

Natural Resource Management Programme (2010 – 2014)

Sub-Component 3.2: Private Sector Participation in NRM

Kenya

Final

Cover Page

Country:	Kenya
Programme:	Natural Resource Management Programme
Component:	Civil Society and Private Sector Management of Natural Resources
Sub-component:	Private Sector Participation in Natural Resource Management
Implementing Agency:	Agricultural Business Development (ABD) Microfinance Enterprise Support Programme Trust (MESPT)
Starting date:	01 January 2010
Budget:	DKK 35.3 million (K.Sh 504.3 million)

Items	DKK millions	K.Sh millions	%	Objectives
Output 3.2.1	5	71.4	14	Business opportunities, value chains and lending instruments developed for water resources, renewable energy, integrated pest management and other NRM services
Output 3.2.2.	26.3	375.7	75	Micro and small enterprises are operational to support implementation of NRM investments and service provisions
Output 3.2.3	1	14.3	3	Incentive structures based on innovative fiscal and financial instruments to promote renewable energy and other NRM business opportunities are identified/developed and forwarded to relevant Government agencies
Contingency	3	42.9	8	
Total	35.3	504.3	100	

The objective of the Civil Society and Private Sector Management of Natural Resources Component is that civil society organisations – including local communities – and private sector service providers are capacitated to support and influence natural resource management, as a contribution towards poverty alleviation.

The strategic intervention for sub-component 3.2 is to support a viable private sector to provide pro-poor oriented services for investments in small-scale management of water resources, renewable energy and the NRM-related market chain. Based on recommendations from the Africa Commission to engage the private sector as a stakeholder for development and employment creation, the NRM Programme will harness the potential for involving local business opportunities in rural areas for natural resource management and climate change adaptation. There are opportunities for this involvement in Component 2 and sub-component 3.1 of the NRM Programme related to renewable energy, water resource management and market chain development.

Date

Date

Ministry of Foreign Affairs of Denmark

Executive Summary

Background for the support

The aim of the Civil Society and Private Sector Management of Natural Resources Component is:

- Empowering civil society and communities to become involved in, and benefit from, environmental management and sustainable natural resource use through direct project implementation addressing local environmental problems;
- Encouraging partnerships between communities, the public sector and private stakeholders;
- Documenting and replicating best practices;
- Ensuring efficient delivery of capacity and funds to communities, using demand-driven approaches and existing delivery mechanisms; and
- Adapting an ecosystem approach to project design to ensure that environmental problems and solutions are seen in a broader perspective and that the suggested activities address all segments of the community.

The role of the private sector in the provision of services for rural development and investments, e.g. for renewable energy, water management, and market chain development, has been identified as an implementation opportunity in the NRM programme for components 2 (ALRMP) and sub-component 3.1 (CDTF). The NRM programme addresses a demand side where the market opportunities are created for the end-users. The supply side, i.e. the availability and capacity of micro and small enterprises (MSE) to deliver services within renewable energy, water management and other natural resources, has not been directly addressed. Guidance for Danida support is provided by the recommendations of the Africa Commission to engage with the private sector as a stakeholder for development in Africa and to create employment.

Sub-component objective

The component 3 objective is that ‘Civil society organisations – including local communities – and private sector service providers are capacitated to support and influence natural resource management, as a contribution towards poverty alleviation.’

The component supports community-based environment and natural resource management initiatives as well as private sector participation in providing investments and services related to NRM. It will be implemented through the Community Development Trust Fund and the Agriculture Business Development component of the Agriculture Sector Programme Support via the Microfinance Enterprises Support Programme Trust. The two sub-components are:

Sub-component 3.1: Community-based environment and natural resource management (CDTF);

Sub-component 3.2: Private sector participation in natural resource management (MESPT-ABD).

This is sub-component 3.2, whose objective is ‘a viable private sector provides pro-poor oriented services for investments in small-scale management of water resources, renewable energy and the NRM related market chain’.

The private sector involvement with the NRM activities has a pro-poor focus because the density of poverty in Kenya is in the ASAL and access to natural resources provides opportunities for those with few assets. Local development and income generation is increasing the resilience among the poor against drought (climate variability) and other disasters resulting in food insecurity and migration. Support to micro and small enterprises provides employment opportunities for the poor and reduces their incentive for urban migration; the local multiplier effect from generating income through private sector services increases the viability for new investments and secondary services and retail.

Sub-component strategy

The selected option is to seek linkages with the MESPT-ABD component and the NRM programme. This means a strengthening through synergies among the programmes supported by Danida in Kenya. The strategic scope of the MESPT-ABD with NRM and renewable energy solutions are:

- Further emphasis on a pro-poor development in the NRM Programme with MESPT-ABD support where the target groups are farmers who are, for example, living in marginal areas influenced by variations in precipitation, but also creating alternative employment opportunities in SMEs.
- Providing access to services and opportunities, which are driven by available market incentives and entrepreneurship outside the public sector domain – support to tangible outcomes that provide local employment and income.
- Options to build on experiences and lessons from a large pool of experience and other lessons from pilots and other stand-alone activities dealing with renewable energy and business opportunities from natural resources.
- Building on the scope for a ‘green economy’ development in Kenya with sustainable economic growth and job creation.

The sub-component has three outputs:

Output 3.2.1: Business opportunities, value chains and lending instruments developed for water resources, renewable energy, integrated pest management (IPM) and other NRM services.

Output 3.2.2: Micro and Small Enterprises are operational to support implementation of NRM investments and service provision.

Output 3.2.3: Incentive structures based on innovative fiscal and financial instruments to promote renewable energy and other NRM business opportunities are identified/developed and forwarded to relevant GoK agencies.

Budget

Sub-Component 3.2 elements	DKK	K.Sh	%
	Millions		
Output 3.2.1 Business Opportunities	5	71.4	14
Output 3.2.2 Micro and SME	26.3	375.7	75
Output 3.2.3 Incentive Structures	1	14.3	3
Contingency	3	42.9	8
Total	35.3	504.3	100

Management

The MESPT-ABD component is at present governed by an Advisory Board. It is for consideration whether this structure could be used under the new ABD component, or whether the Board becomes part of a Steering Committee. The sub-component will be an integrated part of the MESPT-ABD management in the expected future ABD component of BSPS. MESPT, which has been providing the institutional funding mechanism for ABD in ASPs, has been identified as a possible counterpart organisation for the ABD component to act as the intermediary organisation as well as the institutional host for the ABD management. However, modalities on further integration between MESPT and ABD will be determined during contract negotiations.

Monitoring and reviews

The monitoring of the sub-component will be an integrated part of the MESPT-ABD component. A mechanism will be prepared in order to address the MESPT-ABD component, as part of the BSPS annual programme reviews as well as the NRM programme annual programme review. The Embassy of Denmark will ensure an optimal coordination.

The outcome indicator linking the supply of services with the local demand is:

- At least an additional 5,000 households have been reached annually who have received/purchased NRM related services.

Assumptions and risks

The assumptions for achieving the outputs of the sub-component are:

- The new organisation of MESPT-ABD within BSPS can address wider NRM issues and renewable energy as well as adaptation to climate change;
- The business potential for renewable energy and NRM is attractive to potential entrepreneurs;
- There is a functional market place mechanism where end-users can get connected with potential service providers.

The assumptions for achieving the outcome of the sub-component are:

- Market development obstacles, adverse subsidies and similar are removed and replaced by incentives that promote the NRM market potential;
- Infrastructure is in place which promotes trade in rural areas;
- Continued economic and political stability.

The risks of the sub-component are:

- The high transaction costs of business activities are too high in the ASAL due to low population density and small-scale investments due to poverty;
- Enterprises are supported that cannot be sustained once the support is removed;
- The demand for private sector services is based on favouritism and inflated costs and transfer pricing rather than competitive market transactions;
- The institutional merger of ABD into the MESPT becomes an obstacle for developing NRM business services due to, for example, a lesser emphasis on the retail activities of ABD.

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Abbreviations

ABD	Agricultural Business Development
AFD	Agence Française de Développement
AIE	Authority to Incur Expenditure
ALRMP	Arid Lands Resource Management Program
ASAL	Arid and Semi-Arid Lands
ASPS	Agricultural Sector Programme Support
BCP	Biodiversity Conservation Programme
BSPS	Business Sector Programme Support
CBO	Community-Based Organisation
CDP	Community Development Programme
CDTF	Community Development Trust Fund
CEF	Community Environment Facility
CSO	Civil Society Organisation
DKK	Danish Kroner
EU	European Union
EPS	Environmental Programme Support
GoK	Government of Kenya
IFAD	International Fund for Agricultural Development
IFC	International Finance Cooperation
K.Sh	Kenya Shilling
KJAS	Kenya Joint Assistance Strategy
MDG	Millennium Development Goal
MEMR	Ministry of Environment and Mineral Resources
MESPT	Microfinance Enterprise Support Programme Trust
MoE	Ministry of Energy
MSE	Micro and Small Enterprises
MSME	Micro, Small and Medium Enterprises
MoU	Memorandum of Understanding
NEMA	National Environment Management Authority
NGO	Non Governmental Organisation
NRM	Natural Resource Management
SME	Small and Medium Enterprises
WB	World Bank

Exchange Rates: DKK 1 = K.Sh 14.285

1. Introduction

The governments of Kenya and Denmark have agreed to jointly formulate and implement the Natural Resource Management (NRM) Programme. Elements to be supported under the programme were identified in September 2008. A Concept Note was presented to, and approved by, the Danish Programme Committee in January 2009. The detailed formulation of the programme and its components took place during the period March to May 2009 and involved the active engagement of the participating institutions. The programme was appraised in May 2009 and presented to the Danida Board in December 2009. Following the approval of the Danida Board, it is expected that the governments of Kenya and Denmark will sign the government-to-government agreement for the programme in December 2009. The programme will then be able to start operations in January 2010. The programme will be implemented over the period 2010 – 2014 and will have a Danish grant of DKK 375 million corresponding to approximately K.Sh 5 billion. The Private Sector Participation in the Natural Resource Management Sub-Component is part of the Civil Society and Private Sector Management of Natural Resources Component of the NRM Programme, and it covers the same period.

The NRM Programme has been designed in line with Denmark's commitment to the Kenya Joint Assistance Strategy (KJAS), involving alignment with Government of Kenya (GoK) systems and harmonisation with activities of other development partners.

This sub-component description presents the overall framework for the support to be provided through the Agricultural Business Development via the Microfinance Enterprise Support Programme Trust (MESPT-ABD). The ABD is currently a component of the Agricultural Sector Programme Support (ASPS) which will phase out in 2010, and activities regarding private sector participation in NRM taken up in the Business Sector Programme Support (BSPS). The ABD provides funding for lending to farmers and small businesses in seven ASAL districts of the Coast and Eastern provinces. Funding is provided via the Microfinance Enterprise Support Programme Trust (MESPT) for micro-finance institutions and farmers' associations. MESPT is an autonomous Kenyan organisation, whose founders are the GoK and the EU, and it is the institutional host for the ABD component. Emphasis will be on private sector organisations in addressing demands in ASAL areas under component 2 (Support to Arid Lands Resource Management) and sub-component 3.1. (Community-Based Environment and Natural Resource Management) for NRM investments and services such as reduction of post-harvest losses, installation of solar panels in households, wind mills for pumping water for drip irrigation, sand dam water harvesting, tree planting, vegetation and pest management.

The total budget for this sub-component is DKK 35.3 million, approximately K.Sh 504.3 million. DKK 32.3 million (K.Sh 461 million) is set aside for the three sub-component outputs and DKK 3 million (K.Sh 43 million) as contingency. The duration of the support is five years starting January 2010.

2. Context

Policy Framework and Challenges

Kenya's natural resource base is faced with two major development challenges:

First is the surging population in pursuit of food and land for cultivation, energy for cooking, water, construction materials, and medicinal plants. It is estimated that about 80% of the approximately 1 million households living within a stretch of 3 km from forest boundaries in the country depend directly on forest resources for the supply of food, wood fuel, fodder, pasture and medicinal materials. The use of firewood, charcoal and agricultural residue (commonly known as traditional biomass fuels) has increased over the years, placing a bigger strain on natural resources. Firewood is mainly a rural fuel, with over 90% of the rural population dependent on it for cooking, heating and lighting. Charcoal, on the other hand, is mainly an urban fuel, where 82% depend on it, as compared to the 34% households in the rural areas.

Second is the impact of climate change on natural resources and ecosystem services. The effects of climate change on natural elements such as temperature, precipitation and winds have substantial effects on the availability of water resources, ecosystem services and the productivity of agriculture and forestry. According to a recent study in Central Kenya, there are already recorded changes in Kenya's climate, such as delayed rainfall, reduced rainfall and destructive rainfall, which have affected various sectors.¹ The study identifies recent examples, including prolonged drought in 2008, increasing weather extremes and the disappearance of the glaciers leading to the drying up of 26 streams around Mount Kenya. The consequences of these changes include harvest losses and food shortages, a loss of biodiversity, landslides, and soil degradation. The study also attributes to this phenomenon recent increasing incidences of pests and diseases for humans, plants and animals, and unpredictable availability of water for agriculture and households.

The above pressures call for concerted and systemic management approaches that safeguard communities' livelihoods and other macro-economic interests. Such measures would involve investments in innovative approaches to managing natural resources, development of renewable energy to reduce pressure on forest and biodiversity, as well as investing in water resource management, harvesting and use of efficient technologies.

Renewable energy is one of the measures to address and improve local development conditions. The energy vision for Kenya is to promote equitable access to quality energy services at least cost, while protecting the environment. The main objective of the policy² is to ensure adequate, quality, cost effective and affordable supply of energy to meet development needs, while protecting and conserving the environment. The promotion of modern fuels such as liquefied petroleum gas, biofuel, and renewable energy sources such solar, wind and micro-

¹ Schepp, K. (2009) Strategy to Adapt to Climate Change for Michimikuru Tea Farmers in Kenya. January 2009, Café Direct and GTZ. www.adapcc.org

² MoE (2004) Sessional Paper No. 4 on Energy; the *Sessional Paper* sets out the national policies and strategies for Kenya's energy sector in the short to long-term

hydro for domestic and productive use (irrigation, refrigeration and drying of agricultural products) is encouraged.

Private sector involvement in NRM

The private sector participates in the utilisation of almost all the natural resources of Kenya, e.g. forestry, agriculture (including tea and coffee), horticulture (including exports of flowers and vegetables) and fisheries. To attract private sector participation in the management of natural resources and the provision of renewable energy in rural areas of the ASAL, in particular, there is need to facilitate a business environment that is conducive through:

- Creating market awareness and capacity building;
- Providing incentives for businesses to operate in the region, such as credit facilities to both businesses and their consumers to increase purchasing power and infra-structure;
- Ensuring the availability of technical and local maintenance and commercial information to help make informed decisions.

Developing private sector markets for renewable energy has the following benefits:

- Creating more employment and revenue stream for local business supplier;
- Enhancing food security of rural people through diversification of pastoral farmers' income to intercrop food with trees in areas where drip irrigation can be set up and supplied by wind or solar power;
- Reducing pressure on the use of wood-based resources such as firewood for cooking and industrial use in the tea sector;
- Enhancing agricultural production and contributing with process energy to develop the agri-business market chain, such as solar drying of fruits, refrigeration of milk products.

Until recently, the GoK has had a monopoly of conventional energy development and distribution in the country (energy generation and distribution was only opened to the private sector by the Energy Act 2006). In spite of the public sector control, the private sector was already harnessing renewable energy, and small decentralized renewable energy systems have grown tremendously without assistance from government. The full potential is likely not to have been fully explored for manufacturers – and lesser so for households.

Solar energy (solar photovoltaic and solar thermal) is a potential multi-million dollar industry, but so far it has received little support from the government. Privately owned agro-industries such as tea, coffee and sugar, are utilizing biomass as a substitute for heavy oil and for electricity generation. Bamburi, one of the largest cement factories in East Africa, has set up a biofuel plantation for alternative energy sources to displace coal.

The four main factors affecting market exploitation of renewable energy sources in the rural areas and ASAL, mainly for households and small-scale production, are in particular:

- Inadequate knowledge of available renewable energy products and services;
- Lack of affordable consumer credit;
- Technology performance uncertainty relative to conventional energy;
- Lack of technical and commercial skills and information to penetrate the market.

Similar experiences apply for the management of water resources as an input factor to rural production and household-level livelihoods. With improved access to energy and water, there will be further scope in developing the value chain further for various agricultural crops and other rural based commercial activities.

Other Initiatives Supported by Development Partners

The International Fund for Agricultural Development (IFAD) is in the process of setting up a Rural Finance Sector Development Programme (RFSDP) targeting the rural poor in ASAL to enhance their productivity and incomes from agriculture, livestock, and other rural enterprises. The programme, which is estimated at USD 37.1 million, will support the development of an enabling rural finance policy, strengthening of rural financial institutions, and provision of innovative financial products that are accessible to the rural poor and which can provide value-chain financing and medium-term agricultural lending. Other organisations that include private sector participation in NRM and renewable energy in Kenya are: Agence Française de Développement (AFD), International Finance Cooperation (IFC) and Dutch Development Organisation (SNV). A number of private sector institutions are involved in NRM and climate change activities as a corporate social responsibility. Some key players are: Bamburi Cement, KenGen, Safaricom and East African Breweries Ltd.

Danish Support to the Environment and Private Sector

Denmark is at present supporting an Environmental Programme Support (EPS) 2006-2011. It is scheduled to end in 2010, and some of the remaining activities will be phased into the NRM Programme. These will include continued support for the Ministry of Environment and Mineral Resources (MEMR) and NEMA, and activities through the Community Environment Facility (CEF), which is part of the Community Development Trust Fund (CDTF). Support to EPS will run concurrently with the NRM Programme during 2010.

Guidance for Danida support is provided by the recommendations of the Africa Commission to engage with the private sector as a stakeholder for development in Africa and to create employment. The Danida Country Programme for Kenya includes a Business Sector Programme Support (BSPS). A linkage with the NRM programme will improve the private sector involvement with relevant NRM related services. The Danida-supported BSPS will in the next phase from 2011 include the ABD component that is currently part of the Agricultural Sector Programme Support (ASPS). The ABD has a similar focus to the NRM Programme (ASAL and natural resources), and the ABD can be expanded to include renewable energy and water resource management in the ASAL target districts.

The next phase of the BSPS will focus on the manufacturing sector in urban areas, whereby the small-scale rural-based private sector development could be covered within the NRM Programme through the linkage with ABD. Therefore, the private sector element is taken up in the NRM Programme, while the BSPS focus in urban manufacturers can be maintained. However, the budget for ABD within the BSPS has not yet been determined.

3. Description of the Component

3.1. Summary Statement

The role of the private sector in the provision of services for rural development and investments, e.g. for renewable energy, water management, soil erosion and market chain development, has been identified as an implementation opportunity in the NRM programme for components 2 (ALRMP) and 3 (CDTF). The installation of solar panels in households, wind mills to pump water for drip irrigation, water harvesting in sand dams, soil conservation through tree planting and vegetation management, integrated pest management, and the marketing and value chain of the products of the ASAL, are examples of NRM investments and services in demand.

Natural resources are factors for development involving local business opportunities in rural areas. Managing natural resources is also addressing the local adaptation to the impacts of climate change and climate variability. In order to harness this potential, there is a role for private sector entrepreneurs to deliver business services that can add value to the efforts made by the GoK and actors such as the Community Development Trust Fund (CDTF).

However, this is from a demand side, where the market opportunities are created for the end-users. The supply side, i.e. the availability and capacity of micro and small enterprises (MSE) to deliver, has not been directly addressed. The supply side includes access to micro-credit but also development of business services for MSE as well as financial and fiscal structures that promote sustainable businesses within renewable energy, water management, reduction of post harvest losses and other natural resources. It is a strategic option to provide a more direct support to private sector development in NRM in order to ensure that implementation bottlenecks for components 2 and 3 at the local level are minimized. It is also viewed as an option for providing innovative investments, mainly in the development of renewable energy opportunities and efficient use of scarce water resources, in particular in the ASAL.

The interventions in the NRM, including the involvement of the private sector, have a pro-poor focus because:

- The density of poverty in Kenya is in the ASAL, and access to natural resources provides opportunities for those with few assets;
- Local development and income generation is increasing resilience among the poor against drought (climate variability) and other disasters, resulting in food insecurity and migration.
- Support to micro and small enterprises provides employment opportunities for the poor and reduces their incentive for urban migration;
- The local multiplier effect from generating income through private sector services will create local economic development and hence increase the viability for new investments and secondary services and retail.

Future guidance for Danida support is provided by the recommendations from the Africa Commission to engage with the private sector as a stakeholder for development in Africa and to create employment. The NRM programme builds on some of the experiences from the

Water and Agriculture Sector Programme Support. Danida will phase out the support to these programmes but continue with similar topics in the NRM Programme. There are findings from these programmes on the role of the private sector in providing services and adding value to agricultural production and reduction of pre and post-harvest losses. The Danida Country Programme for Kenya includes the BSPS and an optional linkage with to NRM Programme improves the private sector involvement with relevant NRM-related services.

3.2. Component Objective

The sub-component is aligned with the development objective of the NRM programme and part of the immediate objective of component 3:

‘[Civil society organisations - including local communities – and private sector service providers are capacitated to support natural resource management]’.

The intermediate objective of the sub-component is:

‘A viable private sector provides pro-poor oriented services for investments in small-scale management of water resources, renewable energy and the NRM related market chain’.

The objective of the sub-component is aligned with the future design of the ABD, e.g. as a nested log-frame. This requires further adjustments and detailed descriptions that will follow during the formulation of the ABD component of the BSPS before the end of 2010.

3.3. Overall Implementation Strategy

The private sector has featured stronger in the Danida-supported agricultural sector programmes, especially with support for the development of agri-business, than in environment and natural resource programmes. But there is scope for further emphasis on business service development relevant in the NRM Programme, including water resources, renewable energy, and market chain development of commercialised natural resources.

The private sector, in the form of micro and small enterprises, can play an important role in the development in Kenya – not least in the ASAL. Denmark has emphasised the importance of the private sector for development in Africa in the recent recommendations of the Africa Commission. For that reason, the private sector does have a significant role in the programmes supported by Danida.

There are a number of initiatives that also includes private sector participation in NRM and renewable energy in Kenya. For example, support provided by AFD Group (Agence Française de Développement), International Finance Cooperation (IFC) and the Dutch Development Organisation (SNV). These are, like Danida, providing funding and some technical input; but the outcomes still require the involvement of implementers that are locally-based. A short assessment of these agencies was undertaken during the formulation of the NRM Programme, and the most feasible option selected is to seek linkages with the Agriculture Business Development (ABD) Component and the NRM Programme. Compared with other initiatives, the ABD is a functional model that is viable for support and implementation.

It is a strategic choice to emphasise an existing mechanism funded by Danida for the development of NRM business development. The recommendation is to involve ABD closer with the NRM Programme by adding additional outputs in the ABD for natural resource management and renewable energy related business service development – addressing natural resource management with additional funding from the NRM Programme budget. The advantages following this approach with ABD are:

- ABD is an existing and functional system already supported by Danida which, after a few adjustments, is relevant for NRM Programme addressing the use of natural resources in rural areas. The attention is here on the opportunity for business service development.
- Value is added to NRM components 2 and 3, where there is a demand created for private sector service providers but no specific effort is included to develop the supply of such services.
- A linkage between the NRM Programme and the Danida-supported BPS is developed that increases the private sector focus of the NRM Programme. Making a closer linkage between the NRM Programme and BPS is one response to the recommendations of the Africa Commission.
- Although some expansion of the focus area of ABD is required, this is already under consideration by ABD management, for the management of water resources, IPM, renewable energy, it will strengthen ABD by addressing wider natural resource and environmental issues for which there is a demand, e.g. water resource management as part of a local strategy to adapt to climate change.

The ABD provides services to farmers and to small businesses in seven ASAL districts (Kwale, Kilifi, Malindi-Tana-Lamu, Taita-Taveta, Kitui and Mwingi-Central). It provides funding for lending capital via MESPT for micro-finance institutions and farmers' associations. Eligible for loans are: a) business-oriented small-holder farmers, and b) agri-based micro and small enterprises in the target districts. ABD is currently a component under the ASPS and it is institutionally linked with the MESPT, which is an autonomous Kenyan organisation whose founders are the GoK and the European Union. MESPT has been the institutional host for the ABD management and MESPT has also acted as Fund Manager for ABD.³ The activities of ABD are wider than MESPT, which is confined to wholesale lending for micro-finance institutions.

The strategic scope of the ABD with natural resource management and renewable energy solutions are:

- Further emphasis on a pro-poor development in the NRM Programme with ABD support where the target groups are farmers who are, for example, living in marginal areas influenced by variations in precipitation, but also creating alternative employment opportunities in MSMEs.

³ The ASPS will end in June 2010. In April 2009, it was recommended by the ASPS Review to fully integrate the ABD Component into BPS. The current phase of the BPS is due to end by December 2010. The modalities for the integration of ABD into BPS are in preparation, as part of the formulation of the next phase of BPS. The institutional organisation of ABD is undecided, but one option is a further merger with MESPT or as a component under BPS.

- Provide access to services and opportunities, which are driven by market available incentives and entrepreneurship outside the public sector domain.
- Support to tangible outcomes that provides local employment and income.
- Options to build on nearly five years experiences and lessons from a large pool of experiences and other lessons from pilots and other stand-alone activities dealing with renewable energy and business opportunities from natural resources.
- Building on the scope for a ‘green economy’ development in Kenya with sustainable economic growth and job creation.
- There is an option also to contribute to the lending funding for micro-finance, but the main purpose is to develop business services for the private sector to access available funds for implementation.
- NRM support in connection with ABD commercial loan financing and business development services of the primary and related secondary sector (MSE & SME), creating long-lasting sustainable investments

3.4. Cross-Cutting Issues

The criteria for the selection of projects will include cross-cutting issues in line with the NRM Programme Document. The component will assist MESPT-ABD staff in promoting good governance and transparent finance systems in private sector organizations working in environmental management and natural resource use projects.

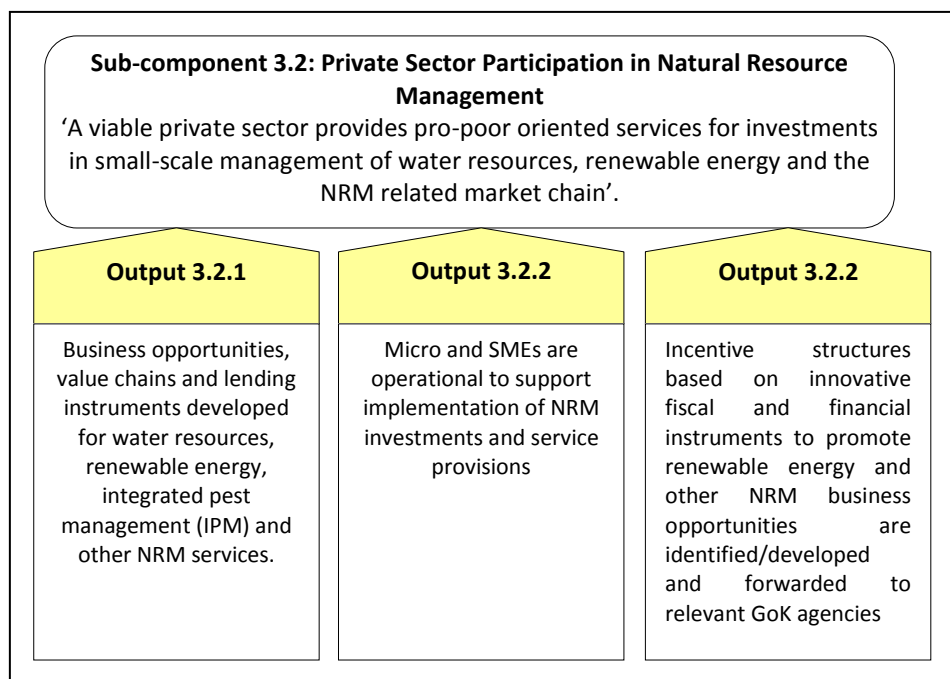
Further, the component will ensure that MESPT-ABD integrates HIV/AIDS information into its approach of implementation of the sub component. The sustainable use of natural resources to support livelihoods is directly affected by the HIV/AIDS pandemic. These linkages will be made clear by practical and easily-understood information to families and organisations participating in ABD-funded projects.

In recognition of the different, but equally important, roles of youth, women and men in natural resource use, consideration will be given to projects that clearly define, document and address gender inequality issues. To enhance women’s rights and empowerment, the sub-component will seek interventions regarding women’s access to resources and participation in decision making. Such interventions could include:

- Special calls addressing women and specific thematic priorities on climate change/renewable energy;
- Inclusion of female entrepreneurs in programme-supported activities;
- Support to private service providers in addressing the needs of men, women and youths, and inclusion of women and youth in stakeholder groups and other decision-making bodies;
- Inclusion of sex-disaggregated data collection and analysis in programme monitoring.
- The promotion of micro and small enterprise development will target men as well as women. Efforts will be made to attract female entrepreneurs into the activities of the component. The component will support participating enterprises and organisations to offer equal employment opportunities for men and women.

All institutions applying for inclusion in the activities of the component, either as service providers or as beneficiaries, will be assessed against a well defined set of criteria, which will include the assessment of governance structures. Support to enterprises will ensure that democratic processes are well established and adhered to for the management of these organisations at all levels.

3.5. Outputs and Activities



The proposed sub-component outputs and activities are tentative, as they will have to be fully integrated in the design of the forthcoming next phase of ABD in BPS. There is a good possibility that during the first year, until December 2010, the sub-component can move forward on these outputs, and then adjust when the ABD component in BPS is launched from January 2011.

The proposed outputs and related activities are:

Output 3.2.1: Business opportunities, value chains and lending instruments developed for water resources, renewable energy, integrated pest management (IPM) and other NRM services.

Activities include:

- Development of NRM and renewable energy packages and value chains for business and lending for MSEs.
- Market/value for NRM, including certification and innovative finance, climate finance and ecosystem services.

Output 3.2.2: Micro and Small Enterprises are operational to support implementation of NRM investments and service provisions.

Activities include:

- Contracting of MSE for natural resource management and renewable energy service provisions in ASAL.
- Support packages to MSE with natural resource management services and renewable energy focus.

Output 3.2.3: Incentive structures based on innovative fiscal and financial instruments to promote renewable energy and other NRM business opportunities are identified/developed and forwarded to relevant GoK agencies.

Activities include:

- Feed-back from MSEs on optional business constraints with natural resource management and renewable energy.
- Advocacy for improved business opportunities addressing natural resource management and rural energy.
- Design of incentive schemes, e.g. climate finance.

Annex 4 indicates potential entry points for renewable energy within the ASALs.

4. Input and Budget

The total budget for the NRM programme for Component 3.2 is DKK 35.3 million, corresponding to K.Shs 504.3 million. The component will provide the following inputs:

- Development of financial products and organisational development of MSMEs;
- A limited budget is available for feasibility assessments that have a direct relevance for improving the achievement of the sub-component outputs and objectives.

The indicative allocation of the budget between outputs is shown in the table below. It should be noted that the budget allocation is only indicative and subject to performance and demand. Annual work plans and budgets will be agreed upon during the annual consultations between the head of the participating institution and the Danish Embassy.

Sub- Component 3.2. Private Sector in NRM

Item	Year						Indicative Budget		
		1	2	3	4	5	DKK million	K.Sh	%
Output 3.2.1 Business Opportunities		1.0	1.0	1.0	1.0	1.0	5.0	71.4	14%
Output 3.2.2 Micro and SME		2.0	5.0	6.0	6.3	7.0	26.3	375.7	75%
Output 3.2.3 Incentive Structures		0.5	0.5	0.0	0.0	0.0	1.0	14.3	3%
Subtotal		3.5	6.5	7.0	7.3	8.0	32.3	461.4	92%
Contingency		0.0	0.7	0.7	0.8	0.8	3.0	42.9	8%
Total		3.5	7.2	7.7	8.1	8.8	35.3	504.3	100%

5. Governance and Management

ABD Management and Organisation

ABD is at present governed by an Advisory Board (See Annex 5). It is for consideration whether this structure could be used under the new ABD component, or whether the Board becomes part of a Steering Committee. The sub-component will be an integrated part of the ABD management in the future ABD component of BSPS. This is further developed as part of the ABD design. The MESPT has been identified as a possible counterpart organisation to act as the intermediary organisation for the component as well as be the institutional host for the ABD management. Further assessment on integration of MESPT and ABD will take place during contract negotiations and will determine the most suitable modality for funding.

During the inception phase of the NRM Programme, further deliberation on the management aspects between ABD and MESPT within the NRM framework will be developed. The ABD management will, if MESPT will be contracted to become the intermediary organization, assess the financial and accounting systems of the Trust and, where necessary, propose changes that will make them compliant to system specifications stipulated by RDE.

As institutional host for the ABD management, the Trust will continue to provide fully furnished offices for technical advisers and support staff, as the case may be, and avail the services of the board room, printers, copiers etc. Sharing of office costs will be on a 50% basis, and the cost of other facilities will be shared – based on mutual agreement.

The efficiency and effectiveness of the MESP Trust as the intermediary organization and institutional host will be assessed after two years by a team of external consultants.

NRM Programme Steering Committee

There will be a NRM Programme Steering Committee (PSC) that will be composed of the Permanent Secretary of the Ministry of Finance and the Danish Ambassador, as the two signatories to the NRM Government Agreement. It will meet at least once a year in March.

The PSC will guide the overall implementation of the programme, review overall progress and may decide upon adjustments to intermediate objectives and outputs. The PSC may also reallocate funds between components based on performance and requirements, and decide on the use of the Unallocated Funds. The PSC will also initiate a thematic Annual NRM Forum. If considered necessary, the Embassy and Component Management will hold half-yearly progress reporting meetings⁴. If the programme requires a re-design during the implementation period, due to Kenya Government policy and institutional changes, the PSC will direct the re-design and approve the final documents.

The sub-component management team will participate in the component consultations, as is provided for in the NRM Programme Document.

The Terms of Reference for the Programme Steering Committee are attached to the main NRM Programme Document.

⁴ Half-yearly progress reports will be submitted to the Embassy after every six months.

6. Financial Management

Detailed financial management, reporting and procurement systems and procedures will be developed during the NRM Programme Inception Phase, with the support of technical assistance from the Danish Embassy. In the interim, the financial management and reporting of the NRM Programme, including the procurement for goods and services, will follow the normal ABD procurement procedures. No double or overlapping systems and procedures are envisaged.

The MESPT and ABD management will have the necessary financial information to ensure efficient management of the programme and will ensure that the funds are administered properly – and that the funds are used in accordance with the objectives set out in the grant document.

All expenditures will be documented by vouchers, original invoices and original signed receipts, and filed for five years. The ABD Manager will be responsible for consolidating the annual work plans and half-yearly reports of the component and submitting them to the NRM Programme Steering Committee and the Danish Embassy. The sub-component will make a written request to the Danish Embassy for the replenishment of funds.

In case of lack of accountability, Danida's guidelines will be taken, and further Danish funding to the involved institution may be put on hold until the issue is solved.

Funds will be transferred to on a half-yearly basis, based on annual budgets, a satisfactory three-month cumulative (quarterly) financial report, and a cash flow projection for the coming quarter, including information about the actual bank balance.

Planning and Budgeting

ABD work plans and budgets will be drawn up according to the NRM Programme budgeting schedule, i.e. 1 July to 30 June of the following year.

The ABD/NRM technical adviser will coordinate the preparation of the work plans and budgets. These will then be forwarded to the ABD Board and NRM Programme Steering Committee (SC) for approval.

Flow of Funds

RDE will disburse funds half-yearly to the sub-component's account. The account will be maintained in Kenya shillings. Disbursements will be made on satisfactory financial reports for the penultimate period.

Authorisation, Accounting and Auditing

The ABD Financial Controller will be responsible for ABD/NRM sub-component 3.2 funds and will prepare financial reports in accordance with the Danish Aid Management Guidelines. The Financial Controller may receive administrative and accounting support from the MESPT Trust. Financial management procedures and standards for reporting will be finally established in the inception phase. The financial reports will be audited by an international recognised audit company appointed by RDE

NRM Bank Accounts

Depending on the financial management agreement agreed upon during the inception phase, two dedicated bank accounts in Kenyan shillings will be opened for the NRM Programme funds in a commercial bank acceptable to RDE. One bank account will be used only for funding projects and project-related activities. The other bank account will be used for the management, administrative and technical assistance provided to the operations of the sub-component. ABD will undertake to provide reconciled banks statements and cash flow projections with the financial reports to the Danish Embassy and to insure and indemnify the Danish Embassy in respect of any funds for management, administration and technical assistance not accounted for or loss of such funds. The Danish Embassy will be promptly informed about cases where funds provided under the sub-component are lost or mismanaged at community level – and about what actions has, or will be, taken to recover the funds.

Interest Accrued

Any accrued interest on the bank accounts will be transferred back to RDE at the end of each financial year.

Sub-Component Equipment

The procurement of component equipment will be carried as before mentioned, and such equipment will be used for the benefit of the projects. Up-dated inventories of all equipment provided to the component by the Danish Embassy, e.g. vehicles, computers, furniture and tools will be maintained. Vehicles, equipment, material, supplies and facilities financed by the Danish Embassy, which are used during the implementation of the sub-component, remain the property of Denmark, until such time as the Danish Embassy and ABD may otherwise agree⁵. Transfer of ownership of the aforementioned assets may take place during the NRM Programme period. Before programme termination, the parties will assess and agree on the final transfer of such assets, which can be justified on the basis of a final request from the sub-component's management. Any remaining property will be disposed of by the Danish Embassy.

⁵ Equipment financed under the EPS Programme will continue to be used under the NRM Programme until the completion of that programme and will remain the property of Denmark as stipulated in the Government Agreement.

7. Monitoring, Reporting and Reviews

The monitoring of the sub-component will be an integrated part of the ABD component. A mechanism will be prepared in order to address the ABD component, both as part of the BSPS annual programme reviews and well as the NRM Programme annual review. The Embassy of Denmark will ensure an optimal coordination.

Suggested indicators for the monitoring of performance for the NRM-related part of ABD are included in the LFA outline (Annex 3).

The **outcome** indicator linking the supply of services with the local demand is:

- At least an additional 5,000 households have been reached annually who have received/purchased NRM related services with focus on proper irrigation and water management.

The **output** indicators are:

- At least 10 different private sector packages for NRM business opportunities are developed and operational;
- At least an additional new 20 MSE/SMEs established annually that are operational in the ASAL on renewable energy, water resource management and other NRM-related topics;
- At least 5 fiscal/finance instruments identified and described for improving competitiveness of NRM and renewable energy business opportunities;
- At least 10 Global Gap and similar standards certified (certificates issued) with focus on IPM.

A mechanism will be prepared in order to address the ABD component, both as part of the BSPS annual programme reviews and well as the NRM Programme annual review. The Embassy of Denmark will ensure an optimal coordination.

8. Key Assumptions and Risks

Assumptions

The assumptions for achieving the outputs of the sub-component are:

- The new organisation of ABD within BSPS can address wider NRM issues and renewable energy as well as adaptation to climate change;
- The business potential for renewable energy and NRM is attractive to potential entrepreneurs;
- There is a functional market place mechanism where end-users can get connected with potential service providers;
- The capacity of the existing ABD management and staff will remain.

The assumptions for achieving the outcome of the sub-component are:

- Market development obstacles, adverse subsidies and similar are removed and replaced by incentives that promotes the NRM market potential;
- Infra-structure is in place which promotes trade in rural areas;
- Continued economic and political stability.

Risks

The risks of the sub-component are:

- The high transaction costs of business activities are too high in the ASAL due to low population density and small-scale investments due to poverty;
- Enterprises are supported that cannot be sustained once the support is removed;
- The demand for private sector services is based on favouritism and inflated costs and transfer pricing rather than competitive market transactions;
- The institutional merger of ABD into the MicrofinanceEnterprise Support Trust Programme (MESPT) becomes an obstacle for developing NRM business services due to, for example, a lesser emphasis on the retail activities of ABD.

9. Component Implementation Plan

Pre-implementation Phase

The support from the NRM Programme for private sector participation on natural resource management, water resources and renewable energy will be further developed as part of the formulation of the ABD component of the forthcoming BSPS. This formulation is at an early stage and the design remains open.

It is expected that during the inception phase of the NRM programme, until July 2010, the tasks of the sub-component will be to develop NRM-related activities in the ABD component. The ABD has a six-months bridging phase after the ASPS ends in June 2010 and before the expected launch of the BSPS in January 2011.

The NRM Programme funding is available for the bridging phase from July to December 2010. It is therefore feasible to initiate some of the activities within the current phase of the ABD until end 2010, as identified by the ABD management team, e.g. on water resource management. This can be a kick-start of the private sector involvement before 2011, based on already available experiences.

A Memorandum of Understanding, or similar, is to be prepared with the MESPT and ABD management for implementation during 2010. From 2011, the ABD will become a component of the BSPS and modalities for continued implementation will be discussed and agreed upon. During the pre-implementation phase of the NRM Programme, and before ABD is merged into the BSPS, the following topics are expected to be addressed:

- Clearly defining the added outputs and activities supported via the NRM Programme and ensure that these are integrated into the ABD component design;
- A functional structure for programme management, reviews, reporting and coordination that can link the NRM programme and BSPS;
- A plan for the organisational development of ABD towards an independent structure within an existing or a new institution (currently, ABD is a 'project based' organisation).
- Specifically, identifying where the private sector support through ABD can add value to the NRM components, i.e. by meeting the market opportunities that are being created for MSEs through component 2 and 3 of the NRM Programme.
- Outline the additional responses towards climate change that the NRM-supported activities can provide within the ABD, specifically regarding adaptation (e.g. efficient use of water resources), low-carbon and mitigation (e.g. renewable energy solutions), risk reduction and transfers (e.g. early warning), and possibly carbon financing opportunities.

Annex 1: Logical Framework

Intervention logic	Indicators	Means of verification	Assumptions
<p>Development Objective (component 3) / NRM Programme Immediate Objective:⁶</p> <p>Civil society organisations (including local communities) and private sector service providers are capacitated to support natural resource management</p>	<ul style="list-style-type: none"> Improved livelihoods in 80% of targeted communities in programme areas 	<ul style="list-style-type: none"> Measured by the Kenya Integrated Household Budget Survey (KIHBS) (baseline from 2005/06 and continued at regular intervals) 	<ul style="list-style-type: none"> Continued Government support to Vision 2030, to the decentralisation agenda and to enhancing sustainable, pro-poor natural resource management
<p>Immediate Objective:</p> <p>A viable private sector provides pro-poor oriented services for investments in small-scale management of water resources, renewable energy and the NRM related market chain</p>	<ul style="list-style-type: none"> At least an additional 5,000 households have been reached annually who have received/purchased NRM related services 	<ul style="list-style-type: none"> ABD annual progress reports with statistics on agreements signed with MSEs and between MSEs and end-users Mid term review / lessons learned Component completion report and lessons learned 	<ul style="list-style-type: none"> Continued economic and political stability. Market development obstacles removed/reduced Infra-structure is in place which promotes trade in rural areas

⁶ The component development objective is identical to that of Component 3.

Intervention logic	Activities	Indicators	Means of verification	Assumptions
Output 3.2.1: Business models and lending instruments developed for water resources, renewable energy, integrated pest management and other NRM services	<ul style="list-style-type: none"> Development of NRM and renewable energy packages for business and lending for MSEs Market/value for NRM including certification and climate finance 	<ul style="list-style-type: none"> At least 10 different private sector packages for NRM business opportunities are developed and operational 	<ul style="list-style-type: none"> Documented business models and lending instruments. Records of contracts signed between MSEs and end-users 	<ul style="list-style-type: none"> Credit lines or other sources of funding are available for delivering NRM related services and investments
Output 3.2.2: Micro and small enterprises are operational to support implementation of NRM investments and service provisions.	<ul style="list-style-type: none"> Contracting of MSEs for NRM and renewable energy service provisions in ASAL. Support packages to NRM and renewable energy MSEs 	<ul style="list-style-type: none"> At least an additional new 20 MSE/SMEs established annually that are operational in the ASAL on renewable energy, water resource management and other NRM related topics 	<ul style="list-style-type: none"> ABD annual progress reports with records on agreements signed with MSEs 	<ul style="list-style-type: none"> Financially and environmentally sustainable business feasible with NRM and renewable energy. Seed finance is required (access to credit)
Output 3.2.3: Incentive structures based on innovative fiscal and financial instruments to promote renewable energy and other NRM business opportunities are identified/ developed and forwarded to relevant GoK agencies.	<ul style="list-style-type: none"> Feed-back from MSEs on optional business constraints with NRM and renewable energy. Advocacy for improved business opportunities addressing NRM and rural energy Design of incentive schemes, e.g. climate finance 	<ul style="list-style-type: none"> At least 5 fiscal/finance instruments identified and described for improving competitiveness of NRM and renewable energy business opportunities. 	<ul style="list-style-type: none"> Recorded communication from ABD to relevant GoK agency (e.g. via business organisations). Documentation for instruments recorded with ABD management and shared with concerned stakeholders 	<ul style="list-style-type: none"> Incentives are provided by GoK agencies to enhance the profitability of NRM and renewable energy business opportunities. GoK institutions like NEMA are willing and able to develop business oriented incentives.

Annex 2: Options and Entry Points for Renewable Energy within the ASAL

RENEWABLE ENERGY OPTION	SUITABILITY	ENTRY POINT/ LEVEL OF INTERVENTIONS	STATUS	POVERTY IMPACT	IMPACT ON NRM	EXAMPLES	INDICATIVE BUDGET COSTS	REMARKS
Solar photovoltaic (PV) for lighting and powering light machines such as computers, radio, TV, etc.	For off-grid and remote households, institutions (schools, hospitals, mosques, churches), businesses and government offices, which are off grid	Household, institutions and community representatives	On-going school project funded by government. Isolated individual households and businesses	+++ Products life cycle increases leading to higher value and continual income	+++ Enhances conservation and efficient resources use		Depends on lighting needs; for households could range as low as USD 150. Solar lighting technology is becoming cheaper since entrance of light emitting diodes (LED).	World Bank Lighting Africa Development Market Place (WBLADMP) project about to kick –off, but focus is not in drylands. There is potential for RDE to partner with WB LADMP in expanding the programme to drylands. RDE could also partner with ‘Computer for Schools Program’** to promote ICT in off-grid schools. This is one way of enhancing awareness on renewables in drylands. Typical school computer laboratory has 15 computers and accessories at a cost of USD 15,000 including installation and training (www.gbc.co.ke) and installation of solar PV and accessories at a cost of USD 50,000 for providing 6 hours of energy per day. However if it is a solar/wind*** hybrid, costs can drastically reduce, as wind is cheaper KWH.
Solar dryers and refrigeration	For drying agricultural products – fruits, vegetables, and refrigerating milk, meat and other veterinary products	Individual farmers, community organizations such as women groups, institutions such as Kenya Meat Commission and NGOs	There is little information, but generally solar dryers and refrigeration are not being used as they ought to.	++ Reduces costs of energy in the long run	+++ Direct impact on forest conservation especially for those schools or lodges using firewood. Results in less deforestation	1. Solar dryers used for mango drying in Garissa 2. solar refrigeration in refugee camps for medical purpose	Depends on the scale, but technology getting better and cheaper	There is need for reconnaissance survey to determine where this technology is being applied. Solar Cookers Association is playing lead on this

RENEWABLE ENERGY OPTION	SUITABILITY	ENTRY POINT/ LEVEL OF INTERVENTIONS	STATUS	POVERTY IMPACT	IMPACT ON NRM	EXAMPLES	INDICATIVE BUDGET COSTS	REMARKS
Solar water heaters (SWH)	Institutions (hotels, lodges, camps, schools, clinics, hospitals, and households)	Institutions especially hotels, lodges, camps and hospitals. Need for legislation to force all hotels, lodges, hospitals, etc., which are based in ASAL to install SWH instead of using biomass or electricity for water heating	One of the fastest growing businesses.	+++ Increases food productivity and hence food security. Generates income to farmers who sell surplus to other community members	++ Positive Impact on resource use and conservation.	One of the fastest growing businesses in Kenya in off-grid areas.	Depends on the energy needs of institution or household, but unlike solar PV prices are upwards of USD 500 per unit	Need for reconnaissance survey to determine uptake.
Solar powered irrigation	In ASAL areas where agricultural and reforestation is taking place	Individual farmers, community organizations (women groups) and NGOs.	There are increasing numbers of solar powered drip irrigation in Kajiado, Machakos and Turkana, funded by individuals as well as donors through NGOs such as OXFAM, Woodlands 2000, etc	++ Increased income to local business as it can easily be assembled locally	+++ Saves the use of wood for cooking hence leading to less deforestation	There are increasing number of solar powered drip irrigation in Kajiado, Machakos and Turkana, funded by individuals as well as donors through NGOs such as OXFAM, woodlands 2000, etc	A unit that can irrigate 5 hectares a year costs about USD 70,000. Depending on the crops grown, can break even with three to four years. The solar equipment has warranty of up to 10 years	Solar powered drip irrigation has high potential to spur agricultural production in ASAL, especially if right crops are used. It has been used for reforestation and for woodlots production specifically for charcoal production (charcoal is one of the fastest selling items from the ASAL, with high potential for income generation). RDE could partner with on-going initiatives in order to increase their size and scalability, and need for replicability. Assuming initial target of 500 hectares, USD 5 to 7 million could be set aside for pilot research and replication.
Solar cookers	In areas with high concentration of people such as refugee camps. Can also be used by hospitals,	Institutions and individuals	Being promoted by WFP, NGOs and institutions. Rate of uptake still low due to fact that works	++ Businesses operate longer into the night and could lead to more earnings.	+ If used for water pumping, results in efficient resource use	Been promoted by WFP, NGOs and institutions. Rate of uptake still low due to fact that works only during the day. Cultural	Solar cookers cost as little as USD 50.00 but only function best during sun's peak hours, and can only be used	Need for reconnaissance survey to find out rate of penetration and uptake

RENEWABLE ENERGY OPTION	SUITABILITY	ENTRY POINT/ LEVEL OF INTERVENTIONS	STATUS	POVERTY IMPACT	IMPACT ON NRM	EXAMPLES	INDICATIVE BUDGET COSTS	REMARKS
	hotels and households		only during the day. Cultural hindrance to uptake at household level			hindrance to uptake at household level	outside	
Improved cook stoves (ICS)	For households, institutions (hotels, schools, hospitals, etc). Very suitable in ASALs	Institutions, especially boarding schools which cook using open fires. Known to reduce wood usage by 70%	On-going UNDP GEF project promoting ICS in schools in some parts of ASAL	++ Increased income to local economy especially women who can easily be trained to assemble and sell	+++ Known to reduce wood usage by 70%. Institutions especially boarding schools which cook using open fire.	1. On-going School's project funded by government. 2. Isolated individual households and businesses	High upfront costs (USD 1000 and above per unit), but very crucial for their environmental friendliness	RDE could promote ICS together with Solar PV as a package for schools. Assuming a target of 500 schools for five years, a budget of USD 5 million, could be set aside, so that 100 schools are electrified with solar, and ICS installed per year for 5 years
Sustainable charcoal production and carbon finance	Over 70% of charcoal consumed in Kenya is produced in ASAL, on unsustainable basis leading to deforestation, biodiversity loss, and soil erosion.	Need to work with charcoal producers as individuals and through associations, in order to install sustainable practices – plant trees, use efficient charcoal kilns, package charcoal and market	Isolated but very impressive projects on-going in Kajiado, Turkana and neighbouring Tanzania. OXFAM promoting this through the cash-for-work (CFW) programme in Turkana. CERES and Woodlands 2000 in Kajiado.	++++ This has the highest potential in ensuring livelihood enhancement and as coping strategy against drought and floods	++++ Sustainable charcoal production will lead to forest conservation.	On-going UNDP GEF project promoting ICS in schools in some parts of ASAL	Costs dependant on number of charcoal producers, OXFAM has spent close to USD 250,000 in Turkana to install sustainable charcoal production systems in 2 community areas. This has included cost of tree nursery establishment, installation of kilns and a marketing strategy	This has the highest potential in ensuring livelihood enhancement and as coping strategy against climate change while ensuring eco-charcoal production. An initial fund of about USD 2 million, could establish pilots in 4 to 5 districts. Given that charcoal is the economic mainstay of the region, and the fact that unsustainable charcoal production is impacting negatively on NRM, then close to one third to half of NRM budget in ASAL should be allocated here.
Biomass energy systems	Agro-industrial burning of waste, or charcoal	Big farmers and small businesses	Cashew nut shells used in cement factory to replace heavy	+ Farmers collect and sale waste to industry.	++ Efficient resource, promotion of conservation	Isolated but very impressive projects on-going in Kajiado,	Depends on the demand and supply	Applicable more to semi-arid not arid areas where there is little biomass waste

RENEWABLE ENERGY OPTION	SUITABILITY	ENTRY POINT/ LEVEL OF INTERVENTIONS	STATUS	POVERTY IMPACT	IMPACT ON NRM	EXAMPLES	INDICATIVE BUDGET COSTS	REMARKS
	briquette from waste		oil or coal and in small scale processing	Industry saves on conventional energy use	practices	Turkana and neighbouring Tanzania.		
Wind Energy systems	Suitable for water pumping, provision of lighting and powering small machines in schools, households and institutions, etc	Hybrid wind (with diesel gensets or solar PV) systems abound in small towns in North Eastern province.	There are tens of Kijito wind pumps for pumping water. Most ASAL urban areas are powered by wind and diesel generator hybrid.	++ Income to businesses and operators. Pumped water used for agriculture results in higher yields hence more food and if surplus sold to increase income.	+++ Leads to better resource use and conservation of water	Cashew nut husks used in cement factory to replace heavy oil or coal.	Wind power installations cost 3.5 times less per Watt than PV installations and operate for 12-16 hours at good sites as opposed to 5-6 hrs for PV systems	Drylands have the highest wind speeds in Kenya. The potential wind energy from ASAL has been estimated at 3000 megawatts almost 3 times the existing electrical power provided by grid. However due to the need for a transmission, this has not been exploited. According to Ministry of Energy there are about ten good wind sites***
						There are tens of Kijito wind pumps for pumping water. Most ASAL urban areas are powered by wind and diesel generator hybrid. Wind and solar hybrid can replace diesel generators		

** Solar for schools programme is an initiative by a number of IT companies led by Green Bell Communications (www.gbc.co.ke) to promote ICT in Schools.

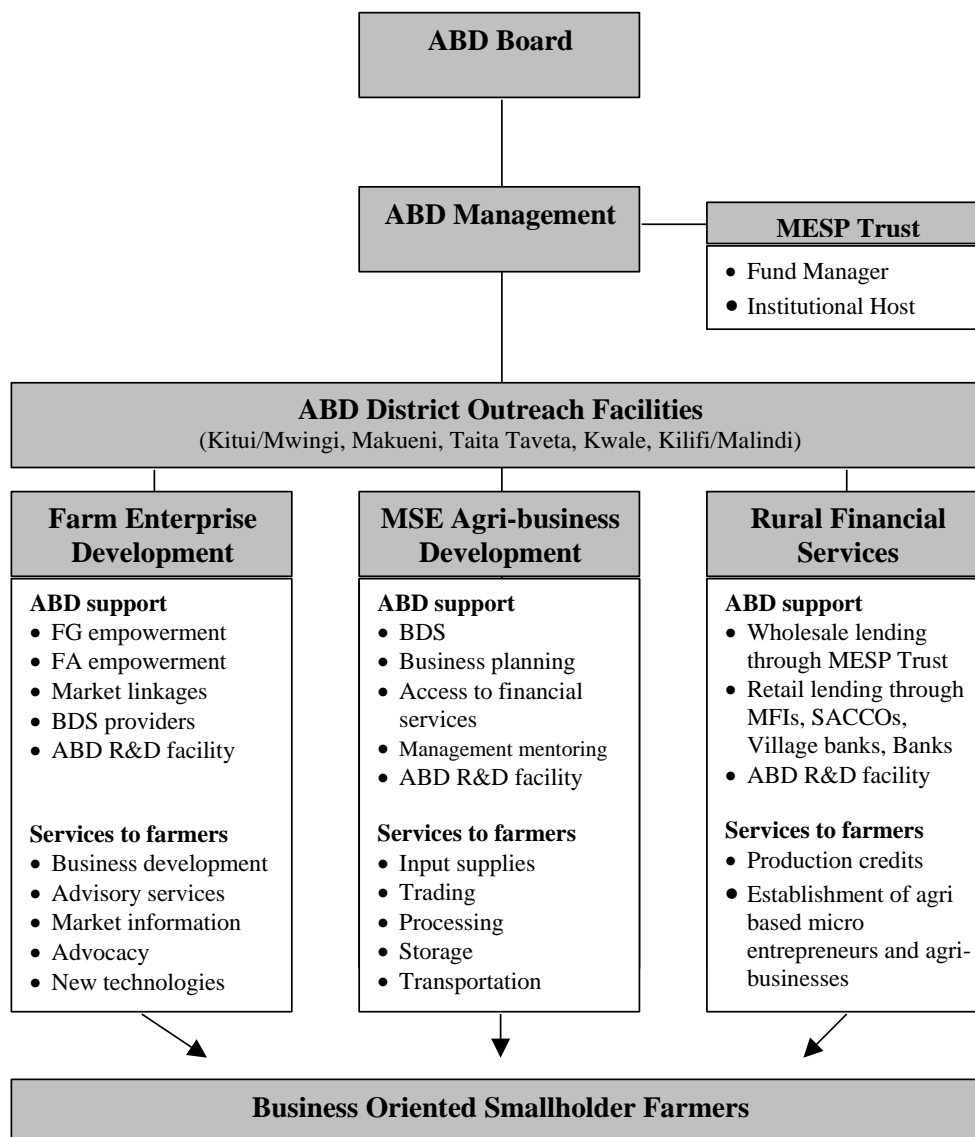
***Wind energy is more cost effective than PV for both grid connected and isolated systems. Wind power installations cost 3.5 times less per Watt than PV installations and operate for 12-16 hours at good sites as opposed to 5-6 hrs for PV systems. Kenya has about 10-13 good sites with wind

speeds of >7m/s; this could translate to a potential 100 MW of grid-connected electricity from medium-large wind turbines (estimating 10 MW wind farms for excellent sites and 5 MW for good sites).

- No impact or negative impact
- + Low impact
- ++ Moderate impact
- +++ High impact
- ++++ Very high impact

Annex 3: Current ABD Organisational Framework

ABD Strategic Framework



Source: ABD Component Document (2005)