NON-TRADITIONAL FINANCIAL SERVICES
FOR SMALLHOLDER FARMERS IN NEPAL

iDE Nepal
Kiran Bhawan, Sanepa, Lalitpur, Nepal

DECEMBER 2019
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Acronym

- ACDC: Aadhikhola Community Development Center
- ADS: Nepal Agricultural Development Strategy
- BC: Business Correspondent
- CBF: Community Business Facilitators
- CC: Collection Center
- CPA: Commercial Pocket Approach
- DCDO: Dhikurpokhari Community Development Organization
- iDE: International Development Enterprises
- IDRC: International Development Research Centre
- IPM: Integrated Pest Management
- MEDA: Mennonite Economic Development Associates
- MNBBL: Muktinath Bikas Bank
- MPC: Marketing and Planning Committee
- MUS: Multiple-Use Water Systems
- NGO: Non-Governmental Organizations
- NTFS: Non-Traditional Financial Service
Acknowledgments

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This work was carried out with the aid of a grant from the International Development Research Centre (IDRC), Ottawa, Canada. The views expressed herein do not necessarily represent those of MEDA, IDRC or their respective Board of Governors.

About iDE

iDE is a global organization that advances market-based approaches in agriculture; access to finance; and water, sanitation, and hygiene (WASH) to create income and livelihood opportunities for low-income rural households. iDE has increased the incomes and improved the livelihoods of more than 34 million people by developing inclusive market ecosystems that allow more people to participate in the economy, exercise choice through economic freedom, and achieve their aspirations. The organization has offices in 14 countries around the world which employ over 1,000 people — 96% of whom are local — to create real change that gives people the power to prosper on their own terms. iDE guarantees an average social return on investment of a minimum of $10 in annual income or livelihood savings for every dollar invested in iDE globally.

About MEDA

Since 1953, MEDA has been implementing effective market-driven programs globally. MEDA combines innovative private sector solutions with a commitment to the advancement and empowerment of excluded, low-income and disadvantaged communities (including women and youth) with core expertise in market systems and value chains, climate-smart agriculture, financial services, and investment. MEDA partners with local private, public and civil society actors, strengthening individuals, institutions, communities and ecosystems, and thereby contributing to sustainable and inclusive systemic change.

About INNOVATE

INNOVATE – Adoption of Agricultural Innovations through Non-Traditional Financial Services, is a three-year initiative implemented by MEDA and funded by the International Development Research Centre (IDRC). MEDA and its partners are assessing the potential of non-traditional finance to enable large scale adoption of agricultural innovations among women and men smallholder farmers in South Asia, South America and East Africa. The research and learnings will contribute to developing policy and programming recommendations.

Learn more: www.meda.org/innovate
BACKGROUND: The “Adoption of Agricultural Innovation through Non-Traditional Financial Services (NTFS)” Project in Nepal was a 20-month pilot that operated from April 1, 2018 to November 30, 2019. Mennonite Economic Development Associates (MEDA) Canada provided program oversight through INNOVATE, a three-year initiative funded by The International Research Development Center (IDRC). International Development Enterprises (iDE) led and managed implementation in Nepal in partnership with the following local implementing non-governmental organizations (NGOs): the Dhikurpokhari Community Development Organization (DCDO) of Kaski and the Aadhikhola Community Development Center (ACDC) of Syangja. The pilot program was implemented in Kaski and Syangja districts of Gandaki Province.

CONTEXT: In Nepal, smallholders are unable to invest in good commercial opportunities due to a lack of agricultural finance. Despite hazards such as erratic weather, drought, flooding, and pest problems—all made worse by climate change—smallholders cannot obtain crop insurance to mitigate agricultural risk.
iDE Nepal Pilot

This pilot project was designed to test the hypothesis that community-managed rural collection centers acting as “business correspondents” on behalf of a commercial bank will profitably increase smallholder access to rural finance and crop insurance and therefore increase uptake of innovative technologies to improve production. The project supported rural commercially oriented smallholders to access loans from Muktinath Bikas Bank (MNBBL) through Marketing and Planning Committees (MPCs). These committees are elected from farm production groups and manage local agricultural Collection Centers (CCs), developed by iDE in previous programs. Through this mechanism, loans were managed at the community level and made available at the appropriate time, and with technical support, to assist in the commercialization of vegetable production.

Support for improved agricultural production was also coordinated by CCs via community-based last-mile input supply agents trained in past iDE projects, known as Community Business Facilitators (CBFs). These CBFs provided local access to high-quality agricultural inputs (i.e. improved seed, micro irrigation, safe integrated pest management [IPM] technologies), training, and technical support. The CBFs provided access to crop inputs following CC-recommended crop calendars and received commissions from agricultural suppliers. The CBFs also helped promote and manage NTFS products made available through the project. iDE has developed this Commercial Pocket Approach (CPA) over the last 15 years, consistent with the Nepal Agricultural Development Strategy (ADS). A recent independent study supported by DFID BRACED found that the CPA was more cost effective than other approaches to help smallholders, and recommended scaling of CPA.
The overall goal of this pilot was to increase household income through investment in climate-smart agriculture technologies, with a focus on women and disadvantaged/marginalized groups, made possible through a bundled service offering that combined non-traditional financial service (NTFS) loan and crop insurance products to stimulate commercial vegetable production. Under this, the project included three expected outcomes:

**i) Male and female farmers will have higher adoption rates of improved technologies including high-quality seed, drip irrigation, IPM technologies, high tunnels, and pumps.**

**ii) Women farmers will have higher adoption rates of the improved technologies when they work with women sales agents (CBFs).**

**iii) Male and female farmers will have higher adoption rates of improved technologies when risk is mitigated through the provision of crop insurance.**
The program built on past work by the Frankfurt School and iDE with MNBBL that developed climate-smart agricultural vegetable loan products for smallholders. The pilot program included:

- **Collection Center Vegetable Crop Insurance:** Vegetable Crop Insurance is managed by agricultural CCs, which collect premiums and manage payouts. Farmers utilize the Muktinath Bikas Bank loan to pay insurance premiums. The NTFS crop insurance follows major features of government policy. Farmers paid 25% of the premium cost. The project subsidized 75% of the premiums, which were utilized in a revolving fund owned and managed by the CC for sustainability. This follows government policy of subsidizing crop insurance premiums by 75%.

- **Smallholder Loan Model:** This component included development and distribution of small-farmer, climate-smart agricultural loans from Muktinath Bikas Bank through two mechanisms. Muktinath Bikas Bank has reported a remarkable 100% repayment rate on all loan products for both models during the project period.
  - **Business Correspondent/Wholesale Loan Model:** Qualifying CCs were designated as Business Correspondents (BCs) by Muktinath Bikas Bank. The BCs accepted legal responsibility for the loans for purposes of on-lending to farmer members. BCs earn a small margin on the interest spread and by providing e-banking services. The Muktinath board has formally endorsed this model and product. Two of six INNOVATE CCs qualified as BCs during the project period.
  - **Rural Aggregation/Direct-to-Farmer Loan Model:** CCs that did not qualify as BCs coordinated with Muktinath Bikas Bank to promote and support management of the loans among farmer members, who applied directly to the bank. In this model, CCs did not assume legal responsibility for the loans. Over time, these centers are expected to become BCs.
iDE Nepal Pilot Impact

The integration of loans, crop insurance, CBFs, and affiliated CCs to serve as BCs on behalf of MNBBL increased farmer incomes, mitigated risk, and encouraged farmers to invest in their futures. During the project period, loans were approved to over 1,000 farmers, with a total loan portfolio valued at $200,000 USD. Over 300 farmers took advantage of the CC vegetable crop insurance product. These farmers realized a three-fold increase in their average annual vegetable income (up to $800 USD), through increased investment and adoption of improved climate-smart agriculture technologies. Specific important impacts include:

- **Income Impact:** Farmer annual vegetable income increased from NRs 28,672 (~$247 USD) in the baseline survey to NRs 90,689 (~$782 USD) in the endline survey.

- **Technology Impact:** Similarly, in the baseline, farmers used on average 1.8 improved agriculture technologies (i.e. improved seeds, drip, IPM, green houses, and others) and 3.3 in the endline survey. The income and technology adoption results are statistically significant at a 95% confidence level.

- **Crop Insurance Impact:** On average, households that applied for loans and crop insurance earned NRs 98,000 (~$845 USD) compared to households with just loans at NRs 81,000 (~$698 USD). Due to the endline survey small sample size, this was not found to be statistically significant.

- **BC/Wholesale-Loan Model vs. Direct-to-Farmer Model:** On average, farmers that participated in the BC model earned more income and adopted more improved climate-smart agriculture technologies than households in the hybrid model. Due to small sample size in the endline, this was not found to be statistically significant. Muktinath Bikas Bank reported substantial savings with the BC model. The approach also strengthens collection center income and sustainability, with income from a spread of about 2% on the loans to members during the project period. The collection centers over time will earn additional income from providing e-banking services to members.

- **Gender Impact:** The project also sought to assess whether women CBFs were more effective for women farmers. While there was no significant statistical difference between the performance of male versus female CBFs, customers of female CBFs on average earned 20% more income. The endline study also found that 35% of female farmers preferred having a female CBF.
A key success factor of this pilot was the bundled offering of climate-smart loans, crop insurance, access to technology and technical support from CBFs, as well as access to extension services and information via CCs.

The MEDA INNOVATE pilot resulted in the MNBBL board formally endorsing the Business Correspondent (BC) model. The bank is now seeking to scale the approach, working with iDE where it has developed Collection Centers and CBFs, including establishing an agribusiness subsidiary company in 2019. Following a report and linkages from a MEDA insurance consultant, this model of offering crop insurance has attracted the interest of crop insurance companies to utilize CCs as insurance agents. iDE is discussing with crop insurance companies, and in coordination with MNBBL, how to pilot this concept.

Way Forward

There are currently about 200,000 households in Nepal associated with iDE-developed commercial pockets, providing smallholders access to output markets through CCs and high-quality agricultural inputs through CBFs. This extensive reach presents an opportunity for MNBBL to be a key private-sector stakeholder in scaling a bundled offering that combines NTFS loans to farmers, financing to other agricultural value chain actors, and crop insurance. iDE and MNBBL are seeking support to develop a public-private partnership approach to scaling the NTFS loan and crop insurance products. The approach would include the development of municipal Public Private Partnership (PPP) groups convened by the Agricultural Enterprise Center of the Nepal Chamber of Commerce. These PPP groups would coordinate government investments in CCs, wholesale markets, irrigation / multiple-use water systems (MUS), and extension services with investments from the private sector including MNBBL, crop insurance companies, agricultural input suppliers, and traders to develop last mile supply chains to poor, remote rural communities.
PROJECT PROGRESS

• Key Issues and Challenges Experienced
• Lessons Learned
• Objectively Verifiable Indicators (OVIs), Targets, and Endline Survey Data Matrix
Training Community Business Facilitators (CBFs) / Marketing and Planning Committee (MPC) Managers on Loan Administration

To ensure efficacy of the loan disbursement and management process over the long term, the project prioritized building capacity of MPC staff and CBFs. Trainings for CBFs/MPC managers focused on major bank-related activities such as filling out the loan applications, document collection and review, assessing farmer cash flow analysis, and calculating interest and repayment values in a way that was easily understandable by farmers. 22 participants (9 women and 13 men), including MPC staff and CBFs, attended the training.

Commercial Vegetable Climate Smart Agricultural Training Integrating IPM

By the end of the project, local partners in Kaski and Syangja conducted 57 trainings reaching a total of 1,108 households. Of this number, 77% were female farmers and 21% were from disadvantaged communities. The purpose of this training was to provide field-based knowledge regarding commercial vegetable production or market-oriented production generally to help these households increase farm-based income and thereby increase the likelihood of timely loan repayments.

They were also provided knowledge on the use of improved technologies in agriculture and irrigation, as well as training on Integrated Pest Management (IPM) as a method to reduce the use of chemical inputs. 44 trainings on IPM were conducted, reaching 892 households. Almost 78% of all attendees were female farmers.

ICT for Group Messaging

The project has been able to implement a Short Messaging System (SMS) in both the districts so that CCs can send information on prices, weather, and insects/pests to their members. The type of information being sent by SMS includes planting information based on the crop calendar developed by the collection center in time for the farmers to purchase the needed seeds/IPM/other technologies from the local CBFs. Kaski and Syangja has contracted with Idea Inc and created accounts for sending bulk SMS. The project has been able to provide valuable information to the farmers in both the districts.
Training for Farmers on Utilizing Climate-Smart Agricultural Loans and Accessing Markets

Local partners DCDO in Kaski and ACDC in Syangja organized trainings at the farmer group level regarding how to use the new climate-smart agricultural loans. The project delivered 43 trainings, reaching 852 participants (672 women, and 180 men). During these trainings, and in the presence of MNBBL staff, farmers received a briefing on the NTFS product concept, including the loan modality, and some technical training such as nursery management, disease and pest management.

By the end of the project, a total of 1,014 farmers received loans totaling Rs. 22,667,000 (~273,096 USD). The average loan size was NPR 22,354 (~$193 USD), with a minimum of NPR 5,000 (~$43 USD) and a maximum of NPR 300,000 (~$2,585 USD). The loans were taken for the cultivation of cole crops, cucurbits and tomatoes. On average, it took 7.5 days from the time of application submission to loan disbursement, ranging from same-day approval up to 14. Among the loan recipients, 82% were female farmers and 22% were from disadvantaged groups (DAGs).

<table>
<thead>
<tr>
<th>Details</th>
<th>Amount in NPR</th>
<th>Amount (USD at 8112 NPR / 1 USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Loan Clients</td>
<td>1,014</td>
<td></td>
</tr>
<tr>
<td>Total Loan</td>
<td>22,667,000</td>
<td>195,360</td>
</tr>
<tr>
<td>Average Loan</td>
<td>22,354</td>
<td>193</td>
</tr>
<tr>
<td>Maximum Loan Size</td>
<td>300,000</td>
<td>2,585</td>
</tr>
<tr>
<td>Minimum Loan Size</td>
<td>5,000</td>
<td>43.10</td>
</tr>
<tr>
<td>Average Interest Rate</td>
<td>15.7</td>
<td></td>
</tr>
<tr>
<td>Average Processing Days</td>
<td>7.5</td>
<td></td>
</tr>
</tbody>
</table>
Crop insurance is a new concept for most rural subsistence-oriented farmers and will play a key role in supporting their transition to more commercially oriented farming. Most farmers in Kaski and Syangja district who are interested in commercial agriculture are also hesitant due to risks from weather (e.g. hailstones) and insect/pest problems. iDE introduced crop insurance through the MPC/CC structures in each district. 22 participants participated in the program (14 women and 8 men) in Kaski. In Syangja, 18 participants attended the training (15 female and 3 from disadvantaged communities). The program focused on a crop insurance policy briefing to the MPC and staffs. The MPC executive committee and farmers who have taken the new loan product have agreed to implementing crop insurance program through the MPC. The project has prepared implementation guidelines and procedures for crop insurance in the Nepali language.

<table>
<thead>
<tr>
<th>Details</th>
<th>Details in NPR</th>
<th>Details in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Premium</td>
<td>252,750</td>
<td>2,178</td>
</tr>
<tr>
<td>Insurance Support</td>
<td>505,575</td>
<td>4,357</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>758,325</strong></td>
<td><strong>6,536</strong></td>
</tr>
<tr>
<td>Total Land (Ha)</td>
<td>17.14</td>
<td></td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>337</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>218</td>
<td></td>
</tr>
</tbody>
</table>
Adoption of Improved Climate Smart Agriculture Technologies

After providing training to the farmers on utilization of loan product, commercial vegetable trainings, and IPM there has been demand for and adoption of agriculture technologies by the farmers. To date farmers have adopted 10 different agricultural technologies like micro irrigation technologies (i.e. drip irrigation, IPM, plastic houses, hail nets, and sprinklers) for a total purchase of 5,278 agricultural technologies for improved commercial vegetable production.

A breakdown of the specific technology adoptions is given in Table 3.

<table>
<thead>
<tr>
<th>Technologies</th>
<th>Syangja</th>
<th>Kaski</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drip</td>
<td>142</td>
<td>100</td>
<td>242</td>
</tr>
<tr>
<td>Sprinkler</td>
<td>411</td>
<td>142</td>
<td>553</td>
</tr>
<tr>
<td>Improved Seeds</td>
<td>1,059</td>
<td>556</td>
<td>1,615</td>
</tr>
<tr>
<td>Plastic House</td>
<td>86</td>
<td>164</td>
<td>250</td>
</tr>
<tr>
<td>Plastic Pond</td>
<td>16</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>Hail net</td>
<td>16</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>IPM</td>
<td>1,556</td>
<td>939</td>
<td>2,495</td>
</tr>
<tr>
<td>Thai jar</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Mini Tiller</td>
<td>11</td>
<td>6</td>
<td>17</td>
</tr>
<tr>
<td>Sunflower Pump</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Key Issues and Challenges Experienced

**Frequent transfer of MNBBL staff:** Loan promotion was affected due to the frequent transfer of bank staff in July-August. The monitoring officer, who was directly coordinating the pilot and several branch managers were transferred. This hindered program implementation in the field. As new staff were unfamiliar with the pilot, which created confusion in the lending process. To resolve this challenge, an additional pilot orientation was provided to newly transferred MNBBL staff.

**Reluctance to invest in Dalit communities:** Another challenge arose regarding past experiences lending to the Dalit community, which is very poor and marginalized. MNBBL staff have negative experiences with loan repayment delays. Additionally, some MPC farmer members, including Dalit community leaders, also highlighted the problems associated with repayment delays and misuse of the loan funds. This created hesitation among MNBBL staff to commit to lending into these communities.

**Bank-driven delays in implementing the BC model:** Up to the third quarter of the pilot program the business correspondence model (BC) had not yet been implemented due to MNBBL bank sorting and selecting process for the MPCs. As per MNBBL policy, they must complete a rigorous assessment of each MPC’s capacity.

**Threats posed by wild animals and weather hazards:** Monkeys and rodents pose problems in both districts. They can devastate a farmer’s harvest and there is no provision in the current insurance policy managed by the CC since this insurance product’s policy is based on the policy developed by the government. With the start of rain there is a problem of hailstone and some parts of Kaski and Syangja were highly affected by the hailstone.

**Government subsidies weakening rural demand for market-based services:** Agricultural subsidies and other subsidies from the national government are not equally distributed among all farmers in this province. This failure to cover all districts and wards creates problems in terms of lowering demand for agricultural loans in favor of interest/cost-free subsidies.
Lessons Learned

- Farmers trained on the use of IPM minimized the use of chemical pesticides, which are harmful to farmers, farming households, and consumers.

- The MPC/CCs that the capacity building they received increased their effectiveness in promoting this NTFS loan product to the commercial farmers.

- A more collaborative approach between the national government and NGOs benefitted pilot participants.

- Active engagement with MNBBL senior and field team staff helped to mitigate the negative perceptions and hesitancy around lending to DAGs.

- Implementing the BC model is a rigorous process for MNBBL as it must adhere to rigorous evaluation requirements as per bank policy regarding MPC capacity.

- Increased adoption of agricultural technologies increased production and income, which also resulted in supporting a transition from subsistence to more commercially oriented farming patterns.

- Interest in crop insurance is growing among farmers in this province due to continued threats from weather hazards, insects, and other wild animals that can severely damage crop yields and jeopardize farm income.
**Objectively Verifiable Indicators (OVIs), Targets, and Endline Survey Data Matrix**

The table below shows the project met or exceeded performance goals set in the MEDA INNOVATE project agreement. It draws on information sourced from baseline and endline surveys and other information periodically collected during project implementation. One key achievement is the formal recognition by MNBBL of the BC model for distributing agricultural loans that relies on MPCs and CCs to wholesale and manage loans issued to farmer members.

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**TABLE 4: PROJECT DATA MATRIX**

<table>
<thead>
<tr>
<th>Sn.</th>
<th>Indicators</th>
<th>Unit</th>
<th>Target</th>
<th>Baseline</th>
<th>Endline</th>
</tr>
</thead>
<tbody>
<tr>
<td>KPI 1</td>
<td>Number of Collection Centers developed as business correspondents for Muktinath Bank</td>
<td>#</td>
<td>6</td>
<td>0</td>
<td>6 Collection Centers Facilitating Crop Loans (2 are formally implementing the business correspondent Model others are in process)</td>
</tr>
<tr>
<td>KPI 2</td>
<td>Number of men and women (respectively) accessing and successfully utilizing Muktinath Bank financing through the NTF services model</td>
<td>#</td>
<td>900</td>
<td>0</td>
<td>1,014 (228 Business Correspondent Model Clients)</td>
</tr>
<tr>
<td>KPI 3</td>
<td>Number of men and women receiving crop insurance through the NTF services model in two collection centers</td>
<td>#</td>
<td>300</td>
<td>54</td>
<td>337</td>
</tr>
<tr>
<td>KPI 4</td>
<td>Percentage of men and women that take on new loans through the collection centers who then purchase new and innovative technologies</td>
<td>%</td>
<td>70%</td>
<td>0</td>
<td>99%</td>
</tr>
<tr>
<td>KPI 5</td>
<td>Percentage of men and women that received crop insurance who then purchase new and innovative technologies</td>
<td>%</td>
<td>70%</td>
<td>81%</td>
<td>100%</td>
</tr>
<tr>
<td>KPI 6</td>
<td>Average Incremental income increase per HH</td>
<td>USD</td>
<td>700</td>
<td>260</td>
<td>796 (Statistically significant difference at 95% confidence interval between final evaluation and baseline)</td>
</tr>
<tr>
<td>KPI 7</td>
<td>Change in Behavior: Q: Are client populations with crop insurance more likely to take on adoption of agricultural technology?</td>
<td></td>
<td></td>
<td></td>
<td>Difference= 25% Populations: NO Crop Insurance = 43% Adoption of Technology</td>
</tr>
<tr>
<td>KPI 8</td>
<td>Do clients of Female CBFs have different loan trends (ratio men to women clients; purpose of loans)?</td>
<td></td>
<td></td>
<td></td>
<td>Female CBF Clients : Male CBF Clients = 1.04:1 Female CBF clients technology adoption = 51%</td>
</tr>
</tbody>
</table>