

Serengeti & North Luangwa Ecosystem Management Project



**EU Contract #
EuropeAid/ENV/2004-81807**

Tanzania National Parks
Zambian Wildlife Authority
Frankfurt Zoological Society
European Union



1. Description of the action

1.1 Title

Building Community Roles and Incentives in Ecosystem Conservation and Management: Piloting the Ecosystem Approach in Africa's Serengeti and North Luangwa

1.2 Location(s)

Countries:	United Republic of Tanzania Republic of Zambia
Regions:	Arusha, Mara and Shinyanga Regions, Tanzania Northern and Eastern Provinces, Zambia
Districts:	Serengeti, Ngorongoro and Meatu Districts, Tanzania Mpika and Chama Districts, Zambia

1.3 Summary

The action will pilot the Biodiversity Convention's Ecosystem Approach in two of Africa's outstanding savannah ecosystems, the Serengeti (Tanzania) and North Luangwa (Zambia). Activities focus on the practical application of the Approach's five operational guidelines: a) establishing inter-sectoral ecosystem cooperation mechanisms; b) improving understanding of ecosystem processes and functions; c) decentralising management to local institutions; d) improving benefits and incentives for local stakeholders; and e) introducing adaptive management systems. The action will help strengthen policy and practice that builds a central role for local communities in ecosystem management and, ultimately, will help ensure that key African ecosystems provide lasting conservation and livelihood benefits. The target groups are natural resource and development managers and policymakers, as well as local people who presently bear many of the costs while receiving few of the benefits of biodiversity conservation.

1.4 Objectives

Africa's ecosystems provide a wide variety of benefits to African nations, the international community and, most importantly, to local people, whose livelihoods are directly and inextricably linked to the continuing functioning of healthy ecosystems. Yet many African ecosystems are presently coming under mounting pressure from expanding human populations, and unsustainable natural resource use practices. As a result, both the biodiversity values as well as the human livelihood functions of these ecosystems are being gradually eroded. The **overall objective** of this action is to make a significant contribution towards the efforts currently being made by African governments to reverse these trends, and to halt the deterioration of ecosystem functioning, such that:

- ▶ **Key African ecosystems are providing lasting and wide-ranging biodiversity conservation and human livelihood benefits**

The maintenance of healthy ecosystems goes to the heart of the three objectives of the United Nation's Convention on Biological Diversity (CBD) – the *conservation* of biological diversity; the *sustainable use* of its components, and the *equitable sharing of benefits* from the use of genetic resources. Recognising this crucial role of ecosystems, the parties to the CBD have endorsed and are vigorously promoting an "Ecosystem Approach" to achieving these objectives, as the primary framework for action under the Convention. The Approach provides a strategic and holistic framework for

the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way.

Central to the Ecosystem Approach is the recognition that, since local people are both important beneficiaries of healthy ecosystems as well as a major threat to the maintenance of ecosystem functions, it is vital that these communities are at the forefront of efforts to bring about the conservation and sustainable use of ecosystem natural resources. However, local communities are currently marginalised from the decision-making process governing use of natural resources and receive an inequitable share of ecosystem benefits. Bringing local people and local institutions to the centre of ecosystem conservation and management will therefore inevitably require significant changes in both the policy framework as well as in natural resources management practice.

The CBD's Ecosystem Approach recognises these needs, and has established a set of twelve fundamental principles as well as five operational guidelines aimed at facilitating the practical application of the Approach. Additionally, over the past decade many African governments have initiated a variety of policy measures and practical implementation programmes that all contribute towards creating an enabling policy and practical management environment for the implementation of ecosystem conservation and management efforts. However, there is much more to be achieved and specifically, there are very few examples where all the principles of the Ecosystem Approach have been systematically applied, and where the Approach's five operational guidelines are being tested in a coordinated and concerted way. This present action is designed to do just this, such that:

- ▶ ***Policy and practice that enables local communities to play a central role in ecosystem conservation, sustainable use and management are strengthened through the piloting of the CBD's ecosystem approach in two of Africa's outstanding ecosystems***

Through this **specific objective**, it is intended that the action will not only have a significant impact on the capacity of African nations to implement the Biodiversity Convention, but also on the capacity of local communities to manage ecosystem natural resources sustainably, and to share equitably in ecosystem benefits, and thereby to improve their long-term livelihoods.

1.5 Justification

(a) Relevance of the action to the objectives of the Programme

The proposed action will respond to the overall objective of the Environment Programme for 2003 by directly contributing to policy development in African nations that is designed to integrate and mainstream biodiversity conservation priorities and planning into national development planning. The action is intended to be both *catalytic* and *innovative*, through the development of policy guidelines based on hands-on practical field experience and lessons learnt in ecosystem management incorporating community-based natural resource management approaches in the two pilot ecosystems. Particular emphasis will be placed on the development of practical guidelines and tools designed to facilitate building community roles and incentives in ecosystem management. Furthermore, the proposed action fulfils the overarching principle of the Environment Programme - to focus on activities that *simultaneously pursue environmental enhancement and poverty reduction*. This is reflected in the Action's overall objective, and is spearheaded through the adoption of the CBD's Ecosystem Approach, which emphasises the integration of biodiversity conservation with human development.

(b) Relevance of the action to the priorities of the Programme

The proposed action responds directly to Priority Action No: 5 specified in the 2002-2003 Strategic Guidelines for the Environment Programme, relating to support for developing countries' implementation of the United Nations Convention on Biological Diversity (CBD). Parties to the CBD have affirmed that the Ecosystem Approach should be the primary framework for action under the Convention (*Decisions II/8, IV/1B, V/6 and VI/12*). The action is designed to develop and test practical, holistic and participatory mechanisms for implementing the Approach in two pilot ecosystems. Specifically, the action is intended to:

- ▶ **Build the capacity** of target communities, partners and associates, to develop decentralised and viable institutional mechanisms and collaboration systems for managing ecosystem resources, and the incorporation of lessons learnt and best practice into national biodiversity and development policies
- ▶ **Empower civil society**, specifically local communities living within ecosystems that are the chief custodians of ecosystem resources, to understand and fulfil their rights and responsibilities for the management and sustainable use of natural resources, and to collaborate as equal partners with other ecosystem stakeholders
- ▶ **Undertake pilot actions** in the two ecosystems that will contribute to the development of best practice in implementing the CBD's Ecosystem Approach, particularly relating to developing innovative approaches for enabling local communities to participate in ecosystem management and in generating sustainable economic benefits from natural resource and wildlife use.

In addition, the proposed action directly responds to *six priority Actions* identified in **EU Biodiversity Action Plan** for Economic and Development Cooperation (2001), as detailed in Appendix 1 on Page 57.

(c) Identification of perceived needs and constraints in the target countries

The action is focused on the Serengeti ecosystem in northern Tanzania and the North Luangwa ecosystem in northern Zambia, with the Serengeti and North Luangwa National Parks respectively at the heart of each ecosystem. The Serengeti National Park and neighbouring Ngorongoro Conservation Area are both listed as World Heritage Sites, and the Serengeti-Ngorongoro ecosystem is also designated as a Unesco Biosphere Reserve. The two pilot ecosystems are shown in Figures 1 and 2 on the following pages, which highlight the main protected areas as well as neighbouring community-managed areas making up the two ecosystems, and that are the primary focus of this action.

Over the past two decades, the Zambian and Tanzanian Governments have both made significant progress in developing and promoting community participation in natural resources management. A strong foundation has in particular been laid in Zambia, through the launch of the Administration Management Design for Game Management Areas (ADMADE) programme in four Game Management Areas in 1987, followed in 1988 by the Luangwa Integrated Resource Development Project (LIRDP) in the Lupande Game Management Area. The ADMADE programme established "Wildlife Management Authorities" in around a third of the country's GMAs, composed of community chiefs, government and district council officers, and local politicians. Wildlife sub-authorities at the chiefdom level were also established to allow local participation in wildlife and natural resources management. The LIRDP programme took a more bottom-up approach, establishing Village Action Groups (VAGs) at the grassroots level with greater responsibility for natural resources management and planning, and for the distribution of GMA revenues. LIRDP also established Area Development Committees to oversee VAGs, and Integrated Rural Development Area institutions as the top-level community institutions.

The Zambia Wildlife Policy, adopted in 1993, brought together lessons learnt from ADMADE, LIRDP and other CBNRM approaches, and established the concept of community Integrated Resource Development Boards (IRDBs), also known as Community Resource Boards (CRBs), with the aim of providing a unified framework for involving local communities in natural resources management and wildlife utilisation in the GMAs. However, despite the existence of an enabling policy and legislative environment, there are still many CBNRM issues and constraints that need to be addressed. These are elaborated in ZAWAs Strategic Plan for the period 2003-2007, as follows:

- ▶ **Need for a unified approach to CBNRM.** As described previously, Zambia's approach to CBNRM has been evolving through the experiences and lessons learnt generated by different projects. While this has encouraged innovation and testing of alternative approaches, there is now a need for some common CBNRM guidelines to be put into place, bringing together best practice. These guidelines should describe the institutional structures for CBNRM at national, GMA, district, sub-district and community levels, and should provide for community-based organisations (the VAGs) to be established for managing wildlife revenues, and for planning and coordinating natural resources management activities.
- ▶ **Need for a decentralised administrative structure for GMAs:** The long-term vision of a bottom-up community driven CBNRM approach will require decentralisation, including fiscal decentralisation, of the management of wildlife and other natural resources to the CRBs and VAGs. However, presently the hunting revenues for most GMAs are being paid to ZAWA, and only a relatively small percentage of these funds is distributed to the CRBs, where these have been established.
- ▶ **Need for enhanced ZAWA CBNRM capacity.** To oversee the process of establishing CRBs, ZAWA has established a Directorate for GMAs and CBNRM. However, there are significant concerns that the Directorate does not have sufficient capacity, autonomy or clear terms of reference to implement its role adequately.
- ▶ **Need for capacity building at the community level.** Presently only 30% of GMAs are addressed by CBNRM programmes. Communities living in these GMAs are amongst the poorest and most remote, and access to social services is amongst the worst in Zambia. There is an urgent need to support the formation of viable community institutions as effective management structures, so that economic returns from natural resources are maximised. This will involve developing the capacity of community organisations to plan, implement and manage natural resources and wildlife projects, to allocate and account for funds, and to monitor wildlife resources. These CBOs will also need technical support in forming joint ventures with private sector companies in developing wildlife and other natural resource-based enterprises.
- ▶ **Need for integrating conservation and development plans and programmes.** There is a need to integrate CBNRM programmes within wider district development programmes and structures, and to provide capacity building support to district officers to enable them to support the establishment of CBNRM initiatives and CRBs and to provide ongoing technical support and advice.

Progress in developing and applying CBNRM approaches in Tanzania has been slower than in Zambia, although there has been a significant recent advance with the promulgation of Regulations for the establishment of community-managed Wildlife Management Areas (WMAs) in 2002, and with the publishing of Guidelines for the Designation and Management of WMAs in December 2002. These two documents provide a broad policy framework for the further development of CBNRM approaches, and the Tanzania Wildlife Division, one of the associates in the current action, has since nominated a series of pilot areas around the country for the further development of the WMA concept and for promoting the establishment of appropriate community natural resources management institutions. Two of the pilot areas that have initially been identified, Ikona and Eramatare, lie within the Serengeti ecosystem and will be targeted in the present action. Two further proposed WMAs within the ecosystem, Makao and Lake Natron, are also expected to be targeted during the action (see section 1.6(d) below).

The WMA Regulations and Guidelines provide a broad framework for moving forward with CBNRM initiatives in Tanzania, but there is still considerable scope for testing and fine-tuning of the practical approaches taken in the field, especially concerning the establishment of community institutions for managing natural resources and for distributing economic benefits generated by wildlife. As is the case in Zambia, it is not at the moment clear at what level these institutions should be formed – at the village level (e.g. VAGs), or at a higher level through the formation of institutions that represent the interests of groups of villages (e.g. CRBs), or both. The Wildlife Division has provided sufficient scope for various options to be tested and lesson learnt generated accordingly, just as has previously been done in Zambia, and has encouraged NGOs such as FZS to work with communities and District authorities to develop alternative approaches. This present action will be contributing to this pilot community institution development process in the WMAs neighbouring the Serengeti, and will take advantage of the lessons learnt in Zambia to ensure that the community institutional mechanisms that are put in place are both appropriate and sustainable.

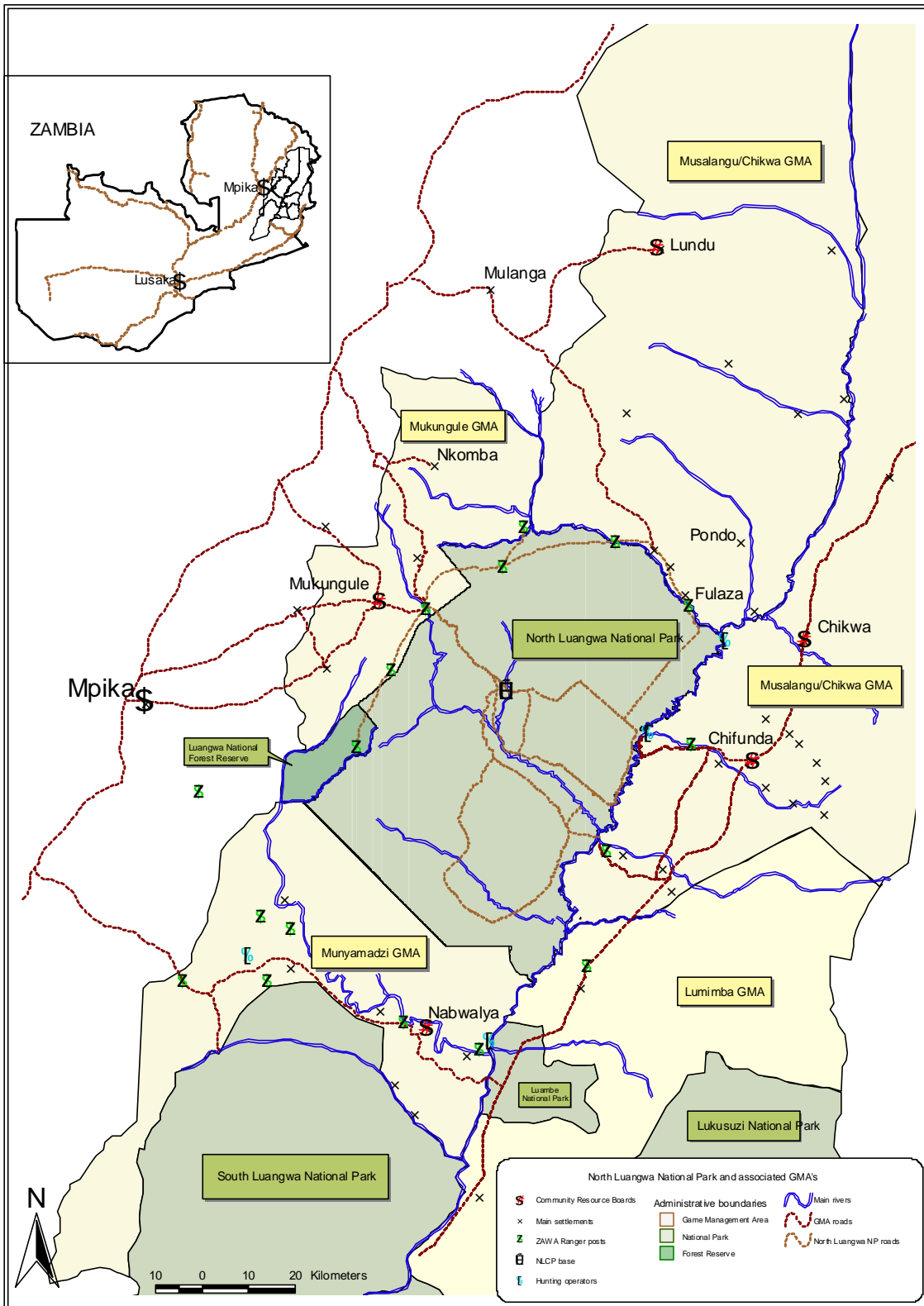


Figure 1: Map showing the North Luangwa National Park and surrounding protected and Game Management Areas

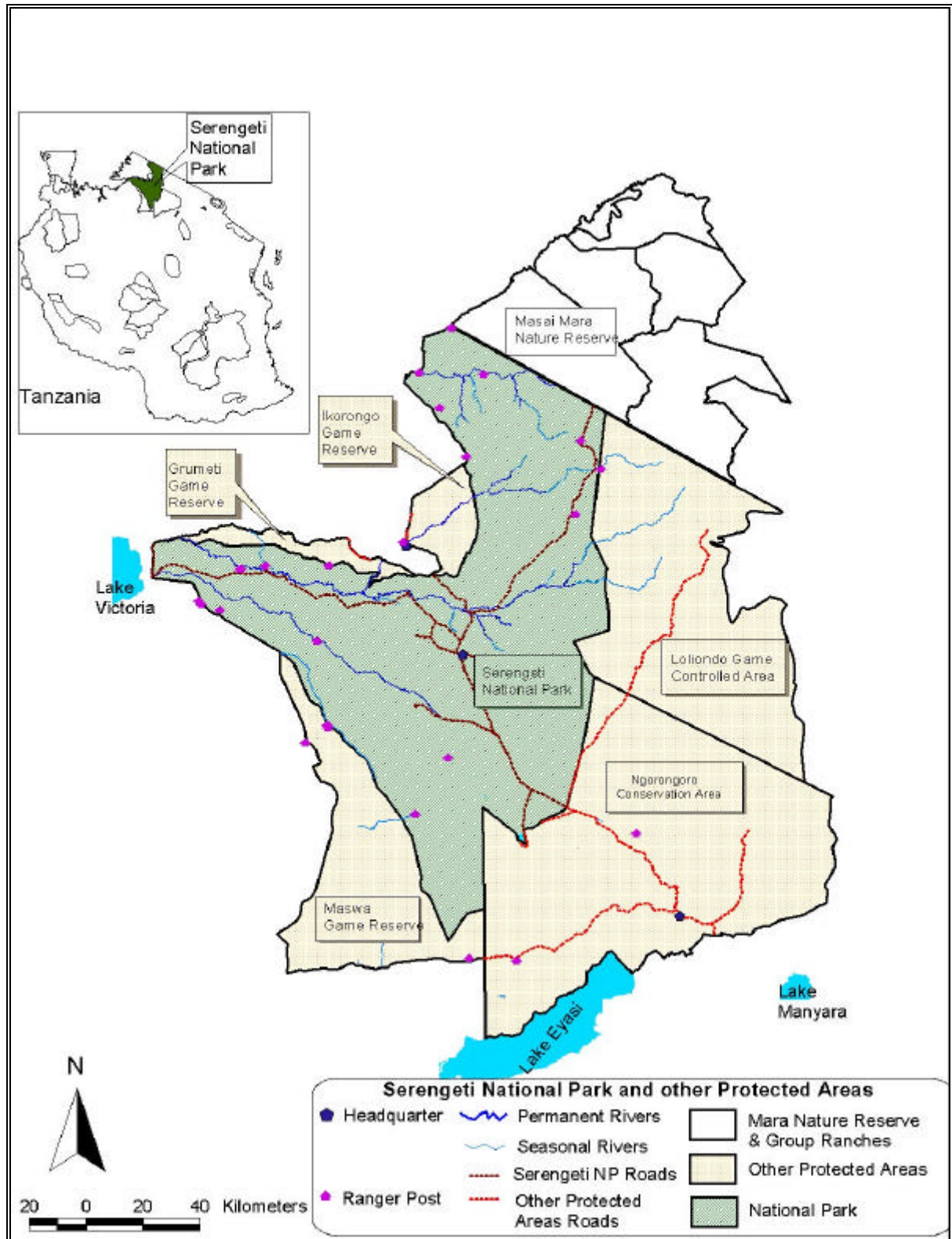


Figure 2: Map showing the Serengeti National and surrounding protected areas

(d) List of target groups and estimated number of direct and indirect beneficiaries

The action will be operating at several different levels in the two target countries, and is therefore expected to impact on a range of target groups as well as direct and indirect beneficiaries. Table 1 below lists the expected direct and indirect beneficiaries of the action, according to the definitions for these groups given in the EU Manual on Project Cycle Management (March 2001).

Target groups for the action are communities living in the wildlife rich areas of the Greater Serengeti ecosystem in Ngorongoro, Serengeti and Meatu Districts in Tanzania and of the North Luangwa Ecosystem in Mpika and Chama Districts in Zambia (see Table 2 overpage for detailed information on these groups). These are the so-called *frontline* communities that suffer the costs associated with living next to national parks, but who so far have been unable to realise much in the way of benefits from these wildlife resources. The communities in these areas also suffer from higher levels of poverty due to their remoteness and poor communications, low levels of education, poor food security and low income levels. Within the frontline communities, the action will specifically target the most *disadvantaged members of society, including the poor, the youth and women*, by focusing opportunities for involvement in natural resources decision-making and income-generating/ livelihood diversification opportunities at these groups (especially under Results 3 and 4). FZS has already established working relationships with many of these target communities.

Table 1. Direct and Indirect Beneficiaries of the Action

Beneficiary Type	Description		Number
DIRECT BENEFICIARIES	TANAPA	Community Conservation Warden	1
		Ecologist	1
	ZAWA	Planner	1
		Ecologist	1
		Community Extension Officer	1
INDIRECT BENEFICIARIES	District technical officers in above target districts	Natural Resources Officers	5
		Wildlife Officers	5
		Agriculture Officers	5
		Community Extension Officers	5
		Planning Officers	5
	Community members	Community-based trainers	10
	Wildlife Division TZ	Planner	1
		WMA coordination staff	5
Ministry of Natural Resources & Tourism, TZ	Planning staff	2	
Ministry of Tourism, Environment and Natural Resources, ZA	CBD Focal Points	1	
	Planning staff	2	
Division of Environment, TZ	GMA coordination staff	5	
	CBD Focal Points	1	

(e) Reasons for the selection of the target groups and activities

The criteria applied in selecting target groups are as follows:

- ▶ Communities where wildlife resources offer realistic potential for improved incomes and diversified livelihoods, both from non-consumptive and consumptive use
- ▶ Communities in which human-wildlife conflicts are especially high, and where informed land-use planning and greater cooperation between communities and local wildlife authorities will have maximum impact
- ▶ Communities which are not presently benefiting from wildlife economic activities, and which therefore have up until now little incentive to support biodiversity conservation and sustainable use initiatives
- ▶ Communities that have already demonstrated a willingness and initiative to manage their natural resources sustainably and for greater benefit
- ▶ Communities that are positioned in areas that are regarded as being crucial components of the wider ecosystem (e.g. wildlife migration routes or water catchment areas) and/or which pose a particular threat to ecosystem structure and functioning.

Table 2. Description of Target Groups for the action in the two pilot ecosystems, by District, Community Managed Area, and Village

District	Community-Managed Area	Brief Description	Villages	Target group size
Serengeti District, Tanzania	Ikona Proposed WMA	Located on the north-west side of Serengeti National Park and with an area of c. 450 km ² , this WMA has several ethnic groups including Waikoma, Waisenyee, Wangurumi, Kakurya, Wazigua and Wasukuma	Robanda, Nyichoka, Makundusi and Nata/Mbiso villages	7,500
Meatu District, Tanzania	Makao Proposed WMA	Located on the southern edge of Maswa Game Reserve and with an area of c. 1,500 km ² , this WMA is the traditional home of the Hadzabe bushmen, a small ethnic group with a unique language and cultural traditions. A range of other ethnic groups are also now living in the area	Mangola/Olpiro, Makao, Mwangudo, Sungu, Iramba Ndogo, Sapa, Mbushi and Mwanjoro/Jinamo villages	12,000
Ngorongoro District, Tanzania	Eramatare Proposed WMA	Located on the eastern side of Serengeti NP and with an area of c. 4500 km ² this area is inhabited almost exclusively by Maasai pastoralists	Soit Sambu, Oloipiri, Arash, Losoito/Maaloni and Oloirien/Magaiduru villages	10,000
	Lake Natron Proposed WMA	Located on the Kenyan border just east of the Eramatare area and with an area of c. 4,000 km ² , this area is also inhabited chiefly by Maasai pastoralists and agricultural groups around Lake Natron itself.	Gilai Bomba, Waiyobe, Malambo, Oldonyo Sambu, Digodigo, Sale and Nainokanoka villages	5,000
Mpika District, Zambia	Mukungule GMA	Located on the western side of North Luangwa National Park and with an area of 1,979 km ² , this area is inhabited by Bisa and Bemba tribes people, who predominantly rely on subsistence agriculture incorporating traditional slash-and-burn cultivation for their livelihoods. The GMA is covered by the typical broad-leaved Miombo woodlands that are found throughout most of the Zambian plateau landscape. There are nine main village complexes, although smaller villages, made up of extended family units, are found scattered between them.	Mukungule, Kaluba, Chobela, Chilyaba, Kabuta, Chikumbi, Chisala, Nkomba and Katuna/Chaipinda villages	10,000
Chama District, Zambia	Pondo/Fulaza section of Musalangu GMA	Located on the northern boundary of the North Luangwa National Park and with an area of c. 1,090km ² , the Pondo/Fulaza section is inhabited by the Nsenga and Tumbuka tribes people who subsist on growing rice, sorghum, groundnuts and maize in small plots, as well as fishing. The area is very remote with very little infrastructure, and large parts become virtually inaccessible in the rainy season. Settlement is predominantly in small villages along the Lufila River, which along with the Lundi River, defines the northern boundary of the target communities.	Pondo, Fulaza, Kaweza, Chivwiko, Kabamba, Mbao, Chisange, Kavwanza, Kandebwe, Chiselu and Leza Wawa villages	2,500

- ▶ The requirement to focus activities on disadvantaged members of society, such as women, the youth and the poorest members of society
- ▶ Communities that have not already been extensively exposed to CBNRM initiatives, and that therefore offer an ideal opportunity to implement an innovative ecosystem approach to CBNRM
- ▶ Opportunities to address a diversity of issues impacting on ecosystem management, thereby generating best practice and alternative management approaches under a variety of circumstances.

(f) Relevance of the action to the target groups

FZS has already carried out Participatory Rural Appraisals (PRAs) and socio-economic studies in many of the villages that will be targeted through this action, in order to establish a clear picture of the socio-economic situation. This exercise confirmed that issues relating to improving livelihoods, particularly finding ways of making wildlife a net benefit rather than a net cost to local people, as well as issues concerning participation in natural resources decision-making, are very important to local people. These issues are at the heart of this action, and the activities are therefore expected to be very relevant to the target groups. The action has been designed to be especially relevant to the most disadvantaged members of society, particularly the poor and the youth, in that it will help to establish alternative, cash-based income livelihoods both from wildlife as well as from other income-generating activities that will be developed. Women are expected to gain particularly through increased participation in decision-making, a prerequisite for all participatory activities supported by the action. Such participation should have beneficial knock-on effects on women's lives because important decisions in the community will have taken the needs of women into account. Marginal ethnic groups such as the Hadzabe in Meatu District, Tanzania, will also gain through the legalisation and improved management of local wildlife utilisation (subsistence hunting).

In the pastoralist areas to the east of the Serengeti ecosystem, the PRA exercises uncovered that the local population has increased dramatically in the recent past (5.4% in Loliondo, one of the target areas, between 1978 and 1988 compared to 2.8% for Tanzania as a whole). Consequently people are struggling to survive according to their traditional cattle-dependent lifestyles. Studies have shown that to subsist on livestock products alone a Maasai community needs an average of 6.5 cattle per adult. In the target pastoralist areas this ratio is 4:1. As a result, the communities reported that the number of poor people who subsist through hunting and gathering (called "Ndorobo" and defined by Maasai as those who do not own any cattle) has increased substantially in recent years. The provision of alternative wildlife and natural resources based income-generating activities through Result 4 will be an especially important benefit of the action for these disadvantaged members of society, and is expected to have a significant impact on their livelihoods.

1.6 Detailed description of activities

Each of the action's five Results addresses and corresponds to one of the five operational guidelines proposed and adopted by the Convention on Biological Diversity, COP5, for the application of the Ecosystem Approach (Decision V/6, Annex C). By applying the five operational guidelines, the action will address all twelve of CBD's Principles of the Ecosystem Approach, as outlined in the detailed description of activities in the following pages. Drawing on the findings of the IUCN Commission on Ecosystem Management (CEM) presented at the Ninth Meeting of the SBSTTA of the CBD in Montreal, Canada (November 2003), the five operational guidelines have been reordered into a logical time sequence for implementing action on the ground.

The following sections provide information on the major activities that will be undertaken, ordered according to the action's five Results. The sections also explain how each Result will address the Ecosystem Approach's operational guidelines, and why each Result is considered necessary in achieving the action's Specific Objective.

Figure 3 overpage provides a diagrammatic overview of the means-ends relationships between the action's major activities, results, and specific and overall objectives, for ease of reference.

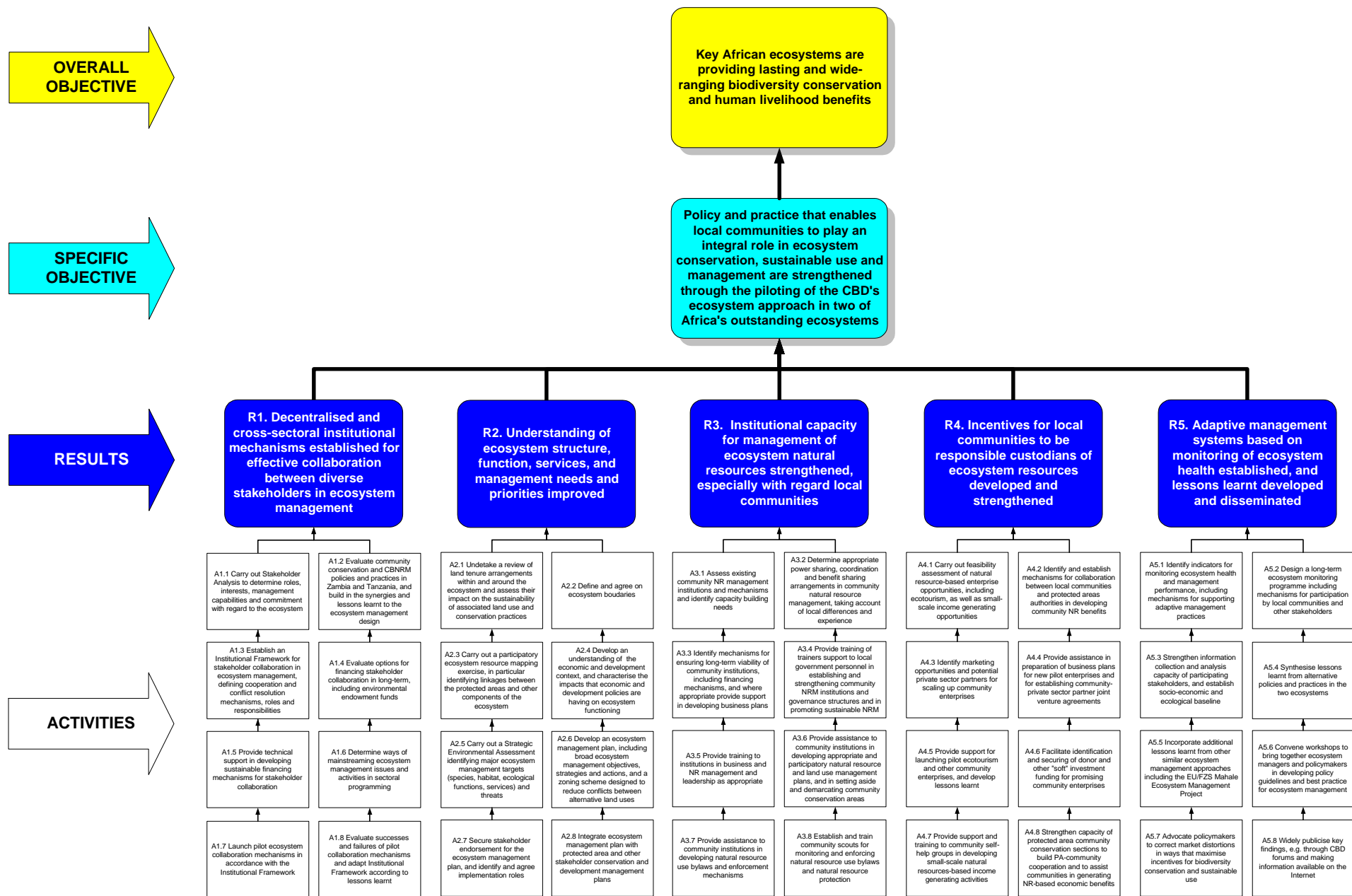


Figure 3. Diagram showing the means-ends relationships between the action's major activities, results and objectives

(a) Result 1: Decentralised and cross-sectoral institutional mechanisms established for effective collaboration between diverse stakeholders in ecosystem management

The first priority of the Ecosystem Approach is to ensure that all relevant sectors of society and scientific disciplines are meaningfully participating and articulating their interests, rights and knowledge relating to the ecosystem. Result 1 aims to address this need by applying the CBD's fifth operational guideline for the Ecosystem Approach, which is to "*ensure inter-sectoral cooperation*". This operational guideline addresses three of the CBD's Ecosystem Approach Principles:

- ▶ Principle 1: The objectives of management of land, water and living resources are a matter of societal choice
- ▶ Principle 11: The ecosystem approach should consider all forms of relevant information, including scientific and indigenous and local knowledge, innovations and practices
- ▶ Principle 12: The ecosystem approach should involve all relevant sectors of society and scientific disciplines

The activities focus on developing sustainable institutional mechanisms that will enable all stakeholders to build mutual trust and actively cooperate in the development and implementation of the Ecosystem Approach in the long-term (i.e. well beyond the lifespan of the action). The first activity (A1.1) will conduct a Stakeholder Analysis to characterise the stakeholders and to understand the range of cultural, social and economic processes. This analysis will disaggregate by gender and will weight the stakeholder groups as primary, secondary or tertiary, according to their dependency upon the ecosystem resources. Primary stakeholders will be the most resource dependent, such as local communities, and their views and priorities will have the strongest weighting. Conversely the tertiary stakeholders will be least dependent on ecosystem resources, such as government officials and international conservation organisations. This approach is designed to ensure that the knowledge and contributions of local resource-dependent and often marginalized groups (especially women) are properly valued when determining stakeholder roles, interests, management capabilities and commitment with regard to the ecosystem.

Considering that both Zambia and Tanzania have extensive track records regarding community conservation and community-based natural resource management (CBNRM), an initial study will be carried out to synthesise the lessons learnt and potential synergies, which will then be built into the design of this ecosystem approach (Activity 1.2). The outputs of this study and the Stakeholder Analysis will provide a basis for establishing an appropriate Institutional Framework for developing formal, co-ordinated linkages between institutions involved in the management and use of ecosystem resources (Activity 1.3). The Framework will enable decision-making, cooperation and conflict resolution between protected areas authorities, government, the private sector and communities, with particular emphasis on ensuring genuine community participation and empowerment. The design of the Framework will centre on a Stakeholders' Workshop convened in Tanzania and Zambia respectively, which will be held in the second semester of Year One of the action. Achieving a balanced representation of all stakeholders will be critical in achieving the Biodiversity Convention's objective of "*fair and equitable sharing of the benefits arising out of the utilization of genetic resources*".

The long-term impact of this ecosystem approach, especially in implementing adaptive management systems (as outlined under Result 5), necessitates that these structures and institutions are sustainable well beyond the life of the action. Activities 1.4 and 1.5 will evaluate the various options for creating financial sustainability, such as through environmental endowment funds, and will provide technical support in developing the most appropriate mechanisms. If possible, such efforts will seek to build on existing initiatives, for example the Serengeti Trust Fund Establishment Project (c.f. www.serengetitrust.org). Another approach that will be adopted to secure sustainability will focus on mainstreaming the ecosystem management issues and activities into existing government policy, sectoral programming and governance structures (Activity 1.6). This will involve designing the Institutional Framework to build on national and regional policies and priorities and will seek to establish grassroots institutional structures firmly within existing local government and community structures.

The provisional design of the Institutional Framework will be evaluated through launching and monitoring a few pilot ecosystem collaboration mechanisms (Activities 1.7 and 1.8). The lessons learnt from these pilots will be used to adapt the Framework before it is rolled out in all the target areas.

The list of the key activities that will be carried out to achieve Result 1 is as follows:

- A1.1 Carry out Stakeholder Analysis to determine roles, interests, management capabilities and commitment with regard to the ecosystem
- A1.2 Evaluate community conservation and CBNRM policies and practices in Zambia and Tanzania, and build in the synergies and lessons learnt to the ecosystem management design
- A1.3 Establish an Institutional Framework for stakeholder collaboration in ecosystem management, defining cooperation and conflict resolution mechanisms, roles and responsibilities
- A1.4 Evaluate options for financing stakeholder collaboration in long-term, including environmental endowment funds
- A1.5 Provide technical support in developing sustainable financing mechanisms for stakeholder collaboration
- A1.6 Determine ways of mainstreaming ecosystem management issues and activities in sectoral programming
- A1.7 Launch pilot ecosystem collaboration mechanisms in accordance with the Institutional Framework
- A1.8 Evaluate successes and failures of pilot collaboration mechanisms and adapt Institutional Framework according to lessons learnt

The FZS Senior Technical Advisor will take lead responsibility for coordinating and facilitating the entire process (A1.1 – A1.8). FZS will also provide technical inputs with regard to the Stakeholder Analysis and the incorporation of gender-sensitive indicators, institutional development, policy and financing mechanisms. Subcontractors will be identified and hired to provide discrete inputs in areas where FZS does not have the expertise.

The other implementing partners and associates, TANAPA, ZAWA and the Tanzania Wildlife Division (WD), will take the lead in bringing the stakeholders together to design and agree the Institutional Framework (A1.3) and in implementing the pilot collaboration mechanisms (A1.7). The design of the Institutional Framework will also require the relevant Districts to take a supporting role in the coordination of relevant stakeholders (A1.3) and in providing technical inputs for determining ways to mainstream the ecosystem activities into sectoral programming (A1.6).

The main risks that may prevent Result 1 being achieved relate to Activities 1.3 and 1.7. Irreconcilable conflicts between different stakeholder groups may prevent full stakeholder collaboration and create an impasse in reaching agreement on the Institutional Framework (A1.3). In order to mitigate such conflicts, the support of an independent facilitator with mediation skills will be enlisted if deemed necessary, to conduct the stakeholder meetings and seek ways to reach a workable compromise. Another risk is that the proposed Institutional Framework is not endorsed for implementation (A1.7). The action will work to prevent such an eventuality by involving and liaising closely with all levels of government throughout the process, ensuring the Institutional Framework stays in line with national policy. In addition, as the collaborative mechanisms will be launched on a *pilot basis*, there will be further opportunities for all stakeholders to influence the final design of the Institutional Framework, based on the benefits of hindsight and practical experience.

(b) Result 2: Understanding of ecosystem structure, function, services, and management needs and priorities improved

Result 2 applies the CBD's first operational guideline for the Ecosystem Approach, which is to "focus on the functional relationships and processes within ecosystems". The Result will seek to achieve this through introducing a framework for broad ecosystem planning and management designed to characterise the key components and values of the ecosystem, the threats impacting on them, and to identify crucial management actions designed to maintain ecosystem functions and health and to ensure a continuing flow of benefits for both biodiversity conservation as well as for local communities. This will require the collaboration of both scientists and communities to integrate their knowledge and expertise. The achievement of Result 2 will be addressing four of the CBD's Ecosystem Approach Principles:

- ▶ Principle 5: Conservation of ecosystem structure and functioning, in order to maintain ecosystem services, should be a priority target of the ecosystem approach
- ▶ Principle 6: Ecosystems must be managed within the limits of their functioning
- ▶ Principle 7: The ecosystem approach should be undertaken at the appropriate spatial and temporal scale¹

¹ Under this result the emphasis is on the "spatial scale", c.f. with Result 5
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- ▶ Principle 10: The ecosystem approach should seek the appropriate balance between, and integration of, conservation and use of biological diversity

The ecosystem planning approach will be modelled on The Nature Conservancy's (TNC) site conservation planning process methodology. This process will assess the contextual information about each site, including the ecosystem conservation *targets* and the *threats* to these (i.e. the types of stresses that degrade the ecosystem and the sources that generate these stresses). The specific outputs of this process will be conservation strategies to abate the threats and enhance the viability of conservation targets (the focus of this Result), as well as ways of measuring conservation success regarding biodiversity health, threat abatement and conservation capacity (covered under Result 5).

The appropriate spatial scale of the two ecosystems will be defined at the start in order to focus the planning efforts. Defining and reaching agreement on the size and boundaries of the ecosystem (Activity 2.2) will be done by a representative cross-section of key stakeholders, which will be chosen at the Stakeholders Workshops in Year One of the action (Result 1). The "appropriate" size will need to fulfil certain scientific criteria, take into account available management capacity, knowledge and experience, and consider administrative and legal boundaries.

The decision for delimiting the boundaries of the two ecosystems will be informed by field surveys and the findings of the Stakeholder Analysis and Legal Study. The Stakeholder Analysis, conducted in Result 1, will provide a clear understanding of the main stakeholders and what their interests and management capabilities are with respect to the different natural resources and areas. The Legal Study will define the legislative and policy foundation for the current land tenure arrangements and associated natural resource bylaws and institutions within and around the two ecosystems, and will be conducted as the first activity (A2.1) of this Result. An important component of this study will be the assessment of how the legal arrangements impact on the sustainability of the associated land-use and conservation practices, which will also be important for the later zoning of areas within the overall ecosystem, in which different stakeholders will have differing degrees of management responsibility. A comparison of the findings of the Stakeholder Analysis and Legal Study will also provide a useful means to triangulate the findings to date.

Once the ecosystem boundaries are defined, a participatory mapping exercise will be conducted to consolidate the knowledge of the ecosystem structure, functions and services both spatially and temporally (Activity 2.3). This activity will be closely linked to the monitoring done under Result 5 in order to establish the socio-economic and ecological baselines. By identifying and describing the linkages between the protected areas and other components of the ecosystem, this mapping exercise will be building on the Legal Study's assessment of land tenure and the sustainability of different land-use practices.

Another important influencing factor on the functioning of the ecosystem is its economic and development context. Understanding the impacts of national and local economic and development policies and practice on the ecosystem will be the focus of the next activity (A2.4). The last major activity under this result that is concerned with understanding and documenting the ecosystem functions will be a Strategic Environmental Assessment, which will synthesise all available information concerning the ecosystem's species, habitats, ecological functions and services, and identify the major management targets and threats (Activity 2.5).

The resource base information and contextual understanding of the ecosystem, its stresses and sources of stress, built up by the above activities, will provide a strong base to develop an ecosystem management plan (Activity 2.6). The plan will be designed by a cross-section of stakeholders through planning workshops, which will identify and prioritise ecosystem management objectives, strategies and provisional actions. The plan will involve establishing a zoning scheme (or if appropriate building on an existing one) with clear management roles and guidelines being agreed by all stakeholders for each zone. The management guidelines will be aimed at optimally balancing between the conservation and use of biodiversity for each particular zone, which in turn will reduce conflicts between alternative land uses.

The final two activities (A2.7 and A2.8) of this result will seek broad national and local endorsement for the ecosystem management plans and work to integrate the plans into protected area and other stakeholder conservation and development management plans. These activities are important to mainstreaming the ecosystem approach and will complement other activities seeking to obtain this goal in Result 5.

The list of the key activities that will be carried out to achieve Result 2 is as follows:

- A2.1 *Undertake a review of land tenure arrangements within the ecosystem and assess their impact on the sustainability of associated land use and conservation practices*
- A2.2 *Define and agree on ecosystem boundaries*
- A2.3 *Carry out a participatory ecosystem resource mapping exercise, in particular identifying linkages between the protected areas and other components of the ecosystem*
- A2.4 *Develop an understanding of the economic and development context, and characterise the impacts that economic and development policies are having on ecosystem functioning*
- A2.5 *Carry out a Strategic Environmental Assessment identifying major ecosystem management targets (species, habitat, ecological functions, services) and threats*
- A2.6 *Develop an ecosystem management plan, including broad ecosystem management objectives, strategies and actions, and a zoning scheme designed to reduce conflicts between alternative land uses*
- A2.7 *Secure stakeholder endorsement for the ecosystem management plan, and identify and agree implementation roles*
- A2.8 *Integrate ecosystem management plan with protected area and other stakeholder conservation and development management plans*

The FZS Senior Technical Advisor will take the lead responsibility for coordinating and facilitating this Result. FZS will also identify and hire subcontractors to firstly undertake the Legal Study (A2.1) and secondly to provide technical inputs into guiding the Ecosystem Planning process, which will feed into a number of activities, particularly A2.6.

The other implementing partners and associates, TANAPA, ZAWA and WD, will be responsible for collecting data on the ecosystems as outlined in A2.2 to A2.5, and this will involve close collaboration with the Districts in non-protected parts of the ecosystems. TANAPA, ZAWA, WD and the Districts will also be responsible for integrating the Ecosystem Management Plan into their respective conservation and development management plans (A2.8).

The main risks that may prevent Result 2 being achieved relate to the ability of the diverse range of stakeholders to reach agreement in defining the ecosystem boundaries (A2.2), and in particular the management priorities, guidelines and responsibilities defined in the ecosystem management plans (A2.6). Consequently mitigating measures will be built into the methodology (see Section 1.8) to adopt participatory and interactive consensus-building techniques that ensure meaningful involvement and inputs from all stakeholders at each stage of the process. The aim will be to ensure that, by the time it comes to endorsing the ecosystem plans, there will be nothing contained in them that has not already been discussed and agreed upon by the stakeholders.

(c) Result 3: Institutional capacity for management of ecosystem natural resources strengthened, especially with regard local communities

Result 3 will endeavour to apply the CBD's fourth operational guideline for the Ecosystem Approach, which is to "*carry out management actions at the scale appropriate for the issue being addressed, with decentralisation to lowest level, as appropriate*". Management at the lowest appropriate level will inevitably mean management by different levels in different parts of the ecosystem, i.e. at individual farmer, community, district, national, and even, in the case of the Serengeti ecosystem, potentially at international levels. The outputs of Results 1 and 2 will have already identified the appropriate mix of diverse human institutions (according to the Institutional Frameworks and the ecosystem management plans) to protect, manage and take decisions, over the medium to long term, within the wider ecosystem. Result 3 will mainly focus on *building the capacity of the target local communities*, in particular their NRM institutions, and on enabling these communities to participate actively in the wider ecosystem collaboration mechanisms. The achievement of this Result will address the following Principle of the CBD's Ecosystem Approach:

- ▶ Principle 2: Management should be decentralised to the lowest appropriate level

As outlined in Section 1.6c, Zambia has made substantial progress since the late 1980s in developing community-based natural resource management (CBNRM) policies and practice, through programmes such as ADMADE and LIRDPA. However, these approaches need to be consolidated and refined, with roles and responsibilities clarified and local institutional capacity strengthened (as highlighted in the ZAWA Strategic Plan 2003-2007). In Tanzania there has not been such a long history

of CBNRM, and management of wildlife resources by local communities is a relatively recent approach to wildlife conservation.

Due to these differing backgrounds and circumstances, it is envisaged that the “appropriate level” of decentralisation of NR management responsibility will differ between Zambia and Tanzania, which will make the comparative lessons learnt from the piloting of the Ecosystem Approach in these two areas all the more informative (see Result 5). However, to ensure that the action, *where appropriate*, builds on and complements these different realities, an initial assessment will be carried out of the already existing community NR management institutions and mechanisms in both the Serengeti and North Luangwa ecosystems (Activity 3.1). The review will be done concomitantly and in close association with the Result 1 Community Conservation and CBNRM Policy and Practice Study (A1.2).

This assessment, alongside the Stakeholder Analysis (A1.2) and the Legal Study (A2.1), will be used as the basis for working with communities on the complex issues of determining the most appropriate arrangements for community NRM (Activity 3.2). This will require consideration of the process and level at which NRM governance and decision-making should occur, as well as the mechanisms for ensuring accountable and equitable sharing of benefits. Devolving NRM powers to the lowest and often most cohesive level (e.g. village level) can potentially maximise community empowerment, sustainability and ownership of the process. However, there are also arguments in favour of coordinating NRM at a higher level. This is because wildlife and other natural resources are spatially and temporally unevenly distributed across communities, as are the associated tourism and hunting operations, which means that benefits are also potentially unevenly distributed. Finally the degree of Government recognition and support will be an important factor to address, to ensure that these arrangements are feasible.

The outputs of Activity 3.2 will be discussed at the first Stakeholders Workshop and will form an integral component of the Institutional Framework (see Result 1, A1.3). Activity 3.3 will address the long-term sustainability of the resulting community institutions, and sustainability mechanisms will be identified through consultation with potential partners and through the study on Institutional Financing Mechanisms conducted in Result 1 (A1.4). A useful tool in consolidating this activity, setting goals for the future and attracting investments, could be through the development of business plans for selected community institutions.

The next two activities (A3.4 and A3.5) will seek to build capacity within the community institutions. The first approach will be to build up the capacity of local government to support the community NRM institutions and practices (A3.4). This will involve the training of local government trainers in the first two years of the action, who will work closely with the communities not just during the action but also well beyond. This is an important aspect for winning government support and ensuring sustainability. The second approach (A3.5) will be to provide training directly to selected pilot community institutions, especially in establishing systems of accountable management and leadership.

The final three activities will involve supporting the community institutions to initiate their key functions. The first key function (A3.6) will be in land-use planning within their communal areas. This will involve reaching consensus within the community for areas to set aside for conservation and other land uses, which will necessarily involve consulting with neighbouring communities, protected area authorities and local government. Once the communal areas have been zoned for alternative land uses, it will be possible to demarcate these areas on the ground and develop NR and land-use plans, which define the limits of acceptable use in each zone.

The next key function (A3.7) concerns the implementation of these community NR and land-use plans. Firstly, natural resource use bylaws will need to be reviewed and updated to support the plan. Secondly, community law enforcement mechanisms will need to be strengthened (or established) to enforce these bylaws and the plans in general. With regard to the enforcement mechanism, training will be provided to community scouts (A3.8 as well as in Result 5) in the dual function of law enforcement and monitoring of the natural resources in the various zones. Community monitoring of the natural resources will be essential to enable assessing the impact and appropriateness of natural resource-based enterprises that will be piloted under Result 4.

The list of the key activities that will be carried out to achieve Result 3 is as follows:

- A3.1 *Assess existing community NR management institutions and mechanisms and identify capacity building needs*
- A3.2 *Determine appropriate power sharing, coordination and benefit sharing arrangements in community natural resource management, taking account of local differences and experience*
- A3.3 *Identify mechanisms for ensuring long-term viability of community institutions, including financing mechanisms, and where appropriate provide support in developing business plans*
- A3.4 *Provide training of trainers support to local government personnel in establishing and strengthening community NRM institutions and governance structures and in promoting sustainable NRM*
- A3.5 *Provide training to institutions in business and NR management and leadership as appropriate*
- A3.6 *Provide assistance to community institutions in developing appropriate and participatory natural resource and land use management plans, and in setting aside and demarcating community conservation areas*
- A3.7 *Provide assistance to community institutions in developing natural resource use bylaws and enforcement mechanisms*
- A3.8 *Establish and train community scouts for monitoring and enforcing natural resource use bylaws and natural resource protection*

The lead for implementing this Result will be taken by the Districts. It is considered important that the Districts take this lead role, so as to ensure that a permanent institution supports the work in the communal areas with a mandate far beyond the life of the action. FZS will provide technical and logistical support to the Districts in all the activities. A subcontractor will be brought in to support and provide guidance in the training of the local government trainers and communities (A3.4 and A3.5). Finally, ZAWA and WD, will be involved at all stages of the process, to advise and endorse the decisions being made.

One of the risks to completing this Result will be that local communities will not be sufficiently cohesive and organised to participate in the formation of NR management institutions. To mitigate against such a risk, the action will carefully assess and select communities to pilot these activities that fulfil certain criteria. These criteria will include community unity, recognised and respected leadership, and will be supported by previous field experience within the communities. The general criteria used for the selection of target communities are given in section 1.6(e) above. In addition, an important component of this Result is building up the necessary skills within the communities so that they can fully participate from the start.

(d) Result 4: Incentives for local communities to be responsible custodians of ecosystem resources developed and strengthened

The aim of Result 4 is to implement the CBD's second operational guideline to "*enhance benefit-sharing*". This involves the internalisation of costs and benefits inside the ecosystem, and is a central and innovative aspect of the Ecosystem Approach. It means trying not to export inconvenient land uses and people into neighbouring ecosystems, but instead finding ways of changing these land uses to more acceptable practices, or otherwise accommodating them. In this present action, it will in particular involve enabling local communities, who look after and control ecosystem resources, to establish and benefit from NR-based enterprises, while at the same time making sure that those who generate environmental costs are the ones who meet these costs. The achievement of this Result will address the following Principle of the CBD's Ecosystem Approach:

- ▶ **Principle 4:** ...there is usually a need to understand and manage the ecosystem in an economic context. Any such ecosystem management programme should:
 - a) Reduce those market distortions that adversely affect biological diversity;
 - b) Align incentives to promote biodiversity conservation and sustainable use;
 - c) Internalise costs and benefits in the given ecosystem to the extent feasible

This Result will draw on the findings of Result 2, in particular the Legal Study (A2.1) and the characterisation of the economic and development context (A2.4). The first activity (A4.1) will develop a comprehensive understanding of the range of natural resource-based enterprise opportunities that are possible within the two ecosystems, and assess their feasibility. Potential enterprises will include non-consumptive uses (e.g. ecotourism) and consumptive uses (e.g. sports hunting). The assessment will draw on the knowledge of national entrepreneurs and independent local experts in ecotour-

ism and other relevant industries, in order to identify promising business opportunities. The most promising opportunities will be assessed according to financial, market and cultural/ social feasibility and with consideration for potential complementarities and conflicts with existing land-uses and enterprises in the area. Special effort will be made to identify the comparative advantages of these areas and corresponding business niches. The output of the assessment will also include the identification of activities to promote additional smaller-scale natural resource-based income-generating opportunities.

The next two activities (A4.2 and A4.3) will develop practical ways for communities to collaborate and form links with the protected area authorities (TANAPA, WD and ZAWA) and the private sector in developing their NR enterprises. The communities will need private sector partners that can provide the resources that are difficult to find within the community (e.g. capital, business management experience, marketing capability), at least in the early years of a new enterprise. Finding the right partner(s) will be crucial to the success of the enterprise and the selection process will therefore be rigorous and involve grassroots community members in identifying selection criteria. This process will run alongside the selection of enterprise opportunities and use the contacts established during the feasibility assessment and other appropriate networks.

In conjunction with potential partner(s), the communities will be supported to prepare detailed business development and investment plans for pilot community enterprises that demonstrate the viability of the enterprise and its investment needs (Activity A4.4). These plans will identify all the inputs required to launch the business and provide a detailed financial viability analysis, marketing strategy, site plans, etc. The business development and investment plan will form the basis for a joint venture agreement to be negotiated between the community and the private-sector partner(s). Before being finalised, a process of making the community aware of the provisions of the joint venture agreement will be undertaken, and feedback received will be incorporated.

At this stage in the development of the enterprises, support will be provided to launch the selected pilot community enterprises (Activity A4.5). This will enable the viability of the pilot enterprises to be assessed, and to incorporate the lessons learnt into the modification of the business and investment plans. This will help in seeking further investment from donors and other ecologically and socially minded investors, which will be the focus for Activity A4.6. Such investment may take the form of soft loans or grants, and will act as a "buffer" for private sector partners, enabling them to accept the increased risks and longer payback period likely to be associated with these community enterprises.

Activity 4.7 will provide support to self-help groups in taking forward the small-scale nature-based income generating activities identified in the feasibility study (A4.1). Self-help groups and opportunities for income-generation will be identified and selected by the communities, using agreed-upon criteria. Support will be provided in the form of training community-based trainers to provide practical support and guidance in developing, launching and managing new activities, and in group governance and management (e.g. group savings and credit schemes). The final Activity 4.8 will seek to improve protected area-community cooperation and to build the capacity of PA authorities to support communities in generating NR-based economic benefits. This will involve providing training to the community conservation sections of TANAPA and ZAWA.

The list of the key activities that will be carried out to achieve Result 4 is as follows:

- A4.1 Carry out feasibility assessment of natural resource-based enterprise opportunities, including ecotourism, as well as small-scale income generating opportunities*
- A4.2 Identify and establish mechanisms for collaboration between local communities and protected areas authorities in developing community NR benefits*
- A4.3 Identify marketing opportunities and potential private sector partners for scaling up community enterprises*
- A4.4 Provide assistance in preparation of business plans for new pilot enterprises and for establishing community-private sector partner joint venture agreements*
- A4.5 Provide support for launching pilot ecotourism and other community enterprises, and develop lessons learnt*
- A4.6 Facilitate identification and securing of donor and other "soft" investment funding for promising community enterprises*
- A4.7 Provide support and training to community self-help groups in developing small-scale natural resources-based income generating activities*
- A4.8 Strengthen capacity of PA community conservation sections to build PA-community cooperation and to assist communities in generating NR-based economic benefits*

As with Result 3, the lead role in implementation will be the Districts with support from FZS and close collaboration with, and involvement of, TANAPA, WD and ZAWA. The feasibility assessment (A4.1) will be done by a subcontractor with extensive experience in NR based enterprises from other ecosystems within Africa, which will be important in firstly giving an objective assessment and secondly introducing new ideas. Outside expertise will also be enlisted to help develop a framework for community enterprise business plans, and for the development of the initial business plan.

The two main risks that might prevent these activities being carried out as planned are that wildlife-based economic development opportunities are not financially or socially viable and that no appropriate conservation-compatible income-generating activities can be identified. In order to mitigate such risks, the feasibility assessment (A4.1) will have clear criteria for financial and social viability, it will work as closely as possible with the community members, and will consult as broad a range of experts as feasible, to ensure that no opportunities are overlooked. Another risk is that the self-help groups proposed in A4.7 do not form or function as expected. Mitigation measures to address this will focus on building the capacity of the PA authorities (A4.8) and the Districts trainers (A3.4) to support and give guidance to the community self-help groups, which will complement the training given directly to the communities under A4.7.

(e) Result 5: Adaptive management systems based on monitoring of ecosystem health established, and lessons learnt developed and disseminated

This final Result seeks to implement CBD's third operational guideline, which is to "*use adaptive management practices*". Adaptive management is vital if the Ecosystem Approach is to be responsive to the complexities, variability and uncertainties of ecosystem processes and functions, as well as the socio-economic systems that they interact with. This involves a learning process, which helps to adapt methodologies and practices to the ways in which these systems are being managed and monitored. The achievement of this result will address the following principles of CBD's Ecosystem Approach:

- ▶ Principle 3: Ecosystem managers should consider the effects (actual or potential) of their activities on adjacent and other ecosystems
- ▶ Principle 7: The ecosystem approach should be undertaken at the appropriate spatial and temporal scales²
- ▶ Principle 8: Recognising the varying temporal scales and lag-effects that characterise ecosystem processes, objectives for ecosystem management should be set for the long term
- ▶ Principle 9: Management must recognize change is inevitable

The monitoring of ecosystem health will build on TNC's site conservation planning methodology as described under Result 2. The first activity for this Result (A5.1) will identify key indicators for monitoring the changes in ecosystem health, threat status and conservation capacity. Indicators of ecosystem functioning and sustainable use will be developed with local communities so that they incorporate any relevant indigenous knowledge and so that the communities have a direct sense of responsibility over the quality and productivity of their environment.

The long-term ecosystem monitoring programme (Activity 5.2) will define how, when, where and by whom the indicators will be assessed so that concrete data feeds into measuring the success of the action (based on biodiversity health, threat abatement and conservation capacity), and informs adaptive management. Unforeseen issues identified by the monitoring programme may modify the long-term goals established at the start of the action, or potentially show new ways to reach them. This highlights the importance of adaptive management *over time* and the essential role of the Institutional Framework (Result 1) in enabling a high level of stakeholder collaboration in ecosystem management. The planning system described in Result 2 will be centred on objectives, rather than activities, in order to permit the necessary flexibility for managers to respond to feedback from the monitoring programme. In addition, the local communities will play an integral role in the actual monitoring, especially in the communal areas where they have developed community conservation areas and natural resource-based enterprises (Results 3 and 4).

To ensure that the monitoring programme runs effectively, the local communities, ZAWA, TANAPA and WD will be provided with comprehensive training in data collection and analysis, so that by the end of the first year a baseline for ecological and socio-economic data will be established (Activity

² Under this Result the emphasis is on "temporal scale", c.f. Result 2
EuropeAid/ENV/2004-81807

5.3). Training will also relate to conducting and analysing the data from aerial surveys of the ecosystems, which will be done in the first, third and final years of the action.

Synthesising the lessons learnt from the application of the Ecosystem Approach will be the focus of Activities 5.4 and 5.5. The lessons learnt will be evaluated for the different practices adopted by the action in the differing contexts of the Serengeti and North Luangwa ecosystems (A5.4). This will seek to quantify the costs and benefits of the alternative patterns of biodiversity management, which include the intangible ecosystem services. In addition a study will be conducted to synthesise and incorporate the lessons from similar ecosystems management approaches elsewhere, including this action's sister project - the Mahale Ecosystem Management Project presently being implemented by FZS and TANAPA with the support of the EU. The outputs of A5.4 and A5.5 will be presented at an international workshop of ecosystem managers and policymakers, with the objective of developing policy guidelines and best practice for ecosystem management (Activity A5.6).

Building on the findings of A2.4 and Result 4, Activity 5.7 will seek to understand the effect of market distortions on ecosystem health in the Serengeti and North Luangwa. This will involve investigating what negative incentives, or subsidies, are causing people to work natural resources unsustainably and what kinds of positive incentives (e.g. better land rights) would make people want to behave differently. It will also seek to quantify what economic benefits have resulted from the better ecosystem management practices adopted through this action.

The findings of this study, coupled with all the other lessons learnt generated by the action, will be incorporated into a "*Lessons Learnt, Guidelines & Policy Recommendations Report*", which will be the major documentary output of the action (see section 2.2(a) below). This report will be used to advocate national decision-makers to change policies in order to correct market distortions in ways that maximise incentives for biodiversity conservation and sustainable use of ecosystems, as well as to inform and encourage the adoption of best ecosystem management practices.

The final activity under this result will concentrate on widely publicising the findings of the action. At the start of Year One, a website will be established to document the progress being made, making available reports as they are produced. Also special attention will be given to share and disseminate lessons learnt from the adoption of this approach to neighbouring ecosystem managers, stakeholders and relevant government departments, which in time will hopefully lead logically to step-by-step scaling up of best practices (in part addressing Principle 3).

The list of the key activities that will be carried out to achieve Result 5 is as follows:

- A5.1 *Identify indicators for monitoring ecosystem health and management performance, including mechanisms for supporting adaptive management practices*
- A5.2 *Design a long-term ecosystem monitoring programme including mechanisms for participation by local communities and other stakeholders*
- A5.3 *Strengthen information collection and analysis capacity of participating stakeholders, and establish socio-economic and ecological baseline*
- A5.4 *Synthesise lessons learnt from alternative policies and practices in the two ecosystems*
- A5.5 *Incorporate additional lessons learnt from other similar ecosystem management approaches including the EU/FZS Mahale Ecosystem Management Project*
- A5.6 *Convene workshops to bring together ecosystem managers and policymakers in developing policy guidelines and best practice for ecosystem management*
- A5.7 *Advocate policymakers to correct market distortions in ways that maximise incentives for biodiversity conservation and sustainable use*
- A5.8 *Widely publicise key findings, e.g. through CBD forums and making information available on the Internet*

The FZS Senior Technical Advisor will take lead responsibility for coordinating and facilitating the design and implementation of adaptive management systems. FZS will identify subcontractors that will conduct the two studies proposed for this Result, firstly the "Lessons Learnt from Similar Ecosystem Management Approaches" study (A5.5), and secondly the "Ecosystem Health and Market Distortions" study (A4.7). The other implementing partners and associates, TANAPA, ZAWA, WD and the Districts, as well as the local communities, will play an active role in the monitoring activities and disseminating the results.

One risk to this adaptive management result will be that it is not possible to devise simple, practical and measurable indicators of ecosystem health. However it is envisaged that such eventualities will

be mitigated by involving all stakeholders in devising these indicators, as well as by the high levels of biodiversity in these ecosystems.

1.7 Methodology

(a) Methods of implementation

The methods employed are founded on the principles and operational guidelines established for the CBD's Ecosystem Approach, and can be broadly categorised under three main headings:

- ▶ **Building Capacity:** Institutional capacity building for ecosystem and natural resources management, especially the development of effective decentralised community NRM institutions
- ▶ **Participatory Planning:** Increasing understanding of ecosystem structure, function and threats, and developing monitoring and adaptive management systems designed to turn this understanding into practical and effective ecosystem management policies and practice
- ▶ **Aligning Incentives:** Developing positive incentives and minimising negative incentives that are impacting on conservation and sustainable use of ecosystem resources, especially by local communities

In applying these methods, the action will at all times work to develop a careful blend between building on existing policy frameworks, and practical experience and lessons learnt in the two pilot ecosystems, especially involving cross fertilisation of ideas between the two countries involved, as well as introducing innovative approaches that are in line with a holistic ecosystem perspective to practical field conservation and development initiatives.

Building Capacity

The action puts emphasis on building the capacity of local people and institutions to manage and use wildlife and natural resources under their own initiative. To achieve this, the action's implementation methodology focuses on the provision of practical training and technical support to local community institutions, to help local people plan for effective natural resources and wildlife management and to establish accountability and transparency. A key feature of the methodology will be the development of institutional governance systems and structures, including legal frameworks, financing mechanisms, revenue distribution systems, organisation objectives and action plans.

In addition to providing capacity building support to the target communities, the action will also support capacity building of the action partners and associates, as well as other participating ecosystem stakeholders. For example, under Results 3 and 4, the action makes provision to train district-level trainers so that they are better able to support community natural resources institutions and enterprise development. Training and capacity building will also be provided to ecosystem stakeholders through Result 1, which focuses on the development of broader institutional mechanisms for ecosystem management, and Result 5, which focuses on the development of adaptive management systems based on lessons learnt from implementing the action, and on incorporating these lessons learnt into wider ecosystem management policy and practice.

Participatory Planning

The use of participatory planning methods will be a crucial aspect of action methodology, and intimately linked with the institutional capacity building methods described above. Participatory ecosystem planning activities will be carried out at two main levels: the wider ecosystem level, in conjunction with the ecosystem management collaboration mechanism developed under Result 1, and at the grassroots community level, through support to the community NRM institutions developed and strengthened under Result 3. The application of participatory planning approaches will ensure that the stakeholders themselves are responsible for identifying important natural resources and wildlife assets in the area and for making decisions on how these assets will be used and protected.

The action will support the participatory planning process through use of Geographic Information Systems (GIS). FZS has already amassed a significant amount of experience in the application of GIS methodologies to understanding ecosystem structure and function, and in protected area planning in the Serengeti ecosystem, and has established a specific GIS Unit in the Serengeti, in collaboration with its partner TANAPA. This Unit has compiled a unique and major database on Serengeti ecological structure and functions that is of global significance. FZS is also currently applying these

participatory ecosystem planning methodologies in the sister action, the EU-funded Mahale Ecosystem Management Project in western Tanzania, also utilising GIS-based systems.

Aligning Incentives

The requirement to align the incentives of communities and other stakeholders in support of biodiversity conservation and sustainable use is a fundamental principle of all integrated conservation and development approaches, and the promotion of benefit sharing and appropriate incentives is a key underlying principle of the CBD's Ecosystem Approach. The CBD itself provides for benefit sharing and incentive measures under Decisions V/6 and V/15. There are several methods incorporated into the current action which are designed to address the issue of benefit sharing and incentives, especially with regard local communities:

- ▶ **Valuation of ecosystem services.** In order to better understand the opportunities for enhancing ecosystem benefits and incentives, it will first be important to increase knowledge and understanding of ecosystem functioning and the value of ecosystem services, and the impacts of management actions. Developing an understanding of ecosystem functioning and services is addressed in Result 2 of the action, through a Strategic Environmental Assessment and subsequent ecosystem planning exercise. This valuation will also require developing an understanding of how so-called "perverse" economic incentives are undermining the conservation and sustainable use of biodiversity.
- ▶ **Creating benefits and incentives through effective ecosystem management.** Benefit sharing under the ecosystem approach may not always require the creation of financial incentives. Equally effective results may often be achieved simply through the introduction of stakeholder driven ecosystem and natural resources planning and management systems based on sound ecological principles. The development of such planning and management systems is addressed under Results 2 and 5, and the related stakeholder coordination mechanisms under Result 1.
- ▶ **Strengthening community natural resource-based economic activities and enterprises.** Local communities will not participate in and support the ecosystem approach unless they receive tangible benefits from the introduction of new ways of managing natural resources. The action will provide technical support and training to target villages in identifying and promoting potential natural resource-based economic opportunities within the framework of their natural resource management plans. The creation of these economic opportunities is addressed under Result 4.

(b) Reasons for the proposed methodology

The focus on building capacity to manage natural resources at the grassroots community level is closely linked to the success and sustainability of the action (see section 2.4 below), because FZS believes that this is where outside assistance can have the greatest sustainable impact. Higher levels of management authority, such as district governments, will also play an important role in the action, but these were not considered to be the proper level for the main thrust of capacity building, since land and natural resources are directly controlled at the lower levels.

A supportive, facilitating role has been chosen as the most appropriate and sustainable method for FZS and its partners to deliver support to local communities and other stakeholders. FZS, with its established operational headquarters at Seronera in the heart of the Serengeti and at Marula-Puku in North Luangwa, is ideally located to provide this type of support on a regular basis. FZS envisages its input being without large-scale infrastructure or permanent location of expatriate employees in the target areas, so that local capacity is built up at a pace dictated by local people, rather than being overwhelmed by a large and sudden input of resources and activities.

(c) How the action is intended to build on a previous action (where applicable)

The action is designed to build on several previous or current actions, as follows:

- ▶ **Mahale Ecosystem Management Project** (TANAPA and FZS with support from the EU through budget line B7-620). See section 4.1 for full details. This project is also piloting an ecosystem approach to biodiversity conservation and community livelihoods, however in a tropical forest ecosystem setting. FZS regards the MEMP initiative as a *sister project* to this present action, underpinning all five Results as well as contributing to the development of lessons learnt in the application of the CBD's ecosystem approach from another different environment. The MEMP

initiative will provide extremely valuable points of comparison and lessons learnt between implementing the ecosystem approach in both forest and savannah ecosystems

- ▶ **Serengeti Ecosystem Conservation Programme** (TANAPA with support from FZS). See Section 4.1 for full details. The programme provides an important underpinning for the present action, in particular through its work to develop community natural resources institutions in pilot Wildlife Management Areas neighbouring the Serengeti (Result 3), and its work to develop ecological monitoring systems and baselines for the ecosystem (Result 5).
- ▶ **North Luangwa Conservation Programme** (ZAWA with support from FZS). See section 4.1 for full details. The programme's recently launched community conservation activities will provide an important foundation of knowledge and experience for implementing Results 3 and 4 of the present action. In addition, the NLCP has developed an ecological monitoring and GIS information base for the national park and surrounding areas that will underpin Results 2 and 5.
- ▶ **Serengeti Regional Conservation Programme** (Tanzania Wildlife Division with support from NORAD). This long-term project that has underway since 1987 is an integrated conservation and development initiative aimed at resolving land-use conflicts between conservation and socio-economic development around the Serengeti, and developing mechanisms for local communities to benefit from the wildlife resources of the Serengeti ecosystem. While the project's activities are now mainly restricted to community areas on the western side of the ecosystem, it nonetheless has provided a strong information and experience basis for many of the activities being proposed in this present action, especially under Results 3 and 4.
- ▶ **Serengeti Conservation and Development Programme** (TANAPA and FZS with support from the European Union). This now-ended project aimed at improving the management capacity of TANAPA to protect the ecological value of the park, while expanding and consolidating tourism. EU support has improved the Park's infrastructure, especially the roads network, and provided equipment and tourism. The project provides an important foundation for the development of community wildlife-based economic activities in community-managed areas adjoining the national park, in cooperation with TANAPA, under Result 4.
- ▶ **Chikwanda Mukungule Development Programme** (Chimu-DP, with support from Harvest Help). Chimu-DP was registered as an independent NGO in 1997, growing out of a former community programme managed by the North Luangwa Conservation Project (see above). The Programme operates in Mpika District and aims to enhance household food security and income of the beneficiary communities by focusing on agriculture, small business development, capacity building and networking. The Programme will provide an important foundation as well as a potential delivery mechanism for the action's CBNRM activities under Results 3 and 4. Chimu-DP is also expected to receive significant future support for its community development and food security initiatives through EU bilateral financing.

(d) Procedures for internal evaluation

An early responsibility of the two Field Coordination Teams (see section 1.8(e) below) will be the establishment of Monitoring Plans for the two action components in Serengeti and North Luangwa respectively. An initial stage in the development of these plans will be a review of the indicators provided in the logical framework in Annex C. This will involve subjecting the indicators to a reality check, and making adjustments as necessary. The action's performance monitoring process laid out in the logical framework is of course, especially at the higher impact levels, intimately linked with the long-term ecosystem monitoring programme to be developed under Result 5. To avoid duplication of effort, it is intended that all monitoring efforts will be integrated, specifically through the Monitoring Plans.

The results of performance monitoring will be utilised in two main ways. Firstly, the Field Coordination Teams will carry out an annual internal assessment exercise. Utilising the outputs from monitoring, the aim of the internal assessment will be to take a critical look at action performance and achievements during the previous year and to decide on required changes or additions needed to achieve action objectives. The decisions made at the internal assessment exercises will be reflected in annual work plans and budgets.

In addition to internal assessments, it is planned that the action will be externally evaluated on two occasions. First, a Mid-term Review will be carried out at the end of the second year. The review has been scheduled at this time to allow for a redirection of activities for Years 3-5 to take into account lessons learnt in the first two years. It will also be the appropriate time for defining a withdrawal strat-

egy, to ensure a smooth transition and the sustainability of impacts on action completion (see section 2.4, Sustainability).

A final External Evaluation will be carried out approximately six months before completion of the action. This timing allows the majority of activities to be completed while permitting the evaluation to inform the need for follow-up activities and consolidation by the partners. Both evaluation exercises will be carried out by appropriately experienced external experts drawn both locally and internationally.

The activities designed to ensure that the action is managed efficiently and effectively and that reporting is of a high standard is shown below. These activities are incorporated into the Action Plan in section 1.9 below.

- PM.1** *Hold annual Partners Meeting, including initial action launch meeting*
- PM.2** *Carry out annual internal assessments and adapt the action logical framework and work plans as necessary*
- PM.3** *Prepare annual work plans and budgets*
- PM.4** *Carry out mid-term evaluation*
- PM.5** *Carry out final evaluation*
- PM.6** *Prepare quarterly progress reports*
- PM.7** *Prepare annual progress reports*
- PM.8** *Carry out an annual financial audit*
- PM.9** *Carry out a final financial audit*

(e) Level of involvement and activity of other organisations (partners or others) in the action

The action emphasises a high level of involvement of partners (TANAPA and ZAWA) as well as associates (The Tanzania Wildlife Division and the target District authorities), both in the supervision and implementation of activities. FZS has worked very closely with both TANAPA and ZAWA for decades, with a specific focus on the Serengeti and North Luangwa ecosystems. This track record of cooperation will help guarantee that the action is implemented efficiently, with a clear understanding of roles and responsibilities, and avoiding duplication of effort.

Wherever possible, the action will take advantage of existing human resources and other institutional capacity rather than introducing time-bound action resources and structures, in order to ensure sustainability. These arrangements are illustrated in Figure 3 below, which overviews the assignment of responsibilities for FZS, partners and associates in the delivery of the action Results.

Empowerment of the partners, as well as local communities, local government and other institutions in the target areas in taking the lead in implementing action activities is critical for the sustainability of the action and in building the capacity of local institutions to replicate action outcomes. In this context, the role of FZS will mainly be to act as a facilitator and catalyst, by providing specialist technical assistance, training and appropriate material support, as well as to undertake action coordination and management, reporting and administration.

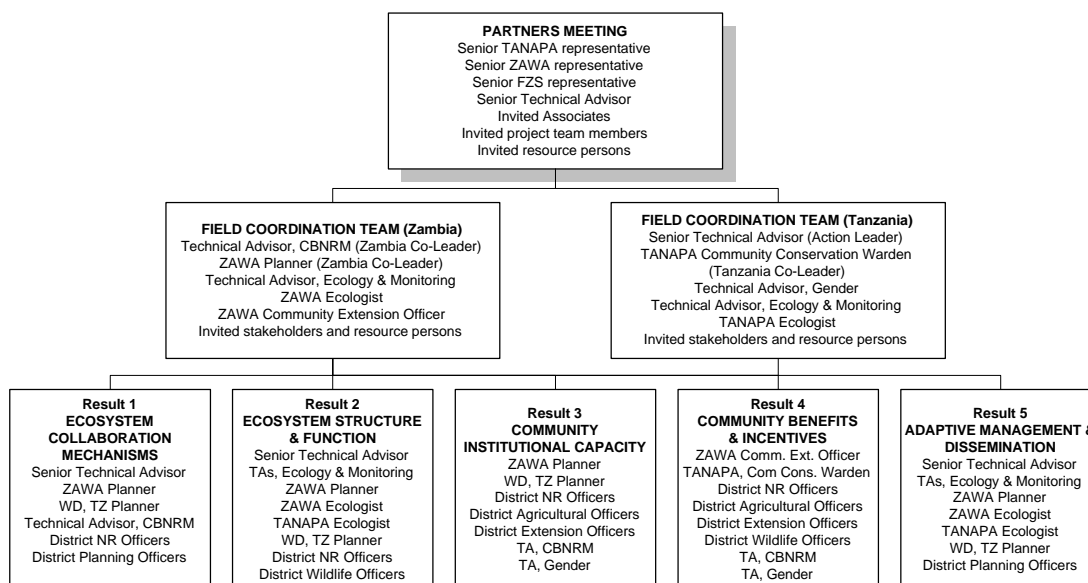


Figure 3. Assignment of responsibilities for action partners and associates

The action will utilise a simple, not top-heavy, structure for coordination between organisations involved in action implementation, for reasons of cost efficiency, sustainability, and practicality. The *Partners Meeting*, which will meet annually, will be the body responsible for overseeing the implementation of activities and for providing policy-level support. The meeting will comprise of senior representatives of the three partners, plus representatives of key associates, invited action team members, and other organisations or individuals invited to provide specific technical or project management advice and feedback (for example representatives of other organisations active in the target areas). The responsibilities of the Partners Meeting will be to:

- ▶ Hold a launch meeting to review objectives, activities and indicators, to establish key procedures for action implementation, and to finalise the Year 1 work plan and budget
- ▶ Review and approve annual work plans and budgets
- ▶ Promote inter-agency teamwork and collaboration
- ▶ Monitor the progress of activities and the achievement of action results and objectives
- ▶ Make action planning recommendations to ensure the objectives are fulfilled
- ▶ Promote broad awareness and support for objectives and activities

In addition to the annual Partners Meeting, there will also be *Field Coordination Teams* established in both the Serengeti and North Luangwa. These teams are required as a forum for hands-on action supervision. The teams will comprise field-level representatives of the Partners, plus other invited local stakeholder representatives as needed, such as district officers and other organisations working in the target areas. The teams will meet every 3-4 months, or more often as needs demand.

In addition to these action coordination mechanisms, the partners and associates will be directly involved in the implementation of activities under the five action Results, as illustrated in the diagram above, and justified in the following section.

(f) Reasons for the role of each partner

ZAWA

ZAWA is the Zambian government agency with lead responsibility for promoting biodiversity conservation and sustainable use both within the national parks as well as within the community-managed Game Management Areas (GMAs). The organisation has been working actively for many years to promote community-based natural resource management in the GMAs, including providing assistance to Community Resource Boards in land-use planning and community NR enterprise development. The development of broader ecosystem-level management approaches is also a priority set out in the ZAWA Strategic Plan, 2003-2007. In view of this mandate and the hands-on expertise across the broad spectrum of Results to be delivered by this present action, it is therefore highly appropriate that ZAWA takes a leading role in the delivery of each of the five action Results, as illustrated in Figure 3 on the previous page.

TANAPA

TANAPA is the Tanzanian Government agency with lead responsibility for the management of the nation's extensive system of national parks. In addition, TANAPA has for many years been operating a Community Conservation Programme designed to raise community conservation awareness, to improve relationships between park managers and local communities, and to provide benefits and community development inputs to park neighbours. TANAPA's management programmes in the Serengeti have a strong ecological underpinning, and in collaboration with FZS they have in recent years been strengthening ecosystem monitoring activities, as a foundation for park management. In view of these areas of expertise, it is appropriate that TANAPA takes a leading role on the delivery of activities under Result 2, Ecosystem Structure and Function, Result 4, Community Benefits & Incentives, and Result 5, Adaptive Management & Dissemination.

Tanzania Wildlife Division

The Tanzania Wildlife Division is the government department with responsibility for the management of wildlife resources outside the national parks. In the last two years, the Wildlife Division has launched a new initiative to pilot the development of community-managed "Wildlife Management Areas" in areas which were formally Controlled Hunting Areas, with the aim of eventually devolving

management responsibility to approved community institutions that will be responsible for wildlife management within the WMA and will also receive a significant share of the benefits accruing from wildlife use in these areas. There are four pilot WMAs nominated in the Serengeti ecosystem, Ikona, Eramatare, Lake Natron and Makau. In view of these important new initiatives in promoting CBNRM in Tanzania, it is appropriate that the Wildlife Division should play a lead role in the delivery of activities under Result 3, as well as contributing towards all the other four results of the Action.

District Authorities

The district authorities in both Tanzania and Zambia are the government department with primary responsibility for the socio-economic development and welfare of the local communities living in the two ecosystems. They have both the mandate to work on socio-economic and natural resources management issues, as well as the specialist technical capacity, albeit in need of strengthening, to provide important inputs necessary for the implementation of this present action. They also have a degree of capability to carry out outreach training programmes within the target villages. In view of this mandate, experience and capacity, it is therefore appropriate that the district authorities have a lead role with regard all those action results dealing with community socio-economic development issues, in particular Results 3 and 4. It will also be important that the district planning staff are also involved in the broader ecosystem collaboration, function, and adaptive management initiatives that will be implemented through Results 1, 2 and 5.

(g) Team proposed for implementation of the action

Table 3 below details the team proposed for the implementation of the action, together with their main areas of responsibility (lead or support responsibility) for delivering the five action Results. The table also indicates whether individual team members are expatriate or local hires, and whether they are full or part-time positions. For part-time team members, the budget in Annex B.1 indicates the anticipated proportion of time and number of days per annum each team member will contribute to the implementation of the Action.

Table 3. The team for implementing the action, showing major areas of responsibility

Organisation	Functional Title	Nature of Input	Responsibility for Result Delivery				
			1	2	3	4	5
FZS (Applicant)	Senior Technical Advisor (Team Leader)	E/FT	■	■	■	■	■
	Technical Advisor, CBNRM	L/FT			■	■	
	Technical Advisor, Gender	L/FT			■	■	
	Technical Advisors, Ecology & Monitoring (x2)	E/PT		■			■
	Community Devt. Officers (x2)	L/FT			■	■	
	Action Administrative/Logistical Assistant (x2)	L/FT	■	■	■	■	■
ZAWA (Partner)	Planner	L/PT	■	■	■		■
	Ecologist			■			■
	Community Extension Officer	L/PT				■	
TANAPA (Partner)	Community Conservation Warden	L/PT				■	
	Ecologist	L/PT		■			■
WD, TZ (Associate)	Planner	L/PT	■	■	■		■
Districts (Associates)	Natural Resources Officers (x5)	L/PT	■	■	■	■	
	Wildlife Officers (x5)	L/PT		■		■	

Key

Lead responsibility	■	Local staff	L	Full-time	FT
Support responsibility	■	Expatriate staff	E	Part-time	PT

1.8 Duration and action plan

The duration of the action will be : See Article 2 of the Special Conditions.
The Year 1 and Years 2-5 Action Plans are given on the following pages.

One-year action plan

Activity		Year 1												Implementing body	
		Semester 1 (Month)						Semester 2 (Month)							
		1	2	3	4	5	6	7	8	9	10	11	12		
R1	Decentralised and cross-sectoral institutional mechanisms established for effective collaboration between diverse stakeholders in ecosystem management														
A1.1	<i>Carry out Stakeholder Analysis to determine roles, interests, management capabilities and commitment with regard to the ecosystem</i>														
A1.1.1	Design stakeholder analysis framework	■													FZS
A1.1.2	Conduct stakeholder consultations		■	■	■										
A1.1.3	Synthesise stakeholder analysis report					■	■								
A1.2	<i>Evaluate community conservation and CBNRM policies and practices in Zambia and Tanzania, and build in the synergies and lessons learnt into ecosystem management design</i>														
A1.2.1	Design scope of work & identify technical specialist to do the study	■													FZS/ subcontractor
A1.2.2	Compile and synthesise evaluation report		■	■											
A1.3	<i>Establish an Institutional Framework for stakeholder collaboration in ecosystem management, defining cooperation and conflict resolution mechanisms, roles and responsibilities</i>														
A1.3.1	Workshop preparation							■	■						FZS
A1.3.2	Stakeholder Workshops in Zambia and Tanzania									■					TANAPA/ ZAWA
A1.3.3	Consolidation and first draft of Institutional Framework										■	■	■		FZS/ Districts
R2	Understanding of ecosystem structure, function, services, and management needs and priorities improved														
A2.1	<i>Undertake a review of land tenure arrangements within and around the ecosystem and assess their impact on the sustainability of associated land use and conservation practices</i>														
A2.1.1	Design scope of work & identify technical specialist				■										FZS/ subcontractor
A2.1.2	Compile and synthesise the report					■	■								
A2.2	<i>Define and agree on ecosystem boundaries</i>														
A2.2.1	Select and agree criteria for defining “ecosystem”							■	■	■					

Activity		Y e a r 1												Implementing body		
		Semester 1 (Month)						Semester 2 (Month)								
		1	2	3	4	5	6	7	8	9	10	11	12			
A2.2.2	Identify a cross section of key stakeholders to define boundary, to be elected by the Stakeholder Workshop (A1.3.2)															FZS/ TANAPA/ ZAWA
A2.2.3	Carry out boundary definition exercise															
A3.3	<i>Carry out a participatory ecosystem resource mapping exercise, in particular identifying linkages between the protected areas and other components of the ecosystem</i>															
A3.3.1	Identify participatory mapping team (at Stakeholder Workshop, A1.3.2)															FZS/ TANAPA/ ZAWA
A2.3.2	Conduct resource mapping exercise															
R3	Institutional capacity for management of ecosystem natural resources strengthened, especially with regard local communities															
A3.1	<i>Evaluate existing community NR management institutions and mechanisms and identify capacity building needs</i>															
A3.1.1	Prepare a scope of work															Districts/ ZAWA/ WD/ FZS
A3.1.2	Carry out evaluation															
A3.2	<i>Determine appropriate power sharing, coordination and benefit sharing arrangements in community natural resource management, taking account of local differences and experience</i>															
A3.2.1	Prepare issues and analytical framework, based on stakeholder analysis (A1.3) and A3.1															Districts/ WD/ ZAWA/ FZS
A3.2.2	Prepare provisional outline for Stakeholder Workshop															
A3.3	<i>Identify mechanisms for ensuring long-term viability of community institutions, including financing mechanisms, and where appropriate provide support in developing business plans</i>															
A3.3.1	Initial identification of key sustainability issues															Districts/ WD/ ZAWA/ FZS
A3.3.2	Include issues in provisional scope of work for the institutional financing study (A1.4)															
A3.4	<i>Provide training of trainers support to local government personnel in establishing and strengthening community NRM institutions and governance structures and in promoting sustainable NRM</i>															
A3.4.1	Identify appropriate training needs, trainers and trainees (during and after Stakeholder Workshop (A1.3.2)															Districts/ WD/ ZAWA/ FZS/ subcontractor
A3.4.2	Start initial training of trainers															

Activity		Y e a r 1												Implementing body	
		Semester 1 (Month)						Semester 2 (Month)							
		1	2	3	4	5	6	7	8	9	10	11	12		
R4	Incentives for local communities to be responsible custodians of ecosystem resources developed and strengthened														
A4.2	<i>Identify and establish mechanisms for collaboration between local communities and protected areas authorities in developing community NR benefits</i>														
A4.2.1	Initial identification of key stakeholders to develop park-community collaborations (including at Stakeholder Workshop)														Districts/ TANAPA/ ZAWA/ FZS
R5	Adaptive management systems based on monitoring of ecosystem health established, and lessons learnt developed and disseminated														
A5.1	<i>Identified indicators for monitoring ecosystem health and management performance, including mechanisms for supporting adaptive management practices</i>														
	Provisional identification of biodiversity and socio-economic indicators														FZS/ ZAWA/ TANAPA
	Discussion and adaptation of indicators by wider stakeholders														FZS/ ZAWA/ TANAPA/ WD/ Districts
A5.2	<i>Design a long-term ecosystem monitoring programme including mechanisms for participation by local communities and other stakeholders</i>														
A5.2.1	Provisional design of monitoring programme														FZS
A5.2.2	Initial baseline aerial survey and analysis														FZS
A5.2.3	Discussion and modification of programme with stakeholders, including at Stakeholder Workshop (A1.3.2)														FZS/ TANAPA/ ZAWA
A5.3	<i>Strengthen information collection and analysis capacity of participating stakeholders, and establish socio-economic and ecological baseline</i>														
	Select and train community and Protected Area enumerators in data collection techniques														FZS/ TANAPA/ ZAWA
	Conduct baseline socio-economic and ecological survey														
A5.4	<i>Widely publicise key findings, e.g. through CBD forums and making information available on the Internet</i>														
A5.4.1	Establish website														FZS
A5.4.2	Maintain and update website (ongoing)														FZS
PM.1	Hold Partners Action Launch Meeting														FZS/ TANAPA/ ZAWA
PM.2	Carry out annual internal assessments and adapt the action logical framework and work plans as necessary														Field Coordination Team
PM.3	Prepare annual work plans and budgets														Field Coordination Team
PM.6	Prepare quarterly progress reports														Field Coordination Team
PM.7	Prepare annual progress reports														Field Coordination Team
PM.8	Carry out an annual financial audit														External

Four-year action plan

Activity		Year 2 (Semester)		Year 3 (Semester)		Year 4 (Semester)		Year 5 (Semester)		Implementing body
		3	4	5	6	7	8	9	10	
R1	Decentralised and cross-sectoral institutional mechanisms established for effective collaboration between diverse stakeholders in ecosystem management									
A1.1	Carry out Stakeholder Analysis to determine roles, interests, management capabilities and commitment with regard to the ecosystem									
A1.2	Evaluate community conservation and CBNRM policies and practices in Zambia and Tanzania, and build in the synergies and lessons learnt into ecosystem management design									
A1.3	Establish an Institutional Framework for stakeholder collaboration in ecosystem management, defining cooperation and conflict resolution mechanisms, roles and responsibilities									FZS/ TANAPA/ ZAWA/ Districts
A1.4	Evaluate options for financing stakeholder collaboration in long-term, including environmental endowment funds									FZS/ subcontractor
A1.5	Provide technical support in developing sustainable financing mechanisms for stakeholder collaboration									FZS/ subcontractor
A1.6	Determine ways of mainstreaming ecosystem management issues and activities in sectoral programming									FZS/ Districts
A1.7	Launch pilot ecosystem collaboration mechanisms in accordance with the Institutional Framework									TANAPA/ ZAWA
A1.8	Evaluate successes and failures of pilot collaboration mechanisms and adapt Institutional Framework according to lessons learnt									FZS
R2	Understanding of ecosystem structure, function, services, and management needs and priorities improved									
A2.1	Undertake a review of land tenure arrangements within the ecosystem and assess their impact on the sustainability of associated land use and conservation practices									
A2.2	Define and agree on ecosystem boundaries									
A2.3	Carry out a participatory ecosystem resource mapping exercise, in particular identifying linkages between PAs and other ecosystem components									FZS/ TANAPA/ ZAWA
A2.4	Develop an understanding of the economic and development context, and characterise the impacts that economic and development policies are having on ecosystem functioning									FZS/ subcontractor
A2.5	Carry out a Strategic Environmental Assessment identifying major ecosystem management targets (species, habitat, ecological functions, services) and threats									FZS/ TANAPA/ ZAWA
A2.6	Develop an ecosystem management plan, including broad ecosystem management objectives, strategies and actions, and a zoning scheme designed to reduce conflicts between alternative land uses									FZS/ TANAPA/ ZAWA/ subcontractor

Activity		Year 2 (Semester)		Year 3 (Semester)		Year 4 (Semester)		Year 5 (Semester)		Implementing body
		3	4	5	6	7	8	9	10	
A2.7	Secure stakeholder endorsement for the ecosystem management plan, and identify and agree implementation roles									FZS/ TANAPA/ ZAWA
A2.8	Integrate ecosystem management plan with protected area and other stakeholder conservation and development management plans									FZS/ TANAPA/ ZAWA
R3	Institutional capacity for management of ecosystem natural resources strengthened, especially with regard local communities									
A3.1	Assess existing community NR management institutions and mechanisms and identify capacity building needs									
A3.2	Determine appropriate power sharing, coordination and benefit sharing arrangements in community natural resource management, taking account of local differences and experience									
A3.3	Identify mechanisms for ensuring long-term viability of community institutions, including financing mechanisms, and where appropriate provide support in developing business plans									FZS/ subcontractor
A3.4	Provide training of trainers support to local government personnel in establishing and strengthening community NRM institutions and governance structures and in promoting sustainable NRM									Districts/ FZS/ subcontractor
A3.5	Provide training to institutions in business and NR management and leadership as appropriate									Districts/ FZS
A3.6	Provide assistance to community institutions in developing appropriate and participatory natural resource and land use management plans, and in setting aside and demarcating community conservation areas									Districts/ FZS
A3.7	Provide assistance to community institutions in developing natural resource use bylaws and enforcement mechanisms									Districts/ FZS
A3.8	Establish and train community scouts for monitoring and enforcing natural resource use bylaws and natural resource protection									TANAPA/ WD/ ZAWA
R4	Incentives for local communities to be responsible custodians of ecosystem resources developed and strengthened									
A4.1	Carry out feasibility assessment of natural resource-based enterprise opportunities, including ecotourism, as well as small-scale income generating opportunities									FZS/ Districts
A4.2	Identify and establish mechanisms for collaboration between local communities and protected areas authorities in developing community NR benefits									TANAPA/ ZAWA/ Districts
A4.3	Identify marketing opportunities and potential private sector partners for scaling up community enterprises									Districts/ FZS
A4.4	Provide assistance in preparation of business plans for new pilot enterprises and for establishing community-private sector partner joint venture agreements									Districts/ FZS
A4.5	Provide support for launching pilot ecotourism and other community enterprises, and develop lessons learnt									Districts/ FZS

Activity		Year 2 (Semester)		Year 3 (Semester)		Year 4 (Semester)		Year 5 (Semester)		Implementing body
		3	4	5	6	7	8	9	10	
A4.6	Facilitate identification and securing of donor and other "soft" investment funding for promising community enterprises									Districts/ FZS
A4.7	Provide support and training to community self-help groups in developing small-scale natural resources-based income generating activities									Districts/ FZS
A4.8	Strengthen capacity of protected area community conservation sections to build PA-community cooperation and to assist communities in generating NR-based economic benefits									Districts/ FZS
R5	Adaptive management systems based on monitoring of ecosystem health established, and lessons learnt developed and disseminated									
A5.1	Identify indicators for monitoring ecosystem health and management performance, including mechanisms for supporting adaptive management practices									
A5.2	Design a long-term ecosystem monitoring programme including mechanisms for participation by local communities and other stakeholders									
A5.3	Strengthen information collection and analysis capacity of participating stakeholders, and establish socio-economic and ecological baseline									FZS
A5.4	Synthesise lessons learnt from alternative policies and practices in the two ecosystems									FZS
A5.5	Incorporate additional lessons learnt from other similar ecosystem management approaches including the EU/FZS Mahale Ecosystem Management Project									FZS/ Subcontractor
A5.6	Convene workshops to bring together ecosystem managers and policymakers in developing policy guidelines and best practice for ecosystem management									FZS
A5.7	Advocate policymakers to correct market distortions in ways that maximise incentives for biodiversity conservation and sustainable use									FZS/ Districts/ ZAWA/ TANAPA
A5.8	Widely publicise key findings, e.g. through CBD forums and making information available on the Internet									FZS/ TANAPA/ ZAWA
PM.1	Hold annual Partners Meeting, including initial action launch meeting									FZS/ TANAPA/ ZAWA
PM.2	Carry out annual internal assessments and adapt the action logical framework and work plans as necessary									Field Coordination Team
PM.3	Prepare annual work plans and budgets									Field Coordination Team
PM.4	Carry out mid-term evaluation									External
PM.5	Carry out final evaluation									External
PM.6	Prepare quarterly progress reports									Field Coordination Team
PM.7	Prepare annual progress reports									Field Coordination Team
PM.8	Carry out an annual financial audit									External
PM.9	Carry out a final financial audit									External

2. Expected results of the action

2.1 Expected impact on target groups

Table 4 overpage details the expected impacts of the action in terms of improvements in the situation of the target groups, as well as in the technical and managerial capabilities of both the target groups and other beneficiaries. The expected impacts are set out according to the five Results of the action. The table also provides the Objectively Verifiable Indicators that have been established as a means of monitoring and evaluating action performance, and that are also incorporated into the Logframe in Annex C. These Indicators will need to be further refined and verified as an early activity during the implementation of the action and the establishment of a monitoring plan, at which time baseline data will also be collected (see section 1.8(d)).

Please refer to Table 2 in section 1.6(d) for a full description of the target groups, and Table 1 concerning the direct and indirect beneficiaries of the action.

2.2 Publications and other outputs

The following publications and related outputs will be produced by the action:

(a) Lessons Learnt, Guidelines & Policy Recommendations Report

This seminal output of the action, produced during Year 5, will provide detailed information on the experiences of implementing the ecosystem approach in the two pilot ecosystems. Emphasis will be placed on comparative findings and lessons learnt, both between the two pilot ecosystems as well as with other similar ecosystem approaches elsewhere in Africa (and perhaps from other continents). The aim will be to generate best practice recommendations and guidelines both for biodiversity conservation and human development policymakers, as well as for natural resources professionals at the field level. The report will incorporate the outputs of the best practice workshops that will be held during the course of the action, involving stakeholders from Zambia and Tanzania as well as from other countries carrying out similar ecosystem management and CBNRM approaches. The report will be disseminated widely both within Tanzania and Zambia as well as to other African countries, utilising FZS' network of contacts with natural resources management and environmental ministries and departments, and will also be made available for download from the Internet.

(b) Specific Technical Reports

These technical reports will be produced as outputs of the technical studies that are expected to take place during the course of the action, to provide a strong information foundation for implementation. At this stage, the following nine studies have been identified and are specifically included in the Budget in Annex B1:

- ▶ Community Conservation and CBNRM Policy and Practice Study (Result 1)
- ▶ Land Tenure, Bylaws & Institutions Legal Study (Result 1&2)
- ▶ Institutional Financing Mechanisms (Result 1)
- ▶ Ecosystem Planning Consultancy (Result 2) - 2 phases
- ▶ NRM Training of Trainers (Result 3) - 2 phases
- ▶ Feasibility Study of NR-based Enterprise Opportunities (Result 4)
- ▶ Community Enterprise Business Planning (Result 4)
- ▶ Study on Lessons Learnt from Similar Ecosystem Management Approaches (Result 5)
- ▶ Ecosystem Health & Market Distortions Study (Result 5)

The reports of these various studies will also be distributed to natural resources management policymakers and practitioners in Zambia and Tanzania, as well as further afield, and will also be made available for download from the Internet.

Table 4. Expected Impacts of the Action on the Situation of the Target Groups and on Technical and Managerial Capacity

Result	Expected Impact		Indicator
	Situation of target groups	Technical & management capability of target groups, partners and associates	
Result 1: Decentralised and cross-sectoral institutional mechanisms established for effective collaboration between diverse stakeholders in ecosystem management	Significant community participation in the collaborative ecosystem management and planning components of the action under Results 1, 2 and 5 are expected to lead to greater empowerment of local people in decision-making that affects their livelihoods, and in particular to help reverse the current situation whereby some of the main natural resource custodians (e.g. women and the poorest members of society) do not play any part of decision-making regarding these resources.	<p>ZAWA, TANAPA and District technical staff and other ecosystem stakeholders will have developed an institutional framework for stakeholder cooperation in ecosystem management. They will also have identified long-term financing options, and been involved in activities to secure sustainable financing. They will have launched the pilot ecosystem collaboration mechanisms, and developed lessons learnt based on experience during the pilot initiatives.</p> <p>Target communities in each ecosystem will have enhanced understanding about ecosystem and natural resources management issues, and they will have sufficient confidence and knowledge to participate in ecosystem planning and management activities.</p>	<ul style="list-style-type: none"> ▶ By Year 3, at least 50% of institutional stakeholders are participating actively and regularly in the ecosystem management forums and are aware of their rights, roles and responsibilities ▶ By Year 5, 75% of target communities feel that they are effectively represented and participating in ecosystem management forums ▶ By end Year 4, at least 25% of community representatives on ecosystem management forums are women or disadvantaged community members ▶ By Year 5, sustainable financing mechanisms for ecosystem management forums have been designed and funding has been secured for at least 50% of recurrent costs
Result 2: Understanding of ecosystem structure, function, services, and management needs and priorities improved	See above.	<p>ZAWA, TANAPA and District technical staff and other ecosystem stakeholders will have developed a strong understanding of ecosystem structure, functions, services, as well as the threats impacting on these values. They will have worked together in a participatory manner to develop an ecosystem management plan that defines the major objectives for ecosystem management, and prescriptions and guidelines for use of ecosystem resources. They will be better able to turn planning outputs into tangible everyday action, working with local communities for mutual benefit.</p> <p>Stakeholders will have a strong understanding of the requirements for conserving ecosystem structure and function in order to maintain ecosystem services, and how to achieve an appropriate balance between, and integration of, conservation and use of biodiversity. They will have begun taking steps to integrate ecosystem management priorities and actions into their own</p>	<ul style="list-style-type: none"> ▶ By Year 1, criteria have been established for defining the extent of ecosystems, and stakeholders have agreed on ecosystem definitions for Serengeti and North Luangwa ▶ By Year 3, 50% of ecosystem stakeholders are able to identify the key functions and services of the ecosystem, and the main threats to these values ▶ By Year 3, an ecosystem management plan has been prepared in a participatory manner and has been endorsed by stakeholders ▶ By Year 5, ecosystem management plan priorities and actions have been incorporated into the action plans of at least 30% of participating institutions

Result	Expected Impact		Indicator
	Situation of target groups	Technical & management capability of target groups, partners and associates	
		<p>sectoral planning.</p> <p>Leaders selected by target communities will have participated in ecosystem planning activities and will have gained an understanding of how their natural resource needs and priorities impact on and relate to wider ecosystem management conservation and use prerogatives.</p>	
Result 3: Institutional capacity for management of ecosystem natural resources strengthened, especially with regard local communities	Participatory community planning and NRM institution capacity building is expected to have resulted in improvements in the livelihood security of the natural-resource dependent target communities, in particular through reduced conflicts between different natural resource uses, increased security of tenure leading to improved land management practices, and by helping to increase and focus other support (e.g. from local NGOs) for improved land management practices and natural resources development.	<p>ZAWA, TANAPA and District technical staff and other ecosystem stakeholders will have received training and developed their skills in facilitating community-based land-use planning, and in the establishment, strengthening and financial sustainability of community-based natural resources management institutions. They will have developed a format for strengthening community bylaws, and will have enhanced their skills in assisting communities to develop bylaws, and at facilitating the approval of bylaws by district authorities.</p> <p>Target communities will have significantly improved their technical skills with regard the conservation and sustainable use of their natural resources. They will have acquired management skills in establishing and running community natural resources institutions, and conflict resolution skills in reconciling natural resource use conflicts. Selected community members will have received training and practical experience at monitoring natural resource use and enforcing NR bylaws.</p>	<ul style="list-style-type: none"> ▶ By Year 3, participatory land-use planning has been carried out in 30% of target communities ▶ By Year 5, representative and inclusive community NR management institutions have been established in all target communities ▶ By Year 5, NR management bylaws have been developed and are being enforced by village scouts in at least 50% of target villages ▶ By Year 5, 50% of community institutions in target areas have established viable self-financing mechanisms based on the development of realistic business plans ▶ By end Year 3, at least 50 % of participating technical staff from partners and associates have received formal on-the-job training in support of community NRM capacity building
Result 4: Incentives for local communities to be responsible custodians of ecosystem resources developed and strengthened	The target groups are expected to have achieved significant improvements in their financial, social and human capitals, through institutional and individual participation in launching new natural resource-based economic enterprises and other income-generating activities. Income from wildlife-related enterprise will have been distributed among people within target villages	ZAWA, TANAPA and District technical staff and other ecosystem stakeholders will have received training and strengthened their skills in developing community based income generation schemes and in providing capacity-building training to community self-help groups. They will be experienced at assisting communities to organise wildlife and natural resource-based enterprise schemes, including identifying marketing channels, developing business plans, and negotiating equitable joint venture arrangements with private sector partners.	<ul style="list-style-type: none"> ▶ By Year 4, 70% of target communities have at least one NR-based activity or enterprise being implemented by viable and cohesive user groups ▶ By Year 5, at least two community-private sector or community-park joint ventures have been established, with support from the action, and business plans, marketing channels and start-up financing are in place ▶ By Year 5, there has been a marked im-

Result	Expected Impact		Indicator
	Situation of target groups	Technical & management capability of target groups, partners and associates	
	according to the priorities of local people and the controls and guidelines developed in Result 3. It is likely that at least some of the revenue generated from wildlife use activities will be distributed directly to all registered villagers, for example, through payment of school bursaries and other relief targeting the poorest members of society. Employment opportunities will also be created, specifically jobs with tourism operators and jobs for game scouts within each village.	Target communities will have significantly improved their business management skills with regard the establishment and running of community NR enterprises. They will be knowledgeable about their rights and responsibilities in NR management, and fully empowered to negotiate and develop joint venture arrangements with private sector partners.	provement in attitudes to wildlife conservation in at least 50% of target communities, compared to baseline information
Result 5: Adaptive management systems based on monitoring of ecosystem health established, and lessons learnt developed and disseminated	See Result 1.	<p>ZAWA, TANAPA, Tanzania Wildlife Division and District technical staff will have received on-the-job training in ecosystem monitoring and will have strengthened capacity for information collection and analysis. They will have participated in workshops aimed at synthesising lessons learnt from ecosystem management initiatives and they will have helped develop policy and best practice guidelines.</p> <p>Target communities will have gained the skills to take part in ecosystem monitoring activities, especially as regards their own natural resource use practices are concerned. Community scouts will be trained to carry out field monitoring activities, to compile data, and to provide data on a regular basis to wider ecosystem monitoring systems. Selected community leaders will have been trained to interpret ecosystem monitoring data routinely fed back to them, and will have the confidence and ability to explain ecosystem monitoring findings to their constituencies.</p>	<ul style="list-style-type: none"> ▶ By Year 2, socio-economic and ecological baseline information established for all target areas ▶ By end Year 4, at least 30% of target communities are regularly providing monitoring information that inputs into wider ecosystem monitoring activities, and are also receiving regular feedback on the use of their information ▶ By Year 5, at least 30% of institutional stakeholders involved in ecosystem management can demonstrate how monitoring of ecosystem health and management performance indicators has influenced their own management plans and practices ▶ By Year 5, at least three policymakers and practitioners workshops have been convened to disseminate lessons learnt and to influence incorporation of ecosystem conservation and management issues into national development planning

(c) Ecosystem Management Plans

Two plans for the North Luangwa and Serengeti ecosystems will be produced as a major output of Result 2. The plans will have a simple structure designed to facilitate ecosystem management action as well as ecosystem monitoring, and will be provided to all ecosystem stakeholders as well as other interested parties. A simplified version of the plan highlighting the main points will be provided to the target local communities participating in the action.

(d) Action Website

The action website will provide information in a user-friendly format concerning action outcomes, lessons learnt from monitoring, the specific technical reports detailed above for download, and any other information of interest and potential use to the global community. The website will be used as a tool for creating linkages between action stakeholders and projects in other similar areas, so that experience and lessons can be shared.

(e) Action Progress Reports

The progress reporting is designed to inform stakeholders and fulfil donor and government reporting requirements, while not constraining the time and resources available for implementing activities. This balance will be achieved using the following three-tier reporting structure:

- ▶ A concise quarterly progress report. The quarterly reports will describe and account for actual programme implementation in comparison with the action logframe, annual work plan and budgets.
- ▶ An annual progress report describing activities undertaken, achievements, and other major events. The annual report will incorporate the outcome of the annual assessment exercise and the annual work plan and budget for the following year, as well as an income/expense statement and other financial information according to donor requirements.
- ▶ A comprehensive final report summarising significant achievements and lessons learnt, and incorporating major recommendations and conclusions from the External Evaluation.

The annual progress and final reports will be posted on the action website. The applicant will give maximum visibility and credit for any grant that may be awarded by the European Union. This will be achieved through appropriate signage on site, on all documentation and the action website, and in any publicity for the action in the media.

2.3 Multiplier effects

The action is expected to have multiplier effects both at the policy level, with regard the further development of policies for the effective management, conservation and sustainable use of Africa's ecosystems, as well as at the practice level, in terms of the further development and strengthening of practical approaches that empower local communities to manage and utilise natural resources sustainably and that enable stakeholder collaboration in ecosystem management.

(a) Policy

The Ecosystem Approach to biodiversity conservation and sustainable use that is adopted in this action is relatively new, and although a number of African countries have for many years been developing and testing community-based natural resource management approaches that are an important ingredient of any holistic approach to ecosystem management, there is relatively little policy development that encompasses and underpins a broad ecosystem approach. The development of this policy foundation and its wider propagation to other African nations in addition to the two target countries, Zambia and Tanzania, is an important feature of the action. This is specifically addressed in Result 5, which incorporates a number of elements designed to enhance the policy multiplier effects of the action, including:

- ▶ Convening several international workshops during the course of the action, to bring together ecosystem managers and policymakers in developing policy guidelines and best practice for ecosystem management

- ▶ Widely publicising key findings, e.g. through forums of the Convention on Biological Diversity, and through making information, lessons learnt and guidelines available on the Internet
- ▶ The preparation and dissemination of reports on the findings and recommendations of the action, including an overall *Lessons Learnt, Guidelines & Policy Recommendations Report*, as well as reports on a variety of specialist studies (see previous section).

Through these activities, it is expected that the action will make a significant contribution to the development of policy in support of the Ecosystem Approach in particular, and biodiversity conservation and sustainable development policy more generally.

(b) Practice

The capacity building and participatory approaches that are the cornerstone of the approach adopted by the action are expected to lead not just to sustainability of action outcomes in the target areas (see next section), but also to ease of replication in other areas. The process of replication will also be facilitated through the production of practical guidelines and training documents designed for ease of use by natural resources and development practitioners in other areas.

2.4 Short- and long-term impact

(a) Financial impact

Designing ways of ensuring that the Results are consolidated and extended after the action has ended has been a key consideration. The action's strong emphasis on both institutional and individual capacity building, as well as a *facilitating* rather than implementing role for the applicant, is designed to ensure lasting financial, institutional and policy impacts. For example, the majority of activities implemented as a result of the action are expected to be incorporated into the ongoing work plans and recurrent budgets of existing institutions as the action progresses. This will ensure that there is a smooth transition to internal sources of finance, rather than an abrupt hiatus on termination of the action, or a requirement for further donor funding. Achieving this smooth transition will be one of the major functions of the action's withdrawal strategy, to be developed at the time of the Mid-term Review.

In addition, the action's emphasis on building capacity within existing institutions, on participatory ecosystem and natural resources planning, and on launching pilot community NRM activities, means that many activities will be completed and outputs delivered within the action timeframe, and will require a much lower level of financial support (and external technical assistance) from the action partners and other stakeholders in the future. For instance, the ecosystem planning process under Result 2 will be completed and the implementation of the plan will be well underway by the end of the action. For selected activities, particularly the pilot community NRM activities, ongoing assistance is likely to be required, but the level of support anticipated is within the capability of the partners to provide, working where appropriate in conjunction with local rural development NGOs, local government agencies, etc. The need for support from such NGOs and other institutions and how they can best be integrated into action activities and follow-up will be addressed by the withdrawal strategy.

The action's financial sustainability is strongly enhanced as a result of the long-term commitments of the applicant and the partners, ZAWA and TANAPA, to the sustainable management of the Serengeti and North Luangwa ecosystems. FZS has now been providing financial and technical support to the Serengeti ecosystem for more than four decades, and to North Luangwa for almost two decades. It is an explicit policy of FZS to maintain such long-term commitments to the conservation of key African ecosystems, whether or not it is possible to secure additional donor financing for innovative and catalytic actions such as the present one.

(b) Institutional impact

A major emphasis of the action is on building capacity and developing new approaches *within existing institutions*, rather than creating time-bound "project" structures that collapse when the action ends. The main institutions targeted in the action are community-based natural resources

management institutions, the five target districts, and the partners and other associates themselves, TANAPA, ZAWA and the Tanzania Wildlife Division. No new action-limited institutions will be established by the action.

Key sustainability aspects of the action's capacity building are:

- ▶ The emphasis on the participation of the locally-based partners and associates in the leadership and implementation of activities (not just as nominal counterparts)
- ▶ The emphasis on on-the-job training, in which managers are exposed to real-life management situations generated through the action.

The emphasis on strengthening existing institutions rather than creating "project" institutions is also reflected in the action's comparative lack of major infrastructure, equipment and permanent staffing.

At the human resources level, the action has been purposely designed to encourage local leadership and participation in activities. This aims at creating a strong sense of ownership over action results, and hence a strong commitment to the mechanisms expected to continue operating after the action has ended.

(c) Policy impact

The action will be implemented at a time of rapid development in Tanzania's legislation and policy guidelines dealing with community empowerment in natural resources management, protected area planning and management, protected area-community relationships and cooperation, and land tenure. These policy developments are important in two main ways: firstly, they will provide excellent opportunities for experience generated by the action to contribute to the wider pool of knowledge and practical experience upon which policies and guidelines are being shaped; and secondly, the emerging policies and guidelines will help ensure the consolidation and extension of action results in the years ahead. Besides these important national aspects of the action's policy sustainability, the action is also expected to contribute to the pool of community-based natural resource management best practice internationally.

Zambia has a much longer experience of piloting CBNRM approaches than has Tanzania, and consequently the policy foundation is a stronger one. However, as detailed in the ZAWA Strategic Plan 2003-2007, there are still several important areas requiring further policy definition that can usefully be addressed by this action. These include:

- ▶ Issues relating to the decentralisation of responsibility and accountability for management of GMA natural resources to local levels. Although this requirement has been recognised, the mechanisms by which this can be best achieved have still to be developed. These issues will be addressed through Results 1 and 3 of the action
- ▶ The need for establishing common CBNRM guidelines, based on best practice. These guidelines should describe the institutional structures for CBNRM at national, GMA, district, sub-district and community levels. The action will contribute towards identifying best practice and defining appropriate guidelines through Results 1 and 3
- ▶ The need to integrate CBNRM programmes within wider district development programmes and structures. This requirement will be addressed through Results 1, 2, 3 and 5.

Overall, the action is expected to contribute towards the development of best practice and guidelines in a number of crucial areas of ecosystem management, including:

- ▶ The development and implementation of sustainable natural resource management approaches that aim to mutually strengthen biodiversity conservation hand-in-hand with improvements in local community livelihood and environmental security
- ▶ Participatory approaches to ecosystem planning
- ▶ Village-level environmental management planning for improving livelihoods through conservation-compatible resource use activities.