

# A,B, SEEDS: THE FUNDAMENTALS OF SEED SECTOR DEVELOPMENT IN THE DRC

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MAY 2021 PUBLICATION



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International

## Contents

Executive Summary .....	0
Introduction.....	1
The Seed Sector in the DRC.....	1
Evidence-Based Policy Discussions.....	3
Conclusion .....	7
Bibliography.....	7

## Executive Summary

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Private seed companies and ÉLAN RDC have demonstrated that the commercial sale of seeds to smallholder farmers is viable. Since 2015, private seed companies and ÉLAN RDC have sold 1,823mt of seed direct to smallholder farmers at prices between \$1.20 and \$4.00 per kilogramme. Humanitarian organizations do not adequately account for this reality and, as a consequence, humanitarian initiatives to provide seed to smallholder farmers often detract from the development of a sustainable seed industry. One example of this is the large volume of fake seed traded in the DRC as a result of poor procurement practices. The average price offered by NGOs in the DRC for seed in 2016 ranged from \$0.60 to \$0.90 per kilogramme of OPV maize seed, compared to market prices of \$1.50 per kilogramme.

To promote better coordination and more market-based solutions, ÉLAN RDC commissioned a study on the status of the DRC seed sector; this generated quantitative data that is comprehensible to both the private sector and NGOs. The study was undertaken by The African Seed Access Index (TASAI), and outlines critical constraints and proposes a series of actions. This common framework generated for the first time a shared understanding of the challenges and opportunities of the DRC seed sector among private sector and NGO stakeholders. Several notable successes have been registered:

- Strengthening of seed companies in the DRC;
- Strengthening of provincial seed councils;
- Strengthening of national and provincial breeding programmes;
- Development of urban and rural agro-dealer networks; and
- Streamlining of the variety release process.

Most importantly, the first major steps have been taken to improve coordination between humanitarians and the private sector. In spite of these promising results, more work is required to further improve coordination between the private sector and NGOs. NGOs and donors are encouraged to pursue greater collaboration with the private sector in the development of market-based solutions to development challenges.

## Introduction

Working in a development context, the use of language translators is an accepted norm of doing business. Yet language is not always the main barrier to understanding. Different actors, for example the private sector and the humanitarian sector, may work in similar areas but have vastly different understandings of constraints and opportunities. In the Democratic Republic of Congo (DRC), the private and humanitarian sectors typically work entirely independently, with few points of communication or coordination. For ÉLAN RDC, a DFID-funded project working to develop the private sector, this separation had severe negative consequences for the seed sector which it was trying to support. In the absence of a clear policy framework, the lack of coordination results in two sectors working at odds with each other yet striving for a similar goal: improving access to quality seeds for smallholder farmers. A common framework that promotes coordination between the private sector and humanitarian actors in the DRC to facilitate smallholder farmer access to seed is therefore critical.

This paper explores the experience of ÉLAN RDC's efforts to facilitate the emergence of an effective seed industry in the DRC. It explores the rationale behind work to improve the enabling environment and the data-oriented strategy adopted in order to allow different sectors to constructively work towards a common goal: poverty reduction for smallholder farmers through increased agricultural productivity.

## The Seed Sector in the DRC

### Farmers and the seed sector

The DRC is principally an agrarian society, with over 56 million people directly dependent on the agricultural sector for their livelihoods. In spite of this, the agricultural industry in the DRC is nascent and struggles to provide critical goods, services and employment opportunities. Prior to the start of the ÉLAN RDC project, there were no commercial seed companies catering to smallholder farmers in the country. Seed was either saved, obtained via community-based seed production or donated by humanitarian organizations. In most cases seed quality was poor and access was contingent on donor funding. A number of commercial seed companies did exist in the country, but all were geared to cater to the few existing industrial farms and demand from humanitarian actors<sup>1</sup>.

The lack of commercially produced and sold seeds is a principal determinant of low farmer productivity and corresponding poverty incidence for this important segment of the population<sup>2</sup>.

### Policy Framework and Coordination

The lack of commercial seed companies supplying smallholder farmers derives in part from the absence of a coherent regulatory and legislative framework to guide investment. The DRC has not had a seed law for over 30 years and the resultant uncertainty tempers private sector investment. The Government of the DRC struggles to mobilise and allocate resources to create a supportive enabling environment. This has prompted humanitarian actors to allocate substantial resources to alleviate the symptoms of the underdeveloped seed sector.

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<sup>1</sup> In 2016, actors in the Food Security Cluster purchased 920mt of seed.

<sup>2</sup> In Kenya, smallholder farmers produce two metric tonnes of maize per hectare while in the DRC farmers obtain on average 0.77mt per hectare (FAOSTATS).

The principal modalities of aid in relation to smallholder seed requirements are either free distribution or village-based seed production systems to promote self-sufficiency. The interventions are well intentioned but serve to suppress the development of a sustainable seed industry. The Government of the DRC is not sufficiently engaged to improve coordination and promote market-led solutions. The resultant Catch-22 sees the humanitarians invest in free seed distribution and the promotion of self-sufficiency systems due to the lack of private sector investment while these lead to market distortions which in turn prompt the private sector to redirect assets to other, more profitable markets. The development community has well-developed and functional coordination mechanisms, including the Food Security Cluster, which is coordinated by the Office for the Coordination of Humanitarian Affairs (OCHA). The members of the Food Security Cluster, however, do not sufficiently engage or coordinate with the private sector. The consensus amongst actors in the Food Security Cluster is that the low purchasing power of smallholder farmers, combined with a marginal private sector and security considerations, creates a situation where the commercial sale of seed to smallholder farmers is not feasible. The Food Security Cluster has not traditionally consulted with private sector actors who have a different perspective on the seed sector and would present evidence that challenges some of the assumptions of the Food Security Cluster. As a consequence, seed is donated and the development of a seed industry is suppressed. The impact of this is clear in North and South Kivu, where most Food Security Cluster projects are operational – see box 1 below.

### Box 1. You get what you pay for: Free seeds and poor quality

In 2016, actors of the Food Security Cluster distributed an estimated 920mt of seed to smallholder farmer communities in Eastern DRC.

	Maize	Rice	Beans	Soya	Total
<b>Sales to Relief Agencies (MT)</b>	406.4	172.3	239.8	101.3	919.8

Further data indicated that a significant proportion of the total volume of seed distributed by the humanitarian actors was of low quality. The low quality derives in part from the uncompetitive prices offered by members of the food security cluster for seed. On average, these actors offered between \$0.60 and \$0.90 per kilogramme of seed, compared to an average market price for seed of \$1.50 (TASAI, 2017).

Region	OPV maize (\$ per kg)	Hybrid Maize (\$ per kg)
<b>East – Commercial Rate</b>	1.50	1.70
<b>East – Humanitarian Rate</b>	0.90	no data
<b>South</b>	2.50	4.00
<b>North</b>	0.85	n.a.

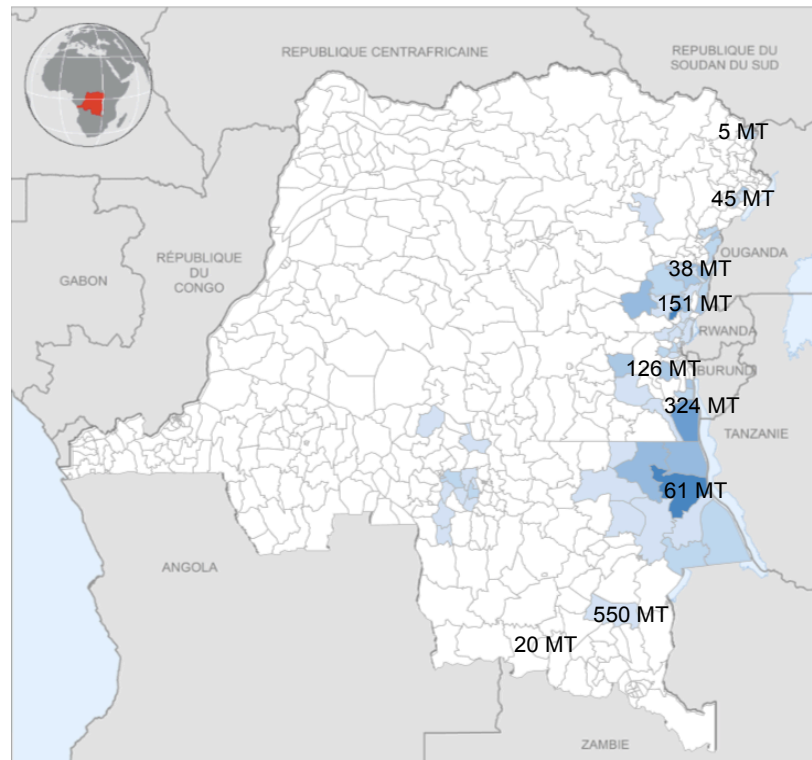
This below-market rate results in the procurement of low quality seed and in some instances, grain that has fraudulently been certified as seed by the National Seed Inspection Agency (SENASEM)<sup>1</sup>. In this manner, free distribution of low-quality seed significantly undermines the demand creation efforts of seed companies.

The lack of coordination amongst actors also leads to ad-hoc, counterproductive capacity building in the seed sector. For example, donor-funded agricultural research institutions do not share the results of scientific trials that have determined which seed varieties yield the best results in different areas of the DRC with the private sector. As a consequence, seed companies continue to invest scarce resources in further study while the requisite data already exists, stored on hard disks and shelves in field offices across the country. Another example, reported in the eastern DRC, relates to the over-distribution of seed. Development organisations on occasion distribute 30 kilogrammes of

maize seed to internally displaced people, sufficient for cultivation on over one hectare of land. This is well beyond the needs of many smallholder farmers in the densely populated region. The average surface area cultivated varies significantly in North and South Kivu provinces (between 0.06 and 0.86 hectares for respondents of ÉLAN RDC poverty profiling assessments) but rarely exceeds one hectare. This results in recipients of donated seed selling the excess into the local market, which undercuts sales by private seed companies.

## Evidence-Based Policy Discussions

ÉLAN RDC pushed for evidence-based policy discussions involving the Government of the DRC, the development community and the private sector to complement successful work on private sector seed sales direct to smallholder farmers that challenged basic and long-held assumptions on the viability of market-led solutions to smallholder farmer access to seeds. Over the course of four years, ÉLAN RDC and private seed companies proved that seed sales direct to smallholder farmers were feasible in the DRC and that market-led solutions had significant secondary benefits in terms of development objectives, including smallholder access to agricultural extension services<sup>3</sup>. Policies from the Government of the DRC and the humanitarian aid sector have not to date reflected these findings.



**Figure 1: Seed Sales, in metric tonnes of grain sold, versus Humanitarian Projects in 2017-2018 (the darker the blue the more Humanitarian Projects in the region)**

## Early Struggles: Coordination

Early efforts to improve coordination in the seed sector focused initially on strengthening industry associations, with the secondary intent of broadening links with humanitarian actors. Unfortunately, these efforts to strengthen seed producer associations were ineffective because the seed companies

<sup>3</sup> Since 2014, ÉLAN RDC and private sector partners invested in the development of a private sector-led and sustainable seed industry. The development of this was contingent on overcoming the market inertia that defined the sector. To mitigate investor risks, both real and perceived, ÉLAN RDC supported the private sector in capital-intensive demand creation for seed. This tested assumptions about market demand and the perceived inability of smallholder farmers to pay for seed.

The technical and financial support from ÉLAN RDC in demand creation has had a significant positive impact on the commercial sale of seed to smallholder farmers. ÉLAN RDC private sector partners sold a total of 1,828mt valued at \$4.57 million direct to first-time smallholder buyers from 2015 to 2018. Sales have grown exponentially, from 120mt in 2015 to 950mt in 2017 (see figure 2), indicating the viability of commercial production and sale of seed to smallholder farmers in the DRC. In addition, private seed companies installed 13,730 demonstration plots and trained an estimated 68,650 smallholder farmers on good agricultural practices in 2017 and 2018 alone.

were unable to overcome their mutual distrust and coalesce around a common set of priorities. This was in part the result of a dearth of data on the state of development of the DRC's seed sector. Whilst everyone agreed that the sector was in a poor state, no one could agree on what the main constraints were and the severity of each. In addition, there was no actor positioned to allay the scepticism, distrust and lack of comprehension that had hitherto defined interactions between stakeholders from the various sectors.

Data was required to show clearly the opportunity cost of the lack of coordination and to inform clear common objectives to build a seed industry in the DRC. In addition, an impartial and authoritative actor was needed to drive coordination and seed industry development.

## From Anecdotal to Quantifiable: Regional Mediator Drives Dialogue

### Box 2. TASAI Indicators

1. Number of active breeders
2. Number of varieties released in the last 3 years
3. Availability of foundation seed
4. Average age of varieties sold
5. Percentage of varieties sold with climate-smart features
6. Number of active crop seed companies
7. Time it takes to import seed
8. Market share of top 4 companies
9. Length of variety release process
10. Status of seed policy framework
11. Quality of regulatory system
12. Adequacy of seed inspectors
13. Efforts to stamp out fake seed
14. Availability of extension services for smallholder farmers
15. Quality of national seed trade association
16. Concentration of rural agro-dealer network
17. Availability of seed in small packages
18. Seed-to-grain price ratio at planting time

Without strong local actors to drive coordination and development of the seed industry, ÉLAN RDC looked for regional actors that might be able to fill the gap. The industry needed an actor with a strong background in seed sector assessments that would enjoy legitimacy among stakeholders by virtue of its neutrality and expertise.

The African Seed Access Index (TASAI) is a collaborative initiative between Market Matters, Inc. and Cornell University. TASAI monitors 20 indicators that are essential to seed industry development at a national level (see Box 2). The index publishes an annual scorecard on the vibrancy of the formal seed sector in many African countries and, as such, is a useful tool for government policy makers, development agencies, seed companies and farmers (TASAI, 2018)<sup>4</sup>.

TASAI has previously developed scorecards for, and informed policy in, twelve other African countries. This data constitutes a clear benchmark against which the DRC

seed sector can be measured and quantified. The data, coupled with the extensive experience of the TASAI team and their extended network, positions the index to coordinate seed sector stakeholders and influence the development of the industry.

ÉLAN RDC commissioned TASAI to carry out a quantitative assessment of the seed sector. The study measured the level of development of the seed sector against 18 of the 20 TASAI indicators.

Following the evaluation, TASAI and ÉLAN RDC launched a second partnership that focused on the development and promotion of a seed sector strategy. The work built on TASAI's research and aimed

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<sup>4</sup> <https://tasai.org/>

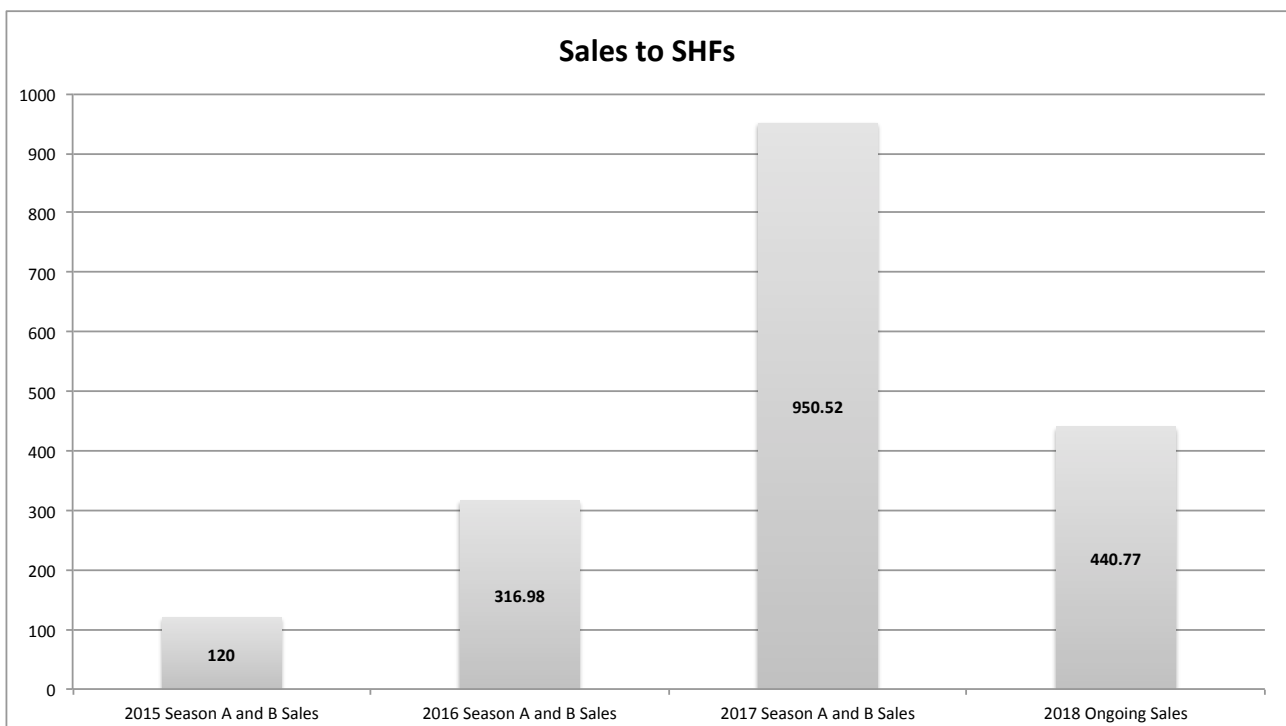
to develop and validate a framework that would guide sector stakeholder activities. It took six months of sustained effort from TASAI and ÉLAN RDC to assemble stakeholders and build momentum for framework dialogue. This work yielded a 13-point strategy document that has been validated with private, public and humanitarian stakeholders at workshops in Kinshasa, Lubumbashi, Goma and Bukavu.

Work on implementation of the seed strategy has already started. Both TASAI and ÉLAN RDC have used the strategy document as a basis on which to build partnerships and pursue initiatives that support the development of a sustainable seed industry.

## Successes to Date

Based on the strategy developed by TASAI, ÉLAN RDC has facilitated forward moment on six of the thirteen strategic points.

**1. Strengthen private seed companies in the DRC.** ÉLAN RDC has provided technical and financial support to seed companies to increase demand for seed. This has had a significant positive impact on the commercial sale of seed to smallholder farmers. As Figure 2 below illustrates, sales to smallholder farmers grew exponentially year on year<sup>5</sup>, indicating the viability of commercial seed production systems in the DRC. Studies by ÉLAN RDC have indicated that price is not the principal factor in smallholder farmer decisions to purchase seed. Seed is a productive asset so farmers are preoccupied by the quality and accessibility of the product. Consumer education-based marketing has been very effective and has yielded impressive sales of both hybrid and OPV seeds to smallholder farmers at prices ranging from \$1.50 to \$4.00/kg in the East and South of the DRC.



**Figure 2: Sales to Smallholder Farmers by Private Seed Companies (in metric tonnes)**

<sup>5</sup> 2018 sales figures are for one region (East) and one season (B). Cumulative sales figures for all regions and seasons in 2018 will be available at the end of November.

Seed companies have expressed clear intent to develop and consolidate marketing strategies tailored to smallholder farmers and grow sales to this market segment. In addition, the World Bank has demonstrated an interest in replicating the ÉLAN RDC consumer education-based marketing model.

**2. Strengthen the Provincial Seed Councils.** TASAI has encouraged the reinvigoration of the provincial seed councils (COPROSEM). The councils will play an important role in the development of systemised communication and coordination between the development community and the private sector. The councils will further strengthen the voice of the private sector in policy discussions with the Government of the DRC. Work will culminate in the formalization of the North Kivu, South Kivu and Haut Katanga COPROSEM bodies by governmental decree in Q4 of 2018.

**3. Strengthen National and Provincial Breeding Programmes.** TASAI has worked to create networks linking the National Institute of Agronomic Study and Research (INERA), private seed companies and international suppliers of foundation seed. This builds on a previous intervention piloted by ÉLAN RDC that culminated in the liberalization of foundation seed multiplication. The networks will introduce improved foundation seed into the DRC and thereby improve the quality of seed available to smallholder farmers.

**4. Organize the Humanitarian Relief Seed Market.** The COPROSEM bodies have taken the first steps to improve coordination between private seed companies and the members of the Food Security Cluster. Prior to the establishment of COPROSEM, interactions between the Food Security Cluster members and seed companies were ad-hoc and transactional. The interactions are becoming increasingly collaborative and structured in nature but much work remains to be done. The short-term objective of improved coordination between the private sector and humanitarian actors is to improve the quality of seed procured for distribution, but ultimately the principal objective is to ensure that humanitarian actors do not distort seed markets but instead work in synergy with local and international seed companies to create a sustainable seed industry.

**5. Strengthen urban and rural agro-dealer networks and strengthen agricultural extension services for smallholder farmers.** The sales and distribution strategies developed, piloted and scaled in the DRC by private seed companies and ÉLAN RDC have stressed the development of agro-dealer networks in proximity to smallholder farmer communities to improve access to seed. The efforts have resulted in the identification and training of 392 agro-dealers throughout the East and South of the DRC. Training focused on good agricultural practices (GAP), basic business management and customer relationship skills. Moreover, private seed companies developed marketing strategies in partnership with ÉLAN RDC that emphasized consumer education to drive demand for seed from smallholder farmers. Seed companies have a vested interest in training smallholder farmers in GAP to ensure that this capital-intensive component of demand creation results in repeat customers who are able to maximize the returns on their use of improved seeds. The resultant private sector-led extension service model, whereby extension services are embedded in the sales and distribution strategies of seed companies, has to date resulted in over 54,300 smallholder farmers having received training on GAP.

**6. Streamline the Variety Release and Registration Process.** TASAI, the African Development Bank (ADB) and ÉLAN RDC are working together to support Congolese Government regulators, research institutions and the private sector to update the DRC seed catalogue. The catalogue had not been updated since 2012, in the mean time new varieties were released by Ministerial decree. In November 2018, TASAI started working with stakeholders to update the catalogue.



## Conclusion

Private seed companies, supported by ÉLAN RDC, have demonstrated that the commercial sale of seeds to smallholder farmers is viable. Humanitarian actors previously operated on the assumption that such commercial sale of seeds to smallholder farmers was impossible. The lack of a comprehensive policy framework means 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.

To improve coordination in the face of a policy void, TASAI and ÉLAN RDC conducted a study that rates the DRC seed sector against 18 indicators that are essential for seed sector development. The study established for the first time a quantitative and independent foundation upon which sector development strategies can be based. To further drive coordination among private, public and development stakeholders, TASAI developed a 13-point strategy to shape interventions in the sector. The strategy document was validated with stakeholders and has since led to several encouraging developments. These include consolidation of sales to smallholder farmers by private seed companies, formalization of the COPROSEM bodies in Goma and Lubumbashi, improving coordination between COPROSEM and humanitarian actors in Eastern DRC, development of rural agro-dealer networks, and strengthening of extension services for smallholder farmers.

In spite of the promising results, much work remains and success is contingent on further improvements in coordination among stakeholders. The hard-won gains are still fragile and need the continuing support of the Congolese government, humanitarian actors and the private sector. If the momentum of this collaboration can continue, a growing and effective seed sector in the DRC could significantly contribute to smallholder productivity growth and, in turn, poverty reduction.

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### About ÉLAN RDC

ÉLAN RDC is a UKAID market development project in the DRC implemented by Adam Smith International. The project aims to reduce poverty in the DRC by increasing the incomes of over one million poor smallholders, producers, entrepreneurs and consumers by the end of 2020.

Despite its extraordinary economic potential, the DRC remains desperately poor. Decades of conflict, instability and poor governance have taken their toll, and 85% of the population living in poverty lack the opportunities to lift themselves out of poverty.

We work to tackle the root causes of market failures and constraints. We work with the private sector to design and spread new economic models that increase income, create jobs and lower prices for the poorest. Our work places a particular focus on advancing the role of poor Congolese women and adolescent girls, some of the most marginalised in the world.

ÉLAN RDC works across four geographical areas and six sectors of the economy.

- Perennial agriculture
- Access to finance
- Renewable energy
- Non-perennial agriculture
- Mobile money
- Transport

We have more than 200 partnerships with private sector actors in the DRC, providing technical advice, leveraging funds and fostering networks to change business practices.

This report was made possible through a collaborative effort between our donor, government, NGO, and private sector partners. We want to thank Aditi Rajyalaxmi, Team Leader, Private Sector Development and Investment Team, FCDO, and the rest of the FCDO team for scoping, inputs, and review. Our appreciation, as well, to Lucine Le Moal, Team Leader, Élan RDC, for her leadership and guidance across Élan RDC's sectors. Lastly, our work would not be possible without support from our private sector, NGO, and government partners. Thank you.