## CHAPTER -10

## MULTIPLE USE WORKING CIRCLE

## 10.1 General Description

The outgoing working plan had prescribed many treatments like afforestation in the forest blanks, soil conservation and improvement of pastures etc which could not be implemented. In order to continue with that concept a new working circle has been constituted for planting on private and community lands, improvement of pastures and grazing lands, agriculture and extension activities. It covers all suitable areas outside the forest boundary which are used by the local people for grazing, cultivation and tree planting etc. The total area of Bahrain Tehsil is 110500 hectares (Bahrain at a glance, 1988) while the area under different land uses excluding forest area is 26542 ha. It includes agriculture area, marginal waste lands, pasture lands, habitation, rivers, snow bound peaks, bare rocks, and other areas. No reliable data is available regarding the extent of these areas, however 54% area of 26542 ha is considered suitable for different activities under this working circle which is 14293 or 14300 ha. Thus the area of this working circle will be reckoned as 14300 ha which is roughly classified as under:

|  |  |  |
| --- | --- | --- |
| Agriculture lands | : | 5500 ha |
| Pasture lands | : | 7800 ha |
| Marginal lands | : | 1000 ha |
| Total | : | 14300 ha |

## 10.2 Objectives of Management

The following objectives of management have been fixed for multiple use working circle:

(a) To integrate developmental activities on private and community lands with the development of natural forests.

(b) To develop better understanding between the local people and forestry staff.

(c) To involve the local communities in developmental activities through effective extension program with a view to enlist their support for protection, utilization and regeneration of the forests.

(d) To promote alternative sources of energy and fodder by introducing fast growing tree species to meet the demand of local people for firewood and fodder.

(e) To improve the existing land use practices for the rehabilitation of environment by various operations suitable to the site.

(f) To improve the habitat and ecological conditions so as to provide shelter to the wild life.

## 10.3 Special objectives of management

The goal of managing the forests, grazing lands and farm lands outside the designated forests is the conservation of natural resources and biodiversity and improvement in the socio-economic conditions of the local people:

The objectives of management of the individual resources are as under:

I) To manage the area as a functional system on ''Package Treatment' to produce measureable outputs/results.

II) Woodlands and tree growth on grazing lands and farm lands;

* + To meet the timber, fuel wood and fodder needs of the owners and users sustainably.
	+ To increase financial benefits from the resources growing on all land classes for the well-being and interest of the local people.

## 10.4 Method of Treatment

People participation is the main thrust of this working circle for which an effective extension program will be needed to educate the local people in different aspects. For these purpose activities such as field days, exhibitions, publications, rewards will be organized by the forestry staff. They will involve local communities by raising private nurseries, free distribution of plants, planting on private lands, soil conservation practices on agriculture lands and demonstration trials on pasture lands. It shall be ensured beforehand that necessary funds are available through formulation of development schemes. The following treatments are prescribed under multiple use working circle

## 10.5 Planting of Trees

The agriculture area in Bahrain tehsil is limited and each year more and more area is brought under cultivation due to high growth in the population. Planting of trees on private and community lands is a great challenge to the forest department. It is hard to find big suitable areas for planting of trees. However, planting along the river and streams, on marginal lands, grazing lands, and around the cultivated fields is possible. It is estimated that 5% of 14300 ha area (700 ha) will be available for planting of forest, fodder and fruit trees in different localities. Preference will be given to fast growing species and the planting spacing will be adjusted according to local conditions. The planting stock will be raised in private or departmental nurseries. On suitable sites broad leaved species such as walnut, maple, oak, Bankore and horse chestnut will be planted. In areas sensitive to erosion especially in lower altitudes preference will be given to planting of Robinia, Amorpha, Dhaman, willow, poplar, girey and ailanthus. Fruit plants such as Persimmon, Amlok, Apple, Walnut, Apricot, Plums, Peaches, Almond and Grapes should be provided to the farmers for planting by themselves. These planting activities will not only provide casual employment to the local workers but will also help in decreasing pressure on existing forests for firewood and fodder.

## 10.6 Soil Conservation

All possible anti erosion measures should be carried out on the loose sites, nullahs agriculture fields and other erosion sensitive areas. Engineering structures such as check dams, gully plugging, spurs and terracing should be constructed according to the site. The structures so built should be subsequently planted with soil binding species to stabilize the soil. It is proposed that 5% of the total area (700 ha or 1700 acres) of this working circle will be treated for soil conservation practices.

## 10.7 Pasture Improvement

All the un-cultivated areas in the valley bottom, forest grazing lands and alpine pastures are the source of fodder for the bulk of livestock in the area. The high altitude pastures are available throughout the area, their extent is larger than the grass/grazing lands in the lower parts of Bahrain tehsil. In some areas like Tirat, Shagram and Beshigram the high altitude alpine pastures are rented to nomadic Gujars while in rest of the areas these pastures are used by the local owners themselves during summer. Free grazing is generally not practiced in the lower parts especially in fodder fields and grazing lands. The intensive potato cultivation and other agricultural crops and vegetables have resulted into a great pressure on the pastures as a result of over grazing. Moreover, with the closure of certain forests with the implementation of this plan the pressure on grazing lands will further increase. The deficiency of fodder can be noticed from the fact that in winter a large number of livestock is migrated to the plains or fodder is imported from lower Swat areas. Thus it is imperative to think for the productivity of pasture lands. The area suitable for pasture improvement in this working circle is 7800 ha, which is located either above the forests or in the valley bottom. It is not possible to treat the whole area, therefore demonstration plots should be established on suitable sites in grass/grazing lands and alpine pastures. It is proposed that a minimum of 10 demonstration plots should be established and maintained each year during the current phase of KIDP. The forestry staff in consultation with local farmers should select suitable sites for demonstration trials. The following treatments are suggested for the improvement of grass lands, grazing lands and alpine pastures.

(a) **Grass Lands**

The valley bottom land is suitable for planting of fodder trees and cultivation of fodder crops which will develop a permanent belt between the agriculture fields and forests. All the waste lands and poor agriculture fields in this category are fit for fodder production and should be managed for fodder crops and fast growing fodder trees. This will improve the fodder production in the area. The interested farmers should be given fodder trees and fodder crop seeds for planting in the demonstration plots.

* To follow the new ''Rangeland Policy'' of the province in true spirit and draw maximum benefits as envisaged in this document.
* Sustainable production of forage for grazing and fodder for stall feeding in winter.
* To improve livestock breed and health; enhance quality of products and better the management to maximize benefits by utilizing the available potential.
* To Improve the marketing system of livestock and dairy products and medicinal plants for increased returns to the owners and users.
* To introduce controlled grazing system for environmental rehabilitation of the area.

A detail survey of such lands should be carried out to identify suitable sites for forest trees, fodder trees and grass production because allotment of such lands entirely either to forests or fodder production will jeopardize each other. The production of grasses over such areas can be improved with the adoption of control grazing and regular water supply by making permanent water channels.

(b) **Alpine Pastures**

The alpine pastures cover a large area of several thousand hectares, partly below the trees line and partly above, which are the main source of fodder in summer. The problem is unsystematic and frequent grazing resulting into depletion of vegetation and soil erosion at specific sites. The situation can be improved with regulation of grazing and introduction of high yielding grass species. It is needed that an improvement program of short term research and trial should be started by involving the owners and users of such areas after detail survey.

(c) **Non Timber Forest Products (NTFP).**

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To increase the livelihood earning opportunities NTFP will be encouraged and further developed on scientific methods like, Apiculture, Sericulture, Mushroom & medicinal plants cultivation and marketing. The area by virtue of enriched biodiversity is already producing, honey, edible mushrooms, wild vegetables and medicinal plants. The methods adopted are very primitive, crude and less productive so efforts will be made to envisage all such activities in the VPs for more intensive and scientific and planned management for maximizing the productions and profits

(d) **Fisheries and Aqua-culture**

This area is gifted with snowy river and streams best suited not only for farming of high valued Trout fish but can also become the hub for supply of seedlings to other areas as business enterprise. The VDCs/WOs will be sensitized and activities incorporated in Village Plans for on ground outputs.

(e) **Farm lands**

Production and income from farm lands will be increased through the following methods/techniques:

1. Introduction of improved varieties of maize needs to be continued and expanded to all of the villages;
2. On lower warm regions, the cropping intensity needs to be increased from mono-cropping (maize) to double cropping (maize and wheat) in all of the area;
3. Apple, Plum, Apricot, Peach, Grapes and Cherry are best suited to the area. The communities once shy of planting fruit trees on their lands, now demand to plant orchards on their lands. Fruit orchards will substantially boost income of the people and therefore shall be given high priority on farmlands;
4. The summer and winter vegetables (Potato, Brinjal, Chilies, Tomatoes, Beans, Radish, Turnip, Peas, Cabbage etc.) can surely be propagated on all suitable lands which not only will enrich the food basket but also bring additional income to communities as livelihood support.

## 10.8 Implementation Strategy

The role of local institutions in their resource management is an important concept for rural development. Regular contacts with local people develop confidence between the government agencies and local communities which ensure people's participation in developmental activities. In many villages of Bahrain tehsil village organizations such as forest protection committees are already working with KIDP support. It is therefore necessary that the forestry staff should strengthen the existing committees and where necessary new committees should be organized. These committees will work as communication channel between the people and forest department in the formulation of new schemes of people's interest. The local communities should be involved through these committees in all the activities envisaged under multiple use working circle. For this purpose the idea of any activity should be discussed with the people and their willingness be obtained. Once the people agree to participate a written agreement should be made with them in which the role of community and forest department should be specified explicitly.

## CHAPTER-11

## OPERATIONAL ACTIVITIES

## 11.1 Organization and empowerment of VDCs & WOs.

The forests in Bahrain Tehsil are in the process of degradation of various degrees depending upon accessibility of forests and habitation patterns in the area. Outside contractors have purchased royalties in most of the forests and they exercise immense influence through local elites and politicians in deciding harvesting of timber on their terms which invariably goes against the interest of forest and biodiversity conservation. The Forest Department on the ground has no control over harvesting operations because of hostile attitude of the local communities. Any effort by the Department to introduce rational forest management practices is met by stiff resistance from the communities often leading to law-and-order situation. This vicious circle has been created deliberately by the royalty purchasers which suits their interest i.e. cut maximum timber from all accessible forests in shortest possible time without any control by the Department. As a consequence, most of the accessible forests have been ruthlessly cut by the royalty purchasers and only a fraction of the profit has been paid to the local communities. The forests were quite dense forests in the past but in the last decade were depleted severely to the extent that the forests have lost all the productive and protective functions. The vital forest produce for local communities such as timber for local construction, medicinal plants and vegetables, do not exist anymore in these forests.

One of the main causes for unabated depletion of forests is the ignorance of local communities about sustainable use of forest resources and their alienation from management of forests owned by them. In order to reverse the current trend of forest degradation, the local communities must be involved and empowered to manage their valuable forests. The management plan, therefore, shall be implemented jointly by the FD and JFMCs in a joint partnership as provided under the KHYBER PAKHTUNKHWA Community Participation Rules-2004.

For each village, VP will be prepared by the FD and VDCs/WOs and JFMCs will be part of the VLUP process. All the activities incorporated in the annual action plans of Village Plans including JFMCs will be implemented after signing agreement between FD and respective VDC&WO and in accordance with the TOPs.

## 11.2 Capacity building

The capacity of local staff of Forest Department and communities is quite inadequate to manage the forests on sustainable basis and conserve biodiversity. Capacity building of both is needed in:

1. Seed collection (season, methods of collection, cleaning, storage etc.)
2. Nursery raising (location, site preparation, seed sowing, prickling of seedlings, watering, weeding, uprooting and transportation of seedlings, storage of seedlings etc.);
3. Planting (season, pit digging, planting, spacing, watering, after care etc.)
4. Timber harvesting for local use (species, marking of trees, felling, sawing and transportation, record keeping);
5. Efficient harvesting methods (axes, saws, tree felling, cross cutting, sawing, rolling of logs, transportation by chutes, water, roads etc);
6. Collection of firewood (season, tree species, parts of trees, bushes, lopping, collection of felling refuse etc.);
7. Collection of NTFPs (season, method, cleaning, drying, packing etc.)

## 11.3 Nurseries

Keeping in view the demand for large number of plants for local people, 2 hectare nursery at suitable places should be raised and maintained so as to meet the demand of department as well as locals for forest plants. These nurseries will also serve to meet planting requirements, for afforestation, re-afforestation of blanks or felled over areas. Suitable species like, Deodar, Kail, Fir/Spruce, Ailanthus, Poplar, Salix, Robinia, walnut, maple, horse chestnut and other climatically suitable and adopted species should be raised in these nurseries. Forest plants should be distributed among the local population free of cost so as to encourage them for raising plantation along water courses and over the eroded sites and blank areas to support local firewood need and to check soil erosion. The concept of farmer nurseries by envisaging in the Village plan of VDCs/WOs can institutionalize the activity among the communities for more profound results.

## 11.4 Afforestation Program

In Production working circle generally no planting will be required due to single tree selection system, however in forest compartments having low density and poor regeneration planting of suitable species is recommended. Roughly 20% of the total area of production working circle (4700 ha) will be planted and rest of the compartments will be protected against grazing and other interferences to encourage natural regeneration. In improvement working circle the total blank area including agriculture and habitation is 6740 ha. Approximately 50% of 9590 ha (4795 ha) is suitable for growing of forest and fodder trees. About 1500 ha private area comprising of marginal lands, grazing lands, river/stream sides and around agriculture fields will be planted in multiple use working circle. The block-wise area suitable for planting is given in table:11(A), whereas the year wise planting program for each compartment is given in

 **The total area fit for planting is as under:**

|  |  |  |
| --- | --- | --- |
| Improvement working circle | = | 4800 ha |
| Production working circle | = | 4700 ha |
| Multiple use working circle | = | 1500 ha |
| **Total:** | **=** | **11000 ha** |

**Table: 11(A) Block wise planting area**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Block Name | PWC area(ha) | PDWC area(ha) | MUWC area(ha) | Total area (ha) |
| Chel | 50 | 300 | 80 | 430 |
| Beshigram | 150 | 500 | 90 | 740 |
| Tirat | 80 | 400 | 90 | 570 |
| Bahrain | 50 | 350 | 70 | 470 |
| Gurnai | 100 | 450 | 50 | 600 |
| Ramet | 80 | 800 | 60 | 940 |
| Mankial | 100 | 450 | 60 | 610 |
| Balakot | 100 | 100 | 70 | 270 |
| Torwal | 90 | 250 | 50 | 390 |
| Daral | 80 | 900 | 80 | 1060 |
| Pia | 100 | 200 | 90 | 390 |
| **Total** | **980** | **4700** | **790** | **6470** |

 All possible efforts will be made to obtain adequate regeneration in the forests by natural and artificial means. The natural regeneration will be supplemented by direct sowing of seeds and planting of suitable tree species. The failure should be beaten up in subsequent years. The existing blanks will be planted with species most suitable to the site conditions. Efforts should also be made to carry out planting of forest, fodder and fruit trees on private and community lands. The planting stock will be obtained from local nurseries. Care shall be taken in selection of sound seedlings with a height of at least 25 cm for conifer and 40 cm for broad leaved species. The planting spacing will be more or less 3 X 3 meters but can be adjusted according to local conditions. All the blanks and felled areas must be regenerated as soon as possible and for this purpose the planting program should be linked with the felling program. It shall be ensured before starting of work that adequate planting stock and necessary funds are available through formulation of development schemes. Now all these targets should be completed through Tsunami Billion tree planting program.

 Deodar being the most valuable species, forming pure stands and also occurs in mixture with other conifers, will be given preference over all other species in its own ecological zone. In fir, spruce and kail zone preference will be given to Kail provided the aspect, elevation and site conditions are favourable. The regeneration of spruce is readily obtained besides its rapid growth and will thus be preferred over fir. In case of mixture of broad leaved species and conifers the broad leaved species should be encouraged to enhance the ecological stability. On suitable sites broad leaved species such as walnut, maple and horse chestnut will be planted. In areas sensitive to erosion especially in lower altitudes preference will be given to planting of Robinia, Amorpha and Ailanthus species. The planting of broad leaved species will also meet the fodder requirement of the local people.

## 11.5 Protection

The area planted shall be properly fenced and all type of grazing and interference from locals will be prohibited by organizing forest protection committees and making an agreement with the local people. The forest protection committees along with other forums such as other village organizations and traditional Jirga’s will be mobilized through forest staff to create awareness among the masses for forest protection. The Divisional Forest Officer Kalam Forest Division will negotiate an agreement (Appendix-16) with the local people to incorporate clauses regarding:

(a) Linking marking with afforestation and its protection;

(b) Clear policy on afforestation and its utilization;

(c) Species selection and site selection for planting in consultation with the local people.

## 11.6 Extension

There is an urgent need for an effective extension program to educate and involve the local people in afforestation, protection and utilization of the forests. For this purpose the staff of forest department will have to organize extension activities such as field days, exhibitions, publications, rewards, private nurseries, demonstration planting of forest, fruit and fodder trees on private lands. These activities will be aimed:

(a) To build confidence of the people on forest department;

(b) To make people understand the benefits of plantation

(c) To create awareness about the present and future needs of timber, firewood and fodder.

## 11.7 Seed Collection

The seed for raising of nursery stock will be collected from healthy, vigorously growing and straight bole trees. The collection of seed from over mature trees should be avoided. Seed after collection shall be properly stored under a favorable temperature in a cooler region and saved from insects and rodents.

## 11.8 Boundary pillars

Due to absence of demarcation, there is persistent encroachment on forests from habitations located on lower sides of compartments. As a consequence there is continuous shrinkage in forest area. This trends needs to be halted and if possible reversed with participation of communities. Awareness will be raised about the negative consequences of encroachments in the area and will initiate demarcation of forests after the communities voluntarily agree to do so.

The requirements for agricultural implements and firewood will be met from scrub forests which have not been included under the management by the present plan. The dead, dying and deteriorating trees in coniferous forests will also be allowed for locals to meet their requirements of firewood and agricultural implements.

## 11.9 Survey maps

Base maps land G.T sheets of 1:50,000 (1”=3.945 miles) are available. A management plan map on 1:50, 0000 scale land large scale stock maps of 4”=1 mile (1:15840) has been prepared.

## 11.10 Flora

The common plants found in the area are listed as per Appendix-6.

## 11.11 Control over hunting/shooting

The ill-effects of indiscriminate hunting of wildlife in the area is one of the major problems and is far more severe, as large number of hunters still shoots wild birds and animals in most of the forests. There is need to minimize hunting through further awareness raising, formation of hunting clubs and engagement of hunters in other productive activities.

## 11.12 Development and sustainable use of NTFPs

The communities are heavily dependent on forests for varieties of NTFPs for local consumption and sale. Mushrooms and medicinal plants bring substantial income from its sale. However, the NTFPs production is declining due to over-harvest and uprooting of plants. The present extraction system of NTFPs causes depletion of this valuable resource and, therefore, efforts are required to develop and introduce sustainable use of NTFPs.

## 11.13 Firewood Collection

After the main felling and thinning a considerable quantity of wood is left in the forests. The villagers should be encouraged to remove it free of charges to save young green and healthy trees from cutting. This will meet the firewood requirement of the local people and will also save expenditure. The following steps are suggested to meet the demand of local people for firewood:

(a) Encourage the local people to install tension wire ropes for firewood collection.

(b) Marking of dry, dead, and diseased trees by the forest department for firewood.

(c) Make the people understand about the losses by cutting of green trees for firewood.

## 11.14 Fire Protection

It appears that during the past there were frequent fires in some of the localities. The causes of fire are either rivalry in order to harass and damage the property of other tribes or burning wood for cooking and heating by carefree people. To safe-guard the forests, harvesting coupes and planted sites special training in fire protection measures should be given to the forestry staff.

## 11.15 Demarcation of Forest Boundaries

In Bahrain tehsil land settlement has been carried out and the forests have been declared as "Protected Forests". The forest boundaries have not been properly demarcated by erecting boundary pillars. The past experience has shown that vast areas of forests have been encroached upon and converted into agricultural fields. It is suggested that the forests boundary should be clearly demarcated from agriculture land, waste land and habitations. Masonry boundary pillars should be constructed along the forest boundaries and their position should be recorded which should be checked from time to time. Special attention should be given to the forest lands already converted into agriculture fields. It is recommended that the Divisional Forest Officer Kalam Forest Division in consultation with Demarcation Division of the forest department should demarcate the area and installed boundary pillars through the PC-1 scheme of Demarcation Forest Division. It is important to mention that before undertaking the actual work of demarcation a consensus among the local people should be elicited in favour of the demarcation.

## 11.16 Identification of Forest Flora

A list of the common plants found in the area has been given in Annexure-VI. It is suggested that a comprehensive survey of the area should be carried out to identify the flora of the area its utilization and productivity.

## 11.17 Medicinal herbs

A variety of medicinal and edible plants and herbs are found in the area which are collected by the local people without any regulation. This has resulted into complete extinction of these herbs/plants in some areas. It is therefore necessary to regulate their extraction for commercial purposes to check their depletion. For this purpose a proper survey may be carried out to assess the potential of the area regarding productivity of these plants/herbs and necessary steps should be taken for their propagation.

## 11.18 Tourism

The area is rich in natural scenic beauty with majestic snow capped peaks, high altitude lakes, wooded hills, sparking springs and meandering streams. These panoramic scenes, trout fishery and local fruit hold out a great fascination for the local and foreign tourists. In order to further boost up the tourist industry additional amenities should be provided for the visitors by developing camping and picnic sites at suitable places in the forest area. Approach roads and paths to the natural lakes, like Daral and to the high altitude peaks like Mankial and tourists huts at suitable places should be constructed. In Bahrain area the hotel industry has been flourished during the recent past. The scope of tourism will be doubled if proper communication, electricity and safety is provided to the visitors. The various advance techniques of timber harvesting like cable cranes, skylines and rope ways will also attract a large number of visitors.

## 11.19 Buildings

At present there are some building constructed under The PC-1 of KIDP phase IV. The present status is given below:

**STATEMENT SHOWING DETAIL OF BUILDINGS IN RESPECT OF KALAM FOREST DIVISION.**

| **S.No.** | **Name of Place** | **Nature of buildings** | **Remarks** |
| --- | --- | --- | --- |
| **I** | **BUILDINGS** |
| 1 | Kalam | KIDP ColonyBungalow = 3 No. | For departmental use |
| Quarter = 2 | For departmental use |
| Other Room = 2 | For departmental use |
| Bungalow = 1 | Transferred to PFI |
| Bungalow = 1 | Camp office FP Biodiversity Project. |
| Hostel = 1 | Transferred to PFI |
| Office = 1 | Transferred to PFI |
| Meeting Halls = 2 | Transferred to PFI |
| Stores = 3 | Transferred to PFI |
| Work Shop = 1 | Transferred to PFI |
| Quarters = 10 | Transferred to PFI |
| Rooms = 12 | Transferred to PFI |
| Gairrage = 2 | 1 Each DFO Kalam and PFI |
| Mosque = 1 | To be maintained by PFI |
| 2 | -do- | SDFO Quarter | -- |
| 3 | -do- | SDFO Office | -- |
| 4 | Behrain | SDFO Quarter | -- |
| 5 | -do- | SDFO Office | -- |
| 6 | .Madyan | SDFO Quarter | -- |
| 7 | -do- | SDFO Office | -- |
| 8 | Madyan | DFO Residence | -- |
| 9 | -do- | DFO Office | -- |
| 10 | Utror | Range Quarter | -- |
| **II** | **REST HOUSES.** |
| 1 | Utror  | Utror Rest House | Occupied by Police Deptt: |
| 2 | Kalam  | Matiltan Rest House | Un-serviceable conditions |
| 3 | -do- | Banr Rest House | Seriously damaged |
| 4 | -do- | Bayun Rest House | Un-serviceable conditions |
| 5 | Behrain. | Kulalai Rest House | Washed away in Flood |
| 6 | -do- | Behrain Rest Hous | Occupied by Administration |
| **III** | **INSPECTION HUTS ETC.** |
| 1 | Behrain. | Gurnai Hut/Chowki | Damaged due to natural hazard |
| 2 | Utror  | Lado Hut | Washed away in Flood |
| **IV** | **FOREST CHECK POSTS.** |
| 1 | Kalam  | Qarandoki  | Rented buildings |
| 2 | Behrain  | Behrain |
| 3 | Madyan | Pia Madyan. |
| 4 | Madyan | Qandeel Madyan |

**Proposed New Buildings**

|  |  |  |  |
| --- | --- | --- | --- |
| **Infrastructure**  | **Nos** | **Present Status** | **Proposal** |
| **Repair / Improvement** | **Reconstruction** | **Required Number** | **Location** |
| Range Office | 1 | Present | Maintenance | Nil | Nil | Bahrain |
| Range Quarter | 1 | Present | Maintenance/ Improvement | One Extra Room and two bathroom |  Nil | Bahrain |
| Rest House | 3 | One Occupied by A.C BahrainAnd Two Washed out in Flood |  | Reconstruction of Two Rest houses at Same Stations | 03 | Bahrain KulaleyGurnai |
| Forester Quarter | 0 | Nil | Nil | Construction  | 03 | Bahrain KulaleyGurnai |
| Check Post | 0 | Rented  | Nil | Land acquisition and Construction | 01 | Bahrain |

The following amendments in the construction of new buildings as well as repairs maintenance of the old buildings are proposed for the Bahrain North and South Forest Sub-Divisions:

**BEHRAIN NORTH FOREST SUB-DIVISION BAHRAIN**

**BEHRAIN SOUTH FOREST SUB-DIVISION MADYAN**

|  |  |  |  |
| --- | --- | --- | --- |
| **Infrastructure** | **Nos** | **Present Status** | **Proposal** |
| **Repair / Improvement** | **Reconstruction** | **Required Number** | **Location** |
| Range Office | 1 | Present | Maintenance | Nil | Nil | Madyan |
| Range Quarter | 1 | Present | Maintenance/ Improvement | One Extra Room and two bathroom | Nil | Tirat |
| Rest House | 0 | -------------- | -------------- | Construction | 02 | Madyan, Beshigram |
| Forester Quarter | 0 | Nil | Nil | Construction | 04 | Tirat, Madyan, Satal, Pia |
| Check Post | 0 | Rented | Nil | Land acquisition and Construction | 02 | Pia & Qandil |

## 11.20 Soil conservation practices

Due to the past irregular felling’s, unrestricted grazing and denudation the soil erosion has remained a constant phenomenon in the alpine pastures and wooded areas alike. In order to save the soil and to maintain sustained flow of clean water, it is imperative to take appropriate low cost bio-engineering measures to minimize the erosion hazards in the area. For this purpose, soil conservation practices like construction of check dams, gully plugging, diversion channels, terracing in cultivated fields and planting of fast growing species like Ailanthus, Salix, Poplar, and Robinia should be carried out. The area can be developed as the best model of Sloping Agricultural Land Technology (SALT) in the region.

## 11.21 Introduction of Controlled Grazing

Although it would take considerable time to develop a system of controlled grazing in the area, yet the process needs to be initiated, as soon as, possible because uncontrolled grazing is one of the major factor and in many areas the main factor for absence of regeneration. There is no simple solution to this problem and only with intensive consultation with communities and awareness raising it would be possible to develop a system of controlled grazing for individual villages through VDCs/WOs and mosaic of VPs in all villages.

## CHAPTER-12

## STAFF AND LABOUR

## 12.1 Staff

## 12.1.1 Present status

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sub -Division | Range | Block | Beats | No.of staff |
| 3 | 1 | 10 | 28 | 91 |

The present staff position responsible for administration and management of forest resources in Kalam Forest Division is elaborated below;

## 12.1.2 Salary of the Staff

Salary of the Kalam Forest Division is mentioned as below:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Officers | Divisional office | Bah: SouthS-Divn. | Bah: NorthS-Division. | Kalam S-Division. | Utror Range | G.Total |
| 112861 | 281860 | 450671 | 316211 | 523005 | 275570 | 1960178 |

Main duty of staff is the protection of forests under the forest laws. With the implementation of this plan the services of the staff will also be utilized for afforestation and extension activities. Bahrain tehsil has been divided into two Sub-divisions i.e. Bahrain North and Bahrain South which will help the SDFOs to perform their duties more effectively as their sphere of territory will be reduced. Bahrain North Sub-Division includes Balakot, Torwal, Daral, Ramet, Gurnai and Mankial blocks while Bahrain South Sub-division includes Chell, Beshigram, Bahrain, Tirat and Pia blocks. The headquarters of the two Sub-Division are Bahrain and Madyan. The area of Bahrain South Sub-division has been kept smaller than Bahrain North Sub-Division because it is more easily accessible for illicit cutting and timber smuggling and is highly populated than Bahrain North.

The field staff must also be properly trained in participatory forest management techniques, sustainable management of forests for multiple uses, conservation of biodiversity, improved forest harvesting methods etc.

## 12.2 Labour

The people of Bahrain are relatively more literate than those of Kalam; therefore, in Bahrain tehsil enough know how is available in the field of weaving, knitting, blanket making, namda making, furniture making, wood carving, carpentry, gun and ornament making as well as vehicle repair work. There seems to be no problem of labour except during autumn when the people are busy with the harvesting of grain crops and grass cutting. Some skilled workers such as sawyers and masons are often brought from outside. For plantations and nurseries a limited unskilled labour is needed which is locally available. They include generally old persons and young boys. The womenfolk are involved in different types of activities such as housekeeping, fodder, fire wood and water collection, grazing and looking after animals and helping their men in the fields. Many of the women are experienced in traditional embroidery, knitting, sewing, local baskets, mud utensils and their traditional kitchen gardens.

The present wage rate for an unskilled worker is between Rs.150 to 200. A skilled worker earns Rs.300 to 350 per day, these rates vary with skill and location. The forest operation works are given on contract basis to the gang of experienced workers.

The local labour is available in sufficient number for the various activities of forest harvesting and afforestation etc., however, as usual some skilled labourers for road and building construction will have to be imported from other parts of the district.

The future forestry operations shall be carried out by trained forest workers.

## 12.3 Staffing of Matrix Management Directorates (Integrated Specialized Units-ISUs).

The institutional reforms brought about as an output of Forestry Sector Program after passing through the process of pretesting have now been institutionalized and assimilated in the structure of Forest Department to deliver and contribute according to the logical out puts visualized through FSP. It is traumatizing to record here that the presence of all these specialized units is seen now here in Kalam.

The very productive role of Community Development, Extension, Gender and Development (CDE&GAD) Directorate is missing in the area since its establishment which otherwise would have resulted into revolutionary changes in the attitudes and behaviors of the local communities towards independent improved livelihood and resource use & development. Still it is not too late to get a new energetic initiative to drives all the possible men and material resources to rehabilitate these degraded forests and be on track towards sustainability.

## 12.3.1 Staff of Directorates (ISUs)

This Plan being based on the reformed management framework can hardly work without the ensured active involvement of the technical staff of all specialized Directorates part of reformed Matrix Management System. The presence and involvement of staff of all Directorates is foreseen in the implementation of this plan but the lead role of CDE&GAD, NTFP, FP&M and I&HRD can actualize the conceived theme and idea of changing dimensions of forest management. This can be achieved through synchronization of all the components of the system from top to bottom and all around laterally.

**12.3.2 Capacity building of Staff and Communities**.

The capacity building of staff in each segment and at all levels of the forest department to support and actualize the reformed management system has been adopted as an ongoing process since the inception of FSP. The special training courses on Participatory Integrated Natural Resource Management were arranged at all management tiers to equip the change activists and work force field formations to institutionalize the reforms in true spirit. The new up gradation refresher courses were tailored befitting to the changed management scenario for lower management tiers of Foresters and Forest guards and imparted to the participants throughout the province by I&HRD and Khyber Pakhtunkhwa Forest School Abbottabad. The staff of Directorates was no exception to it and comprehensive training programs have been conducted for all of them especially Female Forestry Extensionists (FFEs).

In due course of time the capacity building of communities was also done through different events to sensitize and prepare them to perform as a partner in the natural resource management as envisaged in this planning document. Now this is the most appropriate time to materialize all that knowledge, skills and energies for the betterment of livelihood of the area and the natural resources available.

It is further proposed and recommended that the capacity building process of all the stakeholders be given appropriate priority at all levels especially in the Village Plans, through Training Need Assessment (TNA).