



**Benefit-sharing Fund of the International Treaty on
Plant Genetic Resources for Food and Agriculture**

Project Cycle 2015-2019

WINDOW 2B

**IMMEDIATE ACTION PROJECTS
PR-41-TURKEY**

**Third Implementation Report
(General instructions)**

*This first implementation report must be sent to the Secretary of the International Treaty on Plant Genetic Resources for Food and Agriculture electronically at the following address **Treaty-Fund@fao.org**.*

I. PROJECT INFORMATION

Letter of Agreement Number: PR-41/TURKEY

Project title: Improving food security by enhancing wheat production and its resilience to climate change through maintaining the diversity of currently grown landraces

Target country/ies: Afghanistan, Iran, Turkey

Organization: CIMMYT

Contact person: Alexey Morgunov

E-mail: a.morgounov@cgiar.org

Address: CIMMYT P.K. 39 EMEK 06511 ANKARA, TURKEY

Telephone Number: +90-312-3448777

Report due date: 16.02.2017

Period covered by this report: 16.02.2016-16.09.2017

It will take you around three hours to compile this third implementation report.

II. RATIONALE OF THE THIRD IMPLEMENTATION REPORT

The monitoring and reporting requirements proposed in this second implementation report are in accordance with the Interim Procedures for Reporting, Monitoring and Evaluation of the Benefit-sharing Fund, adopted by the Governing Body of the International Treaty on Plant Genetic Resources for Food and Agriculture (IT-PGRFA) at its Fourth Session through Resolution 3/2011. Following the conditions and schedule of reporting established in Annex 1 of the Letter of Agreement, the Service Provider will submit to the Secretary of the ITPGRFA the second implementation report after fourteen (14) months of the starting of the project activities. It shall report on progress and results of activities implemented within the corresponding period of project implementation. This second progress report will be followed by more detailed Midterm and final reports.

The objective of this report is to provide a brief update of progress in project implementation and identify risks that need to be resolved to ensure an efficient and inclusive project implementation.

The reporting and monitoring principles of the Benefit-sharing Fund projects require that the information provided by our implementing partners be focused and specific, qualitatively and quantitatively measurable in terms of what has been done, with what purpose, who and why has been involved in the activities (number of people, their gender, socio-economic status and the reason for their involvement) the nature of the implemented activities, the methodology used, the outcomes realized and their contribution to achieving the stated objectives.

III. STATUS OF PROJECT IMPLEMENTATION.

1. Background

Describe who was involved in elaborating this monitoring report and detail their roles and responsibilities. (Maximum length 0.5 page)

The current report has been prepared by the Project Leader Dr. A. Morgounov (CIMMYT-Turkey) based on the project activities, formal and informal meetings and communications with all project participants. Specific contribution to this report was provided by Dr. Rajiv Sharma (CIMMYT-Afghanistan) for activities in Afghanistan, Dr. Saber Golkari (Dryland Agricultural Research Institute-Iran) for activities in Iran and Dr. Fatih Ozdemir (Bahri Dagdas International Agricultural Research Institute-Turkey) for activities in Turkey.

2. Project continuation: enabling environment (Maximum length: 1.5 pages)

2.1. The project inception and enabling environment was described in details in the 1st implementation report. Since then the project established the Steering Committee which met and had its first session on January 20, 2017. The establishment of the Steering Committee was essential for the project in evaluating the progress and providing guidance and future strategic directions. The Steering Committee composition reflects different stakeholders and the committee has excellent capacity for guiding the project. The details of the Steering Committee composition, meeting minutes and outcome were presented in the second implementation report. Since the Steering Committee Meeting in January 2017 several important developments took place in the enabling environment:

- The project leader regularly consults with the Chairman of the SC Dr. Yusuf Arslan who is also a Head of Crops Department in General Directorate of Policy and Agricultural Research (Ministry of Food, Agriculture and Livestock, Republic of Turkey). This provides constant communication, advise and support to project implementation.
- The members of the SC continued to be involved in the project activities providing advice and technical support. Dr. R. Zare (AREEO-Iran) was co-organizer of the Stakeholders Workshop in Iran and contributed to discussions and outcomes. Dr. H. Muminjanov (FAO-Ankara) is regularly consulted. Dr. A. Bjornstad (Norway Agric. University) participated in Iran Stakeholders Workshop in July, 2017 and contributed through presentation and discussion. Dr. Thomas Payne (CIMMYT-Mexico) participated in the project reporting and planning workshop in September 2017 in Konya, gave two presentations and contributed valuable suggestions. This involvement of SC members in the project activities is very valuable as it provides support and guidance from different levels by highly experienced people.

- Iran Stakeholders Workshop organized by AREEO and DARI took place in Tabriz July 3-5, 2017 and contributed substantially to the project visibility, technical implementation in Iran and policy. The program and the key outcomes of the workshop are presented in Annex 1.
- In Turkey, there is increase in general public awareness of wheat landraces value as food with publications and some value chains being formed. This tendency may be followed in Iran and will certainly contribute to landraces popularity and on-farm diversity of wheat landraces.

2.2. The project implementation has been inclusive of all stakeholders and partners referred to in the Technical Proposal: policy makers (representatives of national agricultural research systems); extension agencies in the target provinces; farmers growing the landraces, NGOs and recently several universities in Turkey and Iran. National Gene Banks were involved in the meetings in 2017 and some activities will be planned with them.

3. Project implementation: progress towards the achievement of outputs (Maximum length 6 pages).

3.1. Project effectiveness (Maximum length 2 pages)

3.1. *Assess progress made towards the achievement of each planned output and provide details on the quality and quantity of output delivery as well as the timeliness with respect to original work plan.*

3.2. *For each output, describe relevant activities undertaken during the reporting period and specify the methodology used.*

3.3. *For each activity, specify which stakeholder/beneficiary group(s) was/were involved, the reason of their involvement and what was the share of women in these groups (%).*

Below description covers all three areas for each of the outputs to avoid the duplication.

Output 1: Drought and heat tolerant wheat landraces selected using on-station and on-farm trials and participatory approach.

Output 1.1. *At least 35 currently grown wheat landraces documented, evaluated and characterized through on-station participatory trials for agronomic traits including drought and heat, diseases as well as genomic diversity (Turkey – 20; Iran – 10; Afghanistan – 5).*

Evaluation of the material was conducted according to the project technical framework and, in fact, exceeded the planned volume (Table 1). The project participants followed established research methodology and generated valuable data which was used for selection of superior selections from the landraces. Emphasis on drought and heat was in Turkey and Iran sites and the landraces tolerant to these abiotic stresses have been identified.

Table 1. The number of landraces evaluated in the project in 2016 and 2017.

Country	Evaluation site	Plot size x replication	Target province	Number of landraces		
				2016	2017	
Turkey	Konya: rainfed & irrigated	7 m ² x 2	Konya	33	21	
			Malatya	62	20	
			Tokat	53	20	
		7 m ² x 1	Mardin	91	20+19**	
			Manisa*	33	0	
			Erzurum*	0	110	
		Haymana: rainfed	7 m ² x 2	Aksaray*	0	44
	Siirt*			0	46	
	Iran	Margaheh, rainfed	7 m ² x 3	E. Azerbaijan	20	60
			Headrows	Khorasan	18	15
Afghanistan	Kabul, irrigated	10 m ² x 3	Balh	4	5	
			Herat	5	5	
Total				286	392	

* Additional target provinces beyond four committed in the project.

** - Evaluated in Haymana.

Output 1.2. *At least 30 wheat landraces superior for drought and heat tolerance and possibly diseases selected for seed production and promotion with the farmers, characterized and deposited to the national gene banks.*

Like in 2016, in 2017 selection of the landraces was conducted based on the data collected and integrated after the harvesting. There was strong participatory component in the selection as the farmers and extension agencies from the target provinces visited the fields at the research stations during the wheat season. The lists of the selected landraces for each country and target provinces with key data for 2016-2017 are presented in Annex 2. There are many selections from the landraces which are resistant to prevalent diseases and high yield under drought and heat stress. While making the selections for the farmers the project considered the origin of the landraces – to offer the same landraces which were collected from the same geographical region few years ago and improved by the project. However, when the diversity of this material was limited the project also selected some landraces from similar environments with similar appearance and adaptation pattern.

Output 1.3. *At least 20 useful alleles for drought and heat tolerance, disease resistance and grain quality identified in selected bread wheat landraces.*

The framework for conducting genetic study has been developed during the regional inception meeting in June, 2016 in Konya. The essential part of this activity is the exchange of the landraces included in the project and study. For 2017 season 50 Turkish landraces were received, evaluated and seeds multiplied in 2017 in Turkey, Iran and Afghanistan. Iran landraces were received in Turkey but not in Afghanistan. Afghanistan landraces for different technical reasons were not received neither in Turkey nor in Iran. The project aims to have a uniform set of material phenotypes in all three countries. For 2018 season the landraces exchange was complete with all three countries having all

the landraces. During the 2017 reporting and planning meeting in September in Konya (Turkey) the final composition of association panel was agreed comprising 84 landraces (Afghanistan – 20; Iran – 19; Turkey – 45) and 35 entries of 20th IWWYT-SA and 34 entries of 21st IWWYT-IRR. The modern germplasm representing semi-arid and irrigated germplasm pool was added to association panel to enhance the power of association mapping. Also, the seeds of these trials are available in all countries and can be easily included without multiplication. The first year of phenotyping (un-replicated) will take place in 2018 and the genotyping will be made in 2017 with assistance from Kihara Research Center – Yokohama City University (Japan) and CIMMYT-HQ. Full phenotyping with replications in all countries will be made in 2019. The list of the association mapping panel is presented in Annex 3.

Output 1.4. *“Passport” and associated genomic and phenotypic information on wheat landraces used in the project systematized and disseminated to research communities.*

The Turkish set of landraces for exchange has been well characterized in 2017 in all three countries. A number of landraces were identified as superior based on multilocational testing: The Iranian set of landraces was studied in Iran and Turkey in 2017 with several demonstrating superior performances. The Afghan landraces were studied only in Afghanistan. Sample of the data collected in 2017 is presented in Annex 4. The full data in Excel format will be made available at the project website: www.wheatlandraces.org. The deposition of the seeds of the “exchange set” into National Gene Banks is planned for 2018 when enough seeds will be obtained.

Outputs 2: Wheat germplasm combining drought and heat tolerance with disease resistance developed through crosses and selection.

Output 2.1. *At least 30 useful segregating populations with resistance to drought, heat and diseases developed and distributed to the breeding programs in the region.*

This activity is being done ahead of schedule and in larger numbers. The crosses were during 2015-2016 season: Turkey – 43 crosses. In Afghanistan 18 crosses were made involving landraces and modern varieties. Respectively in Iran 48 crosses were made. In 2017 the F1s were grown in all three countries. Based on the seed germination and agronomic performance some F1s were discarded. From 43 Turkish crosses 26 were maintained for F2 populations. Respectively, all F2s of Iran crosses were kept and all 18 Afghan F1s were selected. The list of all F2 populations selected for 2017-2018 season is listed in Annex 5. For some F1s back- or top-crossed were made in two directions: back to landraces for landraces improvement and back to modern varieties for modern germplasm improvement. Some additional simple crosses were made in 2017 based on superior landrace parents identified in 2016. The project staff coordinated the crosses but the labour involved in making crosses was primarily women with their total share at least 70%.

Output 2.2. *At least 3 modern technologies for characterization and improvement of PGRFA introduced and disseminated in the region.*

The project started to introduce three modern technologies. A) Use of genomic tools for diversity analysis and selection. Training on the concept of genomic tools application took place in June, 2016 in Turkey during the regional meeting with participation of all

three countries. Additional training was conducted in Konya (Turkey) in September, 2017 during the Reporting and Planning Meeting. In 2017, the landraces were multiplied and the association mapping panel has been established (see point 1.3 of this report and Annex 3). Germplasm analysis for molecular markers will be done in 2017. The contract has been signed with LGC company for molecular markers work. The plates for the dry leaves have been distributed to co-operators and we expect to submit the material by November. For the fingerprinting, the service provide is being identified. B) Utilization of physiological tools for drought and heat tolerance selection. In 2016 and 2017 on-station trials new physiological approach was used to evaluate the biomass of the landraces based on NDVI Green Seeker technology. The devices were already available in Turkey and were provided through the project to Iran and Afghanistan in 2016. NDVI allows evaluation of biomass based on canopy reflectance and is closely associated with the grain yield. The field phenotyping manual has been provided to all programs. The lectures and training was conducted by the project. At the same time many breeders from Turkey and Iran attended the phenotyping training course organized by CIMMYT-Turkey physiologist Dr. Marta Lopes a part of Treaty project W3B-PR-18-Turkey. C) Disease resistance transfer through backcrosses and marker assisted selection. The training was conducted in 2016 and 2017. For 2017 the main objective was identification landraces to be used as recurrent parents on one hand and donors of disease (rust) resistance with effective genes tagged by molecular markers on the other hand. The recurrent landraces were identified from the exchange set evaluated in three countries: 15 landraces were identified (Annex 6). They will be planted in the greenhouse in Izmir for targeted crosses. The 2017 Crossing Block was genotyped for 105 molecular markers (including diseases) and the data was distributed to the project participants. This data will be used for selection of crossing parents with known genes for marker assisted selection. In all these activities wider group of researchers participated with 20% women.

Output 3: Improved drought and heat tolerant landraces adopted by resource poor farmers in the targeted project regions.

Output 3.1. *At least 30 wheat landraces are subjected to seed production and promotion activities in the target regions and delivered to farming communities.*

The landraces for seed production and promotion were selected based on the agronomic and other data in August 2016. The project target has been met and even exceeded. The regional project meeting in June, 2016 in Konya discussed this activity in details and developed a methodology and the plan for on-farm activities in the target areas. The Turkey project meeting with participation of the farmers took place August 11-12, 2016. The methodology of on-farm trials was developed, discussed and agreed with the participants. The farmers and extension agents actively participated and were taken to the research institute in Konya for grain evaluation and selection of the landraces destined to them. The outcome of the meeting and especially the methodology of on-farm activities were circulated to the teams in Iran and Afghanistan. Visit by the project leadership and participants was made to all target provinces and counties in Iran in July and in Turkey in September 2016. This assisted in following the uniform approach and methodology for on-farm activities. Planting of the on-farm trials

was conducted at optimal time following the methodology developed. The summary of the project 2017 on-farm activities is presented in Table 2.

The results of the on-farm trials were very encouraging. They are summarized in Annex 7. In all sites superior wheat landraces were identified based on regular observations by farmers in cooperation with the project staff and the yield data. These selected landraces will be maintained by the farmers on a bigger plot area and shared with other farmers in the same village and beyond. New superior wheat landraces have been identified through the on-stations trails in 2017 and the seeds are available for further distribution to the farming communities in the target provinces and beyond. The share of women participating in the regional meeting and farmers visit was 10%.

Table 2. Description of the on-farm wheat landraces trials planted for 2016-2017 season.

Province	County	Village	Farmer	No. of landraces planted		Seeds per landrace, gr	Geo-coordinates	
				Bread wheat	Durum		Latitude	Longitude
Afghanistan								
Balh	Dehdadi	Pusht-e-Bagh	Haji Abdul Manan	10	0	200	36.638	66.946
	Nahar-e-Shahi	Langar khana	Mirza Mohammad	10	0	200	36.765	67.024
Herat	Kushk Rubat Shangi	Jalalabad	Mohammad Ibrahim	10	0	200	34.950	62.250
	Enjil	Sar-e-Koocha	Abdul Ghani	10	0	200	34.300	62.250
Iran								
E.Azerbaijan	Hourand	Khalifaloo	Manochehr	11	4	1650	38.40.07	47.16.47
	Hourand	Khalifaloo	Bakhtyari	24	4	5000	38.40.07	47.16.47
	Majid Abad	Majid Abad	Emam Ali Sangrabi	11	4	1650	38.42.51	47.19.28
	Majid Abad	Majid Abad	Abolfazl Esmailzadeh	24	4	5000	38.42.44	47.20.39
Turkey								
Konya	Bozkir	Dereçi	İbrahim Ali Boynsuz	5	5	600	37.110	32.370
	Hadim	Selahattin	Mustafa Doksan	4	7	1100	36.966	32.805
Malatya	Pötürge	Aritoprak	Sabri Yilmaz	8	2	600	38.205	38.637
	Merkez	Karakoy	Mehmet İlçin	8	2	1000	38.393	38.428
Mardin	Savur	İçören	Zeki Kaya	7	4	250	37.558	41.097
	Midyat	Budaklı	Hasan Duru	7	5	250	37.378	41.349
Tokat	Merkez	Nebi	Ali Bektaş	5	5	1000	39.592	36.216
	Yeşilyurt	Karaoluk	Yusuf Ayten	5	5	1000	40.205	36.418

Output 3.2. *At least 3,000 subsistence farmers (10% women) will adopt improved wheat landraces and technologies of their maintenance as well as agronomy practices and will benefit through better adaptation to drought and heat.*

In 2017 The project started to work directly with the farmers through on-farm trials and demonstrations in all three countries. In total 15 farmers were directly involved in the project by hosting the wheat landraces trials. However, the number of direct beneficiaries was several times higher including those attending the field days and training as well as receiving the seeds of the best selected landraces. The project Reporting and Planning meeting in September, 2017 in Konya summarized the work with the farmers and agreed to expand to change the concept of on-farm trails: instead of targeting fewer farmers with 10-12 landraces it was agreed to target more number of

farmers with fewer landraces using “mother-baby” approach. This plan was agreed and is being implemented at present. Also the project agreed for Turkey to expand the activities to other provinces based on the stakeholders interest and request and subject to seeds availability. The target number of farmers who will use the landraces provided by the project for 2018 is: Turkey – 50; Iran – 20; Afghanistan – 30.

Output 4. Farmers, extension services and local administration, policy-makers, NGOs and researchers trained on sustainable cultivation of wheat landraces and biodiversity maintenance.

Output 4.1. *Community conservation systems recognizing gender roles developed in all target countries and provinces, ensuring long-term cultivation of wheat landraces and enhanced food security.*

The first steps taken in this direction were meeting with project participants and communication to the target provinces agricultural administration and the farmers. This communication continued throughout 2017 field season when the project staff started to work closer with the target communities. Anthropology specialist has been involved and will design a survey to assist in understanding the role of women in on-farm conservation of wheat genetic diversity.

Output 4.2. *Sustainable linkages developed between the farmers, researchers, extension services, NGO and policy makers; the national and international institutions.*

The key activity for this output was regional wheat landraces meeting in Ankara (Turkey) January 19-20, 2017 reported in the 2nd Project Implementation Report. The meeting was attended by a wide range of stakeholders including farmers and NGOs. In addition to interesting and diverse presentations the meeting made a brain-storming discussion on the key directions how to preserve the on-farm diversity of wheat landraces. The project followed up some of these directions. The other important activities since the previous project report were:

- Iran Stakeholders workshop in July, 2017 already reported in section 2.1 (Annex 1). The workshop was very successful and contributed greatly to the visibility of the project and involvement of numerous stakeholders.
- Project reporting and planning meeting collected 25 projects participants from three countries and served as a platform for discussion, training and planning 2018 activities. Dr. Thomas Payne (CIMMYT-Mexico), member of the project SC participated in the meeting and provided valuable contribution.
- Project visit and informal review took place July 9-14 and was attended by the Project consultants Prof. Cal Qualset (University of California, Davis) and Prof. Tomohiro Ban (Yokohama City University), Dr. Masahiro Kishii (CIMMYT-Mexico) Prof. Kentaro Shimizu and Gwyneth Halstead-Nussloch (Univesrity of Zurich). The group visited all the on-station activities in Haymana and Konya as well as the on-farm activities in Tokat and Malatya. Several excellent suggestions were made. The genomic component of the project was discussed and planned to be implemented with participation of University of Zurich.
- On-station field days conducted in Afghanistan, Iran and Turkey attracted more than 250 participants representing variable stakeholders and contributed greatly to the project promotion.

- On-farm field days conducted in Afghanistan, Iran and Turkey attracted more than 500 participants representing primarily farmers and extension agents and contributed greatly to the promotion wheat landraces, on-farm diversity and sustainable agronomic practices.
- Both on-station and on-farm field days were publicised through local media including newspapers, TV, web sites and social media.
- Promotional items were distributed during the field days and training.
- Opening of the project web site www.wheatlandraces.org contributed to the project visibility.
- Project visibility plan has been developed and distributed to three countries. Respective individuals will be nominated to implement it on the country level.

Annex 8 demonstrates the activities 4.2. Annex 9 lists project co-operators.

3.4. The major factors facilitating the progress in achieving the planned outputs were the following: a) Good project preparatory work so that all on-farm trials were planted before the formal conclusion of the project; b) Previous experience of Turkey project team of working with the landraces and the farming communities which was useful in sharing with the project teams in Iran and Afghanistan; c) Relevance of the project goals and activities to the needs of the research and farming communities; d) Availability of the funds, materials and equipment for project implementation; e) Support from CIMMYT offices in Iran and Afghanistan in communication and technical backstopping of the project activities in respective countries. The major factors impeding the progress in achieving the planned outputs were the following: a) abiotic stresses at some sites which affected on-farm trials resulting in poor grain yield and small amount of seed available for further distribution to farmers; b) difficulties in transferring the funds to Iran due to banking restrictions and the need to physically transfer cash while traveling; c) Restrictions of travel to Afghanistan due to security considerations. However, these factors did not affect successful implementation of the project.

3.2. Project Relevance (Maximum length 3 pages)

3.2.1. *Indicate the geographical extension (km²) of the regions of interventions to date, their relevance for PGR diversity and assess the vulnerability of the targeted areas to food insecurity, poverty and climate change.*

The geographic coverage of the project will be evaluated in 2017 during the farmers and communities survey. The regions relevance for PGR diversity and food security is very high as described in the project document and the 1st implementation report. The climate change affects the target communities very negatively as was exemplified by the conditions in the fall of 2016 in Tokat province of Turkey. The trials could not be planted due to continuous drought in fall and inability of the farmers to prepare the field for planting. They were planted in spring and were successful. The geographic extension followed precisely the project outputs and milestones.

3.2.2. *Describe to what extent the targeted population has been involved in the third phase of project implementation by specifying which individuals, groups and organizations have participated in the project activities so far, ensuring that this*

description is disaggregated according to gender criteria and socio-economic of people involved (e.g. 10 farmers-male).

The main activities of the third phase of project implementation included the following:

- Visit to farmers' fields, communication to farmers, local administration and extension agents, managing the trials, harvesting, data analysis, selection, planning.
- On-station and on-farm field days and training sessions.
- Iran Stakeholders meeting in July, 2017 in Tabriz.
- International Group visit to Turkey in July, 2017.
- Project reporting and Planning Meeting in September, 2017

The following groups of the target population have been involved in the third phase of the project implementation:

Target group	Turkey	Iran	Afghanistan	Total
Policy-makers - males	20	5	2	27
Policy – makers -females	5	1	0	6
Researchers-males	40	40	20	100
Researchers-females	10	8	3	21
Extension agents-males	50	20	20	90
Extension agents-females	10	10	2	22
Farmers - males	250	50	50	350
Farmers - females	30	5	5	40
NGOs - males	10	5	0	15
NGOs - females	4	0	0	4
Universities – males	20	15	2	37
Universities – females	5	5	0	10
Total - males	390	135	94	619
Total - females	64	29	10	103

3.2.3. *Briefly describe how project activities implemented so far meet the main needs of the targeted population, what are those needs and how those have been assessed (i.e. desk review, household surveys, questionnaire, key informants interviews etc.).*

The needs of the target population in Turkey have been reflected in the recent publication by Kan et al. (2015) based on extensive household surveys. Improved landraces, seeds and agronomic practices were underlined as important in maintaining the on-farm diversity. These are the key project outputs which will be delivered through the project to the target communities in Turkey. In Iran and Afghanistan farmers and rural surveys have been conducted in the past and their results will be utilized by the project to identify the key farmer's needs. There is a clear evidence that the project meets the needs of the farming communities in Iran and Afghanistan similar to Turkish communities. The survey of the farmers involved in the project as well as the farming communities by anthropologist with gender focus is planned for 2017-2018.

3.3. Training and capacity building (maximum length 1 page)

List the main training and capacity building activities undertaken so far, specifying the type and frequency of training activities, the capacities enhanced and their effectiveness

in addressing issues of conservation and sustainable use of PGRFA. Please, indicate the number and socio-economic status of people reached.

Training on participatory breeding and variety selection was conducted by consultant Dr. C. Qualset (University of California – Davis, USA) in July, 2017 in Konya (Turkey) during the international group visit.

Training on application of modern genomic technologies in landraces improvement was conducted by Prof. T. Ban (Yokohama City University, Japan) and Prof. K. Shimizu (University of Zurich) in July, 2017 in Konya (Turkey) during the international group visit.

Both training was attended by researchers and project participants: total 25 people including 6 women.

Training on conducting participatory improvement of landraces conducted by Prof. Asmund Bjornard during Iran Stakeholders Workshop in Tabriz in July, 2017. The training included presentations, discussion and field visit. It was attended by 50 participants (researchers, extension agents and farmers) including 6 females.

Training conducted during the Project Reporting and Planning Workshop in Konya in September, 2017 (attended by 28 people including 6 females):

- Ex-situ and in-situ conservation of wheat genetic resources and the utilization of databases for PGR was conducted by Dr. Thomas Payne (CIMMYT-Mexico)
- Application of modern genomic technologies in wheat improvement by Prof. H. Ozkan (Cukurova Univ., Turkey)
- Utilization of phenotyping in wheat improvement by Dr. O. Savasli (Transitional Zone Agric. Res. Inst., Eskisehir, Turkey)
- Utilisation of anthological methods and tools in gender analysis by Dr. Elif Basak (Hacettepe Univ., Ankara, Turkey)

Training of farmers was conducted during the visits of project participants and all the on-station and on-farm field days to the targets farmers and villages and involved extension agents and numerous farmers.

IV. RISK ASSESSMENT AND MANAGEMENT

Fill in the Risk Assessment Matrix in Annex1. It is intended to reveal possible risks in the project implementation and identify possible management strategies for tackling such risks. The risk management strategies may require modifications in the project framework, work plan and distribution of funds.

V. SIGNATURE



.....
Contact person (Name, position)

...Alexey Morgunov.....
Author of this report (name and position).

This report must be signed by: i) the contact person; and ii) the responsible designated for monitoring the project as per information provided in the Project Proposal Form.

Explicatory note: Please indicate the name and the position of the person who is signing. Any variation with the information provided in the Project Proposal Form should be reported to the Secretariat of the IT-PGRFA.

Annex 1. Risk assessment and management

Table: Risk assessment in the project implementation

Risk factor	Indicator of Risk	Indicate the level of risk	Brief explanation of risk level (provide here below information you deem necessary to justify the level of risk) <i>Max 100 words</i>	Strategy for risk management adopted (if the level of risk is medium or high) <i>Max 100 words</i>
Environmental conditions	Low risk: Project area is not affected by severe weather events or environmental stress factors.	Low	Project output 4.	None.
	Medium Risk: Project area is subject to more or less predictable climate events (link from below): 1. Drought 4. Hailstones 7. Diseases 2. Runoff 5. Excessive rains 8. Noxious weeds 3. Cold weather 6. Pests	Medium	Outputs 1; 2; 3. Abiotic stresses are common in all three countries. Hailstones can happen and though rare – can affect the project sites. Diseases are threat.	Replicate the trials in other sites, provide irrigation facility if necessary, Under severe disease or pests pressure – use protection by chemicals.
	High Risk: Project area has very harsh environmental conditions (link from below): 1. Drought 4. Hailstones 7. Diseases 2. Runoff 5. Excessive rains 8. Noxious weeds 3. Cold weather 6. Pests			
Social, cultural and economic factors	Low Risk: There are no apparent economic, social, and/or cultural issues that may affect project performance and results.	Low	Iran and Turkey	
	Medium Risk: Social or economic issues pose challenges to project implementation but mitigation strategies have been developed.			
	High Risk: Project implementation is highly sensitive to socio-economic issues and cultural barriers.		Afghanistan: security issues may affect on-farm activities and prevent sites visit by project leader and staff.	The project relies on local ARIA and CIMMYT staff for project implementation. Frequent communications and technical support will be provided.
Capacity issues	Low Risk: Sound technical and managerial capacity of the implementing institution and the project partners.	Low	All outputs.	
	Medium Risk: Weaknesses exist but have been identified and actions taken to build the necessary capacity.			

Risk factor	Indicator of Risk	Indicate the level of risk	Brief explanation of risk level (provide here below information you deem necessary to justify the level of risk) <i>Max 100 words</i>	Strategy for risk management adopted (if the level of risk is medium or high) <i>Max 100 words</i>
Stakeholder involvement	Low Risk: All partners involved and positive feedback from stakeholders and partners received.	Low	All countries demonstrated strong support.	
	Medium Risk: Consultation and participation processes seem strong but ignore some groups or relevant partners.			
	High Risk: Signs of conflict with critical stakeholders or evidence of lack of interest from partners and /or stakeholders detected.			
Management structure	Low Risk: Roles are stable and responsibilities are clearly defined and understood.	Low	Turkey, Afghanistan	
	Medium Risk: Individuals understand their role but are unsure of responsibilities of others.	Medium	Iran	Better communication, coordination and close follow up of the work plan, visits to the country and discussion of issues.
	High Risk: Unclear responsibilities or overlapping functions which lead to management problems.			
Governance structure	Low Risk: Steering Committee and/or other project bodies meet periodically and provide effective direction/inputs.	Low	Steering Committee has been established and met with good recommendations. The SC members continue to be involved.	
	Medium Risk: Project bodies meet periodically but guidance/input provided to project is inadequate.			
	High Risk: Members lack commitment (rarely meet) and therefore the project body/ies do not fulfill their functions.			
Short term/long	Low Risk: Project is meeting short term needs and results within a long term perspective, particularly sustainability and replicability.	Low	All outputs and all countries.	

term balance	Medium Risk: Project is focused on the short term outlook with little consideration or interest in the long term perspective.			
	High Risk: Longer term issues are deliberately ignored or neglected.			
Risk factor	Indicator of Risk	Indicate the level of risk	Brief explanation of risk level (provide here below information you deem necessary to justify the level of risk) <i>Max 100 words</i>	Strategy for risk management adopted (if the level of risk is medium or high) <i>Max 100 words</i>
Co-financing (indicate the amount) USD:	Low Risk: Co-financing is secured and payments are received on time.	Low	Co-funding is through the staff and facilities working well. The land and facilities at the partners are available.	
	Medium Risk: Co-financing is secured but payments are slow and bureaucratic.			
	High Risk: A substantial part of pledged co-financing may not materialize.			
Subcontracting and procurement	Low Risk: Sub-contracting is guaranteed and procurement arranged on time.	Low	Turkey	
	Medium Risk: Sub-contracting is guaranteed but procurement of goods is slow and bureaucratic.	Medium	Afghanistan and Iran	
	High Risk: Sub-contracting is compromised and so is the procurement of goods.			
Budget	Low Risk: Activities are progressing within planned budget.			
	Medium Risk: Minor budget reallocation is needed.	Medium	All countries	Minor re-allocation between different budget lines will be required due to clarified costs.
	High Risk: Reallocation between budget lines exceeding XXXX of original budget is needed.			

Workflow	Low Risk : Project is progressing according to work plan	Low	All outputs.	
	Medium Risk : Changes in project work plan occurred without major effect on overall implementation.			
	High Risk : Major delays or changes in work plan or method of implementation have occurred.			

