

HASHEMITE KINGDOM OF JORDAN

Rehabilitation of Degraded Rangelands in the Badia

Inception Report

Prepared by

Ministry of Agriculture (MoA)

Submitted to

Ministry of Environment-Badia Restoration Program (BRP)

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ABBREVIATIONS

BRP	Badia Restoration Program
CAP	Community Action Plan
MoA	Ministry of Agriculture
MoEnv	Ministry of Environment
NCARE	National Center for Agricultural Research and Extension
PMU	Program Management Unit
PR	Progress Report
RLC	Rangeland Cooperatives

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EXECUTIVE SUMMARY

The Ministry of Environment (MoEnv.) signed an agreement with the Ministry of Agriculture (MoA), to implement a number of activities in the Jordanian Badia such as: producing 400000 to 600000 shrubs in the MoA nurseries, planting the produced shrubs in the suitable selected sites, providing vaccination to about 900000 head of sheep and goats, establishing a seedling nursery for producing a shrub seedlings, training 60 individuals as para-vets, carrying out workshops aims at increasing people awareness regarding the project goals and activities. All of these activities should be undertaken in collaboration with the rangeland cooperatives in the Badia. The timeframe for carrying out these activities stated in the agreement is about 11 months, starting on the 21st of October 2014 and ending on the 31th of August 2015. This Inception Report provides a matrix describing the activities and timetable for implementing the activities signed in the agreement.

1. INTRODUCTION

This inception report provides details on the intended plan to execute the activities stated in the agreement between the two ministries: Ministry of Agriculture (MOA) Ministry of Environment –Badia Restoration Program (MOE-BRP).

This inception report consists of the following components:

1) Producing shrubs: This component requires producing fodder-shrub seedlings, ranging from 400000 to 600000 seedlings within the MoA nurseries.

2) Planting the shrubs: This is the core component of the signed agreement that requires planting the produced shrub-seedlings in the sites that would be prepared by National Center for Agriculture Research and Extension (NCARE) in the three regions: Northern, Middle and Southern Badia.

3) Replanting sites that suffer low survivals. This component requires replanting the sites that were planted last year and are suffering low survival rate such as Al-Qreen site in Al-azraq and Al-Tearh sites in Safawi.

4) Training of 60 para-vets: This component requires training of 60 para-vet persons from the livestock owners in Badia where the number of trainees divided equally among the three regions of the Badia.

5) Providing animal vaccinations: This component requires providing animal vaccinations for 900,000 head of sheep and goats in the Badia.

6) Local community Awareness: This component focuses on increasing local people living in the Badia about the project goal, mission and vision.

7) Establishing a nursery: This component requires establishing a plant nursery specializing in producing fodder-shrub seedlings.

8) Establishing two field crew units: This component requires establishment of two field crew units one in the Middle Badia and one in the South Badia.

9) Activating the 7 mobile clinics: This component requires activating the 7 mobile clinics that were distributed to a number of MoA directorates in the Badia.

10) Monitoring & Evaluation: This component focuses on gathering data that are indispensable to monitor and evaluate all of the project activities.

3. Activities of the Project

3.1. Description, Indicators, Logical Frames

3.1.1. Producing fodder-shrub seedlings

Activity Description

The general objective of **producing native fodder-shrub seedlings** is to plant them in the appointed sites in order to assist in the restoration of the degraded rangelands. Producing fodder shrubs to be planted in an arid area will be a native shrub such as *Atriplex halimus*. Ministry of Agriculture has several plant nurseries with skillful staff that provide Jordan with needed seedlings. Since no one of those nurseries is capable to produce that large number of atriplex seedlings (400,000 – 600,000), thereby the number of seedlings will be divided among many nurseries in Jordan Valley and Ghor Safi and in the uplands. Moreover, seedlings may need different periods of plant-hardening before plants are transferred to the permanent sites.

The activity aims to produce 400,000 to 600,000 shrub seedlings which are healthy and suitable to be planted in arid areas such as the Jordanian Badia in the objective of restoration the rangelands. Seedlings will be produced during Jan. to Feb. 2015 period.

Activity Logical Frame

The three main elements of the activity log-frame are the producing method, number of produced seedlings and quality of the produced seedlings (Table 1).

3.1.2. Planting native fodder shrubs (400,000 – 600,000 seedlings)

Activity Description

This activity aims to plant 400,000-600,000 seedlings of *Atriplex halimus*, as one of the native fodder shrub species in the Badia. The existing nurseries of MoA will produce the needed seedlings during Jan. to Feb. 2015.

Local communities will be involved to plant the selected sites through dealing with a formal tender. The formal tender will be selected through the Direct Buying Committee. Formal committee will be formed to deal with this activity under a supervision of a technical committee. The technical committee will follow up and monitor the technical implementation in the selected sits in the three Badia regions.

Activity Logical Frame

The logical frame, outputs and activities of the shrub plantation activity are shown in Table 1. The three main issues of concern are: size of prepared sites, proper planting of seedlings (pits size is 40cm X 40cm X 40cm, intra-spacing), and maintenance of the plantations.

3.1.3. Replanting the sites that suffer low survival rate:

Activity Description

Hot summer in the Badia and/or late planting date in some selected sites are negatively affecting the survival rates of planted seedlings. The staff of the field crew unit is trained to count the survival rate in order to replant the missing plants in the next season.

Activity Logical Frame

The two main elements of this activity log-frame are time of replanting and time of watering (Table 1).

3.1.4. Training of 60 para-vets:

Activity Description

This activity requires training of 60 para-vet individuals from the livestock owners in Badia where the number of trainees divided equally among the three regions of the Badia.

Activity Logical Frame

The two main elements of this activity are choosing the 60 vets from the three region of the Badia with identified names and the needed training materials (theoretical and practical), (Table 1)

3.1.5. Providing animal vaccinations:

Activity Description

This component requires providing animal vaccinations for 900,000 head of sheep and goats in the Badia. The MOA and FCU will consultate with the RCLs regarding what are the most needed types of vaccinations to the livestock in the Badia. The specifications will be written down and transferred to the Direct Buying Committee by the end of Feb. 2015. Then buying process will be done through a formal tender.

Activity Logical Frame

The two main elements of this activity are selecting the types of needed vaccinations and administrative procedures (Table 1).

3.1.6. Local community Awareness

Activity Description:

This activity is mainly to carry out workshops in collaboration with the MOA field directorates. The workshops will focus on educating people living in the Badia about the goal of the project and its mission as well as its vision. Additionally, other workshops will focus on educating livestock owners about what are modern ways of increasing livestock productivity. This activity started in January 2015 and will last until the end of the signed agreement.

Activity Logical Frame

The three main elements of this activity are number of the workshops conducted and the number of the trained herders as well as collaboration of livestock owners (Table 1).

3.1.7. Establishing a nursery:

Activity Description

This activity is mainly to establish plant nursery for production of fodder-shrub seedlings. Formal committee will be formed to select a suitable site probably in Middle Badia, in order to provide the three regions of the Badia with fodder shrubs.

The nursery will be designed for actual production capacity which may expect to produce around 750,000 shrub seedlings per season. This nursery will be equipped with required equipment.

Activity Logical Frame

The three main elements of the activity log-frame are preparatory work (management plan, determine the suitable site, determine the actual production capacity), construction of the structure and equipment needed (Table 1).

3.1.8. Establishing two field crew units

Activity Description

This activity is mainly to establish two field units one in the South Badia and another one in the Middle Badia. These units will be staffed with a number of employees that are necessary to implement the project activities in the South and the Middle Badia.

Activity Logical Frame

The two main elements of the activity log-frame are selecting the sites of the field crew units and hiring employees to operate the field crew units (Table 1)

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3.1.9. Activating the 7 mobile clinics:

Activity Description

This component requires activating the 7 mobile clinics that were distributed to a number of MoA directorates in the Badia.

Activity Logical Frame

The two main elements of the activity log-frame are the number and types of distributed vaccine units and No. of heads vaccinated. (Table 1).

3.1.10. Monitoring & Evaluation

Activity Description

M&E activity will focus on yields information on the physical progress and evaluate the impact of shrubs plantations on the recovery of native vegetation at the planted sites. Field crew unit will be trained to achieve the objectives of this activity.

The field assistants (employees of Ministry of Environment working at projects sites who are responsible for measurements and collection of information under the supervision and follow up of the M&E experts) will be trained theoretically and practically on measurements of needed attributes of soils, vegetation and forage shrubs to determine or compute the key performance indicators.

The performance indicators for this activity are grouped under two main categories: fodder shrubs grown on contours and native vegetation in the catchment -cultivated areas. The theoretical training is already conducted during September-October, 2014.

Activity Logical Frame

The management plan focuses on four elements: shrub survivability, shrub productivity, and attributes of recovered native vegetation (coverage, density, diversity, biomass...) in the catchment-cultivated areas of the contoured sites (Table 1)

Table 1 . Logical frame for project outputs and activities

Logical Intervention	Objectively Verifiable Indicators	Means of Verification	Risks/ Assumptions
Project Main Objective: To restore the degraded rangelands in Badia and to improve its productivity.			
Output 1: Involving local communities and RLC cooperatives in implementing the activities stated in the agreement			
Activities: 1.1 involving RLC in all the project activities	-Number of local workers working in the field - Number of water tanks from local community providing water to the planted plants	- Field visits - Reports - Management plan	- Rangeland Cooperatives not operating - lack of local workers - lack of water tanks
Output 2: Producing 400000 to 600000 fodder shrub seedlings			
Activities: 2.1. identifying all the needed materials and equipments essential for producing the needed number of shrubs	-The equipments are identified and purchased - management plan/production method -the number and quality of seedlings produced	- Field visits - Reports	- climate conditions
Output 3: Planting 400000-600000 fodder shrub seedlings			
Activities: 3.1. plant the shrub-seedlings and irrigate them	-No. of planted shrubs according to agreed specifications - watering the plants (Volume of irrigation water (m ³))	- Reports - Field visits	- sites are not prepared by NCARE - Lack of workers - Lack of seedlings - climate conditions
Output 4: Replanting the previous sites suffering low survival rate			
Activities: 4.1. Replanting the failed seedlings in the previous planted sites	-No. of replaced shrubs -Time of replanting - Time of watering	- Reports - Field visits	-Lack of workers -Lack of seedlings - climate conditions
Output 5: protection of the planted sites			
Activities: 5.1. Marking the boundaries of selected and planted sites	-Marks showing the name of the site	-Reports -Field visits	- Conflict with communities
5.2. Appoint local rangers to protect the watersheds	-No. of rangers - No. of visits to local communities	-employment contracts -Field visits -reports	- Delay of contract delivery
5.3. Equip and enable rangers to perform their tasks	-No. and type of units and equipment (purchased, distributed, in stock)	-Field visits - Reports	-
Output 6: establishing a nursery for producing fodder shrub seedlings			
Activities: 6.1. Identifying the site of the nursery 6.2. identifying the necessary equipments	The location of the site is identified - purchasing the needed equipment - establishment a production plan	- Report - Field visits - Reports - Field visits and interview beneficiaries - tenders	- Collaboration of Forestry Department - Collaboration of Forestry Department

Output 7: Having the 6 distributed mobile clinics and spray tanks work effectively and efficiently			
Activities:			
7.1. Provide vaccines to animals in the area in the Badia through the mobile clinics	-Number and types of distributed vaccine units (ampoules)	- Reports - Field visits and interview beneficiaries	- Collaboration of MoA field directorates and RCL
7.2 Provide animal dips in the target areas to remedy animal parasites	-No. of heads vaccinated -Number of animal dips -Frequency and timing of dipping -Number of dipped animals	- Reports - Field visits	- Collaboration of MoA field directorates and RCL
Output 8: Preparing three mobile clinics			
Activities:			
8.1. Preparing the technical design for the mobile clinics	-all needed materials and equipments purchased - No of the mobile clinics prepared	-Reports	- delay of administrative procedures
Output 9: providing vaccination to 900,000 head of livestock in the Badia			
Activities:			
9.1. choosing the proper types of vaccinations	- types of selected vaccinations are identified and purchased	-Reports -Tenders - Getting the vaccinations	-delay of administrative procedures
9.2 Provide vaccines to animals in the area	-No. of heads vaccinated	-Field visits -Reports	-Collaboration of the MOA field directorates and RCL
Output 10 : Training 60 veterinarians from the three regions of the Badia			
Activities:			
10.1. choosing the 60 veterinarians	- names are identified	- Reports - Field visits	- conflicts with the local community
10.2 Training 60 veterinarians	- No. of trained para-vets.	-Field visits -Reports	-Collaboration of the MoA field directorates
Output 11: Enhancing the knowledge of targeted community regarding the projects goals and activities			
Activities:			
11.1 Training for the community on improved animal husbandry methods	-No. of workshops conducted -No. of trained herders	- Reports - Field visits	Collaboration of livestock owners and MoA field directorates
11.2. meetings with local community regarding the importance of rangelands	-No. of workshops conducted -No. of trained herders	- Reports - Field visits	- Community collaboration
Output 12: Establishing two field units in the Middle and South Badia			
Activities:			
12 .1 selecting the field crew units	- the site of the field units will be identified by a committee - hiring employees	- Reports - Field visits	- conflicts with local communities
Output 13: monitoring and evaluation of the implemented activities			
Activities:			
13 .1 collecting the needed data	-management plan for collecting the needed data - shrub survivability -native vegetation recovery	- Reports - Field visits - Community interview	- conflicts with local communities

Project Plan

Table below shows the intended plan to carry out the activities stated in the agreement:

Table 2.

The activities	Procedure	2014		2015									
		11	12	1	2	3	4	5	6	7	8		
Producing the 400000-600000 fodder-shrub seedlings	The technical committee provides a plan for the process of production and start the process of production		x	x	x								
Planting 400000-600000 fodder-shrub seedlings	Seedlings will be carried out to the targeted sites and they will be planted and irrigated through the local communities and in collaboration with the MoA field directorates				x	x							
Replanted the sites that suffer low survival rates	Seedlings will be carried out to the targeted sites and they will be planted and irrigated through the local communities and in collaboration with the MoA field directorates.				x	x							
Protection of the planted sites	Planted sites will be protected through appointed rangers from local communities				x	x	x	x	x	x	x	x	x
Establishing a nursery for producing fodder-shrub seedlings	The site will be identified and the Forestry Department in MoA will supervise the process of establishment in collaboration with the field crew unit and the RCL		x	x	x	x	x	x	x	x	x	x	x
Having the 7 distributed mobile clinics and spray tanks work effectively and efficiently	All the MoA directorates that got mobile clinics are requested to send a comprehensive reports regarding all services provided by the mobile clinics and name of the beneficiaries	x	x	x	x	x	x	x	x	x	x	x	x
Preparing three mobile clinics	The mobile clinics will be prepared through the maintenance department of the MoA		x	x	x	x							
providing vaccination to 900000 head of livestock in the Badia	The vaccinations will be identified and purchased and distributed to the livestock herders in collaboration with the RCL	x	x	x	x	x	x	x	x	x	x	x	x
Training 60 veterinarians from the three regions of the Badia	The 60 Para-vets are chosen by the RCL and trained by the a specialized staff from the MoA		x	x	x	x	x	x	x				
Enhancing the knowledge of targeted community regarding the projects goals and activities	Workshops will be conducted in collaboration with the MoA field directorates. Around 30 workshops will be carried out in three parts of the Badia.		x	x	x	x	x	x	x	x	x	x	x
Establishing field units in the Middle and South Badia monitoring and evaluation of the implemented activities	The sites will be identified and equipped with the proper equipments and staff The FCU will collect the needed data under the supervision of UoJ experts			x	x								
					x	x	x	x	x				