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BUILDING CAPACITY OF FEDERAL SEED CERTIFICATION AND REGISTRATION DEPARTMENT TO FACILITATE SEED AND PLANT SUPPLY INDUSTRY REGULATION

June 2019

SDGs:



Countries:

Pakistan

Project Codes:

TCP/PAK/3601

FAO Contribution:

USD 213 000

Duration:

1 April 2017 – 31 December 2018

Contact Info:

FAO Representation in Pakistan

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Implementing Partners

Ministry of National Food Security and Research, Federal Seed Certification and Registration Department (FSC&RD).

Beneficiaries

FSC&RD staff; government institutions and staff; supply and value chain participants in seed supply; the public and private sectors, and the non-profit sector engaged in crop research, seed and plant supply and marketing in Pakistan of wheat, gram, rice and cotton.

Country Programming Framework

CPF Priority Area 2 corresponds to the Strategic Priority Area (SPA) 2 of the One UN Programme (2013-2017 [OP-II])/UNDAF, i.e. Inclusive Economic Growth through the Development of Sustainable Livelihoods.



BACKGROUND

Over the years, Pakistan's seed sector has grown significantly. The seed system was initially dominated by the public sector in activities ranging from crop variety development, release/registration, seed multiplication/production, processing and marketing, to seed certification and quality control. Currently, the private sector comprises over 700 national and five multinational seed companies; thus, it is a major player. The public sector at the federal level is mandated to regulate the seed sector across the country; while at the provincial level public sector seed corporations have been assigned to produce and distribute certified seed of major crops to the farming community. However, public-sector seed supplies are currently on the decline. The seed sector's legislative environment has been improved to a large extent by the incorporation of 2015 amendments in the Seed Act 1976, and the legislation of the Plant Breeders' Rights Act, 2016. In general, the level of service delivery by both the public and private sectors is not on a par with international good practices, hence the seed industry has not yet harnessed the available potential.

In other words, Pakistan's seed industry, despite its large size and growth, has not evolved to the level of sophistication required to compete with its regional counterparts. Against this background, the project aimed to strengthen the capacities of the Federal Seed Certification and Registration Department (FSC&RD), as well as other public and private sector institutions/entities, to enable them to provide higher quality services to the seed and plant supply industry in Pakistan; and to improve the systematic seed supply in the country.

IMPACT

The project contributed to improving the seed sector in Pakistan. This will help to enhance food production in the country, and increase food security.

ACHIEVEMENT OF RESULTS

The project considerably improved local knowledge by training professionals engaged in the seed sector. The training programme was in line with internationally recognized bodies' practices and techniques (including the Organisation for Economic Co-operation and Development [OECD], the International Seed Testing Association [ISTA], and the International Union for the Protection of New Plant Varieties [UPOV]), and recently improved seed legislations in the country. As a result of the project interventions, stakeholders' confidence was increased, and they are prepared to work together for the improvement of the country's seed sector. This will help to ensure farmers' access to modern crop varieties and quality seed.

The skills and resources of FSC&RD training facilitators were improved in the seed certification sector through a number of training activities, including the following: i) the organization of seven training sessions, together with three orientation round tables for the preparation of a training programme/modules; as well as a distance-learning training course with UPOV for six professionals; iii) the training of 54 FSC&RD officers as facilitators/master trainers; iv) the training of 151 public and private sector professionals in systematic seed production; and v) the participation of 21 professionals in a three-day training course on Distinctness, Uniformity and Stability (DUS) testing/assessment of new crop varieties. The key feature of this training activity was the participation of the Deputy Director of South Centre for Variety Evaluation and Seed Certification, Viet Nam, as the main resources person. Given that this is an area where local technical capacity is limited, this initiative was appreciated by stakeholders.

In addition, 163 participants attended seminars on the “Role of plant genetic resources in varietal development and seed system”.

Training details, modules and documents were developed. In view of their practical utility, these are now largely being used by stakeholders and beneficiaries for improved service delivery. The materials included the Seed Certification Handbook, which was improved and updated, in line with international good practices, and taking into account improvements in seed technology practices and procedures. In addition, a brochure on the “Role of Plant Genetic Resources in Varietal Development and Seed system” was produced, in collaboration with the FSC&RD, the Bio-Resources Conservation Institute, and the National Agricultural Research Centre/Pakistan Agricultural Research Council. The brochure includes information pertaining to national seed legislation covering the Seed Act 1976; the Seed (Amendment) Act, 2015; and the Plant Breeders’ Rights Act, 2016. It also provides details of the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA), and other agreements, such as the Nagoya Protocol and the Convention on Biodiversity.

IMPLEMENTATION OF WORK PLAN

The planned activities were completed within the project budget and on time, with the exception of one activity; namely supporting the FSC&RD to develop a project for future work.

A no-cost project extension was requested and approved, in order to implement an important additional activity.

FOLLOW-UP FOR GOVERNMENT ATTENTION

It is recommended that the Government actively seek donor funding to assist the FSC&RD to set up its own training system, in order to conduct regular training sessions for seed sector professionals, to sustain the technical capacity building that was carried out during the project.

SUSTAINABILITY

1. Capacity development

Regarding the sustainability of the project outcome, the legal framework was significantly improved, and complemented the activities initiated by the project; and support policies were in place. However, the institutional infrastructure needs strengthening, in order to support the legal framework; and further financial support is required. It is recommended that donor funding be sought for this purpose.

The project implemented activities under a legal support system, and it is highly likely that the initiatives that were carried out will become part of the mainstream work of institutions operating in the seed sector, especially the FSC&RD.

The project organized workshops, consultative meetings, and orientation and training programme opportunities for seed sector stakeholder interaction and the development of partnerships.

2. Gender equality

As such, there was no gender focus. However, the project made the participation of women professionals in training sessions and other activities a priority.

3. Environmental sustainability

The supply of improved modern crop varieties and quality seed to farmers will ensure environmental sustainability, through better use of natural resources.

4. Technological sustainability

The project strengthened technical expertise, based on international good practices in seed crop inspection, seed testing, and early generation seed production. The developed modules were a combination of local knowledge/practices upgraded with developed/adopted international ones. Given that they were developed using a pragmatic approach, they are appropriate and flexible technologies, and conducive for local adoption.

As mentioned above, the technical capacities of seed sector professionals were improved significantly. However, bearing in mind the nature of the work, and new developments and emerging technologies in crop variety development, there is a need to continue training courses on a regular basis. It is recommended that donor funding be sought for this purpose.

5. Economic sustainability

The Government allocated additional funding to provide institutional infrastructure, and further investment in public and private sectors has been acknowledged. A Plant Breeders’ Rights Registry was recently established; and it is expected that more investments will be made for the improvement of FSC&RD and other seed sector institutions in the near future.

DOCUMENTS AND OUTREACH PRODUCTS

- ❑ Brochure: Role of Plant Genetic Resources in Varietal Development and Seed System. Pakistan Agricultural Research Council (PARC), FAO and FSC&RD. 24 January 2018. 4 pp.
- ❑ Seed Certification Handbook. FSC&RD. January 2019. 64 pp.

ACHIEVEMENT OF RESULTS - LOGICAL FRAMEWORK

| | | | |
|------------------------|--|---|------------------|
| Expected Impact | People of Pakistan live in food secure environment | | |
| Outcome | Improved seed certification system benefiting public and private seed sector stakeholders | | |
| | Indicators | <ol style="list-style-type: none"> Percentage of professionals (men and women) adopted international standards of seed system. Percentage increase of certified seed. | |
| | Baseline | <ol style="list-style-type: none"> 0 0 | |
| | End Target | <ol style="list-style-type: none"> Fifty percent enhanced capacity. Fifty percent increase of certified seed. | |
| | Comments and follow-up action to be taken | <ol style="list-style-type: none"> Planned training programmes were executed; however, owing to a shortage of professional staff in the FSC&RD, in some cases participation was limited. The level of achievement was significantly improved by involving international experts and institutions. <p>It is recommended that the Government actively seek funding to assist FSC&RD in setting up its own training system, in order to conduct regular training sessions for seed sector professionals, to sustain the technical capacity building that was carried out by the project.</p> | |
| Output 1 | FSC&RD training facilitators have improved skills and resources in seed certification sector | | |
| | Indicators | Target | Achieved |
| | <ol style="list-style-type: none"> Number of training programmes/modules developed on identified thematic areas (early generation seed production, seed certification/seed testing, DUS) within the seed sector. Number of training sessions organized. Number of FSC&RD men and women officers trained as facilitators/master trainers. Number of public and private sector staff (men and women) trained in systematic seed production. Improved upgraded FSC&RD website in place. | <ol style="list-style-type: none"> Development of three training programmes/modules on identified thematic areas within seed sector. Organization of eight training sessions. Training of 53 men and women from FSC&RD as facilitators/master trainers. Training of 120 experts (men and women) from public and private seed sector in systematic seed production. Improvement/upgrading of FSC&RD website. | Partially |
| | Baseline | 0 | |
| Comments | <ol style="list-style-type: none"> Four training programmes/modules were developed and shared with FSC&RD. Seven training sessions, together with three orientation round tables for the preparation of a training programme/modules were organized; as well as a distance-learning training course with UPOV for six professionals. 54 FSC&RD officers (49 men and six women) were trained as facilitators/master trainers. 151 professionals from the public and private sectors (138 men and 13 women) were trained in systematic seed production. It was not possible to improve the FSC&RD website during the project, owing to administrative constraints. However, FSC&RD was supported through the provision of equipment (three laptops and a printer). <p>It is advised that FSC&RD continue to update the available modules.</p> | | |

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|--------------|---|---|
| Activity 1.1 | Conduct cascading training of trainers (TOT) from FSC&RD and public and private seed sector professionals in rice, cotton, wheat and gram (crops inspection and early generation seed production) | |
| | Achieved | Yes |
| | Comments | The planned training programmes were carried out. In some cases participation was limited, owing to a shortage of professional staff in FSC&RD; however, the participation of stakeholders from other public and private seed sectors was very positive. For follow-up and sustainability, it is recommended that FSC&RD adopt a cascading training approach, including two-step training courses as a regular activity. |
| Activity 1.2 | Conduct two sets of training sessions, including TOT for FSC&RD and general training for public and private seed sector practitioners in seed testing | |
| | Achieved | Yes |
| | Comments | There was proactive participation by FSC&RD and other public and private seed sector stakeholders in these training sessions. For follow-up and sustainability, it is recommended that FSC&RD continue such training sessions on a regular basis. |
| Activity 1.3 | Conduct training for seed sector professionals on DUS Testing/Assessment of New Crop Varieties | |
| | Achieved | Yes |
| | Comments | Six professionals were supported to complete the distance learning courses of International Union for the Protection of New Varieties of Plants (UPOV). 21 professionals (19 men and two women) participated in a three-day training course on DUS Testing/Assessment of New Crop Varieties. An international consultant from Viet Nam, together with local experts conducted this training course. For follow-up and sustainability, it is advised that FSC&RD continue such training activities on a regular basis. |
| Activity 1.4 | Hold seminars on "Role of plant genetic resources in varietal development and seed system" | |
| | Achieved | Yes |
| | Comments | 163 participants attended seminars (155 men and eight women) on the "Role of plant genetic resources in varietal development and seed system". This activity was included at a later stage of the project. In view of the importance of this activity, it was included in the Technical Cooperation Programme Facility (TCPF) on "Improved Capacity in Use of Plant Genetic Resources for Varietal Development and Integration in the Seed System. |

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