectors, while access to credit schemes had limited success, although there is some more impressive potential system change in terms of the involvement of Equity BCDC in agricultural lending, with plausible contribution from Élan’s work in A2F.

Élan’s self-assessment

Élan’s self-assessment on effectiveness in the A2F sector in June 2021 scored its own contribution to system change as highest in the area of ‘policies and formal rules’ and in ‘relationships and connections between market actors’, both classified as making ‘Progress’.³¹³ Policy progress was justified based on the national Switch progress, and work of the Cash Working Group; while progress on relationships was based on the DCSWG work (see Section 4.2.1). A score of ‘Strengthening’ was given to ‘Practices of market actors and business models’, and in ‘norms and informal rules’.³¹⁴ Both highlighted FINCA’s agent model, and greater collaborations in digital finance (see Section 4.2.2). A lower ‘Beginning’ score was given for ‘investment of market actors’, and for ‘participation of poor and marginalised people in the market’.³¹⁵ Élan’s claims to effectiveness were backed up by some commissioned evaluations by the M&E team, as well as final assessments of its work in the sector through the ‘Sector Study’,³¹⁶ ‘Legacy Sessions’,³¹⁷ and other learning briefs produced.³¹⁸

4.2.1 Policy in Access to Finance

In the context of the A2F sector, policy-related systems change includes the government of the DRC’s regulatory approach to digital finance and the innovations of mobile money; and also the overall regulatory approach to the financial sector as a whole. Unlike some other sectors this has a strong macroeconomic component and the state of the financial sector is tied to some particular characteristics of the DRC economy, such as its very high rate of dollarization. This section looks at this environment and the work that Élan undertook to try to improve it.

³¹³ Both scoring 7.5 out of 10 in their framework. Élan (2021j)

³¹⁴ Both scoring 5 out of 10 in their framework. Élan (2021j)

³¹⁵ Both scoring 2.5 out of 10 in their framework. Élan (2021j)

³¹⁶ Élan (2021j) “Élan Sector Studies – Access to Finance”

³¹⁷ Élan (2021k) “Élan RDC Legacy Sessions, Access to Finance”

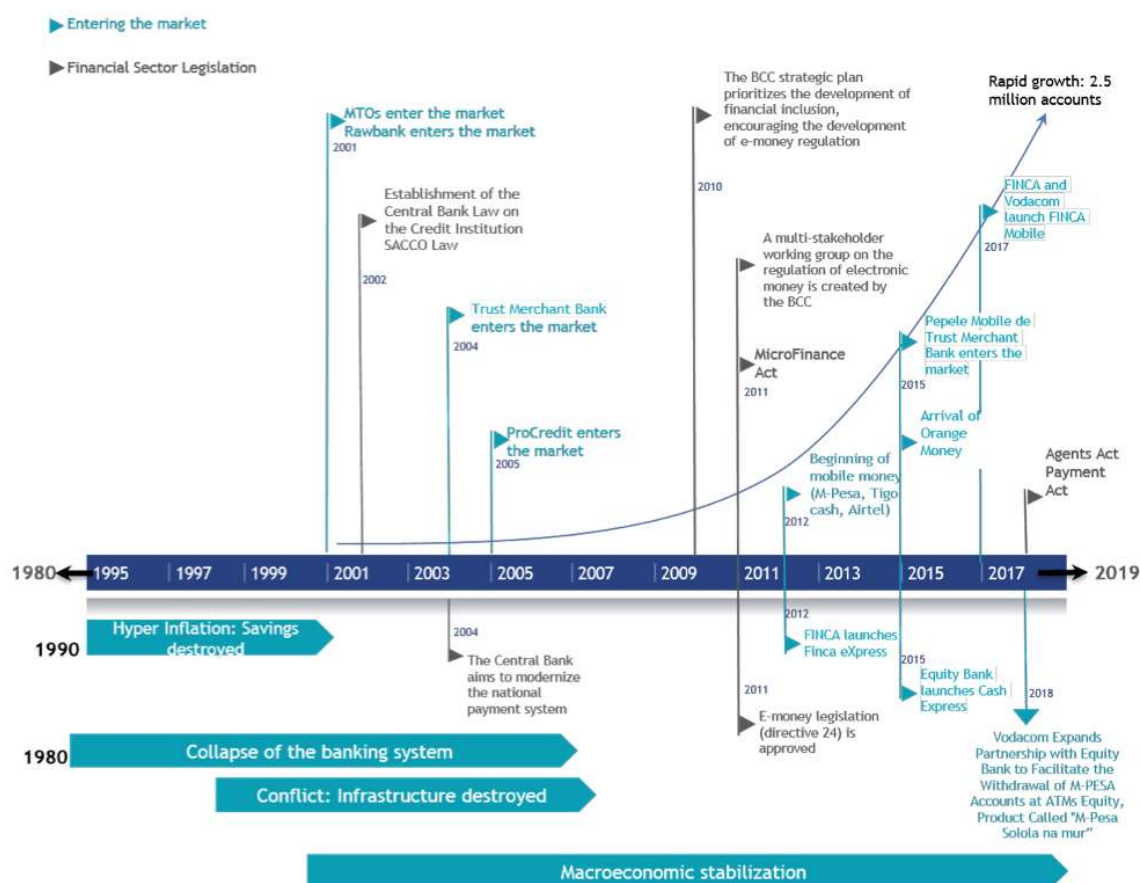
³¹⁸ Including Élan (2021l) “Sector Overview – Access to Finance”; Élan (2021m) “Developing a Digital ecosystem in the DRC”

Overall financial sector regulatory environment

The financial sector policy and regulatory environment was not a major focus of A2F sector work, particularly during Élan 1.0. At the beginning, sector analysis found there was a relatively conducive environment for digital finance, particularly with a 2011 Instruction on electronic money that had initially stimulated the opening of the market. Fast growth of mobile money was an indication that the regulatory environment must be conducive. In particular, ‘Know your customer’ (KYC) processes were not too stringent.

The Central Bank of Congo (BCC) has embarked on some initiatives to improve the national payments system infrastructure, although cash remains the dominant payment method. The DRC has a legal and regulatory framework governing banking, payment services and other financial services. The Instruction No. 24 of 2011 was central to liberalisation of the money market, while the law on the organisation and functioning of the Central Bank of Congo (law n° 18/027 of December 2018) empowers the BCC to promote a secure, solid and efficient national payments system, as well as to regulate all banking activities. As shown in Figure 17, there has been some strong progress, particularly with regulation of digital finance and electronic money.

Figure 17: The evolution of the financial inclusion environment in the DRC



Source: Sackho-Patel et al. (2018) “Agent network Accelerator Research. DRC Regional Report.”

A review of the financial sector funded by Élan found a number of challenges remain. This includes difficulties in accessing justice and dispute resolution mechanisms outside Kinshasa, the lack of a consumer protection framework, lack of a framework for deposit insurance, slow progress in liberalisation of the insurance market, and onerous tax

requirements.³¹⁹ The IMF (2022c) FSSR noted a range of issues with the BCC's regulation of the financial sector including prudential standards on solvency, slow processes for bank liquidation, and classification of non-performing loans (NPLs). NPL definitions were eased during Covid, and may remain understated. Other issues include dollarization, where debt is often held in USD while households and SMEs receive much income in Congolese Francs (CDF) (see below).

Dollarization as a constraint to progress on interoperability and lending

The DRC economy is highly dollarized, more than almost any other country, as set out in Box 3 in Section 2.3.1. In 2014, about 90 percent of banking sector deposits and lending were in USD. The rate of USD lending has increased over time, and as of 2021 constitutes 95 percent, with less than 5 percent of lending in CDF.³²⁰ Banks are able to maintain investments in USD via two main relationships: (i) ordinary correspondent banks, mainly large banks in advanced countries; and (ii) parent companies that centralise the group's cash flow, including that of their DRC subsidiary. The latter entails the risk that parent companies may default while holding a large part of Congolese domestic savings; the former creates dependence on the foreign correspondent banks used for clearing transactions. This is a major systemic risk as it relies on the regulatory risk appetite of these banks.

Dollarization slowed progress on a National Switch, increasing the need for solutions among private sector players. With support of the World Bank, a national payment system with ability for local clearing of USD was created, however it was suspended due to concerns around Anti-money laundering / Combating the Financing of Terrorism (AML/CFT) by US authorities in late 2019.³²¹ The result is that large transactions in USD are made through correspondent banks abroad and not through the local system.³²² While dollarization was beyond the scope of Élan, it helps to explain risk aversion of banks and MFIs to lend to economic players outside of those dealing in large amounts of foreign currency (i.e. exporters, those operating in the mining sector etc.).³²³ 'De-dollarization' has been strongly advocated by the IMF over the years including now via a "medium-term roadmap",³²⁴ however this appears more of a long-term goal than ever, and dollarization appears to have increased in the past decade.³²⁵

Interoperability between financial service providers

A systemic issue that was more central to the work of Élan was interoperability and one in which Élan had some of its largest achievements. Interoperability refers to the ability to make payments between different financial service payment providers. This could be between different banks, between banks and mobile money operators, or between mobile money operators themselves. The three models of interoperability as set out in Box 9, provide different approaches in terms of the degree of a mandatory approach by the Central Bank as opposed to a voluntary approach from the private sector. The DRC is at an early

³¹⁹ CENFRI et al. (2016b) Financial Inclusion Roadmap 2016 – 2021

³²⁰ As set out in more detail in Dollarization in the DRC in Annex F.

³²¹ World Bank (2020) DRC Digital Economy Assessment

³²² IMF (2022c) DRC FSSR

³²³ "Despite interest margins of over 10 percentage points, banks do not lend domestically and prefer low-yielding placements abroad with correspondents". IMF (2022c) FSSR

³²⁴ IMF (2014, 2022a, 2022c)

³²⁵ The issue is only growing, as from 2022 onward, reserve requirements on capital in USD will be constituted in USD, and banks will transfer greater currency risk to their customers, particularly households, by encouraging them to take on debt in foreign currency for loans of more than 12 months, while households' resources are mainly in CDF. Shorter-term credits to households are to be provided in CDF. Source: IMF (2022c) FSSR.

stage for payments interoperability, but is now seeing a mixture of approaches.³²⁶ The BCC has been developing a National Switch ('Switch monétique') for many years with the support of the World Bank, and this became operational in 2020. However, with issues in the clearing of USD, the national scheme will only clear transactions made in CDF, and given this is a minority of financial transactions this means its coverage will be limited. Indeed, according to the BCC in interview for this study, transaction volumes have been small so far. One stakeholder noted it is also expensive with high per transaction costs of using the National Switch. The industry organisation, the Global System for Mobile Communications Association (GSMA), noted in interview for this study that maintenance of a national switch can be expensive.

In mobile money the main form to date has been bilateral interoperability via voluntary agreements, an area that Élan directly supported. Élan's support was primarily facilitative rather than technical; bringing different mobile network operators (MNOs) together,³²⁷ as well as other sector stakeholders such as the GSMA. A series of bilateral agreements between the three main MNOs were signed late during the Élan 1.0 period, in November 2018 (Airtel, Orange and Vodacom – under intervention AF27). While these were effectively memoranda of understanding (MOU), they have led to a functioning bilateral interoperability agreement between Vodacom (M-Pesa/Vodacash) and Orange Money, a pilot bilateral interoperability agreement between Airtel and Orange, and an agreement soon to be launched between Vodacom and Airtel. In the interview with one of the MNOs, Vodacom, conducted for this study, they were clear that Élan had contributed a lot to this work, a major achievement for the project.³²⁸

Box 9: Interoperability explained

Interoperability among mobile money operators can increase the customer benefits of mobile money and reach a greater proportion of the population. It has the potential of speeding up development of the mobile money market by avoiding each network needing to reach their own critical mass. Representing multiple networks, which interoperability can help, also can reduce cash-flow risk for agents (Bourreau and Hoernig, 2016).

The main variants of interoperability in practice have included: i) voluntary interoperability using bilateral agreements; ii) voluntary interoperability using a national switch; and iii) mandated interoperability using a national switch. Different countries have used different models, and best will depend on market structure and regulatory capacity. There is a risk that mandated interoperability can hamper market development by reducing incentives of market players to compete and innovate, particularly if the market is young. A regulator can also take an intermediary approach by regulating the fees and costs used for a voluntary model, however there are still costs to developing such a model, which may be passed on to consumers (Bourreau and Hoernig, 2016).

Where interoperability has been achieved in the SSA region, it has mainly been via voluntary means. In Kenya, the existence of a dominant telecom provider helped, although technological limitations reduced access for some and stifled competition (Singh, 2017). In Tanzania, a more even market between providers led to an interoperability agreement among several of them (Bourreau and Valletti, 2015). Chopra (2014) argued that if market players have relatively symmetric positions, interoperability can emerge as a market solution because players will see the benefits in the interconnection of their networks. But if an operator has achieved a large market share, they may see little benefit in interconnecting with their smaller rivals (Bourreau and Valletti,

³²⁶ Banks have worked on interoperability in the ATM space has operated for some years.

³²⁷ As per Q2 2018 report (Élan, 2018m), "the Mobile money operators met in three groups coordinated by ÉLAN in order to advance plans to launch wallet-to-wallet interoperability".

³²⁸ In interview Vodacom stated: "Élan acted as a facilitator in the interactions between MNOs that led to the signing of contracts on bilateral interoperability between MNOs. This support was very valuable not only for Vodacom but also for others. The contract signed with Orange Money was very important because it allowed the interconnection between different mobile wallets."

2015). For Bianchi et al. (2021) there is a case to mandate interoperability at the platform level, which would raise welfare through reducing costs across the market.

Élan supported set-up of a digital finance working group (DCSWG),³²⁹ aiming to embed the ‘digital eco-system’. Élan also developed partnerships with two ‘aggregators’ of payments services. Two providers, Infoset and Maxicash, would provide interoperable payment services using their own bespoke platforms. This was viewed as another ‘interim’ solution in the absence of fuller systems of interoperability. Both partners required work on the regulator’s approval, which Élan facilitated. This was framed as a Covid intervention, but was an example of good adaptive programming as it also had systemic importance. As reported in early 2021 by Élan, the “digital ecosystem secured a key win through the Central Bank transitional approval for aggregators to operate”.³³⁰ However, Élan were aware that both businesses were in competition with the bigger players including MNOs as mobile money operators.³³¹

The work with the aggregators came alongside work for interoperable payment solutions using Unstructured Supplementary Service Data (USSD), including four workshops held in 2019 with market players and regulators (involving the BCC).³³² The workshops pushed forward interoperable payment solutions, and combined with the Covid context this led to greater willingness from the BCC to make regulation more flexible. According to Élan, this led to the BCC to “[encourage] aggregators to foster more interoperability while waiting for the National Switch to be live”.³³³ See Section 4.4.2 for more on the experience of interoperability and the aggregators Élan supported. Other important regulatory aspects that were not worked on closely by Élan include know your customer (KYC) processes, and credit and collateral registries.³³⁴

Leasing and insurance

An area of long-standing work in the A2F sector but which ultimately gained little traction were the leasing and insurance sectors. This was a rare area of collaboration between the sister programmes within the PSD programme, Élan and Essor. While Essor commenced some work in insurance regulation, the slow liberalisation of the sector meant Élan did not have adequate time to establish partnership to pilot innovations. This potential was also interrupted by the pandemic from early 2020.

The work in leasing and insurance aimed to take advantage of new regulations. A Leasing Law had been passed in early 2015 and Élan pursued opportunities in leasing with banks such as RawBank, BOA and ProCredit but did not make progress. A new insurance code was passed in March 2015, a reform that would open opportunities for the development of the sector by introducing new international players who could develop the sector and lay the foundations for the future development of a capital market. Progress was very slow as up to April 2019, the only insurer, state-owned SONAS (Société nationale d’assurances), had a legal monopoly of insurance activities. In April 2019, four years after

³²⁹ The Digital Credit and Savings Working Group – DCSWG.

³³⁰ Élan (2021o) “Élan RDC Quarterly Report Q1 2021”

³³¹ “Because they are able to aggregate payments across operators, our partners Infoset and Maxicash are perceived as potential threats to individual FSPs’ market share. They have been faster than banks and MMOs on interoperability.” Élan (2021n) 2020 Annual Report. 2021 Business Plan.

³³² Élan (2019f) “Discussion Platform on Digital Finance in the DRC: 2019 MRM Report”.

³³³ This included: “the need for more flexibility in regulatory acceptable ID documents for KYC and digital transaction limits”. Source: Élan (2021i) “ÉLAN RDC Programme Closure Report”

³³⁴ See Know your customer (KYC) processes and Credit and collateral registries in Annex F.

liberalisation, four private insurance companies were granted licenses to operate, however this may have been late for the Élan project to then fully capitalise on.³³⁵ In its PCR, Élan concluded: “Leasing and insurance have faced significant delays. They are illustrations of how the market system development approach needs to include business environment to launch innovative products that would benefit low income population poor and SMEs. External legal and regulatory reforms are highly needed.”³³⁶

Élan and Essor aimed to collaborate on leasing and insurance but could not influence the sector nor the timing of government reforms. In 2019, Élan convened a workshop together with the IFC, where the main outcome was “a draft amendment to the leasing law which includes revised provisions on fiscal topics such as deduction of depreciation from corporate tax, treatment of VAT, lease equipment registration fee, import tariffs, etc.” This draft amendment was shared with the Governor of the Central Bank to “kick-start the official process of revising the leasing law”.³³⁷ As of January 2023, it is unclear if any more progress has been made.

4.2.2 Practices

A2F sector interventions were split between the two sub-sectors: branchless banking (BB) and SME finance. The majority of BB interventions were put under MSC 3.1 on consumer confidence.³³⁸ The entry point was the marketing campaign intervention, and the work with FINCA on expanding its agent network. Some work was done on new products, including supporting FINCA with its digital strategies, and tie-ups with MNOs such as Vodacom (MSC 3.3). The SME finance work mainly focussed on MSC 4.1 and the CMA model in particular.³³⁹ Partners in Table 23 are listed with the level of AAER (Adopt-Adapt-Expand-Respond) Élan claimed in the 2018 PCR; this also includes players that were not direct partners (ADVANS Banque, RawBank, EcoBank, Mashamba, Canal+) but for whom Élan claimed some replication in the models used.

Table 23: Élan’s assessment of systemic change using AAER framework

Intervention partner	Adopt	Adapt	Expand	Respond
Airtel ; MSC 3.1	✓ Marketing campaign			
Tigo ; MSC 3.1	✓ Marketing campaign			
Vodacom ; MSC 3.1, 3.3	✓ Marketing campaign; loan product (FINCA)	✓ Marketing		
FINCA ; MSC 3.1, 3.2, 3.3	✓ Loan product (Vodacom); rural agents; mobile banking	✓ Marketing	✓ Mobile services	

³³⁵ World Bank (2022b) “Country private sector diagnostic”

³³⁶ Élan (2018d) “Programme Completion Report” (PCR)

³³⁷ Élan (2019j) “2019 Q1 report”

³³⁸ MSC 3.1 - MNOs and Financial institutions develop financial education programs and other tools to increase confidence in mobile money and other digital financial services

³³⁹ MSC 4.1 - Financial institutions market adapted and innovative financial products

Intervention partner	Adopt	Adapt	Expand	Respond
Equity Bank (previously ProCredit); MSC 3.2, 3.3, 4.1		✓ Agri-loans; CMA	✓ CMA; Agency banking	
ADVANS Banque; MSC 3.1, 3.2			✓ Agent model; marketing	
RawBank; MSC 3.1, 3.2			✓ Mobile services; marketing	
EcoBank; MSC 3.1, 3.2			✓ Mobile services; marketing	
TMB; MSC 3.1			✓ Marketing; CMA	
Mashamba; MSC 4.1			✓ CMA	
Bank of Africa; MSC 4.1	✓ CMA			
COMEXAS; MSC 4.1	✓ CMA	✓ CMA	✓ CMA	
Maizeking; MSC 4.1	✓ CMA			
CMC; MSC 4.1	✓ CMA			
GoCongo; MSC 4.1		✓ CMA	✓ CMA	
Sycomore Venture (Ingenious City); MSC 4.2	✓	✓		
Viamo (previously HNI); MSC 4.2				
Canal+; MSC 3.1				✓ Mobile payments

Source: Élan (2018c) PCR. Annex 7 Assessing Systemic Change

This section focusses on the main interventions within A2F, looking more closely at the mobile money campaign, the work on agent banking, lending to SMEs in new sectors, the new digital finance tie-ups and products that Élan promoted, and the CMA interventions. Additional detail is provided in Annex E.³⁴⁰

Increasing consumer confidence and awareness of mobile money

Mobile money was a central pillar of Élan’s work in A2F from the start, having scored very highly in the initial scoping study for potential sectors.³⁴¹ A study was commissioned early on that was seen to confirm the hypothesis that consumer awareness of how to use mobile money was a major constraint, in particular while there was awareness on the ability to send and receive money using mobile money (61 percent and 50 percent respectively), other functions had very low awareness (for example ‘pay bills’ – 2 percent). Among sub-groups, females, the poorer and more rural households had lower awareness. There were also trust issues found in the research, linked to some bad experiences around liquidity of agents and network outages.³⁴²

³⁴⁰ See Annexes E.5, E.6, and E.7.

³⁴¹ ASI (2013c) DRC Market Development Component: Scoping report

³⁴² Élan & ALTAI Consulting (2014) “Consumer Financial Needs & Behaviour Assessment in DRC”.

Élan developed the mobile money information campaign with messages focused on mobile money being safe, fast and time-saving and focussed on the major cities of Kinshasa, Lubumbashi, Bukavu and Goma. The intervention was with the three main MNOs operating mobile money at the time: Airtel, Tigo (which was subsequently purchased by Orange) and Vodacom. The intervention involved the MNOs working together to develop a marketing strategy, under the umbrella of the Central Bank (BCC), to educate consumers on using services. Partnership Agreements were signed in June 2015, and campaigns launched in September 2015, running until December 2015.

An Élan evaluation completed in February 2018 claimed that MNOs had changed their communication strategy as a result of the intervention.³⁴³ The focus had moved from just informing customers about the existence of mobile money products to coaching on how to use the services and why it was beneficial. Promotion used a mix of ‘above the line’ (radio, TV) and ‘below the line’ (direct promotion through billboards etc., at merchant or agent stores). The evaluation was unclear in terms of Élan’s contribution, but noted that mobile money operators’ reported that the campaign contributed about 11 percent to the increased number of accounts. Telecommunications company personnel recently interviewed were unable to recall Élan’s role and contribution. Other factors influencing the increase in mobile money accounts included a joint campaign on the BCC revising thresholds for transactions from USD 500 to USD 1,000 per day.³⁴⁴

Improving agent banking networks and new products and services

Other work in BB included a very small intervention with Orange and Umoja, and more prominently a set of interventions with the largest MFI in the country, FINCA. While the original market systems analysis had also highlighted mobile money agents and issues of liquidity in these networks, this did not become a major area of intervention.³⁴⁵ Instead Élan worked with FINCA through two initial interventions from August 2016:

- The first intervention was to support their expansion in Katanga and assess the business case of a rural agent network. Élan connected FINCA with an Agro-dealer, Mulimaji Mwema, who had a network of 17 shops in Likasi who became FINCA agents.
- The second intervention was to develop a bank-to-mobile-wallet platform to link FINCA and Vodacom’s M-Pesa services. This formed the basis of a third intervention that would go through to the Élan 1.2 period, a tie-up with Vodacom offering the Lona o Defa product. This was a small unsecured loan product to be available on M-Pesa’s menu.

The main thrust of the first intervention was about risk taking in terms of the geographical roll-out of the agent model, rather than innovations in the model itself. FINCA was already an innovative MFI and had already developed their main agent banking model, ‘FINCA Express’, it which a terminal would be used by an Agent, who would receive commission from FINCA but not be a direct employee. The number of FINCA agents increased from 653 in 2015 to 1,400 in 2017, so this was a period of rapid expansion for the

³⁴³ Élan (2018k) “Etude sur les effets de la Campagne Conjointe”

³⁴⁴ Ibid. Élan (2018k) “Etude sur les effets de la Campagne Conjointe”

³⁴⁵ “Investing in a robust distribution network is essential to the success of any mobile money service, as it determines both the geographical reach of the customer base and the quality of user experience. Distribution networks for mobile money services are contracted out by MNOs to a system of agents, superagents, and partner financial institutions... There are at least 18,000 mobile money agents across the three services in the DRC, although MNOs report that perhaps just 40 percent of them are active (defined as having facilitated a transaction in the last 30 days)... Agents usually have primary businesses they run in addition to being mobile money agents, such as a shop, or being a money changer (cambiste) or an airtime dealer.” Source: ASI (2013b) Market System Analysis Report.

model. The network had been largely urban so Élan aimed to promote the rural expansion. Apart from a general sense of improvement of FINCA's model, revenue and profitability, and increases in its savings and loan portfolios,³⁴⁶ it has not been possible to clearly ascertain the success of the model or the sustainability of the network Élan supported.

The second intervention that led to the Lona o Defa product was a potentially important and systemic tie-up. This would allow consumers to access small loans via their M-Pesa account, from FINCA, which would be unsecured but based on an algorithm developed. There has been increase in the use of the product, with over USD 1 million disbursed, however it is still not profitable and according to both Vodacom and FINCA in interviews, there have been challenges, with the algorithm and tensions between the two in who should promote and fund the enterprise.³⁴⁷

Lending to SMEs in new sectors, particularly agriculture and transport

Another important set of interventions for the A2F sector in the early years of Élan included SME lending within the transport and AgNP sectors, particularly the interventions involving ProCredit Bank (which in 2015 was acquired by Equity Bank).³⁴⁸ Partnership Agreements between Élan and ProCredit put in place a guarantee fund mechanism that subsidised lending and allowed Élan to facilitate access to finance for some of its intervention partners, including seed producers, OGS, and in the river transport sector.³⁴⁹ This collaboration was in recognition of the high costs and challenges in accessing finance for SMEs, particularly those operating in agriculture. Loans were provided at 14 or 15 percent interest rates, and no more than 125 percent of the loan value could be requested by the bank in collateral (lower than prevalent rates of 200 percent or more). Élan also provided technical assistance to the borrowing companies and this may have added a layer of assurance for Equity Bank.³⁵⁰

Lower interest rates were not maintained, and many partners who had accessed loans are no longer able to do so,³⁵¹ **Equity BCDC have a growing agricultural lending portfolio** and associated team, with very large targets for coming years. It was outlined in interview that the group aim to reach 30 percent of their lending portfolio in agriculture in the DRC in coming years (from 3 percent).³⁵² Equity attribute some of this growth to the pilot work with Élan, in particular demonstrating the guarantee fund model that they went onto use with a larger number of development partners, and helped to expand the early agri-lending team. If the new targets are met, this could be one of the most significant achievements in terms of systemic change that Élan contributed toward.

Collateral management agreements (CMAs) to increase access to SME finance

The Collateral Management Agreements (CMAs) provide a model where agricultural stock can be placed under the control of a third-party holder, and the stock can be recognised as collateral and used to secure loans (see Box 10). Élan facilitated two CMA interventions, the first in Kivu with smallholders and two maize millers, and a second pilot in

³⁴⁶ FINCA (2017a, 2018, 2019a, 2020, 2021, 2022). Annual Reports.

³⁴⁷ See Annex E.5.

³⁴⁸ Subsequently in December 2020, Equity Bank Congo (EBC) and Banque Commerciale du Congo (BCDC) to form a new bank Equity Banque Commerciale du Congo (Equity BCDC).

³⁴⁹ In AgNP - Mimosa, Bon Berger, and Mulagricom, all benefited from the partnership with ProCredit.

³⁵⁰ Élan (2016i) Partnership Agreement between Élan and ProCredit Bank, February 2016 – August 2017.

³⁵¹ According to interviews including Mimosa and Bon Berger.

³⁵² A figure confirmed by the Equity Group CEO (see Mutinda, 2022).

Haut Katanga with a large commercial maize producer (A22). The CMA was Élan's effort to develop a financial product to overcome the absence of available collateral, a significant issue facing growth-oriented SMEs.³⁵³ The first CMA was in partnership with Bank of Africa (BOA). BOA opened a line of credit for a total amount of USD 10,000 to the firms Ets Maizeking and CMC, aiming for 48 tonnes of clean and dried corn stored in warehouse operated by a large conglomerate, COMEXAS, in Goma. The intervention failed in part as Élan found it would require 500 tonnes per season to be financially viable, smallholders did not have sufficient maize to store making the transaction costs very high – it took 108 farmers to deposit just 26 tonnes of maize.³⁵⁴

The more successful CMA was launched in Haut Katanga in the beginning of 2017.

ProCredit Bank (which is now Equity BCDC) approved a loan worth USD 350,000 for GoCongo, a large commercial farmer and processor of maize, storing around 800 tonnes in its warehouse, with monitoring and third party verification again provided by COMEXAS. Élan coordinated the relationships and trained COMEXAS and Equity Bank on legal procedures and tools. This allowed GoCongo to store the maize and receive working capital finance as a result. The model had limited focus on SHFs, although it initially tried to link to a smallholder cooperative. The CMA was successful for a number of seasons until recently being discontinued due in part to the high expense of the third-party role provided by COMEXAS. It was seen as a success by GoCongo and Equity BCDC and could potentially be re-started with relatively minimal facilitation. Equity BCDC in interview for this study also say they have developed a similar product aimed at smaller farmers, although the product is not yet on the market.

³⁵³ Élan (2014b) Q2 2014 report

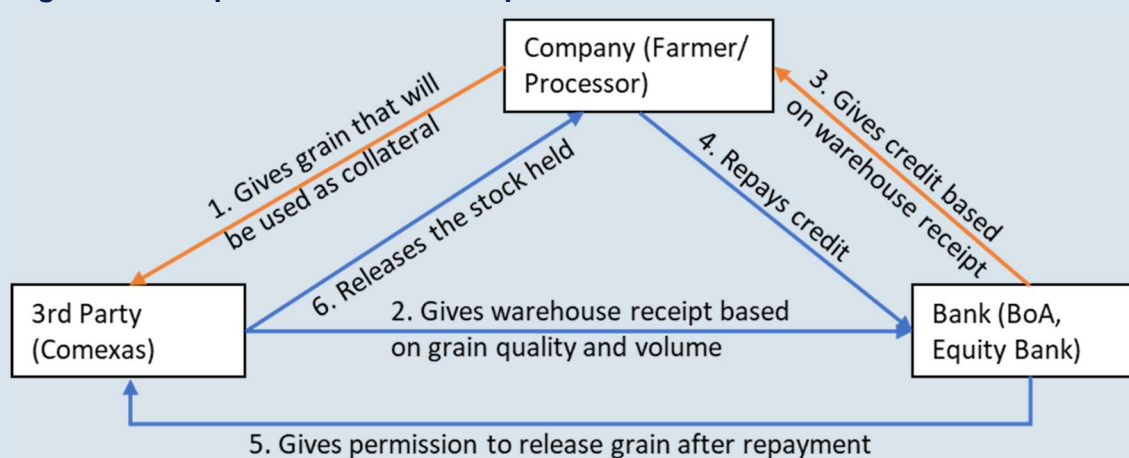
³⁵⁴ Élan (2018a) ETS Maizeking, Partnership Closure Report. Picard Sebastien. September 2018.

Box 10: What are Collateral management agreements (CMAs)?

A Collateral Management Agreement (CMA) is a form of warehouse receipting model, in which agricultural stock can be placed under the control of a third-party holder, and the stock can be recognised as collateral and used to leverage loans. Due to the relatively short time grain will be stored, this is generally for working capital loans, which may be useful for a farmer including to purchase inputs or make other investments for the next season. The model is also used by larger farmers, who have more grain to store, and therefore lower marginal transaction costs than for individual SHFs. For a processing company, grain may be purchased in order to smooth the price volatility caused by seasonal agriculture.

Figure 18 illustrates how the agreement works. If the company is a farmer, the credit line allows them to store grain to sell at a higher price in the off-season. If the company is a processor or trader, it can use the credit line to increase its grain purchase and volume of business. The third party gets a fee for their storage, assessment, and maintenance of the quality and quantity of grain.

Figure 18: Responsibilities of CMA parties



Source: Authors, adapted from Élan documents

4.3 Impact of Élan's A2F work

Evaluation question:

- D1: What improvements in income delivered to target beneficiaries, contribution to poverty reduction, and any additional or unplanned impact can be attributed to Élan?
- D2: What factors influenced the impact?

Sub-questions:

- To what extent did Élan's work result in material increased income for target beneficiaries?
- To what extent did Élan contribute to unplanned or additional impacts?

Key findings:

- The vast majority of beneficiaries and income change impact that Élan estimated for the A2F sector came from the mobile money campaign, and most of this was in indirect impact some years later. The rigour of these estimates was limited.

- Élan estimated the agent banking and other interventions with FINCA had limited impact. The 'Lona o Defa' small loans product has increased in numbers of users but faces issues including high default rates, and is not yet profitable.
- The CMA model did not lead to SHFs benefiting as most of the maize stored came from abroad due to price and quality.
- Mobile money usage increased during Covid, and the pandemic also helped to open up regulatory space around digital finance.
- The financial sector faces major systemic constraints such as the high rate of dollarization, which limits lending and creates complexities for payment systems. These were not within the Élan project's remit, but hampered progress in A2F.

Élan's interventions were designed to generate direct impact for poor people in the DRC. In the A2F sector this was generally as consumers, although producers were also relevant due to the focus on SME finance. Unlike for the AgNP sector, a number of A2F interventions did not have estimates for the net attributable income change (NAIC) indicators, particularly for the Élan 1.2 period. Systems change was also central to the theory of change in part to generate longer-term 'indirect impact', i.e. indirect NAIC over and above the direct impacts of the interventions. The vast majority of NAIC estimated for A2F fell into this indirect category, all via the mobile money information campaign intervention. Within the project's market systems framework this indirect impact would come via the Expand strand, as MNOs continued the marketing approach promoted. The A2F sector also made claims around replication (see Section 4.2.2), particularly around the agent banking model, and also the CMA model. However, neither NAIC, nor beneficiaries, were estimated linked to these results.³⁵⁵

This section analyses impact in terms of progress against the two main logframe indicators: 1) the number of poor people "benefiting from" interventions (Section 4.3.1), and 2) the amount by which their income increased (Section 4.3.2). Overall, it is found that there were shortfalls in Élan's impact estimates, with a relative absence of rigorous and/or external evaluation used; a finding in line with previous DSU reports and the same finding as set out for the AgNP sector (see above in Section 3.3).³⁵⁶

4.3.1 Number of beneficiaries with income change from A2F

The A2F sector contributed 306,408 out of the 1 million beneficiaries Élan had estimated by the end of the project. Unlike with the AgNP sector, the majority of these were not direct beneficiaries, but instead were indirect beneficiaries from the mobile money education campaign intervention early during Élan 1.0. All beneficiaries were estimated to come from the first phase interventions, although some of the benefits were estimated to have accrued in the Élan 1.2 period (for Viamo).³⁵⁷ Table 24 sets out the interventions in order of the number of beneficiaries. This shows starkly that the vast majority were estimated to come from the mobile money campaign, with just under 80 percent or 244,544 beneficiaries estimated in total. The second highest was Viamo with 16 percent of the

³⁵⁵ It is not entirely clear if this is because Élan did not believe quantitative impact linked to these results, or whether it was a limitation of M&E time, resource and capacity, to estimate them.

³⁵⁶ The DSU undertook extensive verification of the NAIC indicator with a sample of interventions looked at in some depth for the first phase of Élan 1.0. DSU (2017, 2018c, 2020a, 2020b)

³⁵⁷ Élan 1.0 figures from Élan (2019d) PWIG; Élan 1.2 figures from Élan (2021g) Results Tracker

beneficiaries estimated, based on the intervention that sought to provide messages around access to finance.³⁵⁸

Table 24: A2F interventions with the largest number of beneficiaries listed in order

Intervention	Type	Number of beneficiaries (% women)	Share of A2F beneficiaries (%)	Total NAIC (£ millions)	Share of A2F NAIC (%)	NAIC per beneficiary (£)
AF04: Airtel, Tigo, Urban, Vodacom	Branchless banking	244,544 (33% women)	79.8%	8.30	92.7%	34
AF23: Viamo / HNI	Branchless banking	49,852 (17%)	16.3%	0.36	4.0%	64
AF08: FINCA 3	Branchless banking	7,178 (43%)	2.3%	0.11	1.3%	16
AF05: Orange Umoja	Branchless banking	3,322 (33%)	1.1%	0.004	0.04%	1
AF20: Baleinieres CEGs GIEs	River transport	524 (23%)	0.2%	0.04	0.5%	81
AF18: ProCredit Bank	River transport	396 (16%)	0.1%	0.03	0.3%	75
AF19: GEC	River transport	260 (52%)	0.1%	0.01	0.2%	55
AF07: FINCA 2	Branchless banking	223 (12%)	0.1%	0.09	0.1%	395
AF01: BOA, COMEXAS, Maizeking	CMA	108 (0%)	0.04%	0.004	0.04%	37
AF22: GoCongo	CMA	-	-	-	-	-
Totals		306,408		9.0		34

Source: Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

Estimates of the just under 50,000 beneficiaries for Viamo made it the second highest number of beneficiaries. Much of this came up via follow-up study with Viamo and an attempt to get the number of calls accessing the A2F voice messages.³⁵⁹ Unlike for the AgNP intervention (see Section 3.3.2), Viamo impact estimates in A2F appear to be based on some survey data of beneficiaries including what they did after listening to the messages, however without a clear write-up on the methodology it is not clear how this led to the beneficiary and NAIC estimates.³⁶⁰

³⁵⁸ There was a related AgNP intervention (NP103) in Élan 1.2, also with Viamo.

³⁵⁹ Élan (2020m) "Light monitoring of the selected portfolio from Élan 1.0: AF23 Viamo"

³⁶⁰ Élan (2020e) "Analytical report on the dissemination of agriculture information"

Mobile money

Two evaluations were carried out to try to estimate the number of additional mobile subscribers that could be attributed to the Élan support. Élan's initial analysis had stated, "it should be noted that even without [Élan] intervention, mobile money services are likely to expand to millions of additional users over the duration of the project."³⁶¹ The challenge in assessing the impact of Élan's support against a counterfactual of no support was a challenge. As outlined in Section 4.2.2, the case was not clearly made in terms of the credibility for the specific qualitative change Élan brought about, but also the quantitative estimates were based on non-rigorous methods.³⁶²

Élan claimed just under 25,000 direct beneficiaries from the MM intervention, followed by just under 220,000 indirect beneficiaries, the latter for the 2017-2018 period. The assumption was that the strategy from the consumer outreach campaign had continued and Élan had made a permanent change to MNOs' marketing strategies. This latter point was never very clearly evidenced, not least as marketing would have taken place regardless. The first evaluation from December 2015 found 19.6 percent of respondents registered with mobile money because they were convinced by the message of the campaign, representing "120,000 people aged 18 to 65 living in the four cities concerned".³⁶³ As set out in Annex E.6, the evaluation was not clear as over half had registered prior to the launch of the education campaign, and the study also had a very low sample size.

The second evaluation had a larger sample, and estimated the beneficiary numbers based on "declarations from the [mobile money] operators" themselves.³⁶⁴ It is unclear how the request to provide data was made to the MNOs, or the methodologies the operators used. The study estimated a "joint campaign effect" of 1.29 million extra clients, and 695,000 of these active.³⁶⁵ The 'declaration by Mobile Money operators' claimed 10.9 percent of these increases were thanks to the joint campaign, attributable to the support of Élan (or 76,000 active clients). Élan's final indirect estimate was based on 'trend analysis' and the claim from operators that "10 percent of the increase in usage was due to the intervention",³⁶⁶ looking at the overall increase in accounts from 2015 to 2018. The claim is questionable, particularly given the finding in interview for this study that Vodacom had no recollection of Élan's role in the campaign.

Agent banking / FINCA interventions

NAIC estimated from the FINCA interventions was relatively small. Élan worked with FINCA to promote roll-out of its agent network of 'FINCA Express' in Kongo Central province and in Haut Katanga province, aiming to enable low-income people to access financial services. According to Élan, the intervention rolled out 47 agents in Kongo Central and 20 agents in Haut Katanga.³⁶⁷ As shown in Annex E.5, this was a small proportion of the increase in FINCA agents in the 2015 to 2017 period (from 653 to 1,400, therefore 9 percent of the agents were supported by the Élan intervention). Data collection seemed to show a

³⁶¹ ASI (2013b) Market System Analysis Report.

³⁶² This would always be very challenging given the difficulty of setting up a counterfactual.

³⁶³ Élan (2015d) and Experts (2015)

³⁶⁴ Élan (2018k) "Etude sur les effets de la Campagne Conjointe"

³⁶⁵ Total MM accounts would have been 10.7 million without the campaign but increased to 12 million with it. Active MM accounts of 1.95 million without the campaign, and 2.65 million with it. Source: Élan (2018k).

³⁶⁶ It is not completely clear but the 10 percent referred to presumably comes from the 10.9 percent from mobile money operator "declarations" within the second evaluation (Élan, 2018k).

³⁶⁷ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

very small number of new accounts linked to the new agents. It was not possible to get more recent data from FINCA despite requests in interview and by email. Élan monitored the number of people using FINCA accounts in rural areas as well as the number of FINCA accounts connected to Vodafone's M-Pesa account (FINCA Mobile account holders) as outreach. Despite the high investment on FINCA interventions, Élan did not claim any benefits for some of them,³⁶⁸ estimated 223 beneficiaries for the rural agent model, and 7,178 for the mobile banking model. Data from Élan suggested the main users were civil servants in Kongo Central.³⁶⁹ It is questionable therefore whether these were the main target beneficiaries of the project.

4.3.2 Increased incomes as a result of A2F interventions

The A2F sector did not generate a high quantity of NAIC during the project period, particularly compared to the cost of interventions. As shown in Table 24, according to Élan 1.0 and Élan 1.2 documentation, the total NAIC claimed for the A2F sector was just under £9 million, around 19 percent of the Élan total (compared 20.5 estimated spend of the budget).³⁷⁰ For Élan 1.2 interventions, no NAIC was claimed, so all the estimated income came from interventions in the first phase of Élan. Élan did not estimate benefits for interoperability or the 'aggegators' intervention, possibly due to the short time-line and Élan's close-down period, potentially leaving some proportion of NAIC under-estimated.

Mobile money

Élan claimed £1.1 million of direct NAIC from the mobile money campaign intervention, followed by £7.2 million of indirect NAIC, the latter for the 2017-2018 period. The impact (NAIC) per beneficiary was USD 41.57 (£32). based on a figure of USD 2 cost saving per month based on one transaction per month.³⁷¹ An earlier DSU verification exercise had found Élan's earlier study to over-estimate the saving, for which USD 1 was the value at the time compared to the counterfactual use of money transfer operators (MTOs),³⁷² but the difference had come down to USD 0.4 per transfer. However, neither value is clear and no rigorous estimate of the cost saving appears to have been conducted (or at least was not documented).³⁷³

Élan never sought to make broader claims about mobile money use and incomes, and the main rationale for NAIC was simply a direct cost saving as a result of a mobile money transfer as opposed to using a MTO. This limits the nature of claim Élan made but also the generation of wider evidence that could have contributed to the broader mobile money literature discussed, a significant missed opportunity. As set out in Section 4.1.1, there is plausible and strong evidence internationally that incomes can increase as a result of mobile money, and evidence of cost savings. As an example, Seng (2021) in Cambodia finds that households taking up mobile money services are likely to enjoy higher household

³⁶⁸ As shown in Table 34 in Annex E.5.

³⁶⁹ Intervention Tracking Tool (ITT) for AF08 (Élan, 2018n);

³⁷⁰ Élan 1.0 from Élan (2019d) PWIG; Élan 1.2 from Élan (2021g) Results Tracker

³⁷¹ Élan (2018l) Intervention Tracking Tool for AF04 intervention (and an embedded Word document called 'Trends analysis')

³⁷² The latter would require the individual to go the MTO office, hence incurring transport costs.

³⁷³ The final USD 41.57 NAIC per beneficiary figure for the indirect NAIC estimate, came from 21 months in the Q1 2017 to Q3 2018 period, multiplied by USD 1.98 per month with one transaction per month. This USD 1.98 figure was calculated by the combined effect on senders and receivers when compared to using a MTO. The sources for this latter data are not stated in the documentation. Source: Élan (2018l) Intervention Tracking Tool for AF04 intervention.

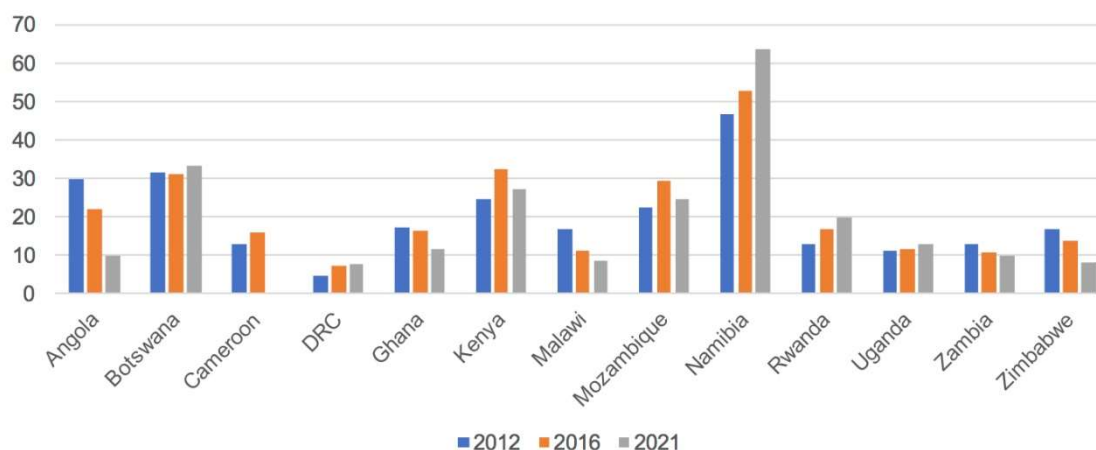
income per capita, with the complementary finding that households receive greater domestic remittances. There was also the flagship finding from Kenya by Suri and Jack (2016) that access to the Kenyan mobile money system M-Pesa increased per capita consumption levels and lifted 194,000 households, or 2 percent of Kenyan households, out of poverty.

SME lending

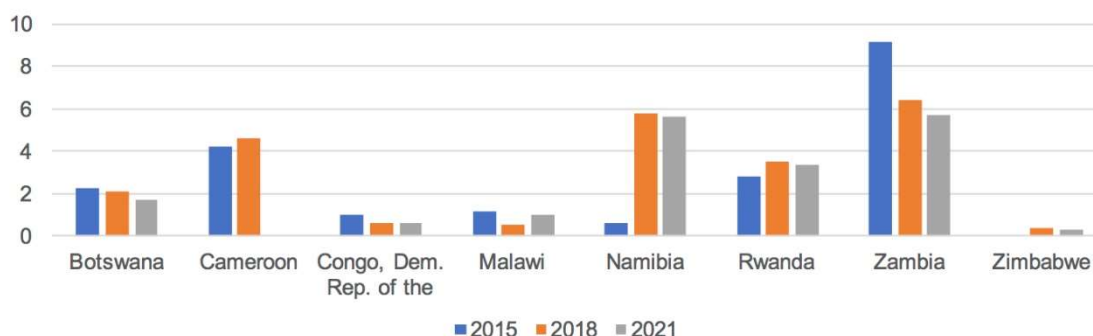
The claims for NAIC relating to SME lending, and the ProCredit (Equity Bank) interventions in particular, were very limited. This includes the guarantee fund with just £30,000 of NAIC estimated and £75 per beneficiary for the river transport loans. However, for the AgNP interventions – loans to Mimosa, Bon Berger, and Mulagricom – could be seen as facilitating the agricultural impact claims (i.e. yield increases were made possible by the loans). These interventions are discussed in Section 3, and together generated over £2 million of NAIC. Élan separated NAIC by sector, however they could have potentially made a stronger case that these interventions had a significant A2F dimension, and at the least this was an A2F system-level achievement. As noted, the Equity BCDC planned expansion in agri-lending may be linked in part to these initiatives, and are an important potential achievement of Élan (see Section 4.4.2).

There is likely limited causality from Élan’s interventions to broader changes and progress in SME lending. The proportion of outstanding loans in the economy is low compared to comparator countries although increased in the 2012-2021 period. As a percentage of GDP, commercial bank outstanding loans rose from 4.7 percent in 2012 to 7.5 percent in 2021. This compares to an average of 20 percent in comparator countries, for example at 13 percent in Uganda in 2021, 19.8 percent in Rwanda, and 26.9 percent in Kenya (see Figure 19). The picture is particularly poor in terms of SME loans. Outstanding loans to SMEs from commercial banks made up 0.6 percent of GDP in 2021, with only Zimbabwe having a lower rate. This compared to 3.3 percent in Rwanda and 5.7 percent in Zambia, as shown in Figure 20.

Figure 19: Outstanding loans from commercial banks (percentage of GDP). DRC and selected other regional countries: 2012, 2016 and 2021



Source: IMF (2023) Financial Access Survey data

Figure 20: Outstanding SME loans from commercial banks (percentage of GDP). DRC and selected other regional countries: 2015, 2018 and 2021

Source: IMF (2023) Financial Access Survey data. Botswana & Malawi 2016 used for 2015.

Work in the MFI and digital finance space with FINCA

Élan claimed no NAIC for the A2F sector during the Élan 1.2 phase. It is not entirely clear why this was the case, as at least one intervention could be expected to have generated NAIC during that period. The Lona o Defa product required FINCA to develop an algorithm to offer small loans to people based on their mobile money savings and their airtime usage. Loans with a minimum of USD 5 and a maximum of USD 250, could be taken out for one, two or four weeks, and accrue a 4.5 percent interest rate (per week). According to FINCA, over USD 1 million has been lent to date. As of 2019, 47,000 people were said to have registered for the loan, and by the end of 2020 the number had reached 78,614.³⁷⁴ In interview this has now apparently reached 135,000 registered customers (as of 2022). Some NAIC could be expected from this intervention.

FINCA made progress in the period although there was a slight relative decline for the MFI sector as a whole. IMF (2023) does not have the figures for MFI deposit accounts but it can be assumed to be a similar picture to commercial bank accounts.³⁷⁵ However, there has been growth in MFI balance sheets in the past few years. According to data from the Fund for Inclusive Finance in DRC (FPM), deposits with MFIs increased from USD 136 million in 2016 to USD 234 million in 2021. As a proportion of commercial bank deposits in the same period this remained low at 5.5 percent.³⁷⁶ Loans from MFIs increased from USD 167 million to USD 301 million in the same period. While this increased, the relative value of MFI loans to commercial bank loans decreased, from 5 percent in 2016 to just 2.7 percent in 2021.³⁷⁷ This potentially signals diminishing relative importance of the MFI sector in the DRC.

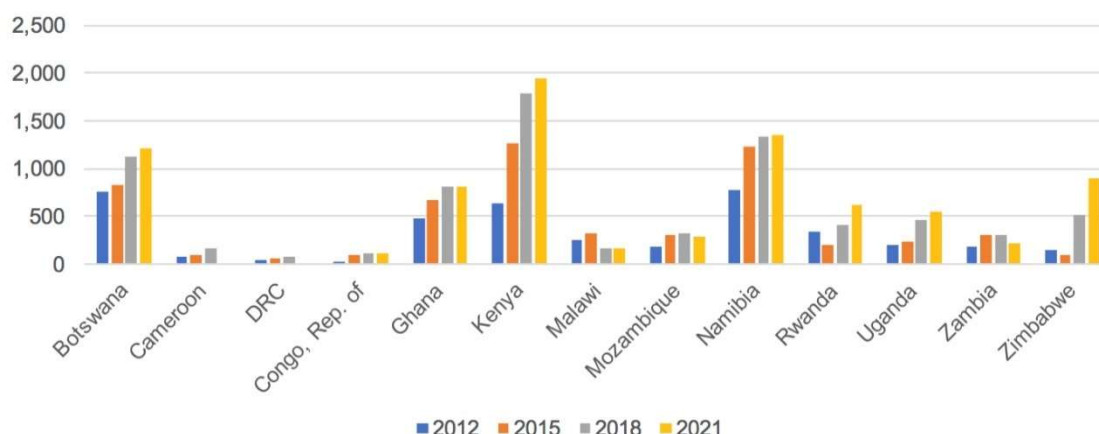
³⁷⁴ FINCA (2020, 2021) DRC Annual reports

³⁷⁵ As shown in Figure 21 the DRC had just 74 deposit accounts with commercial banks per 1,000 adults, a 7.4 percent penetration, for the last year available in 2018. This is very low compared to other regional countries, with Malawi and Cameroon at 16 percent, Zambia at 22 percent in 2021, Rwanda at 62 percent, and Ghana at 81 percent. Formal financial inclusion continues to be very low in the DRC against other regional countries.

³⁷⁶ FPM (2022) "Rapport Annuel 2021"

³⁷⁷ Ibid. FPM (2022) "Rapport Annuel 2021"

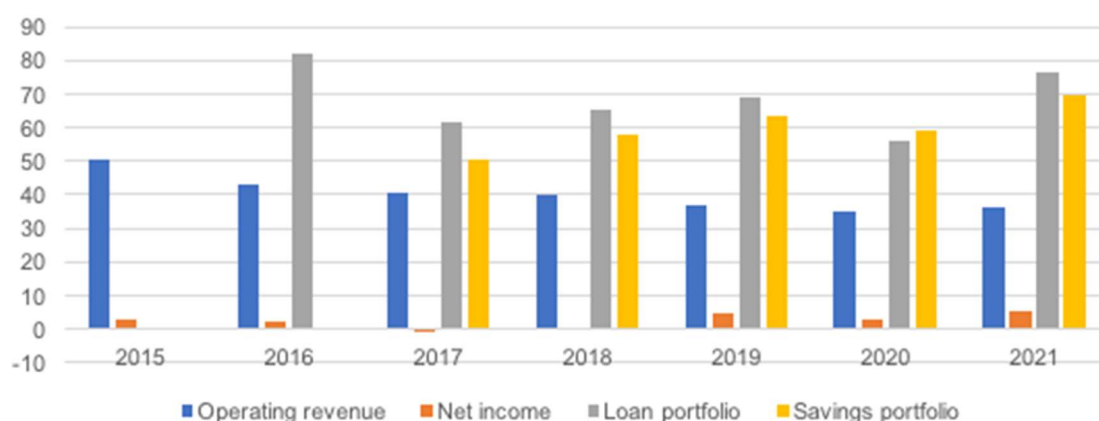
Figure 21: Number of deposit accounts with commercial banks per 1,000 adults. DRC and selected other regional countries: 2012, 2015, 2018 and 2021



Source: IMF (2023) Financial Access Survey data.

Despite the changes to FINCA’s business model, and continued innovation during the period with which it worked with Élan, the overall value of its portfolio has increased only gradually. As of 2022, FINCA estimated their average loan size to be USD 1,300, with a USD 72 loan million portfolio, suggesting they have approximately 55,000 in receipt of loans at that time (the majority of their clients are instead savers) and a 26 percent market share for loans made by MFIs.³⁷⁸ This is shown in Figure 26, which shows that savings have increased from just over USD 50 million in 2017 to USD 70 million in 2021, a compound annual growth rate (CAGR) of 8.4 percent per year; and the loan portfolio from USD 62 million in 2017 to USD 77 million in 2021, a CAGR of 5.6 percent per year. This suggests steady progress for the DRC’s largest MFI, but not a radical increase in its balance sheet.

Figure 22: FINCA revenue, net income, loan and savings portfolios (USD million): 2015-2021



Source: FINCA (2017a, 2018, 2019a, 2020, 2021, 2022) DRC Annual reports.

³⁷⁸ FINCA (2023) DRC website landing page

4.3.3 Factors influencing impact

The DRC is a challenging environment and there have only been marginal improvements as set out from Élan's implementation of interventions in the A2F sector despite the progress and growth in the usage of mobile money (see Section 4.4.2). Élan focused its attention to shift some key constraints but these were largely constraints that did not relate directly to policy, regulations and formal rules.

According to IMF's latest FSSR, difficulties in accessing finance remain very severe, and are especially borne by smaller firms in the DRC. Congolese firms report that approximately 92 percent of investment is financed internally compared to the average of 75 percent for SSA firms. Further, available data suggests that access to financing for SMEs in the DRC is inferior to that of households. SMEs accounted for approximately 8 percent of the credit base and 5 percent of the deposit base in 2021, the fourth largest sector behind private enterprises, households, and public enterprises.³⁷⁹ This aligns with the very low lending to SMEs as shown above in Figure 20.

Many of the challenges in the sector have been discussed throughout this report, particularly those that Élan aimed to address. Some of these are repetitive to the Section 3.3.3, and therefore are kept short here, but factors affecting impact in A2F include:

- The vastness of the DRC, and poor quality of transport and power infrastructure, combined with ongoing security concerns in multiple regions make the DRC a uniquely challenging operating environment for private sector firms including in financial services to operate.
- Maintaining and expanding the agent network for mobile banking, especially into more rural areas, is therefore very challenging. An additional reason for this is that agents require cash and regular top-ups of cash, these will either need to come from 'super-agents', banks or ATMs. Transaction costs in time and effort in areas outside of major urban hubs may therefore be prohibitive, particularly as bank branch and ATM density in the DRC are so low.³⁸⁰ It may also be difficult to find agents who have sufficient working capital to invest and leave their investment tied up in e-float for a mobile money business, especially in rural areas.³⁸¹
- The Covid pandemic affected the A2F results more severely than other sectors. Key interventions including with FINCA and SMICO (another MFI) were cancelled, which could have had potential to embed impact further.³⁸² A loan guarantee model with Equity Bank and FINCA during the Covid period had very limited success.³⁸³
- Poverty in the DRC is a key driver for lack of financial inclusion. As the IMF FSSR found in a survey of potential users, the most frequently cited answer for not having a financial account (75 percent) was simply insufficient funds.³⁸⁴ This means that while a 'bottom of pyramid' (BoP) strategy may have been logical for Élan, it can also be unrealistic for many, at least for formal accounts.
- According to the World Bank (2020), while regulators in DRC realise the important role of digital finance to promote financial inclusion, other issues have emerged in the enabling

³⁷⁹ IMF (2022c) FSSR

³⁸⁰ A survey funded by Élan found an estimated 73 percent of people did not know where the closest ATM is and 65 percent did not know where the closest bank branch. Source: CENFRI et al. (2016c) Making Access Possible, Presentation of results

³⁸¹ As found in ASI (2013b) Market System Analysis Report.

³⁸² Although as noted, Covid was also an opportunity for A2F in the policy and payments space.

³⁸³ See FCDO/DSU (2023) PSD Programme, Programme Completion Report (PCR)

³⁸⁴ IMF (2022c) FSSR

environment. This includes that the telecom regulator has imposed taxes on e-money institutions, even against the advice of the BCC. This has led to an elevated cost of usage, which may have affected consumer demand. These were also issues that Élan originally identified but did not become a significant part of the A2F portfolio.

4.4 Sustainability of Élan's A2F work

Evaluation question:

- E1: To what extent have the results of Élan in terms of market systems change been sustained?

Sub-questions:

- Does there continue to be investment in project supported models and building internal operational capacity for the models?
- To what extent have changes in policies and practices and impact achieved by Élan continued without Élan support, and been resilient to changes in the market system?
- What are the key factors helping or hindering their sustainability and resilience?

Key findings:

- Mobile money access has continued to expand and now reaches one-fifth of the adult population with an active account. This is a rapid rate of increase, although the contribution of Élan most likely is limited.
- Progress on interoperability continues to be made but issues remain including costs of transfer, 'know your customer' protocols, and costs of the National Switch including the role of the Central Bank (BCC).
- There is increasing innovation in the digital finance space including tie-ups with financial institutions and MNOs. Élan had credible attribution to contributing towards the growth of this space.
- The CMA was successful for a number of seasons until recently being discontinued due to high costs of verification. It could potentially be reinstated with minimal facilitation. Equity BCDC also say they have developed a similar product aimed at smaller firms, although the product is not yet on the market.
- Facilitation of the digital finance working group (DCSWG) was handed over to FPM, but has not convened since Élan ended.
- Expansion of Equity BCDC agricultural lending portfolio continues. It is now the second biggest bank in DRC and with a target of 30 percent of their lending portfolio to agriculture. They credit Élan with kick-starting the growth process.

At the outset of the PSD programme, with a market systems design the goal was for Élan to facilitate "large-scale and sustainable improvements in the market systems in which the poor participate".³⁸⁵ This section sets out findings on the degree of sustainability of the Élan results in the A2F sector as set out in terms of changes in policies and practices (Section 4.2), and in terms of impact for the intended beneficiaries (Section 4.3).

³⁸⁵ DFID (2013) PSD Programme Business Case

Overall, financial access and inclusion are increasing, and Élan claimed this was due to their activities, with some plausible cases particularly around interoperability, the use of CMAs, and potentially future growth in lending to SMEs including in agriculture. This section will try to make a judgement on the plausibility of claims made in order to provide a stronger basis for conclusions on the systemic impact (if any) of Élan in increasing A2F. As with AgNP this is looked at via the ‘policy level’ (Section 4.4.1), and at the ‘firm level’ (Section 4.4.2).

4.4.1 Sustainability at policy level

As noted in Section 3.4.1, Davies (2017) outlined in the context of economic governance, sustainability can be split between ‘reform-level sustainability’, and ‘system-level sustainability’. The former looks at the de facto reforms undertaken and whether they continue, while the latter looks at the mechanisms to support and sustain reform.

The progress on interoperability is the key achievement in sustainability in terms of financial sector policy and in spurring innovation of private sector actors. The bilateral agreements signed with the facilitation of Élan have led to interoperability between mobile money operators. Constraints eased for the ‘aggregator’ partners Infoset and MaxiCash have also been sustained, and both compete in the market for interoperable payments and to increase digital payments for merchants and for bill payments in particular. While these steps are nascent, there is some system-level sustainability in evidence.

The digital finance working group has not met since Élan closed (as of November 2022), although FPM claim to intend to continue the work. By handing the DCSWG over to FPM (in the presence of the BCC), Élan aimed to ensure “that the platform will remain prominent, as stakeholders could see the BCC’s willingness to engage”. On this level of ‘system-level sustainability’, there is a shortfall (and also a potential gap for future programming, as set out in Section 5).

Aggregators and digital payments to improve the ‘digital eco-system’

The Aggregators intervention spurred some positive change in the payments system. MaxiCash is a digital finance company that develops digital payment systems for entrepreneurs. In interview for this study, MaxiCash set out that are now beyond the pilot phase and are now a growing business, with significant help from Élan’s support. They were very small when Élan set out with them, and they now have 200,000 users in total. Users can use mobile wallets and/or Maxicash Visa cards to pay in case sellers don’t use mobile wallets. This includes providing payment systems for example for a local supermarket, which generates about USD 23,000 in transactions per month. As MaxiCash charge 2.5 percent of each transaction paid by the merchant/seller, this amounts to a good revenue stream for the company. MaxiCash note that the future could see much stronger growth if digital payments can be used for the payment of utility bills (water and electricity) by consumers and which could also save the state large amounts of money that it loses with manual cash payments.

The digital finance interventions mean a greater proportion of payments can be made by payment cards or by mobile phone applications. Infoset are a similar firm to MaxiCash, which began to try to enable parents to make school fees payments online, this had been an arrangement with the government but had been discontinued. Following the support from Élan, they have now grown to over 7,000 users and make around USD 2,000 of profit per month. Payments can be made by card or mobile. The main business model is to digitise payments and provide a platform for SMEs to be paid directly by their customers.

Infoset have had issues with the BCC as regulator, and while allowed to maintain their product were asked not to undertake marketing according to Infoset in interview. They are therefore limited to word of mouth marketing, and have also received support from FSD Africa.

Progress with the National Switch has been made but is limited to local currency. As noted, the World Bank has financed the modernisation of payments system infrastructures, including a national switch but interoperability is yet to be operationalised in the DRC. While the National Switch is operating ('Switch monétique'), multiple stakeholders in interview noted that the costs have been set too high, which alienates the financial institutions concerned and also makes them prefer their own bilateral or alternative systems. The other limitation is the National Switch only operates in Congolese Francs (CDF), therefore is not yet relevant to the vast majority of financial transactions, which remain in USD.

4.4.2 Sustainability at practice level

The more frequent case made by Élan for the sustainability of its successes, was that it had contributed significantly to improvements in financial inclusion. The main claims made were around mobile money. The plausibility of these claims is hard to assess, in part because, as noted, the evaluations into the mobile money campaign were not robust,³⁸⁶ and also that many factors are likely to have contributed to the growth of mobile money including the dynamism of the companies involved and their experiences from other countries.

Sustainability of mobile money progress in DRC

Mobile money was growing rapidly at the start of Élan, making it more difficult to assess the counterfactual that Élan helped to cause the rapid growth since. Mobile money was launched in DRC in 2012, and according to GSMA data, by December of that year there were 2.8 million registered mobile money users, and 372,000 'active customers'.³⁸⁷ According to the Central Bank (BCC), by the end of 2014 there were 10.1 million mobile money accounts, with 1.9 million active, and USD 34 million of transactions going through them.³⁸⁸ This demonstrates the very fast growth rate that was already present at the start of Élan. It was also nearly in line with projections of the MNOs, who had expected 10 to 13 million users within five years (by 2018), or around one-third of the urban population (where presumably they expected users to be mainly living).³⁸⁹

Annual growth of active users of mobile money has remained very impressive and been in excess of 25 percent. According to FPM, by 2021, compared to 2.9 million MFI accounts, and 5.4 million bank accounts, there were 10.4 million active mobile money accounts. This represented one-third of the total 30.2 million mobile money accounts. This suggests one-fifth (20.4 percent) of Congolese adults had an active mobile money account in 2021. In comparison, according to the same FPM data source,³⁹⁰ in 2014 there were 10.1 million mobile money accounts, of which only 1.9 million were active. This suggests a 17 percent compound annual growth rate (CAGR) in mobile money total accounts in the 2014-2021 period, while the CAGR for active mobile money accounts is 27 percent. FPM noted in interview that during Covid, 42 percent of mobile money accounts were active, up from 29

³⁸⁶ See Annex E.6.

³⁸⁷ GSMA – Enabling Mobile Money Policies in the RDC – March 2014, reported in CENFRI et al. (2016c).

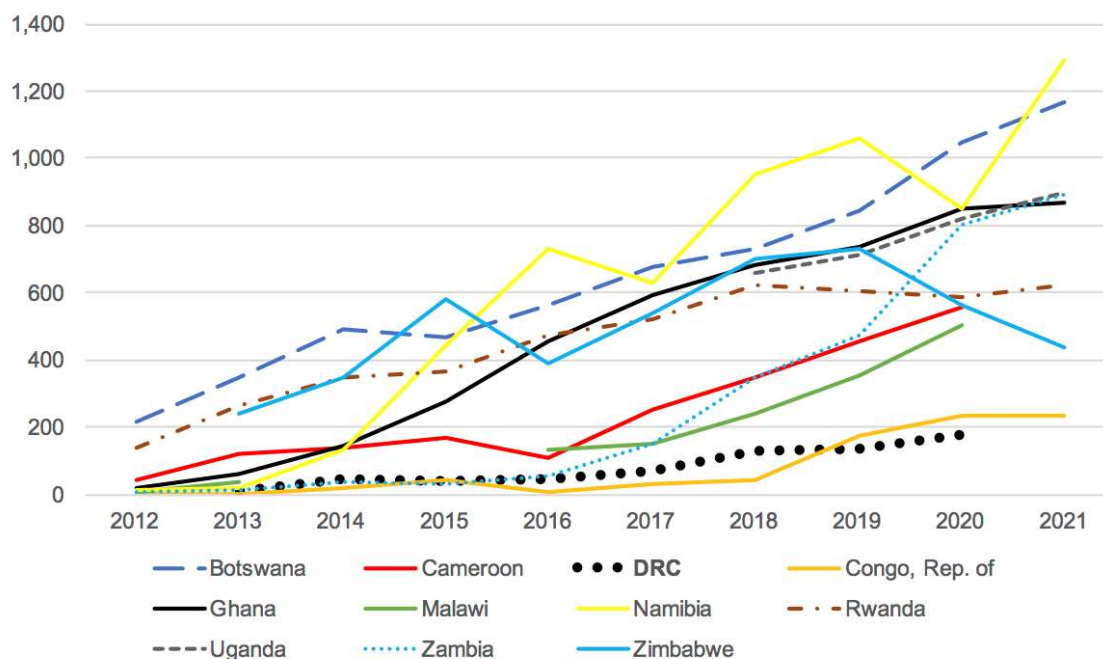
³⁸⁸ BCC (2014) "Rapport sur la Supervision des Intermédiaires Financiers 2013/2014".

³⁸⁹ ASI (2013b) Market System Analysis Report.

³⁹⁰ FPM (2022) "Rapport Annuel 2021"

percent in 2019, suggesting both there was greater need for digital finance during the pandemic, but also that some of the increased use has continued (as of 2021, 34 percent of mobile money accounts were active).

Figure 23: Growth in active mobile money accounts, per 1,000 adults. DRC and selected other regional countries: 2012-2021



Source: IMF (2023) Financial Access Survey data

Despite the growth in mobile money accounts in DRC, it has not been as rapid as in some other comparator countries. As shown in Figure 23, the DRC reached 180 active mobile money accounts in 2020 per 1,000 adults, or 18 percent of the adult population. This grew from less than 1 percent in 2013. Other countries that started from a similar point in 2012/2013 have seen faster growth, including upper-middle income Namibia, which has now saturated the market, but also Malawi and Cameroon, which have risen to 50 percent and 55 percent penetration rates respectively. However, the DRC started from a low base, and its CAGR in active mobile money users from 2014 to 2021 was 27 percent as noted. This was below Ghana, Namibia and Zambia, but over double the growth rate in Zimbabwe and Rwanda, and on a par with Cameroon.³⁹¹

The value of financial transactions made via mobile money reached USD 10.2 billion in DRC in 2020, which would suggest around 21 percent of GDP in that year.³⁹² This again shows a very impressive rate of growth, although remains slightly below the SSA average for mobile money transactions as a share of GDP, which according to the IMF data was at 28 percent in 2020. This is more impressive given that mobile cellular subscriptions per 100 people amount to 49.5 in the DRC compared to an average of 69.9 in fragile state peer countries, and 75.5 in SSA.³⁹³

³⁹¹ CAGRs for 2014-2020 of active MM users for Ghana, Namibia and Zambia were 34, 36, and 66 percent respectively; for Zimbabwe and Rwanda were 8 and 9 percent respectively; Cameroon was at 26 percent.

³⁹² According to IMF (2022c) FSSR

³⁹³ IMF (2022c) FSSR

Sustainability of market systems changes stimulated by Élan

Some of the claims for systemic change in its 'Expand' category (within AAER) that Élan made in its Élan 1.0 PCR (see Table 23 in Section 4.2.2) have not been able to be assessed. This included the claim that progress on an agent network had also been made with replication from EcoBank, RawBank and ADVANS Banque. Another important claim made was that TMB had replicated the CMA model in Katanga (see Annex E.7) involving a USD 3 million loan to a large farm, Mashamba. Again, it was not possible to find evidence for this claim, but the interview with TMB for this study would suggest such an intervention had been discontinued if it had occurred, and therefore been a short-term product without sustainability.

The partnership between FINCA and Vodacom for the Lona o Defa, continues and has increased its client base, with USD 1 million lent (see Section 4.3.2). The product provides an example to the market that small unsecured loans using an algorithm are technically possible, but importantly it is not yet profitable according to the interviews with both FINCA and Vodacom, particularly due to high default rates. In addition, there is a disagreement between the parties as FINCA would like 'auto-recovery' of repayments direct from the M-Pesa wallet, a move that Vodacom would not agree to. This means "100 percent of the risk is on the FINCA side" according to FINCA. Both the Vodacom interview for this study, and an evaluation commissioned by Élan found issues with the algorithm, so it appears the product is still a work in progress.³⁹⁴

While contribution of Élan may be limited there is some evidence that other MFI providers are innovating in a way to replicate some of FINCA's innovations. Élan claimed that EcoBank has launched a bank wallet service together with Airtel Money, which replicates the FINCA/Vodacom model.³⁹⁵ The MFI, SMICO, has launched similar partnerships with Orange Money and Airtel, according to the interview for this study with the Microfinance Association.

As set out, while the second CMA intervention was a limited success for a number of seasons, it was discontinued due to the high expense of the third-party role. The CMA was seen as a success by GoCongo and Equity BCDC and could potentially be re-started with relatively minimal facilitation. Equity also say they have developed a similar product aimed at smaller farmers, although the product is not yet on the market.

Finally, the most exciting development with some causation from Élan is the expressed goal of Equity BCDC to expand and target 30 percent of their lending portfolio to agriculture. As the second biggest bank in the DRC (with intentions to be the largest), this could signify a major inflow of capital for SMEs and the agriculture in sector. The head of agri-finance credits Élan with kick-starting the growth process in this sector. If future targets were met this could be Élan's most sizeable achievement.

³⁹⁴ Élan & PHB (2020) "Inception Report - «Lona O Defa» Diagnosis"

³⁹⁵ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

5 Future programming

5.1 What are the implications for FCDO's future programming in Agriculture and A2F in the DRC?

Sub-questions

1. What are the key constraints that currently hinder poor producers from improving their productivity, farmer yields and access to improved inputs? To what extent are these the same or different from constraints that existed 5 – 10 years ago?
2. What are the key constraints that currently hinder poor consumers from increasing their access to finance? To what extent are these the same or different from constraints that existed 5 – 10 years ago?
3. Which constraints are most feasible for a donor-funded initiative to address in the short, medium and longer term? How would they best be addressed?

This final Chapter aims to synthesise the findings from this extensive study. It does so setting out learning key constraints and the progress made, firstly for the AgNP sector (Section 5.1.1), and then for the A2F sector (Section 5.1.2). Finally, some recommendations for future programming are provided, which can also be used as key discussion points from this report (Section 5.1.3).

5.1.1 Changes in key market constraints in AgNP

Just over half of the DRC population is estimated to be rural at 54 percent in 2021, implying there are 50 million people living rurally in the DRC.³⁹⁶ The rural population depends heavily on the agricultural sector. At the outset of Élan it was clear that due to a lack of infrastructure, low levels of technology adoption, and lack of investment, productivity in the agriculture sector is low.³⁹⁷ There is limited commercial farming, although this may be gradually changing. The millions of SHFs in the DRC face very high constraints including in access to inputs, which Élan attempted to address, but also very high rates of poverty, and as Élan estimated, the vast majority of this group are likely to live below the absolute poverty line (previously USD 1.90 PPP per day for the World Bank, now revised to USD 2.15 PPP).

As of 2019, the agricultural sector employs over 60 percent of Congolese and comprises 19.7 percent of GDP. With 80 million hectares of arable land, 4 million hectares of irrigated land, and many rivers with important fishery resources, the DRC will continue to have the potential to become a global agricultural power.³⁹⁸ But only 10 million of the country's 80 million hectares of arable land are under cultivation. Commercialising agriculture, increasing yields and increasing the amount of land under cultivation have enormous potential to increase food security and sustainable, equitable economic development.³⁹⁹

Average yields and yield growth rates in tropical, rain-fed countries have varied significantly and grown over time, though SSA has lagged behind other regions. For example, from 2005-

³⁹⁶ World Bank (2022c) WDI data indicator SP.RUR.TOTL.ZS

³⁹⁷ Mahrt and Nanivazo (2016)

³⁹⁸ <https://www.trade.gov/country-commercial-guides/democratic-republic-congo-agriculture>

³⁹⁹ <https://www.usaid.gov/democratic-republic-congo/agriculture-and-food-security>

2008, average maize yields were estimated at 3.8 tonnes per hectare ($t\ ha^{-1}$) in Brazil, 3.1 $t\ ha^{-1}$ in Mexico, and 3.9 $t\ ha^{-1}$ in Thailand, this compared to 1.4 $t\ ha^{-1}$ in the SSA region.⁴⁰⁰ Yield estimates in the DRC are likely even lower, including the much cited figure from Élan of 0.77 $t\ ha^{-1}$ and also backed up by some of the studies Élan undertook. As academic studies have found, climate change is likely to further constrain SHF production.⁴⁰¹ Access to improved varieties including those being developed within SSA and for the SSA region, by the likes of CIMMYT, will be vital to ensure yields do not fall but rise in coming years. Given the growing population, demand for food will create a larger gap with production in coming years, putting a major strain on the economy through imports unless domestic agriculture takes off.⁴⁰² Commercialisation of agriculture in non-forested regions also has the potential to reduce pressure on deforestation to grow food, particularly in the northern half of the country where the rainforest is concentrated.

Élan's major focus on seeds for AgNP was logical as has been set out. However, the seed sector remains very small. The TASAI index allows benchmarking on the quantity of seed produced, showing the DRC produces just 0.02 kg of certified seed per person far lower than most regional country comparators, the highest being 2.92 kg/person in Zimbabwe.⁴⁰³ Despite this low base, a number of the seed producers that Élan worked with are still operating and expanding gradually. The regional companies, NASECO from Uganda, and Seed Co from South Africa, are the two most positive case studies. NASECO has already invested in producing in the DRC, while Seed Co still intend to do so when conditions are right and they reach sufficient sales volume. This has likely led to a gradual increase in smallholder farmers using improved seeds. However, a bigger opportunity is in gradually commercialising DRC farming. This relies on hybrid seed rather than the local OPV seed produced, but also availability of other inputs such as fertiliser.

An important learning point from the project was the importance of the governance constraints. The DRC does not have a seed system that can produce modern hybrid seed, and barriers to trade mean the prices of hybrid seed on the market are higher than in regional countries. Élan only interacted with the major system issues on the margin. The national research institution (INERA) and the national seed certification body (SENASA), remain chronically under-funded and lack sufficient capacity to develop new varieties, produce breeder and foundation seeds, or to certify seeds. This is also true of other institutions such as in agricultural statistics, a dormant national maize research centre (CRM), and in agriculture funding more broadly.⁴⁰⁴ The result is that most seed that is identified as certified is actually not quality seed, or may not be,⁴⁰⁵ and fake seeds, counterfeits and illegal imported seeds are ubiquitous in the market. It is then very challenging for professional seed companies to compete, and the poor quality of seed in the market further weakens farmer demand for improved seed, creating a vicious cycle of underinvestment in seed production and distribution.⁴⁰⁶

Élan gradually increased their focus on the regulatory side of the AgNP to attempt to deal with some of the chronic system issues. This included the work with TASAI and developing

⁴⁰⁰ Smale et al. (2011) "Maize revolutions in sub-Saharan Africa"

⁴⁰¹ For example, Westengen et al. (2014), Setimela et al. (2018), and Chivasa et al. (2022)

⁴⁰² ISS (2023) DRC Country page

⁴⁰³ TASAI (2018a) "TASAI Appendix 1", Sep 2018 version

⁴⁰⁴ As relayed to us in interview with the Ministry of Agriculture provincial office in Lubumbashi.

⁴⁰⁵ We visited the SENASEM laboratory in Lubumbashi which clearly had not been fully operational for many years. There was only one sample on site for example.

⁴⁰⁶ A situation akin to that set out in Akerlof (1970) "The Market for Lemons: Quality Uncertainty and the Market Mechanism".

seed sector strategies with the seed councils (COPROSEM), revisions of the seed law, and towards the end of the project, meetings with the Ministry of Agriculture (MINAGRI) to try to push the seed law forward. However, these issues all remain live, and there are clear openings for any future programming to focus on.

5.1.2 Market changes with the greatest effect on financial inclusion

According to the IMF (2022c) in 2022, only 26 percent of the population have an account with a financial institution. According to FPM, by 2021, compared to 2.9 million MFI accounts, and 5.4 million bank accounts, there were 10.4 million active mobile money accounts.⁴⁰⁷ Mobile money is therefore now the most common means of formal financial access for Congolese. However, as surveys commissioned by Élan generally found, the majority of mobile money usage was for payments, rather than for savings, loans or other services. As such the state of financial inclusion has only improved in some respects since the last major survey of FinScope in 2014.

Financial services more generally are also heavily constrained, including for SMEs (see Sections 4.3.2 and 4.3.3). Furthermore, access to credit is also geographically concentrated; with 87 percent of loans in just two of the 26 provinces.⁴⁰⁸ Banks' profitability is declining and among the lowest in SSA, where despite interest margins of over 10 percentage points, banks do not lend domestically and prefer low-yielding placements abroad with correspondent banks.⁴⁰⁹ Further, latest data reports non-performing loans (NPLs) at 8.5 percent of total loans, but according to IMF (2022c), NPLs are probably underestimated because of measures that provided regulatory forbearance during the pandemic.

The financial sector remains very fragile and is one of the shallowest in SSA and the world. As set out in this report, the very high rate of dollarization places many constraints on the system, many of which are probably not fully understood, in particular in terms of how banks themselves manage their balance sheet. While it may provide some stabilisation, it is known to reduce the risk taking of the financial sector, particularly in terms of lending to MSMEs. Another regulatory issue is KYC regulation, in terms of the ID required to gain access to a financial services account.⁴¹⁰ This is also important in the case of bilateral interoperability, as KYC is a minimum-criteria for using the bilateral arrangement between Orange and Vodacom discussed in the report and to which Élan contributed.⁴¹¹

In the A2F sector work of Élan, there are major successes to build on. The digital payments space has grown though massive opportunities remain, particularly if more types of payments can be paid with mobile technology (utility bills etc.). In addition, the expansion of Equity BCDC's agricultural lending portfolio and the target of 30 percent for lending to go to agriculture is potentially transformative for the sector. The Equity agri-lending team credited Élan with kick-starting the case for growth, and while this can only amount to partial contribution at best, it signifies the type of catalytic impact that pilot initiatives can have. Finally, mobile money continues to grow in user numbers and transaction volumes and values. Attribution is difficult but Élan claimed its own significant contribution to the sector's growth through the emphasis on consumer education.

⁴⁰⁷ FPM (2022) "Rapport Annuel 2021"

⁴⁰⁸ IMF (2022c) FSSR

⁴⁰⁹ Ibid. IMF (2022c) FSSR

⁴¹⁰ See Know your customer (KYC) processes in Annex F.

⁴¹¹ According to the interview for this study with Vodacom.

In A2F, the bilateral interoperability work came late in the first phase of Élan 1.0, while in the second phase the Digital Credit and Savings Working Group (DCSWG) was a forum to interface with the BCC and promote sector advocacy. Similar initiatives were promoted in the humanitarian contexts of eastern DRC for ‘markets in crisis’ and payments in particular during the Covid pandemic. These have slowed down since despite the DCSWG being handed over to FPM. There is clearly a need and a gap for reinvigoration into the sector for future programming, showing the value that Élan brought, particularly in its role as a facilitator in a low trust environment.

5.1.3 Recommendations for future FCDO support

The UK government made a substantive investment in seeking to catalyse the economy of the DRC through its £100 million Private Sector Development (PSD) programme. Over half of this was through the Élan DRC project, and the other project Essor had a £35 million flexible facility aiming to improve the DRC’s business enabling environment.⁴¹² As set out at the start of this report, complexity was at the heart of the design of the programme, and in this it was both ambitious and aiming to address perceived shortfall with linear thinking. The ‘problematique’ that was at the heart of the PSD programme design (see Figure 36 in Annex G) remains highly relevant. Notably the weak state of the public and private sectors, and the way in which these combine to create ‘vicious traps’ and multiple market failures.

Élan’s sector work in AgNP and A2F provided some important successes. The most impressive being the continued presence and growth of regional hybrid seeds producers (NASECO and Seed Co), the successful implementation of the CMA model, and improvements to bilateral interoperability and support to innovative service providers in the digital finance market. The work provides a good legacy of the Élan project and the UK’s investment in the two sectors and testament to hard work of the Élan team and partners, all operating in a very difficult context. It also provides a foundation that can be built upon, not least as the markets remain fragile and many of the systemic constraints in the DRC market remain, particularly the more binding constraints in infrastructure, logistics, and governance.

An important overall learning point on the project experience has been on the relative balance between private sector engagement and a focus on more governance, regulatory and policy issues. The combined PSD programme included Élan as the market systems project, and Essor as a business environment reform project, in theory providing a twin approach to dealing with private and public sector-driven constraints respectively. However, the two projects largely worked independently on separate parts of the system, with a few exceptions. In leasing and insurance, Élan highlighted the importance of these issues and close collaboration including with other development partners.⁴¹³

The entry points for Élan were much more frequently private sector providers. A strong rationale for this was that policy reform was uncertain, government unpredictable, and reform may also take many years to achieve.⁴¹⁴ The private sector’s capacity to innovate, achieve scale and change market systems was therefore more likely to lead to system

⁴¹² The third project is the Decision Support Unit (DSU).

⁴¹³ Élan (2018d) “Programme Completion Report” (PCR)

⁴¹⁴ The draft seed law, was initially written more than 15 years ago and although revised to align with the provisions of the COMESA and SADC harmonised seed trade regulations, was submitted to Parliament in 2018 and is still awaiting deliberation. It has not been passed for (apparently petty) political reasons rather than technical challenges or constraints. Source: USAID (2019) SEEDCLIR report.

change, particularly for the period of time in which Élan had to achieve change. However, even this approach at times under-emphasised the role of government.

The findings and learning points specified provide a number of possible routes for future programming. Some ideas are provided in Table 25 below, and while these are provided as recommendations they are more importantly areas for discussion and further thought. The nine years of Élan provide a wide and rich set of learning and experiences, as discussions with ex-staff of the project strongly attest. The notes here try to distil the main messages that come from the detailed review on AgNP and A2F undertaken.

Recommendations are provided for each sector, for market systems and complexity programming, and for learning and monitoring and results measurement (MRM). Related learning points on each theme are also included to give a clearer sense of what from this sector study of Élan has underpinned the forward-looking recommendations:

Table 25: Study recommendations for FCDO

Recommendation	Related learning points
AgNP	
<p>R1: The DRC seed system remains nascent and progress that has been made is fragile. Where possible, the production and distribution of hybrid seed in the DRC should remain a central pillar for future programming as seed quality remains a binding constraint for farmers to improve yields.</p> <p>R2: The focus in agriculture should include larger farmers if transformation is the objective. Such farmers are already achieving high yields in the DRC and a greater area of land under their management is likely essential for transformation in the sector's productivity.</p> <p>R3: Constraints in the seed system are heavily related to under-funding of key institutions such as INERA and SENASEM. Programming should seek to address these constraints and the market failures they lead to (for example, information asymmetries on seed quality).</p>	<ul style="list-style-type: none"> • Interventions related to importing quality hybrid seed were more successful than those producing and selling locally grown OPV seed, principally because international companies had higher capabilities than local businesses. • Provincial governments are major buyers of seed, something that may disincentivise SHFs from purchasing quality seed themselves. • There are challenges to marketing of OPV seeds due to their intellectual property being limited. Hybrid seeds are easier to brand and package effectively while maintaining consistent products. However, both require good quality assurance.
A2F	
<p>R4: Equity BCDC's ambitions presents a major opportunity to grow agricultural lending in the DRC with large lending targets in place for coming years. Future programming in A2F should consider how to support the Bank in achieving growth objectives while also seeking to ensure that smaller and poorer farmers and MSMEs can also benefit (including overcoming the collateral requirements they face), while the protection of the environment also remains strong.</p> <p>R5: The digital finance eco-system continues to provide the most dynamic growth sector in the finance industry that interfaces with ordinary and poorer consumers. Many opportunities remain and can be catalysed, particularly in digitising more of the everyday payments consumers make.</p> <p>R6: Innovation in financial services remains the most likely route to improve financial inclusion, including for</p>	<ul style="list-style-type: none"> • Élan's efforts to promote SME and agriculture lending had limited success but pilot interventions did stimulate some innovation in the sector (particularly the credit guarantee model, micro-loans via mobile phone, and the CMA model). • Agricultural sector firms, farms and MSMEs continue to face high costs of capital and high collateral requirements, compared to their ability to pay and their stock of assets. Continued innovation in products and systems (to credit scoring, types of collateral etc.) are required to address these groups. • Financial inclusion remains low in the DRC, particularly for savings, insurance

Recommendation	Related learning points
<p>relatively untapped sectors such as MSME lending and micro-insurance. Future focus on these areas will require strong expertise to support profitable and impactful opportunities.</p>	<p>and lending. Many everyday payments are still not possible to make by digital means.</p>
<p>Market systems and complexity</p>	
<p>R7: There should be greater reflection on the PSD programme experience in terms of the balance between business environment reform and market development. The diagnosis that both are important still holds, but effective system change requires close and coordinated working to achieve across the public and private sectors.</p> <p>R8: There will be complex interplay between the Congolese agriculture sector and the threats from climate change over coming years. This provides a strong case for maintaining a focus on many of the Élan project's goals and the complexity-driven approach it used. Future programming should carefully seek to balance support for resilience to the changing climate (including improved and 'climate-resilient' seeds), and support to climate change mitigation (including avoidance/reduction of deforestation).</p>	<ul style="list-style-type: none"> • Élan focused mainly on working with businesses and avoided interactions with government and may have missed opportunities to address critical constraints required for market systems changes. • A combined PSD approach of focussing on both government and the private sector remains highly relevant in the DRC, but requires closer coordination between the two for success. • Agriculture is critical for climate change adaptation, but also poses threats in terms of emissions due to linkages with deforestation in the DRC.
<p>Learning and MRM</p>	
<p>R9: Good quality and timely analysis related to market systems changes is imperative to help strategy development and adaptation. Donors should moderate their demands for beneficiary impact data to the context of the programme, its objectives and realistic timeframes so to create positive incentives for implementers.</p> <p>R10: Development projects operating in market systems should seek and maintain high standards in the quality of impact evaluation and learning. In agriculture, a strong understanding of measuring yields including via counterfactual studies is vital for effective learning and adaptive programming.</p>	<ul style="list-style-type: none"> • Élan's management systems and practices systematically over-estimated the number of beneficiaries and level of increased income, most likely because of incentives the logframe provided. • Élan's evaluations, although many in number, were not high quality, and often did not use rigorous methods or external third-party providers to avoid over-optimism bias in estimates generated.

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Annex B Interviewees

The list in the tables below provides the main interviewees spoken to during the research. This was via a combination of in-country interviews in October and November 2022, in Haut Katanga and Lualaba provinces, and in Kinshasa. It also includes interviews conducted remotely in the period between October and December 2022. The tables are split by sector but some of interviewees were helpful interlocutors on both sectors, in particular Nathan Hulley and Gregoire Poisson, who led the project and had important insights on both the AgNP and A2F work that Élan undertook.

B.1 AgNP sector interviewees

Institution	Name	Position
Former Élan team members	Nathan Hulley	Ex- Team Leader (now at USAID)
	Gregoire Poisson	Ex – Deputy Team Leader and Senior PSD Advisor
	Ngama Munduku	Ex – Agricultural Sector Lead
Bon Berger	Dr. Macky Mankesi	CEO
Seed Co	Stanley Malekani	Country director, DRC & Angola
	Aram Ng'ombe	Regional Sales Manager, DRC
Kamano Seeds	Sylvia C. Horemans	Managing Director
Katanga Mboleo	Sonya Masangu	General Manager
INERA	Becker Katombe	Vice Coordinator
Mimosa	Tshela Kabanishi	Managing Director
	Ange Kanonga	Deputy Managing Director
Maydiv	Helène Divova	CEO / Founder
Mbeko Shamba	Walter Couttenier	Managing Director
UNAPSCO	Yves Sikiala	Consultant
Safari International	Gracia Kabanga	Deputy Managing Director
Provincial inspection of Agriculture	Dr. Baudouin Kakudji Kabemba	Inspector
	Jean Felix Ngandu	Deputy Division Chief
National seeds service (Senasem)	Vincent Musati	Provincial Coordinator
East Africa Grains Council (EAGC)	Kim Muaga	Trade policy manager
	Jacinta Mwau	DRC country/programme manager
	Gerald Makau Masila	Executive Director
	Paul Ochuna	Finance Manager
Haut-Katanga Provincial Ministry of Agriculture/Village Agricole	Professor Tshikung	Coordinator
FAO	Innocent Ombeni	Chief of Office, Lubumbashi
University of Lubumbashi (UNILU)	Lucien Nyembo	Professor at the Faculty of Agronomy

Institution	Name	Position
NASECO	Arnaud Ndayimirije	Export Manager and Regional Director
The African Seed Access Index (TASAI)	Mainza Mugoya	Programme Coordinator
Mulimaji Mwema	Bobo Kabamba-Lonji	CEO / Founder
Mbego Africa	Nadine Nkulimba	CEO/Founder
Mulagricom	Justin Mulenda	CEO / Founder
Agro-dealer in Bunkeya	Victor Lupiri	Agro-dealer / Farmer
Coopérative des pionniers de Kapulua	Gérard Kayez	Co-founder & Board Council President / Farmer
Regina Mundi	Noëlla Kaidi Kapapa	CEO / Founder
	Pierre Sad	In Charge of Operations.
Go Congo	Aziz Khabirpour	CEO
	Kersten Pucks	Founder, Executive Board Member
Sagricim	Patrick Kahasha Mbasha	Managing Director
Mercy Corps	Conrad	Team Leader for market system development
	Marcel Nibasumba	Manager of the agriculture and market system development component of the Food Security Project
ASI working on USAID programme (ex Mercy Corps)	Kevin Kiffer	Chief of Party - Garamba Alliance Activity

B.2 Access to Finance (A2F) sector interviewees

Institution	Name	Position
Former Élan team members	Estimé Kasakula	Ex – Branchless Banking Sector Lead
	Edwige Takassi	Ex – Access to Finance Lead
FSD Africa	Henri Plessers	DRC Country Representative
GSMA	Kennedy Kipkemboi Sawe	Regulatory Specialist
Infoset	Gabriel Zema	Director General
	Muliri Mirindi	Technical Director
FPM	Jean-Claude Thetika	Director General
FINCA	Joseph Mulimbi Kaykay	Head of Mobile & Digital Business
Equity Bank	Djedje Kungula Makoso	Head of Agribusiness Department
Trust Merchant Bank (TMB)	Bruno Gustave	Mobile Banking Project Manager
Banque Centrale Du Congo (BCC)	Willy Luboa Ngovo	Responsable de Direction
Association of MFIs	André Mayala	Secretary General
MaxiCash	Ruddy Mukwamu	CEO
Umoja	Francine Mukweo	Project Manager
Viamo	Whitney Hughes	Regional Director

Institution	Name	Position
Vodacom	Taty Furume	Executive Head of Financial Planning & Analysis (formerly Senior Executive Head: M-Pesa)

Annex C List of AgNP interventions

Research is required to see whether the removal of tariffs will be sufficient to significantly increase adoption rates of improved cookstoves, or whether a different product would be more effective. For this intervention, the aim would be primarily to reduce deforestation but with important secondary income effects for low-income households.

C.1 List of AgNP interventions within Élan 1.0

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP01	Inputs distribution	Seed Co	08-2015	07-2016	Sud	Lualaba	2,509,353	148,137	-	2,657,490	117,092	59,209	176,300
NP02	Seed multiplication	APSK, Fadip, FINCA, FPM, Inera, Maydive, Mimosa	09-2016	10-2016	Sud	Haut Katanga	1,179,631	241,140	-	1,420,772	112,736	151,480	264,215
NP03	Outgrower scheme in maize	Mbeko Shamba	10-2014	01-2016	Sud	Lualaba	98,275	-	-	98,275	44,668	93,736	138,404
NP05	Standardisation des unites de mesure	CAPAM	04-2016	09-2016	Sud	Tanganyika	3,521,399	-	-	3,521,399	7,065	599	7,664
NP06	Outgrower scheme in maize	Regina Mundi	09-2015	07-2016	Sud	Tanganyika	26,356	-	-	26,356	14,769	318,822	333,590
NP07	Outgrower scheme in rice	RTMK	12-2015	07-2016	Sud	Haut Katanga	363,061	54,279	-	417,340	-	-	-
NP08	Outgrower scheme in rice	Mulagricom	05-2016	12-2016	Sud	Haut Katanga	71,725	-	-	71,725	24,474	92,052	116,526

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP09	Onion warehouse and storage - THECAPA model	AFRP	03-2015	03-2016	Est	Sud Kivu	79,216	-	-	79,216	1,540	-	1,540
NP10	Import of inputs and local demonstration plots	ADVS	03-2016	03-2016	Est	Sud Kivu	-	-	-	-	5,643	9,113	14,756
NP11	Non-perennial inputs	Agrisem	12-2015	12-2016	Nord	Sud Ubangi	20,626	-	-	20,626	3,659	1,836	6,935
NP12	Appui au crédit intrants agricoles et développement du réseau de distribution par AgriForce suivant le modèle "One Acre Fund" pour les petits producteurs des territoires de Walungu dans la province du Sud Kivu	AgriForce	10-2016	07-2017	Est	Sud Kivu	394,727	-	-	394,727	72,887	85,343	158,230
NP13	Contract Farming in Maize	SEK - Seed Co	08-2015	07-2016	Sud	Lualaba	662,863	-	-	662,863	21,483	438,222	467,520

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP14	Rice	JOB SEED CO JSC	08-2017	12-2017	Est	Nord Kivu	74,037	-	-	74,037	20,039	28,126	48,165
NP15	Multiplication et distribution de semences améliorées de maïs dans le territoire de Basankusu	ACOBA			Nord	Equateur	5,590	-	-	5,590	-	-	-
NP16	Inputs for Maize	CTM 2	08-2016	06-2017	Nord	Equateur	4,451	-	-	4,451	7,646	2,179	9,825
NP17	Campagne BPA et Chenilles légionnaires-Kinshasa	Bmap				Kinshasa	-	-	-	-	-	-	-
NP19	Inputs - seed multiplication	ANP, GARGVU	07-2016	06-2017	Nord	Equateur	38,846	-	-	38,846	50,606	45,191	95,796
NP20	Distribution de semences a Gemena	AGROPY, COPAPI, PROSAVIDE	08-2016	07-2017	Nord	Mongala	324,705	-	-	324,705	34,472	18,227	52,469
NP23	BPA & Inputs - seed multiplication	Team Work			Nord	Mongala	119,706	-	-	119,706	-	-	-
NP24	Inputs - seed multiplication - rice	Ets Munga	09-2016	09-2017	Est	Sud Kivu	480,921	-	-	480,921	106,420	145,879	252,298
NP25	Inputs - seed multiplication - soya	Ets Buhendwa	08-2016	02-2017	Est	Nord Kivu	-	-	-	-	7,777	8,008	15,785

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP27	Horticulture seeds	Sotracen	07-2016	03-2017	Ouest	Kinshasa	385	-	-	385	2,566	17,248	19,814
NP28	Support to vegetable seed producer organization	Ceprosem	07-2016	06-2017	Ouest	Kongo Central	365,010	-	-	365,010	8,278	8,416	16,694
NP29	Maize	Bon Berger	11-2016	12-2018	Sud	Haut Katanga	13,126	-	-	13,126	84,893	200,008	284,900
NP30	Seed multiplication - maize	Bon Berger	11-2014	11-2015	Sud	Haut Katanga	379,369	14,527	177,000	570,895	28,072	12,010	40,083
NP31	Seed distribution	Zamseed	11-2016	08-2017	Sud	Haut Katanga	54,194	-	-	54,194	19,242	13,398	32,640
NP32	Seed distribution	NASECO SEEDS	02-2017	08-2017	Est	Nord Kivu	1,470,438	-	-	1,470,438	392,532	545,632	938,164
NP33	Inputs Distribution	KAMANO Seed	12-2017	12-2018	Sud	Haut Katanga	31,124	-	-	31,124	29,100	12,710	41,810
NP34	MSC2.1: Inputs suppliers provide quality inputs and advisory services to SHFs	Mulimayi Mwema (service agricole)					1,185	-	-	1,185	-	-	-
NP35	Commerce tranfrontalier et application du RECO	ACT	02-2018	10-2018	Est	0	129,971	-	-	129,971	-	-	-

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP36		ACT Kasumbalesa	08-2017	12-2017	Sud	Haut Katanga	-	-	-	-	7,065	3,080	10,145
NP40	Seed multiplication	Essou			Ouest	Kinshasa	-	-	-	-	-	-	-
NP41	Support to use phytosanitary products	Bmap-Indigo			Ouest	Kinshasa	-	-	-	-	-	-	-

C.2 List of AgNP interventions within Élan 1.2

Code	Type	Partner	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP101	Improved seeds distribution in new areas in the Kivus.	Ets Munga	3,833,280	44,011	39,591	83,603
NP102	Improved seeds distribution in new areas in the Kivus.	NASECO	250,622	87,536	106,435	193,971
NP103	GAP messages communication campaign through mobile network operators.	Viamo	633,243	26,950	117,040	143,990
NP105	Collaboration with TASAI to improve the operating environment through the engagement with different stakeholders, including the government of the DRC.	TASAI	-	38,227	6,311	44,538
NP106	Research activities and data collection on food product prices and food supply on various markets in Kinshasa	Covid-19 food security	-	-	-	-
NP108	Improved seeds distribution in new areas in the Kivus.	Agriforce	447,250	34,538	37,048	71,586
NP109		Ceprosem	-	-	-	-

Code	Type	Partner	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
NP110	Support market-driven creation and dissemination of topical and actionable agricultural content through radio channels in Kasai.	Radio Télévision Réveil (RTR) + Voix de Votre Communauté (VVC)	104,880	10,281	6,545	16,826

Annex D List of A2F interventions

Research is required to see whether the removal of tariffs will be sufficient to significantly increase adoption rates of improved cookstoves, or whether a different product would be more effective. For this intervention, the aim would be primarily to reduce deforestation but with important secondary income effects for low-income households.

D.1 List of A2F interventions within Élan 1.0

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
AF01	A2F: SMEs, Maize CMA	Bank of Africa (BOA), Comexas, Maizeking	07-2015	10-2015	Est	Nord Kivu	4,007	-	-	4,007	26,964	13,335	40,299
AF03	A2F: BB, Female agents for mobile money	Tigo			Ouest	Kinshasa	-	-	-	-	-	-	-
AF04	A2F: BB, mobile money education campaign	Airtel, Tigo, Urban, Vodacom	06-2015	12-2018	Ouest	Kinshasa	1,149,777	7,152,458	-	8,302,235	42,827	67,517	110,346
AF05	A2F: BB, Agents network	Orange Umoja	06-2015	10-2015	Ouest	Kinshasa	3,920	-	-	3,920	11,703	11,703	23,406
AF07	A2F: BB, mobile banking	FINCA	08-2016	12-2017	Sud	Haut Katanga	88,185	-	-	88,185	138,600	554,400	693,000

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
AF08	A2F: BB, rural agents network	FINCA	08-2016	12-2017	Ouest	Kongo Central	113,677	-	-	113,677	207,900	826,900	1,034,800
AF13	A2F: BB, mobile banking	Mulimayi Mwema			Sud	Haut Katanga	-	-	-	-	-	-	-
AF17	A2F: BB, Agents network	Oxus	08-2016	12-2017	Ouest	Kinshasa	-	-	-	-	46,970	132,440	179,410
AF18	A2F: SMEs, River Transport / agri-loans	ProCredit Bank (Equity Bank)	07-2015	10-2015	Nord	Equateur	29,550	-	-	29,550	-	-	-
AF19	A2F: SMEs, River Transport, boat operators	GEC			Nord	Equateur	14,338	-	-	14,338	-	-	-
AF20	A2F: SMEs, River Transport, Credit & Savings groups	Baleinieres CEGs GIEs			Nord	Equateur	42,239	-	-	42,239	-	-	-
AF22	A2F: SMEs, Maize, CMA	COMEXAS, GoCongo, Equity Bank	02-2017	02-2018	Sud	Haut Katanga	-	-	-	-	100,100	146,300	246,400
AF23	A2F: BB, diffusion of A2F and Agri	Viamo / HNI	08-2016	06-2018	Ouest	Kongo Central and Kinshasa	123,937	-	235,864	359,801	40,286	79,717	119,934

Code	Type	Partner	Start	End	Region	province	Direct NAIC (£)	Indirect NAIC (£)	Élan 1.2 NAIC (£)	Total NAIC (£)	Budget Élan (£)	Budget partners (£)	Total Budget (£)
	messages by mobile phone												
AF27	A2F: BB, Interoperability	Airtel, Tigo, Urban, Vodacom			Ouest	Kinshasa	-	-	-	-	-	-	-
AF30	A2F: SMEs, Housing Finance	Habitat - Housing Finance			Ouest	Kinshasa	-	-	-	-	-	-	-

D.2 List of A2F interventions within Élan 1.2

Code	Type	Partner	Total NAIC	Budget Élan	Budget partners	Total Budget
AF101	Development and rebranding of the Lona o Defa digital finance product. (Diagnostic study ongoing - prior to implementation)	FINCA-Vodacom	-	50,000		
AF104	Advocacy/lobbying of mobile money operations.	Digital Working Group	-			
AF106	Investment technical assistance which would allow EPD to develop its business into Goma and enable MSMEs to benefit from its products (both consulting and loans).		-			
AF108	TBD	MIC Cash Working Group	-			
AF109	A communication campaign with radio, social media and mobile operators to advocate for mobile money use and its benefits, including sanitary ones.	Covid Digital Payment Awareness	-			
AF110	Setting an aggregation platform to enable interoperability and instant digital/USSD mobile payments.	MaxiCash and Infoset	-			

Code	Type	Partner	Total NAIC	Budget Élan	Budget partners	Total Budget
AF111	The partner IPC will provide targeted MFIs in DRC with crisis management training.	Covid Crisis response	-			
AF112	Allowing some MSMEs to access loans despite the freeze in lending observed currently and allow those loans to be accessible quicker. Élan will support the process by providing a guarantee fund in case of challenges paying back the loans. Thus, lending will continue at least for priority sectors and MSMEs will show signs of resilience.	Covid cash guarantee	-			
AF113	Conduct 30 rounds of surveys with 1,000 households by telephone (total of 30,000 completed surveys in the end of the 6 months implementation). The results will inform private sectors and decision-makers on how to best respond to the crisis.	Covid household survey	-			
AF114	Conduct 10 rounds of surveys with 300 businesses by telephone (total of 3,000 completed surveys in the end of the 2 months implementation). The results will inform private sectors and decision-makers on how to best respond to the crisis.	Covid business survey	-			

Annex E Select intervention summaries

E.1 AgNP interventions with Seed Co. (NP01, NP13)

Seed Co is a long-established company, founded in Zimbabwe in 1940, and currently headquartered in South Africa. They produce and market elite hybrid seeds across west, central, eastern and southern Africa. Seed Co opened an office in DRC in 2012 to distribute and sell its hybrid seeds. Élan partnered with Seed Co in 2015 for two interventions. These were:

- (NP01): Signed in August 2015, the objective of this partnership was to support Seed Co in establishing a seed distribution network to sell seeds to smallholder farmers (SHFs) with a focus on Lubumbashi and surroundings.
- (NP13): A tripartite agreement, signed in August 2015, between Élan, Seed Co and Société d'Exploitation de Kipoi (SEK) a copper and cobalt mining company. As part of its CSR, SEK wanted to set up a contract farming model where it would pre-finance inputs for farmers. The farmers could repay the financing after harvest. Seed Co would supply inputs, agronomic advice and monitor farmers to encourage repayment.

The NP01 intervention went through two iterations (2015-2016 and 2017-2018). The first partnership hired Field Technicians to train farmers and promote seeds while local retailers distributed seeds. While this was found to increase sales, the distribution model was found to be expensive and unprofitable. The second partnership converted the Field Technicians to Field Agents to promote and sell seeds. While Field Technicians were recruited, trained and equipped with motorbikes by Seed Co, Field Agents would be independent and paid by commission. Seed Co streamlined its marketing team to just one marketing manager and one agronomist. Marketing activities were conducted with radio advertising campaigns in targeted zones, a learning centre established, 200 demonstration plots, and field days used. Smaller, more affordable pack sizes (250g, 500g) were also introduced.

The SEK mining intervention (NP13) went through three iterations over the 2015-2018 period. Each time the role of the Field Technician was revised and the process of managing the contract farming system was streamlined. The range of services offered to farmers was expanded (to include phytosanitary products and agro-machinery).

E.1.1 Expected Market System Changes

Élan saw the interventions as contributing to two MSCs. Firstly, MSC 2.1: “Input suppliers provide quality inputs and value-adding services to smallholder farmers”, as Seed Co would set up a viable distribution network to sell seeds to SHFs. In addition, MSC 2.2: “Agribusinesses and mines provide access to pre-financed inputs and services to SHFs”, as Seed Co's monitoring and advisory support would help farmers make good use of the financing provided by mining companies. The farmers would sell their produce and earn income while the mines would sustainably continue to support farmers. While the core Seed Co business has expanded but the mining scheme has ended, it can be said that there was more success on MSC 2.1 than on MSC 2.2. However, the market for SHFs has still not seen any major transformation and remains small, although provincial government shows good and growing demand for hybrid seeds produced by Seed Co.

E.1.2 What results were claimed?

As shown in Table 26, Seed Co's sales have increased steadily over time from approximately 260 tonnes prior to collaboration with Élan to around 620 tonnes in 2019 just after this collaboration had ended, and up to around 1,000 tonnes as of 2022. Sales are made up of government (60 percent approximately as of 2022), mines (10 percent) and a mix of commercial farmers and SHFs (30 percent). SHFs were the target beneficiary group for Élan's intervention, and while reaching 147 tonnes of sales for this group in 2016/2017, sales to SHFs have fallen back since then and are unlikely to exceed 100 tonnes in 2022. However, sales to provincial government may end up being used by SHFs as they are distributed with the Village Agricole programmes in Haut Katanga and Lualaba provinces (although the latter has alternated hybrid seed purchases with OPV seed purchases from local providers).

Table 26: Seed sales (in tonnes) by Seed Co

Sales	2013/14	2014/15	2015/16	2016/17	2017/18	2019	2020	2022
Maize hybrid – sales	260	260	195-260	423-450	422-460	620	1,010	800-1000
SHF segment – sales	80	60	115	147	325			100 (approx.)

Source: Élan (2017i, 2020j); [DSU interviews for MTE and for this study](#).

Élan's estimated impact for the interventions came from SHFs using improved seed and increasing yield and income as a result. Élan carried out impact assessments for both NP01 and NP13. The final assessment for the first intervention (NP01) found the hybrid seeds had increased yields for SHFs purchasing them. While the target maize yield for Élan was 4.5 t ha⁻¹, achieved yield was 2.8 t ha⁻¹ on average, which compared to around 1 t ha⁻¹ beforehand. This was estimated to be worth USD 232 per SHF using the hybrid seeds based on the additional maize produced less associated costs.⁴¹⁵ For the SEK intervention (NP13), yields were found to be higher at 4.9 t ha⁻¹, increasing from 1 t ha⁻¹ prior to the campaign. Higher yields were linked to the 'full package' of support provided to SHFs. NAIC was found to be USD 677 per beneficiary involved for the 2016 season.⁴¹⁶

⁴¹⁵ Élan (2017j) "Accès à la semence de qualité– SEEDCO"

⁴¹⁶ Élan (2016f) "Projet pour l'amélioration des moyens de subsistance"

Table 27: Seed Co reported impact and DSU reliability assessment

Intervention	Élan investment (£)	Partner investment (£)	Number benefitted	Aggregate NAIC (£)	DSU reliability assessment	Adjusted NAIC (£) recommended
NP01: Seed distribution	117,092 (66%)	59,209 (34%)	10,206 (36% women)	2,657,490	Issues found during MTE.	1,954,036
NP13: Contract farming, SEK	21,483 (5%)	438,222 (95%)	704 (25% women)	662,863	Issues found during MTE.	662,863

Source: Élan (2019d) PWIG; DSU (2018b, 2020b)

Table 27 summarises estimated benefits of both interventions and DSU's reliability assessment of the results. The two interventions formed a large proportion of total NAIC for the AgNP sector at around 20 percent in total, with £3.3 million estimated by Élan. During the MTE work, these were found to be over-optimistic, with NP01 NAIC impact recommended to be adjusted by £0.7 million downwards.⁴¹⁷

Élan estimated that 10,206 SHFs benefitted from the NP01 intervention and that 325 tonnes went to SHFs in the 2017/18 season.⁴¹⁸ This would imply 32 kg of seeds per farmer at that stage, enough to farm over 1 ha of land (the maize seed rate being 25 kg per ha). It is estimated that USD 1,000 of inputs (including seeds and NPK) are required to fully develop a single ha of land. In comparison, maize meal retailed in 2022 for between 800 and 1,000 CDF per kg in Lubumbashi, which is roughly USD 400 to USD 500 per tonne.⁴¹⁹ Farmers therefore require yield increases upwards of 2 tonnes per ha ($t\ ha^{-1}$) to break-even on additional investments in their land. According to Seed Co (in interviews for this study), it is only likely that larger farms, of 5 ha or more, are capable of making investments required to achieve the greater yields and then make a profit. As the DSU MTE also found, this is potentially a fundamental limitation on the intervention logic for hybrid seed sales from a company such as Seed Co to benefit the target beneficiary group of SHFs.⁴²⁰

The SEK contract farming intervention was estimated to have reached 704 beneficiaries, and was the highest AgNP intervention in terms of the NAIC per beneficiary at £942 (benefits were estimated to cover multiple seasons). This amounts to a large return in the context. The MTE looked in detail at the SEK intervention, and though while viewed by Seed Co and Élan as a success, the DSU found challenges, including a “toxic relationship” between the mine and local community and a breakdown in trust linked to corruption in SEK’s community liaison staff.⁴²¹ It found low reimbursement rates, and that yields were lower than Élan had estimated, according to DSU interviews yields post-intervention were reported at just $3\ t\ ha^{-1}$, which would imply lower gains in terms of NAIC. Despite this it is not possible to say definitively if the yields were overestimated. The scheme has ended in early 2018 as SEK no longer owns the mine and it was sold to a Chinese company. It is unclear if any OGS still exists at the location.

⁴¹⁷ DSU (2018b) “Mid-term evaluation (MTE) of ÉLAN Technical Annex”

⁴¹⁸ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

⁴¹⁹ USAID / FEWSNET (2022b) Democratic Republic of Congo Price Bulletin November 2022

⁴²⁰ DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes

⁴²¹ Based on interviews undertaken in October 2017. DSU (2018a, 2018b) Élan Mid-term evaluation (MTE) and annexes.

E.1.3 Will Seed Co ever start production of hybrid seeds in the DRC?

A long-running goal of Seed Co has been to establish production of hybrid seeds in the DRC, and this was an explicit goal at the outset of interventions with Élan.⁴²² According to Seed Co in MTE interviews, 1,000 tonne of seed sales were needed to break-even on operations and consider production in the DRC. According to interviews for this study (in November 2022), either 1,000 tonnes of maize seeds over three consecutive years would be needed, or according to another senior member of the Seed Co team, 2,000 tonnes of hybrid maize seed sales would be needed to start a processing plant.

The firm continue to face issues of competing with fraudulent seeds as well as illegal imports, and the lack of a Seed Law and IP protection make it difficult for them to operate and remain profitable. Despite this, there is some optimism that expansion and ultimately production in the DRC is possible. As above the trajectory of sales has been in an upward direction, and a Seed Co team member also noted that 1,300 tonnes of maize seed sales were possible in a good year, although this was reliant on the provincial government purchases which could be unpredictable. It remains possible that Seed Co will set up production in the DRC of hybrid seeds in coming years.

E.2 AgNP interventions with NASECO (NP32, NP102)

Nalwayo Seed Company (NASECO) is a Uganda-based seed producer originally selling hybrid and OPV seeds but now just marketing and selling its hybrid seed in the DRC, particularly its flagship seed 'Bazooka'.⁴²³ The company developed the Bazooka hybrid maize variety at its research facility in Uganda in collaboration with CIMMYT to better serve smallholder farmers. The variety was selected for its ability to produce in a low-nitrogen environment and deliver a robust yield in different ecologies; suitability up to 1,900 meters; and tolerance to lethal maize necrosis and fall armyworm.⁴²⁴ The Bazooka variety is apparently valued by farmers for its 'double cob'. According to NASECO, yields even without fertiliser can be 4-5 t ha⁻¹, while with fertiliser can be 7-8 t ha⁻¹.

NASECO came into DRC in 2015, and according to USAID (2019) has since become the "most important hybrid maize seed company in eastern DRC, and it accounts for at least 75 percent of all hybrid seed sales in eastern DRC".⁴²⁵ Élan had two interventions with NASECO. The first under Élan 1.0 (NP32) in 2017-2018, and the second under Élan 1.2 (NP102) in 2020-2021. Both partnerships aimed to help NASECO promote its seeds and establish a distribution network.

NASECO has been an acclaimed regional seed producer, having ranked 5th in the first Access to Seeds Index (2016), a global overview of seed companies with a focus on how they reach SHFs in developing countries. NASECO was highlighted as providing 90 percent of its seed to a SHF customer base, the highest of any company surveyed.⁴²⁶ At that time

⁴²² As of the start of the intervention, Seed Co already had their own extension service team, and they planned to expand to 5,000 tonne of seeds within four years. Source: Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

⁴²³ The company also sells seeds in Rwanda and Burundi.

⁴²⁴ USAID (2019) SEEDCLIR report.

⁴²⁵ Ibid. USAID (2019) SEEDCLIR report.

⁴²⁶ "Ninety-five percent of NASECO's customer base is made up of smallholder farmers, which the company defines as farmers with 5-10 acres of land, not necessarily their own. Most of these customers are located in Burundi and Uganda. Smallholder farmers are integrated into the company's strategy as demonstrated by its tailored packaging and R&D activities, with a focus on low-input management, late weeding, droughts and floods." Access to Seeds Foundation (2016).

the company was principally focussed on Uganda with some presence in Burundi as well. Élan sought to support replication of the SHF model for the market in the eastern DRC.

Demand creation was central to the Élan interventions. NASECO employed Product Placement Officers (PPOs) to establish demonstration plots, promote seeds and train SHFs on good agriculture practices. The PPOs would identify agro-dealers and supply them with seeds to distribute. Over 400 agro-dealers were trained in business and agriculture practices to sell seeds and advise farmers on agriculture practices ensuring farmers' supply of inputs and technical information, and the firm set up a close to 9,000 demonstration plots as part of the intervention. NASECO and Élan also used radio adverts to promote seeds and set up a dial-in service with Viamo to provide information on good agriculture practices (linked to intervention NP103).

NASECO agriculture agents are paid a basic salary, given a motorcycle after three years of service, and receive commissions based on sales and achieving the target of establishing 200 demonstration fields per agent.⁴²⁷ The model has allowed them to build a dense network of distribution particularly in North Kivu, South Kivu and Ituri provinces in the eastern DRC, which continued to grow after Élan's support had ended.

E.2.1 Expected Market System Changes

As with the other seed interventions, the expected market system change (MSC) was specified as MSC 2.1 – "input suppliers provide quality inputs and advisory services to smallholder farmers." The NASECO intervention was found to be more tailored to the needs of SHFs than other companies, and this may have been a combination of this being the core strategy of the company including in Uganda, as well as the characteristics of eastern DRC. Interviewees highlighted in particular the relatively dense population in the Kivu provinces, meaning that higher volumes of SHFs could be reached in spite of the infrastructure challenges. The company has sustained the growth linked to the Élan intervention period, and it appears the intervention may provide the most likely to have achieved the systems change that Élan set out to achieve.

E.2.2 What results were claimed?

Table 28 below shows how NASECO's operations and sales have grown over time. Growth has been relatively steady, and the company faced particular challenges in the first Covid year of 2020. The compound annual growth rate (CAGR) in terms of sales volumes can be measured at 10 percent from 2018 to 2022, or 27 percent from 2017 to 2022. Unlike other intervention partners of Élan, it is claimed that the vast majority of these sales reach the target group of SHFs. According to NASECO, they hope to continue strong growth and have a sales target of 350 tonnes of maize hybrid seed sales for 2023.

⁴²⁷ USAID (2019) SEEDCLIR report.

Table 28: NASECO maize seed production estimates, production (tonnes), and revenue (USD thousands)

Year	2017	2018	2019	2020	2022
Maize hybrid – sales	55.5	124.8	157.7	142.7	180
Revenue (USD thousands)		90	121.2	210.5	

Source: Élan (2017k, 2020h, 2020i) + DSU interviews.

Élan conducted two impact assessment studies to assess the benefits of NASECO's hybrid maize seeds on farmers' earnings. The first study for Élan 1.0 compared yields of farmers using NASECO seeds against their former yields (hence a pre/post method). The study found yield impact in both South Kivu and North Kivu. Effective yield increases were 1.8 t ha⁻¹ to 3.3 t ha⁻¹ in North Kivu, slightly less in South Kivu. However, farmers on average planted on 0.13 ha of land, so the impact in effective yield achieved was 115 kg in South Kivu valued at USD 50, and 205 kg in North Kivu valued at USD 76; the mean NAIC increase was estimated to be USD 63. Approximately 55 tonnes had been sold in the period assessed, and between 1.5 kg and 2.5 kg seeds were purchased.⁴²⁸

For the Élan 1.2 phase intervention (NP102), a more ambitious evaluation approach was taken with a treatment group of 'adopters' and a comparison group of 'non-adopters', perhaps the most ambitious evaluation Élan undertook in its full period of operation, with an external partner leading.⁴²⁹ The study found yields of 4.0 t ha⁻¹ for users of NASECO's Bazooka seed, and 3.5 t ha⁻¹ for those using local seed, the latter figure seeming perhaps surprisingly high.⁴³⁰ Farmers were assumed to plant 0.25 ha of land with Bazooka, and after accounting for expenses adopters of improved seeds had NAIC of USD 28.60 above non-adopters. It was found the vast majority of farmers (97-98 percent) across the treatment and comparison groups did not use chemical fertiliser. There was a difference in agronomist support - with 70 percent of treatment group receiving compared to 5 percent of the comparison. However, it is not clear whether the treatment effect was mediated by this support, or just the impact of the improved seeds.

Table 29 shows how this translated in terms of NAIC, with £1.2 million across the two interventions. DSU's reliability assessment concluded that the number of farmers benefitting from the intervention was likely to be slightly overestimated (by 3-4 percent, because this share said they had not benefited), and the NAIC was also likely slightly overestimated due to accurate costs of seeds not being taken into account.

⁴²⁸ Élan (2017k) "Mid-term evaluation of NASECO (NP32)"

⁴²⁹ Élan & IES (2021) "Impacts of improved rice and corn seeds adoption on smallholder households"

⁴³⁰ This may suggest methodological issues. The report acknowledges challenges in sampling. Adopters were selected from agro-dealers, while agronomists were used to find non-adopters. There were 314 maize farmers in the total sample (219 for the treatment group, and 95 comparison group), and no matching method was used, the authors noting that the comparison group sample was too small for propensity score matching. The report has insufficient detail to fully assess the quality of the evaluation. Élan & IES (2021).

Table 29: NASECO reported impact and DSU reliability assessment

Intervention	Élan investment (£)	Partner investment (£)	Number benefitted	Aggregate NAIC (£)	DSU reliability assessment
NP32 Élan 1.0	392,532 (42%)	545,632 (58%)	25,272 (43% women)	1,470,438	Aggregate NAIC slightly overestimated
NP102 Élan 1.2	87,536 (45%)	106,435 (55%)	9,954 (50% women)	250,622	N/A

Source: Élan (2019d) PWIG; DSU (2018c, 2020a, 2020b)

The relatively large reach of NASECO is a function of farmers buying small quantities of seed. Most farmers according to NASECO buy 1-2 kg, enough to cover no more than one-tenth of a hectare of land, which aligns with the finding from the 2017 evaluation.⁴³¹ A key factor in the competitiveness of NASECO in reaching SHFs is that the prices of their hybrid seed are cheaper than those sold by others, including Seed Co (for example). Hybrid bazooka seed sells to farmers for USD 2.20 / kg according to NASECO, which compares to USD 5 / kg for Seed Co hybrids in the south. This is likely to give NASECO a competitive edge, but also offset some of the additional perceived risks of SHFs using hybrids (as opposed to OPV alternatives). According to NASECO, farmers were finding it profitable to rent a small plot of land to try to turn a profit on the hybrid seeds. Through the distribution network, the firm also provide extension services, including for example advice on how to intercrop maize and beans successfully.

E.2.3 Production in the DRC

During the 2020 Annual Review interviews, NASECO mentioned that working with Élan helped them extend their reach into new and further away areas. NASECO has been interested in growing seeds in the DRC but could not do so as seed testing facilities did not exist. The company set up a production facility in Ituri province with the support of Élan⁴³², and also registered their flagship ‘Bazooka’ hybrid maize seed in the national seed catalogue,⁴³³ which may be important to facilitate their growth.

It is not clear how operational NASECO’s production site is in the DRC, and what proportion of NASECO sales come from the production there, however it is still a mark of their commitment to the DRC that they continue to pursue this in spite of the challenges faced, particularly with years of conflict in the eastern DRC. NASECO credit Élan with pushing them to expand in the DRC at a faster rate and over a larger geographical area, and as they now put it “we are here to stay”.

E.3 AgNP interventions with Mimosa (NP02)

Growing commercial seeds involves cultivating at least three generations or classes of seeds as shown in Figure 24. Élan’s NP02 intervention aimed to give small local producers the capacity to grow foundation seeds and use them to grow and distribute commercial

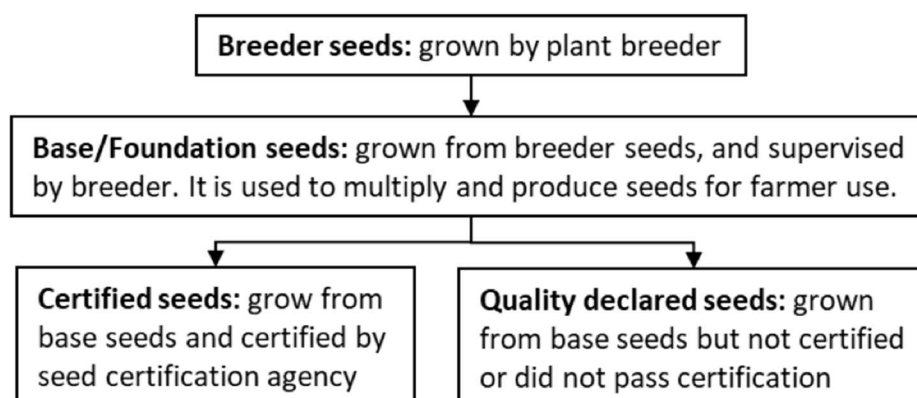
⁴³¹ During the Élan period they sold seeds down to 500 gram packs, though now the smallest they sell is 1 kg according to NASECO in interview for this study.

⁴³² Élan (2021c) “Élan Sector Studies – Agriculture Non-Perennial”

⁴³³ Bazooka seed can be seen in the Seed Catalogue available online: MINAGRI (2019).

certified seeds (to be certified by the national regulatory institution, SENASEM). The focus was on open pollinated variety (OPV) rather than hybrid seeds.

Figure 24: Phases of seed growing



Source: Authors

The intervention worked with the national research institute (Institut National d'Etudes et de Recherches Agronomiques - INERA), which had a monopoly on producing breeder seeds and foundation seeds in the DRC. INERA would support six providers with one hectare (ha) each financed by Élan, and the producers would finance another ha. The largest focus was production of 'Babungo', an OPV maize seed, and four other seed crops.⁴³⁴ Élan also worked with INERA to liberalise the production of foundation seeds, which would allow the local seed multipliers to expand and allow them to decouple from the need to source from INERA, who were under-funded and under-capacitated.

The intervention began with a long list of existing multipliers of seed, the 20 small producers that formed the Association of seed producers in Katanga (APSK) and narrowed them down to those with most potential, which became the six - Bon Berger, FADIP, Maydive, Mimosa, Safari International and Nsenga Lutanga.⁴³⁵ This was for the first phase of the NP02 intervention (2014-15).

In the second phase of intervention (2015-16), seed producers used base seeds to produce certified seeds and began setting up distribution networks to sell certified seeds, with Élan's focus on smallholder farmer (SHFs) as target beneficiaries. Élan undertook a second partnership with Mimosa for the November 2015 planting season. The second phase concentrated on marketing of the seed they were now producing. Élan supported a programme of adverts and other marketing communications, 15 demonstration plots were planted and managed to host field visits to showcase the performance of the maize seed, 30 points of sale were also opened. Mimosa negotiated agreements with four agro-dealers along the main Lubumbashi–Kolwezi axis to stock its products.

The support provided led to Mimosa achieving sales of more than 80 tonnes in 2018. Élan estimated they had increased from 10 tonnes of seed before the intervention to 60 tonnes for the 2015/2016 season.⁴³⁶ Data from USAID (2019) suggests there was unsold seed,

⁴³⁴ The other crops involved were beans D6K, groundnut MGV4 (Maydive took the lead on groundnut), rice NERICA7 (FADIP took lead), and soybean TGX6.

⁴³⁵ Nsenga Lutanga did not reach the quality targets set and therefore Élan exited the partnership. FADIP had produced good quality rice seed but the organisation collapsed after the death of the owner. Élan (2018c) PCR. Annex 7 Assessing Systemic Change

⁴³⁶ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

potentially as much as half as was produced in the 2016/2017 season.⁴³⁷ Sales included purchases from the provincial Ministry of Agriculture as part of the Village Agricole initiative. The provincial government of Haut Katanga initially purchased 26 tonnes of Babungo maize seed from Mimosa during the planting season of 2017, and increased the order for 2018 to 60 tonnes. According to Élan, this generated more than USD 100,000 of revenue to Mimosa.⁴³⁸ However, in interview for this study, Mimosa claimed to have still not been paid USD 30,000.⁴³⁹ The trajectory of sales is in Table 30.

Table 30: Mimosa seed production data in land use (hectares) and production (tonnes)

Crop	2014	2015/2016	2016/2017	2017/2018	2018/2019	2021/2022
Maize OPV – land used (ha)			33	20.5	20	
Maize OPV – production (t)	10	No data	60-89.3	56.3-70	80	40-50
Unsold maize (t)			46.5			

Source: USAID (2019) SEEDCLIR report; Élan (2018d) PCR; DSU interviews for 2021/2022

Élan had supported Mimosa to obtain a loan from ProCredit Bank (which became Equity Bank and then Equity BCDC Bank) to support expansion, for a warehouse facility to store seed for which Élan guaranteed the loan for and co-financed (part of their ProCredit agreement, within Élan’s AF18 intervention).⁴⁴⁰ Mimosa repaid the full amount and in interview for this study were very positive on the work of Élan, including training / business development support (BDS) provided (short courses on management, accounting, production planning and commercialisation) and allowing them to formalise their business. However, they were unable to maintain a credit facility with Equity Bank.

SENASA would monitor the production of base seeds and then the production of certified seeds. SENASA still certify the seeds produced by Mimosa, for which they charge a fee based on the volume of seed. As set out elsewhere (see Section 3.2.1), the testing from SENASA is not scientifically robust, and it is therefore not necessarily a signifier that good quality seed is being produced by Mimosa.

E.3.1 Expected Market System Changes

The expected market system change was MSC 2.1 "input suppliers provide quality inputs and advisory services to smallholder farmers." The intervention transferred the responsibility and capacity to produce foundation seeds to local seed producers, allowing growing production of certified seeds without relying on INERA. Mimosa provision of foundation seed to other producers, including SAGRICIM in Lualaba province and others, has shown that this market system change did occur, although the scale remains small. However, it is also not clear that SHFs are purchasing large volumes of seed, as government and NGOs remain the main purchasers of seed from Mimosa.

⁴³⁷ USAID (2019) SEEDCLIR report

⁴³⁸ This was classified as an ‘Unassisted response’ in the AAER framework final Élan1.0 reporting. Élan (2018c) PCR. Annex 7 Assessing Systemic Change

⁴³⁹ I.e. It is possible the USD 100,000 order was overestimated by Élan and it was in fact USD 30,000 of which none was paid by the Ministry.

⁴⁴⁰ Élan (2018c) PCR. Annex 7 Assessing Systemic Change

E.3.2 What results were claimed?

The overall results reported for Mimosa did not specify which NP02 seed producer had achieved which impact. The main evaluation for the local seeds interventions in Lualaba and Haut Katanga provinces (covering both NP02 for Mimosa and NP30 for Bon Berger) was based on surveys carried out in 2017. The study aimed to look at those using the ‘Babungo’ OPV seed even if they had received it from a source that did not originate from an Élan partner. The study found maize yields of 1.43 t ha⁻¹, which compared to 0.96 t ha⁻¹ before using the Babungo seed. As farmers were planting on average of 0.7 ha, this implied 0.34 t of additional maize per beneficiary, valued at USD 116.⁴⁴¹

The survey also found that 93 percent of farmers who adopted the Babungo seed used fertiliser, including 98 percent in Haut Katanga and 56 percent in the Lualaba. An important part of the study was that Élan would measure SHFs use of Babungo regardless of the source. Babungo seed users received seed through the government (48 percent) as part of its agricultural village programme ‘Village agricole’; through other sources/associations (5 percent); resellers (24 percent); and at the local market (12 percent). The survey also found that 55 percent of SHF had access to agronomic advice, mostly from village agronomists or local agro-dealers), with 5 percent saying they received agronomic advice from agronomists of Mimosa and/or Bon Berger.⁴⁴²

Table 31 shows how these results translated into beneficiary numbers for the NP02 intervention. In total, £1.2 million of direct NAIC was estimated for just under 4,000 beneficiaries (around £300 each), and £0.24 million of indirect NAIC for just under 2,800 beneficiaries (£86 each). The DSU considered the impact estimates to be overestimates because and could not validate the indirect impact. Élan’s NAIC estimates from the impact assessment did not consider the costs of production incurred by farmers, and assumed farmer’s net income was equal to their revenue from the crop. The impact figures were re-estimated by DSU to be £852,000.

Table 31: Mimosa reported impact and DSU reliability assessment

Élan investment (£)	Partner investment (£)	Direct beneficiaries	Indirect beneficiaries	Aggregate NAIC (£)	DSU reliability assessment	Adjusted NAIC (by DSU) (£)
102,988 (49%)	105,336 (51%)	3,956 (22% women)	2,793 (41% women)	1,420,772	NAIC not deduced costs. NAIC estimated to be 60% less than reported value. NAIC of indirect outreach not validated.	852,463

Source: Élan (2019d) PWIG; DSU (2020b). Costs estimated from all five Mimosa PAs. Beneficiaries for NP02 intervention in the PWIG are assumed to come from Mimosa.

The indirect beneficiary claim was based on generating replication from other sellers of Babungo seed, including from sales by SACRICIM who had sourced seed from Mimosa.

⁴⁴¹ Élan (2017b) “Accès indirect à la variété améliorée de la semence Locale BABUNGO”

⁴⁴² Élan (2018e) “Accès à la semence de qualité– BABUNGO”

This was estimated at 2,793 beneficiaries for the NP02 intervention, around half of the indirect beneficiaries estimated for the whole AgNP sector.⁴⁴³

E.4 AgNP interventions with Bon Berger (NP02, NP29, NP30)

Élan's NP02 intervention aimed to give small local producers the capacity to grow foundation seeds and use that to grow and distribute certified seeds. Bon Berger were one of the six firms from the original intervention and went on to be one of the most frequent partners of the Élan project. The 2014-2015 intervention (NP02) saw Bon Berger's farm focus on foundation seed for beans. They subsequently took the opportunity created by the opening up of INERA to avail parent seeds and technical backup, and shifted focus to maize seed.

As with Mimosa, Élan continued to work with Bon Berger for additional interventions. Élan entered into a partnership to help establish and develop a structured sales and distribution network in several production zones. Élan supported Bon Berger to develop its brand and a marketing strategy, in which flyers, posters and promotional items were complemented with a radio campaign. Ten demonstration plots were planted, and at the end of the growing season they were used to host visits to show the performance of the maize seed. Bon Berger identified and negotiated with four agro-dealers in target production zones within a 50km radius of Lubumbashi and established seven new points of sale for its products. Bon Berger credited Élan with improving the offices, the building of a warehouse, and investment in other areas of their business, such as a piggery. The collaboration between Bon Berger and Élan ran from 2014 to 2018.

Another intervention (NP29) involving an outgrower scheme (OGS) was started and run in parallel to the work on Bon Berger's marketing strategy (NP30). The OGS used was an adaptation of the One Acre Fund (OAF) input loan model. Facilitation was conducted to link Bon Berger to Equity Bank (formerly ProCredit Bank). An annual budget of USD 130,000 would be financed by Bon Berger itself (including a 20 percent deposit paid by farmers per hectare of inputs ordered); Élan with a total of USD 109,000 over three years; and Equity Bank, which provided a loan of USD 55,000 to Bon Berger. The loan was repayable within 12 months, and the head of the company had to provide their own house as collateral (valued at USD 130,000 by Equity Bank). Through the OAF OGS model, farming households were supported in the production of maize seed and fertilisers such as NPK, urea and other phytosanitary products. In 2018/2019, the OAF model was extended to work with the mining company TFM. TFM awarded Bon Berger a contract to supply SHFs and linked to its OGS scheme.

E.4.1 Expected Market System Changes

The Bon Berger interventions were classified as contributing to three of the AgNP sector's market system changes (MSCs). This began with MSC 2.1 "input suppliers provide quality inputs and advisory services to smallholder farmers." The intervention transferred the responsibility and capacity to produce foundation seeds to local seed producers and then supported growth of the capability to produce local seeds. Because of the additional OGS elements with the OAF model, the Bon Berger interventions also were classified by Élan as contributing to MSC 2.2 "Agribusinesses and mines provide access to pre-financed inputs and services to SHFs", and MSC 2.4 "Agribusinesses access finance". The first system

⁴⁴³ SAGRICIM seed was "bought by the government of the province of Lualaba, the seed was distributed to 250 associations and groups of producers whose composition is estimated at an average of 18 people per group or association, for an estimated total of 4,500 small producers". Élan (2017b).

change was more successful than the latter two, as both the OGS model, the contract with TFM, and credit facility with Equity Bank have now been discontinued.

E.4.2 What results were claimed?

Through the various initiatives, Bon Berger sold a total of 35 tonnes of seed annually, including sales to 245 SHFs affiliated to the OAF adaptation model. As shown in Table 32, as of 2017/2018, Bon Berger produced up to 45 tonnes, with 6 tonnes from the OAF model; however, 10 tonnes out of 45 were unsold.⁴⁴⁴ Today, production has been scaled down, and is estimated at between 9 and 20 tonnes.

Table 32: Bon Berger seed production in land use (hectares) and production (tonnes)

Crop	2014/15	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Maize OPV – land used (ha)		18	10-18	10-25	25	25	
Maize OPV – production (t)	8-10 ("before Élan")	47	22.5-25	40	18-45	25*	9-20*
Unsold maize (t)		20			10		
Bean foundation seed – production (t)	0.9					0.9	
Been commercial seed – production (t)						4.5	12

Source: USAID (2019) SEEDCLIR report; Élan (2018d) PCR + Élan (2020c) "Light monitoring"; DSU interviews.

Bon Berger's two interventions (NP29 and NP30) both contributed beneficiaries and NAIC. According to Bon Berger, the plan for the OAF model (NP29) was to support 1 ha per beneficiary under the project. In the first year they supported 105, in the second year 300, and the third year up to 500 SHFs. An evaluation report in October 2017 estimated maize yield of 3.25 tonnes per hectare ($t\ ha^{-1}$) compared to a counterfactual maize yield of 0.67 $t\ ha^{-1}$ for farmers in the OAF model with a USD 98 net gain following farmers' reimbursement (70 percent of yield was reimbursed according to an evaluation).⁴⁴⁵ For the seed distribution intervention (NP30) estimates were appear to be based on the same impact evaluation as for Mimosa, although for some reason a higher NAIC per beneficiary estimate was used. This had found maize yields of 1.43 $t\ ha^{-1}$, compared to 0.96 $t\ ha^{-1}$ with 0.34 t of additional maize per beneficiary, valued at USD 116.⁴⁴⁶

In total the Bon Berger interventions were estimated to generate just under £571,000 of NAIC linked to NP30, and just over £13,000 linked to NP29. The estimates for the NP30 intervention was made up of £379,400 direct NAIC cumulatively to 2018 within Élan 1.0, £14,500 indirect NAIC in the same period, and then a further £177,000 estimated up to 2021 within the Élan 1.2 period. The estimates imply a high yield gain for farmers over several seasons, with £368 average NAIC per beneficiary. As the DSU did not look at the intervention closely in the NAIC verification exercises it is not possible to say how reliable

⁴⁴⁴ Élan (2018f) Bon Berger 2017-2018 sales report

⁴⁴⁵ Élan (2017h) "Bon Berger One Acre Fund, Performance et impact"

⁴⁴⁶ Élan (2017b) "Accès indirect à la variété améliorée de la semence Locale BABUNGO"

this is, although it seems the estimate appears on the high side, as it is significantly higher than the NAIC per beneficiary for all other seeds interventions, including those for which hybrid seed was the route to NAIC as opposed to OPV seed.

Table 33: Bon Berger reported impact and DSU reliability assessment

Intervention	investment (£)		Beneficiaries		NAIC (£)			Total (£)
	Élan	Partner	Direct	Indirect	Direct during Élan 1.0 (£)	Indirect during Élan 1.0 (£)	Estimate during Élan 1.2 (£)	
NP29 – OAF model as an OGS for SHFs	84,893 (30%)	200,008 (70%)	173 (50% female)	N/A	13,126	-	-	13,126
NP30 – marketing support	28,072 (70%)	12,010 (30%)	1,285 (41% female)	265 (49% female)	379,369	14,527	177,000	570,895

Source: Élan (2019d) PWIG. Élan (2021g) for Élan 1.2 results.

Following the end of support from Élan, Bon Berger continued to support its network of beneficiaries. However, they experienced a fall in sales in 2020 explained by the fall in purchasing power of small producers following the COVID-19 pandemic.⁴⁴⁷ In interview for this study, they say that as of today (the 2021/2022 season) they have 45 people they support. They also attribute the fall-back to the extension of the Village Agricole model, saying “in 2019, the Ministry of Agriculture in Haut Katanga copied the model and replicated it in some areas. The government killed the business because they had a lower repayment rate and their project is subsidised by the state.” Bon Berger have not been able to access loans since the interventions stopped, as Equity Bank thought it too risky not to have the guarantee provided by Élan.

The TFM intervention in 2018 was an extension of the OAF model, and was part of the mining company’s CSR (and the obligation to develop 500 ha in accordance with the Mining for Agriculture initiative). The goal was to commercialise farmers who were already part of TFM’s existing OGS, and “wean” them off traditional input handouts from TFM. TFM helped to formulate the project, chose the input supplier based on a call for tenders and connected the supplier with SHFs. Beyond this point, TFM no longer wanted to interact with the ‘weaned SHFs’, except to resolve any communication problems encountered in the first year. Only two input suppliers responded to the call for tenders.⁴⁴⁸ Bon Berger were the chosen supplier and would sell quality inputs on credit and provide TA to the SHFs. The input supplier had the guarantee of being reimbursed by the SHFs grouped into village community savings associations with an NGO, Alternative for Action (AFA), involved. As of 2019, Bon Berger had just over 400 SHFs on the OAF model, with the majority, 250, linked to the TFM intervention (270 ha in total).⁴⁴⁹ However, the scheme was not successful for Bon

⁴⁴⁷ Élan (2020c) “Light monitoring of the selected portfolio from Élan 1.0: NP30 Bon Berger”.

⁴⁴⁸ Élan (2019c) Outgrower Scheme (OGS) and input credit: alternatives to mines’ traditional model of agriculture support.

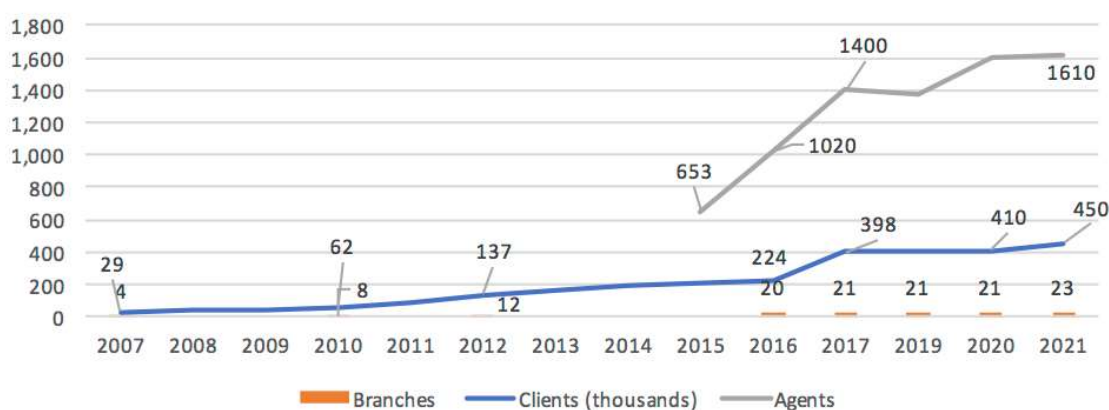
⁴⁴⁹ Élan (2019e) Bon Berger OAF Model: Report 01/03/2019

Berger who found it costly to collect repayment. TFM was willing to continue the model but not necessarily with Bon Berger.⁴⁵⁰

E.5 A2F interventions with FINCA (AF07, AF08, TR06, AF101, AF112)

FINCA is a well-reputed Microfinance institution (MFI) with offices in 40 countries worldwide. FINCA started operations in DRC in 2003, providing banking services within Kinshasa, and began to offer loans from 2006. FINCA DRC launched 'FINCA Express' in 2011 as a third-party service delivery model that enables clients to access financial services without traveling long distances to the nearest brick-and-mortar branch. FINCA Express agents are trained to provide financial literacy training as well as delivering core services. The institution now provides a large range of loan products in addition to savings accounts, debit card services, bill payments and money transfer services.

Figure 25: Long-term growth of FINCA's operation – clients (thousands), agents and branches



Source: FINCA (2019b) up to 2016; after which, FINCA (2017a, 2018, 2019a, 2020, 2021, 2022).

In 2016, when they first partnered with Élan, they had about 270,000 clients, a loan portfolio of USD 65 million and 700 agents offering the FINCA Express model. As shown in Figure 25, in the period since FINCA has seen the number of clients grow as well as the number of agents, while the number of physical branches has remained relatively stable, rising from 20 in 2016 to 23 by 2021.⁴⁵¹

FINCA and Élan worked together on five interventions:

- AF07: This partnership was signed in August 2016 to support FINCA's expansion in Katanga and assess the business case of a rural agent network. Élan also connected FINCA with an Agro-dealer, Mulimaji Mwema, who had a network of 17 shops in Likasi who became FINCA agents.
- AF08: A parallel partnership to AF07, signed in August 2016 to develop a bank-to-mobile-wallet platform to link FINCA and Vodacom's M-Pesa services. The platform

⁴⁵⁰ Élan (2019b) "One Acre Fund Model: pilot with Ferme Agropastorale Bon Berger and Tenke Fungurme Mining (TFM) – Repayments progress report", 12th July 2019, by: Boldrini S. & Munduku N.

⁴⁵¹ A period in which they have also cut their overall headcount (excluding the agents), reducing from 842 in 2016 to 557 in 2021, and part of a deliberate corporate strategy. FINCA (2017a, 2020, 2022).

would use data from both to create a credit score of users and offer micro-loans to clients of FINCA / M-Pesa (and lead to the AF101 intervention).

- TR06: An intervention in the transport sector was signed in August 2018. FINCA developed a loan product for buying three-wheeled scooters (tricycles). The tricycles would increase transportation options available for the poor in Kinshasa and lead to an easier way to transport goods to the market.
- AF101: A tie-up with Vodacom offering the Lona o Defa product. This was a small unsecured loan product to be available on M-Pesa's menu.
- AF112: An intervention designed to address the lending freeze during the Covid-19 pandemic. FINCA continued to provide loans to MSMEs in priority sectors (food, face masks, hygiene products), relying on the guarantee fund set up by Élan to cover any lapses in repayment.

FINCA has built a reputation for being the most innovative MFI in the DRC, and have steadily embraced digital financial services. This includes via the FINCA Express model, but also now includes CLICK, the institution's mobile banking channel, launched in 2018 to increase access to branchless banking. Clients are able to use CLICK to manage their FINCA DRC accounts, transfer funds to other account holders and make payments.

FINCA's innovations have been supported by a range of development partners and international financial institutions. This includes IFC, FPM, KfW, the Bill & Melinda Gates Foundation, and as with Élan, specific initiatives have been supported, for example, the MasterCard Foundation had also supported FINCA's agent model.⁴⁵²

E.5.1 Expected Market System Changes

The expected market system changes were principally MSC 3.2: "MNOs and financial institutions offer appropriate products/services to poor consumers and entrepreneurs" and MSC 3.3: "MNOs and financial institutions improve agents' quality of service and expand agents' network to serve poor consumers and ensure supply chain digitalization." Further:

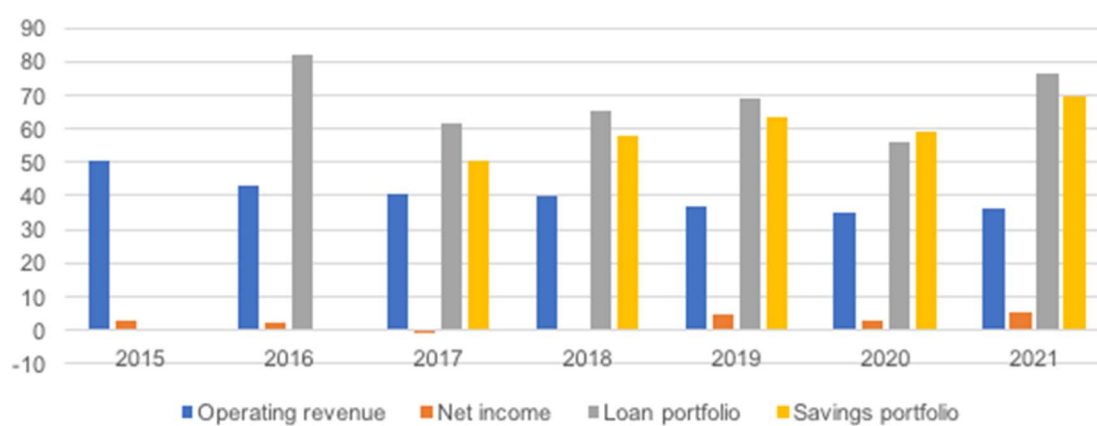
- AF07 helped assess effective demand for FINCA agents in rural areas and assess their financial viability. Élan's assessment of agent banking found it was profitable for agents when clients were salaried workers with larger transactions or if the agents had other businesses which benefitted from a steady flow of clients. Élan 1.2 planned to expand FINCA's rural agent networks to new areas and support SMICO, another MFI, to build such networks. However, the intervention was dropped due to Covid-19 restrictions.
- AF08, AF101 and TR06 helped FINCA pilot new financial products. The TR06 loan product would increase low cost transport services for the poor. In interviews, during the 2020 Annual review FINCA mentioned that the tricycle loan had not been continued. AF08 would help to link FINCA accounts to mobile money accounts allowing transfer between the two and provide the information to design and pilot a micro-loan product (Lona o Defa) for poor clients, which continued as the AF101 intervention under Élan 1.2. This product has seen difficulties, in part to misalignment in priorities between FINCA and Vodacom.
- AF112 responded to the Covid-19 pandemic and was not expected to have systemic effects. Élan took the opportunity to develop a paper on 'how to establish guarantee funds' to share with the broader development community.

⁴⁵² MasterCard Foundation (2016) "Alternate Delivery Channels for Financial Inclusion"

E.5.2 What results were claimed?

Despite the changes to FINCA's business model, and continued innovation during the period with which it worked with Élan, the overall value of its portfolio has increased only gradually. This is shown in Figure 26, which shows that savings have increased from just over USD 50 million in 2017 to USD 70 million in 2021, a CAGR of 8.4 percent per year; and the loan portfolio from USD 62 million in 2017 to USD 77 million in 2021, a CAGR of 5.6 percent per year. Operating revenue has fallen in the period, although net income has increased (USD 13 million of net income in 2019-2021, compared to under USD 3 million in 2016-2018). Overall this suggests steady progress for the DRC's largest MFI, but not a radical increase in its balance sheet.

Figure 26: FINCA revenue, net income, loan and savings portfolios (USD million): 2015-2021



Source: FINCA (2017a, 2018, 2019a, 2020, 2021, 2022) DRC Annual reports.

As of 2022, FINCA estimated their average loan size to be USD 1,300, with a USD 72 loan million portfolio, suggesting they have approximately 55,000 in receipt of loans at that time (the majority of their clients are instead savers).⁴⁵³ However for the AF07 and AF08 interventions, Élan initial studies found that customers could save money on transfer charges and transport costs to reach a transfer agent. After implementation, a survey of users in June 2018 found that only 2–3 percent of users had saved money on transfer costs, although most said they had to travel less to make payments and transfers. This may be why outreach numbers were low for AF07 and AF08, despite many clients signing up.

Élan monitored the number of people using FINCA accounts in rural areas (via FINCA Express) and the number of people who connect their FINCA accounts to Vodafone's M-Pesa account (FINCA Mobile account holders) as outreach. The intervention required FINCA to establish a viable agent network in rural areas. Interviews by the DSU showed that as of September 2018 the FINCA agent network was still thin in rural/remote areas.⁴⁵⁴ Unfortunately, for this study, it was not possible to get a clear indication of how much of the agent expansion funded by Élan was maintained despite several requests.

The Lona o Defa product required FINCA to develop an algorithm to offer small loans to people based on their mobile money savings and their airtime usage. Loans with a minimum of USD 5 and a maximum of USD 250, could be taken out for one, two or four weeks, and

⁴⁵³ FINCA (2023) DRC website landing page

⁴⁵⁴ DFID/DSU (2018a) Élan Annual Review 2018

accrue a 4.5 percent interest rate (per week), with over USD 1 million lent to date. In interview for this study, FINCA noted issues with the Lona o Defa product.⁴⁵⁵ As of 2019, 47,000 were said to have registered for the loan, and by the end of 2020 the number had reached 78,614.⁴⁵⁶ In interview this has now apparently reached 135,000 registered customers (as of 2022). However, according to the interviews with both FINCA and Vodacom the product has not yet been profitable, particularly due to high default rates. In addition, there is a disagreement between the parties as FINCA would like ‘auto-recovery’ of repayments direct from the M-Pesa wallet, a move that Vodacom would not agree to. This means “100 percent of the risk is on the FINCA side” according to FINCA. Both the Vodacom interview for this study, and an evaluation commissioned by Élan found issues with the algorithm, so it appears the product is still a work in progress.⁴⁵⁷

Despite the high investment on FINCA interventions, Élan made quite low claims in terms of NAIC. The DSU’s reliability reports did not look in depth at the interventions as a result.⁴⁵⁸ Élan did not claim any benefits for TR06 or AF112 as shown in Table 34.

Table 34: FINCA intervention reported impact and DSU reliability assessment

Intervention	Investment (£)		Beneficiaries	Aggregate NAIC (£)
	Élan	Partner		
TR06 (29 Tricycle drivers)	-	-	6,989 tricycle users	No NAIC claimed
AF07 (55 New rural agents) Mobile banking	138,600 (20%)	554,400 (80%)	223 (Rural agents signed new clients for FINCA. Clients save on money transfer charges if they use FINCA agents.) (12% women)	88,185
AF08 Rural agents	207,900 (20%)	826,900 (80%)	7,178 registered customers Beneficiaries are users of M-Pesa and FINCA accounts. Élan assumed that users would save on transport or money transfer costs, but no documentation was found verifying this. (43% women)	113,677
AF101 Lona o Defa with Vodacom	-	-	No impact claimed	
AF112	-	-	No impact claimed	

Source: Élan (2019d) PWIG.

E.6 A2F intervention on mobile money campaign (AF04)

One of the first partnerships to be developed in the original mobile banking sector, which would become A2F branchless banking, was a customer education campaign to promote the

⁴⁵⁵ It is perhaps telling that despite being in the 2019 and 2020 FINCA DRC Annual Reports, there was no longer a mention in the 2021 Annual Report. FINCA (2020, 2021, 2022) DRC Annual reports

⁴⁵⁶ FINCA (2020, 2021) DRC Annual reports

⁴⁵⁷ Élan & PHB (2020) “Inception Report - «Lona O Defa» Diagnosis

⁴⁵⁸ DSU (2017, 2018c, 2020a, 2020b)

use of mobile money. As set out in the initial Strategic Plan: “Facilitating consumer financial education to increase the awareness and level of understanding of the benefits of mobile banking (e.g. via mass media and demonstrations)”.⁴⁵⁹ This built on analysis from a GSMA study and its finding that “even when individuals have heard of mobile money, there is still a widespread lack of knowledge on exactly what mobile money can be used for (e.g., storing money, paying bills, commercial transactions, etc.), how to access mobile money services, or where agents are located. This points to the need for more intensive consumer education efforts”.⁴⁶⁰

A study was commissioned early during Élan that confirmed some of the GSMA findings, in particular while there was higher awareness of the ability to send and receive money (61 percent and 50 percent respectively), other functions of mobile money had very low awareness (for example ‘pay bills’ – 2 percent). Among sub-groups, females, the poorer and more rural households had lower awareness. There were also trust issues, linked to some bad experiences around liquidity of agents and network outages.⁴⁶¹

The intervention partners were: Airtel, Tigo (which was subsequently purchased by Orange) and Vodacom. The three mobile network operators (MNO) launched mobile money (MM) services in 2012 and saw quite quick growth in consumers of the service. Élan worked with all three MNOs to develop a marketing strategy to educate consumers on using MM services. Partnerships were signed in June 2015, and campaigns launched in September 2015. The media campaign ran for three months, until December 2015. Campaign messages focused on MM being safe, fast and time-saving and showed how to use MM. The campaign also informed consumers that MM services were guaranteed by the Congolese Central Bank (BCC). The education campaign on mobile money would be organised in four major cities of the DRC, namely in Kinshasa, Lubumbashi, Bukavu and Goma.

E.6.1 Expected Market System Changes

The expected change was structured initially (up to 2016) as MSC 3.1: Increased confidence in mobile money. This was subsequently revised to: “MNOs and Financial institutions develop financial education programs and other tools to increase confidence in mobile money and other digital financial services”. As the intervention was designed at the very outset of Élan, in a sense the MSC was designed for the intervention rather than the other way around. There was no clear benchmark or baseline on the concept of confidence despite the extensive studies that Élan had undertaken.

An Élan study completed in February 2018 showed that MNOs had changed their communication strategy.⁴⁶² The focus had moved from just informing customers about the existence of MM products to coaching on how to use MM and why it was beneficial. Promotion methods used a mix of ‘above the line’ (radio, TV) and ‘below the line’ (direct promotion through billboards etc., at merchant or agent stores). The MNOs carried out additional promotion offers, such as cash for re-activation of MM accounts, or highlighted their connection with banks, merchants, billers etc.

⁴⁵⁹ ASI (2013e) “DRC Market Development Component: 5 Year Strategic Plan”.

⁴⁶⁰ GSMA (2013) “Mobile Money in the Democratic Republic of Congo: Market insights”. In ASI (2013e).

⁴⁶¹ Élan & ALTAI Consulting (2014) “Consumer Financial Needs & Behaviour Assessment in DRC”.

⁴⁶² Élan (2018k) “Etude sur les effets de la Campagne Conjointe”

E.6.2 What results were claimed?

Élan claimed £1.1 million of direct NAIC from the intervention, followed by £7.2 million of indirect NAIC, the latter for the 2017-2018 period. The assumption was that the strategy from the consumer outreach campaign had continued and Élan had made a permanent change to MNOs' marketing strategies. This latter point was never very clearly evidenced, not least as marketing would have taken place regardless. Two main evaluations were carried out. A first from December 2015, straight after the intervention, found 19.6 percent of respondents registered with mobile money because convinced by the message of the campaign, representing "120,000 people aged 18 to 65 living in the four cities concerned".⁴⁶³ The evaluation was not clear in particular as over half had registered prior to the launch of the education campaign, and was also based on a very low sample size (n=189). Élan used 25,000 direct beneficiaries over the two years to 2017 but it is not clear how the figure was estimated or if it linked to the initial evaluation.

A second evaluation had a larger sample, with 1,300 people sampled.⁴⁶⁴ The study included findings such as that "63 percent believe they understood and 17 percent were able to retain the message of the customer campaign". The study also presented a range of findings to deduce an impact from the campaign, mainly based on "declarations from the MM operators" themselves. This estimated a "joint campaign effect" of 1.29 million extra clients, and for active accounts, 695,000 clients.⁴⁶⁵ Then 'declaration by Mobile Money operators' claimed 10.9 percent of these increases were thanks to the joint campaign, and attributable to the support of Élan (or 76,000 active clients).

Table 35: Mobile money campaign intervention impact and DSU reliability assessment

Intervention	Investment (£)		Beneficiaries		Aggregate NAIC (£)	DSU reliability assessment
	Élan	Partner	Direct	Indirect		
AF04 Mobile money campaign – Vodacom, Airtel, Tigo	42,827 (39%)	67,517 (61%)	24,848 (women = 34%)	219,696 (women = 33%)	8,302,235	Direct results judged reliable in 2018. Unable to assess the reliability of indirect outreach or NAIC

Source: Élan (2019d) PWIG; DSU (2017, 2018c, 2020a, 2020b)

Élan's final indirect estimate was based on 'trend analysis' and the claim from operators that 10 percent of the increase in usage was due to the intervention, looking at the overall increase in accounts from 2015 to 2018. The impact (NAIC) per beneficiary was USD 41.57 (£32) based on a figure of USD 2 cost saving per month based on one transaction per month.⁴⁶⁶ An earlier DSU verification exercise had found Élan's earlier study to over-estimate the saving, for which USD 1 was the value at the time compared to the use of money transfer operators (MTOs),⁴⁶⁷ but the difference had come down to USD 0.4 per transfer.

⁴⁶³ Élan (2015d) and Experts (2015)

⁴⁶⁴ Élan (2018k) "Etude sur les effets de la Campagne Conjointe"

⁴⁶⁵ Total MM accounts would have been 10.7 million without the campaign but increased to 12 million with it. Active MM accounts of 1.95 million without the campaign, and 2.65 million with it. Source: Élan (2018k).

⁴⁶⁶ Élan (2018l) Intervention Tracking Tool for AF04 intervention (and an embedded Word document called 'Trends analysis')

⁴⁶⁷ The latter would require the individual to go the MTO office, hence incurring transport costs.

However, neither value is clear and no rigorous estimate of the cost saving appears to have been conducted (at least it was not documented).⁴⁶⁸

E.6.3 Other effects

According to the second evaluation,⁴⁶⁹ the direct effects of the joint campaign on the communication of MM operators, the BCC revised significantly upwards thresholds (ceilings) of transactions. The BCC permitted the MNOs to raise the threshold for MM transfers from USD 500 to USD 1,000. It has not been possible to test the robustness of this claim.

The evaluation made further claims on volumes of transactions, and that the campaign “generated” an additional USD 1.75 million in transaction value. These figures appear not to have been used in any of the NAIC estimates of the project.⁴⁷⁰

E.7 A2F interventions on CMAs (AF01, AF22)

A Collateral Management Agreement (CMA) is a form of warehouse receipting model, in which agricultural stock can be placed under the control of a third-party holder, and the stock can be recognised as collateral and used to leverage loans. Due to the relatively short time grain will be stored, this is generally for working capital loans, which may be useful for a farmer including to purchase inputs or make other investments for the next season. The model is also used by larger farmers, who have more grain to store, and therefore lower marginal transaction costs than for individual SHFs for example.

The CMA was Élan's effort to develop a financial product to overcome the absence of available collateral and to extend the type of collateral that could be utilised for access to finance, a significant issue facing growth-oriented SMEs.⁴⁷¹ Figure 27 illustrates how the agreement works. If the company is a farmer, the credit line allows them to store grain to sell at a higher price in the off-season. If the company is a processor or trader, it can use the credit line to increase its grain purchase and volume of business. The third party gets a fee for their storage, assessment, and maintenance of the quality and quantity of grain. The CMA model was facilitated by Élan for two interventions. The first, in North Kivu with smallholder farmers, which was not successful (AF01); then a more successful pilot with in Haut Katanga with a large commercial maize farmer launched with learning from the first CMA, and which proved more successful (AF22).

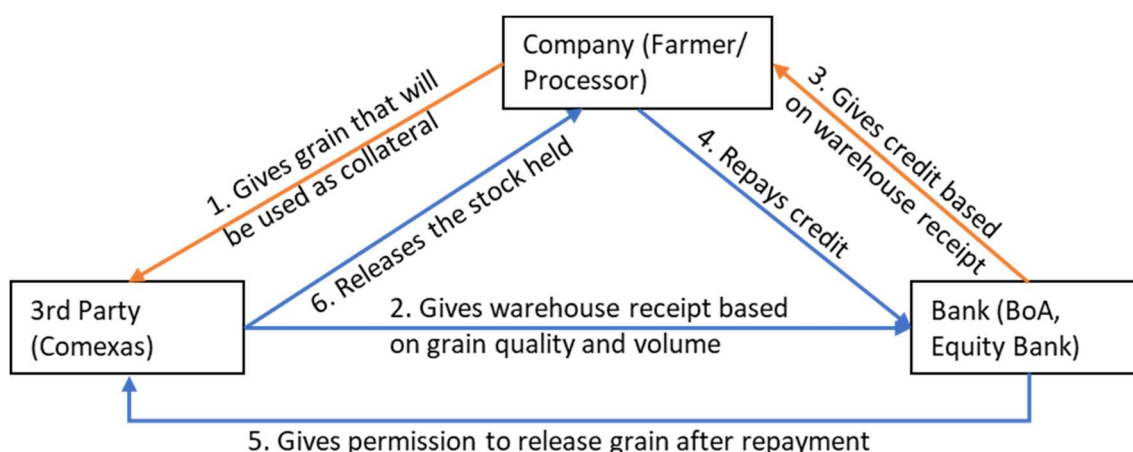
⁴⁶⁸ The final USD 41.57 NAIC per beneficiary figure for the indirect NAIC estimate, came from 21 months in the Q1 2017 to Q3 2018 period, multiplied by USD 1.98 per month with one transaction per month. This USD 1.98 figure was calculated by the combined effect on senders and receivers when compared to using a MTO. The sources for this latter data are not stated in the documentation. Source: Élan (2018i) Intervention Tracking Tool for AF04 intervention.

⁴⁶⁹ Élan (2018k) “Etude sur les effets de la Campagne Conjointe”

⁴⁷⁰ Ibid. Élan (2018k) “Etude sur les effets de la Campagne Conjointe”

⁴⁷¹ Élan (2014b) Q2 2014 report

Figure 27: Responsibilities of CMA parties



The two CMA interventions were as follows:

- AF01: Élan’s first CMA intervention in 2015 included: maize processors Maizeking and CMC, Bank of Africa (BOA), and logistics company COMEXAS as the third party. The intervention was in the Kivus and focused on maize.
- AF22: Élan’s second intervention from late 2016 was in Katanga. The parties included a large maize farmer GoCongo as the company, ProCredit bank (later to be Equity Bank and then Equity BCDC) and COMEXAS as the third party. Although initial plans were to work with maize, solar lamps and coffee, the intervention finally worked with just maize.

E.7.1 Expected Market System Changes

The intervention was placed under MSC 4.1: "Financial institutions market adapted and innovative financial products." The intervention would increase trade volumes within the sectors, benefiting poor producers or consumers. Élan initially trained four banks (TMB, RawBank, BOA, and ProCredit Bank), COMEXAS and companies interested in taking CMA loans. Élan also created the guidelines for each party on their roles and responsibilities and reporting formats for the parties to share information.

The business model was deemed successful and sustainable in Katanga (AF22), where Equity Bank maintained a relation with GoCongo for several seasons beyond the intervention timeline. According to Élan, Trust Merchant Bank (TMB), with some advisory support from Élan, replicated the model, giving a CMA loan to the maize farmer Mashamba SARL. It has not been possible to confirm whether this CMA had gone ahead for this study,⁴⁷² however Élan claimed it generated a short-term loan of USD 3 million.⁴⁷³

The CMA was an innovative product for ProCredit and while the GoCongo intervention lasted for several interventions, interviews for this study have found it has been discontinued. The main reason was the high cost of the COMEXAS role. Unlike for AF01, for AF22 it was the farm GoCongo that provided the warehouse, so the role of COMEXAS was

⁴⁷² There was suggestive evidence they do not still have the CMA product. GoCongo stated that TMB “do not get” the CMA model. TMB themselves in interview for this study say agriculture lending is too risky in the DRC.

⁴⁷³ Élan (2018c) PCR. Annex 7 Assessing Systemic Change, stated that: “In September 2017, Élan received an email confirming that a short term loan of USD 3 million at 10 percent interest had been granted to Mashamba against collateral of 15,000 t of maize under a CMA-type agreement.... TMB confirmed that this loan was an addition to their loan portfolio, and that TMB had never previously granted a loan against agricultural stock in DRC... This replication has not benefited any smallholder farmers in the province because the loan recipient is a large commercial farm that used its own stock and did not buy any additional produce from surrounding SHFs.”

simply to verify the storage. It was felt that for this relatively small input the cost charged was high, and COMEXAS also wanted to increase this 'Management fee'. This made the effective cost higher than the interest rate would suggest. In the absence of this issue, GoCongo would find the product extremely useful, and they could have taken on a much larger facility (USD 1.5 million or more). For Equity BCDC the view of the product is still positive, although GoCongo suggested they might not understand the product very well. Equity now say they have developed a similar product for smaller entities than GoCongo, although it has not yet been used. It was acknowledged that the model so far has not worked for the SHF beneficiary group, which was the original intention of Élan.

E.7.2 What results were claimed?

The first intervention, AF01, increased grain purchases by the two maize processors. In total, the line of credit set up by the BOA enabled processors to buy an additional 26 tonnes of maize from 108 small farmers, who increased their income level by USD 53 at the end of the season. The low amount of credit granted to processors, the high costs of stock storage and the delay by the bank in signing stock release orders were the main challenges mentioned by processors during an appraisal.⁴⁷⁴ The DSU's MTE found that with average deposits of 240 kg of maize a low amount of working capital was released, that might not cover total costs from interest or warehousing charges, with returns likely to be insufficient to even buy one bag of fertiliser.⁴⁷⁵ None of the three parties involved in the pilot continued the CMA model in Goma.

For the second intervention, AF22, ProCredit Bank (to become Equity Bank and then Equity BCDC) USD 500,000 was disbursed at 10 percent interest (increased to 12 percent according to interviews for this study) to the larger maize farmer and processor, GoCongo, which it used to buy maize from the local market and Zambia without Élan's support. The intervention was viewed as successful in terms of the parties' views of the product, but the loan was used mainly for buying maize from Zambia and did not therefore benefit any smallholder farmers.⁴⁷⁶

In terms of NAIC impact, while AF01 in Kivu generated a small return, despite the systemic importance for Élan of AF22 in Katanga, it never generated NAIC for the beneficiary group. For AF22, the large maize farmers bought imported maize from Zambia and South Africa using the credit received, and claimed they could not get quality maize locally, while imported maize was cheaper. As a result, no SHFs benefited.

⁴⁷⁴ Élan (2015e) "Evaluation du projet pilote CMA maïs au Nord Kivu"

⁴⁷⁵ DSU (2018b) "Mid-term evaluation (MTE) of ÉLAN Technical Annex"

⁴⁷⁶ Élan (2018c) PCR. Annex 7 Assessing Systemic Change. "GoCongo deposited two lots of 402 t and 1,962 t in December 2016 and December 2017 respectively. Pro-Credit disbursed loans of USD 160,000 and USD 500,000 against the collateral deposited with COMEXAS. These loans provided additional working capital, which GoCongo used to buy additional stock from South Africa, Zambia and the local market. Before working with Élan, GoCongo had a purchasing capacity of 750 t only. Now it is able to buy 2,000 t thanks to the CMA model. COMEXAS monthly charge was USD 1,500." By the time of interviews for this study the monthly charge for COMEXAS had gone up to USD 3,000-USD 4,000 and they (COMEXAS) wanted to double this again.

Table 36: CMA interventions impact and DSU reliability assessment

Intervention	Investment (£)		Beneficiaries	Aggregate NAIC (£)
	Élan	Partner		
AF01: Kivu CMA	26,954 (67%)	13,335 (33%)	108	4,007
AF22: Katanga CMA	100,100 (41%)	146,300 (59%)	0	0

Source: Élan (2019d) PWIG.

The intervention had initially tried to extend the model to SHFs, working with the Fungurume Cooperative (FEDAAP) with 2017/2018 as a pilot year. This element of the model appears to not have never been successful or continued.⁴⁷⁷ The DSU's MTE noted that this suggested insufficient learning from the first AF01 intervention, in particular the reason for the failure in Kivu, that SHFs had insufficient volumes of stock to deposit, particularly when taking transaction costs (transport etc.) into account.⁴⁷⁸

GoCongo in contrast is a very large farmer of 3,000 ha, who yield 7.5 tonnes per hectare (t ha⁻¹) of maize from a growing farm. The pilot therefore demonstrated that the CMA as a financial mechanism can work well for a large commercial farmer who can build his own warehouse on-site (i.e. on the farm and next to the mill). GoCongo have a 10,000 tonne capacity in the warehouse for storage, and the maize they bought is used for milling (making maize flour and also biscuits).

⁴⁷⁷ At the time of the MTE, Go Congo described visiting Kamina (600 km distant and the focus of an agricultural area) and struggling to find any farmers with a marketable surplus. Source: DSU (2018b)

⁴⁷⁸ DSU (2018b) "Mid-term evaluation (MTE) of ÉLAN Technical Annex"

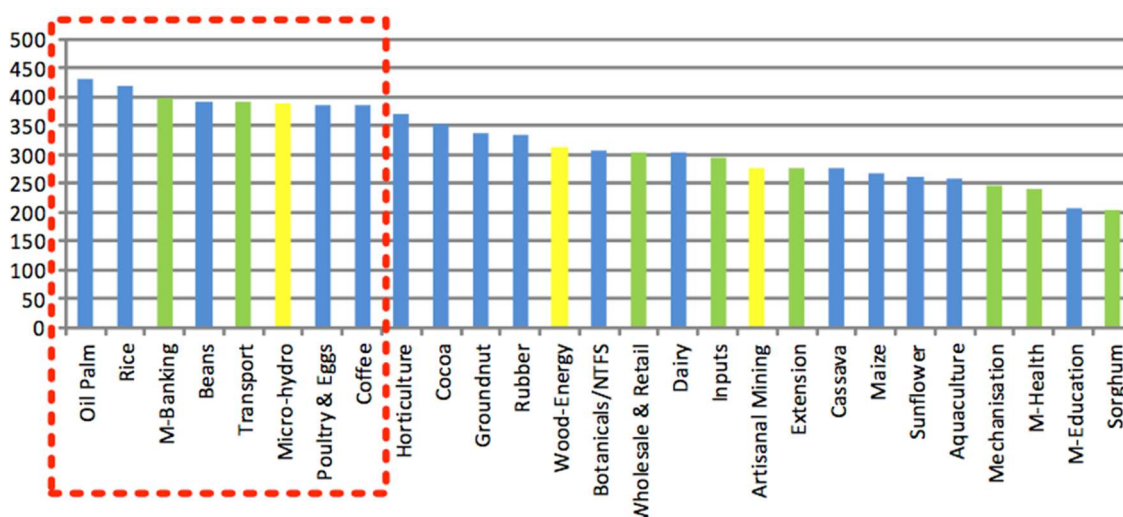
Annex F Additional analysis

This annex provides some additional analysis that is referred to in the main report but deemed to be too detailed for the main text, though might be useful for the interested reader.

F.1 Evolution of the AgNP sector portfolio

Élan’s initial analysis treated Agriculture as a ‘broad sector’, and within that 16 ‘sub-sectors’ were considered with potential for future interventions. Of these, six were staple crops (beans, cassava, groundnut, maize, sorghum, rice); while the others were either perennial crops, animal products and/or commodities with export potential (cocoa, coffee, horticulture, aquaculture, dairy, non-timber forest species and botanicals, oil palm, poultry and eggs, sunflower, and rubber).⁴⁷⁹ Sub-sectors were ultimately consolidated under the AgNP and AgP sector headings, and some sectors that were identified initially as having high potential were not worked on, including cassava, sunflower, rubber, poultry and oil palm.⁴⁸⁰

Figure 28: ASI’s overall ranking of sectors during inception phase market scoping



Source: ASI (2013c) DRC Market Development Component: Scoping report

After evolution in the portfolio, it was in early 2016 that seeds, other inputs, rice, and maize, were all integrated into one sector to be called AgNP.⁴⁸¹ In the early stages of the project, only rice and beans were in the sectors scoring high enough on Élan’s methodology to be classified as “proceed” (highlighted in the red box). Maize was further down the ranking, mainly because it scored lower on ‘pro-poor income potential’, competitiveness, and growth rates compared to the other sectors analysed such as rice. The lack of seed producers was noted as a constraint in the maize sector, even though agro-climatic conditions were favourable to maize in the DRC. By August 2013, rice and beans were sectors of focus within the Market System Analysis report, and rice in particular was said to have good

⁴⁷⁹ ASI (2013c) DRC Market Development Component: Scoping report

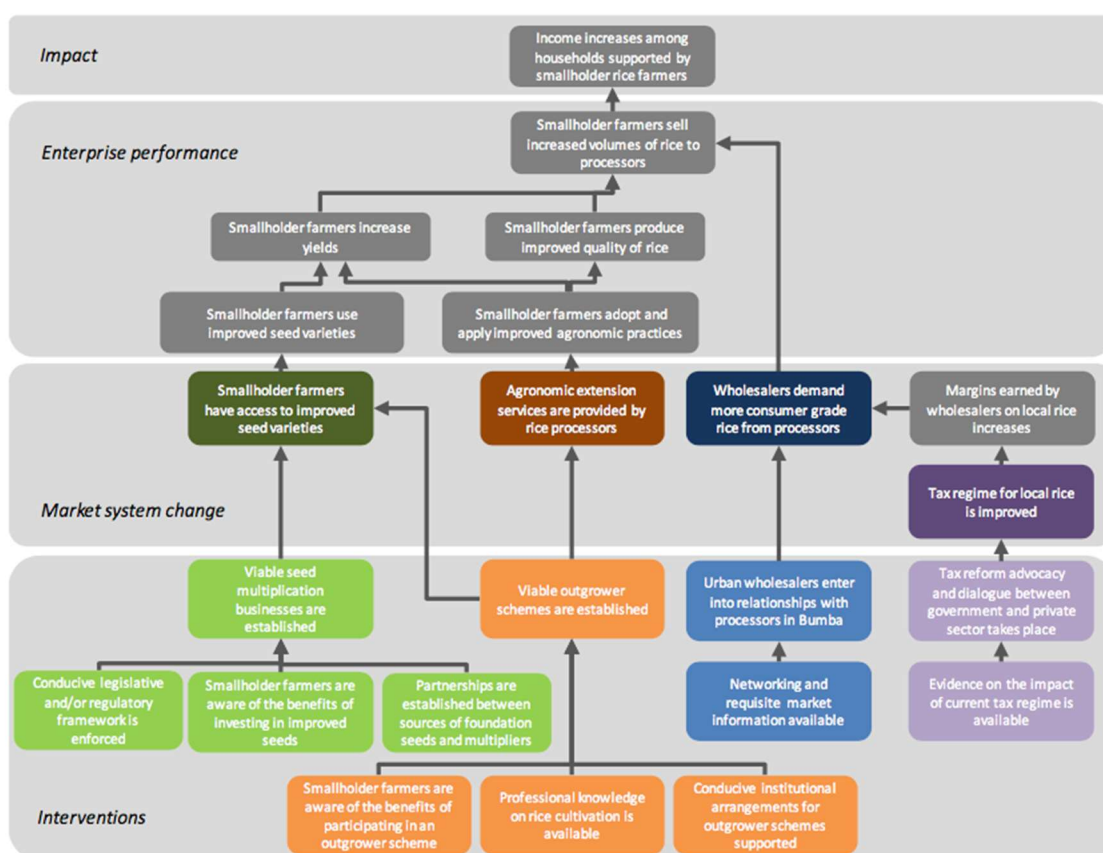
⁴⁸⁰ More detail on the AgP sector can be found in the sector study undertaken – DSU (2019).

⁴⁸¹ Élan (2016c) Q1 2016 report

potential in the South Kivu region, although issues with seeds were again identified.⁴⁸² By November 2013, a seeds sector was added for the 2014 Business Plan and the beans sub-sector was removed.⁴⁸³ By January 2015 and the Year 2 Business Plan, the seed sector had become ‘agricultural inputs and services’, and Maize was also added as a sector.⁴⁸⁴

The seed sector was later extended to include other inputs and extension services. Extension services were explored further via the other pillar of what would become the AgNP sector, the Rice sector. This would be via outgrower schemes (OGS), a key entry point for interventions in rice, as well as for the multiplication of rice seeds. OGS would aim to provide a broader range of support to SHFs, with extension services and other inputs such as fertiliser, pesticide, or mechanised services. As shown in Figure 29, the rice sector ToC also included work on a ‘conductive legislative and/or regulatory framework’ and ‘tax reform advocacy and dialogue’, with a view to achieving more holistic market system change.

Figure 29: Initial theory of change (ToC) for rice sector, from 2013



Source: ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

⁴⁸² “In terms of improved seed varieties, these seeds can theoretically yield between 6-8 [t ha⁻¹] - a three to four-fold increase in productivity. The Institut National pour l’Etude et la Recherche Agronomique (INERA) is currently testing 20 new varieties of rice seeds, but it claims to have insufficient funds for a breeding programme. Furthermore, rice sector stakeholders claim that INERA’s presence and activities on the Plain is minimal to non-existent.” – ASI (2013b) Market System Analysis Report.

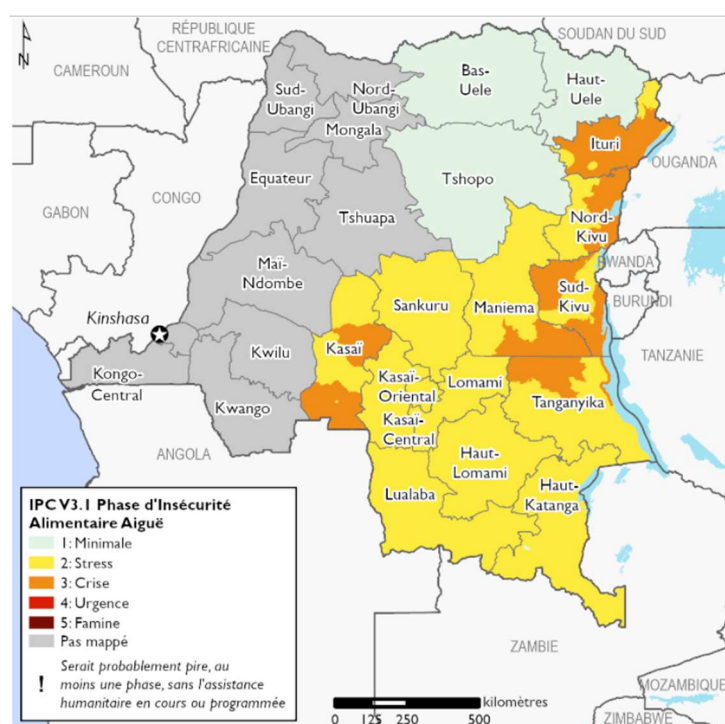
⁴⁸³ ASI (2013a) “DFID DRC Market Development Component 2014 Business Plan”

⁴⁸⁴ Élan (2015a) 2015 Annual Report Year 2 Report Year 3 Business Plan.

F.2 Food security in the DRC

As of 2019, the agricultural sector was estimated to employ over 60 percent of Congolese and comprise 19.7 percent of GDP.⁴⁸⁵ With 80 million hectares of arable land, 4 million hectares of irrigated land, and many rivers with important fishery resources, the DRC has the potential to become a global agricultural power. As Letellier et al. (2020) note, the DRC has more available agricultural land than any other country in Africa, with more land than Kenya, Malawi, Tanzania, and Zambia combined. However, commercial agricultural production remains limited, with most producers engaged in subsistence food agriculture, and only about 10 million of the country's 80 million hectares of arable land are under cultivation. Commercialising agriculture, increasing yields and increasing the amount of land under cultivation have enormous potential to increase food security and sustainable, equitable economic development.⁴⁸⁶

Figure 30: Food security in the DRC, October 2022



Source: USAID / FEWSNET (2022a) "RDC Perspectives sur la sécurité alimentaire"

Despite this potential, around 26.4 million people are projected to be acutely food insecure as of early 2023 with 3.4 million children estimated to be acutely malnourished.⁴⁸⁷ FEWSNET's latest assessment finds that large parts of the south of DRC face 'stress' in food security as of October 2022, while the eastern region and provinces of South Kivu, North Kivu and Ituri face 'Crisis' (see Figure 30).⁴⁸⁸ At present this is linked to below average rainfall, insecurity in the eastern region and internal displacement of people, however, it is underpinned by low productivity in agriculture.

⁴⁸⁵ International Trade Administration (2022)

⁴⁸⁶ USAID (2022) DRC country page – "Agriculture and Food Security"

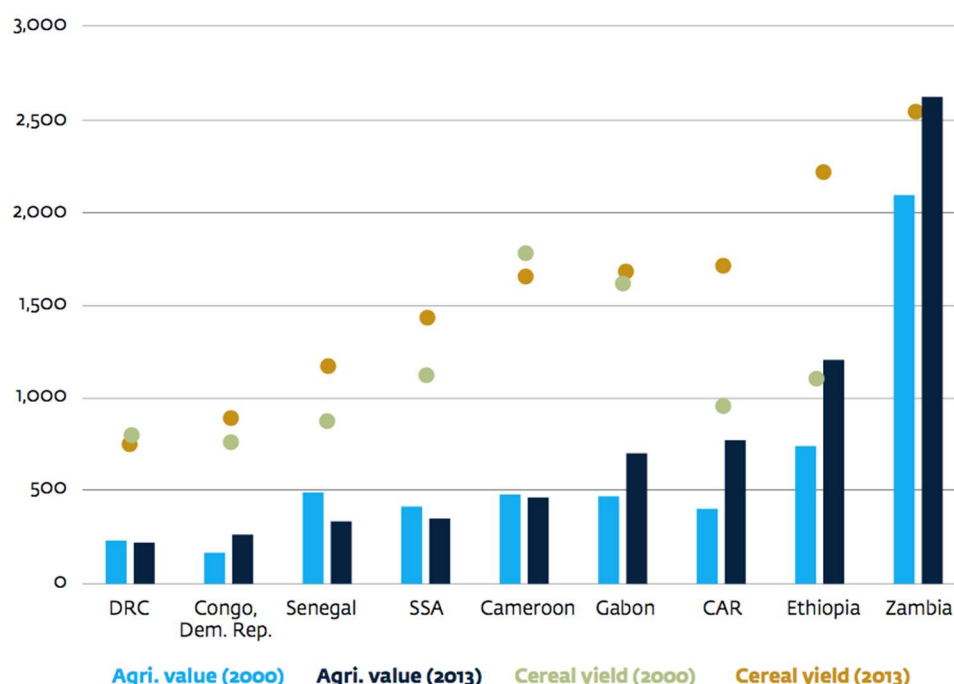
⁴⁸⁷ WFP (2023) DRC summary

⁴⁸⁸ USAID / FEWSNET (2022a) "RDC Perspectives sur la sécurité alimentaire"

In DRC’s southern region, the need for maize for human consumption is estimated at 700,000 tonnes per year, with local production estimated to provide less than one-fifth of this, at 120,000 tonnes per year.⁴⁸⁹ This means the province has to import food from neighbouring countries, which is a huge burden on the region’s economy.⁴⁹⁰ Élan had identified that agriculture could benefit the country’s macroeconomic stability, since DRC at that time (2014) spent about USD 1.3 billion annually to import food.⁴⁹¹

The main route to address food security for the AgNP sector of Élan was to increase farmer productivity. Increased yields would lead to a higher value of crop either for consumption by the household or sale on the market. For example, Élan’s final AgNP documents frequently cite the estimate of maize yields in the DRC at 0.77 t ha⁻¹, comparing to 2 t ha⁻¹ in Kenya. Erenstein et al. (2022) find West and Central Africa maize yields to be 1.5 t ha⁻¹, the lowest in comparable data of global regions.⁴⁹² The World Bank (2022b) also finds yields are low and stagnating in the DRC, placing DRC cereal yields the lowest against a range of comparator countries (see Figure 31). However, this is all based on a now decade-old data point, highlighting the data gap in the DRC.

Figure 31: Agriculture value added per worker (2005 USD) and cereal yield (kg per ha), 2000 and 2013: DRC and comparator countries



Source: World Bank (2022b) Country Private Sector Diagnostic

⁴⁸⁹ Nationally, Élan estimated maize grain production is estimated at 600,000 tonnes, against a consumption of 2 million tonnes - Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

⁴⁹⁰ Letellier et al. (2020) “Addressing food insecurity in the DRC”

⁴⁹¹ Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014. As of 2021, food imports were USD 1.6 billion according to data from UN Comtrade.

⁴⁹² Compared for example to yields of 2.4 t ha⁻¹ in Eastern and Southern Africa, 3.3 t ha⁻¹ in South Asia, 7.1 t ha⁻¹ in Europe, 7.5 t ha⁻¹ in West and Central Asia, and 10.8 t ha⁻¹ in North America.

F.3 Enforcement of the quality of seed in DRC

Production of certified seed in the DRC is regulated and must be accredited by National Seed Service (Service National des Semences – SENASEM). SENASEM’s mandate includes the inspection production sites prior to planting and conduct three additional inspections throughout the growing cycle; conducting further tests on harvest and produce a report that certifies the quality of the seed. Inspection costs total approximately USD 160 per visit and certification costs total approximately USD 13 per metric tonne. While the majority of foundation seed in the DRC comes from either INERA or UNILU, it is possible to import foundation seed from private and public suppliers outside the DRC; permitted sources, for example including CIMMYT.⁴⁹³ In the absence of the law, SENASEM lacks the necessary powers and resources to properly regulate the seed sector. The resulting informality of the sector is one of the primary underlying causes of many of the challenges experienced such as the presence of fake seed, unfair competition, and the corruption that is apparently endemic in emergency seed supply.⁴⁹⁴

SENASEM employs 105 seed inspectors, which is high compared to other countries according to the TASAI index. However, countries with more advanced seed industries have accredited private seed inspection services, often in addition to government inspectors.⁴⁹⁵ The SENASEM seed inspectors are not sufficiently resourced to perform their functions.⁴⁹⁶ Fake seed has therefore become a significant problem affecting the seed industry in the DRC, and was mentioned in several interviews undertaken for this study. According to TASAI (2018a), in 2016, seed producers in DRC reported a total of 185 cases of fake seed. This is higher than the number of cases reported in other African countries, such as Ethiopia (11 cases), Malawi (20 cases), Tanzania (18 cases), Zambia (22 cases), or Zimbabwe (52 cases). The number of reported cases in all countries, including the DRC, is likely to be understated, as most cases often go unreported. Respondents rated the government’s efforts to address the challenge of fake seed in the DRC as “poor” (22 percent). By comparison, in other countries government efforts to stamp out fake seeds are rated as “fair” (e.g., Ethiopia, Tanzania, and Zambia - all 57 percent, and Zimbabwe - 56 percent).⁴⁹⁷

TASAI (2017) found that fake seed in the DRC thrives because the government does not monitor the activities in the seed sector effectively: seed is not inspected adequately at the different stages, and seed sales to the relief market are not tracked carefully enough. According to sector stakeholders, SENASEM simply take a fee for certification, and the requisite monitoring processes and scientific testing are not undertaken.⁴⁹⁸ Fake seed is a direct barrier to investment and a major challenge for seed producers. In most cases, SENASEM staff have no means of transportation to access seed fields and many fields are not inspected or certified, with the result that most seed that is identified as certified is actually not quality seed.⁴⁹⁹

⁴⁹³ Élan (2021e) "Seed investment in the DRC"

⁴⁹⁴ USAID (2019) SEEDCLIR report

⁴⁹⁵ TASAI research found that when seed inspection services are mostly or wholly in private hands, they receive higher ratings from the seed industry. TASAI (2017, 2018a).

⁴⁹⁶ TASAI (2017) "TASAI Country Report – Democratic Republic of the Congo"

⁴⁹⁷ Ibid. TASAI (2017) "TASAI Country Report – Democratic Republic of the Congo"

⁴⁹⁸ According to USAID (2019) SEEDCLIR report - Tests are not fixed in advance but rather agreed on with the seed grower/company and this structure creates an incentive for favourable inspection findings. Varietal purity, the main component of seed quality, is not properly evaluated.

⁴⁹⁹ USAID (2019) SEEDCLIR report

F.4 Seed variety release in the DRC

In terms of the release of varieties in the last three years (as of 2016), TASAI estimated that six varieties of maize had been released in DRC, which compared to 61 varieties in Kenya, 37 in Zambia, 44 in Tanzania, and 236 in South Africa.⁵⁰⁰ It was noted that the releases in the DRC were also more likely to be OPV and more likely to be obsolete varieties. The new releases were also less likely to be commercialised in volumes that would replace the older varieties in the market, which would not be sufficient to develop farmer confidence in improved seeds.⁵⁰¹

Article 29 of the 2011 Agriculture law stipulates that there is a national catalogue of seed varieties, which is a dynamic document that needs to be updated regularly. However, the last available version of the national catalogue was not up-to-date, produced in circa 2012.⁵⁰² TASAI (2017) found that the variety release process took 26 months and on average, the cost of variety release in the DRC was USD 4,700. This is significantly higher than in other African countries according to TASAI (2018a): four times the cost in Zambia (USD 1,070), eight times the cost in Tanzania (USD 504) and more than 14 times the cost in Zimbabwe (USD 350).

Perhaps in light of these lengthy time periods and high costs, although technically all varieties on the market should go through a release process overseen by SENASEM, in practice, a large number of the varieties on the market have not gone through – or have not completed – the registration process. Out of 89 varieties sold to farmers between 2014 and 2016, 69 varieties were not in the variety catalogue according to TASAI research. These comprised 39 maize, 7 rice, 15 bean, and 8 soya bean varieties. Some had been accepted for registration and release by SENASEM but had not yet been recorded in the catalogue due to a lack of funds.⁵⁰³

This was an area that Élan worked on and Élan noted an updated catalogue was developed with the help of TASAI. The update saw 30 new varieties added while 20 others were removed.⁵⁰⁴ Stakeholders in Lubumbashi spoken to for this study were not aware of a catalogue update. However, NASECO added their flagship Bazooka maize seed to the catalogue, which may be important to facilitate their growth in the eastern DRC.

F.5 Climate change and yields

Climate projections suggest that elevated temperatures, especially in the drought-prone areas of SSA, are highly likely to result in significant yield losses in tropical/subtropical maize.⁵⁰⁵ Prasanna et al. (2021) note that maize yields in the tropical rain-fed environments are now increasingly vulnerable to various climate-induced stresses, especially drought, heat, waterlogging, salinity, cold, diseases, and insect pests, which often come in combinations to severely impact maize crops. The major effect of heat stress on maize is reduced grain yield due to the impairment of photosynthesis and reproduction, in addition to leaf scorching, and reduced flowering time.

⁵⁰⁰ TASAI (2018a) “TASAI Appendix 1”, Sep 2018 version

⁵⁰¹ Élan (2021d) “Seed legislation in the DRC”, July 2021

⁵⁰² Élan (2015b) Seed Legislation and Regulatory Environment Annex to Q1 2015 report, dated Feb 2014.

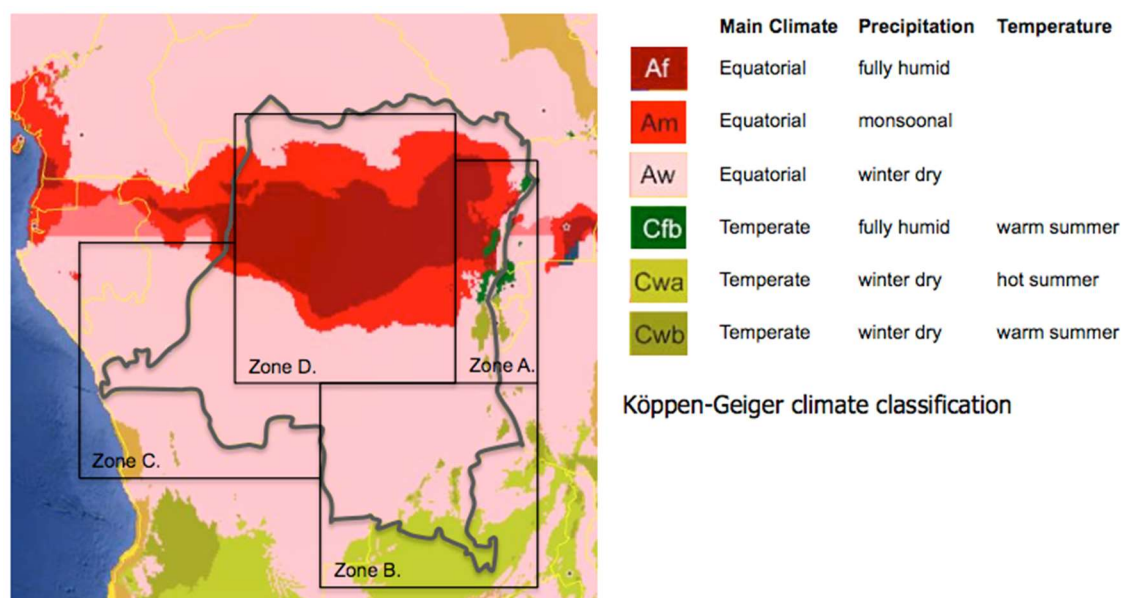
⁵⁰³ TASAI (2017) “TASAI Country Report – Democratic Republic of the Congo”

⁵⁰⁴ Élan (2021c) “Élan Sector Studies – Agriculture Non-Perennial”. Catalogue available: MINAGRI (2019).

⁵⁰⁵ Cairns et al. (2013) “Adapting maize to climate change in sub-Saharan Africa”

With four different climate zones (see Figure 32), the majority of Zone D being tropical rainforest, Zone C including the capital Kinshasa, Zone A including the densely populated Kivus, and Zone B, the main centre of non-perennial agriculture; regional specific climate affects will be different. The climatic zones also align to the country's economic regions, which means region-specific risks may exacerbate climate impacts.

Figure 32: Climate zones in the DRC



Source: Élan (2021a) "A Quarter-Billion Dollar Industry? The DRC Seed Sector".

For Prasanna et al. (2021), effective integration of new tools and technologies into national agricultural research system (NARS) breeding programs will be essential for long-term sustainability in maize breeding and the capacity to develop climate-resilient cultivars. This includes breeding for the climate-smart features of seeds including drought tolerance, early maturity or extra-early maturity.⁵⁰⁶ Institutes such as CIMMYT and the International Institute for Tropical Agriculture (IITA) have taken the lead in this regard in the SSA region. Under the Stress Tolerant Maize for Africa project, during 2016–2019, a total of 218 new stress-tolerant and productive improved maize varieties derived from germplasm from the CIMMYT and the IITA, were officially released to enter commercialisation, promotion and wide-scale dissemination in 13 target countries across SSA. However, this has not included the DRC.⁵⁰⁷

Setimela et al. (2017) note that drought stress and low Nitrogen will remain major challenges in the region where most farmers have limited capacity to invest in inputs. Varieties from CIMMYT's stress breeding programme have shown yield advantage over commercial checks in the range of 4 to 19 percent.⁵⁰⁸ They find the relative yield gap between controlled conditions on experimental stations and farmers' fields is probably higher in SSA than anywhere else. For example, yields in managed and random stress trials in experimental stations in Zimbabwe ranged from 1.0 to 2.9 t ha⁻¹, while the national average yield in 2013

⁵⁰⁶ Early maturing are seeds that take 90–95 days to physiological maturity. Extra-early maturing are seeds that take 80–85 days to physiological maturity. Both are types of maize hybrid seeds. Source: Badu-Apraku et al. (2022).

⁵⁰⁷ Setimela et al. (2017) "On-farm yield gains with stress tolerant maize in eastern and southern Africa".

⁵⁰⁸ Ibid. Setimela et al. (2017)

was 0.88 t ha⁻¹. The yield gap can be attributed to the multiple stresses that crops face throughout the season in smallholder farmers' fields. Against control hybrids, all improved hybrids show a 10–30 percent relative gain under mild stress, with larger gains in the high-yielding environments.⁵⁰⁹

F.6 Varietal turnover of seed

Despite the need for varietal turnover of seed, this has been found to be slow in SSA. Smale and Olwande (2014) in Kenya find that despite a good breadth of seed supply and numbers of hybrid sold, older hybrid still dominated national demand. Chivasa et al. (2022) in a review of maize seed systems in eastern and southern Africa (ESA) find that despite the importance and benefits of accelerated varietal turnover to climate change adaptation and food security, the rate of maize varietal replacement is slow. Although there is an upsurge of new seed companies in the ESA region and introduction of new varieties with better genetics in the market, some established seed companies continue to sell old (over 15-year-old) varieties. Several recently developed maize hybrids in ESA have shown significant genetic gains under farmers' conditions. Table 37 summarises the demand and supply-side factors found to be important in the Chivasa et al. (2022) study.

Prasanna et al. (2021) note, since 2015 there have been several success stories in SSA of the replacement of old and climate-vulnerable maize varieties with newer stress-tolerant varieties. Proactive management of product life cycles by seed companies can benefit farmers and businesses, contribute to improved food security and adaptation to the changing climate.

A study by Langyintuo et al. (2010), involving over 92 percent of all seed providers in ESA in 2007 showed that a number bottlenecks affect the entire maize seed value chain. The lack of access to credit constitutes a significant barrier to entry. In addition, the transfer of genetic materials between public and private sectors should be improved to allow easy access by seed companies to suitable and adapted varieties. To allow for rapid regional spillovers of varieties released in one country to similar agro-ecologies in different countries, the implementation of the harmonised regional seed laws and regulations should be expedited.

Khonje et al. (2015) show that adoption of improved maize leads to significant gains in crop incomes, consumption expenditure, and food security, demonstrating significant poverty-reducing impacts in eastern Zambia. They find that adoption of improved maize varieties can be enhanced through increased access to information, markets, and productive assets. Easy access to market and availability of markets and information play a major role in reducing high transaction costs to farmers. However, access to reliable and competitive markets and information remains a challenge, possibly due to poor infrastructure and support services. They note that farmer cooperatives can overcome some of these challenges via collective marketing that reduce transaction costs.

⁵⁰⁹ Setimela et al. (2017, 2018). Low-yielding trials were taken to be representative of smallholder farmers who apply little or no N fertiliser.

Table 37: Factors that drive maize varietal replacement in east and southern Africa

Supply-side factors	Demand-side factors
<ul style="list-style-type: none"> • Speed breeding programs (e.g., doubled haploidy and marker-assisted breeding to accelerate the rate of genetic gain and product development). • Seed regulatory framework and regional harmonization of varietal testing and release process/laws. ^{[1][2]}_[SEPP] • Ease with which seed of new varieties can be produced. • Efficient seed systems (e.g., less cumbersome varietal testing and release laws; existence of an effective seed certification scheme that guarantees quality seed to farmers, etc.). • Competition in the seed industry. • Availability of new, improved varieties with demonstrated tolerance/resistance to key stresses. • Prominent display of seed of new varieties in the shelf space of agro- dealer shops. • Effectiveness of the interface between breeding institutions, seed companies, and agro-dealer networks. • Cost of launching a new product in a market I the size of the market or market potential. • Quality seed production. 	<ul style="list-style-type: none"> • Multi-channel promotional activities: advertisements, demonstrations, seed fairs, product launches, etc. • Farmers’ affordability and willingness to purchase seed of new varieties. • Farmers’ awareness of and availability of new varieties in agro-dealer shops. • Farmers’ risk appetite. • Perceived potential yield advantage/ profitability of the new versus old varieties. • Farmers’ ability/willingness to invest in other inputs (e.g., irrigation, fertiliser) and good agronomic practices required to make investment in improved seed worthwhile. • Intended grain use from production – subsistence versus commercial. • Farmer’s education level. • Existence of structured output markets. • Effective extension programme by the company or government. • Increased per capita food consumption. • Point of sales technical support/varietal information at agro-dealer level. • Social networks (farmer-to-farmer). • Outbreaks of new devastating pests and diseases.

Source: Chivasa et al. (2022)

Studies have also looked at the barriers to hybrid seed demand, and how that might be improved. For example, Axmann et al. (2019) conducted a field-experiment designed to measure the effect of offering hybrid maize seeds for purchase during a time when potential customers have high liquidity. Working with a large buyer of agricultural commodities in Northern Uganda, they randomly offered smallholder farmers the opportunity to purchase certified hybrid maize seeds at the same time as they visit the buyers’ stores to sell crops from a previous harvest. They found that 16 percent of those offered purchase hybrid seeds, and average adoption of hybrid maize among those offered increases by 8 percentage points compared to a control group who did not receive the offer. Among those who accept the offer, they saw an increase in the propensity to plant hybrid maize of 50 percentage points.

F.7 Anomalies in NAIC calculations, example of Ceprosem (NP28)

Ceprosem (NP28) was a seed company intervention in the Western region, on the outskirts of Kinshasa, focussed on horticulture seeds. Élan supported the producer by connecting them to more agro-dealers and helping to improve their commercial strategy and packaging of products. The first intervention cost USD 11,000 for Élan with the same being contributed by the partner. By the end of Élan, the intervention would contribute the 11th highest number of beneficiaries for the AgNP sector, and the highest for AgNP in the Western region, with £164 NAIC per beneficiary for 2,221 SHF beneficiaries.

The intervention was not looked at in previous DSU verification exercises on NAIC (DSU, 2017, 2018c, 2020). However, documentation of Élan provides some anomalies in the logic to generate impact estimates. In 2017, an evaluation was carried out with support of a firm called Experts.⁵¹⁰ The evaluation involved a treatment and comparison group, with a one-off survey. The treatment net income from horticulture sales was found to be USD 107 per farmer, compared to USD 69 for the comparison. Thus, farmers buying Ceproseem seeds were said to have additional income of USD 39 ‘per cycle’, with four cycles (vegetable harvests) per year. Élan estimated benefits over 2017 and 2018, which led to the £164 NAIC per beneficiary figure.

Issues with the estimates include a lack of consistency and comparability of treatment and comparison groups. The comparison group had a larger sample with 486 respondents, against just 36 for the treatment group. It appears different surveys were used for the two groups, for example the treatment group were asked their income in USD, and the comparison group in CDF. There were differences in how key figures were calculated, for example, treatment production costs were the total of responses on individual expenses, while for the comparison group it was simply assumed production costs were a fixed share of revenues. No matching of respondents between the two groups was carried out nor was any technique such as propensity score matching attempted. This is problematic as big differences can be seen between the groups. For example, chemical fertiliser use in the comparison group was 57 percent, compared to 89 percent for the treatment group. For the treatment group, 61 percent planted at least three vegetable crops, compared to 31 percent for the comparison group.

Beneficiary estimates may have needed a reality check. In 2015, Ceproseem already sold to 3,500 market gardeners, and sold 54 percent of their seed to donors / NGOs,⁵¹¹ although at the time Ceproseem was “not viable” and losing money. While there was no clear baseline, one interview put 2016 sales at 600 kg.⁵¹² Élan claimed 820 kg of seed was sold to SHFs with the project’s support.⁵¹³ This was from estimated 1,050 kg of total sales in 2017. However, in follow-up surveys, Ceproseem recorded USD 46,000 of sales in 2018 for 776 kg of seeds (and by 2020, USD 65,000 sales of 875 kg). Seed sales had risen just 176 kg from 2016 to 2018, and sales to NGOs were not disaggregated.⁵¹⁴

In summary, Élan’s NAIC estimates for the intervention appear problematic and biased in an upward direction. The evaluation was not carried out rigorously despite the attempt to set up a counterfactual. As with many other NAIC estimates, the process was not clearly documented, it was not clear how external the process of evaluation was, and the methodology appears to be biased to produce high estimates of NAIC and beneficiaries.

F.8 Potential benefits of mobile money

A range of studies were used by Élan to justify the potential benefits from mobile money use. These can be from its core functions as a storage and payments system, its links to interest-paying accounts, or via the ability it gives to collate information and generate algorithmic

⁵¹⁰ Élan (2017e, 2017f, 2017g)

⁵¹¹ Élan (2016e) “Développement de partenariats privés pour Ceproseem”

⁵¹² Élan (2018h) “Interview with a key informant, Nino Mwanza, Ceproseem”

⁵¹³ Élan (2018c) *PCR. Annex 7 Assessing Systemic Change*

⁵¹⁴ Élan (2020f, 2020g) “Light monitoring of the selected portfolio from Elan 1.0: Ceproseem (NP28)”

credit scores. Household and business outcomes can therefore be affected through several different channels, as categorised by Aron (2015):⁵¹⁵

- **Reducing transactions costs:** The primary benefit of mobile money is to reduce transactions costs (in cash and time) of sending and receiving money including over distances where there are poor and expensive transport links. However, the mobile money “infrastructure” has to be in place and working well for this to be the case. For example, a poorly-monitored agent network may be subject to “leakages”. Aker et al. (2014) find that a dearth of agents, through a limited network in Niger, made it difficult to access cash from agents, raising transactions costs. But loss of money and of time have an opportunity cost: reduced funds that could have been invested, spent or saved; and reduced time that could have been spent in productive activities. Mobile payments are dominated by person-to-person transfers, but have also diversified to cover retail payments, utility bills and rent by individuals; payments to suppliers by firms; and payments of salary, pensions and cash transfers to individuals from government or donors. All of these can also benefit from reduced transaction costs from speedier and safer money transfer.
- **Reducing asymmetric information and improved transparency:** Asymmetric information is a constraint to financial access as the borrower knows more than the lender on their ability or willingness to repay a loan. The record of financial transactions that mobile money provides creates greater transparency, and can reduce asymmetric information. Every deposit or withdrawal, transfer or payment transaction is recorded in the MNO’s telecoms log for that customer, creating a ‘financial history’. This provides a means to create credit scores even for unbanked customers, via application of algorithms based on types, timing, frequency and size of mobile payments. This provides an opportunity to provide greater access to credit. Where there is appropriate ID documentation (“know your customer”) over time, international remittance transfers can also be facilitated, reducing parallel financial histories from unregulated transfers that are not captured for credit scoring.
- **Increasing saving and changing the nature of saving:** Saving helps individuals and households to allocate consumption over time, and reduce some risks including for unforeseen shocks to household income (such as a death or health emergency). For the unbanked poor, there are risks to saving in cash, including theft or “liquidation”. This may lead to loss of savings as well as providing a disincentive to save. Mobile money should offer safe storage of cash, although usually without payment of interest, and the value of cash saved can erode through inflation. However, the safety of mobile money has been found to increase savings rates.⁵¹⁶
- **Risk and insurance:** The poor are at risk of household or communal shocks from illness in the family, to flooding or drought. While informal insurance networks often exist, households may be inadequately covered by these means. Informal networks could though be expanded by access to mobile money transfers, particularly as they can cover larger distances between family members. Jack and Suri (2011) note that timely transfers of sometimes very small amounts of money can arrest serious declines that may be irreversible or hard to reverse.⁵¹⁷ As mobile money allows small and more

⁵¹⁵ Alampay et al. (2017) also provide a useful review of the evidence.

⁵¹⁶ Mbiti and Weil (2011) in Kenya found a positive association between M-Pesa adoption, bank use and savings and employment. Mobile money usage was also found to reduce informal savings, hiding money for saving, and also positively impacted the use of other formal savings channels.

⁵¹⁷ Jack and Suri (2011) “Mobile Money: The Economics of M-Pesa”.

frequent transfers of money this can lead to greater ability to manage negative shocks.⁵¹⁸ Over time, mobile money innovation can lead to new insurance or micro-insurance products, an additional potential buffer against negative shocks.

- **Changing family dynamics and changing social networks:** Mobile money could change relative family bargaining power. This could be via the greater privacy offered by mobile money transfers (particularly if adults in the household have their own accounts) and may influence both inter-household and intra-household allocations. If the nature of expenditure by gender differs there could be welfare changes in the household. Aker et al. (2014) for example measured improved household bargaining power for women in Niger via mobile transfers, with resulting welfare improvements.
- **Improving efficiency:** Mobile money can facilitate trade as an effective payments method, making it easier for people to pay for, and to receive payment for, goods and services. The effects of mobile money on savings and in terms of labour allocation (including via time availability) may be positive for businesses, particularly MSMEs. This could in turn lead to more efficient investment decisions.

In addition to these effects, there are hypothesised linkages to improved agricultural performance in terms of input purchases, commercialisation, and income change. This includes from Kikulwe et al. (2014) in Kenya, who found that smallholder farmer households using mobile money spent more on hired labour, organic fertiliser and chemical pesticides, due to the higher remittances they received. For remittances, there was an estimated treatment effect of USD 154 per year or an increase of 66 percent compared to mean remittances received by non-users of mobile money.⁵¹⁹ This led to higher profits from agriculture production.⁵²⁰

A combination of the effects has led to some very high impact claims in the case of Kenya. Suri and Jack (2016) estimate that access to the Kenyan mobile money system M-Pesa increased per capita consumption levels and lifted 194,000 households, or 2 percent of Kenyan households, out of poverty. The impacts appeared to be driven by increased financial resilience and saving, as well as by occupational choice, especially for women, who moved out of agriculture and into business.⁵²¹

F.9 Dollarization in the DRC

As set out in Box 3 in Section 2.3.1, the DRC economy is highly dollarized, more than almost any other country. In 2014, about 90 percent of banking sector deposits and lending were in USD. As shown in Figure 33, the DRC became more dollarized between 2001 and 2012 and is among the most dollarized countries in the SSA region (and the world).

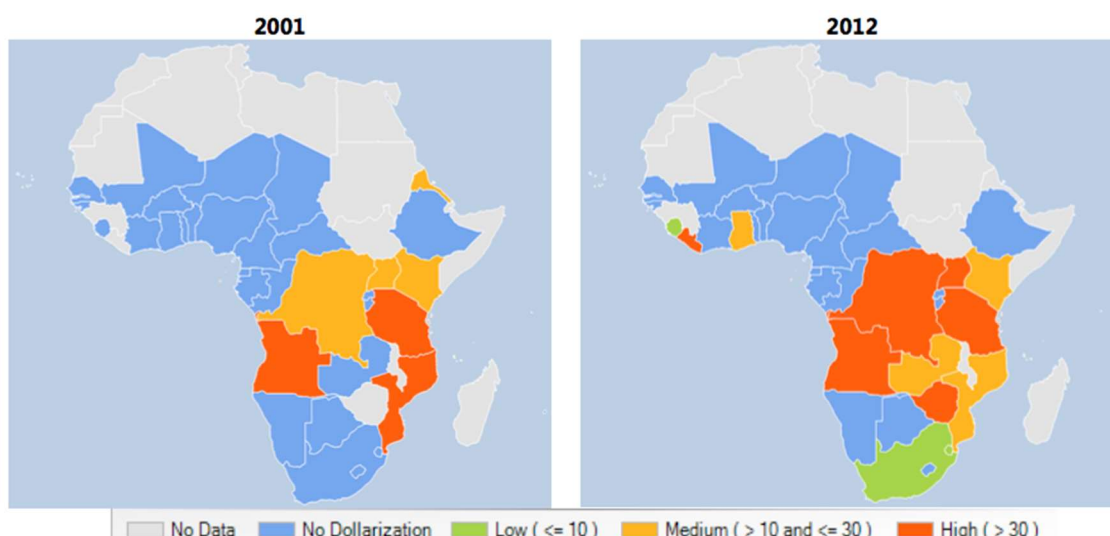
⁵¹⁸ Jack and Suri (2014) found evidence on the impact of mobile money on smoothing of consumption patterns, even in times of shock. They found per capita consumption fell for non-users when experiencing a negative income shock, as well as for those without good access to the agent network. They did not find such a drop-off for M-Pesa user households.

⁵¹⁹ Findings from Kenya and Uganda also suggest that M-Pesa users participate in more remittance activity than non-users (Munyegera and Matsumoto, 2016; Jack et al., 2013; Mbiti and Weil, 2011).

⁵²⁰ Kirui et al. (2012) found an even larger income increase, led by higher purchases of seed, fertiliser farm equipment, and farm labour used.

⁵²¹ They measured access to the service by the geographic proximity of households to M-Pesa agents. Causal effects were then estimated by changes in access rather than adoption.

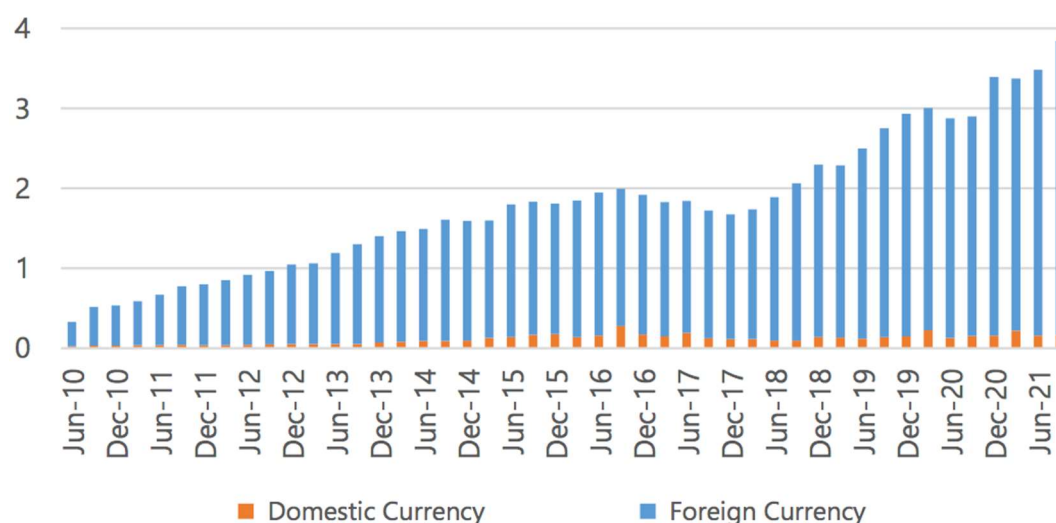
Figure 33: Rates of dollarization in SSA: 2001 and 2012 (foreign currency loans as percentage of total loans)



Source: IMF (2015) “Dollarization in Sub-Saharan Africa”

As shown in Figure 34, the rate of USD lending has increased over time, and as of 2021 constitutes 95 percent, with less than 5 percent of lending in Congolese Francs (CDF). Banks are able to maintain investments in USD via two main relationships: (i) ordinary correspondent banks, mainly large banks in advanced countries; and (ii) parent companies that centralise the group’s cash flow, including that of their DRC subsidiary. The latter entails the risk that parent companies may default while holding a large part of Congolese domestic savings; the former creates dependence on the foreign correspondent banks used for clearing transactions. This is a major systemic risk as it relies on the regulatory risk appetite of these banks. With weaknesses in the DRC’s anti-money laundering and countering the financing of terrorism (AML / CFT) framework, this could be suspended at any time causing a banking and currency crisis in the DRC.⁵²²

Figure 34: DRC, loans by currency (USD billions)



Source: IMF (2022c) DRC FSSR

⁵²² IMF (2022c) DRC FSSR

The high rate of dollarization also contributes to a weak monetary policy transmission mechanism and increases systemic exposure to liquidity shocks, given that banks' minimum regulatory requirements are defined in domestic currency and the BCC has only a limited capacity to provide liquidity in USD. If the BCC cannot act as lender of last resort in the event of a systemic crisis,⁵²³ it needs strong oversight of risks as they arise. With support of the World Bank, a national payment system with the ability for local clearing of USD was created, however it was soon suspended due to concerns around AML / CFT by US authorities in late 2019.⁵²⁴ The result is that large transactions in USD are made through correspondent banks abroad and not through the local system.⁵²⁵

The size of the issue of dollarization meant that Élan never decided to grapple with it, and it was likely to be felt to be far beyond the project scope.⁵²⁶ However, dollarization is not just a macroprudential / systemic issue. It creates major barriers to financial inclusion in the DRC. This is because households and SMEs also borrow and invest in USD, but do much of their own business in CDF. This magnifies the effect of exchange rate risk. It also partially explains the risk aversion of banks and MFIs to lend to economic players outside of those already dealing in large amounts of foreign currency (i.e. exporters, those operating in the mining sector etc.).⁵²⁷ The issue is only growing, as from 2022 onward, reserve requirements on capital in USD will be constituted in USD, and banks will transfer greater currency risk to their customers, particularly households, by encouraging them to take on debt in foreign currency for loans of more than 12 months, while households' resources are mainly in CDF.⁵²⁸ 'De-dollarization' has been strongly advocated by the IMF over the years including now via a "medium-term roadmap",⁵²⁹ however this appears more of a long-term goal than ever, and dollarization appears to have increased in the past decade.

F.10 Know your customer (KYC) processes

An important part of regulation in the financial sector and particularly in mobile money is on 'know your customer' (KYC) processes. While a relatively simple step in more developed country markets, KYC refers to the identification needed to set up and maintain an account. It is dependent on the availability and standards for verifiable identity schemes. This could be a digital government registry holding the identity data of citizens, as well as the ability of individuals to access the government-recognised identity documents that meet registration requirements.⁵³⁰ At the outset of Élan, 'Know your customer' (KYC) processes were not viewed as stringent, and it was possible to open an account without formal identification (for transfers up to USD 100 per day), a 'Tier one' account. However, for higher value accounts (up to USD 500 per day transactions) there was a 'Tier two' for account holders. This required a Customer ID, such as a passport, electoral card, or driving licence, to be physically verified, and customers were required to complete an application form and attach a copy of their photo ID.⁵³¹

⁵²³ As in the event of a liquidity shortage, banks would require dollars that the BCC cannot create and would have to take from its reserves.

⁵²⁴ World Bank (2020) DRC Digital Economy Assessment

⁵²⁵ IMF (2022c) DRC FSSR

⁵²⁶ Indeed, it is only mentioned three times across hundreds of Élan documents reviewed (Annex A provides just a sub-sample of the Élan documents reviewed for this study).

⁵²⁷ "Despite interest margins of over 10 percentage points, banks do not lend domestically and prefer low-yielding placements abroad with correspondents". IMF (2022c) FSSR

⁵²⁸ Shorter-term credits to households are to be provided in CDF. Source: IMF (2022c) FSSR.

⁵²⁹ IMF (2014, 2022a, 2022c)

⁵³⁰ GSMA (2019) "Understanding Capture and Validate KYC Processes"

⁵³¹ Di Castri (2014) "Enabling Mobile Money policies in the Democratic Republic of Congo"

A major challenge of KYC is that in the DRC many may not have access to sufficient ID. An electoral card is the only official documentation that the majority of Congolese have (an estimated 77 percent of adults have this).⁵³² This is a particular challenge for internally displaced people (IDPs) who may not have access to any ID. The ability to transact is therefore dependent on a degree of relaxation in the regulation. KYC was an area for one of the DCSWG meetings held during 2019. At that time, the BCC intended to ask FSPs to identify clients themselves through biometric data and a questionnaire, in order to generate a unique nine-character sequential identifier. During the workshop, FSPs questioned this approach in view of the risk of duplication and the restrictions on the sharing of personal data imposed by law.⁵³³ The development of KYC processes would ultimately require a national database to be in place but this was some way off. The issue of KYC is now important in the case of bilateral interoperability, as KYC is a minimum-criteria for using the bilateral arrangement between Orange and Vodacom;⁵³⁴ thus the option is not available for the lower tier account holders (though data is not available it is likely this constitutes the majority of those with a mobile money account).

F.11 Credit and collateral registries

An ongoing challenge in the DRC financial services industry is the absence of adequate credit or collateral registries.⁵³⁵ A credit reference agency can provide a means for FSPs to centralise and share information about credit-worthiness of clients, history of default and repayments.⁵³⁶ This can provide a strong basis for risk management, and ultimately allow more lending and at more competitive rates, by overcoming some of the information asymmetry inherent in any financial transaction. According to the World Bank (2022b), the DRC still has no full credit bureau coverage (see Figure 35).⁵³⁷ As a member country of the Organisation for the Harmonisation of Business Law in Africa (OHADA) treaty, the DRC would need to develop a movable collateral registry and credit information system, however progress on this was slow. This is a severe limitation in lending to MSMEs in the country due to information asymmetry restriction risk-taking and provision of loans.

⁵³² CENFRI et al. (2016c) Making Access Possible, Presentation of results

⁵³³ Élan (2019f) "Discussion Platform on Digital Finance in the DRC: 2019 MRM Report".

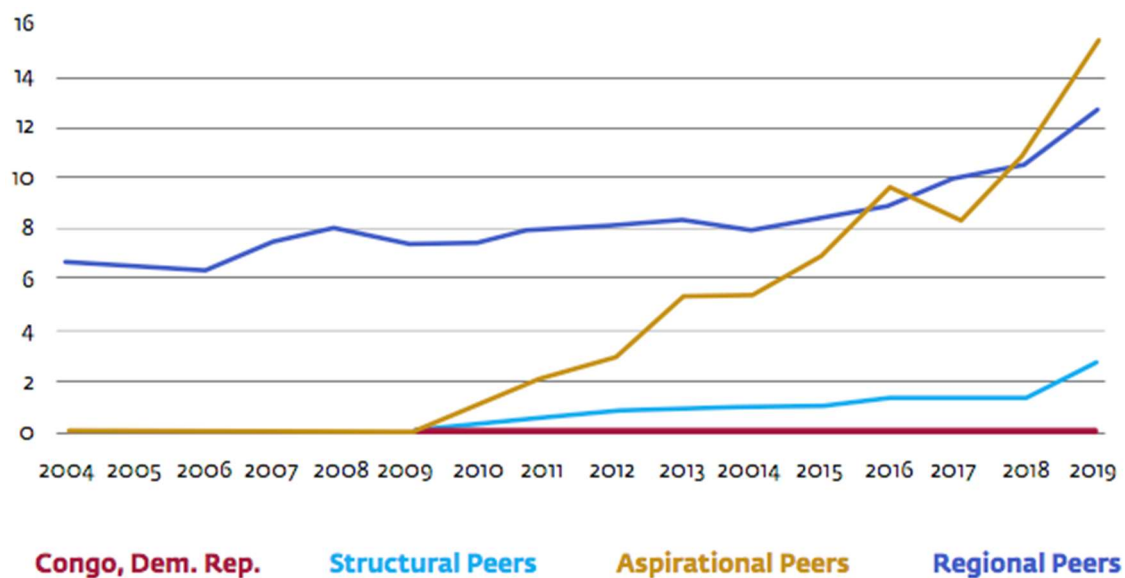
⁵³⁴ According to the interview for this study with Vodacom.

⁵³⁵ This was also a strand of work in the Essor project, though this is not covered here.

⁵³⁶ "A private credit bureau would provide lenders with products and services, such as credit reports, fraud alerts and credit scoring, which will support better credit management practices and will also allow lenders to share credit information, increase financial inclusion and facilitate mobility." Source: World Bank (2020).

⁵³⁷ Although according to World Bank (2020), there is a "centrale des risques" but that only provides "negative" information on borrowers who default on their loans. Unlike a credit bureau, it does not provide information from non-financial sector institutions, such as utilities and other billing companies, and merchants who sell on credit.

Figure 35: Private Credit Bureau coverage in DRC and selected other country groups⁵³⁸



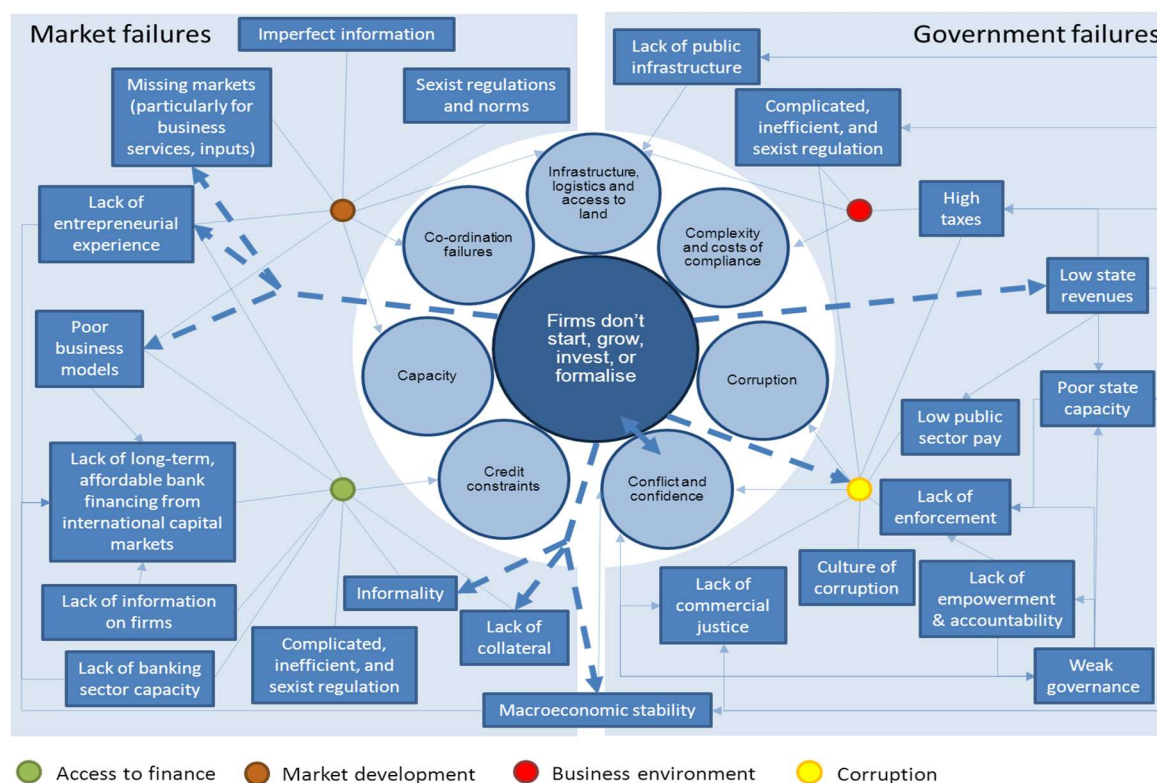
Source: World Bank (2022b) “Country private sector diagnostic”

⁵³⁸ World Bank (2022b) using WDI data. Structural peers in their analysis were Ethiopia, Madagascar, Mozambique, Niger, and Uganda. Aspirational peers were Côte d’Ivoire, Ghana, Tanzania, Uganda, and Zambia. Regional peers were all the other countries in the SSA region.

Annex G Other useful figures

This annex provides some other figures that are referenced in the main body of the report.

Figure 36: The ‘problematique’: Constraints to private sector development in DRC



Source: DFID (2013) PSD Programme Business Case

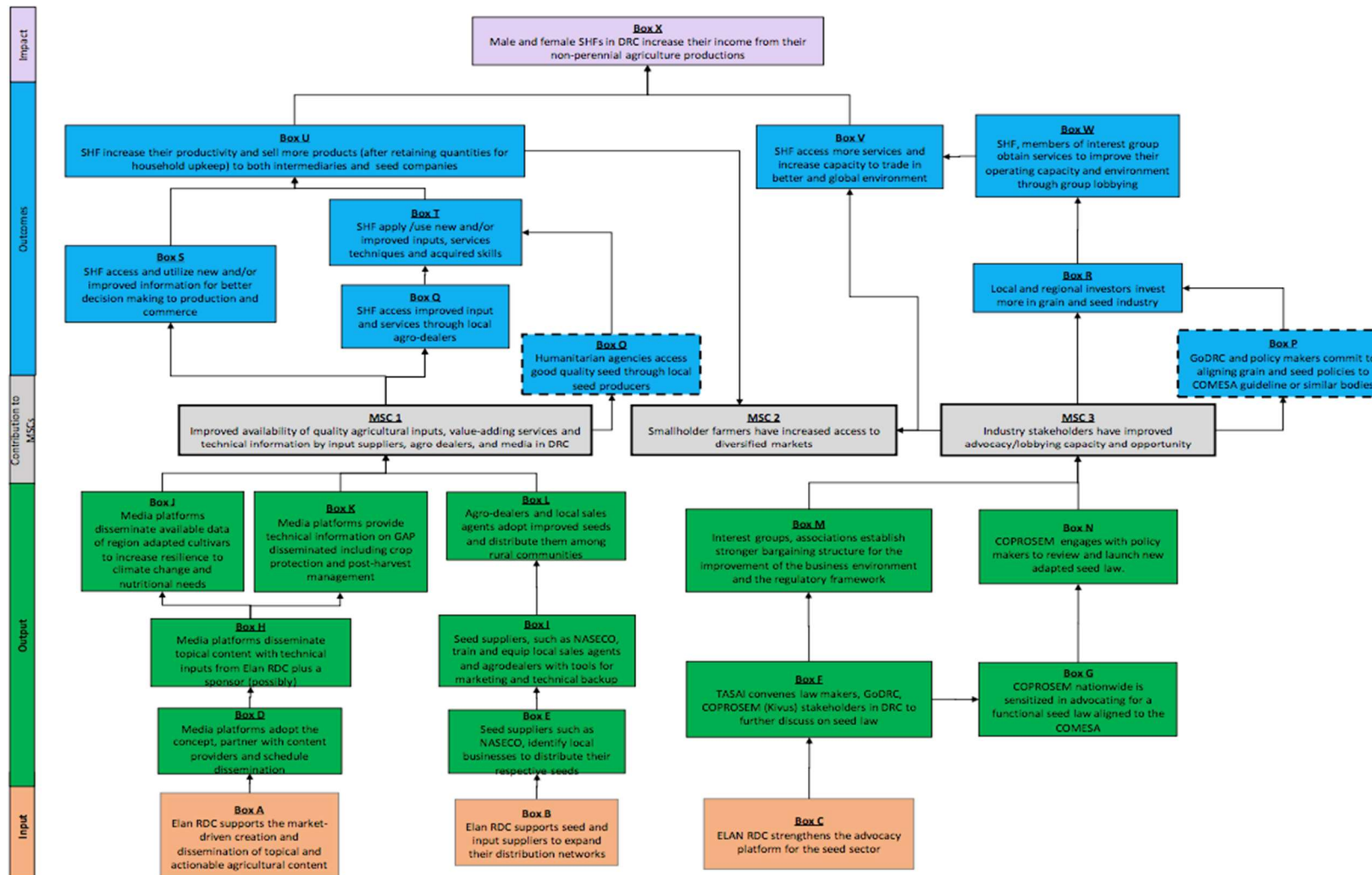
Table 38: Overall estimates of NAIC in Élan 1.0 and Élan 1.2 by sector (£ millions)⁵³⁹

Sector	Élan 1.0	Élan 1.2	Total	Share of NAIC
Access to Finance	8.90	-	8.90	18.9%
Agri-Perennials	6.06	-	6.06	12.9%
Transport	2.81	-	2.81	6.0%
Agri Non-perennials	12.88	5.45	18.32	38.9%
Renewable Energy	9.17	1.52	10.69	22.7%
Cross-border trade	-	0.34	0.34	0.7%
Totals	41.33	6.19	47.12	

Source: Élan (2019d) and Élan (2021g).

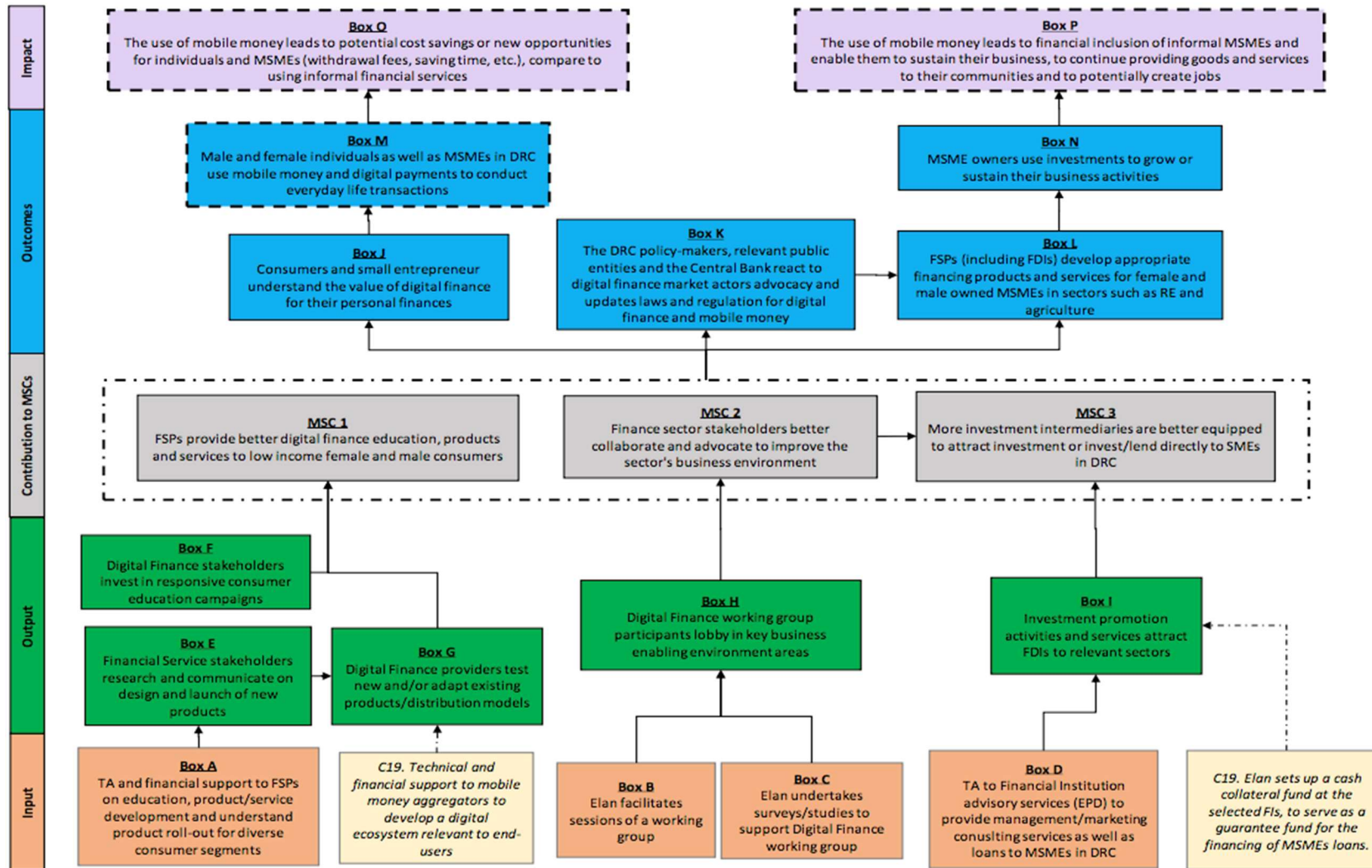
⁵³⁹ Élan 1.0 estimates from Élan (2019d) PWIG – dated 26th June 2019 (the last available PWIG we have from Élan 1.0). For Élan 1.2, cumulative results used for 2021 from Élan (2021g). The latter sheet included some additional NAIC for some Élan 1.0 interventions, which are added to the Élan 1.0 totals in the table.

Figure 37: AgNP Results Chain for Élan 1.2, revised version in November 2020



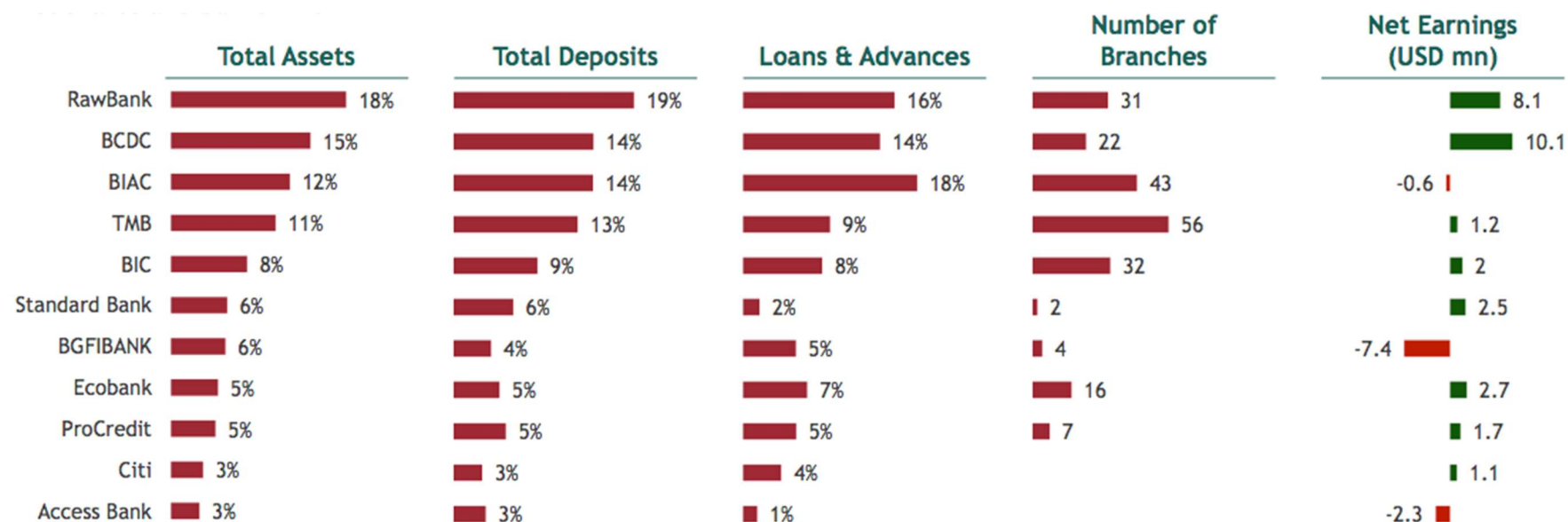
Source: Élan (2021n) 2020 Annual Report. 2021 Business Plan

Figure 38: A2F Results Chain for Élan 1.2, revised version in November 2020



Source: Élan (2021n) 2020 Annual Report. 2021 Business Plan

Figure 39: Market overview of DRC banking market in 2012 (top 11 banks by assets)



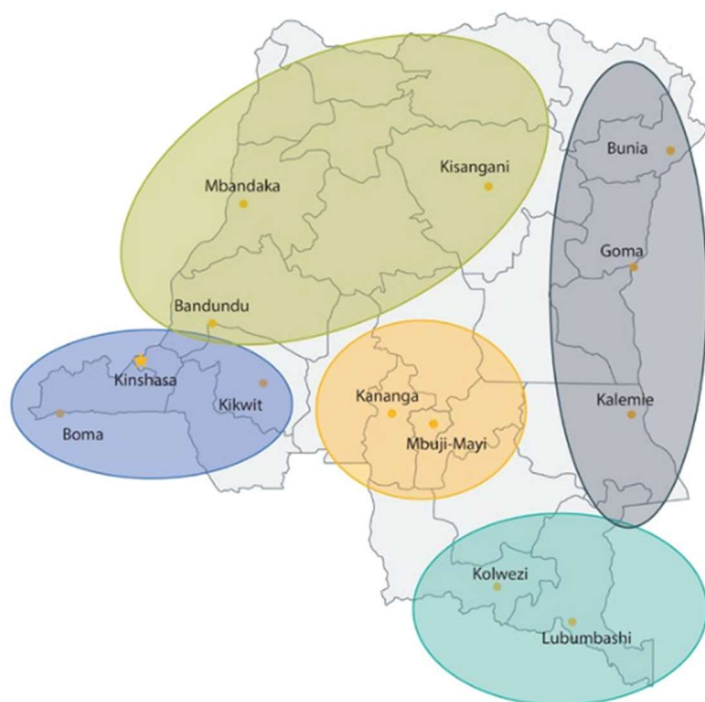
Source: Élan & ALTAI Consulting (2014), drawing on Ecobank Research from 2012.

Figure 40: New and old provinces in the DRC (pre-2005, post-2005)



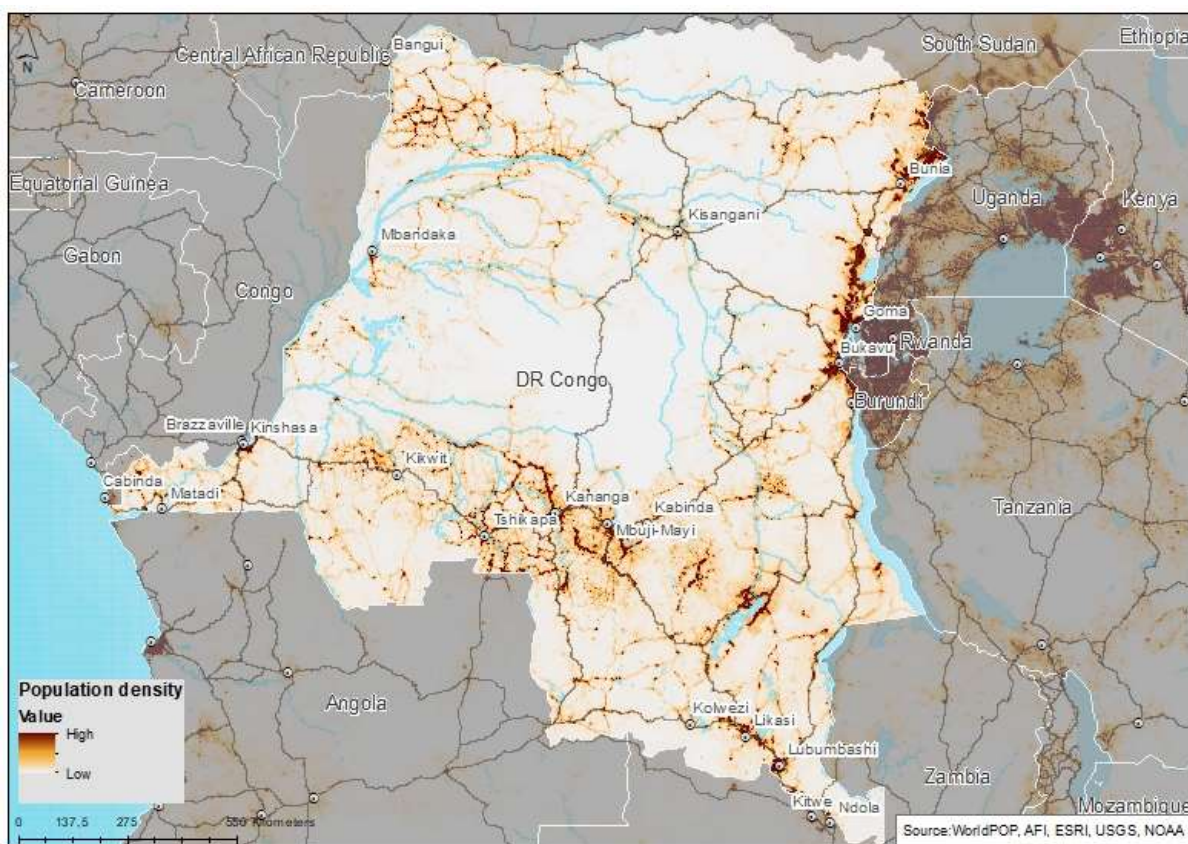
Source: ResearchGate and Wikipedia

Figure 41: The five economic poles of the DRC



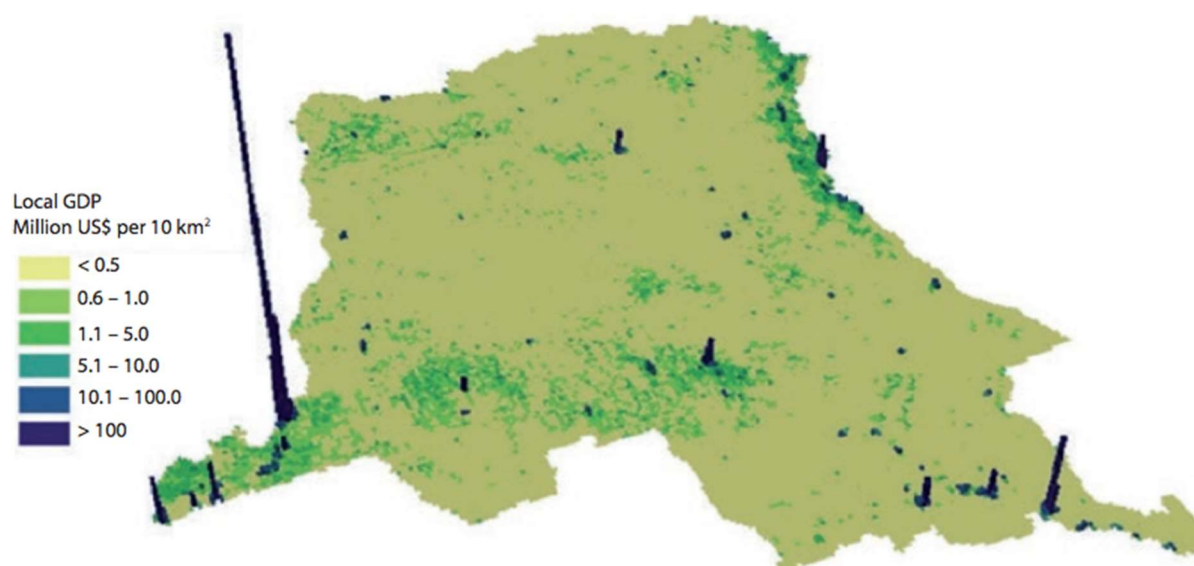
Source: World Bank (2018) “Democratic Republic of Congo Urbanization Review”

Figure 42: Population density in the DRC



Source: ISS (2023) DRC country page

Figure 43: Location of economic activity in the DRC



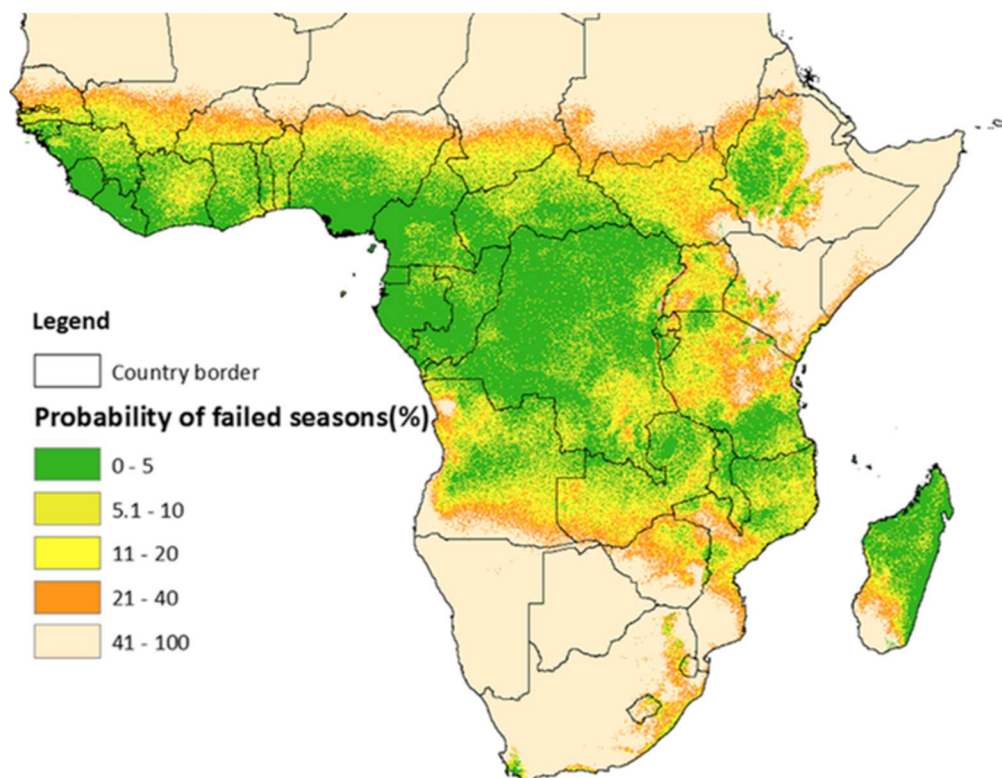
Source: Damania et al. (2016) "Transport, Economic Growth, and Deforestation in the DRC"

Table 39: Proportion of crop area for maize covered under different seed classes, across 13 sampled countries during the 2013/14 main season

Region/country	Modern cultivars			Local cultivars		
	Hybrids	OPVs	Total	Named	Unidentified	Total
EA avg.	52.2	29.4	81.6	10.1	8.3	18.4
Ethiopia	66.0	11.3	77.3	11.1	11.7	22.7
Kenya	65.0	17.1	82.1	17.5	0.5	17.9
Tanzania	40.2	31.7	71.8	9.4	18.7	28.2
Uganda	37.6	57.6	95.2	2.4	2.5	4.8
SA avg.	50.3	4.7	55.0	38.6	6.4	45.0
Angola	4.1	1.5	5.6	89.5	4.8	94.4
Malawi	65.7	12.8	78.5	14.6	6.9	21.5
Mozambique	24.9	5.1	30.0	70.0	0.0	70.0
Zambia	61.5	2.3	63.8	18.5	17.7	36.2
Zimbabwe	95.4	2.0	97.5	0.2	2.4	2.5
WA avg.	3.7	32.3	36.0	20.6	43.5	64.1
Benin	0.0	12.8	12.8	28.6	58.7	87.2
Ghana	3.1	50.3	53.4	25.5	21.1	46.6
Mali	0.0	51.2	51.2	13.1	35.7	48.8
Nigeria	11.6	14.7	26.3	15.4	58.4	73.7
SSA avg.	36.5	20.8	57.3	24.3	18.4	42.7

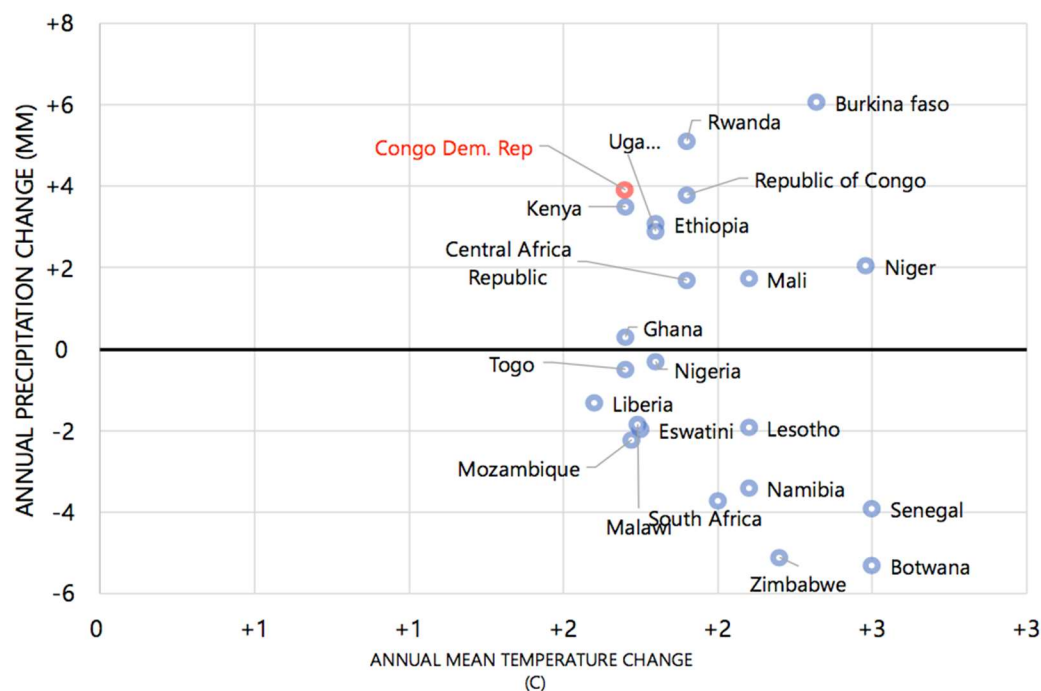
Source: Abate et al. (2017)

Figure 44: Risk of seasons of drought in SSA (probability of failed season, %)



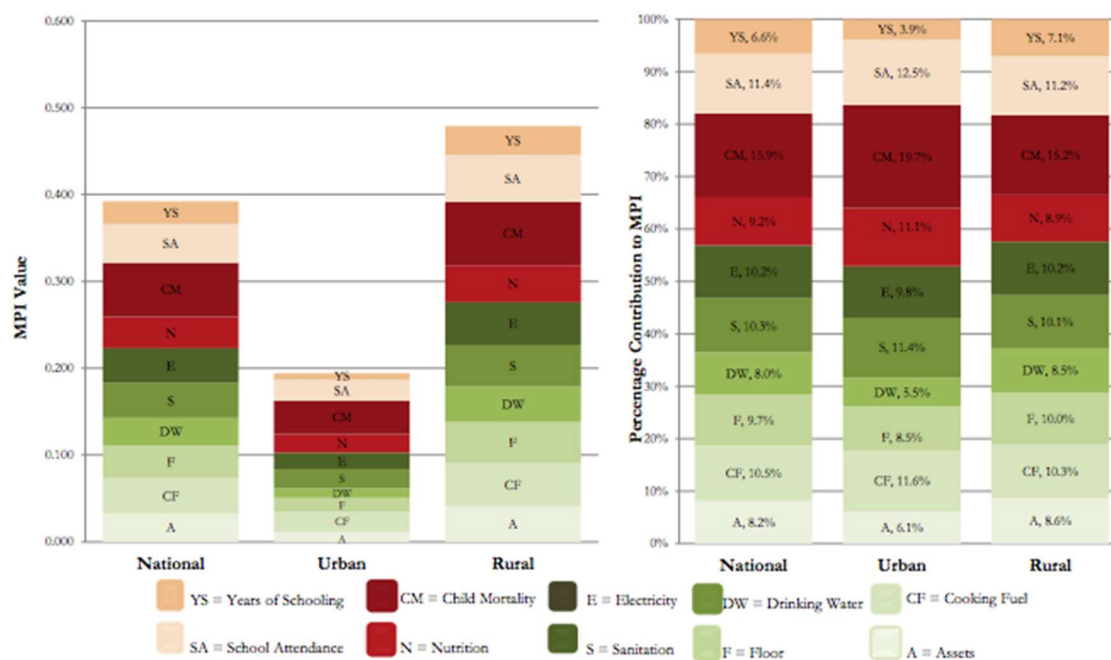
Source: Shiferaw et al. (2014) “Managing vulnerability to drought and enhancing livelihood resilience in SSA”

Figure 45: Projected Temperature and Precipitation Changes in DRC and other SSA Countries for 2030-50 (Reference Period 1986-2005)



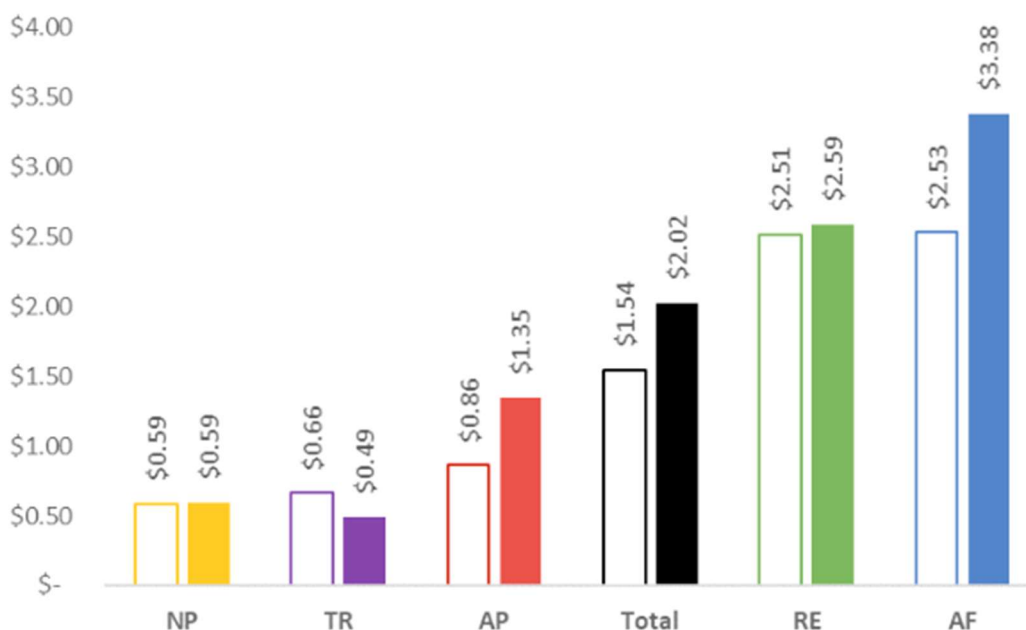
Source: IMF (2022b) “Democratic Republic of the Congo: Selected Issues”

Figure 46: Contribution of indicators to the multidimensional poverty index (MPI) for national level, urban areas and rural areas



Source: OPHI (2013) “DR Congo OPHI Country Briefing 2013”

Figure 47: Average daily revenue of Élan beneficiaries by sector, in USD purchasing power parity (PPP) based on 2018 survey data



Source: Élan (2018g) “Poverty Profiling among ELAN beneficiaries”.

Note 1: estimated income methodology in outlined bars and the declared one in full. Note 2: NP is the acronym for the Agriculture non-Perennials (AgNP) sector, AP is the acronym for the Agriculture Perennials (AgP) sector, TR for the river transport sector (RT), and AF for the access to finance (A2F) sector.

Table 40: Estimated poverty headcounts by intervention in Élan's 2018 survey

		POVERTY HEADCOUNT							
		est. daily income			declared daily income				
		<1.9 (ppp)	<3.2 (ppp)	<1.9 (nom)	<1.9 (ppp)	<3.2 (ppp)	<2 (nom)		
interventions	O	AF04	52%	74%	74%	NA			
	S	AF07	54%	78%	79%	34%	59%	62%	
	O	AF08	71%	93%	93%	NA			
	E	AP06	87%	100%	100%	NA			
	E	AP07	96%	100%	100%	NA			
	E	AP11	95%	100%	100%	78%	95%	96%	
	E	AP14	82%	93%	93%	75%	88%	89%	
	E	AP16	100%	100%	100%	93%	97%	98%	
	S	NP01	94%	100%	100%	89%	98%	99%	
	S	NP02	100%	100%	100%	92%	100%	100%	
	S	NP05	99%	100%	100%	98%	99%	99%	
	S	NP08	94%	100%	100%	62%	86%	91%	
	S	NP13	97%	100%	100%	80%	93%	94%	
	N	NP23	97%	99%	99%	NA			
	E	NP24	100%	100%	100%	81%	95%	97%	
	O	NP28	72%	100%	100%	NA			
	S	NP29	91%	98%	99%	72%	91%	92%	
	E	NP32	97%	100%	100%	99%	100%	100%	
	N	RE02	90%	100%	100%	NA			
	N	RE03	83%	97%	98%	68%	80%	83%	
	S	RE06	70%	93%	93%	73%	89%	89%	
	S	RE07	56%	89%	89%	42%	74%	77%	
	O	RE09	19%	49%	50%	NA			
	O	RE10	57%	79%	83%	38%	67%	68%	
	O	RE13	21%	54%	54%	NA			
	O	RE14	16%	51%	51%	NA			
	N	TR01	97%	100%	100%	NA			
	N	TR03	99%	100%	100%	NA			
				<1.9 (ppp)	<3.2 (ppp)	<1.9 (nom)	<1.9 (ppp)	<3.2 (ppp)	<2 (nom)
	sectors		AF	52%	75%	75%	34%	59%	62%
			AP	90%	97%	97%	78%	91%	93%
			NP	98%	100%	100%	96%	99%	99%
		RE	46%	75%	76%	46%	74%	76%	
		TR	98%	100%	100%	98%	99%	99%	
total			74%	88%	88%	66%	81%	83%	

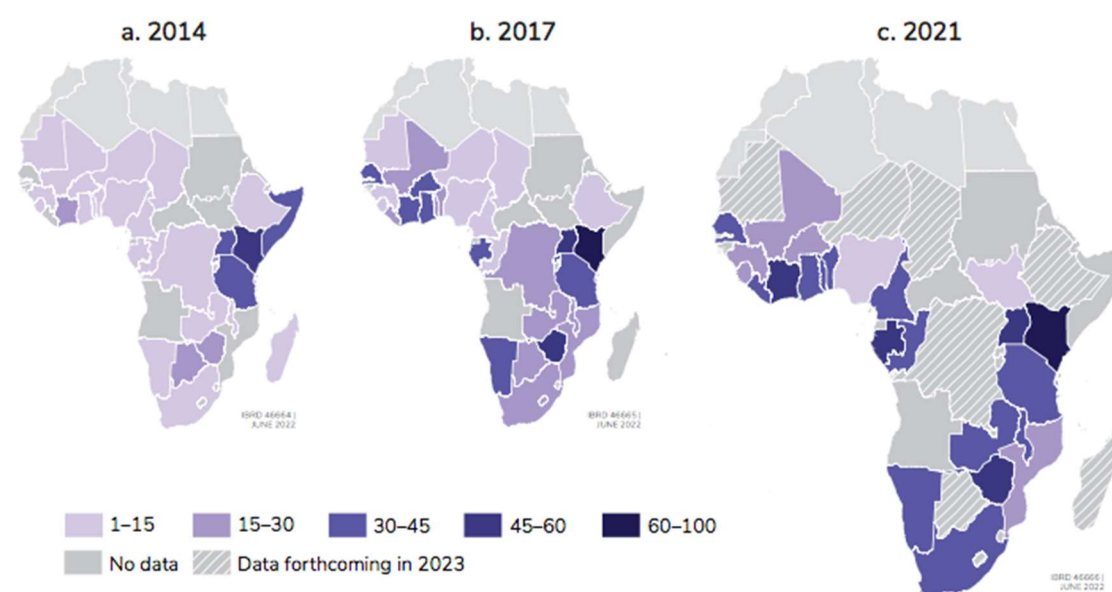
Source: Élan (2018g) "Poverty Profiling among ELAN beneficiaries".

Table 41: Number of registered mobile money accounts per 1,000 adults, DRC and selected countries: 2012-2021

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Botswana	269	435	609	781	918	1,113	1,347	1,683	1,745	2,045
Cameroon	53	157	288	294	287	462	432	671	1,022	
DRC		354	247	287	327	504	465	452	428	
Congo, Rep. of	28	127	193	268	516	789	820	926	1,075	1,020
Ghana	230	261	415	739	1,083	1,281	1,703	1,654	1,910	2,335
Kenya	847	985	951	1,157	1,242	1,287	1,592	1,922	2,071	2,069
Malawi	22	85			375	465	587	582	692	
Mozambique		187	226	274	383	420	489	533	621	635
Namibia	16	17	135	605	729	999	1,373	1,366	1,340	2,123
Rwanda	230	393	974	1,118	1,378	1,247	1,479	2,056	1,970	1,875
Uganda	507	779	991	1,068	1,049	1,064	1,097	1,166	1,268	1,301
Zambia	177	303	562	554	692	1,223	1,400	1,369	1,805	1,739
Zimbabwe	109	315	761	1,034	1,069	1,261	1,562	1,736	1,498	1,367
Average	226	338	529	681	773	932	1,104	1,240	1,342	1,651

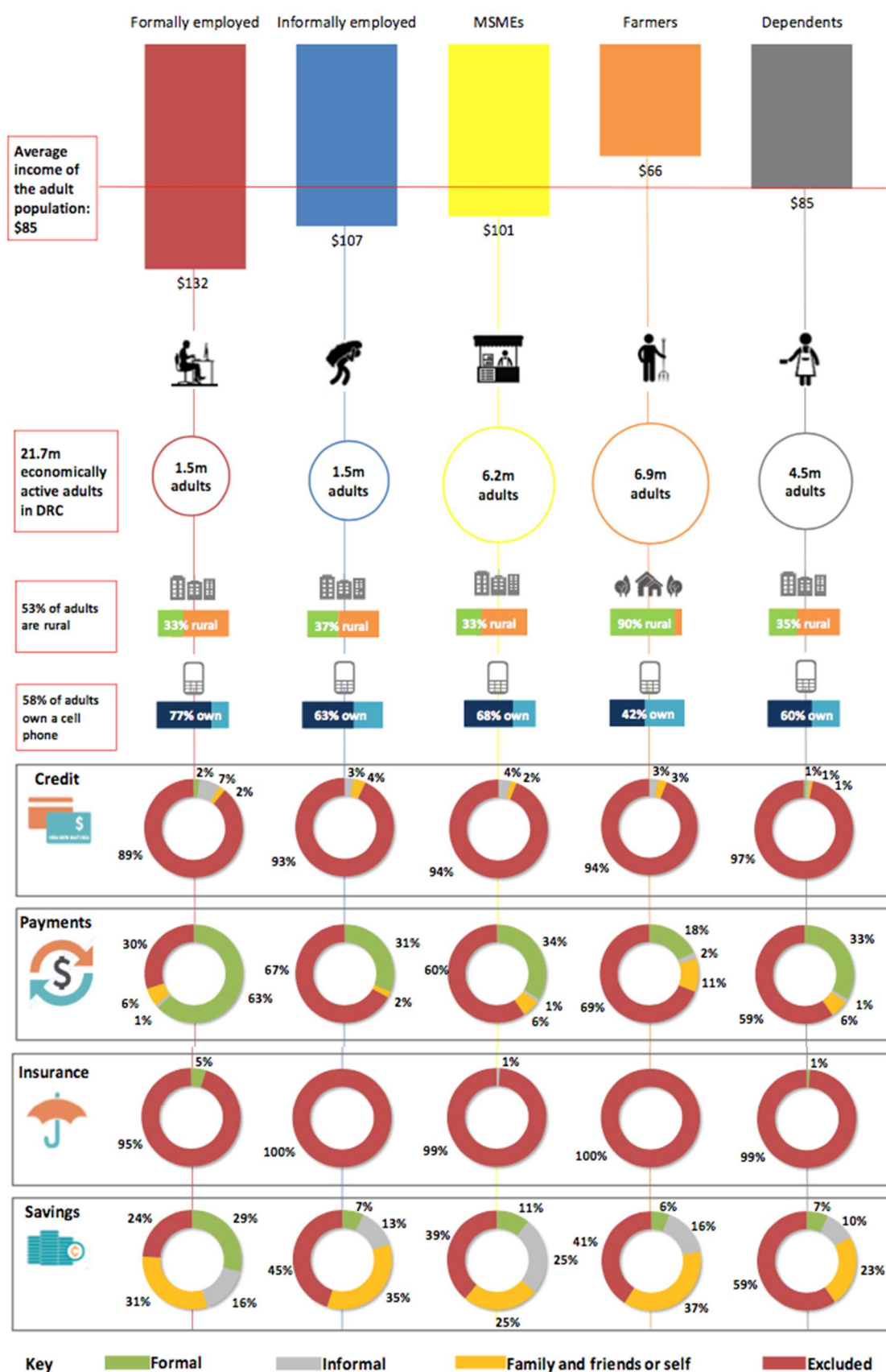
Source: IMF (2023) Financial Access Survey data

Figure 48: Adults with a mobile money account (percentage): 2014-2021



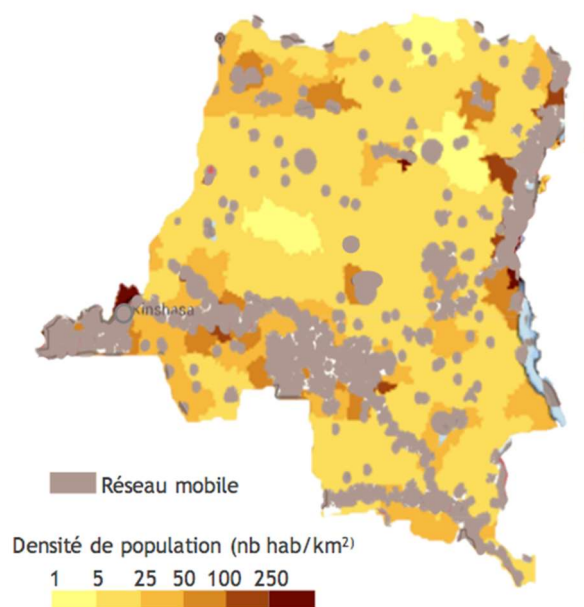
Source: Demirgüç-Kunt et al. (2022) The Global Findex Database 2021

Figure 49: Target markets segmented for financial inclusion



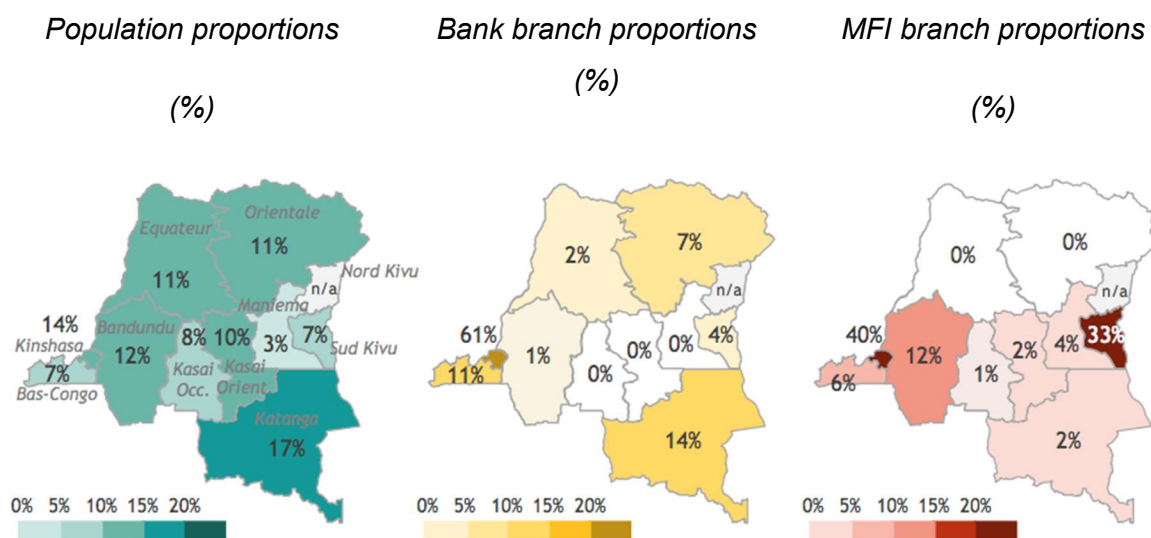
Source: CENFRI et al. (2016a), reporting FinScope 2014 data

Figure 50: Mobile network coverage estimates in the DRC (2016)



Source: Altai Consulting (2016) "Opportunités Offertes par le Mobile Money". Réseau mobile = network coverage.

Figure 51: Density of financial services by province, compared to population (2014)



Source: Altai Consulting (2016) "Opportunités Offertes par le Mobile Money", based on BCC data for 2014.