



Private sector horticultural development transition project



QUARTERLY REPORT NO. 6 (OCTOBER – DECEMBER 2013)

Implementing agency: AFGHANISTAN NATIONAL HORTICULTURE DEVELOPMENT ORGANIZATION (ANHDO)

Contract: DCI-ASIE/2012/295-861

Europe Aid ID: AF-2012-DSA-1104654064

Reporting Quarter: 4 - 2013

Summary:

During this quarter ANHDO team the following activities done:

- On 22 October EU delegation visited ANHDO, ANNDPO and PHDP offices, bio-technology lab, Pomology lab and visited Badambagh PHDC field activities.
- On 25 November, Marie-Christine MONNIER, Operations Task Manager - Agriculture & Livestock / Water & Natural Resources of the European Union Delegation to Afghanistan visited PHDC activities in Badam Bagh on 25th of November 2013.
- PHDP hired Pomology lab, post harvest and quality control consultants to train and work with ANHDO staff on data analysis of Pomology lab, UPOV data of national collections.
- Regular monitoring of Badambagh, Kunduz, Jalalabad and Mazar PHDCs and Pomology labs of Kabul, Kunduz, Jalalabad and Mazar.
- Kabul International Agriculture Fair: Traders and businessmen from some countries have visited the fair, more than 200 local and a few foreign companies, including importers, exporters, wholesalers, producers and service providers, ANHDO show fresh fruits like citrus, Persimmon pomegranate, Grape and Almond from PHDCs, Citrus, persimmon, pomegranate, grape and almonds national collections **agriculture minister, deputy's minister MAIL and DAIL directors** and we have more than 4000 visitors.
- Meetings with H.E deputy minister Haidari, director of research, director of horticulture, director of HR and director of administration on MAIL staff and field horticulturist approval in MAIL, CBR process and MAIL H, E Minister accepted PHDP/ ANHDO proposal.
- Meetings with director of horticulture on budget, staff ToR and other issues, Meeting with Giuliano Ramat from IAO of Italian cooperation on pistachio project in Herat Province, meeting with Mr. Philippe Francois and Mr. Haiatullah Asmati from HCDP project of MAIL on assessment of Shamali, meeting with Paktia Baghlan and Kam group construction companies on Mazar PHDC electricity problem, meeting with Haji Abdul Manan from ICARDA regarding pistachio survey report.
- ANHDO, had meetings with French embassy members on providing budget for ANHDO for Kapisa and Kabul provinces.
- Preparation of ANHDO annual work plan for the year of 2014 and prepared work plan and budget of PHDCs for horticulture department of MAIL.
- Correction of edited all part of ANNGO catalogue with ANNGO database manager.
- Sorted out the plum duplicates and misnamed varieties, worked on Cherry evaluation and repeated some UPOV characters, worked on Apricot National Collection evaluation and screening, evaluation of selected 11 almond lines with AAIDO chairman and Traders and the new selected lines will be multiplied for further evaluations for next year's.
- Updating of renamed process almond accessions, updating the renamed accessions in the database and finalized he updated the list of rootstocks and study and adding more details to NC procedure.
- Analyzing of the almond samples collected from breeding lines.

Europe Aid ID: AF-2012-DSA-1104654064

- 18/11/13 Persimmon UPOV training for 22 students of agriculture faculty of Nangarhar University.
- The fruit UPOV assessment of persimmon, pomegranate and grape varieties was done.
- On 3 Nov. ANHDO hold one day laboratory and postharvest workshop and training facilitated by Federico and Monica.
- On 4 November PHDP/ ANHDO hold national collections procedure introduction workshop to implement the national collection by MAIL or other project in next step.
- ANHDO held from 5 to 6 of Nov planning and staff coordination meeting.
- ANHDO head of horticulture and Pro. Samadhi visited Mazar and Kunduz PHDCs to see the activities result and special of GF rootstock and seedlings of almond and peach.
- On 26 November ANHDO and ANNGO hold in Citrus Promotion Group meeting in NVDA office in Jalalabad.
- On 27 November PHDC-JAL organized a citrus field day for 60 participants to show the results of the citrus varieties in the national collection in particular the early varieties of citrus. ANHDO invited horticulture department of MAIL, agriculture director of Jalalabad, NVDA director and other organizations.
- AAEP and IDEA NEW arranged 2 training in Mazar PHDC and 65 staff of DAIL and NGOs.
- NHLP and agriculture Institute of Kabul visited in 3 groups Badambagh PHDC.
- During this quarter PHDCs had field visit of 150 students of National Agriculture Institute of Kabul in 2 groups and 1 group of 22 students of Jalalabad agriculture faculty and a group of 20 students of Balkh agriculture faculty.
- Two days pruning of stone fruits is organized by ANHDO and 30 extension workers of MAIL from Badghis, Ghor, Farah and Heart.
- Pruning of stone fruits national collections and demonstration orchard is started in all PHDCs
- General activities including weed control, irrigation, and nutrition etc of all PHDCs.
- Monitoring and care of trees regard to disease and some harmful insect to prevent them with reasonable way and 5 % Urea spray in Mazar and Kunduz is done.
- Primary works like land preparation and designed of new nursery design and establishment in all PHDCs.
- Pruning of stone fruit in all PHDCs completed and using of paint all big cuts space of pruning shear and pruning saw by glue mixed with fungicide to prevent the gummosis problems in the future.
- Land preparation for new plantation of NCs and demonstration orchards is completed in all PHDCs.
- Reconstruction the irrigation system to double furrow in Kandahar, Kunduz and Mazar PHDCs.
- Preparation of GF677 cutting and planting under the plastic tunnel in all PHDCs completed.
- Using of animal manure and compost in the national collections and demonstration orchards.
- Collaboration with other organization who work with Horticulture and agriculture faculties in the 6 PHDCs.

Implementation of the planned activities:

No	Activity	Achievements, Facts and Figures
		<p>During this quarter ANHDO management team the following activities done:</p> <ul style="list-style-type: none"> • On 22 October EU delegation visited ANHDO, ANNGO and PHDP offices, bio-technology lab, Pomology lab and visited Badambagh PHDC field activities. We had a fruit show of grape and pomegranate of Kandahar national collection and pomegranate and citrus of Jalalabad PHDC national collection, the delegation members was very happy from ANHDO activities. • On 25 November, Marie-Christine MONNIER, Operations Task Manager - Agriculture & Livestock / Water & Natural Resources of the European Union Delegation to Afghanistan visited PHDC activities in Badam Bagh. • PHDP hired Pomology lab, post harvest and quality control consultants to train and work with ANHDO staff on data analysis of Pomology lab, UPOV

1	Management Activities	<p>data of national collections, work on photos and double kernel percentage of almond nuts of each accession and other post harvesting activities work plan and other field activities.</p> <ul style="list-style-type: none"> • Regular monitoring of Badambagh, Kunduz, Jalalabad and Mazar PHDCs and Pomology labs of Kabul, Kunduz, Jalalabad and Mazar. • Kabul International Agriculture Fair: Traders and businessmen from some countries have visited the fair, more than 200 local and a few foreign companies, including importers, exporters, wholesalers, producers and service providers, have displayed their products in the fair, ANHDO show fresh fruits like citrus, Persimmon pomegranate, Grape and Almond from PHDCs, Citrus, persimmon, pomegranate, grape and almonds national collections agriculture minister, deputy's minister MAIL and DAIL directors and we have more than 4000 visitors. The all activities of ANHDO presented by the team to visitors aware fruit show was vary intrusting and citrus, pomegranate, grape and persimmon was interesting for minister and all visitors, ANHDO distributed brochures, attended business to business presentations and provide information of ANHDO activities to all participants and for media. • ANHDO, had meetings with French embassy members on providing budget for ANHDO for Kapisa and Kabul provinces for the year of 2014 and we will have another meeting very soon. • Meetings with H.E deputy minister Haidari, director of research, director of horticulture, director of HR and director of administration on MAIL staff and field horticulturist approval in MAIL, CBR process and MAIL H, E Minister accepted PHDP/ ANHDO proposal. • Meetings with director of horticulture on budget, staff ToR and other issues, Meeting with Giuliano Ramat from IAO of Italian cooperation on pistachio project in Herat Province, meeting with Mr. Philippe Francois and Mr. Haiatullah Asmati from HCDP project of MAIL on assessment of Shamali, meeting with Paktia Baghlan and Kam group construction companies on Mazar PHDC electricity problem, meeting with Haji Abdul Manan from ICARDA regarding pistachio survey report. • Preparation of ANHDO annual work plan for the year of 2014 and prepared work plan and budget of PHDCs for horticulture department of MAIL. • Correction of edited all part of ANNGO catalogue with ANNGO database manager. • PHDP haired Pomology lab, post harvest and quality control consultants to train and work with ANHDO staff on data analysis of Pomology lab, UPOV data of national collections, work on photos and double kernel percentage of almond nuts of each accession and other post harvesting activities work plan and other field activities. • On 3 Nov. we had one day laboratory and postharvest workshop and training facilitated by Federico and Monica. • On 4 November we have national collections procedure introduction workshop to implement the national collection by MAIL or other project in next year's. • ANHDO held from 5 to 6 of Nov staff coordination meeting and at Kabul office and all staff of ANHDO main office staff and Field Horticulturists were attended at this coordination and planning meeting, everyone were presenting his activities and plan for 2014. • ANHDO head of horticulture and Pro. Samadi visited Mazar and Kunduz
---	-----------------------	--

		<p>PHDCs to see the activities result and special of GF rootstock and seedlings of almond and peach.</p> <ul style="list-style-type: none"> On 26 November ANHDO and ANNGO hold in Citrus Promotion Group meeting in NVDA office in Jalalabad. On 27 November PHDC-JAL organized a citrus field day to show the results of the citrus varieties in the national collection in particular the early varieties of citrus. Besides citrus in the same day we also shared the results of pomegranate and persimmon to participants, we invited horticulture department of MAIL, agriculture director of Jalalabad, NVDA director and other organizations. Preparation of ANHDO annual work plan for the year of 2014 and prepared work plan and budget of PHDCs for horticulture department of MAIL. Field monitoring of Badambagh field activities (Stone fruit pruning, nurseries plantation, new area selection for plum national collection and GF cutting plastic tunnel).
2	Adaptive Research	<p>The following activities done by adaptive research staff:</p> <ul style="list-style-type: none"> Updating of renamed process almond accessions, updating the renamed accessions in the database and finalized the updated the list of rootstocks Study and adding more details to NC procedure Updating of National Collections list and finding missing accessions Find out missing and management of data's for the book also worked on missing photo for the book. Arrange and participate in export promotion agency meeting with Federico discussed regarding awarding of new project of ANHDO and will continue support export promotion agency. Sorted out translation process of Procedure of National Collections of fruits and Nuts Worked on merging all the comments were given for description and evaluation of apricot by different experts and finalized it for more data comparison to distinguish apricot varieties. Met with soil laboratory manager to discuss regarding analysis of macro and micro elements of the soils, as we need to compare the result outside soil analysis with it. Prepared almond data and translation of almond characters for the register and after simplification the translation continued. Analyzed Herat grape national collection frost damaged data, it was found out that according to the mode of occurrence of damage on each vine 7 clones were apparently dead, 69 clone had new growth near ground level, 44 clones had new growth on 20%-50% last year wood, 10 clones had new growth on 50%-80% last year wood, 6 clones had new growth on 80% -100% last year wood and 3 clones had no apparent damage and according to average of severity of frost affected vine while it was considered the average between 0 to 1 Seriously affected, 1 to 2 Seriously affected, 2 to 3 Medium, 3 to 4 less affected, 4 to 5 Very less affected it was found out that 25 Clones Seriously affected, 75 Clones Partially affected, 28 Clones Medium, 6 Clones less affected and 5 Clones were Very less affected. According to these finding we can say that the first and second categories are very sensitive or has low resistant against. Worked on double kernel percentage of almond nuts of each accession. Sorting out the Japanese and European plum's problem. Sorted out the plum duplicates and misnamed varieties to avoided planting them in Kabul national collection. Participated in the field visits with Greg Cullen Project Horticulturist to receive guidance on implementation of trails and carrying out the work properly. Worked on Cherry evaluation and repeated some UPOV characters like presence of nectars in the sour cherry leafs to distinguish varieties and finalized the data of

		<p>presence nectars.</p> <ul style="list-style-type: none"> • Worked on Apricot National Collection evaluation and screening it and merged the comments and evaluation of apricot assessment. • Analyzing of the almond samples collected from breeding lines crossed in 2008 in Samangan, Kunduz and Khulm district of Balkh province and planted in 2009 at Badam Bagh PHD Center. From a total of 873 lines 825 lines have been harvested in 2012 <u>ten</u> samples selected as new varieties. 470 lines have been collected this year and just <u>two</u> samples selected as new varieties and will be planted at the assessment plot which is established already for the selected ten varieties and 78 lines are still remained to be checked in 2014. Filling in the data of Almond samples collected in first and second evaluations from breeding lines. • Preparing presentation and planning for Adaptive Research trials plus breeding program of 2014 that will be conducted at Kunduz, Mazar, Herat and Kabul PHD Centers. • Worked on preparation of draft of accessions renaming notes and sent to Greg Cullen for review and correction, and revised version was combined with exact data. • Prepare PHDCs work plan on description activities. • Met with Dr. Javid Razvi country Manager of ICARDA and Haji Abdul Manan ICARDA regarding pistachio survey report carried out by ICARDA in 2003. • Evaluation of selected 11 almond lines with AAIDO chairman and Traders. • During the evaluation process the traders select two line out of 11 lines were selected in the first and second evaluations, the two selected lines were:- <ul style="list-style-type: none"> ✚ 831/29 Bellabai 144 x open (B) and named as new Qaharbai. ✚ 902/22 Qambari 2009 x Open and named as Qaharbai Safid • The new selected lines will be multiplied for further evaluations for next year's plus the five lines were selected in 2012. • Preparing presentation and planning for Adaptive Research trials plus breeding program of 2014 that will be conducted at Kunduz, Mazar, Herat and Kabul PHD Centers. • Finalized the Adaptive Research budget of 2014, which contains seventeen different research trials, and few of the trial just need several evaluations during the year, so no budget is needed for conducting the trial. • Supervised the ongoing activated for preparation of field for growing almond and apricot seeds under Breeding Program. • Sowing almond and apricot seed gained from different pollination trials in 2012 and 2013 from Kabul and Kunduz PHD Centers. The seed sown in the nursery under Breeding Program and the saplings will be evaluated during it's growing in the year of 2014 and 2015. • Revising of ANNGO catalogue, it is the third edition of ANNGO catalogue which will release son by ANNGO and the role of ANHDO is to check/ revise for each edition of the catalogue, because some data gained by Adaptive Research goes through ANHDO to ANNGO therefore ANNHO staff should revise the catalogue before to give it for printing. • Designing plat for Breeding Program of next years.
		<p>National Collection</p> <p>The below activities was achieved in Apricot and Apple, pear and cherry national</p>

3	PHDC Kabul	<p>collections.</p> <ul style="list-style-type: none"> • We are in the stage of evaluation of the national collection this year we evaluated national collection of apricot and cherry during this month based and the field observation and all UPOV descriptors data which we have been collected during the past years from field, during the evaluation we have found some duplicate clones which should be remove from national collection as well as some missed name clones which is renamed by the evaluation committee specially on apricot National collection. • As per the season during this quarter we don't have any kind of activates to do in the national collections we have clean the entire field from weeds, and most of unwanted material or dried wood and branched to keep sanitation of the field which will effect more on controlling or reducing the amount of pest and disease in the next season. • In cherry national collection we found that most of the local sour cherry clones are the same based on the data which we have collected in the past so based of the committee advice we removed all those local sour cherry from national collection just we will keep only one clone at all. • In 2009 after planting of apricot national collection up to this year we did not pruned and trained properly the trees because of collecting of data from natural shape of each trees and clone, so as we collected all necessary data of leafs, tree shape, flowers and fruits which is 97% data has been completed after completion of data we decided to do formation pruning in apricot national collection because most of the tree had very bad structure and growth, so we completed pruning of apricot national collection during this month after pruning we paint all big cuts space of pruning shear and pruning saw by glue mixed with fungicide to prevent the gummosis problems in the future. • During the month December we prepared field for plum national collection to be planted in Kabul PHDC in Feb. or March 2014 first we leveled the field after we did layout as well as we dig the holes to be ready for planting in the proper time, based on the selection of clones for planting we will be plant 67 clones of plum budded on myrobalan29C rootstock which is the best compatible useful rootstock with plum varieties in the world. • Proper irrigation of all national collections. <p>Demonstration Orchards</p> <ul style="list-style-type: none"> • Since 2009 we have established demonstration orchards of deferent fruit species in Badam Bagh PHDC which is for the evaluation of best varieties of national collection based on commercial aspect it means to see commercial value of those varieties, effect of deferent rootstocks on bearing and production of fruits and as well as proper orchard management and training tools to the farmers to see deferent between local commercial orchards and high density and medium density orchards plantation system. • As per the season we don't have much to do in the demonstration orchards during this quarter we clean field of DOs from the remaining wood, weeds etc, to keep sanitation of the fields and reduces the amount of pest and disease for the next season. • During this quarter we did pruning on Peach demonstration orchards, as peach tree bear fruit on one year old shots it need every year hard pruning to keep balance between growth and production, as our peach tree was not looking
---	------------	---

good it was matured because of that we did hard pruning on peach.

- Pruning of plum demonstration orchard as it is budded on apricot and almond seedling rootstocks most of the plum clones are not looking happy with those rootstocks because of incompatibility problem.
- As well as we paint most of the pruning saw and pruning shear cut spaces by glue mixed with fungicide to prevent gummosis and other pest and disease problems in the future.

Nursery

- As we have been planted breeding lines of almond in the evaluation field in 2009 and 2010 for the selection of new best varieties from those crossings during the last two year we selected 13 new best varieties from those lines based on the decision of the evaluation committee we uprooted all those lines from the field just we keep only 13 selected trees for further evaluation in the future.
- As we budded this year around 3500 rootstocks of deferent fruit species in Badam Bagh as well as we have saplings of deferent fruit species for distribution in 2014 which already send the list of available saplings,
- So during this quarter we clean the field for nurseries from weeds we removed all un budded rootstocks in case for preventing of mistakes and mixing with budded saplings.
- Preparation of field for progenies of almond & apricot:
Based on the continuation of breeding program of almond and apricot we have in the nursery around 100 progenies of almond and 200 progenies of apricot ready for transplanting to the evaluation field, we prepared the field including layout and holes during this month to be ready for planting in Feb. or March 2014.
- Establishment of nursery for PHDC:
Based on need of PHDC for the saplings of deferent fruit species which we have in PHDC for missing plants, new registered varieties and breeding program we have established almond seedling, GF677 cuttings and 2013 crossed seed of almond and apricot nursery during this month as well as we prepared the cuttings of myrobalan29C to be planted in March 2014 in the mean time based on the demand of ANNGO for mother stocks tree we will be establish nursery of deferent fruit species which we have in Kabul PHDC to provide mother stocks tree to (ANNGO) NGAs in 2016.

Plant protection

No pest & diseases incidence during this quarter.

Interaction, collaboration, partnership with other NGOs working in horticulture

- EU delegation visited PHDC:
EU delegation visited PHDC activities in Badam Bagh on 22nd of October 2013.
- NHLP lead farmers from north visits PHDC:
One visit of NHLP lead farmers from north on 5th, of October 2013 number of participant was 20 including.
- National Agriculture Institute of Kabul: We had two field visit of National Agriculture Institute of Kabul supporting by Dutch government on 27th and 28th of October 2013 from Kabul PHDC, number of participant students was 80 including 30 female students.
- We had two field visit of National Agriculture Institute of Kabul supporting by Dutch government on 11th of November 2013 from Kabul PHDC, number of participant

		<p>students was 150 including students.</p> <ul style="list-style-type: none"> During this quarter Operations Task Manager - Agriculture & Livestock / Water & Natural Resources of the European Union Delegation to Afghanistan visited PHDC activities in Badam Bagh on 25th of November 2013 Afghanistan Almond Industry Development Organization (AAIDO): During this quarter the AAIDO recorded a training video on almond orchards management (Planting, pruning, irrigation system and IPM) in Kabul PHDC.
4	PHDC Mazar	<p>National collection The below activities was achieved in Apricot and Almond national collections.</p> <ul style="list-style-type: none"> Proper irrigation and weed control, Monitoring all trees regards to harmful pest Applied the effected trees with Bordeaux paint Washing of almond trees with water to controls mites Application of copper sulfate to the tree that's shoes anthracnose symptoms. General care Applied the urea mixture during the leave fall to decompose winter host of the pests. Pruning of Apricot NC Restructure the irrigation system of almond NC to double furrow system. <p>Growing of almond sapling in missing places.</p> <p>Demonstration Orchards The following activities were achieved in the peach, plum, pomegranate, grape, pear and apple demonstration orchards.</p> <ul style="list-style-type: none"> Proper irrigation and weeds control. Field monitoring, for the pest and disease. Reconstructive of irrigation canals in the base of trees canopy. Washing of leave to control of mites. Growing of the clover between the rows for improvement soil characters. Taking yield data from grape harvesting Reconstruction of irrigation in the base of dabble Ferro irrigation and general care Application of 5 %Urea mixture to plum for sanitation purposes. Pruning of plum and peach demos Collect leafs and plant residue for the sanitation purposes. Proper sticking of pear and apple demos to keep plant straight <p>Nursery :</p> <ul style="list-style-type: none"> Weed control of almond mother nursery and nursery. Uprooting the sapling that was on the office area. The report was submitted specially to the office. Planting GF cutting under Plastic tunnels on date 10.12.13 General care <p>Plant protection</p> <ul style="list-style-type: none"> Washing of apricot, Almond, plum and peach pear and apple trees with water to control mites and promote photosynthesis process. Application Bordeaux pint to control gummosis in almond and apricot. Application of 5%Urea mixture to all trees for the sanitations and protection purposes. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p>

		<ul style="list-style-type: none"> • Participation in Agriculture sector meeting. • Participation in DAIL project Coordination and planning (DPCP) meeting. • Participations in IPM training workshop conducted by AAEP in Dehdadi PHDC with 30 participants. • Given information to orchard owner and Mail EX witch introduced by AAEP, IDEA NEW, DAIL. The summarize of 2 groups visited Dehdadi PHDC with 35 participants • Participations in planning and budget workshop which conducted in the headquarter in Kabul • Given information to a group of 27 students of second classes of Agriculture higher of Balkh work, on date 14.11.13. • Meeting with AGRED organization regard to provide facilitation for visiting their horticulture working group from PHDC. • Participation at inauguration of submitting, graduation certificate to faculty of agriculture student.
5	PHDC Kunduz	<p>National collection The below activities was achieved in the almond, apple and pear national collections.</p> <ul style="list-style-type: none"> • Cleaning the irrigation canal and farm yard from garbage for farm sanitation and syndrome. • 200 almond weighting from each clone after the weighting we broke it's and again weighted for comparing the percentage of kernel with shell. • cleaning the aphid from tree trunk by mechanical method • Monitoring and car of trees regard to the some harmful insect and disease to control and protect them with reasonable way. • Collecting the bud wood and sent to Badambagh from the seven new varieties of apples from Takhar province which that imported from Turkish and established in Takhar. • Continue the pear UPOVE description • Land preparation for missing tree especially almond NC • Land preparation for changing the pear NC irrigation system to double furrow. • Weed and mulch collecting for composting • Continue the almonds NC pruning and painting the witch place cutting during the pruning. • Distribution the compost to almond plots. <p>Demonstration orchards: The fallowing activities were achieved in the almond, peach, plum and grape demonstration orchards.</p> <ul style="list-style-type: none"> • Cleaning the irrigation canal and farm yard from garbage for farm sanitation and syndrome. • Land preparation for missing tree specially plums DO. • Reap the intercrop (Alfa Alfa) and weed control by the sickle. • Pruning of peaches and plums Demonstration orchards. • Urea spry to peaches and plums trees. • Weed and mulch collecting for composting • Land preparation of peach DO for reconstruction the irrigation system to double furrow.

		<ul style="list-style-type: none"> Collecting the brunch that cut during the pruning. <p>Nursery:</p> <ul style="list-style-type: none"> Cleaning irrigation canals. All routine tasks have conducted onetime such as irrigation, weeding ,pest management ... Land preparation and design for new nursery and planted the GF677 under the plastic tunnel. Preparation of 1200 Myrabolan cutting and put it into the cave white send and covered with soil. <p>Plant protection</p> <ul style="list-style-type: none"> Monitoring and car of trees, consider to the some harmful insect and disease to control them with reasonable way. Continue the cleaning the aphid from tree trunk and branch by mechanical methods. Aphid control by mechanical method. Inking the cutting place of branch after the pruning.
		<p>National collection</p> <p>The below activities was achieved in the citrus, citrus net house, pomegranate, persimmon, date plum, fig and loquat national collections.</p> <ul style="list-style-type: none"> From the citrus national collection and the net house we have sold some buds to the NGA members. 20/10/13 we have sent some pomegranate and citrus fruit to Kabul for the fruit show organized for EU delegation. Application of insecticide to eradicate the HWA insect in citrus net house. This year we had a problem of pomegranate fruit. The fruits were rotting and inside of the fruit there were tinny maggots. Everyone was suspected of fruit fly attack but later we found that in Jalalabad it is not the fruit fly but either the first attacker is a fungus or bacteria we have sent samples of the infected fruit to Bio tech lab of Badambagh to see what is causing the problem. At the same time we have examine fruit of Kandahar and Khogyani where the growers were suffering from the same rotting problem. Then found that in Kandahar it was carob moth and in Khogyani it was a fruit fly. The fruit fly sample has been sent to Italy for further analysis to find out what species of fruit fly is attacking the pomegranate in Khogyani district of Nangarhar province. We have conducted an assessment of pomegranate fruit ripening, where we have found that many pomegranate varieties are not growing well in climate of Jalalabad because the fruit remain colorless even at ripening time. When the fruit gets color that time the fruit is over ripe. So anyone should be careful of growing pomegranate varieties because there are just few varieties doing well in Jalalabad like climates. 20/10/13 we have sent some pomegranate and citrus fruit to Kabul for the fruit show organized for EU delegation. To keep the fruit safe we have hired a night shift guard to watch the citrus fruit. Since the farm fence is very weak and it is easy for people to come in thus sometimes we lose fruit of some clones. We are still waiting for indicator plants to arrive for citrus net house. Ripening assessment of pomegranate NC. The DL for persimmon fruit characterization has been elaborated after many

6	PHDC Jalalabad	<p>discussions with relevant personals. After finalizing the DL we have practiced it practically with one clone of persimmon then we organized training for faculty students. After the training we have conduct the characterization and it is almost finished.</p> <p>Demonstration orchards</p> <ul style="list-style-type: none"> • All tasks have been done on time in all stone fruit, citrus rootstock trial and grape demonstration orchards. • In citrus DO we have made a trail of iron and urea application, the aim of the trial is to see if the iron grit can help plants get enough iron from it. And the purpose of applying urea is to see if the plants remain green during winter without frost injury. • We have applied 60 Kg (one wheelbarrow) manure to each tree of citrus DO and we changed/improved the irrigation system. <p>Nursery</p> <ul style="list-style-type: none"> • All routine tasks have conducted on time such as irrigation, weeding pest management and others. • Soft bud wood grafting is tried in citrus nursery. Pakistani labors are using soft woods for grafting but Afghani labors are using hard wood for grafting. We also use hard Bud woods in our nurseries but this time in one line of citrus nursery we tried the soft wood budding technique to see if we can do it successfully. • We have grafted almost 1900 Volkamer seedlings with highly recommended varieties of citrus this month. The remaining rootstocks will be grafted next spring. All saplings in this nursery will be ready for distribution to MSNs in spring 2015. • We have received 500 cuttings of GF677 from Kabul. The cuttings have been planted under plastic tunnels. <p>Plant protection</p> <ul style="list-style-type: none"> • Laser spray on citrus NC, loquat, persimmon, citrus NC and citrus DO, pomegranate nursery and pomegranate NC for the flies and beetles control. • Laser spray on citrus, myrabolan and pomegranate nurseries for caterpillar control. • Systemic fungicide applications in some trees of citrus DO for phytophthora gummosis control. • We have sprayed 2-4-D herbicide to control weeds in citrus rootstock trial DO. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • Madera is preparing a video drama on certified planting materials in particular the certified saplings. Most parts of the movie are done in PHDC-JAL. Where the FH is fully involved in. The movie will be distributed among the NGAs where they can easily convince someone about certified saplings. • This quarter almost 47 students came several times to chose the topic for their last year seminar and to collect material for preparing the seminars. Most of the topics were related to our project activates in particular to PHDC-JAL crops. For instance three students will prepare their seminars in National collection procedures, Mother stock nurseries and certified saplings. • 8/10/13 RoP organized a practical training on citrus orchard management for their 15 district technicians in PHDC-JAL. The training was delivered by FH
---	-------------------	---

		<p>on request of the RoP regional manager, at the same time Nangarhar TV came in PHDC-JAL and they prepared a TV show from this training and broadcast it on television.</p> <ul style="list-style-type: none"> • 8/10/13 PHDC-JAL together with Nangarhar national TV prepared a TV show on pomegranate. • We have assessed the situation and the possibility of the place for citrus pack house in NVDA premises. The assessment was done by Mr. Federico. • 18/11/13 Persimmon UPOV training for 22 students of agriculture faculty of Nangarhar University. • 27/11/13 PHDC-JAL organized a citrus field day to show the results of the citrus varieties in the national collection in particular the early varieties of citrus. Besides citrus in the same day we also shared the results of pomegranate and persimmon to participants. There were around 60 participants from different organizations working in Horticulture. • FH attended the gathering organized by NVDA 4/Dec/2013 under water user associations. • 10/Dec/2013 we have been invited by DAIL to a workshop held in Gambiri military base. The deputy director Mr. Haidari also participated in that workshop however the workshop was totally aimless. • FH attended a workshop organized by AWRC on 11/Dec/2013 under the subject of Women role in family economy. • 15/Dec/2013 Parwiz Ahmad Madera PHDP II project evaluator together with Madera team visited and meets FH of PHDC-JAL. The aim of the visit was to get information about the concept of the project. • 24/Dec/2013 FH attended the TWG meeting. And this time it was our turn to present the project activities. So we had the activities and achievements presentation in that workshop.
		<p>National collection</p> <p>The below activities was achieved in the grape, peach, plum, cherry and pistachio national collections.</p> <ul style="list-style-type: none"> • Sample collection from cutting of grape for ELISA test analysis. • Regular watering as long as leaves are green, Keep basins weed-free. • Check grape vineyard for signs and symptoms and check the ground around fruit trees for mouse activity. • Remove fallen leaves that may contain insects or diseases from NCs and painting the trunk of the peach and plum trees and the lower branches by using Bordeaux mixture (Formula: 1:2:10, lime, Copper Sulfate and water). Start pruning of peaches with open center system. • Plowing between spacing of trees for increasing soil fertility. • Continue regular watering of pistachio, as long as leaves are green. • Check the ground around fruit trees for mouse activity in grape NC. • Pruning of peaches and nectarine with open center system completed. Applying Bordeaux mixture after pruning of trees completed. • Designing layout for new imported varieties to add in collection.

7	PHDC Herat	<ul style="list-style-type: none"> • Pruning of European plums with Central Leader and Japanese system with Open Center systems completed. Applying Bordeaux mixture after pruning of trees completed. • Transplanting 7 rootstock of UCB#1 in plot of pistachio <p>Demonstration orchards</p> <p>The below activities was achieved in the grape, apple, plum, apricot, pear and almond demonstration orchards.</p> <ul style="list-style-type: none"> • Continue regular watering as long as leaves are green, Keep basins weed-free. Check • Check the ground around fruit trees for mouse activity. • Start pruning of apricot, peach and almonds with open center. • Land preparation and revising irrigation canals. • Plowing cover crop intercrop to soil for increasing soil fertility. • Paint the trunk of the peach and almond trees and the lower branches with Bordeaux mixture. • Pruning of peaches with open center system, Almond not pruned. • Review of pruning system of plum <p>Nursery</p> <ul style="list-style-type: none"> • Continue regular watering as long as leaves are green • Opening plastics around grafted union area. • Update the grape nursery record book. • Monitoring from stratification period of seeds and collecting hard wood GF cutting for and transplanting under plastic tunnel in nursery. <p>Plant protection</p> <ul style="list-style-type: none"> • Continue pest and diseases monitoring in NCs and Dos • Preparation Bordeaux mixture for painting trunk section of trees in peach and plum NC with formula 1:2:3 (Formula: 1:2:10, lime, Copper Sulfate and water). • Applying Bordeaux mixture after pruning of trees in NCs and DOs completed. For best result: 1kg Copper Sulphate, 2 kg Lime and 3.5 liter Oil • Cleaning Gummosis in affected branches in peach NC and treating with Bordeaux. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • Participating in 2 days post harvest training program with organized by AAEP • Two days pruning of stone fruits is organized by ANHDO and 30 extension workers of MAIL from Badghis, Ghor, Farah and Herat participated in training program. The training is funded by USDA/RAADA. • Introduction of working plan 2014 for NGOs and government in the agricultural sector meeting. • Discussion about ANHDO, ANNGO, PHDP program and challenges during past years with Mr. Parviz from MADERA • Discussion with Naseer Ahmad Mohsini from NHLP about recommended varieties, flowering time, maturity time and pollination
		<p>National collection</p> <p>The below activities was achieved in the grape, Pomegranate, Fig, peach, plum, and Loquat national collections.</p> <ul style="list-style-type: none"> • The fruit UPOV assessment 3 variety of pomegranate was done and the

8	PHDC Kandahar	<p>irrigation system of grape national collections was changed from single furrow to dabble furrow system and enlarged because the trees growth was more, so needs for water was also increased and other hand weather in summer of current year was so warm and it caused so much transpiration and evaporation of water from the trees use, because the present single furrow irrigation system was change to double furrow system and in large for to increase the water storage capacity for the trees used.</p> <ul style="list-style-type: none"> • The damaged fruit of pomegranate national collection was time by time collected from trees and area and then burned and also the suckers and spur out of pomegranate, fig, plum, peach and grape national collections were removed. • All six national collections were regular irrigated and the same time weeds of pomegranate and plum national collections were mechanically controlled. • For control of mealy bugs of fig and plum national collection we applied malathion and for pest control of pomegranate and loquat national collections as well as almond demonstration orchard we applied super top. • Total 84 boxes of grape and pomegranate fruit was harvested on dates 20 and 28-10-2013 and then sent to our main office for Kabul Ag-fair and the same time 350 kg of our grape were distributed to the Kandahar MAIL staff. • The first phase pruning of peach and plum national collections was done and for the control some kind of fungus disease and pest we applied Bordeaux mixture in half part of peach national collection and the remaining well continue in next month. • Sample collection of 134 clone of grape national collection as well as the sample of peach, plum and pomegranate for the test of virus and other pest and diseases analyses was token for the bio-technology lab of Badam Bagh. • Applied Boudreaux mixture for controlling some kind pest and fungus disease in the remaining half part of peach and in all plum, pomegranate, fig and loquat national collections • The irrigation system of Loquat national collection was enlarged and improved because during the season the trees growth was more and it caused to increased needs for more water during irrigation. • For more and good sanitation of the farm field, all un wanted materials or dried wood, weeds and branches were removed from the peach, plum and loquat national collections. <p>Demonstration orchards</p> <ul style="list-style-type: none"> • For control of mealy bugs of and pest control of pomegranate and almond demonstration orchard we applied super top. • In all 4 demonstration orchards (grape 2008, grape 2013, almond and pomegranate) were regular irrigated and its weeds were controlled on time. • For Gummosis control of almond we applied Bordeaux mixture • Applied Boudreaux mixture for controlling some kind pest and fungus disease in the remaining half part almond and pomegranate demonstration orchards. • The irrigation system of pomegranate and almond demonstration orchard was enlarged and improved because during the season the trees growth was more
---	------------------	--

		<p>and it caused to increased needs for more water during irrigation.</p> <ul style="list-style-type: none"> • Drip irrigation system was installed in our grape demonstration orchards(2008 T trellis and 2013 I trellis) by our KDR DAIL finance support and still needs for completion of some component which may done. <p>Nursery</p> <ul style="list-style-type: none"> • In all 3 nurseries of grape, pomegranate and fig was regular irrigated and its weed was mechanical controlled and it mulch was removed. • Land preparation for nursery establishment of Myrabolan and GF677 cuttings was plugging in and for good soil fertility animal manure as well as compost was added to this area. <p>Plant protection</p> <ul style="list-style-type: none"> • On date 2 and 12-10-2013 for to control the pest of pomegranate, and loquat national collections as well as the almond demonstration orchards we applied super top 2cc/li water. • On date 10.10 and 20.10.2013 for fungus disease control of loquat and plum national collection we applied oxychloride 3cc/Li water. • On date 15.10.2013 for controlling of mealy bugs of fig and plum national collection we applied malathion3cc/li water. • On date 12,11,2013 for the control of gummosis of plum national collection we applied Bordeaux mixture. • And after pruning of peach national collection on date 29-30-11-2013 we applied Bordeaux mixture in half part of peach national collection trees. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • On date 11-11-2013 FH token part in Kandahar provincial level agriculture sector meeting. • FH token part in 3 days (18-19-20-11-2013) in Afghanistan national saffron workshop which was organized by Herat university, Ministry of Counter Narcotics, Ministry of Agriculture, irrigation and livestock, Afghanistan Women association in Herat. • On date 17.12.2013 FH conduct and organized practically stone fruit trees training for 40 KDR faculty students as well as for 2 lecture men in Kokaran. • On date 23-12-2013 FH held a meeting with Mr. Perviz Ahmed the employee of MADERA for evaluation of the ANNGO project activates and FH answer the relevant question which were more about the ANHDO and ANNGO coordination and collaboration and the result he was very happy for what was done in the past and what is ongoing.
--	--	---