

Puntland State Government, Somalia



Ministry of Environment, Wildlife and Tourism

NATURAL RESOURCE MANAGEMENT (NRM) SERVICE DELIVERY GUIDELINES

Employment Through NRM

Puntland

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1 Section 1: Natural Resource Institutions and Inter-ministerial Coordination

1.1 Introduction: Natural Resource Sector in Puntland State

Natural resources are central to the sustenance and growth of the Puntland State economy. Considered a primary source of livelihoods for communities, as well as a revenue stream for central and local governments. It is therefore critical that the responsibilities associated with the conservation, utilization and regulation of natural resources are borne concurrently by government agencies and communities/resource-users alike.

NRM Institutions and Administration

Constitutionally, the structure of Puntland State Government and administration provides for the integration of community and government responsibilities.¹ Practically, this is to be achieved through the Public Expenditure Management (PEM) process. The District PEM cycle consists of five steps: Planning, Budgeting, Investment Programming, Implementation and Monitoring and Evaluation.

Environment and natural resources feature predominantly in the Planning Step of the PEM Cycle, during district profiling and community consultations for the design of the District Development Framework (DDF), also referred to as District Development Plan (DDP). The DDF forms the basis of all district level activities; it is overseen by the elected members of the Local (District) Council,² and is inline with the National Development Plan.

Objectives of NRM Guidelines

Building on existing administrative and procedural practices, these guidelines provides tools for incorporating Natural Resource Management (NRM) in a more systematic way consistent with ongoing decentralization efforts. These NRM Guidelines have emerged from a consultative process, led by the environment and natural resources line ministries and engaging regional and district authorities (including village committees).

The aim of these guidelines is to aid local government authorities in the design of NRM Plans and appraisal of environment and natural resource related activities. It also provides a useful reference to civil society and non-governmental organizations as well as other line ministries whose mandates complement NRM service delivery.

¹ See 2009 Puntland State Government Constitution Art. 108

² As part of its decentralization system, and in accordance to 2002 Puntland Districts Self-Administration Law no. 7 Article 2, each district in has a locally elected District Council consisting of village committees.

1.2 Institutional Arrangements for environment and natural resource management (NRM)

There are nine government institutions that deal with issues relating to environment and natural resource management. Of these nine, eight are de-concentrated to specific regions and have district level presence. The objective of this section is:

- To guide the interaction between local government authorities and the various environment and natural resource mandated institutions;
- To introduce administrative linkages between regional and district authorities and the central government;
- To enable users of these guidelines know their mandates and responsibilities concerning environment and natural resource management.

It is important to specify from the onset that reference to environment and natural resources presented in these guidelines is focused on: Land Resources, Water Resources, Forests and Rangelands and Marine Resources. Considering the seasonal calendar, these resource sectors are seen as critical for resource-use at the community level and livelihoods predominantly linked to pastoral and agro-pastoral practice.

1.2.1 Central Facilitation

At the Central level, the main environment and natural resource mandated government agencies are: Ministry of Environment, Wildlife and Tourism, Ministry of Livestock and Animal Husbandry, Ministry of Agriculture and Irrigation, Ministry of Fisheries and Marine Resources, Ministry of Interior, and Ministry of Public Works and the parastatal Puntland State Agency for Water, Energy and Natural Resources (PSAWEN). Together, these government agencies form the Inter-ministerial Natural Resource Working Group (NRWG).³

The role of central level government agencies is to provide administrative and technical support in designing general policies, plans and programmes of the state. As the below table demonstrates, the specialized government agencies play complimentary roles in delivering on their central level NRM mandates. On issues requiring inter-ministerial action, the NRWG convenes to agree and commit to their shared and respective responsibilities.

Service relating to Resource-Sector	Activities relating to service	Responsible Agency	Administrative Arrangements
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³ For further details on the NRWG, see the NRWG Terms of Reference (2013)

Land Resources	Urban Land Planning		MoPW	
	Agricultural Land	Farms in Urban Areas		
		Agricultural land	MoAI	
Land for Public Utility	Including roads, telecommunication lines, government offices	MoPW		
Water Resources	Allocation of water rights and access	Maintain register of rights, purposes and obligations	MoWR	<i>Comprehensive register at central level, with District Registrar at local level</i>
		Including abstraction permits (if in excess of threshold)		<i>Authority may be delegated by regulation to District</i>
	Water Quality	Including agriculture return flows, sewage and industrial waste, groundwater and coastal water	MoWR	<i>Internal administrative arrangements between departments of MoWR at central and district level</i>
		May declare protected areas in vicinity of vulnerable boreholes	MoWR	
		Quality of water for household and commercial responsibility	Water Provider	<i>Consistent with water quality standards</i>
	Water for Pastoral-uses	If water points likely to have adverse effect- inter-ministerial	MoWR, MoEWT, MoLAH	<i>Required by written recommendation of District Council</i>
Creation of new water rights for new pastoral water sources		MoEWT/ MoLAH		
Water for Irrigation	Planning and regulation of water for irrigation	MoWR, MoAI, MoEWT	<i>Lead by MoWR in consultation with relevant agencies</i>	
Forests and Rangelands	Forest Conservation	Prohibited tree species and illegal trade of forest products	MoEWT, MoF	<i>Proceeds of confiscated produce are deposited with Ministry of Finance (MoF)</i>
		Seasonal reserves and rotational grazing	MoEWT	
	Rangeland Rehabilitation	Watershed management and soil conservation	MoEWT, MoWR	
		Improve grazing land through special fodder preservation farms	MoEWT, MoAI	

	<i>Livestock Production</i>	Demarcation of lands for agriculture, pastoral use and hills	MoEWT, MoWR, MoLAH, MoAI	<i>Led by MoEWT, but in collaboration with relevant ministries (note these are rural land, thus outside jurisdiction of MoPW)</i>
		Land for fodder production	MoEWT, MoLAH	<i>Led by MoEWT as considered issue of "rural development" and environmental sustainability and not only livestock</i>
		Rangeland and reserved grazing lands		
<i>Marine Resources</i>	<i>Marine Ecology</i>	Instances of water pollution with impact on coastal areas	MoWR, MoFMR	<i>Issues relating to water quality MoFMR in collaboration with MoWR, issues relating to waste management MoEWT</i>
		Coastal Zone waste management	MoFMR, MoEWT	
	<i>Fisheries</i>	Issue permits and licenses	MoFMR, MoC	<i>At national level permits and licenses issued by Ministry of Commerce (MoC)</i>

1.2.2 Regional Coordination

The regional level of government functions at the administrative presence of the Puntland State government. While regions are under the authority of the Governor, regional coordinators (i.e the de-concentrated representatives of ministries) report to the District Commissioner (or Mayor).

Therefore the role of Regional Coordinators in NRM service delivery is two fold:

- **Coordinate** between central ministries and region and district authorities
- **Transfer technical expertise** of the specialized agencies/ ministries to support the delivery of district level plans and programmes.

It is important to note that the region coordinators play a supplementary role in the delivery of NRM services at the district level. They may lead coordination meetings, raise issues from district to central level, propose technical action on issues relating to their mandate and attend meetings of the district. Their power to approve or implement plans or programmes depends on: District Local Council appraisal of such action, their respective central ministries facilitation and the overall approval of action by the Region Executive Committee (of which heads of government offices are members).

1.2.3 District Implementation

The district level is where the design and implementation of district plans and programmes is undertaken by the relevant Sub-committees or departments and under the supervision of the Mayor. The responsibility for environment and natural resources lies within the scope of the Department of Social Affairs (for Grade A and B districts and the Social Affairs and Peace Sub-committee for Grade C and D districts).

In line with the provisions of the *2002 Puntland Districts Self-Administration Law no. 7*, district administrations are made up of:

- An elected **Local (District) Council** (Article 11) chaired by the District Commissioner who is also the Mayor, the local district council is made up of:⁴
 - An Executive Committee;
- **Local Government Departments** include: Public Works, Social Services, Finance, Revenue and Control and Supervision Department (Article 10)
- **Standing Committee** (Article 16) implements the activity plan of the Council- it proposes operational plan for Council approval and proposes formation village committees.

The responsibilities of district and local government authorities in relation to the four resource categories: Land Resources, Water Resources, Forests and Rangelands and Marine resources are summarized in the table below.

⁴ While all districts have a local council and district development council, the memberships of these respective councils may vary, whether appointed or elected, depending on whether the district is grade A, B, C or D. Refer to Article 4, *2003 Districts Self-Administration Law no. 7* for details.

	Service relating to Resource-Sector	Activities relating to service	Responsible Agency	Administrative Arrangements
Land Resources	<i>Allocation of Land</i>	Any land that is not within the jurisdiction of MoPW and is within Local Government territory	Local government-- Executive committee	<i>With district level NUPC</i>
	<i>Resolution of land disputes</i>	Disputes over land-use, land rights and land tenure	Administrative tribunal	<i>Chaired by MoPW, members: local authority, local councillor, Mol, MoA, MoRA, MoEWT</i>
Water Resources	<i>Water rights</i>	District Register of Water Rights	District Registrar	<i>Rights allocated by MoWR, registered in District Register monitored by Water District Officer for abstraction permits</i>
		Exercise of water rights (applied to motorised works)	Water District Officer	
	<i>Resolution of water disputes</i>	On general water use	District Court	
		Disputes over pastoral water points	Community elders and customary laws	
		Dispute settlement over irrigation		
	<i>Water Supply</i>	Provision of water services including proper operation maintenance, plan extensions	Local Government	<i>Central government may reposes right of use of public assets if local governments fail to provide services</i>
<i>Water for Pastoral-use</i>	Declaration of potentially threatened water sources as protected areas	De-concentrated MoWR, MoLAH		
	Efforts to reverse desertification and environmental damage	De-concentrated MoEWT, MoA, MoLAH, MoWR		
<i>Water for Irrigation</i>	Creation of new water rights for new irrigation sources	Community elders	<i>Prior approval of community elders for creation of new sources</i>	
<i>Forest/ Range Conservation</i>	Seasonal reserves and rotational grazing	District (Region) Authorities	<i>MoEWT in consultation with local authorities</i>	
<i>Fisheries</i>	Fish factories and development centres	Local Government		

1.3 Delivering NRM Services

The NRM services to be delivered should come out of the District NRM Plan, which is consistent with the DDF and contributes to the realization of priorities set out in the National Development Plan. As has been discussed in this section, the design and implementation of NRM Plan should be seen as the responsibility of District Authorities. That is, under the supervision of the Mayor, the head of the Department of Social Services should take the leading role in the design of the NRM Plan, drawing on the technical expertise of regional coordinators and requesting, where necessary, the facilitation of the relevant line ministry.

The next section of these NRM guidelines provides step-by-step instructions to guide district administrations in the design of their District NRM Plan, in consultation with Village Committees;

- Step One: NRM Area and Spatial Boundaries
- Step Two: Gathering Baseline Data
- Step Three: Gathering Quantitative Data
- Step Four: Consultation and Validation
- Step Five: Integration and Prioritization of Activities

2 Section 2: Natural Resource Management Planning

2.1 District Leadership of The NRM Planning Process

As discussed in Section 1.2, the District Authority in collaboration with Village Committees plays a leading role in the NRM Planning process. As the level of government closest to the people, the district administration, through the Department of Social Affairs, needs to procure the following resources in preparation for the NRM Planning process:

- (i) NRM Data Collection tools: These include formulation of the household questionnaire which is designed to collect quantitative data and Focused Group Discussion (FGD) and Key Informant Interviews (KIIs) tools for gathering qualitative data from user groups and key resource persons.
- (ii) Enumerators: These are people experienced scientific data collection or new recruited university level interns/ students who must be inducted in data collection techniques.
- (iii) Technical expertise: To clean, process and analyze data collected and undertake report write up.

2.2 NRM Planning Steps and Process

Adopting a Community-Based Natural Resource Management (CBNRM) Approach, the district approved NRM planning team has a two-fold objective: (i) Gathering imperative data; and (ii) Creating awareness/ sensitization on natural resource management.

- Step One: NRM Area and Spatial Boundaries
- Step Two: Gathering Baseline Data (qualitative and Quantitative)
- Step Three: Preparing NRM Action Plan
- Step Four: Consultation and Validation
- Step Five: Integration and Prioritization of Activities

Each of the steps outlined above are briefly described below:

2.2.1 Setting the Spatial Boundaries

In undertaking the natural resource management planning, it is important at the outset to delineate the planning area/ boundary. In principal, there are usually two choices to consider in identifying the planning unit: (i) Administrative/ political boundary; or (ii) Ecosystem boundary (watershed, forestry, or any other eco-region). The two approaches have advantages and disadvantages.

Table 1: Delineation of the NRM Planning Unit

<i>Planning Unit</i>	<i>Advantages</i>	<i>Disadvantages</i>
Ecosystem Boundary	More meaningful interpretation of environmental trends relevant to specific ecosystems	Limited availability of some data expressed at the scale of ecounit (particularly socio-economic data)

	Better understanding of ecosystems as functional units	Political complexity arising from analysis of resources under shared jurisdiction.
	Direct connection to ecosystem-scale policies	
	Ease of allocating ecosystem benefits fairly for the common good	
	Focused research results and analysis	
Administrative/ Political Boundary	More uniform regulatory environment	Resource-specific trends masked by data collected on the level of political jurisdiction.
	More simple data collection	Difficulty detecting differences in ecosystem impacts of specific policies
	Direct connection to jurisdiction-wide policies	Management challenges especially ensuring equity in allocation and distribution of resource, i.e. people upstream may allocate more water with little concern of those living downstream- in a different district.

Modified from UNEP (undated): Integrated Analysis of Environmental Trends and Policies: Training Module 5

2.2.2 Gathering Baseline Data

Baseline data on the NRM planning unit is essential in guiding planning and for measuring change after interventions. The data include ecological and socio-economic components. Both qualitative and quantitative data are desirable for triangulation.

2.2.2.1 Gathering Qualitative Data using Community Based Natural Resource Management (CBNRM) Approach

Community Based Natural Resource Management (CBNRM) approach has twofold objectives: (i) Gathering imperative data; and (ii) Creating awareness/ sensitization on natural resource management. The CBNRM is a participatory process that can be conducted at the grassroots level with the community members who are users as well as with the planners and implementers who have NRM mandate at the district regional or at the national level.

(a) Identifying the participants

In conducting the CBNRM process at the community level, it is impractical to facilitate the process with entire residents within a planning unit (village or ecosystem area). However, to gain legitimacy, it is essential to ensure that a big number of the resource users are aware of and the intended outcome of the process. Therefore, it is recommended that an open Consultative and Disclosure Meeting is organized at a convenient venue and time to allow participation of men, women, schooling children and the area leadership. Indeed, the information about the meeting is discussed and planned between the process facilitators and area leadership. The latter organizes the meeting at the venue and time agreed on.

During this meeting, the facilitators of the process present the intent and the objectives of the planned data gathering and the use of the information gathered in supporting natural resource planning for increased ecosystem services. A question-answer session is recommended to the satisfaction of the residents. At this point, community members are informed about what the process entail and use of representation as opposed to participation by all villagers. To achieve a reasonable representation, the facilitators provide the villagers with some selection criteria/ guidelines which should include, among others:

- (i) Village committees
- (ii) Gender
- (iii) Age
- (iv) Knowledge of the planning unit
- (v) Spatial representation
- (vi) Interest groups i.e. women, youth, incapacitated, marginalized etc.

While conducting the process with government, civil societies and professional people at the district level, regional or at the national level, the main considerations should be involvement of the local government targeting the Mayor and/ or officer in charge of the social development departments within which environmental issues are dealt with, government ministries with natural resource mandates or civil societies and professionals with interest in NRM. It is important to ensure that the people in attendance are in a position of making or influencing decision. The ideal number should be 15 participants but should not exceed 25 people. These are referred to as Local Planning Team (LPT).

The CBNRM process, takes between three to five days which depend on the number of facilitators. To enhance the level of legitimacy and ownership of the process and product, it is recommended that the climax of the final day should be the presentation of the work the LPT has been doing to the larger community members if the logistics do allow. Otherwise, the workshop materials are given to the LPT members to organize for community feedback.

(b) Facilitating the CBNRM Process

The CBNRM data collection and NRM awareness creation process consists of six distinct but integrated thematic areas, namely:

- (i) An inventory of the existing natural resources, their importance to the community and temporal change in quality and quantity.
 - (i). Trends in natural resource use and management using quantifiable indicators like size, colour, volume, density, amount, population etc.
 - (ii). Use of Trend-lines and Participatory Mapping to depict: (a) Past situation of natural resources; (b) Present situation of natural resources;(c) Future situation of natural resources with no intervention; and (d) Prediction of future situation of natural resources with intervention
- (ii) Identification and analysis of stakeholders in natural resource use and management.
 - a. Identification of stakeholders
 - b. Analysis of stakeholders in terms of activities, motivation, strengths and weaknesses.
- (iii) Gender roles in natural resource use and management using access and control profile.

- (iv) Natural resource and livelihood problem identification and analysis. Priority problems and/or conflicts arising out of present usage of natural resources. The causes and effects of the priority problems are synthesized and presented as a problem tree for conceptualization.
- (v) Options Development:- (i) Analysis of the Coping Mechanism; (ii) External responses Tried; and (iii) Options available.
- (vi) Natural Resource Area Management Plan. (Participatory Mapping of the Desired NRM Plan)

Guidelines for conducting each of the thematic NRM planning areas are discussed below:

2.2.2.1.1 Inventory of Existing Natural Resources

Apart from establishing the type of natural resources existing in a NRM planning unit, this section of the CBNRM process is critical in the creation of awareness of depletion of the natural resources out of improper utilization. This is achieved by referring to the current state of the natural resources and reflecting on temporal change within specified timeframe. It is also amplified through building of scenarios by evaluating the trends and change of the status of the natural resources in terms of quality and quantity. One of the scenarios is on status quo- participants are challenged to envisage the future status of the natural resources and by extension that of the livelihoods of the people depends on it, if no measure was put in place to reverse the degradation trend in the coming 5 or 10 years. The other scenario is on future of the natural resources and the livelihoods of the people if they collectively agree to take measures to reverse the trend of degradation over the same period of time. This process is facilitated through application of participatory mapping and analysis of trend-lines. The process is outlined below

Identification and Analysis of Utilization of the Natural Resources

The starting point is identification of the existing natural resources within the planning unit and analysis of how the resources are being used (See **Appendix 1⁵**). In the plenary, facilitate the LPT to:

- (i) Have a common understanding of what pertains to natural resources;
- (ii) Identify all the natural resources available in the planning unit;
- (iii) If, possible, let them describe the ecology within which these natural resources are found and to state local arrangements dictating their access and rights of appropriation i.e. if permission is required, ownership status etc.
- (iv) Once the list of natural resources available in the planning area is exhausted, introduce the aspect of current utilization of resources. This can be done in the plenary or you may split the LTP into three or up to four sub working groups. Share out equally the type of natural resources for the analysis in terms of their current use.

Trend of the Natural Resources using Participatory Mapping and the Trend-lines:

Facilitate the LPT to describe in detail the current state of natural resources, change overtime and the anticipated state in future. It is recommended that in the description of the natural resources, qualitative and quantitative measurements are used, i.e. the size of gullies, river

⁵ The appendices are derived from NRM planning process of Burao District to act as examples of information elicited through application of CBNRM tools.

streams, trees could be given in metres or in local measurable units and expressions, i.e. the pasture (grass) was tall and thick such that an adult walking through could not be seen as he or she was fully covered as compared to the present status where the ground is partially covered.

Depicting the Present Situation of Natural Resources of the planning unit

Using participatory resource mapping guide the LPT members to show on the map the resources endowed as identified above. The natural resources should be depicted by type and species distribution over the planning unit. The following steps and considerations should be followed:

- Identify who among the LPT members who should hold the stick (drawing tool). It is preferable that the drawing to be done on ground so that it is adjusted accordingly as members engage each other throughout the drawing exercise. Use locally available resources to demarcate and for illustration of the resources, i.e. the system boundary (planning unit) boundaries could be marked using ash, or pebbles; tree leaves could be used to show forest resources; cow dung to illustrate grazing area etc.
- The first step is to request for the demarcation of the boundaries of the planning units including the directions (north, east, west and south), neighbouring ecosystems, or villages or districts etc. Once the boundaries have been correctly marked and agreed upon by the LPT members, ask them to show key features and infrastructures in order to give the map orientation. These should include rivers, hills and mountains among other key physical features while infrastructures such as main roads, villages, towns, schools, water facilities, mosques and schools etc. are as well illustrated.
- Once the skeleton of the planning unit has been done and agreed upon, all the natural resources identified above are shown on the map in terms of types, distribution and their state current state as described by the community members. Degraded areas, gullies and any features and areas of special interest should be indicated. As much as possible, areas covered by the natural resources, degraded areas and any other features denoted on the map should be done so while showing the relative surface area covered in relation to the entire map coverage- in sketch format (not on scale).
- As the LPT members make their map, the team of facilitators should be replicating the same on a flip chart papers while the documents the description of resources as provided by the participants.
- The product presents the base map for the natural resources type and status prevailing within the planning unit upon which trends and scenarios are constructed.

Please, note, as much as the participatory map is an essential product, the process presents opportunities to gather imperative data on natural resources endowment, factors influencing the prevailing status of the natural resources, access and control, conflict over resources if any, land uses, land ownership etc.

Defining Trend of Natural Resources: Past status of Natural Resources of the Planning Unit:

Using the natural resource base map (current status), the trend of the natural resources is discerned as follows:

- Discuss with the LPT to agree on past that they can recall vividly the status of the natural resources. In most cases, the community referred to 1991, the time when the Government of Somalia collapsed. This era is not only important to them because of

the event of the government failure but it also mark the period in time when the well managed natural resources fell into what can be described as “open access regime” as the state laws were no longer enforced.

- Describe the state and distribution of natural resources as outlined above while contrasting with the prevailing status. The past status is actually, subtraction of what did not exist by the time, especially infrastructure and settlement areas, and additions of the natural resource to show the abundant state of natural resources as it was by then. Issues of productivity of rangelands by then need to be discussed and compared with the current situation. Also issues on climate conditions are compared over the two period of time. Often the past map describes how the sustainable the livelihood systems were supported by stable natural resources. The facilitating team should prepare their past map of natural resources as described by the communities on a flipchart. Contrast between the current and the past state of natural resources act as a major wakeup call as it brings out the correlation between degraded rangelands and the poor quality of livelihoods. As much as possible, areas covered by the natural resources, degraded areas and any other features denoted on the map should be done so while showing the relative surface area covered in relation to the entire map coverage- in sketch format (not on scale).

Building Scenarios of Natural resources:

Further awareness on natural resources is created by envisaging the future of natural resources based on the past and the prevailing state of the natural resource trends. This is achieved through:

- Asking the LPT members the number of years they would consider predicting how the state of the natural resources would be like with or without taking any action. Five to 10 years period is recommended.
- Building from the current resource map and the trends, the community reconstructs the 2 scenario maps. As much as possible, areas covered by the natural resources, degraded areas and any other features denoted on the map should be done so while showing the relative surface area covered in relation to the entire map coverage- in sketch format (not on scale). You may split the group into two working groups each working on either of the scenario maps. Then allow them to share their perceptions in the plenary.

It is worth noting that the current resource map should be made as comprehensive as possible as it is a major tool for monitoring and evaluation in case of any interventions aimed at improving the rangelands.

Using Land Use Planning (PLUP) Technique in Planning

Land use planning help the community reorganize the competing land uses from the current situation to desired state. Land use planning is best achieved through comparing the current state of natural resources use and land uses as depicted on the Current Participatory Map with the desired state as presented on the Future Participatory Map with Interventions. Through PLUP, the LPT are facilitated to indicate:

- All proposed physical interventions on the map at the proposed sites, i.e. where the boreholes will be constructed, water and soil conservation structures, grazing and farming areas etc.
- Rehabilitation sites,

- Settlement areas
- Conservation areas etc.

2.2.2.1.2 Identification and analysis of stakeholders in natural resource use and management

Improvement of natural resources requires concerted effort and participation of all stakeholders. Secondly, it is of vital importance to get to know the role, responsibilities and mandates of stakeholders in attempt to discourage duplication of efforts while seeking for opportunities to harness synergy of all the players. Stakeholder identification and analysis is used to achieve these objectives. This is achieved through:

- Identification of those who have stake, be it public or private organizations, community organizations or individual resource user groups, like farmers, beekeepers, livestock keepers, farmers, village elders, etc.
- Analyze each stake holder identified in terms: (i) their activities; (ii) Their motivation of carrying out the activities; (iii) their strengths; and (iv) their weaknesses. Split the LPT into sub working groups and equally, divide out the stakeholders identified among the sub working groups.

Note, the information generated here will be useful in the preparation of the NRM plans later, which is the main product of this process. The stakeholder identification and analysis tool is contained in **Appendix 2**.

2.2.2.1.3 Gender roles in natural resource use and management using access and control profile.

To have an understanding of the gender profile provides outsiders or the external development agency with essential information on access, control and ownership of the natural resources and assets local or within the planning units by gender disaggregation. Such information helps in planning as at the designing level, the project will make provision of who amongst the community, will be involved in decision making, providing what type of labour or in managements among other divisions of labour and responsibilities by gender.

To understand such local arrangements of resource ownership and utilization, a gender access and control profile tool is carried out. The following are the guidelines for implementing the tool:

- Prepare Gender access and control profile tool.
- You may conduct the tool separately with males, females, male youths and female youths if the time allows otherwise you run a combined tool but you pay special attentions to issues raised by different groups of the LPT.
- List all natural resources identified earlier on to the left hand column of the tool. Due to their contribution to the household livelihoods, including in the list the agricultural and livestock products/ yields, i.e. milk, hide and skin, income from the sale of livestock; and stored grains; and income from the sale of livestock produce.
- Identify who among the groups indicated have access and who have control of resources. Use tick (✓) for the group with access and control or cancel (X) for the group without access to and control over resources. You may have double ticks for the group that has more access and control over the other.

- Records all the reasons given for the groups with or without access to or control over resources.
- Allow for presentation of the sub groups and facilitate and record discussion ensuing.

2.2.2.1.4 Livelihoods and Natural Resource based Challenges

This is a very important stage in the process of NRM planning as it neatly reveals the interconnectedness of the natural resource degradation trend as demonstrated in the mapping exercise with the degeneration of people's livelihood. The livelihoods of the people are, to a larger extent, shaped by the state of the natural resources in a planning unit.

Identifying the Livelihoods Challenges

To establish the livelihood based problems, in the plenary, the LPT are asked to identify the livelihoods problems that they face and which they could directly or indirectly relate to the degradation of the natural resources found in the area. The problems are listed down in brief statements on meta cards or in the flip chart paper. As much as possible try to identify the root problems from causes and effects as this is normally the tendencies. However, other than missing out on some of the problems, you may consider taking them all as the next exercise will attempt to filter out the causes and effects from the main livelihood problems.

Analyzing the Livelihoods problems

In order to establish the root problems from causes and effects, the tool contained in **Appendix 3** is applied. Each of the problems identified is analyzed in terms of its causes and effects that the community members have observed or have known to occur. To maximize on the time available and at the same time make the process more interactive, split the LPT members into 4 working sub groups: the 3 sub-groups will handle the problem analysis while the fourth one will deal with problems prioritization as explained below. All the sub working groups' work should be presented in the plenary.

In order for LPT members understand more comprehensively the linkages of the three aspects (problem, causes and effects), the facilitator should find time outside the working hours to synthesize the results of the problem analysis into a Problem Tree (See example in **Appendix 4**).

Prioritizing the Livelihood Challenges

Explain to one of the sub working groups formed about the need of determining the priority problems affecting people's livelihoods out the list of livelihood challenges developed earlier on. Introduce pairwise scoring matrix (**Appendix 5**) as the tool to help in the ranking process. This tool enables weighing of each problem against each other where participants brainstorm to come up with factors rendering one problem to be severe to the livelihoods as compared to the other. Once the consensus is reached and documented, the proposed livelihood problem is listed to the hand right side of the table. Ensure that:

- Each of the problem is rated against each of the problems listed,
- No problem is weighed against itself (the vertical and horizontal) analysis as this will not give difference,

- Ensure that all the reasons given in the comparison and contrasting exercise are properly recorded- as much as the pairwise matrix is a product by itself, without descriptive evidence as provided by the working group members, it offers no justification to prioritization outcome.
- Once the problem comparison and contrasting exercise is complete, introduce the component of scoring and ranking. This is better done in the plenary.
- Count and record to the second last column to the right hand side of the pairwise scoring matrix table the problems prioritized across the row and the corresponding column.
- The most frequently proposed livelihood problem is ranked as the priority challenge.

2.2.2.1.5 Developing Practical Solutions to Livelihoods Problems Identified

You should never end this process at the problem identification stage as the community members find themselves in a miserable situation, exposed and vulnerable with no opportunity of moving out of the poor state the CBNRM process eventually reveal. Not that the new dawning was not known to them initially but in most cases the reality remained in its latent form- like proverbially burying the head in the sand.

Development of the practical solutions is built on the real livelihood situation revolving around how the community make to cope with the livelihood problem; interventions the community members have received from the outside; and the lessons that can be drawn out of the two (coping mechanisms and from the external interventions that have been tried). The lessons learnt form the basis for development of practical solutions- these are proposals that will address the problem differently or built from the emerging lessons from the coping and from the outcomes of external interventions as contained in **Appendix 6**.

The process of developing practical solutions should follow the following steps:

- Once the concept is well understood, facilitate the LPT members to categorise the livelihood problems into ecological, economic and livelihoods; and administrative problems as per the grouping prescribed in the NRM Sector Study Report.
- Split the LPT members into 3 sub working groups each to handle livelihood problems under (i) Ecological problems; (ii) Economic problems; and (iii) Administrative problems.
- Developing of the practical solutions should discourage considerations of strategies that have failed in the past but build on those that have registered positive outcomes.
- The groups work to be presented in the plenary,
- Facilitate development of broad strategic intervention areas or projects from pieces of practical solutions suggested by the sub working groups. This should be done in considerations of the ecological, economic and livelihoods; and administrative framework.

2.2.2.2 Gathering Quantitative Data

Quantitative data for planning unit is mainly gathered through administration of a household questionnaire. Other form of data could also be collected through secondary sources.

2.2.2.2.1 Designing the Household Data

This is chiefly informed by the purpose of the intervention. The intervention purpose is the primary reason why you are doing the project. The bottom-line of the ILO project is to

enhance management of the natural resources to improve livelihoods through creation of green employment opportunities.

2.2.2.2.2 Defining Measurable Indicators and Preparation of Household Data Collection Tool

Indicators are quantitative or qualitative factors or variables that provide simple and reliable means to measure achievement, to reflect changes connected to an intervention, or to help assess the performance of a development actor. As performance measures, they inform how to recognize successful accomplishment of objectives. Key indicators that shaped the designing of the household questionnaire included:

- Population and demography,
- Households livelihoods and income patterns and levels,
- Quality of the natural resources
- Skills and Technologies
- Poverty levels and dynamics
- Land use and resource management
- Resource based conflict and management

The household data collection tool is constructed based on the defined indicators.

2.2.2.2.3 Induction of the Data Enumerators

The quality of the baseline data is determined by competence level and reliability of the data enumerators who are charged with the responsibility of administering the tool. Therefore, it is important that the enumerators are carefully selected with a minimum education qualification of secondary school level. The induction process includes explaining the purpose of the survey and understanding of each and every question. It is recommended that the tool is translated in the local language of the enumerators and back into English language in order to enhance common understanding of the questions. Facilitate pretest and feedback process before the actual survey kicks off. The exercise presents opportunity for creating local capacities.

2.2.2.2.4 Data Analysis and Write up

The quantitative data collected is keyed in using Epidata and/or excel data sheets software. The data is eventually transferred to the Statistical Package for Social Science (SPSS) in a worksheet format from where the data cleaning process is carried out. Analysis is done using the SPSS software, which is a well-suited detailed and robust analysis for all kinds of quantitative data and then the write up.

2.2.2.3 *Generating Secondary Data*

This plan sourced essential information from literature review. Key literature reviewed includes the District Development Framework (DDF), District Annual Work Plans and legal and policy documents. Information gathered from this source has been essential in the evaluation of the NRM planning considerations, amongst other contributions.

2.2.3 **Natural Resource Area Management Plan**

This is the final stage of the NRM planning process which is equated to putting wheels on the planning vehicle in order for it to move. The focus question for this session to the LPT is **what**

accomplishment (s) / action (s) are required to implement each of the broad interventions areas? The following have to be put into considerations in the planning process:

- Elaboration of specific activities that are prerequisite in the implementation of the broad intervention area or projects,
- Each single activity must envisage the variables of SMART, just as an objective of a project or of an activity. As such, each activity to be implemented must be time bound and its verifiable performance indicators determined.
- Avoidance of overlapping in planning of various activities, thus, there is need for a logically sequential management plan.

IT IS RECOMMENDED NOT TO INITIATE ACTION PLANNING IF THE IMPLEMENTATION PHASE IS NOT ASSURED AS THIS MAY DISAPPOINT THE LPT AND BY EXTENSION THE ENTIRE POPULATION OF THE PLANNING UNIT.

Prioritization of the Projects and Activities

In order to avoid activities' overlap as well as to prevent foreseeable budgetary and overstretching of other resources and implementation challenges, prioritization of the activities is highly recommended. Depending on size of the activities and projects envisaged in the action plan, the methodology for prioritization could range from simple acclamation or to a systematic process. Tools like pairwise scoring matrix could be applied or develop a more objective weighting criteria based on the purpose and intervention logic of the project. For the project of this nature that seek to improve the state of the natural resources in order to enhance livelihoods including creation of green jobs for women, men and youth, the following measuring criteria were devised to assist in the implementation prioritization:

- Technical viability of the intervention,
- Environmental considerations,
- Cost-benefit ratio,
- Gender equity, and
- Employment creation potential

Every single activity was run through this spectrum of prioritization which had a scoring value ranging from: (1) Excellent; (2) Good; (3) Satisfactory; (4) Poor; (5) Very poor; and (6) Not applicable. Implementation priority is pegged on the average score- those activities that have potential of bringing about desirable impacts across the weighting spectrum (See **Appendix 7**).

Planning Guide:

All the activities identified to successfully implement the broad intervention area has to be planned for in terms of:

- Timeline (when to be implemented) venue where the action will take place,
- Coordination and planning: who or which organizations will take lead in the activity implementation,
- What resources will be require (how much will it cost to implement the action; how much will the beneficiary community willing to contribute; and how much is requested and from who?).

Appendix 8 presents the NRM action planning.

2.3 Approving the NRM Plan for Implementation

Like the DDF, the NRM Plan is the product of the local government's effort, and is therefore in their ownership and responsibility. Using existing administrative and institutional

arrangements, the Mayor should convene a meeting to launch the District NRM Plan and assign responsibilities for implementation.

3 Section 3: District NRM Plan Implementation

3.1 Capacity and Skills Transfer

Capacity building to facilitate the NRM planning process and to empower community members to implement the community based natural resources management strategy requires building and strengthening of local level institutions drawn from local government and relevant decongested ministries. The proposed NRM working group would be an appropriate organ to catalyze capacity.

The process of capacity building require both theoretical approach aimed at imparting essential knowledge and information on natural resources as well as practical orientation in order to gain hand on experience on application of the NRM tools. The theory part of it is gained through workshop organized CBNRM process where the trainees are sensitized on what NRM is all about, how to collect and analyze data and prepare NRM plan. This process takes about three days after which the trainees are exposed in a simulation process where skills gained are put into practice. This process takes another 3 days to facilitate LPT (Local Planning Team- at the community level/ NRM planning unit) to prepare their NRM plan. With the backstopping of the NRM expert, the trainees conduct the process. Sometime should be spared for process review.

At this point, the trainees are expected to have acquired essential basics of facilitating the NRM process. Together with the NRM expert, the trainees are ready to apply the skills gained in a real situation. The role of the NRM expert is primary for mentoring the learners to gain confidence in the facilitation and application of the process product.

It is strongly proposed that the trained NRM team, should further undergo Organizational Development and Institutional Strengthening (OD/IS) training and should form core activities to improve their knowledge on group dynamics, organization, management and negotiation abilities within community resource users and between stakeholders. To achieve these goals, empowerment of local level institutions will take into consideration the traditional knowledge and organizational capacities existing among local communities, local governance structures and conflict resolution mechanisms and cultural and/or social economic values that influence local use and management of natural resources.

The main challenge of operationalizing the community based natural resources management strategy is the unavailability of ready and appropriate technical and organizational solutions for reversing degradation of natural resources. Differences in socioeconomic development levels, community cohesion, access to and control over natural resources makes technical and organizational solutions site specific. It is therefore not feasible to have blanket application of interventions to solve the degradation problems affecting natural resources across the board. Approaches to implement the CBNRM should therefore be developed to address specific natural resources degradation problems in identified geographical target areas.

3.2 NRM Plan Objectives

The primary objective of this NRM plan is to achieve the ecological and socio-economic developments through ensuring meaningful partnership and synergetic efforts from all stakeholders in reversing degradation of the natural resources. The management objectives of the plan include:

- Ensuring the rangelands are conserved and managed in a way that meets the needs of the present generation without compromising the rights of the future generations by safeguarding ecological benefits accruing from them
- Promoting improvement of the people's livelihoods in all strategies and actions designed to conserve and manage the natural resources
- Encouraging and facilitating public participation in the management and conservation of the natural resources in the delineated geographical areas.
- Facilitating greater public awareness of the ecological and socio-economic benefits of restoring and conserving the rangeland resources.
- Promote equitable sharing of rangeland resource benefits (pasture, water, farming area, NBE etc.) with special focus on disadvantaged groups, with emphasis on women and poor sections of the community.

3.3 Creating Employment

The purpose of NRM Plan is to adopt an integrated NRM plan for sustainable and fully functional natural resources contributing to the restoration of the entire planning unit's ecosystem integrity in order to meet the twin goals of socio-economic development and environmental conservation. The plan is aligned to administrative considerations as per the NRM Sector Study Conceptual Framework. The plan seeks to promote ecological conservation and improved livelihoods through efforts aimed at partnering and networking with all the stakeholders in the district. Further, the plan aims at initiating complementing and scaling up rangelands rehabilitation activities that have a bearing on biodiversity and livelihoods enhancement. The ecological improvement of the rangeland resources is expected to positively impact on quality and quantity of the natural resources thus increasing the ecological goods and services.

On the socio-economic front, the plan seeks to improve the livelihoods of the local communities through exploration and implementation of Nature Based Enterprises (NBEs) which will in turn result in employment creation and increased incomes. The NBEs should be plan and implemented in such a way that the activities contribute towards preserving and restoring the quality of the natural resources and the entire ecosystem. This objective is in line with the objective expressed by the intergovernmental panel on Climate Change (IPCC) on countering the challenge of global warming through creation of green jobs.

In the case of Somalia, efforts towards creation of green jobs should focus and enhance technological skills and production efficiency in the following sectors:

- Agricultural production (mainly pastoral production and crop farming only on arable areas)
- Alternative and sustainable energy

- Nature based enterprises (beekeeping, utilization of rangelands plants and exudates prepared for ethno medicines and cosmetics, etc.) in attempt to diversify means of livelihoods
- Indirect jobs- like those in supplier industries

3.4 Funding of the NRM

Substantial amount of money is envisaged in the implementation of NRM plans. In the initial stages, the implementation plan should be on pilot basis meaning modest in geographical scope and cost and on phases subject to availability of funds and as per prioritization of the activities by the community inhabiting/ using resources in the planning unit and by the local authority and relevant ministry representatives. Funds for implementing the activities outlined in NRM plans should be sourced independently or jointly by the stakeholders. Activities proposed in the Plan should be developed into specific project proposals for support from other donors. These resources are not limited to financial resources but also include human, technical and material assets.

4 Conclusion

Over 70% of the livelihoods in Puntland State are dependent on the natural resources. The state of the natural resources shows an extensive degradation has occurred during the past 3 decades mainly due to improper utilization. Natural Resource Management (NRM) is about managing of these natural resources to ensure environmental, social and economic sustainability for both present and future generations in accordance with the principles of Ecologically Sustainable development (ESD). These guidelines are designed to support the local governments and other key stakeholders to facilitate NRM planning process in order to restore the quality of the rangelands, thus promoting creation of green jobs. Sustainable utilization of the natural resources will result in creation of sustainable economy that has the potential to generate large numbers of green jobs across many sectors of economy and spur social development.

These guidelines apply the Community Based Natural Resources (CBNRM) as the approach and strategy towards realization of the NRM plan. The guidelines have been prepared in a simple format outlining the process and detailed how-to-steps for facilitating the NRM planning process.

LIST OF APPENDICES