

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
Funding type, GIZ Project Number and Contract Number	Project Funding, 14.0967.1-110.00 81232175
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Project Partners	<p>Deutsche Gesellschaft für Internationale Zusammenarbeit</p> <p>International Institute of Tropical Agriculture</p> <p>Ministry of Agriculture and Rural Development</p> <p>Institute of Agricultural Research for Development</p> <p>TOWA Tissue Culture Laboratory</p> <p>Certified seed potato growers</p>

2. Progress Report

State of Project Implementation

Below we briefly describe the state of implementing the project activities by project components and indicators as per the logical framework matrix.

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

In close collaboration with other stakeholders, the National Consultative Group (CG) was established to guide project implementation. The CG comprises the donor (GIZ-ProCISA), the Directorate of Agricultural Development, the Directorate of Regulation and Quality Control of Agricultural Products and Inputs (DRCQ), and the Institute of Agricultural Research for Development (IRAD). The CG meets quarterly. The first meeting occurred on 16 June 2020 (Fig. 1), and the second meeting was held at the same place on 7 October 2020. Similarly, the partners decided to create regional stakeholder platforms in the two regions where the project is currently being implemented, the West and Adamawa regions.



Figure 1. The first meeting of the project National Consultative Group held at Mont Febé Hotel, Yaoundé, Cameroon, on 16 June 2020.

Furthermore, CIP was invited to attend high-level meetings and technical working groups convened by MINADER. For example, CIP was honored to participate in the 8th session of the National Seeds and Plant Varieties Board held on 23 September 2020. There, protocols were established for the homologation of new varieties (i.e., the Distinctness, Uniformity, and Stability and Value for Cultivation and Use protocols). As a guest, CIP is part of two working groups, including membership in their respective WhatsApp groups. The first group has the mandate to update the official technical regulations, including the seed potato regulation. The second group deals with all aspects of the plant genetic resources for food and agriculture in alignment with the International Treaty on Plant Genetic Resources for Food and Agriculture. Also, CIP staff reviewed MINADER strategic documents and provided inputs upon request by the donor. During this reporting period, we examined the National Plan for the Development of plant seeds 2020–2025 and the reform document of the Seed Fund (*Fonds Semencier*).

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

In August 2020, two training sessions on GAP for producing ware potato took place in two out of the three project regions. The first workshop was held in Bandjoun, West region, on 12–14 August 2020, attended by 25 trainers hired by the *Centre de Formation Polyvalent* (CPF) Mbouo (Fig. 2, left). Among the participants, 32% were women and 24% youth. The second workshop took place in Ngaoundéré on 25–27 August 2020. Twenty-five trainers hired by the NGO APROSPEN attended (Fig. 2, right). In this workshop, 24% of participants were women and 84% youth. At the end of the two training sessions, master trainers retained 35 participants (12 women, 23 men) to cascade down the training. On 8–9 October 2020 at the Mont Febé Hotel, Yaoundé, CIP organized another training on GAP for 11 MINADER technical officers (five women, six men). This workshop aimed to get officers acquainted with the basic practices in producing ware potato. All these officers are direct or indirect actors in the development of a sustainable potato value chain in the country.



Figure 2. Group photos of the training of trainers (ToT) held in Bandjoun, West region (left) and Ngaoundéré, Adamawa region (right) on 12–14 August and 25–27 August 2020, respectively.

Finally, CIP published all the PowerPoint presentations summarizing the GAP manual on producing ware potato. All these materials are accessible through the following link:
<https://cgspace.cgiar.org/handle/10568/108469>.

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

Owing to the political crisis prevailing in Cameroon's North-West region, IRAD's potato tissue culture (TC) laboratory, located in Bambui, was vandalized. After discussions with CIP, the laboratory was relocated to Bamenda. Therefore, CIP acquired equipment and reagents, which we handed over to IRAD on 8 October 2020 (Fig. 3); the laboratory is again functional. CIP facilitated the acquisition of *in vitro* plantlets of the varieties 'Tigoni' (also known as 'Cipira'), 'Unica', and 'Chulu' from IITA's TC laboratory. Those materials (20 *in vitro* plantlets per variety) are being multiplied. Following a Webinar organized by a CIP scientist, the TOWA seed company tried the apical rooted cuttings technique and produced 7,200 minitubers of a local variety 'Dosa'. Also, CIP produced and printed 650 copies of the seed manual (250 copies in English and 400 copies in French). This manual will be distributed to seed growers in December 2020. On 7 October 2020, CIP co-hosted with ProCISA a seed potato workshop at the Mont Febé Hotel. Several seed potato stakeholders attended, including public and private TC laboratories and certified seed growers from the West, Adamawa, and North-West regions. During the workshop, CIP made several presentations that could help shape the national seed potato system. We first presented the current status in the country—from the TC laboratories to field multiplication—and then proposed a classic seed potato scheme.



Figure 3. TC lab equipment and reagents are handed over to the IRAD deputy director general and his senior officers at CIP's office in Yaoundé, 8 October 2020.

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

In February 2020, we planted 220 kg of minitubers of 'Unica' and 'Chulu', two varieties newly introduced into Cameroon from Kenya. This seed was multiplied in Batcha, West region by a seed grower whose farm is equipped with an irrigation system. The harvest is quite promising as 6 tons were produced: 2.6 t for 'Unica' and 3.4 t for 'Chulu' (Figure 4). The regulatory body seized the 6 t at CPF-Mbouo because they were from on-farm multiplication instead of on-station. Following an instruction from the Minister of Agriculture and Rural Development, a joint mission was conducted on 20 October 2020 by MINADER/DRCQ/IRAD/ProCISA/CIP to Bafoussam in order to resolve this regulatory issue. This seed is kept at CPF-Mbouo before the evaluation trials by IRAD can start. In the same line, IRAD and CIP signed a standard material transfer agreement on 2 October 2020. The agreement provides consent to IRAD to use these varieties for research, registration, and seed production in Cameroon under specified conditions.



Figure 4. Harvest (left) and produce (right) of the multiplication of Unica and Chulu varieties conducted in Batcha, West region. June 2020.

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

Discussions are taking place with the University of Dschang to collaborate on research actions in an attempt to increase the potato expertise in the country. The first list of research topics includes (1) optimization of the partial root-zone drying technique in the context of Cameroon; (2) field evaluation of advanced potato genotypes in various environments; (3) optimization of chemical control of potato late blight; (4) determination of the most important viral diseases in the national seed potato sector; (5) effects of different types of fertilizers on potato production and quality; (6) effect of the physiological age of seed potato on the productivity; and (7) digitalize the national potato production basins. These topics will be converted into MSc theses for students once the ongoing collaboration agreements are signed between CIP and the university.

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

To assess and document project performance, we developed a questionnaire for a baseline study to evaluate the knowledge and the potato production practices in the West and Adamawa regions. The monitoring and evaluation (M&E) team of ProCISA enriched this tool, which was tested in the two study regions; it will be administered to 320 smallholder farmers in November 2020. In preparing a national potato platform, we identified 143 stakeholders: 14 researchers,

43 policymakers, 41 extension partners, 24 NGO agents, 17 seed multipliers, and four laboratory stakeholders. Furthermore, we developed a mailing list that comprises 80 stakeholders who kindly agreed to receive news and other CIP information.

General Achievements and Problems encountered

During this semester, CIP was honored to attend the 8th session of the National Seeds and Plant Varieties Board and other technical working groups convened by MINADER. We also organized several training sessions, including an on-demand training of MINADER technical officers, even though it was not part of the proposal. Most important, the lone public potato TC laboratory disrupted by the restive crisis in the North-West region is functional. Also during this period, the technical team was formed, including an M&E specialist and an agronomist.

The big challenge is that COVID-19 disrupted project implementation, especially in monitoring by the DRCQ of the field multiplication of two newly introduced varieties. That is why the regulatory body seized the 6 t of 'Unica' and 'Chulu' because they were from on-farm multiplication instead of on-station. With the continuing crisis in the North-West region, CIP was not able to implement activities there.

IDO Contribution

During this reporting period, we directly trained 50 trainers from two training centers and 11 technical officers at MINADER on GAP for ware potato production. We also provided technical advice to a seed grower in the West region who was planning to establish a TC laboratory and a greenhouse.

Conclusions for the following Reporting Period

The initial plan was to train 30 extension agents (or in French, "*Chefs de Poste Agricoles*" (CPA). Given their essential role in overseeing smallholder farmers' training, we have agreed, together with ProCISA, to train at least 120 CPAs in the two active regions, hoping that budget flexibility at CIP and ProCISA will permit.

Publications, Papers, and Reports

- Good Agricultural Practices for Field Multiplication of Seed Potato in Cameroon. Green Innovation Centres for the Agriculture and Food Sector Project (ProCISA), 36pp., Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Cameroon (Link: <https://cgspace.cgiar.org/handle/10568/108906>).
- "Bonnes Pratiques Agricoles pour la Multiplication en champ de semence de Pomme de terre au Cameroun. Projet Centres d'Innovations vertes pour le Secteur Agro-alimentaire (ProCISA)," 36 pp., Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Cameroon (Link : <https://cgspace.cgiar.org/handle/10568/108905>).
- All the PowerPoint presentations summarizing the GAP manual for producing ware potato (<https://cgspace.cgiar.org/handle/10568/108469>).

Summary

This semester was busier than the previous ones, although the CIP staff worked from home for most of it. During this period, we formed the technical team, and were honored to contribute to high-level technical meetings convened by MINADER. We conducted three training sessions, including two ToT sessions in the West and Adamawa regions and training of MINADER technical officers. Note that the lone government-owned potato TC laboratory in the North-West region is again functional because the project donated essential equipment and reagents. For field production, we produced a seed manual in English and French; the manual is also accessible online for public use. With agreements signed between CIP and IRAD, 6 t of 'Unica' and 'Chulu' varieties were produced to be used by IRAD to start the homologation process. We are also discussing with the University of Dschang to begin joint research actions, and seven topics have been identified as an entry point. For each partnership, the donor is consulted for

endorsement. During this period, we developed and tested a questionnaire that will be used to carry out a rapid appraisal of potato practices in the project areas.