

Section 2: Collaborating Institutes Information

ATTC - Agricultural Technology Transfer Centre of Lushnje – Albania

ASAU - Armenian State Agrarian University - Armenia

IGR, NASA - National Academy of Sciences - Azerbaijan

SPC - SPC for Arable Farming – Belarus

IPGR - Institute of Plant Genetic Resources "K. Malkov" - Bulgaria

GIF - Georgian Institute of Farming - Georgia

GSAU - Georgia State Agrarian University - Georgia

NAGREF – Cereal Institute, Greece

RCA - Central Agricultural Office - Hungary

ICCI – Tel-Aviv University, Institute of Crop Improvement - Israel

INRB - INRB-INIA - Portugal

The following Partner is not in condition to sign the Solemn Undertaking and has not signed the Letter of Agreement

IGC NASB - The Institute of Genetics and Cytology of the National Academy of Sciences of Belarus

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections
2011 Technical and Financial Report

Institute: ATTC-Lushnje, Albania

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Sokrat Jani

Signature: 

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

As per previous report (2010). No further achievements for 2011.

ATTC-Lushnja (Albania) has performed all activities concerning the regeneration of legumes accessions. We have worked intensively and diligently and activities were completed on time and with good quality.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

Safety-duplication: this activity has not yet been completed; we have not sent the regenerated seeds for duplicate storage. We have been waiting for a reply to our request regarding the dispatching of regenerated seeds to the international genebanks (CIAT, ICRISAT and ICARDA). ATTC-Lushnje is a small center for the transfer of agricultural technologies and has no facilities to process seeds (cleaning, drying, fumigation, packaging) in accordance with the international requirements and standards and we proposed to send the seeds as "fresh seeds" (ripe seeds, but dried in ambient conditions and packed in paper envelopes). To date, this solution has been (partially) accepted only by ICARDA; we have received no reply from the other centers.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

As per previous report (2010)

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

As per previous report (2010)

2. Achievements by Crop to 31 December 2011

A. CROP: Chickpea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	6	
1.2 Number of accessions successfully regenerated as of last report	6	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	6	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	6	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	6	

Activities	Number of Accessions	Comments
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 6 When will these be sent (month/year):	See comments under I.2 (planned activities not completed)
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: 0 Note: these must be sent by the next opening in February 2012	We suggest that seed is sent to Svalbard from ICRISAT
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Lentil

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	16	
1.2 Number of accessions successfully regenerated as of last report	11	5 non-viable
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	11	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	5	
1.8 Total number of accessions characterized over the course of the project	11	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	16	5 accessions of Lentil were found to be non-viable
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?:11 When will these be sent (month/year):	See comments under 1.2 (planned activities not completed)
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: 0 Note: these must be sent by the next opening in February 2012	We suggest that seed is sent to Svalbard from ICARDA
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	18	
1.2 Number of accessions successfully regenerated as of last report	13	5 non-viable
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	13	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	5	
1.8 Total number of accessions characterized over the course of the project	13	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	18	5 accessions of Faba bean were found non-viable
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?:13 When will these be sent (month/year):	See comments under 1.2 (planned activities not completed)

Activities	Number of Accessions	Comments
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?:13 Note: these must be sent by the next opening in February 2012	We suggest that seed is sent to Svalbard from ICARDA
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

D. CROP: Bean (*Phaseolus*)

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.4 Number of accessions originally proposed for regeneration (target accessions):	232	
1.2 Number of accessions successfully regenerated as of last report	195	37 non-viable
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	195	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	37	
1.8 Total number of accessions characterized over the course of the project	195	
2. SAFETY DUPLICATION TO CIAT		
2.1 Number of accessions planned for duplication:	232	37 accessions were found non-viable
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 195 When will these be sent (month/year):	See comments under 1.2 (planned activities not completed)

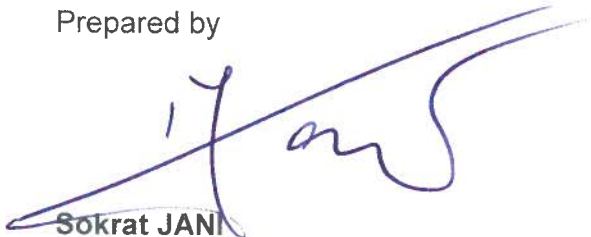
Activities	Number of Accessions	Comments
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: 195 Note: these must be sent by the next opening in February 2012	We suggest that seed is sent to Svalbard from CIAT
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

For all of accessions successfully regenerated is provided passport and characterization data, according to EURISCO database. EURISCO_ Albanian Grain legumes passports attached this report (electronically).

Prepared by




Sokrat JANI

Researcher, Project contact person



Certified by



Pandeli BOÇI
Director of ATTC-Lushnja

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Chickpea	90	90.00
	Common Bean	3,470	3,470.00
	Faba Bean	160	160.00
	Lentil	150	150.00
2. Supplies	Chickpea	30	30.00
	Common Bean	1,168	1,100.00
	Faba Bean	56	50.00
	Lentil	42	40.00
3. Local Travel	Chickpea	0	0
	Common Bean	210	208.00
	Faba Bean	0	0
	Lentil	0	0
4. Equipment ¹	Chickpea	0	0
	Common Bean	0	0
	Faba Bean	0	0
	Lentil	0	0
Total		5,376	5,298.00

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures: *no expenditures for 2011*

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Note:

For all activities of LoA(09/055-Regeneration and Safety Duplication of Albanian grain legumes accessions) the Trust has disbursed only USD 3350,00 (USD 2034,00 DD 16/12/2009 and USD 1316,00 in 2010). Total cumulative expenditures are USD 5298, 00. So, according to the Grant Agreement have remained USD1948, 00 that should be paid.

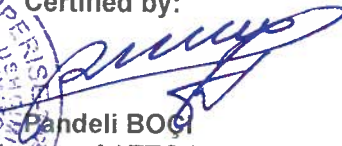
Prepared by:



Sokrat JANI

Researcher, Project contact Person

Certified by:



Pandeli BOCI

Director of ATTC-Lushnja



Lushnja, February 20, 2012

Section 2: Collaborating Institutes Information
Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Armenian State Agrarian University, Armenia

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: by 01 February 2012

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Margarita Harutyunyan **Signature:** 

I. Technical Report

1. Brief narrative of overall achievements

Armenia is a small country with extremely rich plants biodiversity, including wild relatives of cultivated crops, are considered as ancestors and donors of cultivated plants of strategic importance for the country such as wheat and barley. Conserving the rich gene pool of wild relatives of wheat cultivars in Armenia is an urgent concern, because of the threat caused by growing economic activity, land privatization, climate change and other factors. Therefore, to evaluate the different Armenian populations of wheat and other cereals and to conserve this valuable material is extremely important and can be achieved through conservation both *in situ* and *ex situ*.

The very first seed collection of wild crop relatives was established in 1981 by the initiative of prof. P.A.Ghandilyan in the Laboratory of Plant Gene Pool and Breeding of Armenian State Agrarian University. At present the Laboratory maintains 4205 accessions of cultivated and wild wheat, barley, rye, aegilops, wild vegetable plants (beet, carrot, onion, etc.), leavy vegetables and grain legumes (lentil, vetch, clover, alfalfa, etc.). The majority of the accessions stored is represented by crop wild relatives.

Viability of the accessions held by the Laboratory is either low or null. The collection has been maintained under room temperature and humidity for years and has not been timely regenerated due to limited financial and technical means. As a result of low seed germination, small seed samples, untimely and inadequate regeneration practices the threat of erosion for the given *ex situ* collection was essential.

Recently the Laboratory was provided by the required facilities for short term conservation, thus all regenerated accessions will be stored under the reliable conditions.

Funded by the Global Crop Diversity Trust and implemented by the Bioversity International the project aims to regenerate old accessions of wild wheat, barley and aegilops of the seed collection held in the Laboratory of Plants gene pool and Breeding at the Agrarian State University of Armenia.

During the reporting period the following activities envisaged by the project design document were implemented:

✓ **Accessions selection**

The accessions that require regeneration have been identified through monitoring viability and quantity during storage. The selected germplasm has been regenerated to replenish seed stocks or plant materials

in Laboratory collection and to increase the quantity of initial seeds to ensure safety duplication (Picture 1.).

✓ **Site selection**

- The selected site for accessions regeneration was very close to the environmental conditions of the species origin and habitat in Armenia. The site had adequate water and suitable soil type to minimize as possible a risk of accessions loss during the regeneration. The selected field is located belonged to the Research Center of Farming and Plant Protection of the Ministry of Agriculture.
- The accession regenerated were self-pollinated crops therefore there was no risk for cross-pollination by other crops; and isolation during field management was not required.
- The previous crop was chick-pea. Prior to sowing the soil was ploughed and disc-cultivated. The planting was done in well-drained, weed-free soil.

✓ **Seeds phytopathological analysis**

- A number of pathogens (*Mucor mucedo*, *Aspergillus niger*, *Rhizopus nigricans*) were revealed on the surface of seeds, which were stored in the boxes during the long period. These pathogens have led to decrease of seeds germination capability. Before sowing the seeds to be regenerated were treated by the Divident chemical, which is of high efficiently also for smut diseases.
- Some seeds were also damaged from *Caladra granazia* L. These seeds were kept for two days under the refrigerator conditions.

✓ **Seeds preparation and planting**

- Seeds were counting, packaging in paper packets, labeling - a number of seeds to be planted in each row was indicated on each packet together with the collection accession number (Pictures 2).
- The seeding rate was defined based on our longstanding experience in planting wild wheat and barley species.
- The distance from other fields with sowed by the crops (wheat, barley) was essential to prevent unintentional geneflow as well as spread of pest and diseases from nearby fields.
- Each plot was labeled with a plot number and the collection accession number (Picture 3).
- The space between seeds sowed and rows were selected based on used standards (Picture 4.).
- All relevant data such as field and plot number, an accession name and number, collection source, collection data were registered in the field book (Picture 5).
- In some cases (when accessions were represented just by few seeds) the seeds were germinated in Petri dishes, then transferred to small pots for artificial vernalization, and then in spring were transplanted into field.
- The seeds with very low germination percent were regenerated in vitro. The seeds were treated by 2,0 % solution of calcium hypochlorite. The different culture mediums with different concentration of various plant growth regulators (GA3 – gibberellin, kinetin, IAA- Indole-3-Acetic Acid) were tested, the best composition (Murasige and Skoog (MS) +0,8 mg/l GA3+vitamins) was defined, germinated seeds were transferred into culture pots under the greenhouse conditions (Picture 6.).
- The planting was done in October 2009 and October 2010 (Picture 7.).

Management

The field weeding was done by hand, twice during the summer vegetation. The spikes of wild species were isolated by bags to prevent spikelets from shattering.

✓ **Field observations**

Phenological observations, biometric measures were carried out during the vegetation season, the observation data are registered in the field book (Picture 8). Phytopathological studies on accessions resistance to specific pest and diseases were performed to complete characterization data (Picture 9-10).

✓ **Harvesting**

The harvest was done in May - June 2010: *Ae.crassa* – on 30th of May, *Hordeum* L. species - from 6th to 24th of June, *Triticum* L. species and other aegilopes – from 6th to 17th of July. The second year sowed seeds were harvested in June -July 2011: *Hordeum* L. species- 6-15th of June, *Triticum* L. species and *Aegilops* L. species – 8-10th of July. For the obtaining representative samples equal numbers of seeds from all plants were mixed after harvesting (Pictures 11, 12).

✓ **Constraints**

- The spring and the beginning of summer (May-June) of 2011 were very rainy. Pouring rains at the plants maturing period impeded seeds maturity, as a result seed started to shatter before reaching full ripening stage. These seeds remained small and sterile (*Picture 13.*).
- Wild relatives of cereals growing in Armenia, in particular aegilopses, wild wheat and barley species are characterized by high level of intraspecific polymorphism reflected in a great diversity of seed glume color, seeds colour, pubescence level. The descriptors compiled are met the characterization requirements for cultivated species, while specific characterization descriptors are not enough for the wild ones.
- The Laboratory staff has no experience with accessions tolerance to drought and salinity assessment and does not familiar with relevant methodologies, involvement of additional staff was costly, and therefore these data are not available.

✓ **Characterization data**

Characterization data on regenerated accessions are not available on-line. The Excel file with characterization data is annexed to the report (*Picture 14.*). As soon as characterization and evaluation data are included in EURISCO, the relevant information will be entered.

✓ **Safety duplication**

The part of the planned regenerated accessions is ready at the moment for sending to SIMMYT and ICARDA for safety duplication (*Picture 15-16*). At the present the all regenerated accessions are packaged and ready for shipping.

Improvements

- *By February 2012, the 25 accessions of wheat have reached a sufficient number of seeds to be conserved ex situ; they are ready for safety duplication at SIMMYT and Svalbard and will be sent according to the fixed terms and dates.*
- *By February 2012, the 33 accessions of barley have reached a sufficient number of seeds to be conserved ex situ; they are ready for safety duplication at ICARDA and Svalbard and will be sent according to the fixed terms and dates.*
- *By February 2012, the 117 accessions of aegilops have reached a sufficient number of seeds to be conserved ex situ; they are ready for safety duplication at ICARDA and Svalbard and will be sent according to the fixed terms and dates.*

Since species genetic integrity and identity have been taken into consideration while accessions for regeneration were being identified the replenished seed collection is now represented by viable seeds of almost all intraspecific diversity of wild wheat, barley and aegilopes of Armenian origin. The regenerated germplasm will be maintained under appropriate storage conditions to ensure their reliable conservation for future utilization.

The achievements and improvement reached as a result of the given project were closely aligned and relevant to the needs of the national breeding institutes. The project supported the maintenance and documentation of the germplasm in compliance with the excising standards. Researchers have now access to high quality germplasm and associated data on accessions of importance to Armenian crop breeding and agriculture. At the same time international obligations of the country on germplasm conservation and sharing can be also met.

2. Planned activities not completed

Since the project actually started in Autumn 2009 by planting of seeds of threaten accessions, the second year sowing was needed to achieve the sufficient number of regenerated accessions. For this given reason 1 sowing was done in autumn 2010. According to the workplan presented in the project report for 2011 additional accessions of aegilops and barley were regenerated. At present no any planned activities are completed.

4. Passport and characterization data

Passport and characterization data on accessions regenerated within frameworks of the project are attached to the report in Excel format. The data are included also in EURISCO

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

- Picture 1. Selection of accessions for regeneration
- Picture 2. Seeds counting & packaging
- Picture 3. Labeling accessions in the field
- Picture 4. Sowing seeds in prepared rows
- Picture 5. Registration in the field book
- Picture 6. Accessions treatments & in-vitro germination
- Picture 7. Sowing of seeds
- Picture 8. Phenological observations and registration
- Picture 9. Phytopathological studies
- Picture 10. Phytopathological evaluation
- Picture 11. Harvesting of accessions
- Picture 12. Harvesting
- Picture 13. Seeds remained small and sterile
- Picture 14. Accessions characterization
- Picture 15. Preparation for shipping
- Picture 16. Seed packages ready for sealing

2. Achievements by Crop to 31 December 2011

A. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	80	86 actually planted
1.2 Number of accessions successfully regenerated as of last report	19	19 valuable accessions with sufficient number of seeds for conservation, other seeds did not provide requested number of seeds
1.3 Number of accessions planted in 2011	46	14 were added from the 2011 harvest
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	14	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	33	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	32	In 2011 15 seeds found not viable since they did not germinate after sowing, remaining 17 seeds did not grow after wintering
1.7 Total number of accessions found not viable during the course of the project	53	
1.8 Total number of accessions characterized over the course of the project	33	

Activities	Number of Accessions	Comments
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	41	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	33 To be sent in February 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	33 Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	5	Regenerated accession those seeds number was less that 500 seeds
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	250	313 actually planted
1.2 Number of accessions successfully regenerated as of last report	23	73 were non-viable, according to the last report 30 accessions were successfully regenerated, but out of them 7 accessions were damage during the storage because of refrigerator problems
1.3 Number of accessions planted in 2011	188	188 accessions were planted in autumn 2010
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	2	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	25	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	187	Majority of the planted seeds were not viable, but other were damaged by the hail.
1.7 Total number of accessions found not viable during the course of the project	288	
1.8 Total number of accessions characterized over the course of the project	25	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	103	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	25	To be sent at the February 2012
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	25	Note: these must be sent by the next opening in

Activities	Number of Accessions	Comments
	February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	2	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Wheat (*Aegilops*)

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	750	781 actually planted
1.2 Number of accessions successfully regenerated as of last report	68	205 non-viable
1.3 Number of accessions planted in 2011	457	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	49	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	117	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	408	Because of the rainy spring and beginning of summer the rust disease was spread, and the number of fully developed and healthy spikes was limited
1.7 Total number of accessions found not viable during the course of the project	613	
1.8 Total number of accessions characterized over the course of the project	117	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	117	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	117 To be sent at the February 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	117 Note: these must be sent by the next opening in February 2012	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	15	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Aegilops	1,500	1,500.00
	Barley	800	800.00
	Wheat	1,200	1,200.00
2. Supplies	Aegilops	900	906.00
	Barley	300	150.00
	Wheat	650	614.00
3. Local Travel	Aegilops	800	800.00
	Barley	300	300.00
	Wheat	550	550.00
4. Equipment	Aegilops	500	680.00
	Barley	0	0
	Wheat	0	0
Total		7,500	7,500.00

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures: *no expenditures for 2011*

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:

Margarita Harutyunyan
Leading Researcher

Name



Certified by:

Olga Bavina
Chief Accountant

Name



From: Marina Hovhanisyan [mailto:pgr_lab@mail.ru]
Sent: Friday, April 06, 2012 8:03 AM
To: Maggioni, Lorenzo (Bioversity)
Subject: Re[2]: Trust regeneration - a few more details

Dear Lorenzo,

Excuse me for the late answer.

Wheat:

Number of different accessions planted in the project : 250

Of which (total should be 250):

Regenerated: 25

Unable to germinate: 71

Germinated but not produce seed: 98

Produced seed but not enough: 56

Barley

Number of different accessions planted in the project: 80

Of which (total should be 80):

Regenerated: 33

Unable to germinate: 17

Germinated but not produce seed: 15 (steril seeds)

Produced seed but not enough: 15

Aegilops

Number of different accessions planted in the project: 750

Of which (total should be 750):

Regenerated: 117

Unable to germinate: 205

Germinated but not produce seed: 408

Produced seed but not enough: 20

With best regards

Margarita

Thu, 5 Apr 2012 09:36:21 +0000 or "Maggioni, Lorenzo (Bioversity)" <l.maggioni@cgiar.org>:

Dear Margarita,

A kind reminder to please answer my message below. This is the last information I am missing before I can provide the entire annual report to the Trust.

Thank you and best wishes,

Lorenzo

From: Maggioni, Lorenzo (Bioversity)

Sent: Monday, April 02, 2012 2:20 PM

To: 'Marina Hovhanisyan'

Subject: Trust regeneration - a few more details

Dear Margarita,

I have another question for you related to the Trust project for regeneration.

Although your last report was clear enough and you don't need to make any changes there, the Trust is asking me to indicate how many accessions were actually not viable, how many germinated but did not produce enough seeds, etc.

Since you have planted the same accessions more than once in the course of the entire project, I have difficulty to derive the above numbers from your report. Could you please indicate below the missing numbers, at least with a good approximation:

Wheat:

Number of different accessions planted in the project : 250

Of which (total should be 250):

Regenerated: 25

Unable to germinate:
Germinated but not produce seed:
Produced seed but not enough:

Barley

Number of different accessions planted in the project: 80

Of which (total should be 80):

Regenerated: 33

Unable to germinate:

Germinated but not produce seed:

Produced seed but not enough:

Aegilops

Number of different accessions planted in the project: 750

Of which (total should be 750):

Regenerated: 117

Unable to germinate:

Germinated but not produce seed:

Produced seed but not enough:

With best regards,
Lorenzo

Lorenzo Maggioni
ECPGR Coordinator
Regional Office for Europe
Bioversity International
Via dei Tre Denari 472/a
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Tel: +39 06 61 18 231
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European Cooperative Programme for Plant Genetic Resources (ECPGR)



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Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Institute of Genetic Resources (National Genebank), Azerbaijan

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 - 31 December 2011

Project Contact: Dr. Zeynal Akparov



Z. Akparov

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

Regeneration and material exchange group, Grain cereals and Legumes laboratory and National Genebank personal, documentation specialists of the International Relations, Information and Coordination department, as well as collaborator from Research Institute of Crop Husbandry were involved to regeneration activities.

Generally, 3 persons have worked on *Chickpea* and *Lentil*, 3 persons on *Common Bean* and *Grasspea*, 2 persons on *Cowpea* and *Faba Bean*, 3 persons on *Maize* and *Sorghum*, 2 persons on Genebank issues and 2 persons on documentation.

The regeneration of National Cereal and legumes accession Genepool have done with different amount of accession which were collected from different regions of Azerbaijan. The accessions were sown in Absheron Base Scientific Station of GRI and Zaqataly Regional Experimental Station of ARICH. During the vegetative period the development stages and characteristic datas were recorded.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

In general planned activities have been completed. In spite of planned amount of Common bean (5 accessions were non viable) and Sorghum (5 were non viable and 2 were mixed) accessions.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

2. Achievements by Crop to 31 December 2011

A. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	14	
1.2 Number of accessions successfully regenerated as of last report	14	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	14	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	14	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	14	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	14 02/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	14	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	6	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Sorghum

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	15	15 actually planted
1.2 Number of accessions successfully regenerated as of last report	10	5 non-viable
1.3 Number of accessions planted in 2011	3	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	1	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	11	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	2	
1.7 Total number of accessions found not viable during the course of the project	7	
1.8 Total number of accessions characterized over the course of the project	-	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	15	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	-	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	10	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	-	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Grasspea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	25	26 actually planted
1.2 Number of accessions successfully regenerated as of last report	25	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	25	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	25	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	25	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	25 02.2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	25	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	5	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

D. CROP: Lentil

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.4 Number of accessions originally proposed for regeneration (target accessions):	40	
1.2 Number of accessions successfully regenerated as of last report	40	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	40	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	40	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	40	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	40 02/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	40	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	-	
4.2 Number of samples disseminated "to requesters" within country in 2011	10	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

E. CROP: Chickpea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.5 Number of accessions originally proposed for regeneration (target accessions):	65	67 actually planted
1.2 Number of accessions successfully regenerated as of last report	65	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	65	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	65	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	65	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	65 02/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	65	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	20	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

F. CROP: Bean (*Phaseolus*)

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.6 Number of accessions originally proposed for regeneration (target accessions):	78	
1.2 Number of accessions successfully regenerated as of last report	64	5 non-viable
1.3 Number of accessions planted in 2011	9	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	9	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	73	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	5	
1.8 Total number of accessions characterized over the course of the project	73	
2. SAFETY DUPLICATION TO CIAT		
2.1 Number of accessions planned for duplication:	78	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	73 02/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	73	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	10	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

G. CROP: Cowpea and Other Vigna

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.7 Number of accessions originally proposed for regeneration (target accessions):	20	
1.2 Number of accessions successfully regenerated as of last report	20	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	20	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	20	
2. SAFETY DUPLICATION TO IITA		
2.1 Number of accessions planned for duplication:	20	
2.2 Number of accessions already sent for duplication	20	
2.3 Number of accessions still to be sent for duplication	-	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	20	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	7	
4.2 Number of samples disseminated "to requesters" within country in 2011	-	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the g-enebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

H. CROP: Maize

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.8 Number of accessions originally proposed for regeneration (target accessions):	200	210 actually planted
1.2 Number of accessions successfully regenerated as of last report	200	
1.3 Number of accessions planted in 2011	-	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	-	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	200	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	-	
1.7 Total number of accessions found not viable during the course of the project	-	
1.8 Total number of accessions characterized over the course of the project	183	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	200	
2.2 Number of accessions already sent for duplication	110	
2.3 Number of accessions still to be sent for duplication	90 02/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	200	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	-	
4.2 Number of samples disseminated "to requesters" within country in 2011	120	
4.3 Number of samples disseminated "to requesters" outside country in 2011	-	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column “Actual Cumulative Expenditures” please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Chickpea	450	450
	Bean	700	700
	Cowpea	150	150
	Faba Bean	170	170
	Grasspea	150	150
	Lentil	280	280
	Maize	2,500	2,500
	Sorghum	100	100
	2. Supplies	Chickpea	650
Bean		830	830
Cowpea		300	300
Faba Bean		260	260
Grasspea		300	300
Lentil		450	450
Maize		5,200	5,200
Sorghum		200	200
3. Local Travel		Chickpea	200
	Bean	420	420
	Cowpea	50	50
	Faba Bean	60	60
	Grasspea	50	50
	Lentil	70	70
	Maize	695	695
	Sorghum	0	0
	4. Equipment ¹	Chickpea	0
Bean		0	0
Cowpea		0	0
Faba Bean		0	0
Grasspea		0	0
Lentil		0	0
Maize		500	500
Sorghum		0	0
Total			14,735

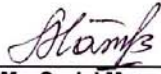
¹ Any items defined as “a tangible asset that has a useful life of more than one year”

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

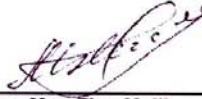
Prepared by:



Name **Ms. Sevinj Mammadova**

Position: Head of regeneration
and material exchange group

Certified by:



Name **Mrs. Zina Malikmammadova**

Position: **Chief accountant**

From: Iryna Matys [<mailto:belgenbank@mail.ru>]
Sent: Tuesday, April 03, 2012 10:45 AM
To: Maggioni, Lorenzo (Bioversity)
Subject: Re: Trust regeneration - a few more details

Dear Lorenzo,
You are absolutely right. We confirm that your interpretation is correct.
Sincerely yours,
Dr. Iryna Matys

Mon, 2 Apr 2012 13:27:35 +0000 от "Maggioni, Lorenzo (Bioversity)"
<l.maggioni@cgiar.org>:

Dear Iryna,

I have another question for you related to the Trust project for regeneration.
Although your last report was clear enough and you don't need to make any changes there, the Trust is asking me to indicate how many accessions were actually not viable. In your report you indicate that the total number of accessions found not viable during the course of the project is 0.

However, I understand that you have planted many more accessions than the original target in the course of the project and that a large number resulted to be not viable. Could you please confirm whether my interpretation below is correct or not?

Wheat:

Number of different accessions planted in the project : 398 (210 original plan + 59 additional + 129 different accessions planted in 2011)
Regenerated: 81 + 129 = 210
Not viable: 188

Barley

Number of different accessions planted in the project: 391 (262 original plan + 8 additional + 121 different accessions planted in 2011)
Regenerated: 262
Not viable: 129

With many thanks and best regards,
Lorenzo

Lorenzo Maggioni
ECPGR Coordinator
Regional Office for Europe
Bioversity International
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Fax: +39 06 61 18 398
[European Cooperative Programme for Plant Genetic Resources \(ECPGR\)](#)

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Scientific Practical Center for Arable Farming of National Academy of Sciences of Belarus, Belarus

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2010

Project Contact: Dr.Iryna S.Matys _____ **Signature:** _____

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

Collection Holder Institute, Country	Crop	Total Number of Accessions Regenerated ¹		Total Number of Accessions Safety Duplicated ²		
		Planned (original target)	Actual (from 1.2, section 2)	Genebank receiving safety duplicates	Actual (from 2.2, section 2)	Actual to Svalbard (seed only) (from 3.1, section 2)
Scientific Practical Centre for Arable Farming of National Academy of Sciences of Belarus, Belarus	Wheat	210	210	CIMMYT	33	33
	Barley	262	262	ICARDA	0	0

Brief narrative of overall achievements

a) Regeneration and characterization activities on the Project were carried out in the Laboratory of genetic resources of cultural plants of the SPC for Arable Farming NASB in 2009–2011.

Field conditions. Experimental field was situated about 5 km to the west from the town of Zhodino (50 km to the east from the city of Minsk). Soil of the field is sod-podzol, sandy-loam. The depth of plough-layer is 20–22 cm. Agrochemical characteristics of the soil of plough-layer are the following: pH (KCl) is 5.6–6.2, the content of accessible for plants forms of phosphorus (Kirsanov method of analysis of P₂O₅) is 155–181 mg/1kg of soil; the content of accessible forms of potassium (Maslova method of analysis of K₂O) is 145–180 mg/1kg; content of humus is 1.8–2.1%. Forecrop for accessions of winter barley and winter wheat was oat, for spring forms of barley and wheat – winter rye. The dose of mineral fertilizers was N₁₂₀P₈₀K₁₂₀ for winter forms and N₈₀P₈₀K₁₂₀ for spring forms.

Weather conditions.

2009. Weather conditions in 2009 were comparatively favourable for plant growth. Minimum of the air temperature during winter season was – 20°C, but snow layer (about 20 cm) prevented substantial damage of winter forms; the temperature of soil at tillering node location was about 0°C. Air temperature during spring and summer didn't differ greatly from mean annual level (see

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Scientific Practical Center for Arable Farming of National Academy of Sciences of Belarus, Belarus

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: _____ 1 March 2009 -31 December 2010 _____

Project Contact: Dr.Iryna S.Matys _____ **Signature:** _____

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

Collection Holder Institute, Country	Crop	Total Number of Accessions Regenerated ¹		Total Number of Accessions Safety Duplicated ²		
		Planned (original target)	Actual (from 1.2, section 2)	Genebank receiving safety duplicates	Actual (from 2.2, section 2)	Actual to Svalbard (seed only) (from 3.1, section 2)
Scientific Practical Centre for Arable Farming of National Academy of Sciences of Belarus, Belarus	Wheat	210	210	CIMMYT	33	33
	Barley	262	262	ICARDA	0	0

Brief narrative of overall achievements

a) Regeneration and characterization activities on the Project were carried out in the Laboratory of genetic resources of cultural plants of the SPC for Arable Farming NASB in 2009–2011.

Field conditions. Experimental field was situated about 5 km to the west from the town of Zhodino (50 km to the east from the city of Minsk). Soil of the field is sod-podzol, sandy-loam. The depth of plough-layer is 20–22 cm. Agrochemical characteristics of the soil of plough-layer are the following: pH (KCl) is 5.6–6.2, the content of accessible for plants forms of phosphorus (Kirsanov method of analysis of P₂O₅) is 155–181 mg/1kg of soil; the content of accessible forms of potassium (Maslova method of analysis of K₂O) is 145–180 mg/1kg; content of humus is 1.8–2.1%. Forecrop for accessions of winter barley and winter wheat was oat, for spring forms of barley and wheat – winter rye. The dose of mineral fertilizers was N₁₂₀P₈₀K₁₂₀ for winter forms and N₈₀P₈₀K₁₂₀ for spring forms.

Weather conditions.

2009. Weather conditions in 2009 were comparatively favourable for plant growth. Minimum of the air temperature during winter season was – 20°C, but snow layer (about 20 cm) prevented substantial damage of winter forms; the temperature of soil at tillering node location was about 0°C. Air temperature during spring and summer didn't differ greatly from mean annual level (see

annex). Substantial rainfall excess in May and June (2 times more than mean annual amount) influenced negatively on plants' growth, especially for root system. Followed by strong winds in June this resulted in partial lodging of accessions' plants.

2010. Weather conditions in 2010 were characterized as normal during winter period but extremely unfavourable during the period of active vegetation that resulted in significant decrease of seed productivity and quality. Minimum air temperature during winter period was -25°C and the temperature of soil at tillering node location fell down to -5°C . This didn't result in substantial damage of winter wheat accessions but caused partial loss of winter barley accessions' plants. Substantial rainfall excess (in comparison with mean annual values) in May (1.9 times), June (1.7 times) and July (1.5 times) resulted in inundation (flooding) of field collection with spring forms and following depression of plants growth. Extreme heat during one month (since the 2nd decade of July till the 2nd decade of August) affected seed formation and maturing. As a result they grew small and frail.

2011.

Meteorological conditions during the growing season in 2011 differed from the mean annual characteristics such as the air temperature, and total precipitation.

In the early of March it was observed excess of the actual air temperature every ten days (except for the second decade of May). Moreover, warm weather was accompanied by significant precipitation deficit - only during the first decade of April fell 111% of mean annual, the rest of the decades was a deficiency in precipitation, and in the third decade of April it wasn't any rain at all.

Then the trend of exceeding the actual temperature than mean annual was persisted until the end of the growing season. At the same time, rainfall deficiency was not observed, and total precipitation matched or exceeded the mean annual rate.

Material.

Material for research included the following wheat and barley accessions:

- old varieties and breeding material of Belarusian origin, which had been collected in 1972–1992 and thus had extremely low viability;
- varieties bred by Belarusian breeders in 1990th–2000th.
- other endangered breeding material of Belarusian origin with valuable traits.

262 barley accessions of Belarusian origin were taken for regeneration within the Project, including 31 landraces, 177 accessions which represented breeding material (3 hybrids, 113 genetic stocks and mutants, 61 others) and 54 advanced varieties. Total number of barley accessions with viable seeds was 133, including 2 landraces, 81 accessions which represented breeding material (81 genetic stocks and mutants) and 50 advanced varieties. All these accessions were regenerated.

210 wheat accessions of Belarusian origin were taken for regeneration within the Project, including 110 landraces, 9 accessions which represented breeding material (1 breeder's line, 1 mutant and 7 others) and 91 advanced varieties. Total number of wheat accessions with viable seeds was 22. All of them represented advanced varieties and were regenerated.

In addition to the work within the Project the analysis of germination ability of about 3 thousand endangered barley and wheat accessions was carried out in 2010. Part of them was found to be viable and then was regenerated successfully, including **8 barley varieties of Belarusian origin and 59 wheat accessions of Belarusian origin** (55 breeder's lines and 4 varieties). Taking into account that significant number of the accessions of Belarusian origin failed to be regenerated within the Project, these additional accessions (8 of barley and 59 of wheat) were included into the list of material for research in the framework of the Project.

In the framework of the Project in 2011 the breeding and genetic material of Belarusian origin, which has valuable traits and properties was additionally reproduced in the amount: wheat – 129 accessions, barley – 121 accessions. All these accessions were successfully reproduced.

Methods/protocols

Regeneration methodology:

Recovery of the accessions with extremely low seed viability (135 barley and 167 wheat accessions within the Project plus material in addition to the Project):

Seed samples of each accession harvested in different years were checked on presence of viable seeds; about 200 seeds per sample were tested. In order to stimulate germination ability the water for analysis was replaced by a solution of germination stimulator called "fitovital", used with concentration 3ml/1l of solution. Under the results of previous research the use of "fitovital" helped to increase 1.5 times the germination level of seeds with low viability. The plantlets obtained were replanted into buckets in the hothouse and grown for getting seeds. Then seeds were multiplied in the field conditions.

Recovery of the accessions having insufficient level of germination ability (less than 80%) or

insufficient seed volume (127 barley and 43 wheat accessions within the Project plus material in addition to the Project):

Accessions with insufficient germination ability or quantity of seeds were multiplied in the field conditions. The plots were sown by hands in September (winter forms) or in the end of April – beginning of May (spring forms). Number of rows in plot varied from 1 to 5 and depended on the quantity of seeds available. Length of rows was 1 m, space between rows was 20 cm, number of seeds sown per row was 20–40. Harvesting was carried out at the moment of full maturing of seeds: in July for winter forms and in August for spring forms. Threshing of the plants harvested was carried out with use of spike threshing machine LD-180 and sheaf threshing machine LD-350.

In 2011 accessions in the amount: wheat – 129 accessions, barley – 121 accessions were planted in hothouse and reproduced. The accessions that were purposed for safety duplication were reproduced in field in the amount: barley – 81 accessions, wheat - 141 accessions.

b) Characterization on morphological and phenological traits was carried out in the field conditions according to the “Characterization descriptors”, mentioned in Annex B of the Grant Agreement. Additionally, the evaluation of grain productivity, lodging resistance was carried out for all accessions, as well as winter hardiness for winter forms. Prepared information about morphological characteristics of the accessions regenerated as well as their passport data will be sent in March, 2011 to the ECPGR Cereal's Work Groups for further deployment at ECPGR website. The information mentioned will be also available at Belarusian genebank website www.belgenbank.by. Passport data of the accessions regenerated will be deployed at EURISCO website. Passport and characterization data of regenerated barley accessions will be sent on CD to ICARDA with the seeds. The same will be done for wheat accessions while sending to CIMMYT.

c) The seeds of the regenerated accessions were prepared for sending to ICARDA (barley) and to CIMMYT (wheat) for the purposes of safety duplication. According to the requirements of the BI guidelines for regeneration of cereals «Руководство по размножению. Зерновые культуры» (Payne T.S., Amn A., Humeid B. And Rukhkyan N. 2008) number of seeds prepared for long-term conservation (in Svalbard Seed Vault) is not less than 1250 per accession and not less than 500 per accession for safety duplication (in ICARDA or CIMMYT). As a result of extremely unfavourable weather conditions in 2010 the volume of seeds of several accessions regenerated was insufficient for preparation of two seed samples per accession (one for safety duplication in international genebank and one for long-term conservation in Svalbard Seed Vault). Two seed samples (1250 and 500 seeds) were prepared for 129 barley accessions of totally 141 regenerated; one seed sample (500 seeds) was prepared for remaining 12 barley accessions. Two seed samples were prepared for 44 wheat accessions of totally 81 regenerated, one seed sample – for remaining 37 wheat accessions.

In January 2012 for the purpose of safety duplication accessions of barley and wheat of Belarusian origin in the amount of 33 were sent in CIMMYT as well as 33 accessions were sent in Svalbard Global Seed Vault. The seed amount in each bag is at least 1,250 pieces.

At the current time all necessary documents for getting permission to send seeds outside of Belarus are being prepared. It is planned to finish this paper work during March and then to send seeds to ICARDA.

d) The staff which carried out the work on the Regeneration Project learned the principles, and methodology which was used in plant genetic resources research in the international genebanks. The experience of documents preparation during applying for grant, carrying out of the work and solving questions with the ministries responsible became useful as well.

А также оформление документации для страхового дублирования CIMMYT.

1.2. Work outstanding

Extremely unfavourable weather conditions of summer 2010 resulted in obtaining of insufficient volume of 12 barley accessions and 37 wheat accessions. Seed samples of these accessions were prepared only for duplication in CIMMYT and ICARDA. In order to obtain seeds for their safety duplication in Svalbard Global Seed Vault it is planned to carry out additional cycle of multiplication and to send seeds to Svalbard via genebanks mentioned before the end of 2011.

In 2012 we'll transfer barley accessions as following: (March-April – 33 accessions, May-June - 108 accessions, November-December – 121 accessions). The transfer of wheat accessions will be organized as follows: May-June – 108 accessions and November-December – 129 accessions.

121 barley accessions and 129 wheat accessions will be reproduced and researched in field and then they will be transferred for safety duplication in CIMMYT, ICARDA and Svalbard Global Seed Vault.

1.3. Lessons learned, collaboration, innovation and success stories

a) Start of the work on regeneration and safety duplication of barley and wheat accessions after long period of seed storage made necessary the preliminary research on looking for preparation which stimulated germination ability of seeds having extremely low viability. Experiments showed an effectiveness of preparation called "fitovital", which had been created in the Institute of Bioorganic Chemistry of the National Academy of Sciences of Belarus by the group of scientists under the leadership of Anatoliy I. Bykhovets. The use of the solution of "fitovital" in concentration 3ml/1l instead of the water increased germination ability of old seeds significantly. The effect of "fitovital" was found not only for cereal seeds, but for seeds of other crops as well.

The mold infection appeared often in old seeds. It affected significantly their germination ability. Swelling and slowly germinating less viable seeds were covered by mold due to presence of infection and wet conditions that resulted in loss of germs. Use of protectants (fungicides) wasn't practically feasible for mass germination ability analysis; moreover, preliminary experiments had shown some decrease of germination ability while using them. Treatment with other anti-infective agents, such as ethanol (in concentration 96%) and hydrogen peroxide, was found to be ineffective. Taking this into account, 2 variants of germination procedure were analyzed:

- 1) germination in thermostat with a temperature +25°C and 100% humidity;
- 2) germination in room conditions with temperature about +20°C and air humidity about 70%.

The results of the experiment showed the advantage of the second variant: mold growth was substantially slower, resulting in higher survival rate of germs.

b) The work on the Regeneration Project became a push for starting the research on recovery of all seed collections which had been accumulated in the institute during 1970th – 1990th. These collections included more than 10 thousand accessions of cereal crops; generally it was barley, oat and wheat. The scientists of two laboratories of the institute – Laboratory of barley and Laboratory of oats – took part in additional research mentioned. Seed germination ability was analyzed for 3 thousand barley accessions and 1.5 thousand oat accessions. The work resulted in finding about 300 accessions which had viable seeds. These accessions were recovered with use of hothouses.

c) Evaluation of breeding usefulness and other possible appliances of the accessions regenerated within the Project will be continued in 2011-2012. The role of the Global Crop Diversity Trust as well as of ECPGR coordination for support of the recovery of original Belarusian barley and wheat genetic resources will be shown in scientific and popular publications. Appropriate information about the value of genetic resources recovered will be also provided for the Trust, international genebanks engaged and ECPGR WGs.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

We had to renew the material since in 2011 it couldn't pass the phytosanitary inspection. The seeds were shrunk because of unfavourable weather conditions in the vegetation period.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

2. Achievements by Crop to 31 December 2011

A. CROP: Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	210	<i>Trust – use original GA target AI and note any adjustments</i>
1.2 Number of accessions successfully regenerated as of last report	81	
1.3 Number of accessions planted in 2011	129	<i>Trust - when report received need to verify data against previous records in data capture table</i>
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	129	Amount of the seeds is insufficient for safety duplication. This is a new breeding material of Belarussian origin and it is necessary to be researched in field. In 2012 we'll make a whole characterization of each accession.
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	210	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	None	<i>Trust - when report received need to verify data against previous records in data capture table</i>
1.7 Total number of accessions found not viable during the course of the project	None	
1.8 Total number of accessions characterized over the course of the project	81	<i>Trust - when report received need to verify data against previous records in data capture table</i>
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	210	<i>Trust – take adjusted target for duplication (BI) and record any notes</i>
2.2 Number of accessions already sent for duplication	33 - January 2012	<i>Trust – use BT</i>
2.3 Number of accessions still to be sent for duplication	48 - May-June 2012 129 - November-December 2012	<i>Trust - when report received need to verify data against planned records (Amanda's table)</i>
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	33 - January 2012	<i>Trust – use CB And make any notes (e.g. if plan to ship via Int'l genebank)</i>
3.2 Number of seed accessions still to be sent to Svalbard	48 - May-June 2012 129 - November-December 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	135	
4.2 Number of samples disseminated “to requesters” within country in 2011	76	
4.3 Number of samples disseminated “to requesters” outside country in 2011	42	Russia, the Ukraine, Kazakhstan

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

**Селекционерам или другим ученым внутри учреждения, где находится генбанк. Не включайте безопасное дублирование или другие рассылки, относящиеся к консервации (сохранению) коллекции.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	262	<i>Trust – use original GA target AI and note any adjustments</i>
1.2 Number of accessions successfully regenerated as of last report	141	
1.3 Number of accessions planted in 2011	121	<i>Trust - when report received need to verify data against previous records in data capture table</i>
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	121	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	262	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	--	<i>Trust - when report received need to verify data against previous records in data capture table</i>
1.7 Total number of accessions found not viable during the course of the project	--	
1.8 Total number of accessions characterized over the course of the project	141	<i>Trust - when report received need to verify data against previous records in data capture table</i>
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	262	<i>Trust – take adjusted target for duplication (BI) and record any notes</i>
2.2 Number of accessions already sent for duplication	0	<i>Trust – use BT</i>
2.3 Number of accessions still to be sent for duplication	33 - March-April 2012 108 - May-June 2012 121 - November-December 2012	<i>Trust - when report received need to verify data against planned records (Amanda's table)</i>
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	<i>Trust – use CB And make any notes (e.g. if plan to ship via Int'l genebank)</i>
3.2 Number of seed accessions still to be sent to Svalbard	33 - March-April 2012 108 - May-June 2012	

Activities	Number of Accessions	Comments
	121 - November-December 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	182	
4.2 Number of samples disseminated "to requesters" within country in 2011	73	
4.3 Number of samples disseminated "to requesters" outside country in 2011	25	Russia, the Ukraine, Kazakhstan

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column "2010 Actual Expenditure" please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop	Total Budget (USD)	Actual Cumulative Expenditures (2009+2010+2011) (USD)	2011 Budget (USD)	2011 Actual Expenditure (USD)
1. Additional Staff	Wheat	3,600	3,600	1,800	1,700
	Barley	4,600	4,600	2,300	2,261
2. Supplies	Wheat	600	600	300	79
	Barley	640	640	320	90
3. Local Travel	Wheat	0	0	0	0
	Barley	0	0	0	0
4. Equipment ¹	Wheat	0	0	0	0
	Barley	0	0	0	0
Total		9,440	9,440	4,720	4,130

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project

No	Position	Number of persons	Amount of time spent on the Project in 2011, person×month	Salary per month, USD	Payroll taxes per month, USD	Total per month, USD	Total in 2011, USD
1	Head of the laboratory	1	1	870	299	1,169	1,169
2	Scientist	2	1,5	512	176	688	1,032
3	Junior scientist	4	3	320	110	440	1,760
	Total	6	5.5	x	x	x	3,961

2. Provide a list of supplies purchased (items may be grouped where appropriate)

No	Item	Unit	Quantity	Price of 1 unit, USD	Total price, USD	Comments
1	Fertilizers	kg	60	0.5	30.00	Accessions' field evaluation and characterization; multiplication of seeds
2	Pesticides	liter	0.6	30.00	30.00	
3	Fuels and lubricants	kg	40	0.80	80.00	
4	Office accessories				29.00	Accessions' field evaluation and characterization; report preparation
	Total	X	X	X	169.00	

3. Provide details, cost and purpose of each trip taken

4. Provide a list of all equipment purchased

Prepared by:



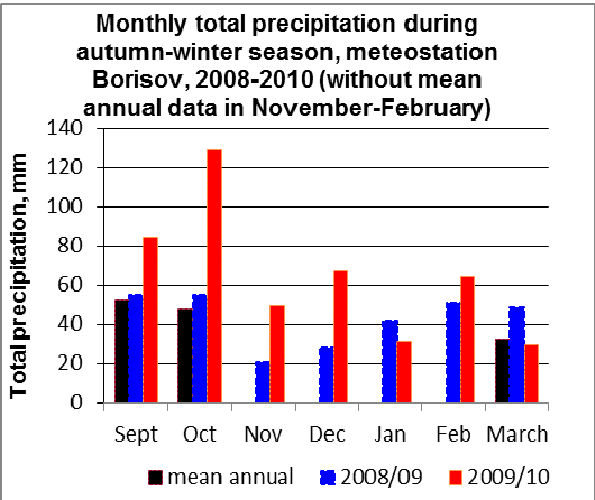
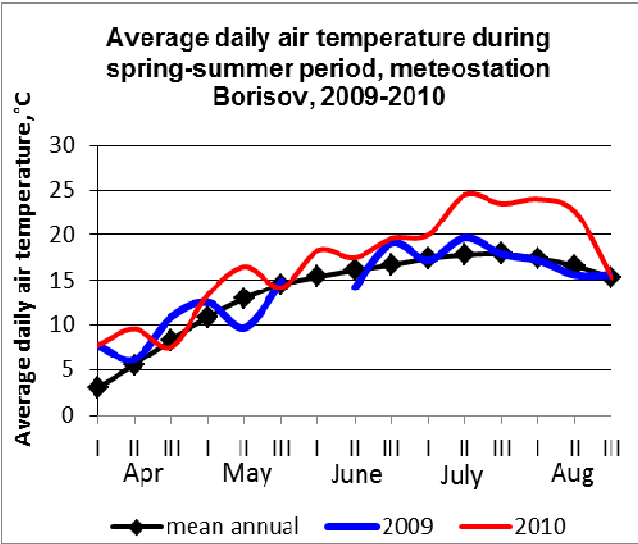
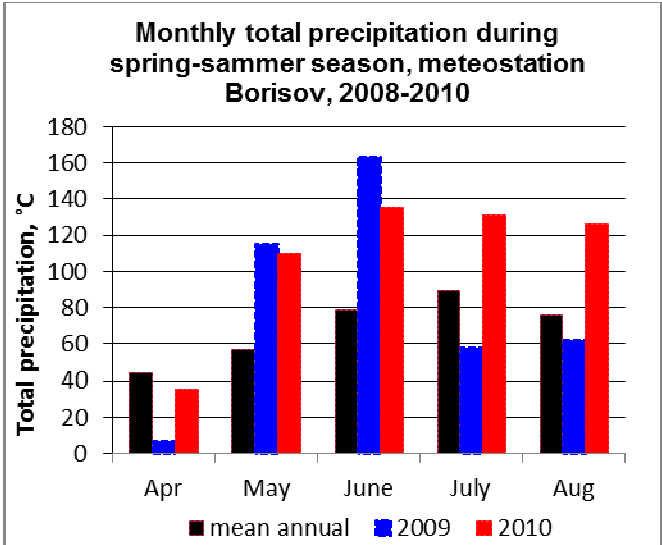
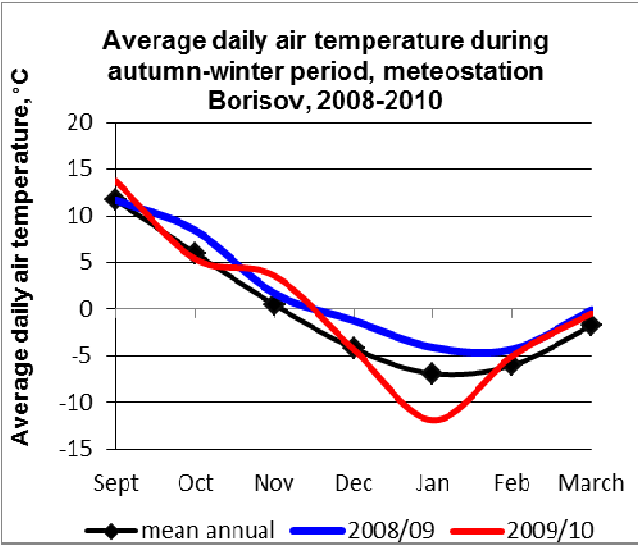
Name Dr. Iryna S. Matys
Position head of the laboratory

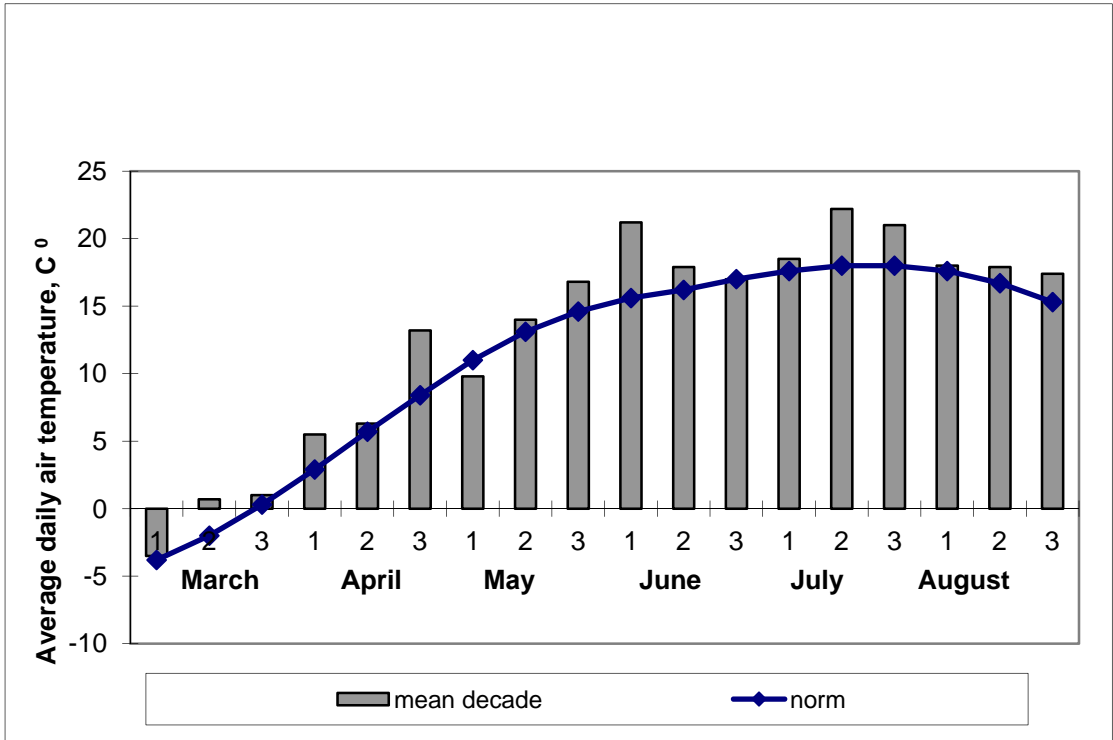


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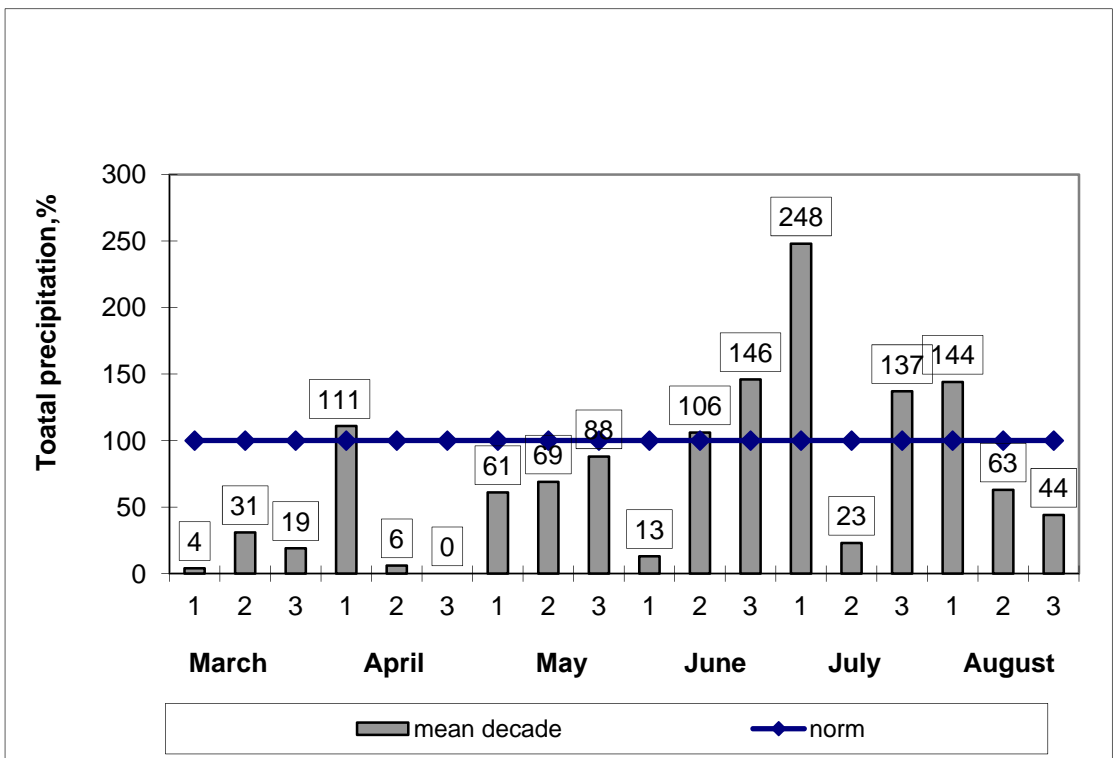
Name Lyudmila N. Autsiukhovich
Position chief accountant

Meteorological conditions during research on the Project





Average daily air temperature during spring-summer period, meteostation Borisov, 2011



Monthly total precipitation during spring-summer period, meteostation Borisov, 2011

Global Crop Diversity Trust – 2011 Technical & Financial Report

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Institute of Plant Genetic Resources "K.Malkov", Bulgaria

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1_1.2_10
GSP09GRD2_1.1_02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Dr. Liliya Ivanova Krasteva

Signature: 

Project Contact: Dr. Siyka Stoyanova

Signature: 

Project Contact: Dr. Siyka Angelova

Signature:

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

Grain legumes:

Common Bean: 45 accessions were planted, of them 44 successfully harvested and characterized, however 36 accessions produced sufficient seeds; 9 accessions were planned in 2011 and 7 of them were successfully regenerated. Total 43 acc. will be shipped for safety duplication to CIAT.

Faba bean – 30 accessions were planted in 2009 and 2010, of them 26 produced sufficient seeds. In October 2011 these accessions were shipped for safety duplication to ICARDA. However the receiving of accessions is not confirmed so far. The main problem with this crop is the need of spatial isolation during multiplication. That is also the reason to limit number of regenerated accessions per year however farmers were involved in this process. During 2011 12 accessions were planted and regenerated. These accessions are planned for safety duplication during 2012.

Grass pea – 20 accessions were planted during 2009 and 2010, of them: 20 regenerated and characterized for key morphological characters and documented by passport and characterization data;. In October 2011 these accessions were shipped for safety duplication to ICARDA. However the receiving of accessions is not confirmed so far.

Lentil – 20 accessions were planted in 2010 and all were successfully regenerated, however insufficient seed quality was produced. These accessions were multiplied in 2011. Fresh harvested seeds were tested in seed laboratory and prepared for shipment to ICARDA.

Chickpea: 30 accessions were planted in 2010, of them 26 successfully harvested and characterized. 4 accessions were successfully regenerated in 2011.

Cowpea - 20 accessions were planted in 2010 and regenerated, however insufficient seed quantity was produced. These accessions during 2011 were planned in field for regeneration and characterization. Produced seeds were planned for shipment to IITA.

Cereals:

Bread wheat – 98 accessions were planted in 2009 and 2010, all of them successfully harvested and characterized for key morphological characters; 98 accessions were planned for safety duplication in CIMMYT.

Durum wheat – 100 accessions were planted in 2009 and 2010, all of them successfully harvested and characterized for key morphological characters; 100 are planned for safety duplication in CIMMYT.

Barley – 145 accessions were planted during 2010, of them 115 regenerated and characterized. In October 2011 these 115 accessions were shipped for safety duplication to ICARDA. However the receiving of accessions is not confirmed so far. In 2011 last 30 accessions were regenerated and characterized. These accessions will be sent for safety duplication to ICARDA.

Maize – 150 accessions were planted during 2009 and 2010, of them 80 successfully harvested and characterized for key morphological characters and documented by passport and characterization data. In 2011 were planted and successfully regenerated 46 accessions. 126 accessions were planned for safety duplication to CIMMYT.

Sorghum – 122 accessions were planted in 2009 and 2010, where 33 of them additional to the original target. These 33 accessions were involved in the regeneration because strong decline in seed viability observed during seed control tests carried out in 2009. All 122 accessions were successfully regenerated and characterized. 122 accessions are planned for shipment and safety duplication to ICRISAT.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

1. Accessions not sent for safety duplication to: ICARDA (12+20+30); ICRISAT (.30+122+.); CIMMYT (98+100+126); CIAT (43); IITA (20)
2. Total 161 accessions have been sent to ICARDA in October 2011. However the receiving of seed accessions is not confirmed so far. Probably the military operations in this region obstruct the contacts. This situation should be in consideration for further shipment to ICARDA.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

2. Achievements by Crop to 31 December 2011

A. CROP: Chickpea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	30	
1.2 Number of accessions successfully regenerated as of last report	26	
1.3 Number of accessions planted in 2011	4	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	4	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	30	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	30	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	30	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	30	
	When will these be sent (month/year): April 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	

Activities	Number of Accessions	Comments
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	...	
4.2 Number of samples disseminated "to requesters" within country in 2011	...	
4.3 Number of samples disseminated "to requesters" outside country in 2011	...	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	60	
1.2 Number of accessions successfully regenerated as of last report	26	
1.3 Number of accessions planted in 2011	12	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	12	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	38	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	1	
1.8 Total number of accessions characterized over the course of the project	38	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	60	
2.2 Number of accessions already sent for duplication	26	26 accessions already sent to ICARDA in October 2011; However receiving of seeds is not confirmed so far.
2.3 Number of accessions still to be sent for duplication	How many?: 12 When will these be sent (month/year): May 2011	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	...	
4.2 Number of samples disseminated "to requesters" within country in 2011	...	
4.3 Number of samples disseminated "to requesters" outside country in 2011	...	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Grasspea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	20	
1.2 Number of accessions successfully regenerated as of last report	20	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	20	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	20	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	20	
2.2 Number of accessions already sent for duplication	20	20 accessions already sent to ICARDA in October 2011; However receiving of seeds is not confirmed so far.
2.3 Number of accessions still to be sent for duplication	How many?: When will these be sent (month/year):	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	...	
4.2 Number of samples disseminated "to requesters" within country in 2011	...	
4.3 Number of samples disseminated "to requesters" outside country in 2011	...	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

D. CROP: Lentil

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.4 Number of accessions originally proposed for regeneration (target accessions):	20	
1.2 Number of accessions successfully regenerated as of last report	0	
1.3 Number of accessions planted in 2011	20	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	20	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	20	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	20	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	20	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 20 When will these be sent (month/year): May 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	...	
4.2 Number of samples disseminated "to requesters" within country in 2011	...	
4.3 Number of samples disseminated "to requesters" outside country in 2011	...	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

E. CROP: Cowpea and Other Vigna

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.5 Number of accessions originally proposed for regeneration (target accessions):	20	
1.2 Number of accessions successfully regenerated as of last report	0	
1.3 Number of accessions planted in 2011	20	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	20	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	20	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	20	
2. SAFETY DUPLICATION TO IITA		
2.1 Number of accessions planned for duplication:	20	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 20 When will these be sent (month/year): May 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?:	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*		
4.2 Number of samples disseminated "to requesters" within country in 2011	...	
4.3 Number of samples disseminated "to requesters" outside country in 2011	...	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

F. CROP: Bean (*Phaseolus*)

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.6 Number of accessions originally proposed for regeneration (target accessions):	45	
1.2 Number of accessions successfully regenerated as of last report	36	
1.3 Number of accessions planted in 2011	9	2 accessions not produced seeds
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	7	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	43	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	43	
2. SAFETY DUPLICATION TO CIAT		
2.1 Number of accessions planned for duplication:	45	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 43 When will these be sent (month/year): April 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	6	
4.2 Number of samples disseminated "to requesters" within country in 2011	..	
4.3 Number of samples disseminated "to requesters" outside country in 2011	44	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

G. CROP: Bread Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.7 Number of accessions originally proposed for regeneration (target accessions):	98	
1.2 Number of accessions successfully regenerated as of last report	98	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	98	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	98	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	98	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	<p style="text-align: center;">How many?: 98</p> <p style="text-align: center;">When will these be sent (month/year): May 2012</p>	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	7	
4.2 Number of samples disseminated "to requesters" within country in 2011	2	
4.3 Number of samples disseminated "to requesters" outside country in 2011	6	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

H. CROP: Durum Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.8 Number of accessions originally proposed for regeneration (target accessions):	109	
1.2 Number of accessions successfully regenerated as of last report	100	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	100	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	100	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	109	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 100 When will these be sent (month/year): May 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	..	
4.2 Number of samples disseminated "to requesters" within country in 2011	11	
4.3 Number of samples disseminated "to requesters" outside country in 2011	1	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

I. CROP: Sorghum

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.9 Number of accessions originally proposed for regeneration (target accessions):	89	122 actually planted
1.2 Number of accessions successfully regenerated as of last report	122	Exceeded target
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	122	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	122	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	122	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 122 When will these be sent (month/year): April 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	

Activities	Number of Accessions	Comments
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	..	
4.2 Number of samples disseminated "to requesters" within country in 2011	..	
4.3 Number of samples disseminated "to requesters" outside country in 2011	..	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

J. CROP: Maize

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.10 Number of accessions originally proposed for regeneration (target accessions):	150	
1.2 Number of accessions successfully regenerated as of last report	80	
1.3 Number of accessions planted in 2011	46	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	46	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	126	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	4	
1.8 Total number of accessions characterized over the course of the project	126	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	150	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 126 When will these be sent (month/year): May 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	..	
4.2 Number of samples disseminated "to requesters" within country in 2011	26	
4.3 Number of samples disseminated "to requesters" outside country in 2011	68	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

K. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.11 Number of accessions originally proposed for regeneration (target accessions):	145	
1.2 Number of accessions successfully regenerated as of last report	115	
1.3 Number of accessions planted in 2011	30	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	30	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	145	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	5 accessions with low germination, however successful regenerated after two regeneration seasons
1.8 Total number of accessions characterized over the course of the project	145	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	145	
2.2 Number of accessions already sent for duplication	115	115 accessions already sent to ICARDA in October 2011; However receiving of seeds is not confirmed so far.
2.3 Number of accessions still to be sent for duplication	How many?: 30 When will these be sent (month/year): May 2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		

Activities	Number of Accessions	Comments
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	662	Evaluation of new entries for breeding needs – PhD student
4.2 Number of samples disseminated “to requesters” within country in 2011	..	
4.3 Number of samples disseminated “to requesters” outside country in 2011	20	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)	
1. Additional Staff	Chickpea	300	396,00	
	Common Bean	800	1056,00	
	Cowpea	300	528,00	
	Faba Bean	1,300	1122,90	
	Grasspea	200	266,10	
	Lentil	200	408,00	
	Barley	1,700	1368,60	
	Maize	4,900	6062,40	
	Sorghum	1,000	1243,50	
	Bread Wheat	1,340	1344,00	
	Durum Wheat	1,460	1467,30	
	2. Supplies	Chickpea	200	389,60
		Common Bean	225	607,60
Cowpea		200	420,60	
Faba Bean		800	654,10	
Grasspea		100	268,00	
Lentil		200	395,60	
Barley		1,100	1110,20	
Maize		2,500	2564,00	
Sorghum		780	700,10	
Bread Wheat		620	590,20	
3. Local Travel	Durum Wheat	720	676,00	
	Chickpea	100	100,00	
	Common Bean	100	100,00	
	Cowpea	0	0	
	Faba Bean	0	0	
	Grasspea	100	100,00	
	Lentil	0	0	
	Barley	100	100,00	
	Maize	100	100,00	
	Sorghum	0	0	
4. Equipment ¹	Bread Wheat	0	0	
	Durum Wheat	0	0	
	Chickpea	0	0	
	Common Bean	0	0	
	Cowpea	0	0	
	Faba Bean	0	0	
	Grasspea	0	0	
	Lentil	0	0	

	Barley	0
	Maize	0
	Sorghum	0
	Bread Wheat	0
	Durum Wheat	0
Total		21,445

	0
	0
	0
	0
	0
	0
	24138,80

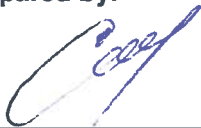
Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:



Name: Siyka Stoyanova, Prof. DSc

Position: Genebank manager

Certified by:



Name: Lilia Krasteva, Prof. DSc

Position: Director of IPGR

**Appendix 1. Financial Report for the Institute of Plant Genetic Resources “K.Malkov”,
Bulgaria**
**Expenditure during 2011 for regeneration and characterization of grain legumes and
cereals carried out in IPGR, Sadovo, Bulgaria.**

Table 1. Personal/additional staff involved for crop regeneration and characterization during 2011. (Daily staff allowance /incl. 21% insurances/ = 12.00 USD)

Crop	Number of accessions in field during 2011	Person month time for field work, days	Costs /USD/
Chickpea	4	7	84.00
Faba bean	12	24	288.00
Grasspea	-	-	
Lentil	20	16	192.00
Cowpea	20	20	240.00
Bean	7	14	168.00
Bread Wheat	-	-	
Durum Wheat	-	-	
Sorghum	-	-	
Maize	46	110	1320.00
Barley	30	18	216.00
TOTAL:	139	209	2508.00

Table 2. Supplies used for crop regeneration, characterization and sample preparation during 2011.

Crop	Fuel for field machining /USD/	Fertilizers, Herbicides /USD/	Total /USD/
1. GRAIN LEGUMES			
Chickpea	128.00	420.00	548.00
Faba bean			
Lentil			
Cowpea			
Bean			
2. CEREALS			
Maize	146.00	118.00	264.00
Barley			
Sum total consumables for field work:			812.00
3. OTHER CONSUMABLES /GENEBANK/			
Paper for germination tests	114.00		
Plastic pods for seedlings	10.50		
Paper bags	72.00		
Packages – Al/PE foil bags	54.00		
Sum total /other consumables:			250.50
Total expenditure for consumables:			1062.50

Actual expenditure 2011, [USD] Institute of Plant Genetic Resources "K.Malkov", Bulgaria	
Costs for additional staff: /Table 1/	2508.00
Expenditure for supplies/consumables: /Table 2/	1062.50
Total:	3570,50

*OTHER COSTS

RESOURCES FOR REALIZATION OF SHIPMENT FOR
SAFETY DUPLICATION OF ACCESSIONS TO ICARDA
IPGR Sadovo, Bulgaria

Exchange Rate (IniCredit BulBank) 1USD = 1,3861 BGN (UniCreditBulBank 26.Oct 2011)

	Document/ reason for expenses	Cost, BGN
1.	Post costs: Inv. 56/EE003554573BG/27.10.2011	288.20
2.	Phytosanitary control: Inv. 1930005498/19.10.2011	17.40
3.	Legislation of Phytocanitary certificate in the Ministry of foreign affairs - Inv. 2901357058/20.10.2011	30.00
4.	Legislation of Phytocanitary certificate in the Embassy of Syria Bank statement of 25.10.2011 UniCreditBulBank	19.59
5.	Legislation of documents in the Embassy of Syria Bank statement of 15.11.2011 UniCreditBulBank	78.36
6.	Legislation of documents /SMTA etc./ in the Ministry of foreign affairs Inv. 000000179/03.11.2011	540.00
7.	Notarial legalization of documents /requested by MFA before legislation/ Inv. 0000016021/24.10.2011	108.00
8.	Travels Sadovo – Sofia – Sadovo 20.10.2011 – two persons by car 26.10.2011 – one person by bus 17.11.2011 – one person by the office car	140.00 40.00 18.36
	Total:	1279,91
	*TOTAL /USD/:	923.40

* These costs were reimbursed in January 2012 after reporting to Amanda Dobson (Global Crop Diversity Trust).

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Agrarian University of Georgia

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2010 -31 December 2011

Project Contact: Prof. Dr. Se. Avandil Korakhashvili

Signature: 

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

In October 2010 was selected 124 accessions of legumes (2 crops) from the Agrarian University of Georgia (AUG) Germplasm for regeneration. They were planted in November as a winter crops (plants) and harvested in July 2011. 32 accessions were from last year regeneration samples, other 92 were from 1996 year harvest, which need emergence regeneration for saving their germination ability.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.
From 1996 germplasm collection (92 accessions) of AUG germinated only 88 accessions (4 had no germination).

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.
Electronic version of characteristics of regenerated accessions is in process of fixing by special computer program.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.



2. Achievements by Crop to 31 December 2011

A. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	33	
1.2 Number of accessions successfully regenerated as of last report	7	26 non-viable
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	7	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	26	
1.8 Total number of accessions characterized over the course of the project	7	
<hr/>		
2.1 Number of accessions planned for duplication:	33	
2.2 Number of accessions already sent for duplication	0	

Activities	Number of Accessions	Comments
2.3 Number of accessions still to be sent for duplication	7	Waiting for instructions from GCDT
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	7	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Lentil

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	40	
1.2 Number of accessions successfully regenerated as of last report	40	
1.3 Number of accessions planted in 2011	20	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	19	1 non-viable
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	59	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	1	
1.7 Total number of accessions found not viable during the course of the project	1	
1.8 Total number of accessions characterized over the course of the project	59	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	40	Plus 19 accessions regenerated in 2011
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 59 When will these be sent (month/year):	Waiting for instructions from CGDT
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	

3.2 Number of seed accessions still to be sent to Svalbard	How many?: 59 Note: these must be sent by the next opening in February 2012	They refused, only ICARDA expressed willingness to obtain our duplication
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Chickpea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	46	
1.2 Number of accessions successfully regenerated as of last report	46	
1.3 Number of accessions planted in 2011	18	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	15	3 non-viable
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	61	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	3	
1.7 Total number of accessions found not viable during the course of the project	3	
1.8 Total number of accessions characterized over the course of the project	46	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	46	Plus 15 accessions regenerated in 2011
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	61 When will these be sent (month/year):	We asked DHL/FedEx and they refused to send our cargo to Syria because of civil war and they do not guarantee safety delivery
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: 61	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

D. CROP: Cowpea and Other Vigna

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.4 Number of accessions originally proposed for regeneration (target accessions):	71	
1.2 Number of accessions successfully regenerated as of last report	4	67 non-viable
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	4	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	67	
1.8 Total number of accessions characterized over the course of the project	4	
2. SAFETY DUPLICATION TO IITA		
2.1 Number of accessions planned for duplication:	71	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	4 When will these be sent (month/year):	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?: 4	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column “2010 Actual Expenditure” please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column “Actual Cumulative Expenditures” please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop in 2011	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Labor			414
2. Supplies	Chickpea	162	839(515+324)
	Lentil	162	
3. Local Travel	Chickpea	248	989(493+496)
	Lentil	248	
4. Equipment ¹			598
Total in 2011		820	2,840.00

¹ Any items defined as “a tangible asset that has a useful life of more than one year”

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

The extra expenses for 2011 amount to USD 820.00. (See below for explanation)

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project

Personnel	Expenditure	Time spent
Chickpea Technician	88 w/hours	2011
Lentil Technician	88 w/hours	2011
TOTAL	176 w/hours	No charges

2. Provide a list of supplies purchased (items may be grouped where appropriate)

#	Supplies	Item	Cost
---	----------	------	------

1	Pesticides	0,4 liter+3,6 kg	84
2	Mineral fertilizers	150 kg	240
	Total		324

3. Provide details, cost and purpose of each trip taken

Main expenses during regeneration we spent for the purchasing of petrol and diesel for the vehicles and Tractors as well as pesticides mentioned above.

#	year	Month / fuel & diesel	Liter	Cost per liter	Cost
1	2011	Diesel	80	1.39	111.20
2	2011	Petrol	310	1,24	384.80
	TOTAL				496.00

4. Provide a list of all equipment purchased

No equipment

Prepared by: Avtandil Korakhashvili



Name

Position Supervision of Program

Full Professor, Dr. Se. at Agrarian University of Georgia.
 Member of National Academy of Sciences of Georgia.
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 Skype : korokha

Global Crop Diversity Trust – 2011 Technical & Financial Report

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Georgian Institute of Farming, Field Crops PGR, Georgia

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Ana Gulbani

Signature: 

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

2. Achievements by Crop to 31 December 2011

A. CROP: Sorghum

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	70	
1.2 Number of accessions successfully regenerated as of last report	70	
1.3 Number of accessions planted in 2011	70	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	70	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	70	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	70	
1.7 Total number of accessions found not viable during the course of the project	70	
1.8 Total number of accessions characterized over the course of the project	70	
2. SAFETY DUPLICATION TO ICRISAT		
2.1 Number of accessions planned for duplication:	70	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	70	
	When will these be sent (05/2012):	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	70	
3.2 Number of seed accessions still to be sent to Svalbard	0	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		

4.1 Number of samples disseminated within institute in 2011*

4.2 Number of samples disseminated "to requesters" within country in 2011

4.3 Number of samples disseminated "to requesters" outside country in 2011

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Maize

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	100	
1.2 Number of accessions successfully regenerated as of last report	100	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	0	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	0	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	100	
2.2 Number of accessions already sent for duplication	100	
2.3 Number of accessions still to be sent for duplication	0	
	When will these be sent (month/year):	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	100	
3.2 Number of seed accessions still to be sent to Svalbard	0	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		

4.1 Number of samples disseminated within institute in 2011*

4.2 Number of samples disseminated "to requesters" within country in 2011

4.3 Number of samples disseminated "to requesters" outside country in 2011

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	135	
1.2 Number of accessions successfully regenerated as of last report	135	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	0	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	0	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	135	
2.2 Number of accessions already sent for duplication	135	
2.3 Number of accessions still to be sent for duplication	0	When will these be sent (month/year):
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	135	
3.2 Number of seed accessions still to be sent to Svalbard	0	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		

4.1 Number of samples disseminated within institute in 2011*

4.2 Number of samples disseminated "to requesters" within country in 2011

4.3 Number of samples disseminated "to requesters" outside country in 2011

*to breeders or other scientists within the same institute as the genebank. Do not include safety duplication or other disseminations related to conservation of the collection.

Additional comments:

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Maize	750	
	Sorghum	550	
	Wheat	850	
2. Supplies	Maize	255	
	Sorghum	355	
	Wheat	445	
3. Local Travel	Maize	445	
	Sorghum	250	
	Wheat	205	
4. Equipment ¹	Maize	300	
	Sorghum	245	
	Wheat	750	
Total		5,400	

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:

A. Gull
Name

Position

Certified by:

Name

Position

Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column "2010 Actual Expenditure" please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop	Total Budget (USD)	Actual Cumulative Expenditures (2009+2010) (USD)	2010 Budget (USD)	2010 Actual Expenditure (USD)
1. Additional Staff	Maize	750		0	
	Sorghum	550		0	
	Wheat	850	2150	0	
2. Supplies	Maize	255		0	
	Sorghum	355		0	
	Wheat	445	961	0	
3. Local Travel	Maize	445		0	
	Sorghum	250		0	
	Wheat	205	984	0	
4. Equipment ¹	Maize	300		0	
	Sorghum	245		0	
	Wheat	750	1290	0	
Total		5,400	5,385	0	

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2010 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project

Personnel	Expenditure	Time spent
Maize Technician	450	2009 - May, July, August, September, and October.
Sorghum Technician	450	2009- May, July, August, September, and October
Wheat Technician	600	2008 – November, 2009 - March, May, June, July, August
Driver	650	2008 – November, 2009 - March, May, June, July, August, September, and October
TOTAL	2150	

Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column "2010 Actual Expenditure" please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop	Total Budget (USD)	Actual Cumulative Expenditures (2009+2010) (USD)	2010 Budget (USD)	2010 Actual Expenditure (USD)
1. Additional Staff	Maize	750		0	
	Sorghum	550		0	
	Wheat	850	2150	0	
2. Supplies	Maize	255		0	
	Sorghum	355		0	
	Wheat	445	961	0	
3. Local Travel	Maize	445		0	
	Sorghum	250		0	
	Wheat	205	984	0	
4. Equipment ¹	Maize	300		0	
	Sorghum	245		0	
	Wheat	750	1290	0	
Total		5,400	5,385	0	

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2010 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project

Personnel	Expenditure	Time spent
Maize Technician	450	2009 - May, July, August, September, and October.
Sorghum Technician	450	2009- May, July, August, September, and October
Wheat Technician	600	2008 – November, 2009 - March, May, June, July, August
Driver	650	2008 – November, 2009 - March, May, June, July, August, September, and October
TOTAL	2150	

2. Provide a list of supplies purchased (items may be grouped where appropriate)

#	Supplies	Item	Cost
1	Stationary	-	175
2	Pollination begs for maize and sorghum	1 300	195
3	Marker tags	1 500	140
4	Cotton begs	550	230
5	Silica gel	15 kg.	125
Chemicals			
5	Herbicide	0.5 liter	32
6	Insecticide [DECIS(Deltametrin)]	1 liter	21
7	Fungicide (Ridomil Gold)	1 kg	23
8	NPK	25 kg	20
	TOTAL		961

3. Provide details, cost and purpose of each trip taken

As the regeneration field is located almost 45 km from the Institute we have employed the driver with the vehicles to drive from the institute to the field. Mainly the expenditures went in fuel cost:

#	year	Month the fuel was used	Liter	Cost per liter	Cost
1	2008	November	70	1.00	70
2	2009	March, April, May,	240	1.10	264
3	2009	June, July, August	340	1.00	340
4	2009	September, October	310	1.00	310
				TOTAL	984

4. Provide a list of all equipment purchased

- Thermostat (plant growth chamber) 1 item – 980 USD,
- Seed weight balancer – 310 USD

Prepared by:

A. Cell
 Name
 Position Project Leader

Certified by:

I. Mehedliek
 Name
 Position Accountant

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: National Agricultural Research Foundation, Cereal Institute, Greece

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Dr. Dimitrios Katsantonis

Signature: 

I. Technical Report

1. Brief narrative of overall achievements

The 180 accessions were chosen of the 881 ones belonging in the seed bank of Cereal Institute, Thessaloniki (NAGREF). The collection is consisted from Greek, Cypriot and International accessions. Selection was accomplished with the intent to find the most endangered of low germination (typically the older ones). Then the details of each one were recorded and catalogued. Before sowing 10 grains of each sample were pre-germinated in Petri dishes in growth chambers in order to test their viability. 12 gr of each accession were transferred to the final positions in the field, while this amount was increased according to the germination rate. The field design that was used was the Randomized Complete Block without replications. The experimental plot was consisted of 4 lines, 1 m long, with 25 cm line to line and 3 cm plant to plant distance. The field was fertilized by applying 80 kg N/ha and 40 kg P/ha, basically. During the cultivation period, normal cultural practices were carried out. Harvesting of the barley plants was conducted between the 21th and 22nd of June 2010, when plants reached the maturity. Then the grains were collected using the one spike electric harvester.

The following assessments were carried out according to the relative protocol: 1) Growth class 2) Plant height, 3) row number / lateral florets, 4) Lemma awn/hood, 5) Lemma awn barbs, 6) Length of rachilla hairs, 7) Kernel covering, 8) Lemma colour 9) Aleurone colour 10) Susceptibility to drought 11) Susceptibility to leaf rust (*Puccinia hordei*), 12) Susceptibility to powdery mildew (*Erysiphe graminis* fsp *hordei*) 13) Susceptibility to scald (*Rhynchosporium secalis*) 14) Susceptibility to net blotch (*Pyrenophora teres*) 15) Susceptibility to spot blotch (*Cochliobolus sativus*).

2. Planned activities not completed

So far, the process of safety duplication to ICARDA is still pending due to bureaucracy problems. ICARDA contact Mr Bilal Humeid, claimed that in order to accept the documents they had to be legalized by Syrian Embassy, which is actually located in Athens. After contacting the embassy by phone, they have also claimed that in order to legalize the documents themselves, they had to be firstly legalized by the Greek Ministry of Interior along with the Arab Greek Chamber, which both are located to Athens (500 km approximately).

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

See attached Excel file: Barley_ECPGR_2010_NAGREF.xls

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

See attached photos

2. Achievements by Crop to 31 December 2011

A. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	180	
1.2 Number of accessions successfully regenerated as of last report	180	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	0	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	0	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	180	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	0 When will these be sent (month/year):	There is a total of 155 barley accessions that will be sent to ICARDA, after the bureaucracy matter will be solved
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	25	
3.2 Number of seed accessions still to be sent to Svalbard	0	

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	0	
4.2 Number of samples disseminated "to requesters" within country in 2011	0	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Final Financial Report (EURO)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (EURO)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (EURO)
1. Additional Staff	Barley	0	0
2. Supplies	Barley	0	22.94
3. Local Travel	Barley	0	0
4. Equipment ²	Barley	3,600	2057.00
Total		3,600	2079.94

² Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
Laser multi-purpose labels (€22.94)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased
 - Vacuum sealer (€2057.00)*The equipment expenditures submitted in 2010 report (two freezers pro-invoiced at Euro 1498) have not been purchased in 2011 awaiting for the final balance of Euro 624*
5. Other

Prepared by:



Dr. Dimitrios Katsantonis

Name

Position
Plant Pathologist

Certified by:



Ioannis Giotopoulos

Name

Position
Accountant

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Research Centre for Agrobotany, Hungary

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1_1.2_10
GSP09GRD2_1.1_02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Dr. László Holly

Signature: 

Project Contact: Lajos Horváth

Signature: 



I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

Collection Folder Institute, Country	Crop	Total Number of Accessions Regenerated		Total Number of Accessions Safely Duplicated		
		Planned (original target)	Actual (from 1.2, section 2)	Genebank receiving safety duplicates	Actual (from 2.2, section 2)	Actual to Svalbard (seed only) (from 3.1, section 2)
Research Centre for Agrobiodiversity, Hungary	Rice	138	139	CIAT		
	Millet	89	89	CIMMYT		
	Wheat	92	92	CIMMYT		
	Barley	32	32	ICARDA		
	Faba bean	25	25	ICARDA		
	Grass pea	92	92	ICARDA		
	Lentil	28	28	ICARDA		
	Chickpea	22	22	ICARDA		

The faba bean and grass pea accessions have been regenerated with spatial-isolation or in a temporary back-yard multiplication network including several sites, so their characterisation data are partly fragmented or incomplete.

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

The duplication of the accessions multiplied under the Trust agreement in 2011 has not been completed due to some technical and reorganizational problem.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

The preparation of evaluated data for the electronic access is in progress and will be accessible on RCAT website but they are already available upon request to potential users.

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

2. Achievements by Crop to 31 December 2011

A. CROP: Chickpea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	22	
1.2 Number of accessions successfully regenerated as of last report	22	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	22	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	22	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	22	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	22 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	22	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	72	
4.2 Number of samples disseminated "to requesters" within country in 2011	10	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

B. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	32	
1.2 Number of accessions successfully regenerated as of last report	32	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	32	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	32	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	32	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	32 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	32	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	128	
4.2 Number of samples disseminated "to requesters" within country in 2011	6	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

C. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.3 Number of accessions originally proposed for regeneration (target accessions):	25	
1.2 Number of accessions successfully regenerated as of last report	25	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	25	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	25	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	25	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	25 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	25	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	13	
4.2 Number of samples disseminated "to requesters" within country in 2011	7	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

D. CROP: Lentil

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.4 Number of accessions originally proposed for regeneration (target accessions):	28	
1.2 Number of accessions successfully regenerated as of last report	28	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	28	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	0	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	28	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	28 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	28	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	30	
4.2 Number of samples disseminated "to requesters" within country in 2011	4	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

E. CROP: Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.5 Number of accessions originally proposed for regeneration (target accessions):	92	
1.2 Number of accessions successfully regenerated as of last report	92	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	92	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	92	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	92	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	92 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	92	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	345	
4.2 Number of samples disseminated "to requesters" within country in 2011	11	
4.3 Number of samples disseminated "to requesters" outside country in 2011	1	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

F. CROP: Maize

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.6 Number of accessions originally proposed for regeneration (target accessions):	89	
1.2 Number of accessions successfully regenerated as of last report	89	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	89	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	89	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	89	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	89 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	89	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	27	
4.2 Number of samples disseminated "to requesters" within country in 2011	52	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

G. CROP: Grasspea

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	82	
1.2 Number of accessions successfully regenerated as of last report	82	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	82	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	82	
2. SAFETY DUPLICATION TO ICARDA		
2.1 Number of accessions planned for duplication:	82	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	H2 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	82	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	37	
4.2 Number of samples disseminated "to requesters" within country in 2011	3	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

2. Achievements by Crop to 31 December 2011

H. CROP: Bean (Phaseolus)

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.8 Number of accessions originally proposed for regeneration (target accessions):	139	
1.2 Number of accessions successfully regenerated as of last report	139	
1.3 Number of accessions planted in 2011	0	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	0	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	139	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	0	
1.7 Total number of accessions found not viable during the course of the project	0	
1.8 Total number of accessions characterized over the course of the project	139	
2. SAFETY DUPLICATION TO CIAT		
2.1 Number of accessions planned for duplication:	139	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	139 When will these be sent (month/year): 04/2012	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	139	

Activities	Number of Accessions	Comments
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	208	
4.2 Number of samples disseminated "to requesters" within country in 2011	138	
4.3 Number of samples disseminated "to requesters" outside country in 2011	0	

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

II. Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column "2010 Actual Expenditure" please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop	Total Budget (USD)	Actual Cumulative Expenditures (2009+2010) (USD)	2010 Budget (USD)	2010 Actual Expenditure (USD)
1. Additional Staff	Chickpea	440	380	220	380
	Common Bean	3,475	2,215	1,775	2,215
	Faba Bean	875	485	445	485
	Grasspea	1,640	920	840	920
	Lentil	560	560	280	560
	Barley	640	80	320	80
	Maize	3,665	2,045	1,865	2,045
	Wheat	1,840	0	940	0
	2. Supplies	Chickpea	0	60	0
Common Bean		0	980	0	
Faba Bean		0	390	0	
Grasspea		0	720	0	
Lentil		0	0	0	
Barley		0	560	0	
Maize		0	1620	0	
Wheat		0	2120	0	
3. Local Travel		Chickpea	0		0
	Common Bean	0		0	
	Faba Bean	0		0	
	Grasspea	0		0	
	Lentil	0		0	
	Barley	0		0	
	Maize	0		0	
	Wheat	0		0	
	4. Equipment ¹	Chickpea	0		0
Common Bean		0		0	
Faba Bean		0		0	
Grasspea		0		0	
Lentil		0		0	
Barley		0		0	
Maize		0		0	
Wheat		0		0	
Total			13,135	13,135	6,685

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

In 2009, the budget was spent on different supplies, including fertilizers, plant supporting stakes, paper bags, pesticides, isolation materials, soil cultivation services, as hiring temporary employees was not possible in that year. In 2010, the entire budget was spent on hiring casual workers.

It should be mentioned that the actual cost of the multiplication and characterization of the endangered accessions was higher than the GCDT fund provided. It contributed, however at a great extent to the successful rescue of these endangered, valuable germplasm accessions.

Preparation of subsamples has started for dispatching them to the relevant IARC.

Provide notes to financial report for 2010 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project

Casual workers: 1,337 working hours, 5 USD/hour gross personnel expenditure at an exchange rate of 198 HUF/USD

2. Provide a list of supplies purchased (items may be grouped where appropriate)

Mineral fertilizers
Stakes (as support for plants)
Paper bags
Pesticides
Mesh fencing to protect plants from herbivorous animals
Soil cultivation costs
Agricultural plastic foil
Cheese-cloth bags for isolation

3. Provide details, cost and purpose of each trip taken

None

4. Provide a list of all equipment purchased

None

Prepared by:

Certified by:



Name Mr. Lajos Horváth

Position: Head of the Field Crop Section



Name Dr. László Holly

Position: Acting Director, RCAT



Global Crop Diversity Trust – 2011 Technical & Financial Report

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections

2011 Technical and Financial Report

Institute: Institute for Cereal Crops Improvement, Israel


Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1_1.2_10
GSP09GRD2_1.1_02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: _____ 1 March 2009 -31 December 2011 _____

Project Contact: Prof. Adina Breiman **Signature:** 

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

The accessions were regenerated in 2009 and 2010 and duplicated in 2010 and 2011. We have managed to regenerate and duplicate the planned amount.

Collection Holder Institute, Country	Crop	Total Number of Accessions Regenerated		Total Number of Accessions Safety Duplicated		
		Planned (original target)	Actual	Genebank receiving safety duplicates	Actual	Actual to Svalbard
Institute for Cereal Crops Improvement, Israel	Wheat	300	300	CIMMYT	300	300
	Barley	600	600	NordGen	600	600

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

All activities were completed in 2011.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or

indicate where this data can be found electronically.

Passport data of these accessions is available on the ICCI's website (<http://www.tau.ac.il/lifesci/units/ICCI//genebank1.html>) and on Svalbard (http://www.nordgen.org/sqsv/data/index.php?app=dataset&inc=validation&dataset_id=19&PHPSESSID=jnnqgst31pkhpdoq1q4a9lj231).

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.



Picture 1. Harvesting wild barley in the nethouse. 2010.



Picture 2. A box containing backup of accessions regenerated in this project, stored at the Global Seed Vault, Svalbard.

2. Achievements by Crop to 31 December 2011

A. CROP: Wheat

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	300	
1.2 Number of accessions successfully regenerated as of last report	300	

Activities	Number of Accessions	Comments
1.3 Number of accessions planted in 2011	No further accessions were added	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):		
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	300	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)		
1.7 Total number of accessions found not viable during the course of the project		
1.8 Total number of accessions characterized over the course of the project	300	
2. SAFETY DUPLICATION TO CIMMYT		
2.1 Number of accessions planned for duplication:	300	
2.2 Number of accessions already sent for duplication	300	
2.3 Number of accessions still to be sent for duplication	All accessions are in duplication	
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	300	
3.2 Number of seed accessions still to be sent to Svalbard	All accessions are in duplication	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	None	
4.2 Number of samples disseminated "to requesters" within country in 2011		
4.3 Number of samples disseminated "to requesters" outside country in 2011		

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

150 accession of wheat that were regenerated in 2010 were sent for two duplications in 2011 as follows:

To Svalbard Global Seed Vault on May 31st, 2011.

To CIMMYT on July 3rd, 2011.

2. Achievements by Crop to 31 December 2011

B. CROP: Barley

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.2 Number of accessions originally proposed for regeneration (target accessions):	600	
1.2 Number of accessions successfully regenerated as of last report	600	
1.3 Number of accessions planted in 2011	No further accessions were added	
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):		
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	600	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)		
1.7 Total number of accessions found not viable during the course of the project		
1.8 Total number of accessions characterized over the course of the project		
2. SAFETY DUPLICATION TO NordGen		
2.1 Number of accessions planned for duplication:	600	
2.2 Number of accessions already sent for duplication	600	
2.3 Number of accessions still to be sent for duplication	All accessions are in duplication	

Activities	Number of Accessions	Comments
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	600	
3.2 Number of seed accessions still to be sent to Svalbard	All accessions are in duplication	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	None	
4.2 Number of samples disseminated "to requesters" within country in 2011		
4.3 Number of samples disseminated "to requesters" outside country in 2011		

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

**300 accession of barley that were regenerated in 2010 were sent for two duplications in 2011 as follows:
 To Svalbard Global Seed Vault on May 31st, 2011.
 To NordGen on April 27th, 2011.**

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Barley	15,000	15,000.00
	Wheat	6,000	6,000.00
2. Supplies	Barley	3,000	2,850.00
	Wheat	1,500	1,425.00
3. Local Travel	Barley	3,000	2,750.00
	Wheat	1,500	1,375.00
4. Equipment ¹	Barley	0	
	Wheat	0	
Total		30,000	29,400.00

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures: *no expenditures for 2011*

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:

Certified by:

Smarar Eerati
Name

Adin Beine
Name

Position: ICCI Gene Bank Curator

Position: Head of ICCI

Section 2: Collaborating Institutes Information *To be filled in by the participating institute*

Regeneration and Safety Duplication of Regionally Prioritized Crop Collections
2011 Technical and Financial Report

Institute: Instituto Nacional de Recursos Biologicos, Portugal

Trust Grant No.: GS09011

Project Ref. No.: GSP09GAT1 1.2 10
GSP09GRD2 1.1 02

Report Type: 2011 Technical and Financial Report

Report Due Date: *To be filled in by Project Coordinator*
(Note: consolidated report due by 31 March 2012)

Period covered by this report: 1 March 2009 -31 December 2011

Project Contact: Maria Manuela Veloso

Signature: Maria Manuela Veloso

I. Technical Report

1. Brief narrative of overall achievements

Give an overview of the regeneration, characterization, in vitro culture and duplication activities undertaken by the network from the beginning of the project up to its end. You may paste in information from your last report, however, please do be sure to describe the achievements in 2011.

A total of sixty seven accessions were sown in a field of INIA – Elvas, during two years of trials (2008/2009 and 2009/2010), under Mediterranean environmental conditions and only rain-fed, in open pollination conditions (in order to maintain the level of heterozygosis). In the 1st year, sowing was on the 15th December 2008. In the 2nd year 2 sowings took place: on the 15th December 2009 and, as a consequence of flooding that affected the 1st sowing, again by the end of January 2010.

The field plots were surrounded with a tall rapessed crop (*Brassica napus*), which prevented the interplot gene flow.

For comparison purposes the commercial cultivar “Favel” was used.

In the first year trial (2008/2009), during the months of March to June the mean temperature was 1° - 2°C higher than the mean value of the last 30 years (1997 – 2008). Concerning the precipitation, it was quite low during March (9.4 mm) and May (6.9 mm). The high temperature and low precipitation at flowering and early pod development had bad consequences on regeneration, mainly for 6 accessions, which produced a low amount of seeds.

In the second year trial (2009/2010) intense raining occurred immediately after sowing and continued for a long period leading to field flooding that lasted about a month. As a consequence, 7 accessions did not germinate and 15 landraces produced a small number of plants.

Webster

In conclusion, the project overall achievements:

Number of accessions not viable - 7.

Number of accessions successfully regenerated – 31

Number of accessions characterized - 28

Number of accessions for duplication – 32 (31 regenerated accessions plus the Portuguese variety Favel)

Number of accessions which still need to be regenerated - 22

2. Planned activities not completed

Describe what activities have not been completed and give the reasons.

Considering the factors already mentioned (climatic constraints observed during 2 consecutive years) it was not possible to regenerate all the accessions. In addition, since the amount of seeds still existing from each accession (not regenerated) is too small we considerer that it is dangerous to try again to regenerate these accessions in the fields. So, these accessions should be regenerated in small scale using cages and irrigation procedures.

4. Passport and characterization data

Please provide passport and characterization data on accessions regenerated or indicate where this data can be found electronically.

The passport data are available at <http://eurisco.ecpgr.org/>

The characterization data which are available, as a result of the project, are: flower colour, sowing type, number of pods /plant, number of seeds/pod, pod length, pod width, seed length, seed width, 100 seed weight, weight seeds/plant, days to flowering and plant height. We also registered the susceptibility to drought and to flooding. The main pests identified, during the two regeneration cycles were the leaf weevils (*Sitona* spp.) and the aphid *Aphis fabae*.

These characterization data were used to prepare the poster "Regeneration and Safety Duplication of a Faba Bean Prioritized collection" that was presented at the Symposium "Genetic Resources at the 28th International Horticultural Congress which took place in Lisbon, in August 2010, (<http://www.ihc2010.org/docs/S12.Book%20of%20Abstracts.pdf>).

At present we are preparing the article "Portuguese faba bean genetic resources" which we intend to submit for publication on a plant genetic resources journal. The characterization data are part of the results. As soon as the article is published the characterization data will be uploaded on the INRB web page (www.inrb.pt).

5. Photographs

Please supply photographs documenting the work carried out, preferably in digital format.

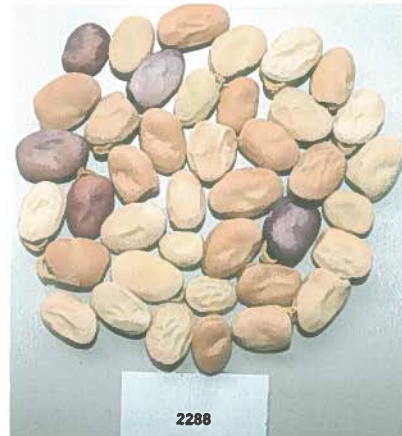
J. Wilson



V. faba regeneration plot surrounded with a tall rapeseed crop (*B. napus*), at INIA-Elvas (2008/2009)



Intense raining occurred immediately after sowing and continued for a long period, leading to field flooding that lasted about one month (2009/2010)



V. faba accessions regenerated at INIA-Elvas, Portugal. The variety Favel obtained at INIA-Elvas was used for comparison purposes during the regeneration and characterization of faba bean accessions.

2. Achievements by Crop to 31 December 2011

A. CROP: Faba bean

Please complete the information below.

Activities	Number of Accessions	Comments
1. REGENERATION AND CHARACTERISATION		
1.1 Number of accessions originally proposed for regeneration (target accessions):	60	61 actually planted
1.2 Number of accessions successfully regenerated as of last report	31	7 non-viable
1.3 Number of accessions planted in 2011	0	No accessions were sown during 2011
1.4 Number of accessions successfully regenerated in 2011 (i.e. fresh seed harvested):	Please complete	
1.5 Total number of accessions successfully regenerated during the course of the project (1.2 plus 1.4)	31	
1.6 Number of accessions found not viable in 2011 (that could not be regenerated)	Please complete	
1.7 Total number of accessions found not viable during the course of the project	7	
1.8 Total number of accessions characterized over the course of the project	28	
2. SAFETY DUPLICATION TO Spain (Centro di RecursosFitogeneticos)		
2.1 Number of accessions planned for duplication:	60	
2.2 Number of accessions already sent for duplication	0	
2.3 Number of accessions still to be sent for duplication	How many?: 32 When will these be sent (month/year): February 2012	31 corresponding to regenerated accessions plus one Portuguese variety (Favel) used as a control
3. DUPLICATION TO SVALBARD GLOBAL SEED VAULT		
3.1 Number of seed accessions sent to Svalbard	0	
3.2 Number of seed accessions still to be sent to Svalbard	How many?:12	

W3

Activities	Number of Accessions	Comments
	Note: these must be sent by the next opening in February 2012	
4. DISSEMINATION IN 2011		
4.1 Number of samples disseminated within institute in 2011*	31	We started to study the genetic diversity of these accessions using molecular markers
4.2 Number of samples disseminated "to requesters" within country in 2011	10	Ten accessions were requested by ITQB for biochemical studies
4.3 Number of samples disseminated "to requesters" outside country in 2011		

*to breeders or other scientists within the same institute as the genebank. *Do not include safety duplication or other disseminations related to conservation of the collection.*

Additional comments:

This project has been a good opportunity to start the regeneration and characterization of the faba bean Portuguese landraces. Furthermore, the Project contributed to strengthen the collaboration with Dr Maria José Suso (CSIC, Cordoba) and Dr. Luis Ayerbe (CRF; Madrid).

The procedure to send the duplicates to CRF (Madrid, Spain) and to SGSV is already being implemented and the seeds will be sent as soon as the agreements between the engaged Institutions have been signed by all the parts.

II. Final Financial Report (USD)

Note – sections in grey should not be modified.

The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

In the column “Actual Cumulative Expenditures” please provide the total of actual expenditures from 2008, 2009, and 2010 (summing the figures reported in your last reports) plus those for 2011. Provide an explanation for variances greater than 10%.

	Crop	Total Budget (USD)	Total Actual Cumulative Expenditures (2008+2009+2010+2011) (USD)
1. Additional Staff	Wheat	900	
2. Supplies	Wheat	1,200	
3. Local Travel	Wheat	0	
4. Equipment ¹	Wheat	0	
Total		2,100	

¹ Any items defined as “a tangible asset that has a useful life of more than one year”

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

Provide notes to financial report for 2011 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
2. Provide a list of supplies purchased (items may be grouped where appropriate)
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:

Certified by:

Name

Name

Position

Position

II. Financial Report (USD)

Note – sections in grey should not be modified.

Please report the expenditures incurred against the agreed budget for 2010. The Trust does not provide all of the funds for a given year in advance. This is why the amount of fund payments each year is less than the budget. However this is resolved with the final payment as shown in the disbursement schedule in the Grant Agreement.

Therefore, in the column "2010 Actual Expenditure" please report actual expenditure against the 2010 budget (projected expenditure), providing an explanation for variances greater than 10%. In the column "Actual Cumulative Expenditures" please provide the total of actual expenditures from 2009 plus those for 2010.

	Crop	Total Budget (USD)	Actual Cumulative Expenditures (2009+2010) (USD)	2010 Budget (USD)	2010 Actual Expenditure (USD)
1. Additional Staff	Wheat	900	899.99	450	899.99
2. Supplies	Wheat	1,200	941.52	600	161.10
3. Local Travel	Wheat	0		0	
4. Equipment ¹	Wheat	0		0	
Total		2,100	1,841.51	1,050	1,061.09

¹ Any items defined as "a tangible asset that has a useful life of more than one year"

Provide justification for any variance in use of funds relative to original budget line items greater than 10%:

1. Additional staff - The faba bean regeneration started on Nov/Dec 2008. At that time and during the following 4 months INRB had not the money to pay additional staff. In the 2nd year regeneration INRB attributed a one month grant to João Brazão in order to perform the seed characterization. According to the INRB rules one month grant to a Bachelor worker is equivalent to Euros 730, 00 (USD 899.99).

2. Supplies – In the first year we bought extra consumables for seed multiplication and storage. So, in the second year we had some of those consumables available and the amount disbursed for consumables were only of USD 161.10.

Provide notes to financial report for 2010 expenditures:

1. Detail personnel expenditure incurred and the amount of time spent on the project
A one month grant was attributed to João Brazão in order to perform the seed characterization
2. Provide a list of supplies purchased (Items may be grouped where appropriate)
Supplies purchased: herbicides, fungicides, pesticides, consumables for seed multiplication and storage.
Stationery
3. Provide details, cost and purpose of each trip taken
4. Provide a list of all equipment purchased

Prepared by:

Maria Manuela Veloso
Name Maria Manuela Veloso
Position ECPGR National Coordinator

Certified by:

Maria de Fátima Calouro
Name Maria de Fátima Calouro
Position INIA Director

