

Progress Report BMZ Project Funding

General Information

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1. Basic data

The IARC applicant	International Potato Center (CIP)
Project title	Farmer Capacity Building and Institutional Development for Sustainable Potato Production and Commercialization in Cameroon
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Project Partners	<ul style="list-style-type: none"> • Deutsche Gesellschaft für Internationale Zusammenarbeit • International Institute of Tropical Agriculture • Ministry of Agriculture and Rural Development • Institute of Agricultural Research for Development • Structure Towa (private seed potato company) • Certified seed potato growers • Centre Polyvalent de Formation de Mbouo • Action pour la Promotion de la Santé, la Production et l'Environnement • University of Dschang

2. Progress Report

State of Project Implementation

Objective 1: Stakeholder sensitization and engagement to further develop a sustainable national potato strategy based on existing support policies within the Ministry of Agriculture and Rural Development (MINADER) for the potato value chain

As recommended by the **National Consultative Group for the potato value chain**, two regional consultative groups were established in the West and Adamawa regions. For the West region, a meeting took place on 11 November 2020 in Dschang. Eight participants representing farmers and five institutions attended. For the Adamawa region, a meeting took place on 04 December 2020 in Ngaoundéré, attended by eight representatives of farmers and various institutions. The two regional meetings analyzed the progress being made in implementing the interventions in the potato value chain. Most importantly, participants deliberated on the compositions, roles, and operations of the regional consultative groups. In both regions, it was agreed that those groups will comprise the following stakeholders: (1) MINADER, (2) Green Innovation Centres for the Agriculture and Food Sector Project (ProCISA), (3) Institute of Agricultural Research for Development (IRAD), and (4) the International Potato Center (CIP).

During this reporting semester, the second significant achievement is the signing into law by the minister in charge of agriculture on 1 December 2020 of two **protocols to be used for registering new potato varieties in the national catalogue**. The first protocol will be used to evaluate the Distinctness, Uniformity, and Stability (DUS) of the characterization of new materials. The second protocol will help determine the real Value for Cultivation and Use (VCU) of the same materials prior to their official release. These protocols were drafted by the Department of Regulation and Quality Control of agricultural products and inputs (DRCQ) with a technical backstopping from CIP. These protocols are now being applied by IRAD in the release process of two new varieties.

Given the current importance of the potato crop in the country, the ministry in charge of agriculture is planning to update the **national potato strategy**. To this end, the minister addressed a request to ProCISA on 26 February 2021 for technical and financial support to carry out this important undertaking. Following the positive response from ProCISA to provide the needed support through CIP, the minister designated an internal task force of three senior officials and to be led by the director of the Department of Agricultural Development of MINADER.

Under this policy and advocacy objective, the project made significant strides in establishing formal partnerships with key actors in the potato value chain. On 15 March 2021, CIP signed a **collaboration agreement with a private seed potato company, "Structure TOWA."** This company is the lone private and certified company in Cameroon producing early generation seed (EGS) potato, including *in vitro* plantlets and minitubers. The second partnership was established with the University of Dschang (UDs) through their Faculty of Agronomy and Agricultural Sciences (FASA) through two agreements: an inter-institutional framework with the UDs and a specific collaboration agreement with FASA. These two agreements are effective as of 14 April 2021.

Objective 2: Building capacity of trainers, extension staff, and farmers in good agricultural practices (GAP), innovative and agro-ecological farming methods, and business skills on the farm

Training activities were conducted with three groups of stakeholders on GAP for ware potato production during the current reporting semester. The first group comprises 35 trainers hired

by training centers to cascade down the training: 20 trainers working for the Centre Polyvalent de Formation (CPF-Mbouo) in the West region, and 15 trainers in the Adamawa recruited by a local NGO called APROSPEN (Action pour la Promotion de la Santé, la Production et l'Environnement). This season-long practical training started in November 2020 and ran through March 2021. It was conducted using a farmer-field school (FFS) approach to provide hands-on techniques on crop husbandry, from land preparation to harvesting (Fig. 1). This **practical training complemented the hall-based training** provided to the same trainers during the previous semester.



Figure 1. Hands-on training of 20 trainers in West region on 1 March 2021 (left) and 15 trainers in the Adamawa on 17 February 2021 (right) on GAP for ware potato production through a season-long FFS approach. (NB: Photos taken using health and safety protocols according to government regulations.)

The second training was aimed at **building the capacity of the extension agents**—known in French as *Chefs de Postes Agricoles* (CPA)—given their role in supervising the agricultural activities in their respective entities. In the Adamawa region, 59 CPAs (i.e., 50 men, nine women) attended two workshops per participant, the first held in Ngaoundéré on 7–8 December 2020 and the second on 9–10 December (Fig. 2, left). This training was repeated in the West region, where 54 CPAs (i.e., 38 men, 16 women) from various potato-producing areas attended, one on 22–23 February 2021 and the second on 25–26 February (Fig. 2, right).



Figure 2. CPAs attending training on ware potato production during workshops held in Ngaoundéré on 7–8 December 2020 (left) and Dschang on 25–26 February 2021 (right). (NB: Photos taken using health and safety protocols according to government regulations.)

The third and last **training on GAP was facilitated by the participating training centers** (i.e., CPF-Mbouo in the West, Fig. 3, top) and APROSPEN in the Adamawa (Fig. 3, bottom) through their trainers. The approach used is FFS which will be completed through four training sessions. The first training series related to land preparation and planting techniques in

Adamawa took place on 15–18 April 2021; 327 potential facilitators (or lead farmers) attended. In the West region, the first series of training ran from 21 to 26 April 2021, attended by 445 potential facilitators.



Figure 3. First round in a series of training of facilitators by trained trainers in the West (top, photo taken on 23 April 2021) and Adamawa (bottom, photo taken on 18 April 2021) regions on GAP for ware potato production. (NB: Photos taken using health and safety protocols according to government regulations.)

Objective 3: Establish a sustainable national seed system for improved access of farmers and cooperatives to quality seed of disease-resistant and market-demanded varieties for increased productivity and resilience

3.1 Increasing access to quality seed and capacity to produce high-quality seed

In the project areas, stakeholders, including farmers, are unanimous that seed potato quality and quantity are the major constraints to potato cultivation. In this regard, we carried out seven activities. The first activity was the distribution of a seed producer manual “**Good Agricultural Practices for Field Multiplication of Seed Potato in Cameroon,**” developed during the previous reporting period. Available in French and English, the manual was distributed to over 175 seed growers and other stakeholders in the three project regions.

The second activity convened and facilitated **two stakeholders' workshops in the West and Adamawa regions** to discuss the seed potato issue and chart how to establish and sustain solid and functional seed systems. The first workshop took place in Dschang on 9 February 2021 for the West region (Fig. 4, left). Eighteen participants representing various seed stakeholders, including farmers, attended. In Adamawa, the workshop took place in Ngaoundéré on 25 March 2021 (Fig. 4, right); 19 participants attended.



Figure 4. Participants at the Seed Stakeholders' workshops held in Dschang on 9 February 2021 (left) and Ngaoundéré on 25 March 2021 (right). (NB: Photos taken using health and safety protocols according to government regulations.)

As a third activity, we **visited several seed growers in their respective households for profiling purposes**. Twelve seed growers in the Adamawa region were visited and two in the West region. The information collected will be used to prioritize their needs for customized support.

The fourth activity conducted was to **lobby for the official registration of a private company** (i.e., Structure TOWA) investing in seed potato production at various stages of the seed scheme, including EGS. With the project's implicit support, Structure TOWA was evaluated and judged to meet the minimum requirements. Therefore, the DRCQ issued them a certificate in January 2021.

The fifth activity was to make **the seed infrastructures and techniques used to produce EGS easier to understand and encourage seed growers and other stakeholders to invest in those facilities**. One of the champions was M. Norbert Kenfack, a private seed grower who was building a screenhouse on his farm in Djuttitsa, West region. Several actors also expressed their interest in building screenhouses, and initial contacts were made.

The sixth activity is CIP's **support to IRAD to build alternative seed infrastructures in the West region**, given the ongoing crisis in the Northwest region where the potato station is located. To this end, the project identified a good site in Bayangam where the altitude exceeds 1,800 masl. In April 2021, IRAD hired heavy machinery to level the ground where the CIP project will build a first screenhouse.

The seventh and last activity is a training workshop held in the West region on 26 and 27 April 2021; 20 seed growers were invited. The **workshop's main objective was to sensitize the seed growers about the importance of quality seed and strengthen their capacity in GAP for seed potato production and storage**.

3.2 Evaluation and dissemination of new varieties for improved agronomic performance and marketability in Cameroon

One of the flagship activities conducted is the **set up of DUS and VCU trials of two CIP varieties ('Chulu' and 'Unica') by IRAD**, a study commissioned by the seed and variety

regulatory body. These evaluations are being conducted following the potato DUS and VCU protocols developed by the DRCQ with CIP technical support before being signed into law by the ministry in charge of agriculture. The trials were installed in February 2021 in three regions. The DUS were set up in Bangangte, West region (Fig. 5) and Bambui, Northwest region. They comprised the two newly introduced varieties along with two checks, namely 'Cipira' and 'Pamela'. The VCU trials were installed in four sites: Bangangte and Bansoa (West region), Bambui, and Rep-Yanga (Adamawa region). In these trials, 'Cipira' was the lone check used.



Figure 5. Setting up DUS and VCU trials of 'Chulu' and 'Unica' varieties in Bangangté by IRAD researchers on 12 February 2021.

The preliminary results show that all is set for those varieties to pass the tests (Fig. 6).



Figure 6. Field performance of 'Chulu' and 'Unica' at Rep-Yanga in the Adamawa region 30 days after planting.

The second important activity conducted is **setting up two observation trials in two regions on "local" varieties for their characterization.** 'Dosa', 'Manate', and 'Banso' are the varieties tested, along with two improved varieties, 'Cipira' and 'Jelly'. One trial was installed at Rep-Yanga on 19 January 2021, and the second one at CPF-Mbouo on 3 February 2021. For the DUS, VCU, and observation trials, we took photos of different parts of the plants for all the varieties being assessed. These images, captured at different phases of growth and development, will be instrumental in updating the national potato catalogue.

Objective 4: Evaluating and implementing innovative technologies for cooperatives and other farmers using services based on agronomy, storage, mechanization, cooperative management, and marketing methods

Under this objective, the priority was to make a follow-up on the dialogue between CIP and UD for a formal partnership for co-implementing several research topics as listed in the previous report. This process was successfully concluded, and most activities will be

conducted in the remaining semesters. We also developed a **research protocol for demonstrating the importance of applying GAP**. The second objective of this activity is to **build the capacity of IRAD young researchers**. That is why this study will be conducted by IRAD researchers recently appointed by their director-general. They will operate under CIP's supervision and coaching. The trials will be set up at six sites: three in the West region and three in the Adamawa region.

Objective 5: Baseline data and documentation of progress and performance indicators by analyzing and monitoring the results are provided on all levels

From 16 to 28 November 2020, a **baseline survey was administered in 133 villages of the West (98 villages) and Adamawa (35 villages) regions**. This study aims to collect data from smallholder potato farmers for three main objectives: (1) provide insights into current agronomic practices by potato farmers to identify entry points for innovation; (2) construct a farmer typology of potato farmers that relates to adoption potential for improved agronomic practices; and (3) serve as a basis for monitoring, evaluation, and learning for the actual and upcoming projects. A total of 341 respondents were interviewed using a structured questionnaire. To this end, 34 enumerators were hired and trained prior to administering the questionnaire. The report is currently being written and reviewed.

As part of the project outreach, CIP was honored to **participate in the 2020 Mini-Agropastoral show held on 21–22 December 2020 in Bafoussam for farmers and other stakeholders living in the West region**. This annual event is usually organized by the regional delegation in charge of agriculture. During the show, CIP set up a booth where training manuals and other materials were displayed. The booth attracted many visitors, out of which 40 signed up for further interactions. Beyond the in-person participation, CIP provided the delegation with in-kind support as awards to the best potato farmers. We also attended the Adamawa show held on 23–24 December 2020 but to a lesser extent.

CIP was privileged to **contribute to the community radio station campaign convened by ProCISA and held in Bafoussam on 2–4 March 2021**. The main objective of this activity was to empower journalists with key messages detailing potato GAP and pass on this information to their respective audiences. In total, 16 journalists from eight different radio stations attended the event (i.e., 12 journalists from six radio stations of the West region and four journalists from two radio stations of the Adamawa).

General Achievements and Problems encountered

One of the major achievements is the publication of potato DUS and VCU protocols by MINADER. These protocols are now being applied by IRAD to officially register two new potato varieties ('Unica' and 'Chulu') through trials set up in three regions. These varieties might become the first-ever crop varieties to be registered under the A category of the catalogue. As of now, all varieties for all commodities are on a C list, which means that they are still on a temporary list for a maximum period of five years. They will only be moved to the A category, which is a permanent list, after passing the DUS and VCU tests. In other words, potato is ahead of other crops in the homologation process.

The other achievement with a **far-reaching impact is the formal partnerships established with a private seed company on the one hand, and UDs on the other**. These collaboration agreements open many windows for developing, strengthening, and sustaining the potato value chain in the country.

In terms of limitations, the project was seriously affected by cashflow issues related to the hosting arrangement it has been operating in. Therefore, as a mitigation measure, CIP decided to open an account for much autonomy in financial operations. Also, activities were somehow affected by the current sanitary situation but to a lesser extent. The project team

remained vigilant to the evolution of the COVID-19 pandemic, making decisions accordingly while following related government regulations and CIP policy.

IDO Contribution

The breakdown of beneficiaries reached in the Adamawa and West regions during this reporting period is provided below:

- A total of 113 extension agents (*CPA*) were trained in GAP for ware potato production through series of two-day workshops.
- Thirty-five trainers hired by participating training centers were empowered with hands-on techniques through a season-long FFS approach.
- A total of 772 potential facilitators, or lead farmers, attended the first round of training on GAP for ware potato production.
- Thirty-seven seed stakeholders, excluding facilitators, attended workshops aimed at brainstorming on the current status in seed potato systems and defining strategies for improving them.
- Twenty seed growers of the West region were trained in GAP for seed production and storage.

Conclusions for the following Reporting Period

As of today, we are confident about the implementation of the project plan. If all goes well, we might have the Northwest region on board. We anticipate that ProCISA will sign a contract with a local partner who will be our proxy for all activities to be carried out there. That would mean that stakeholders will have to catch up on several fronts: GAP on ware potato production at all three levels, GAP on seed potato production, and the like

Publications, Papers, and Reports

- Rapport de la première réunion du cadre régional de concertation de l'Ouest pour la pomme de terre. Dschang, 11 novembre 2020. 7pp. (Annex 1).
- Rapport de la première réunion du cadre régional de concertation de l'Adamaoua pour la pomme de terre. Ngaoundéré, 4 décembre 2020. 8pp. (Annex 2).
- Report of CIP participation to the regional mini-agricultural show in the West region. Bafoussam, 21-22 December 2020. 4pp. (Annex 3). (Annex 3).
- Rapport d'ateliers de formation des chefs de postes agricoles de l'Ouest et de l'Adamaoua sur les bonnes pratiques agricoles pour la production de la pomme de terre de consommation. Ngaoundéré et Dschang, décembre 2020 – février 2021. 35pp. (Annex 4).
- Rapport de la formation pratique des formateurs de l'Ouest et de l'Adamaoua sur les bonnes pratiques agricoles pour la production de la pomme de terre de consommation. Bandjoun et Rep-Yanga, novembre 2020 – mars 2021. 18pp. (Annex 5).
- Rapport des ateliers de réflexion sur la production et la conservation de semences et variétés de pomme de terre à l'Ouest et dans l'Adamaoua. Dschang et Ngaoundéré, février – mars 2021. 27pp. (Annex 6).

Summary

From November 2020 to April 2021, several activities pertaining to the five project objectives were conducted. DUS and VCU protocols were finalized and signed into law, and were immediately applied to two CIP newly introduced potato varieties by IRAD. Negotiations that took several months led to the signing of collaboration agreements with two key actors in the potato value chain: UD and Structure TOWA. In promoting GAP for ware potato production, several events were organized that led to the training of 113 extension agents and 35 hired trainers by participating training centers. These trainers are now passing on their skills to 772 potential facilitators through a season-long FFS approach. (This exceeds the project target of training 720 potential facilitators). In addition, several aspects of seed systems were addressed, including profiling lead seed growers in the West and Adamawa regions,

brainstorming on the gaps and prospects, training over 20 lead seed multipliers in the West region, and so on.