

# **Nursery Industry Development Transition Project**



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#### List of acronyms used in the report

- ANNGO; Afghanistan National Nursery Growers Organization
- NGAs; Nursery Growers Associations
- MSNs; Mother Stock nurseries
- DAIL; Directorate of Agriculture Irrigation& Livestock
- ANHDO; Afghanistan National Horticulture Development Organization
- PBTL; Plant Biotechnology Laboratory
- MoJ; Ministry of Justice
- MoE; Ministry of Economy
- NGOs; Non Governmental Organization
- MAIL; Ministry of Agriculture Irrigation and Livestock
- CPNs; Certified Production Nurseries
- NHLP National Horticulture and livestock project
- RI; Relief International
- TLO;
   A Swiss peace Pilot Project-Tribal Liaison office (Afghanistan)
- MTs Mother Trees
   BG Babur Garden
   KM Kabul Municipality
   BoD Board of Directors
- MoU Memorandum of understanding
- NHLP National Horticulture and livestock project
- MTs Mother Trees
- PHDCs Perennial Horticulture Development Centers
- NC National Collection
   CA Certification Authority
- DHD Directorate of Horticulture Development
- CPGM Citrus Promotion Group Meeting
- FMs Field Managers
- PHDP2 Perennial Horticulture Development Project2
- SO4 Sub Objective 4

#### 1. Description

- 1.1. Name of beneficiary of grant contract: Afghanistan National Nursery Grower Organization
- 1.2. Name and title of the Contact person: Zainulabudin Noor, General Manager
- 1.3. Name of partners in the Action: N/A
- 1.4. Title of the Action: Support to Afghanistan Fruit Tree Nursery Industry Transition Project
- 1.5. Contract number: DCI-ASIE/2012/295-861
- 1.6. Start date and end date of the reporting period: 1st January 2014 to 30th November 2014
- 1.7. Target country Afghanistan
- 1.8 Final beneficiaries &/or target groups: Nursery Growers / Orchard and vineyard growers 600,000 persons and family units)

1.9 Country (ies) in which the activities take place (if different from 1.7): Afghanistan



(about

## 2. Assessment of implementation of Action activities

#### 2.1. Executive summary of the Action

During current year ANNGO has successfully improved its management skills, showing clear and well-organized division of tasks and responsibilities.

ANNGO has started working on expanding its activities and has decided to sign MoU with national and international organizations for the production of certified saplings. TLO a Swiss NGO has signed MoU with ANNGO so that the NGO can support nursery growers in Paktia and Khost provinces. The NGO is willing to follow ANNGO standards for the production of certified saplings. ANNGO has got the responsibility to provide all technical support to partner NGOs as per ANNGO instructions. These MoUs will allow ANNGO to expend its activities to the provinces where no NGAs exist and will generate more income to ANNGO through memberships. The MoU with national NGO is in progress. This MoU will help ANNGO to flourish ornamental nurseries business in the country. Attached will find the signed MoU withTLO. (The MoU attached to the report as **ANNEX 1**)

ANNGO provides technical support to all its members and as a result, NGAs have improved their current activities and more development is seen in the nursery business in the current year. During inspection of MSNs and CPNs most of the FMs and nursery growers are guided for MSNs management and certified nurseries quality improvement.

The numbers of Active members are increasing each year which has resulted in an increased production of certified saplings. Active members focus to produce only certified saplings and follow ANNGO standards for the production of certified saplings.

The by-law of ANNGO has been improved in order to reflect the past 4 years of work allowing NGOs, companies and individuals to join ANNGO. The new by-law developed with the help of PHDP2 technical staff, was revised with legal advisor and ANNGO technical staff. The document was discussed among all the relevant stakeholders including MAIL seed and planting material directorate. The by-law is currently forwarded to ANNGO board for further discussion and approval of NGAs chairmen and other board members on the General Assembly.

ANNGO has developed website and FACEBOOK which will allow ANNGO to be in link with the world and develop its relations with NGOs, farmers in other countries, and international donors, orchard growers inside and outside of Afghanistan and to be in touch for sales and marketing of certified saplings.

Each year more NGA members are requesting MSNs of more species. The existing MSNs are expanding and numbers of mother stock nurseries are continuously increasing. The NGA members are invited to fruit fairs in PHDCs. Catalogue of available species are published each year which has increased technical knowledge of the nursery and orchard growers. The sales of budwoods from MSNs are increasing each year, Which results in more production of certified saplings. As shown in Chart 3. This year, the existing MSNs could not fulfil the need of budwoods in the country.

Improvements in MSNs are also very important. Based on the market demand and results of NCs characterization in PHDCs changes are brought in all MSNs. These changes will have more positive effects on the quality of saplings produced in NGAs.

Inspection of MSNs and CPNs are completed on time. All the MSNs and CPNs are checked for standards. Most of the MSNs are approved for budwood sale. Total numbers of MSNs approved for sales of budwood are 55. The CPNs are strictly checked for certification standards. The approved CPNs are processed for label printing programme this year.

ANNGO being a private sector should have partnership with MAIL in order to include the regulatory system in the seed law and establish certification authority that can certify the planting material produced under ANNGO system.

The first drafted copy of ANNGO regulatory system was released in 2010 and submitted to MAIL to include it in seed law thus the law is seed and planting material law. Both the laws are run by certification authority. ANNGO will continue to implement the regulatory system as a private voluntary scheme and will issue its own label as a brand name. During 2014 ANNGO with the support for PHDPII improved the ANNGO regulatory system in the form of Certification Manual. ANNGO will soon release the manual in English, Pashto and Dari for NGAs.

The manual will be used as a guide for NGA members, FMs and companies interested to produce certified saplings. This guide will also help producers follow ANNGO standards for the production of certified saplings and produce true-to-type certified saplings to orchard growers.

PBTL is one of the key components of certification process. As main component for certification, collected samples from MSNs for viral, bacterial, fungal and nematodes. The results of the test are forwarded to MSN owners and instructed the MSN owners to keep the MSNs healthy, diseases and pest free. The details of the virus indexing is provided in table 5.

The production of clonal rootstocks that cannot be produced through simple multiplication methods is in progress. The PBTL could not provide any rootstock to ANNGO so far. The tissue culture of clonal rootstocks for almond, peach and cherries are in progress. These rootstocks will be sold to NGA members of ANNGO so that that produce quality saplings.

Ornamental flowers, trees, shrubs and forest trees are major production of all NGAs. ANNGO has started to support this major component of production and has decided to provide all possible support to production cycle of NGAs. In some of the NGAs the ornamental flowers are imported from Iran and Pakistan where these plants are further distributed to central, north and north-east part of the country. ANNGO has decided to support the member NGAs to produce the marketable species of ornamental flowers, trees and shrubs. The TA provided to NGAs and sale of the ornamentals will generate income to NGAs and ANNGO. In the preliminary stage ANNGO has started supporting some companies, historic gardens and NGAs to flourish in the country. An international consultant (Cosimo Frati) from MATI Company was invited to survey the current situation of ornamentals in the country. During his mission he visited Kabul, Parwan and Balkh provinces. Based on the instructions of the consultant, two pilot projects were selected in Kabul province.

Fruit Catalogue is a marketing tool for NGA members. ANNGO catalogue 4<sup>th</sup> addition is also ready for translation and will be published before sale of saplings starts in the country.

The organization technical staff is busy to develop business plan of ANNGO which will generate more income to ANNGO and will make the organization sustainable. In the near future ANNGO will increase its revenues through tax on MTs, Budwoods, sale of certified saplings, etc.

## Specific Objective;

"Afghanistan National Nursery Growers Organization is actively involved to produce certified and true-to-type healthy fruit tree saplings to orchard growers"

SO1. ANNGO is developed as an independent organization for the development of the fruit tree nursery industry.

- ANNGO being an independent organization has signed MoU with national & international organization to produce saplings based only on ANNGO standards.
- Provide all technical support directly and independently to 25 Nursery Growers Associations (NGAs) for the production of certified saplings.
- Increased its coverage for the production of true-to-type and quality saplings and over 22 provinces are under certified saplings production.
- Active members of NGAs are increasing in the reporting period.
- ANNGO by-law is improved and expended as per local NGAs/companies needs to generate more income to the organization.
- ANNGO has developed website and FACEBOOK
- Fruit catalogues of 2014-15 developed.

SO2. The technical level of the fruit tree nursery in Afghanistan is raised to standards appropriate to the development of a modern orchard industry.

- The nursery growers follow ANNGO standards for the production of certified saplings and high quality saplings are marketed to orchard growers.
- Most of the NGAs have technical knowledge to improve and expand the nursery business.
- National and International NGOs want to follow ANNGO for the standard production of saplings and expend the nursery business to provinces ANNGO has not NGA.

## SO3. A planting material registration and certification system is in operation.

- Number mother stock nurseries and certified production nurseries are increased; all the members had access to purchase budwood from MSNs under ANNGO network. 20603 number of MTs are present in all NGAs working under ANNGO.
- The MSNs of all NGAs are inspected before bud wood sale while the CPNs are inspected before sale of saplings.
- Certification manual is completed and presented to MAIL Certification Authority for approval and further processing.
- PBTL is actively involved to collect leaves, soil samples and cuttings stem samples.
- Special focus on ornamental is increased.

#### **Results and Activities**

Result 1: ANNGO is developed as an independent organization for the development of the fruit tree nursery industry

ANNGO is representing nursery growers of 25 NGAs from 22 provinces. The local NGAs are legal bodies' registered with the MoJ. ANNGO as a non-profit organization registered with MoE and has over 800 members in the country. All the NGAs are actively involved in the production of certified saplings. The organization has started including new companies and local NGAs in



the production of certified saplings in some new provinces. ANNGO also encourages all its members to produce only certified fruit tree saplings.

ANNGO being an independent organization is directly involved to work for the development of nursery industry with Babur Garden, RI, ANHDO, MAIL, TLO, Concern and AKDN.

This year ANHDO/HPS took the responsibility to support financially ANNGO 25 Field Managers.

#### 1.1- ANNGO took full charge of technical support to NGAs;

ANNGO is responsible to guide technically its local NGAs in all parts of their activities. The quality of certified saplings production is improving each year in all NGAs. The NGAs during any serious problem informs ANNGO main office. ANNGO plays key role to solve the issues in NGAs.

#### 1.2- Active and non-active members;

The active members are gradually increasing in all NGAs. The members producing certified saplings are called active members while members do not produce certified saplings or produce only ornamental saplings are non-active members.

Table 1. Updated situation of Nursery Growers Associations

	NGA Name	Province	Active member	Non-active member	Total members
1	Laghman	Laghman	52	30	82
2	Nangarhar	Nangarhar	40	9	49
3	Heart	Herat	60	10	70
4	Kunar	Kunar	40	14	54
5	Paktia	Paktia	22	2	24
6	Maidan	M.Wardak	31	7	38
7	Kunduz	Kunduz	40	12	52
8	Sharardara	Kabul	20	15	35
9	Kahmard & Saighan	Bamyan	6	10	16
10	Andarab Ha	Baghlan	10	27	37
11	Bagram	Parwan	20	16	36
12	Sayed Khail	Parwan	30	4	34
13	Takhar	Takhar	26	0	26
14	Logar	Logar	21	0	21
15	Zabul	Zabul	10	9	19
16	Chunghar	Baghlan	15	7	22
17	Badakhshan	Badakhshan	16	10	26
18	Imam Qutiba	Baghlan	19	3	22
19	Umulbulad	Balkh	14	4	18
20	Khulm	Balkh	7	10	17
21	Hakim Saheb Sanaee	Ghazni	10	8	18
22	Helmand	Helmand	12	9	21
23	Kandahar	Kandahar	20	4	24
24	Paghman	Paghman	16	10	26
25	Aybak	Samangan	15	12	27
	Total		572	242	814

The above table shows that the non-active members are decreasing each year and ANNGO is very strict during inspection of certified nurseries. ANNGO focuses more on quality of fruit saplings rather than quantities.

## 1.3-Inaguration of Bagram NGA office;

Most of the NGAs have office with all basic facilities. The constructions of these offices are either on DAIL land or NGAs have provided space. The constructions of the offices are done by partner NGOs during PHDP2. The offices of NGAs have 2 office rooms, a training room, a kitchen and wash room.

During early 2014 Bagram NGA inaugurated its office on Bagram airport road where many officials from DAIL, orchard growers, nursery growers and NHLP participated. The chairman and FM briefed the participants about its activities certification of fruit saplings and their MSNs.

#### 1.4-Distribution of Mother Trees from PHDCs to NGAs;

Introduce better the fact that ANNGO is managing the planning of the production and the distribution of the MSN. Describe that according to the observations of the past years and the NGA members improved capability to know the varieties, ANNGO is promoting the introduction of new (best) varieties in the MSNs. The varieties of almonds budded during 2012 as a MTs were based on AAIDO traders and experts evaluation. The result of the same was used to produce MTs for NGAs. Similarly the species used as MTs are recommended by PHDCs.

ANNGO has the responsibility to dig out, pack and distribute the Mother trees from PHDCs to all its NGAs. This year more than 9964 MTs are distributed from PHDCs to NGAs.

Similarly almond accessions are improved in some of the MSNs. The details of the removed and replaced accessions are in the below table.

Table 2.ANNGO Almond accessions improvement in MSNs 2014

NGA Name	MSN O name	Province	Variety Old Name	Variety New Name	Clone No	Nr of MTs
Kunar ha	Rohullah	Kunar	Kaghazi		AFG6040	10
Kunar ha	Rohullah	Kunar	Cardinal		AFG6042	2
Zabul NGA	Haji Aman ullah	Zabul	Marawaja		AFG0141	2
Dand	Mohammad Shafi	Kandahar	Sattarbai	Qambari	AFG0142	2
Kunduz	Noor Hazart	Kunduz	Sattarbai	Qambari	AFG0142	14
Imam Qutiba	Shah M.Mohaqiq	Baghlan	Sattarbai	Qambari	AFG0142	48
Um-ul- bilath	Haji Akram	Balkh	Belabai		AFG0144	4
Heart	Abdul Rahman	Herat	Sattarbai Sais	Sattarbai Sais Talkhak	AFG0156	5
Dand	Mohammad Shafi	Kandahar	Sattarbai Sais	Sattarbai Sais Talkhak	AFG0156	4

Dand	Mohammad	Kandaha-	Qaharbai		AFG0160	2
Dand	Shafi Abdul	Kandahar	Qanarbai		AFGUIOU	
Helmand	Khaliq	Helmand	Khairodini		AFG0161	3
Kunduz	Noor Hazart	Kunduz	Du Maghza		AFG0163	3
Takhar	Rahimullah	Takhar	Du Maghza		AFG0163	34
	Mariiriuliari	Tantiai	Du Wagiiza		AI 00103	34
Um-ul- bilath	Haji Akram	Balkh	Du Maghza		AFG0163	4
Dand	Mohammad Shafi	Kandahar	Shakh-i-Buz	Sattar bai Sais Kunduz	AFG0164	1
lmam Qutiba	Shah M.Mohaqiq	Baghlan	MARAWAJA KAGHAZI		AFG0166	5
Dand	Mohammad Shafi	Kandahar	Sangak Kalan Daraz		AFG0531	3
Paghman	Haji Noor Mohammad	Kabul	Qambari	Marawaja Maida Dana	AFG0775	3
Kunduz	Noor Hazart	Kunduz	Qambari	Marawaja Maida Dana	AFG0775	5
Dand	Mohammad Shafi	Kandahar	Abdul Wahidi	Qaharbai 1003	AFG1003	1
Dand	Mohammad Shafi	Kandahar	Shokor Bai		AFG2007	1
Sayed Khail	Abdul Manan	Parwan	Sattarbai Bakhmali		AFG2012	5
Um-ul- bilath	Haji Ghani	Balkh	Zarir Bai	Nonpareil	AFG2041	12
Bagram	Anar Gul	Kapisa	Zarir Bai	Nonpareil	AFG2041	9
Dand	Mohammad Shafi	Kandahar	Kaghazi	Ferragnes	AFG4022	4
Herat	Abdul Rahman	Herat	Sattarbai		AFG6038	1
Laghman	Abdul Masood	Laghman	Sattarbai		AFG6038	9
Kunar	Rohullah	Kunar	Sattarbai		AFG6038	6
Zabul NGA	Haji Aman ullah	Zabul	Sattarbai		AFG6038	3
Helmand	Abdul Khaliq	Helmand	Kaghazi		AFG6040	4
Um-ul- bilath	Haji Akram	Balkh	Nanpareil		AFG6041	2
Laghman	Abdul Masood	Laghman	Cardinal		AFG6042	3
Dand	Mohammad Shafi	Kandahar	Cardinal		AFG6042	2
				Total		216



#### 1.5- ANNGO FACEBOOK:

ANNGO has opened facebook account to convey their messages to nursery growers, companies, NGOs, orchard growers, Field Managers, DAIL, MAIL and agriculture faculty students.

ANNGO keeps all the above groups informed about ANNGO daily activities and updates about nursery businesses.

The FACEBOOK also increases the visibility of the organization and a additional way to stay in contact with NGAs and other relevant horticulture stakeholders.

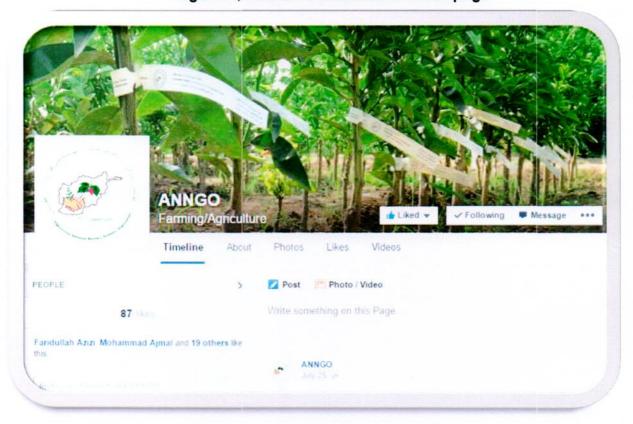


Figure 1; ANNGO FACEBOOK cover page

#### 1.6- ANNGO website:

ANNGO has developed a website. The website will provide more detailed information about the world and link ANNGO with donors. The home page has logo of the organization with the name "ANNGO", picture citrus certified saplings, MAIL and EU log. The site home page has an introduction of ANNGO. The site is in 3 languages (Pashto, Dari and English). The site has 9 other pages for more information about MSNs, CPNs, NGAs, publications, contact us, reports and blank forms.

The work on the website is in progress and in the near future FMS will be using the website to send all their information and data using their respective users in the site.

The site can be visited with WWW.ANNGO.org.af.





Figure 2; ANNGO website cover page

# Result 2: The technical level of the fruit tree nursery in Afghanistan is raised to standards appropriate to the development of a modern orchard industry

As a continues technical trainings by ANNGO TA, the NGAs are able to produce true to type healthy and disease free saplings for local markets. The nursery growers follow ANNGO standards for the production of certified saplings and high quality saplings are marketed to orchard growers.

Most the NGAs are expanding the nursery business. They obtain the skills of different aspects of certified saplings production. Based on the orchard growers need, high standard planting material are marketed.

ANNGO provide all possible technical knowledge to National and International NGOs want to follow ANNGO standards for the production of saplings and expend the nursery business to other provinces. For this purpose ANNGO is providing trainings to DAIL extension staff and the targeted NGOs field staff.

#### Results 3: A planting material registration and certification system is in operation.

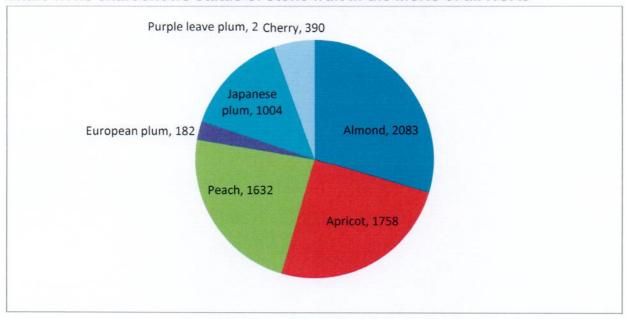
Number mother stock nurseries and certified production nurseries are increased all the members had access to purchase budwood from MSNs under ANNGO network. The below tables and charts clear the updated situation of the each species in the MSNs of all NGAs.



Table 3. Current status of MTs in all MSNs

	Species	Number of MTs	
1	Almond	2083	
2	Apricot	1758	
3	Peach	1632	
4	European plum	182	
5	Japanese plum	1004	
6	Purple leave plum	2	
7	Cherry	390	
8	Citrus (Alemow)	15	
9	Grapefruit	55	
10	Lemon	261	
11	Mandarin	293	
12	Orange	772	
13	Citrus (Tangelo)	70	
14	Apple	728	
15	Grapes	849	
16	Pear	34	
17	Pomegranate	653	
	<b>Grand Total</b>	10781	

Chart 1. The chart shows status of stone fruit in the MSNs of all NGAs



The numbers of MTs of different species of stone fruit are shown in the above chart. The major species like almond and apricot are more in the MSNs because of the major crop of the country while the minor species are less. The available species are distributed during early 2009 to most of the MSNs. ANNGO has improved almond mother trees present in early 2014 while the other species will gradually be improved with the passage of time in all MSNs. More MSNs will be distributed to the new targeted provinces.

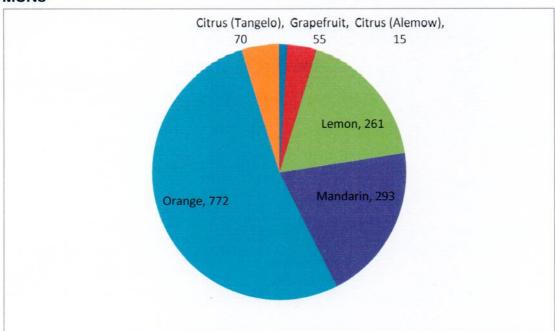


Chart 2. Below chart shows that only marketable sub-species of citrus are more in MSNs

The above chart are subspecies of citrus available in the 4 MSNs of 3 NGAs and Nangarhar Valley Development Authority (NVDA). These MSNs have 6 subspecies. More than 50% are oranges in the MSNs because of the market of budwood, saplings and orange fruits sales in the country.

The shown numbers of MTs in the citrus MSNs are not enough and each year more request of budwood comes from NGA members.

Table 4.Status of rootstocks in the MSNs

S/N	Rootstocks/seed MTs/Cutting MTs	Number of MTs
1	B9 (stocks)	2458
2	M9 (stocks)	2398
3	M7 (stocks)	2029
4	MM106 (stocks)	210
5	MM111 (stocks)	2441
6	Citrus (seed MTs)	138
7	Myrobalan 29C (cuttings MTs)	148
	Grand Total	9822

Certified saplings are approved only on quality and known rootstock. ANNGO has introduced rootstocks for some species of fruits and distributed clonal rootstocks for apples, apricots and plums. Seed MTs of CTV resistive rootstocks are distributed to produce citrus certified and virus free saplings.

ANNGO has to work with PBTL to produce rootstocks of almond, peach, cherry and some other dwarfing rootstocks that cannot be produced by simple multiplication methods.

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Nursery Growers Association - 25

ANNGO - Afghanistan National Nursery Growers Organization NGAs and MSNs Location Kunduz Takhar Badakhshan Bamyan Kapisa Kunar fruit / Citrus 2 Laghman Nangarhar Parwan Kabul efruit / Rootstock 2 Farah Logar Paktia Stonefruit / Po Wardak

Figure 3; The below map give us the current status of NGAs and their MSNs

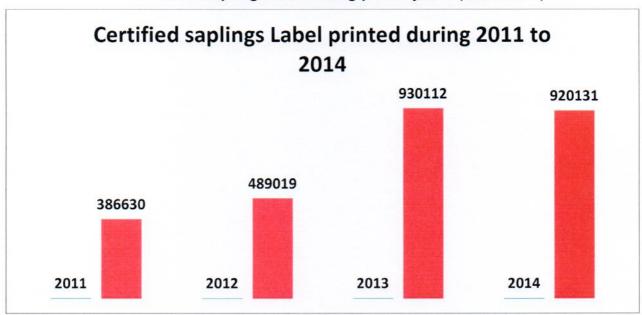
According to the above map ANNGO covers all the country for the production of certified saplings and has provided MSNs to all NGAs. The sale of budwood is increasing and NGAs have started budwood sale business among themselves. ANNGO will soon start its activities in Khost province and has already started its activities in Kapisa province and Sorobi district of Kabul province. More MSNs will be established in the near future.

Zabul



## 3.1- Annual increase in sales of certified saplings;

During 2009 ANNGO with the support form PHDP1 ANNGO established 26 MSNs of stonefruit and during 2010 summer, NGAs were able to collect budwood from their newly established MSNs.It was the first batch of certified budwood harvest in the country. More MSNs were requested from 2010 to early 2014. Sales of certified saplings also increased. The details of the certified saplings inspected, approved and issued the labels during past four years are given in the below bar.



Certified saplings sale during past 4 years (2011-2014)

#### 3.2- ANNGO Manual of procedures for certification of planting material:

Several meetings held with MAIL Certification Authority for the ANNGO fruit trees certification scheme manual. Certification manual is completed and presented to MAIL Certification Authority for approval and further processing. The manual will be sooner part of seed and planting material law. ANNGO technical staff developed a power point presentation and presented it to MAIL key directorate staff. ANNGO need to provide trainings to MAIL field staff for the rules and regulations of the manual and ANNGO certification processes.

Several trainings are provided to field staff of NGAs. Now the certification law is being implemented by FMs of all NGAs in the field. The manual has been translated into local languages and after approval by certification authority directorate will be distributed among MAIL, DAIL, NGOs, NGAs and FMs.

#### 3.3- PBTL activities & ANNGO;

PBTL is actively involved to collect leaves, soil and stem samples for viral, bacterial, fungal and nematodes identification. The Laboratory has played important role in the disease free planting material delivery from NCs to MSNs and from MSNs to CPNs.

Table 5. Shows the status of sample collections from MSNs of NGAs during 2014

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Afghanistan National Nursery Grower Organization (ANNGO)

NGA Name	MSN owner	species	No of Samples Collected	MSN analysis
		Peach	135	Viruses
Laghman NGA	Abdul Masood	Plum	22	Bacteria and
		Apricot & Almond		Fungi
Laghman NGA	Wali Mohammad	Apple	11	Bacteria and Fungi
Laghman NGA	Wali Mohammad	Soil	2	Nematodes
Kunar ha NGA	Rohullah	Almond and Apricot	35	Virus
Kunar ha NGA	Rohullah	Almond, Plum, Apricot& peach	14	Bacteria and Fungi
Jalalabad	PHDC	Citrus, Grape & loquat	6	Bacteria and Fungi
Shakardara (MSN)	M.Siddique	Apple/Cherry	5	Bacteria and Fungi
Shakardara (MSN)	Ziarat Gul	Apple	14	Bacteria and Fungi
Bagram (MSN)	Haji Murtaza	Grape	12	Bacteria and Fungi
Maidan (MSN)	Mohammad Taus	Almond	20	virus
Maidan (MSN)	Mohammad Taus	Apricot/Peach/ Plum/Almond	8	Bacteria and Fungi
Zabul	Ghulam Muhammad	Grape, Almond,and Apricot	81	Bacteria,Fungi & virus
Dand	Abdul Qader	Grape	30	Bacteria and Fungi
Khulum	Fazel Ahmad	Almond	33	Bacteria, Fungi & virus
Imam Qutiba (MSN)	Shah M. Mohaqiq	Almond	73	Bacteria,Fungi & virus
Chonghar (MSN)	Haji M. Sarwar	Almond, Plum, & Apricot	33	Bacteria, Fungi & virus
Pul-i-Khumri	Haji M.Amin	Peach and almond	15	Viruses
Total number of tes	ts conducted		549	

The rootstocks produced in the PBTL through tissue culture is given in the below table

Table 6.Status of rootstocks produced through tissue culture

S/N	Rootstock type	Total number of rootstocks under production in tissue culture lab
1	GF677	1484
2	Pyrold warf	3300
3	Gisela 5	1490
4	Fox 16 e	420
5	Farlod 40	30
Tota		6724

The tissue culture production programme being run by PBTL is too small and cannot fulfil the needs of ANNGO for the production of rootstocks. MAIL, ANNGO and PBTL have to pay more attention to improve the production and increase the current production facility.



# 3.4- Label Printing Programme 2013-14;

The label printing and labelling programme was completed in all CPNs earlier this year. All the NGAs received the labels before the sale of saplings. The price for each label was charged Afs. 1.00. The NGAs have transferred the label price to ANNGO account. The table below shows the number of labels printed to each NGA.

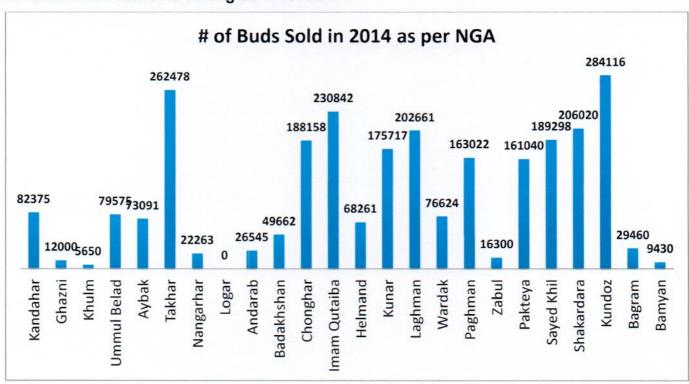
Table 7- Summary of label printing 2013-14

No	Province	NGA Name	Labels Printed	
1	Hirat	Hirat NGA	121,080	
2	Kunar	Kunar ha NGA	13,814	
3	Nangarhar	Nangarhar NGA	29,945	
4	Laghman	Laghman NGA	27,873	
5	Kandahar	Dand NGA	34,252	
6	Zabul	Zabul NGA	12,275	
7	Helmand	Helmand NGA	36,885	
8	Baghlan	Imam Qutiba NGA	14,827	
9	Badakhshan	Badakhshan NGA	6,912	
10	Balkh	Umulbilad NGA	14,600	
11	Takhar	Takhar NGA	158,419	
12	Samangan	Aybak NGA	9,844	
13	Kunduz	Kunduz NGA	103,306	
14	Baghlan	Chon Ghar NGA	50,304	
15	Baghlan	Andarab NGA	5,375	
16	Balkh	Khulm NGA	4,900	
17	Paktia	Paktia NGA	22,218	
18	Parwan	Sayed Khail NGA	90,480	
19	Parwan	Bagram NGA	52,758	
20	Kabul	Shakardara NGA	10,559	
21	Kabul	Paghman NGA	6,294	
22	Maidan Wardak	Maidan NGA	22,167	
23	Maidan Wardak	Dr. Wakil NGA	0	
24	Ghazni	Hakim Sanai NGA	5,890	
25	Logar	Logar NGA	69,136	
26	Bamyan	Bamyan NGA	8,245	
Tota	nl		932,358	

#### 3.5 - Certified Budwood sale 2014;

The budwood sales from MSNs are increasing each year. This year over 2,61,4588 budwoods are sold. These budwoods are sold from 10781 numbers of MTs. Most of the NGA members purchased budwood from their own MSNs. In case of urgent need some of the NGAs had to purchase budwood from other NGAs.

#### Certified budwood sold during summer 2014



#### 3.6- Label Printing Programme 2014-15;

The label printing programme is started in the last week of October and will be completed before the end of December. Labels are printed only to the certified nurseries follow ANNGO standards. ANNGO senior inspectors along with FMs have the responsibility to inspect all the CPNs. After inspection of CPNs by ANNGO senior inspector labels are printed to approve CPNs.

Table 8- Shows updated situation of label printing programme

No	Province	NGA Name	Specie	Labels Printed	Remark
1	Hirat	Hirat NGA	10	164,394	
2	Kunar	Kunar ha NGA	8	42,367	
3	Nangarhar	Nangarhar NGA	8	46,096	
4	Laghman	Laghman NGA	8	33,229	
5	Kandahar	Kandahar NGA	5	62,666	



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6	Zabul	Zabul NGA	0	0	Not printed yet
7	Helmand	Helmand NGA	5	23,750	
8	Baghlan	Imam Qutiba NGA	9	78,791	
9	Badakhshan	Badakhshan NGA	4	19,532	
10	Balkh	Umulbilad NGA	4	16,900	
11	Takhar	Takhar NGA	8	106,500	
12	Samangan	Aybak NGA	3	13,529	
13	Kunduz	Kunduz NGA	7	150,961	
14	Baghlan	Chon Ghar NGA	6	31,903	
15	Baghlan	Andarab NGA	0	0	Not printed yet
16	Balkh	Khulm NGA	1	8,940	
17	Paktia	Paktia NGA	5	25,777	
18	Parwan	Sayed Khail NGA	0	0	Not printed yet
19	Parwan	Bagram NGA	0	0	Not printed yet
20	Kabul	Shakardara NGA	6	30,731	
21	Kabul	Paghman NGA	6	21,926	
22	Maidan Wardak	Maidan NGA	5	18,039	
23	Maidan Wardak	Dr. Wakil NGA	5	24,100	
24	Ghazni	Hakim Sanai NGA	0	0	Not printed yet
25	Logar	Logar NGA	0	0	Not printed yet
26	Bamyan	Bamyan NGA	0	0	Not printed yet
Tot	al			920,131	

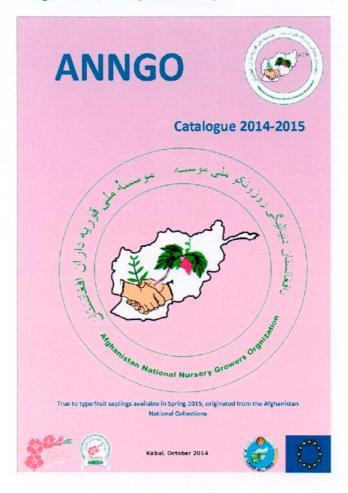
# Catalogue 4<sup>th</sup> addition (version 2014-15);

Catalogue is marketing tool for nursery growers and orchard growers. ANNGO 4<sup>th</sup> addition of catalogue 2014-15 is completed and ready for translation. In the 4<sup>th</sup> addition ANNGO has



divided the catalogue into 2 parts. The first part consists of certified fruits. The second part ornamental flowers and forest trees.

Figure 4; ANNGO catalogue 2014-15 (Version 4)



# Support to Ornamentals;

Ornamental flowers, trees, shrubs and forest trees are major production of all NGAs. Besides development in fruit saplings sector, ANNGO has started to support and work on ornamentals and forest trees improvement.

With the technical instructions from the MATI, ANNGO has started supporting historic Babur Garden in Nursery establishment programme.

ANNGO has started to support this major component of production and has decided to provide all possible support to production cycle of NGAs. In some of the NGAs the ornamental flowers are imported from Iran and Pakistan where these plants are further distributed to central, north and north-east part of the country. ANNGO has decided to support the member NGAs to produce the marketable species of ornamental flowers, trees and shrubs. The TA provided to NGAs and sale of the ornamentals will generate income to NGAs and ANNGO. In the preliminary stage ANNGO has started supporting some companies, historic gardens and NGAs to flourish in the country. An international consultant (Cosimo Frati) from MATI Company was invited to survey the current situation of ornamentals in the country. During his mission he visited Kabul, Parwan and Balkh provinces. Based on the instructions of the consultant, two pilot projects were selected in Kabul province.



## ANNNGO Advertisement of certified saplings;

For the sale and marketing of certified saplings, ANNGO used different sources. Publish catalogue, banners, announce in radio and inform NGOs through MAIL to market the certified saplings.

ANNGO develops large banners for marketing of certified saplings. These large banners are hanged in the outlet doors of Kabul city. The customers are informed about the certified saplings importance. The banner has certified nurseries, MSNs and quality fruit picture with ANNGO, MAIL, EU and PHDP logo.

Figure 5: ANNGO Banners used to advertise certified saplings



#### Study Tour to INDIA;

ANNGO technical staff and board members arranged a study tour to India. ANHDO/RI staff was also included in the trip. Total of twelve (12) participants travelled to India for the study tour including seven (7) ANNGO and five (5) HPS participants. The ANNGO participants included ANNGO General Manager, ANNGO Senior Field Inspector, ANNGO Chairman and 4 other ANNGO board members. The trip was held from 11<sup>th</sup> August to 19<sup>th</sup> August. The main purpose of the tour was:

- Understand Indian certified fruit saplings production.
- Understand Indian ornamental & forestry nursery sector.
- Increase the capacity of tissue and meristem culture and germplasm conservation as well as the propagation for fruit, ornamental and forestry plant.
- Increase the linkages between nursery grower sector and orchard owner sector.
- Understand the Indian commercial nurseries system and the introduction of new varieties in the Indian market;



- Understand the connection between horticulture industry and the fresh and dry fruit markets;
- Familiarize with the Indian research in horticulture and identify ways to improve the Afghan one.

The tour focused on main agricultural sites in Solan, Shimla and Chandigarh where the team had the opportunity to visit apple certified nurseries, mother stock nurseries, tissue culture facilities, floriculture green houses, cold storages, and kiwi fruit varieties. The Indian agriculture sector is a good regional example for promoting inclusive growth, enhance rural income and sustain food and nutritional security. The participants had a good opportunity to explore different agricultural strategies / practices that enhance productivity / quality of products and provide income and employment for the rural population.

## Citrus Promotion Group Meetings;

During the reporting period 2 citrus promotion group meetings are held. ANNGO and eastern zone NGAs were actively involved in the meetings held in Farm-i-jadid, Nangarhar. The first meeting held focused on the following points;

- CTV campaign planning 2014
- Introduction to the new EU funded citrus industry development project/ANHDO/RI
- How NGAs can supply the required amount of citrus certified saplings with reasonable prices?
- · Updates of the citrus MSNs.

Table 9- Participants of First Citrus Promotion Group Meeting

S.#	Name	Organization	Position	
1	Mohammad Muzaffar Athar	ANNGO	ANNGO Head of Technical Services	
2	Ziarat Gul Rahil	NVDA	Director General	
3	Munsif	NVDA	SPMS	
4	Rezwanullah	Nangarhar NGA	Director NGA	
5	Bawra	IDEA-NEW	Ministry Liaison	
6	Asadullah Sultanzai		Agriculture Advisor	
7	Muhammad Aziz Saeedi	ANHDO	HPS Project manager SO4- the citrus industry	
8	Samar Gul		HPS deputy team leader	
9	Enrica	Relief International	HPS Project manager SO1- nursery industry	
10	Hidayatullah Omerkhil	Samsor Ban	Managing director	
11	Abdul Rauf	NHLP	Regional orchard management officer	
12	Rahmat Gul	NHLP	Regional horticulture coordinator	
13	Dr. Shams	PBTL	Manager	
14	Jamil Ahmad	PDIL	Deputy manager	
15	Abdul Latif	Nangarhar DAIL	Head of horticulture and genetic resources	

The details of the agenda are given as follows;

## 1. CTV campaign planning

During the meeting the participants discussed the CTV campaign for the year 2014, seriousness of the CTV and strain of the CTV. The participants also decided to travel to Pakistan to know more about CTV strain.

During the discussion the members requested ANNGO and ANHDO to release the list of recommended varieties along with the rootstocks lists which will help nursery growers to produce enough citrus certified saplings. The information and results of the national collection and the rootstock trial is shared between stakeholders time to time. Finally one day there will be a formal list of recommended commercial varieties and the rootstocks.

The CTV research and investigation is ongoing thus the citrus rootstock strategy/rules will remain the same.

2. Introduction to the new EU funded citrus industry development project/ANHDO/RI;

The project was briefly introduced by the project manager.

3. How NGAs can supply the required amount of citrus certified saplings with reasonable prices?

The organizations working for the development of citrus industry require more certified saplings than what is produced by NGAs and they need the prices to be reasonable otherwise the farmers won't be able to pay for certified saplings and they will start planting non-certified saplings. The NGAs can provide the saplings in reasonable prices if the organizations/ projects provide them a list of varieties and order them at least one or two years before. However this is not an easy job for the projects and organizations to provide and guarantee such orders but still ANNGO will work to make sure that NGAs produce the amount of saplings demanded each year.

#### 4. Updates of the citrus MSNs.

ANNGO explained the past and current situation of the citrus planting materials. This year all citrus nurseries have been screened based on the marketable varieties. The non-commercial clones have been replaced with the highly recommended varieties based on the nursery growers and the field officers requests. Almost 450 plants of the best and NGAs select varieties have been planted in the citrus mother stock nurseries.

SO4 will continue the research on new varieties of citrus and will introduce the best marketable varieties to ANNGO and the MSNs will be updated accordingly. So finally the MSNs will have only the best commercial varieties.

The **second meeting** was held on **24**<sup>th</sup> **April 2014**. The second meeting agenda was about budwood distribution plan from MSNs and PHDC Nangarhar.

The seed MTs are distributed to NGAs will take 2 to 3 year to bear fruit and NGAs extract seeds fruits. During the meeting its was also agreed that if the current citrus MSNs can't supply enough buds then other sources shall be considered as temporary sources of buds. ANNGO however can't consider such buds as certified with those buds considered as secondary category saplings with from a known origin. ANNGO was concerned that if they were starting considering to certify such secondary saplings this may potentially lead to deteriorating the

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whole ANNGO certification scheme. Only buds taken from MSNs is to be considered as producing certifiable citrus sapling materials.

The nursery growers should try to get buds from MSNs of their own NGAs, in case of excess need, the NGAs of Kunar, Laghman and Nangarhar should share buds with each other until NGA members have received enough buds of the recommended varieties.

## 14th Agfair 2014;

The Agfair organized by MAIL in Badam bagh, Kabul from 24<sup>th</sup> September to 26<sup>th</sup> September 2014. ANNGO, its member NGAs and partners jointly arranged a booth. ANNGO technical staff, ANNGO chairmen, nursery growers, DHD staff and FMs represented ANNGO. MAIL minister along with Deputy Ministers, government officials, farmers, Orchard growers, students from faculty of agriculture visited ANNGO booth.

#### Workshops, trainings and coordination meetings:

Table 10. Shows workshops, trainings, meetings and AGFair events of ANNGO

Training Title	Nr of Participants	Date	Venue
Field Managers (FMs) training	27	3-5May	Badam Bagh
FO & Af Technical Training Held on Nangarhar	19	16-17/Feb	Farm-i-Jadid
FO & Af Technical Training Held on Nangarhar	17	18-19/feb	Farm-i-Jadid
Field Manager Training Held on Kabul	30	3-6/May	Badam Bagh
Badakhsan Faizabad	32	18-22 Sept	Faizabad
Total	125		
ANNGO executive board meeting	12	4-5 March	ANNGO office
ANNGO executive board meeting	7	12-May	ANNGO office
ANNGO executive board meeting	7	31-Aug	ANNGO office
ANNGO executive board meeting	6	24-Nov	ANNGO office
Total	32		
Kabul DAIL meeting	45	2-Jul	Badam Bagh
Kabul DAIL meeting	35	3-Sep	Badam Bagh
Kabul DAIL meeting	8	16-Sep	Badam Bagh
Total	88		
Coordination meeting with RI	4	28-Jun	Badam Bagh
Coordination meeting with RI	3	9-Feb	Badam Bagh
Coordination meeting with RI	6	23-Feb	Badam Bagh
Coordination meeting with RI	3	2-Mar	Badam Bagh
Coordination meeting with RI	6	23-Feb	Badam Bagh
Coordination meeting with RI	3	2-Mar	Badam Bagh
Coordination meeting with RI	5	19-Mar	Badam Bagh
Coordination meeting with RI	5	24-Mar	Badam Bagh
Coordination meeting with RI	6	20-Apr	Badam Bagh
Coordination meeting with RI	3	14-May	Badam Bagh
Coordination meeting with RI	5	25-26 May	Badam Bagh
Coordination meeting with RI	4	10-Jun	Badam Bagh
Coordination meeting with RI	5	19-Jul	Badam Bagh
Coordination meeting with RI	6	17-Aug	Badam Bagh
Coordination meeting with RI	3	30-Aug	Badam Bagh
Coordination meeting with RI	5	7-Sep	Badam Bagh
Coordination meeting with RI	5	13-Sep	Badam Bagh
Coordination meeting with RI	6	15-Sep	Badam Bagh
Coordination meeting RI and PHDP	10	26-Oct	Badam Bagh
Coordination meeting ANHDO	3	29-Oct	Badam Bagh

Coordination meeting RI and ANHDO	6	20-May	Badam Bagh
Coordination meeting RI, ANHDO and PHDP	4	16-Jun	Badam Bagh
Total	106		
Meeting with TLO	5	2-Jun	ANNGO office
Meeting with TLO	6	4-Aug	ANNGO office
Total	11		
Meeting with Concern	6	26-Mar	ANNGO office
Meeting with Concern	7	17-Aug	ANNGO office
Training of Concern & DAIL staff of Badakhshan & Takhar	32	18-22 Oct	Faizabad
Total	45		
NHLP Coordination meeting	10	31-Mar	NHLP office, MAIL
NHLP Coordination meeting	8	5-Jul	NHLP office, MAIL
NHLP Coordination meeting	7	5-Aug	NHLP office, MAIL
NHLP Coordination meeting	8	6-Jun	NHLP office MAIL
Total	33		
CPGM meetings	15	17-Mar	Farm-i-Jadid
CPGM meetings	10	24-Apr	Farm-i-Jadid
Total	25		
National Horticulture workshop	46	21-24 June	Badam Bagh
Total	46		
MAIL (DHD, CA, Research directorate)meetings	6	3-Aug	MAIL
Meeting with MAIL	10	26-Nov	MAIL
Total	6		
Meetings with PBTL	5	19-Jan	Badam Bagh
Meetings with PBTL	4	29-Mar	ANNGO office
Total	9		
14th AgFair, Badam Bagh, Kabul	Public	24-26 Sept	Badam Bagh
Total			
Babur Garden meetings	7	9-Apr	Babur Garden
Babur Garden meetings	8	3-Aug	Babur Garden
Babur Garden meetings	6	12-Aug	Babur Garden
Babur Garden meetings	8	25-Aug	Babur Garden
Babur Garden meetings	8	1-Oct	Babur Garden
Babur Garden meetings	6	16-17-Nov	ANNGO office
Total	43		
Kabul Municipality	5	26-Aug	Kabul Municipality
Total	5		

Grand Total 574



Figure 6 - H.E. MAIL Minister is briefing Mr.Wali Masoud about ANNGO activities and catalogue



Figure 7- ANNGO General Manager is sharing information on certified labels with MAIL Minister and Mr.Wali Masoud





Figure 8- Meeting held with Deputy Mayor of Kabul Municipality, (Mr. Khghman "Ulomi)



Figure 9- ANNGO board members, General Manger and Technical staff had brief meeting with MAIL Technical Deputy Minister H.E. Mr. Haidari





Figure 10- ANNGO training programme to external parties (Training of Concern worldwide, DAIL staff of Badakhshan and Takhar)



Figure 11-ANNGO Inspectors inspecting apple certified saplings in Aybak NGA

#### Visibility

How is the visibility of the EU contribution being ensured in the Action?

In line with the visibility policy followed by PHDP and PHDP2, it is the intention of the project not to use EC logos on vehicles due to the increased danger of providing vehicle identification to terrorists.

The Project will be using the distinctive logo for the Afghan National Nursery Growers Organization (ANNGO) in conjunction with the blue EU flag on all stationery, including business cards and letterheads, as new stationery is prepared for the new project. This theme will be carried consistently through all publications and printed materials of the project, excluding labels used for certification of saplings.

The Project provides all invitations to workshops and seminars in the standard project format as above.

The Project will continue previous practice of PHDP, where PHDP stands at fairs included a banner with the EU flag.

The Project will organise workshops, field days and other similar events under the name of ANNGO and will seek maximum press and media coverage. Following the precedent of similar activities under PHDP, the Project will clearly show the EC funding of the project activities.

The Project will prepare illustrated leaflets in English, Dari and Pashto languages for distribution at shows, and variety catalogues and similar marketing materials in the three languages. These leaflets will include the EU flag to denote the EC funding.

The European Commission may wish to publicise the results of Actions. Do you have any objection to this report being published on the Europe Aid website? If so, please state your objections here.

There are no objections as long as security considerations are borne in mind and targets are not pinpointed for terrorists.

•	Name of the contact person for the Action: 2a.inulabadia Noor
•	Signature:
•	Location: Kabal Afghanistan.

Date report due: ...Jan... November 2014
Date report sent: .Nov... 2.4... 2014

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