Natural Resource Management Programme

(A Programme under the National Agriculture Development Framework)

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Natural Resource Management

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EXECUTIVE SUMMARY

In a country where the majority of the population relies directly on the natural resource base to meet its daily needs, widespread environmental degradation poses an immense threat to livelihoods. More than two decades of conflict, military activities, refugee movements, collapse of national, provincial and local forms of governance, lack of management and institutional capacity, and over exploitation have heavily damaged Afghanistan’s natural resource base. The recent drought has had an additional negative impact. As a result, the country’s vulnerability to natural disasters and food shortages has increased, and additional pressure is put on the country’s most important resource base.

Consistent with the tenets of Afghanistan’s Environment Law and a suit of upcoming natural resource laws and regulations, and as an integrated part of the comprehensive Agriculture Development Strategy, a natural resource management programme with a community-based approach has been elaborated. This positions communities throughout Afghanistan to assume responsibility for practicing productive and environment-enhancing management of natural resources for their own benefit. The value of this approach hinges crucially on the involvement of communities, not just in the implementation of natural resource management, but also in its management planning, with facilitation from the Government and other partners, including NGOs, to promote replication and uptake of best practice examples throughout the country. Thus the natural resource management programme relies on policy, legal, institutional and technical changes and the creation of functional relationships between Government, communities and other partners.

I PROGRAMME OBJECTIVE AND OUTCOMES

i. The overall objective of the NRM Programme is to ensure that:

Afghanistan’s natural resource base is rehabilitated and used in a productive and sustainable way by sedentary and migratory population

This general objective will be achieved both by establishing a supportive policy and regulatory framework at the national level, and by combining participatory planning methods with advanced technical opportunities in natural resource planning and management at the local level.

ii. Expected Results

   a. Results for Rural Populations
      • Natural resource base rehabilitated and protected and able to sustain agricultural activity and rural livelihoods and contribute to food security
      • Capacity of communities to manage the natural resource base in a sustainable manner strengthened
      • Conflicts over natural resources between different user groups (i.e. settled and nomadic) reduced

   b. Expected Results for Strengthening Capacity within MAIL
      • Information required for natural resource planning and use available
• Legal and regulatory frameworks established and enforced for the use, access and protection of natural resources
• Coordination, monitoring and regulatory functions established and strengthened

c. Expected Results for Rationalizing Agriculture Development Efforts
• Value and effectiveness of agriculture investments maximized by ensuring that preconditions of the other programme frameworks are met through functional and productive natural resources

II SITUATIONAL ANALYSIS

i Importance of natural resource management in the context of Afghanistan and the agriculture sector
MAIL and other government institutions recognize the importance of sustainable management of natural resources to maintain and expand agricultural production without compromising its environmental, social, and long-term economic functions. The policies, legal framework and implementing regulations will also follow local governance principles, stressing accountability and putting local community structures at the centre of the programme.

ii Key challenges
To be sustainable, economic growth through enhanced agricultural productivity and production cannot be achieved at the cost of environmental and natural resource degradation. On the contrary, it is important not only to conserve but also to enhance the natural resource base to foster agriculture-led economic development, especially in rural areas. Thus the Ministry’s strategy for natural resource management will establish regimes of natural resource use (i.e. forestry, rangeland, wildlife and medicinal plants) in relation to: (i) the types of land use; (ii) systems for natural resource management; and (iii) systems of rights and access to natural resources.

MAIL recognizes the challenges it faces in a situation where reliable basic information about the status of natural resources is very limited, and where overexploitation of natural resources is a result not only of weak governance but for many resource-poor households the only survival strategy, however short-term.

a. Challenges related to the natural resource base
• Degradation of the natural resource base due to conflict, droughts, etc. and the impact on food security and vulnerability to natural disasters (e.g. landslides)
• Conflicts over land (between pastoralists and settled farmers)
• Over-exploitation (in particular illegal exploitation) of certain resources butta in pasture, trees, wildlife)
• Unclear land tenure and inadequate dispute resolution mechanisms

b. Operational challenges
• Lack of data on situation of natural resources
• Limited capacity for planning, preparation and enforcement of regulatory frameworks
• Evidence-based policy, programme and project decisions require a solid knowledge and understanding of the sector. The establishment of a comprehensive baseline and a system for natural resource monitoring will provide rationalization for further NRM interventions and the basis for agriculture and forestry (production) planning; and will also allow continuous and adequate monitoring and evaluation of the status of natural resources.
• There are a significant number of development partner-funded projects in the field of protection and conservation of natural resources. MAIL needs to systematically review their activities and experiences, and base protection and conservation initiatives on best practices. The perceived contradiction between environmental conservation and economic exploitation of an area needs to be overcome by raising awareness of the consequences of over-exploitation and clearly identifying the motivation and incentive structures for behavioural change.
• Systematic land use planning is generally absent in Afghanistan. To assist local communities in improving the exploitation of their natural resources without depleting them or causing environmental damage, a participatory land use planning method needs to be developed or adapted for the Afghan context. Only with a participatory (however formalized) and systematic land-use planning approach, will the problems of spatial planning and resource allocation be sustainably solved in the long term.

iii Components of the Natural Resources Management Programme

To achieve its objective, the NRM programme is comprised of three coordinated and mutually complementing sub-programmes:

1. Natural Resource Surveillance, Planning and Regulation
2. Protection and Conservation
3. Community Management of Natural Resources

Implementation activities will be coordinated and managed through MAIL’s Programme Implementation and Coordination Unit. The main technical implementing unit within MAIL will be the Natural Resources Management Directorate.

Implementation of natural resources management will involve close cooperation between stakeholders from Government, international donors, national and international NGOs, private sector and communities. Reversing the degradation of natural resources and providing communities with viable, licit agricultural livelihoods requires national programmes as prepared by MAIL. A pre-requisite for addressing the major problems is a strong Government commitment to solutions, matched by willingness of international donors and agencies to provide support, urgently and in sufficient measure.

III SUB PROGRAM A - NATURAL RESOURCE SURVEILLANCE, PLANNING AND REGULATION

Natural resource management decisions at all levels rely on data and information on land and resource use. A reliable planning base is a prerequisite to planning and decision-
making for long-term management and to make informed decisions about responses to changing conditions. Currently a lack of both capacity and proper coordination between MAIL and other relevant government institutions and donor initiatives, has constrained the amount and quality of data gathered, analyzed and shared.

MAIL will also need to increase its capacity in policy formulation, and the design of a comprehensive regulatory framework for NRM. This will go hand-in-hand with the development of an up-to-date database on the status of natural resources in Afghanistan.

This priority area will be addressed immediately with the following activities that will combine technically advanced methods (analysis of satellite images, GIS, database development, etc.) and participatory assessments for the rapid monitoring of resource availability, resource use and resource status. Assessments, databases, maps, and other information will form the basis for sound and evidence-based NRM policies. A strong emphasis will be placed making all information available to interested government institutions and development partners.

The USAID-supported ASAP programme has an established GIS unit, which already collects, evaluates and documents information on agriculture and natural resources in 19 provinces. The work of this unit should be expanded to cover the remaining 15 provinces. With the technical expertise available, the additionally required natural resource evaluations can be performed. A co-financing of the unit can be envisaged and MAIL’s NRM Directorate will receive the necessary capacity building and training to take the lead technical and institutional role in these activities and finally get full responsibility for the unit.

Cooperation to ensure data compatibility, ensuring exploitation of synergies, and avoiding duplication of efforts will be pursued. This will particularly include the GIS and data units in MRRD, MAIL’s Land Registry office (Amlaq) and other related institutions such as Central Statistics Office, Office of Cartography and Geodesy, AIMS, FAAHM, and also other suitable partners as identified in the comprehensive stocktaking exercise.

i Establishment of a comprehensive NRM monitoring and surveillance scheme
a. Mapping of Natural Resources & Land Use Classification

- Taking stock of available data and information on natural resources and develop/agree on mechanisms to gather reliable data for assessing and monitoring natural resource status, usage, developments
- Conducting a baseline assessment of the status of key natural resources
- Conducting a comprehensive land use and land cover survey
- Conducting a comprehensive survey of water sources and water bodies
- Produce maps that delineate critical watersheds and which are suitable for watershed development planning
- Developing a land degradation map to assess and document the types and geographical coverage of physical degradation and the overall intensity of land degradation
- Conducting a national forest resource inventory
b.  Build capacity and develop mechanisms to ensure timely and cost-effective dissemination of information

ii  Evidence-based policy formulation and establishment of regulatory frameworks for natural resources management and conflict resolution

- Establishment and capacity building of an experienced team in the Programme Implementation and Coordination Entity to initiate an evidence-based, participatory and inclusive process of policy formulation for natural resources management.

- Completion of the legal and regulatory framework for natural resources management and land use planning to enable government institutions and communities to clarify rights to natural resources, and establish natural resource management strategies covering rangelands, forestry, wildlife, medicinal plants and protected areas utilization. Introducing legal rights for community management into legislative and governance structures will formalize the customary practices by which communities have traditionally managed natural resources.

- Training and awareness programmes on the Environmental Impact Assessment (EIA) process for MAIL staff and partners in coordination with the National Environmental Protection Agency (NEPA) Guidelines and legal Regulations for Environmental Impact Assessment & International policy (EIA) have been prepared and passed to formerly introduce an EIA process for large- and small-scale development and commercial projects including agricultural and natural resources management. EIA process applies to all projects that may have an environmental impact, and EIA determines the degree to which the impact is adverse or not. MAIL will only conduct and EIA for MAIL-implemented projects. Donors, NGOs, other government institutions implementing infrastructure projects will be required to conduct an EIA regardless of land ownership (i.e. government land; community land etc.) and to submit the EIA to NEPA for review and approval/rejection. For agricultural projects, NEPA and MAIL should work together to ensure that all groups are aware of this legal requirement.

- Development of alternative conflict resolution mechanisms for disputes over natural resources using formal and customary institutions

iii  Livestock Early Warning System and rangeland mapping (including database on rangeland resources and nomadic pastoral production systems)

Current work is undertaken by the USAID-funded PEACE project (Pastoral Engagement, Adaptation and Capacity Enhancement) to establish an early warning system to provide timely information about rangeland productivity and the quantity of rangeland forage expected up to 90 days in advance. This system should be expanded and further institutionalized to ensure sustainability.
These outputs and activities will feed directly into the Agricultural Production and Productivity Programme, and the Economic Regeneration Programme, by helping to guide decisions on where production support interventions should focus, and by providing up-to-date information on land use and status to support responsible involvement of the private sector in the use of natural resources. In addition, the outputs and activities under this sub-programme will provide essential support for agriculture policy development and change management.
IV SUB PROGRAM B - PROTECTION AND CONSERVATION

Species diversity in flora and fauna in Afghanistan plays a very important role in the prevention of soil erosion and the stabilization of steep slopes in watersheds, as well as making a major contribution to the local and national economy through the production of wood for fuel and construction, the provision of medicine and foods for domestic consumption and export. However, decades of conflict and the resulting lack of management and protection of natural resources has led to a significant degradation of many ecosystems. This has caused a loss of species in many habitats as the vegetation cover has been altered. Repeated droughts have made this situation far worse, leading to desertification in some areas. For example, rangelands, which have been subjected to over-grazing, drought and illegal conversion, have suffered extensive degradation and are no longer able to supply sufficient fuel wood and fodder for the local population in some areas. The introduction of large-scale commercial agriculture development projects focused on the promotion of a few, select commercial crops has also contributed to a loss of local species diversity.

Options for the protection and conservation of biodiversity in Afghanistan are limited due to a lack of technical capacity, and the current inability of the authorities to enforce the relevant laws and regulations. Future actions to protect and conserve biodiversity in Afghanistan will therefore be largely dependent on the implementation of comprehensive technical training programmes and donor support for protection and conservation activities including the development of legally recognized parks and protected areas. While capacity building at central and provincial levels is important, realistically, the most effective interventions will be at the community level. Community-based natural resources management cannot be implemented effectively without technical advice and support, but greater understanding of issues such as sustainable harvesting and the need for management planning will be essential if they are to become active participants in conservation and protection activities. Although technical training and awareness raising activities are needed, any strategy designed to promote the protection and conservation of biodiversity needs to also clearly identify the motivation for behavior change. For example, current best practice in protected areas management enables local communities to participate in planning and management, and to share in the economic benefits associated with tourism and natural resources harvesting. Similarly, where wild species with commercial importance are being over-harvested, an improved understanding of the financial benefits of sustainable harvesting and the link between price and quality, will be important motivating factors for behaviour change.

Rather than orient the management of natural resources around the primary resources - forests, rangelands and wildlife – the Natural Resources Management programme recognizes that attempts to develop forests, rehabilitate rangeland and promote wildlife have to fully involve an assessment of land and water uses in order to achieve a balance between production and productivity and maintenance of ecosystem services. Thus the land use and natural resource data activities of Sub Programme A will also inform the decisions for protection and conservation planning.

A number of partner projects operate in the field of conservation and protection. These include the Wildlife Conservation Society (WCS), Novib-ProFound medicinal plant project, and the PEACE pastoralist project. In the short-term communication with these
partner projects will be established and/or intensified to collect the required data and information to meaningfully engage in conservation and protection activities as per MAIL’s public function.

MAIL will ensure that natural resource management procedures and participatory planning tools take due account of the need for protection and conservation of environmentally sensitive areas. Issues such as watershed conservation, forest protection and the establishment and management of national parks will be incorporated in planning methods and will be reflected in the final design of interventions.

(i) MAIL will actively search for cooperation and exchange with external natural resources management projects and programmes to shape and sharpen its medium and long-term interventions in this area. MAIL will ensure participation of relevant technical staff (especially provincial and district staff) in those local workshops, meetings and conferences which offer an opportunity to establish information exchange and establish cooperation.

(ii) Information will be collected, systematized, and made available. It will be actively fed into relevant decision-making processes in MAIL and other institutions. MAIL will ensure that the necessary information for identifying critical environmental areas and potential protection and conservation zones will be available. Drawing on available information from partners and from its own GIS and field units, MAIL will provide data and information to delineate environmental hot spots, and map protection and conservation-relevant data.

i Forest rehabilitation, protection and conservation

- Reforestation projects will be initiated. MAIL will initiate the reforestation of critically endangered areas. As a starting point, the reforestation of 5000 ha is envisaged. Cooperation with other initiatives, providing labor (e.g. through food-for-work) will be explored, and the established / establishment of community run nurseries supported. Priority areas are the communities in the remaining forested areas in the south-east of the country, and the remnants of the natural pistachio forests extending from the northeast to the west. An assessment will need to be carried out to determine what the best choice is for the species used for reforestation so that proper attention is placed on wider biodiversity concerns.

- Pilot projects for sustainable use of non-timber forest products (NTFP) have been designed and implemented. MAIL will analyze the economic and social use and potential of NTFP and will start pilot interventions to promote the sustainable use of forests. The work done by FAO on wild foods and medicinal plants will be used as a starting point.

- Guidelines for community forestry management drafted. Guidelines will be elaborated based on local and international best practices which will allow local communities to become custodians of the forest areas and let them participate in the sustainable exploitation of forest resources. The enactment of the new Forestry Law is required to establish the legal foundation for such projects.
ii. **Rangeland rehabilitation, conservation and protection**

- Pilot initiatives for sustainable rangeland management will be developed and tested. In close cooperation with MAIL’s livestock and Kuchi activities under Agriculture Production and Productivity and Economic Regeneration, pilot projects for rangeland management will be designed and implemented. These will respond to the need for livestock breeders to take into account carrying capacities of their forage areas, and take into consideration the need to find conflict resolution mechanisms to diffuse tensions with sedentary farmers. Priority areas are communities in the central highland provinces and northern provinces where rangelands are the main form of land cover and where conflicts to their access and use regularly occur.

- Rangeland improvement trials will be initiated. On the supply side, MAIL will work on research trials that will bring quality and quantity improvements in animal feed production.

iii. **Establishment and Management of Protected Areas**

- Develop mechanisms for local-level involvement in protection of natural resources. The legal, social, and economic planning mechanisms required for participatory management of protected areas will be designed and tested based on existing experiences in Afghanistan (Band-e-Amir and the Wakhan Corridor/Pamirs) and in the region.

- Establish coordination mechanism with the National Environmental Protection Agency (NEPA) and other relevant institutions. MAIL will actively cooperate with NEPA and other stakeholders to ensure that relevant laws affecting the management of natural resources within protected areas boundaries take into account the needs of agricultural communities, local agricultural practices and customs. Possibilities to tap in to funding mechanisms under global or regional climate change initiatives will be jointly explored.

iv. **Protection of water catchment areas (Watershed Development)**

As a first step towards the protection of critical watersheds, MAIL will use the existing data and information to produce maps which can be used to delineate the watersheds and which can be used for further soil and water conservation (SWC) planning.

- Establish guidelines for SWC measures. MAIL will evaluate existing experiences with SWC measures and establish guidelines based on best practices. The SWC guidelines, including technical specifications, will be used to replicate conservation measures on a larger scale.
• Development of sustainable land use system for critical watersheds. Looking into the overall economics of land use systems practiced in different watershed areas, MAIL will develop sustainable practices for usage of these areas which will protect areas and maintain the environmental and economic value.

v. Information dissemination and awareness raising campaigns

• MAIL will assist in the dissemination of knowledge about existing natural resource protection and conservation laws and regulations to local communities. Awareness raising campaigns will foster understanding about natural resource issues and distribute knowledge about best practices. A crucial role will be played by provincial and district staff.

In the short-term there will be significant cooperation with the Change Management programme to ensure capacity building, in particular for the required regulatory and planning functions in natural resource protection and conservation. This is in addition to the intra-programme link with the surveillance and mapping efforts of Sub Programme A.

The proposed approaches for soil and water conservation and management in catchment areas will be an important subsidiary intervention in irrigation development. Baseline information and experiences on resource status and land use/protection will be fed into CBNRM (community-based management of natural resources) activities. CBNRM methodologies will also inform the practical implementation of protection and conservation, which have little chance for success unless supported by the local communities.
V SUB PROGRAM C – COMMUNITY MANAGEMENT OF NATURAL RESOURCES

The constraints on rural agriculture are significant – limited arable land; unclear land ownership and associated conflicts over tenure; water shortage and environmental degradation – and cannot be resolved or moderated without the direct involvement of communities (settled and nomadic) using local natural resources. MAIL recognizes that instead of direct involvement of Government institutions in productive activities such as farming, livestock husbandry and forestry, it needs to shift to a service provision role, facilitating changes. In addition to promoting a respective supportive policy environment, MAIL will initiate a series of targeted interventions that will enable local communities to manage their natural environment responsibly and equitably within an enforceable regulatory framework.

The community management approaches developed will also have to integrate the activities of the other NRM sub-programmes and projects of MAIL and other development partners. Types of land use which achieve a balance between maximizing productivity and the effective enhancement of the natural resource base, and which are tailored to the different physical conditions in various parts of Afghanistan, will be determined and implemented.

The conservation of biological diversity at a landscape level should be the overarching goal as part of a ‘landscape-level’ strategy. For example, whenever appropriate, proposed land uses should take into account upstream land uses which significantly benefit downstream irrigation farmers using a watershed management approach. Improved water resource management will, in many regions, be an essential first step in rebuilding rural communities. The establishment and management of protected areas management plans will be required for the protection and sustainable use of Afghanistan’s natural heritage. Additionally, any attempt to develop forests, rangeland resources, wildlife and medicinal plants in isolation, without a full understanding of their relationships with mixed farming systems will be unfruitful. For example, predicting the amount of forage that can be produced during a given growing season and its potential nutritional value is important information needed to manage rangelands and to increase understanding of ways to improve livestock production.

To achieve this, a mechanism for programme delivery at the community level has been defined and respective functions and tasks of MAIL offices at provincial and district levels will be established accordingly. A nation-wide roll out of CBNRM can only be achieved long term in cooperation and with the technical and financial support from many development partners, in particular NGOs, who have a comparative advantage and established experience in working closely with local communities. All activities regarding spatial planning will however also involve closest coordination and cooperation with MRRD, MEW and NEPA.

i Dissemination of best practices and strengthening technical skills on CBNRM and participatory land-use planning
   • Information and experience sharing through the AfgCAT programme (AKF and CRS)
   • Pilots
• Training and capacity building of government staff and partners
• Awareness raising

ii Support to CBNRM at field level
• Facilitation of community groups and transfer of skills and knowledge
• Assistance with design of participatory land-use plans at field level, including watershed development
• Facilitation for conflict resolution

Acknowledging that dissemination and systematic implementation of participatory land use planning will take a long time and require plenty of resources, criteria have been developed to identify priority areas where activities should and could be started, and which could serve as practical examples of other communities. The prioritization criteria are as follows:

• Stability and local support: Communities in areas which are stable and secure, and where the regional and local leaders are in support of the approach

• Environmental risk: Communities located in highly deforested areas, on the assumption that these are the areas, which will benefit most from action, and will deteriorate irreversibly if there is no action in the immediate future.

• Ease of replication: Communities in areas which are representative of each agro-ecological zone, on the basis that it will be easier to adapt later to local differences from models developed in each zone. This will help in the later process of replication and up-scaling to achieve coverage of the whole country.

• Economic potential: Communities in areas where the actions will achieve the greatest benefits in terms of productive capacity - both directly in terms of production of natural resources (i.e. forests, rangelands, medicinal plants), and indirectly in terms of better dryland and irrigated farming.

• Social impact: Communities in areas where the greatest number of people will benefit such the areas of highest rural population density and areas where conflicts over natural resources consistently or seasonally occur.

Apart from the necessity to apply inclusive and participatory planning and management techniques in protection and conservation efforts for natural resources, other MAIL programmes will benefit from such an approach as well. Production and productivity improvements, and thus contributions to economic regeneration, will always entail components of natural resource (land, water) allocation, which are best addressed with tested and agreed planning and decision-taking methods. This particularly applies to management issues of common property resources that cause problems in rangelands between migratory Kuchis and sedentary farmers and in pistachio forests during harvest or shol season.
VI  CROSS-CUTTING ISSUES

Gender. MAIL will be guided by the comprehensive Master Plan chapter on *Gender Mainstreaming in Agriculture*. Opportunities for women to increase their role in decision-making and income-generation will increase through community management of natural resources through their ensured participation in NRM committees.

Environment. The Programme for Natural Resources Management directly contributes to the mobilization of communities to maintain natural resources and define regimes of use. Through the application of participatory methodologies, assistance is provided in achieving the balance between maximization of production and productivity in land use and the effective, sustainable use of resources. MAIL needs to collaborate closely with the National Environmental Protection Agency (NEPA) in the development of comprehensive and cohesive strategies for environmental protection and the use of natural resources.

Counternarcotics (Mainstreaming of the promotion of licit agriculture production in the programme). Diversification of plant and animal production into high value products is acknowledged as one of the main contributors to successful reduction in opium production and a number of viable alternatives have been identified. The natural resource management programme includes the components crucial to promotion and sustainability of licit agriculture. The regimes of utilization represent a system of governance where communities are legally enabled to conduct decision-making and management of natural resources under clearly defined rights and with assistance from the Government. The mitigation of environmental degradation coupled with enhanced natural resources will provide communities with viable livelihood options that will reduce or eliminate reliance on income derived from poppy production and the necessity to grow poppy as a livelihood.

Good Governance (Anti-Corruption). The introduction of a new pay and grade system with attractive salaries will contribute to reduction of corruption. Government procurement laws and financial guidelines, as set out by the Ministry of Finance and fully utilised within these programmes, promotes accountability and transparency.

Regional Cooperation. MAIL has strong technical linkages with SAARC, ICARDA and ICIMOD. With the assistance of NRM partners, educational linkages are being developed between MAIL and regional universities for external as well as in-country training. Climate change, river basin programs and the establishment of transboundary protected areas will involve regional cooperation.

Capacity Development. Through the *Institutional and Human Capacity for Sustained Growth Programme*, MAIL will implement its comprehensive capacity development strategy and ensure that capacity building is provided across the ministry including provincial and district level structures for the benefit of farmers. The programme will ensure that capacity development initiatives are coordinated. Capacity building at community level will in the main be delivered via farmers’ groups, community associations and Cooperatives.