



Private sector horticultural development transition project



QUARTERLY REPORT NO. 8 ARIL – JUNE 2014

Implementing agency: AFGHANISTAN NATIONAL HORTICULTURE DEVELOPMENT ORGANIZATION (ANHDO)

Contract: DCI-ASIE/2012/295-864

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Reporting Quarter: 2 - 2014

Summary:

During this quarter ANHDO team the following activities done:

- ANHDO general manager and head of horticulture had 6 deferent meetings with H.E deputy minister Haidari, director of horticulture, director of extension administration director and director of research, on horticulture problem and preparation of tools, equipments, AFD new project, PHDCs transition and farm expenses.
- ANHDO general manager and head of horticulture, PHDP team leader and ANNGO staff had 2 meetings with H.E deputy minister Haidari, Jan Morrenhof team leader of Landell Mills, director of horticulture and director of research on transition of PHDC activities to MAIL departments.
- MAIL Minister and Kabul Mayor visited Kabul PHDC activities of , national collections, demonstration orchards, nurseries and farm machineries both of them appreciated activities of ANHDO in horticulture sector of the country.
- ANHDO head of horticulture time to time visited Badambagh and checked all new activities it the center and monitor field activities of Jalalabad, Kunduz, Mazar and Urdu Khan PHDCs and train field staffs on irrigation system, green pruning and fruit thinning.
- ANHDO, head of horticulture had 2 meeting with H E, MAIL minister on preparation of fruit exhibition.
- ANHDO had a field day of stone fruit in Jalalabad PHDC on 5 may to show early mature peach, nectarine and apricots and ANHDO invited AIRA department of MAIL, horticulture department of MAIL, DAIL staffs, MAIL projects traders, faculty of agriculture trainers and NGAs members totally 80 peoples attended in the field day.
- ANHDO head of horticulture had meetings with director of horticulture, FAO, Italian cooperation, and other organizations.
- ANHDO head of horticulture participated in the workshop of planning and policy department of MAIL and department of small and medium enterprise department of Ministry of Commerce on deferent's working groups liking between 2 ministries.
- ANHDO started collection of pistachio bud-woods from Herat and Badghis provinces to established pistachio national collection in Herat PHDC.
- Sweet cherry describing on lab, as it is already mentioned we harvested three early varieties (Burlat, Moreau & Tashqand-i-Sawri) of sweet cherry we stared physical and chemical analyzing of each variety in Pomology laboratory.
- Describing of the almond, pomegranate, persimmon and loquat UPOV data of fruit, leaf and trees.
- 4 students from university were involved in fruit maturity assessment in Herat.
- **On 19 June 2014 ANHDO Organized field day and fruit exhibition with participation of 8 Ministers of Islamic Republic of Afghanistan, deputy ministers of different ministries, other authorities of the government, fruit traders, MAIL projects, MAIL directors and Research department staffs, ANHDO and ANNGO Boards members NGOs members & staff and farmers participated in this event in total number of 500 participants.**

- ANHDO general manager and head of horticulture had 2 meetings with H.E deputy minister Haidari, director of horticulture on evaluation of AHDO bay Massimo Canossa member of EU mission and French embassy new project.
- ANHDO had deferent meetings with Massimo Canossa, EU mission member on ANHDO evaluation, field visit of ANHDO and ANNGO activities.
- Monitoring and care of trees regard to disease and some harmful insect in all 6 PHDCs on time.
- Treatment of all national collections, demonstration orchards and nurseries by pesticides and fungicides sprayed, for the protection of plants from the pests and fungal disease.
- Using of Urea and DAP fertilizers in the national collections and demonstration orchards.
- Collaboration with other organization who work with Horticulture and agriculture faculties in the 6 PHDCs.
- Provide technical training of Pome fruit thinning for 10 faculty of agriculture students and 5 group of 465 students of Kabul, Kunduz, Kapisa, Nangarhar and Laghman and 3 group of NHLP, NGAs members, NVDA and DAIL staffs.

Implementation of the planned activities:

No	Activity	Achievements, Facts and Figures
1	Management Activities	<p>During this quarter ANHDO management team the fallowing activities done:</p> <ul style="list-style-type: none"> • ANHDO general manager and head of horticulture had 6 meetings with H.E deputy minister Haidari, director of horticulture, director of extension administration director and director of research on horticulture problem and preparation of tools, equipments and farm expenses and ANHDO get responsibility of farm tools and sum other inputs to provide for horticulture department of MAIL. • ANHDO general manager and head of horticulture, PHDP team leader and ANNGO staff had a meeting with H.E deputy minister Haidari, Jan Morrenhof team leader of Landell Mills, director of horticulture and director of research on transition of PHDC activities to MAIL departments. • MAIL Minister and Kabul Mayor visited Kabul PHDC activities of , national collections, demonstration orchards, nurseries and farm machineries both of them appreciated activities of ANHDO in horticulture sector of the country. • ANHDO had meetings with director of horticulture, ANNGO and PHDP on deferent issues and new EU procurement. • ANHDO had a field day of stone fruit in Jalalabad PHDC on 5 may to show early mature peach, nectarine and apricots and we harvested 2 varieties of nectarine by the names of Zincal-4 and Vio white clone numbers 7279 and 7277, one variety of peach by the name of Plawhite clone number 7278 and one variety of apricot by the name of Aurora clone number 7286. ANHDO invited AIRA department of MAIL, horticulture department of MAIL, DAIL staffs, MAIL projects traders, faculty of agriculture trainers and NGAs members totally 60 peoples attended in the field day and the traders evaluated the fruit marketability and quality of fruit and more information is available in ANHDO facebook. • ANHDO head of horticulture, PHDP team leader meet Jan Morrenhof team leader of Landell Mills, director of research on transition of PHDC activities to MAIL departments. • ANHDO head of horticulture had meetings with director of horticulture, FAO, Italian cooperation, and other organizations. • ANHDO head of horticulture participated in the workshop of planning and policy department of MAIL and department of small and medium enterprise

		<p>department of Ministry of Commerce on deferent's working groups liking between 2 ministries.</p> <ul style="list-style-type: none"> • ANHDO head of horticulture time to time visited Badambagh and checked all new activities it the center and monitor field activities of Jalalabad, Mazar, Kunduz and Urdu Khan PHDCs and train field staffs on irrigation system, green pruning and fruit thinning. • ANHDO started collection of pistachio bud-woods from Herat and Badghis provinces to established pistachio national collection in Herat PHDC. • ANHDO, head of horticulture had 3 deferent meetings with H. E MAIL minister on preparation of fruit exhibition for public and private sectors it Badambagh, Kabul PHDC. • On 19 June 2014 ANHDO Organized field day and fruit exhibition with participation of 8 Ministers of Islamic Republic of Afghanistan, deputy ministers of different ministries, other authorities of the government, fruit traders, MAIL projects, MAIL directors and Research department staffs, ANHDO and ANNGO Boards members NGOs members & staff and farmers participated in this event in total number of 500 participants. MAIL minister appreciate ANHDO activities and distributed appreciation letter to PHDP and ANHDO staffs and more information is available in H.E Minister Mohammad Asif Rahimi and ANHDO facebook. • ANHDO general manager and head of horticulture had 2 meetings with H.E deputy minister Haidari, director of horticulture on evaluation of AHDO bay Massimo Canossa member of EU mission and French embassy new project. • ANHDO had deferent meetings with Massimo Canossa, EU mission member on ANHDO evaluation, field visit of ANHDO and ANNGO activities.
		<ul style="list-style-type: none"> • Flowering date data collection in Kabul PHDC, as we started collection of data of flowering date of national collection and demonstration orchards it is completed on 30th of April we already prepared the report of flowering date data of 2014 to database section. • UPOV flower descriptors data of Kabul PHDC: Following from the collection of UPOV data of national collections have been completed missing flowers UPOV data of apricot NC, collection of 24 clones flowers UPOV data of cherry national collection as well as collection of around 50 clones flower UPOV data of apple national collection completed during this month. • This year we planted almond and apricot progenies in Kabul PHDC most of those newly planted progenies' are growing healthy which we hope next year it will be site fruits for evolution. • Sweet cherry describing on lab, as it is already mentioned we harvested three early varieties (Burlat, Moreau & Tashqand-i-Sawri) of sweet cherry we stared physical and chemical analyzing of each variety in Pomology laboratory. • Cherry NC varieties and apricot NC early varieties describing on lab: Based on the plan for the management post harvest system of national collection fruits we did physical and chemical analyzing of each variety in Pomology laboratory including taking pictures of each variety in Kabul PHDC. • 4 students from university were involved in fruit maturity assessment in Herat. • Grape NC: UPOV data collection from bud burst of varieties in Herat and grape NC faced with hail damage during this month and 60% of grape clusters damaged.

<p>2</p>	<p>Adaptive Research</p>	<ul style="list-style-type: none"> • Plum NC: UPOV flowering data is completed in Herat, Copy of DUS documents will send to Kabul. • Peach NC: UPOV flowering data is completed in Herat, Copy of UPOV documents will send to Kabul. • Cherry NC: UPOV flowering data is completed in Herat. • 4 students from university were involved in leaf description of peach NC in Herat PHDC. • Pomology lab in Kandahar-PHDC is not ready for usage, moreover we needs repairing of new lab inside of Kokaran farm. • This year we had some fruit in the loquat national collection. The fruit was not standard there for were not able to do the UPOV characterization but at least we have done the commercial evaluation of the clones which bear fruit. • Pomology lab in Kandahar-PHDC is not ready for usage, moreover we send cost estimation to main office and it's in progress to release fund for building of laboratory. • According to the very lower temperature -25c in Mazar PHDC we don't have any flower in Almond and Apricot NC to enhance some pollination activities and others. • Describing the almond missing data and fruit analyze of two varieties peach and fruit analyze three varieties of pear in Kunduz PHDC. • We have some missing UPOV data in fig (fruit) NC in this month we done missing data such as: Number of fruits, Fruit shape, Fruit size, Fruit weight, Fruit neck, Stalk length, Fruit Ground color of skin, Fruit over color of skin, Density of lenticels, Fruit ribbing. • Almost all characters of pomegranate in the national collection in Jalalabad has been done in the previous years but some characters in some clones were missing due to some technical reasons such as tree age, lack of fruit... It is intended to make the register of pomegranate there for we have to complete the missing UPOV characterization. This month we have performed UPOV characterization of Leaf and Tree for the missing clones and we will do the missing Fruit characterization later when the fruit is ripe. • The database section, continued our work on UPOV data. The remaining missing data of Peach and Pomegranate is finished. Also worked on NC Register in In-design continued and we successfully finalized the register, with all proof reading and layout correctness. The register is also discussed with printing press designer and is corrected there too. Currently it is finalized from our staff, but still waiting to be proof read from ministry. • The database section continue working on UPOV data, specifically entry of the new data and preparation of data for coming NC registers.
		<p>National Collection</p> <p>The below activities was achieved in Apricot and Apple, pear, plum and cherry national collections.</p> <ul style="list-style-type: none"> • During this Quarter we prepared the irrigation system for newly planted saplings. • During flowering time for all trees of apricot and cherry national collections we use urea fertilizer, because most of the clones fortunately sit more fruit so we should keep balance between growth and production by using of fertilizer, pruning, thinning of fruits, green pruning and proper management of irrigation.

3	PHDC Kabul	<ul style="list-style-type: none"> • According to the data of flowers UPOV and flowering date data of 2014 that we have been collected already most of apricot sit fruit, 24 clones of cherry sit fruit, and for the first time around 40 varieties of apple sit fruits this year. • Thinning of apricot: based on the plan for this month we did thinning on apricot national collection to improve the quality of the fruit according to the standard for the describing of fruit in the Pomology lab as well as UPOV descriptors, and keep balanced between production and growth as well as control of alternative bearing of trees, • Ripening of early cherry varieties: in the end of May we harvested 3 early varieties (Burlat, Moreau & Tashqand-i-Sawri) of cherry national collection, according to the plan we did the (physical and chemical analyzing) of the fruit in Pomology lab and most of the medium and late cherry varieties have been harvested and described in Pomology lab as well as UPOV descriptors including pictures. • In the mean time early apricot varieties harvested during this quarter including Pomology lab analyzing and UPOV descriptors were including pictures. <p>Demonstration Orchards</p> <ul style="list-style-type: none"> • Grape demo: according to the plan of 2014 we established grape demo vineyard of 8 seedless imported and local varieties and 2 seeded variety in Badam Bagh PHDC for the evaluation and effect of different pruning systems and production. • Fertilizing application, we use urea fertilizer for all trees of peach, plum, almond and apple demonstration orchards. • Thinning of fruit, as per plan for the management of stone and pome fruit demonstration orchards we did thinning on peach and plum varieties which we have in Kabul PHDC, to improve quality of fruits, keeping balance between production and growth as well as controlling of alternative bearing on the trees. • Green pruning, during this quarter we did green pruning on peach demonstration orchards, we removed some of the young shots and water sprout from the middle of each tree to allow sunlight penetration in the middle tree. <p>Nursery</p> <p>Preparation of field for progenies of almond & apricot:</p> <ul style="list-style-type: none"> • PHDC as it looks now we got very good result most of the buds are taken very successfully the result is about 90%, we did all the necessarily need work of cleaning rootstocks side suckers and weeds to motivate the growth of scions. • New established nurseries: as we planted new nurseries of different fruit species in PHDC most of planted rootstocks start growth it looks to be ready for grafting in September of 2014. • Completion of stool beds and gapes cutting nursery, during April we have been completed the gapes nursery and M7 and MM111 apple colonel rootstocks stool beds which was dried in the past years. • As we have stone and pome fruit budded and newly planted nurseries at PHDC most of last year budded rootstocks are taken scion very well as well as most of those successful scions are growing normally. • Weeding, irrigation, removing suckers and etc during this quarter. • Based on plan for management of the nurseries pome fruit colonel rootstocks stool beds have been mounded during this quarter two times.
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- The new established nurseries and last year budded nurseries were weeded irrigated and fertilized during the quarter to improve the growth (of rootstocks) to be ready for budding in September.

Plant protection

- Identification of root nematodes: One tree of cherry national collection clone number 7247 Grace Star was effected by nematodes which was identified by Biotechnology Lab since beginning of the year that tree looks like to be dry or late bud sprouting according to the recommendation of BTL and different reference from Google for controlling of nematodes we use different methods to control the problem and protect the effected tree as well as other trees in the future, as we look the effected tree now it started bud sprouting as well as some new branches from the trunk.
- Trapping: last year most of apple and late varieties peach were affected by fruit fly and codling moth so for controlling of that pests for this year we use yellow traps fortunately that we received in the EU procurement items, bending of carton around the trunk of each apple tree as well as we keep the aria clean it means we keep sanitation of the field.
- Identification of root nematodes: during this quarter we found again two other affected tree in cherry national collection by nematodes which was identified by **Biotechnology Lab** since beginning of the year we have seen this problem in sweet cherry national collection, the tree which were effected before on this problem after applying of farm yard manure and compost it is recovered back, as we have seen the effect of manure and compost we applied for all trees of cherry national collection to prevent the problem in the future.
- Aphids attack: during this quarter because of more raining and humidity most of peach, apple and apricot tree were effected on aphids which is controlled by spraying of pesticide which we don't have any problem now.
- During this quarter fortunately we don't face with any kind of pest and diseases problems in the PHDC NCs and DOs.

Interaction, collaboration, partnership with other NGOs working in horticulture

- Agriculture Minister visited PHDC: during the month April Minister of agriculture and Kabul Mayor visited Kabul PHDC activities one by one , national collections, demonstration orchards and nurseries both of them appreciated activities of ANHDO in horticulture sector of the country.
- 10 April, NHLP 32staff visit from PHDC: central region field staff NHLP visited PHDC activities we have been provided fully information about the activities of PHDC in perennial horticulture and research.
- Visit of Takhar university 25 students: during this month a group of Takhar university students of agriculture faculty visited Kabul PHDC activities, national collections, demonstration orchards and nurseries which we have been provided detailed information to them about all activities going on in PHDC.
- Visit of Alberony university 60 students: during this month three groups of Alberony university students of agriculture faculty visited Kabul PHDC activities, national collections, demonstration orchards and nurseries which we have been provided detailed information to them about all activities going on in PHDC.
- Visit of Kabul university 45 students: during this month three groups of Alberony university students of horticulture department visited Kabul PHDC activities, national collections, demonstration orchards and nurseries which we

		<p>have been provided detailed information to them about all activities going on in PHDC.</p> <ul style="list-style-type: none"> Based on the plan we organized field day in Kabul PHDC which was the first big event in PHDC this year with participation of 8 Ministers of Islamic Republic of Afghanistan, deputy ministers of different ministries, other authorities of the government, fruit traders, ANHDO Board members NGOs members & staff and farmers participated in this event in which we introduced around 18 varieties of sweet cherries, 12 varieties of early apricot of Kabul and plums, peach, fig from Kandahar and pear from Kunduz, in this fruit show with the total number of 500 participants on 19/June/ 2014.
4	PHDC Mazar	<p>National collection The below activities was achieved in Apricot and Almond national collections.</p> <ul style="list-style-type: none"> Monitoring all trees regards to harmful pest. Taking data from frost damage, Completed the structure of double furrow irrigation Prune sucker from the trunk to keep plant vigor. Regular weed control and irrigation. Growing clover as intercrop in apricot NC for soil improvement Install irrigation canals with water off take structure and concert pipe to provide facility for irrigation and general care. Green pruning all national collection plants. Taken data of rapping from some apricot clone. Lab analyzing of fruit from 20 clones of apricot UPOV characterization of 80 characters from leave and growth habit from 16 clones of apricot and Almond. Taken picture for apricot canopy for characterization, Applications of micronutrient to some apricot clones that shows iron deficiency. <p>Demonstration Orchards The following activities were achieved in the peach, plum, pomegranate, grape, fig, pear, apple and persimmon demonstration orchards.</p> <ul style="list-style-type: none"> Field monitoring, for the pest and disease. Application wettable sulfur in grape for powdery to protect from powdery mildew. Grapes clone number 224, 222 and 223 are affected by the frost this year and young shoot emerged from the lower site of the trunk near the soil. New grape clone Lal- Baqulidana 4067 added in one row in the grape DO. This year we established 8 varieties of fig as a new DO in Mazar PHDC. We expended pomegranate DO with 10 new colon which are mostly imported, to see adaptability of these clone in Mazar climatically zone. Achieving of all necessity routine activities like plugging weed control and irrigation and general care. Thinning of grape brunch and cluster and thinning of apple fruit. Tying corrugated paper at the length of 6-12 inch around the apple trunk to reduce pest pupae of codling moth. Application of Nemea oil against to bees in grape. Monitoring of corrugated paper for finding pupa of codling moth in the apple. <p>Nursery :</p>

		<ul style="list-style-type: none"> • weed control of almond nursery which are established in 2013 and 2014 • Remove all extra brunch from the sapling. • Application of urea fertilizer in the budded nursery. <p>Plant protection</p> <ul style="list-style-type: none"> • Except frost damaged pomegranate plant and some clone of grape, fortunately we still not observe any pest to fallow it is control. • We applied wettable suffer for in the grape for protection it from powdery mildew. • Washing of Almond NC, peach, plum, pear and apple trees for control and protect it from mites. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • participation in Agriculture sector meetings • We visited Mazar raisin trader association • We visited Turkish soil lab which established in DAIL • Helped with 3 new staff which employed by horticulture directorate in Balkh. • Provide PHDC office with 25 KV, 3 phase electric and take authorization from related authorities, and now we have enough electric power for any necessity activities. • visited with Mr. Fredreco, and Mr. karimi from ANHDO HPs SO2 • receiving lab material by discussion of items by helping of Frederica • Participation in Kabul Horticulture workshop. • Train 6 lead formers and EW from NHLP for designing irrigation system in the orchards
5	PHDC Kunduz	<p>National collection</p> <p>The below activities was achieved in the almond, apple and pear national collections.</p> <ul style="list-style-type: none"> • Fertilizer application to all national collections. • Pruning of apple and pear national collection. • Recording the flowering data of pear and apple NCs. • All research farm trees Aphids control by chemical method by mida clorprid • Weeds control by herbicide and mechanical method . • Describing the almond UPOV data. • Cutting the sucker from almond, apple, pear NCs. • Design and cleaning the visit paths • Scything the Intercrop (Alfalfa) for composting. • Collecting the early variety of pear and send for Badam Bagh fruit exhibition. • Aphids control by chemical methods. <p>Demonstration orchards:</p> <p>The fallowing activities were achieved in the almond, peach, plum and grape demonstration orchards.</p> <ul style="list-style-type: none"> • Pruning of grape demonstration vineyard and land preparation . • Aphids control by chemical method by mida clorprid • Land preparation, adding and increasing the green manure to plum demo • Weeds control by herbicide and mechanical method • Fertilizing application in the peach Demo. • Cutting the sucker from all Demos <p>Nursery:</p> <ul style="list-style-type: none"> • Establishing new nursery from (800) M7 and (550)MM111 apple root

		<p>stock</p> <ul style="list-style-type: none"> • Weed control by mechanical methods. • Aphids control by chemical method by mida clorpid. • Almond, Myrobalan nursery fertilizing and land preparation. • Using of the compost and collecting the soil around the apple root stocks. • Fertilizing the apple ,GF-677 , Myrobalan, and almond nursery by urea. • Grafting the apple nursery which planted in March 2014. <p>Plant protection</p> <ul style="list-style-type: none"> • Aphids control by mechanical and chemical method (amida clorpid) <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • Collaboration with NHLP extension worker in field visit of 50 staff of NHLP . • Participate to sector meetings. • Inviting the agriculture student for field visit of 45 students, describing the composting , green manure and animal preparation and its value or effects to modern agriculture • Collaboration with NHLP extension worker in field visit .
		<p>National collections</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"> • All routine activities have been done on time including irrigation, weeding and other maintenance of all national collections. • Flowering date data collection of citrus, persimmon and pomegranate is completed. • Second fertilization of citrus trees (applying 100gr Urea/tree) to the newly planted trees only. • The weeds control by tractor make the weeding job easy. Now we use the rotary cultivator to eradicate the weeds in rows of orchards so most of the weeding job is done by the tractor but the remaining areas around the tree are still weed by labors. In general the orchards are very clean this year. • The whole NCs is being monitored for pest and dieses and in case of presence of dangerous pest the trees are sprayed with relevant pesticides. • The trees inside of the citrus net house are protected from insects and the amount of wind is also very less or sometimes none. • The citrus indicator plants are growing now. To boost the growth we have applied a little amount of Urea fertilizer. • Fertilizer application (Urea 200gr/tree). • Biotechnology lab staff has collected samples from Citrus, Loquat, Stone fruit and Grape vines for fungal and bacterial disease diagnosis. • Almost all characters of pomegranate in the national collection in Jalalabad has been done in the previous years but some characters in some clones were missing due to some technical reasons such as tree age, lack of fruit... It is intended to make the register of pomegranate there for we have to complete the missing UPOV characterization. This month we have performed UPOV characterization of Leaf and Tree for the missing clones and we will do the missing Fruit characterization later when the fruit is ripe. • We left the suckers in the trees for UPOV characterization and as soon after the characterization we have started suckering of pomegranate NC. • Fruit thinning from persimmon NC because it was first time of fruit if we

6	PHDC Jalalabad	<p>don't perform thinning the tree will become weak so we always perform thinning in the early development stage of tree.</p> <ul style="list-style-type: none"> • We got 60 persimmon rootstock saplings from NVDA for grafting because we had missing in the NC of persimmon. We will graft these rootstocks with the clones which are missing in the national collection. • This year we had some fruit in the loquat national collection. The fruit was not standard there for were not able to do the UPOV characterization but at least we have done the commercial evaluation of the clones which bear fruit. • Make Bordeaux mixture 1kg quicklime and 1kg copper sulfate /100 lit water for controlling fire blight, since we couldn't find any antibiotic for fire blight control so we sprayed the Bordeaux mixture in Loquat NC. <p>Demonstration orchards</p> <ul style="list-style-type: none"> • All routine tasks have been done on time. The weeding is done by the rotary cultivator attached to the tractor. • Irrigation, weeding, pest and diseases data collection. • Plow all extra land. • Changed irrigation system of the newly planted clones of apricot and plums. • Fruit thinning of peach and citrus trial/ demo. • Suckering and green pruning of grape and tying branches have been done. • Organized the stone fruit field day on 5th May 2014. See attached the stone fruit field day report. • We have done the stone fruit commercial evaluation. • Past and diseases data collection and the problems have been controlled on time. • The ANHDO head of horticulturists visited PHDC and he trained the center personal on grape canopy management. During the training he pruned and tied the grape vines to the trellising system established in PHDC-JAL for grape vines. • The grape fruit were infected with powdery mildew and we have applied fungicide to control it. <ul style="list-style-type: none"> • In the month of May phytophthora gummosis attacked in rough lemon rootstock and we applied elliette (fungicide) to them and have been controlled as soon as we could and also for the future care from the mentioned infection we applied quicklime and copper sulfate in all citrus rootstock trial thus to keep them healthy. • Use urea in citrus rootstock trial 270 gr/tree because this year was first time of fruit in citrus root stock trial. • We sprayed NANOK in grapes vineyard for powdery mildew but we could not find any full positive result. • We applied Mancozibe 250 cc/100 lit of water for controlling powdery mildew but still the fruit is infected and damaged. <p>Nursery</p> <ul style="list-style-type: none"> • All routine tasks have conducted on time such as irrigation, weeding and others. • Establishment of new rootstock of citrus nursery. • Suckering and grafting control. • Urea application. • Grafting of citrus Volkamer rootstock.
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- In the month of June leave Mainer attacked in citrus rootstock but we control as soon as possible and we applied insecticide (confider) 120cc/100 lit water
- Plant protection**
- Monitoring and observation from pest and diseases in NC and DO.
 - 05/05/14 used laser insecticide amount of 600 cc in 300 liters of water, applied in citrus trail for controlling caterpillars.
 - 05/05/14 used confidor insecticide amount of 240 cc in 200 liters of water, applied in citrus NC for controlling psylla
 - 07/05/14 used lazax insecticide amount of 1000 cc in 500 liters of water applied in persimmon NC and DO for controlling cutter pillar and psylla.
 - 07/05/14 used Redomin gold fungicide amount of 125 cc in 50 liters of water fungicide applied in grape vineyard DO for controlling cutter pillar and psylla.
 - 07/05/14 use canfedor and lazax (insecticide) 100 cc in 200 liters of water insecticide applied in vegetables crop cutter pillar and aphids.
 - 14/05/14 used lazax insecticide amount of 60 cc in 30 liters of water applied in persimmon and peach DO for controlling aphides.
 - 21/05/14 used eliette fungicide amount of 250 cc in 100 liters of water applied in grape DO for controlling fungus.
 - 27/05/14 used Bordeaux mixture 1kg quicklime and 1kg copper sulfate /100 lit water in loquat NC for controlling fire blade.
 - 28/05/014 used dicofol and confidor insecticide amount of 1400 cc in 600 liters of water for citrus NC and DO for controlling mites and cutter pillar
 - 28/05/014 used mancozibe fungicide amount of 250 cc in 100 liters of water applied in grape DO for controlling powdery mildew.
 - 28/05/014 used burduo mixture 1kg each quicklime and copper salphate in 100 liters of water applied in loquat DO for controlling blight.
 - 02/06/014 applied herbicide (round up) around the farm 1000cc/100lit water.
 - 04/06/014 applied fungicide (mancozibe) 250cc/100 lit water for powdery mildew disease in grape DO .
 - 10/06/014 applied dicofol (miticide) 250cc/100lit water for mitis disease in fing NC.
 - 11/06/014 Mitticide (dicofol)250cc/100 lit water in citrus NC.
 - 11/06/014 applied insecticide (confider) 120cc/100 lit water for leave mainer deaseas in citrus nursery.
 - 17/06/014 applied insecticide (amigea) 50cc/10 lit water in fig NC.
 - 20/06/014 applied fungicide (nanoke) 250cc/100 lit water in grape DO.
 - 20/06/014 applied miticide (dicofol) 250cc/100 lit water in fin NC.
 - 28/06/014 applied insecticide (confider) 250cc/100 lit water in indecator plants.
 - 28/06/014 applied fungicide (nanoke) 250cc/100 lit water in grape DO.
- Interaction, collaboration, partnership with other NGOs working in horticulture**
- 08/09-04-014 Stone fruit (peach) thinning training to university students (10).
 - 16, 17-04-014 Orchard layout (design) training to Laghman university students around 160 students.
 - 05/May/2014 stone fruit field day held, about 80 persons from different organizations participated in the field day (See attached the field day report).
 - 15/05/014 Eng. Ajab khan PC of MADERA Nangarhar province with his staff

		<p>(9 persons) visited from PHDC-JAL Stone fruit DO.</p> <ul style="list-style-type: none"> • 24/5/014 Head of NNGA of Nangarhar with 6 persons of his member visited from stone fruit DO. • 25/5/014 NHLP Nangarhar and main office Kabul 9 members visited from PHDC-JAL. • 25/5/014: 12 Members of NVDA visited from PHDC-JAL. • 26/5/014 organized training on grafting for 10 students of Nangarhar University Agriculture Faculty. • 29/5/014: 5 Lecturers of Laghman University visited from PHDC-JAL. • 19/06/2014-24/06/2014 attended horticulture workshop in Badam Bagh Kabul, • 09/06/2014 six (6) employees from NRC visited the farm for being checked the best variety of fruits tree and been convinced , • 16/06/2014 seven (7) gardeners visit the farm and updated by the activities of farm, • 26/06/2014 ten (10) agriculture faculty student visit the farm and got some tips about grafting method, • 28/06/2014 The commander of JAL airport with his collogues (20) visited the farm.
		<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"> • Grape NC, UPOV data collection from bud burst of varieties, Weeding of collection, Watering regularly to encourage bud burst and Grape NC faced with hail damage during this month and 60% of grape clusters damaged • Plum NC, UPOV flowering data is completed, Weeding and regular irrigation, fertilization of peach trees, Copy of DUS documents will send to Kabul. • Peach NC, UPOV flowering data is completed, this year green aphid is not problem in peach in case late spray winter oil in early March before bud burst, fertilization of peach trees, Copy of UPOV documents will send to Kabul. • Cherry NC, UPOV flowering data is completed, fertilization of peach trees, Weeding and regular irrigation • Start shoot and cluster thinning. Remove suckers from base of vines. Shoot position vigorous vines and vines trained and keep the shoots spaced for controlling overlapping of leaves. Applying first application of glyphosate herbicide. Spraying powdery sulfur for controlling of powdery mildew in grape national collection. • Applying application of pesticide for controlling aphid. Revising irrigation system for better management in Plum NC. • Check fruit maturity of varieties.. • Identification and register 7 local pistachio varieties in Kohsan and Gozara districts and Badghis province. Bud wood collection and budding on pistachio rootstocks in farm with T budding method. • Monitor repining and harvesting fruits. Collecting leaf samples for DNA analysis test and Check fruit maturity – test for sugar content, flavor, and acidity, and start harvesting early cultivars. Check trees for signs of pest and diseases. Completing description of leaf and picture of leaf and vigor of trees. • Pistachio NC, Budding pistachio rootstocks. Monitoring from result of budding of collected varieties.

<p>7</p>	<p>PHDC Herat</p>	<p>Demonstration orchards The below activities was achieved in the grape, apple, plum, apricot, pear and almond demonstration orchards.</p> <ul style="list-style-type: none"> • Monitoring from bud burst in all demos and fertilization of DO after leaf out in the spring. • Weeding of demos and regular irrigation • Thinning of apple demo. <p>Nursery</p> <ul style="list-style-type: none"> • 80% success in result of budding of lost year. • grafting of peach rootstocks of 2013. • Planting grape cutting in nursery • Monitoring from growing of GF and Myrobalan rootstocks under tunnel. • Weeding and irrigation as needed <p>Plant protection</p> <ul style="list-style-type: none"> • We didn't observe pest and diseases problem in NCs and Demos in the month of April and in the months of May aphids attacked in the demos and national collections and we spraying pesticide for controlling aphid in plum and peach NCs • Spraying pesticide for controlling mites in plum NC and apple and plum DOs <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • Participate in DAIL Agriculture sectoral meetings. • Meeting with Italian Cooperation about pistachio cultivation area in Herat • Receiving two containers of laboratory equipment. • Receiving new project car and park in DAIL, Key of car is with DAIL • Organizing 3 days Post Harvest Training Programs for MAIL staff from Ghor, Badghis, Farah and Herat provinces. 30 trainees participated in this program. • Organizing 1st Pistachio Promotion Group meeting with NGOs, University, DAIL and private sectors.
		<p>National collection The following activities is in the peach, plum, pomegranate, fig and loquat national collections:</p> <ul style="list-style-type: none"> • Weed control in all national collections has done and regular irrigated. • In previous quarter we applied animal manure and chemical manure and in this quarter we saw its effect on plant growth consequently it was good enough. • preparing of supporting stakes to fruit loaded branches for peach and plum national collection. • Recorded the exact flowering date phases of peach and plum national collection along with their photos. • Flower and tree Photos from new established 27 clones of pomegranates NC were taken. • Thinning in grape national collection has done in order to avoid fungus diseases • Harvesting of loquat NC fruit and taking its tree and fruit photos for our recording. • Fifteen accessions of peach national collection and 5 accessions of plum

8	PHDC Kandahar	<p>national collection fruits has sent to provincial sector meeting and DAIL office to recognize and test them for choosing better and commercial type of fruits among all types of fruits</p> <ul style="list-style-type: none"> • Brix percentage (amount of present glucose) data has collected in different types of Grape national collection in order to know the exact maturity date of different accessions, and is still in progress. • Seventeen accessions of peach national collection, 15 accessions of plum national collection and 1 accession of fig national collection has sent to fruit exhibition in Kabul Badambagh occurred on 19th of June 2014. <p>Demonstration orchards</p> <ul style="list-style-type: none"> • Weeding in all demonstration orchard has done and irrigated on time. • Titling of the grape vine branches to the main supporting stake has done in new grape DO in order to avoid wind damages. • Leaf thinning in grape demo has done in order to avoid fungus diseases. <p>Nursery</p> <ul style="list-style-type: none"> • Establishment of cabbage nursery for the purpose of second host plant for Aphids which were found in peach and pomegranate national collections and almond demonstration orchard, this will prevent the main plants from infection of diseases. • Till now the rest of grapes and fig nurseries are in good health and condition. <p>Plant protection</p> <ul style="list-style-type: none"> • Almond demo and peach and pomegranate NCs was infected by insects (Aphids) and for the purpose of curing, we sprayed soup along with insecticide (Super Top) consequently the result was awesome. • We faced again aphids in pomegranates national collection in there flowering stage so we sprayed soup mixture with 10cc super top insecticide in 100 liters of water so now they are in good condition. • We saw some powdery mildew (fungus diseases) in grapes and for curing we omitted some leaves for air flow consequently the problem was gradually solving. • Some symptoms of fungal diseases have seen in fig national collection which immediately controlled by fungicide but still need to analyze by plant department in Kabul, and in a few days they will receive samples. <p>Interaction, collaboration, partnership with other NGOs working in horticulture</p> <ul style="list-style-type: none"> • Discussing with USAID representative officer about our current problems and achievements in Kandahar-PHDC • Students from literature faculty department of biology have visited our farm. • In the month of may we received Pomology lab container. • Participated in horticulture workshop in Kabul Badambagh along with MAIL staff and DAIL director. • Participated in provincial sector meetings to show our early matured Peach and Plum national collections, consequently all provincial directors and Kandahar governor has appreciated and thanked from hardworking of PHDC/ANHDO.
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