Darwin Initiative – Final Report

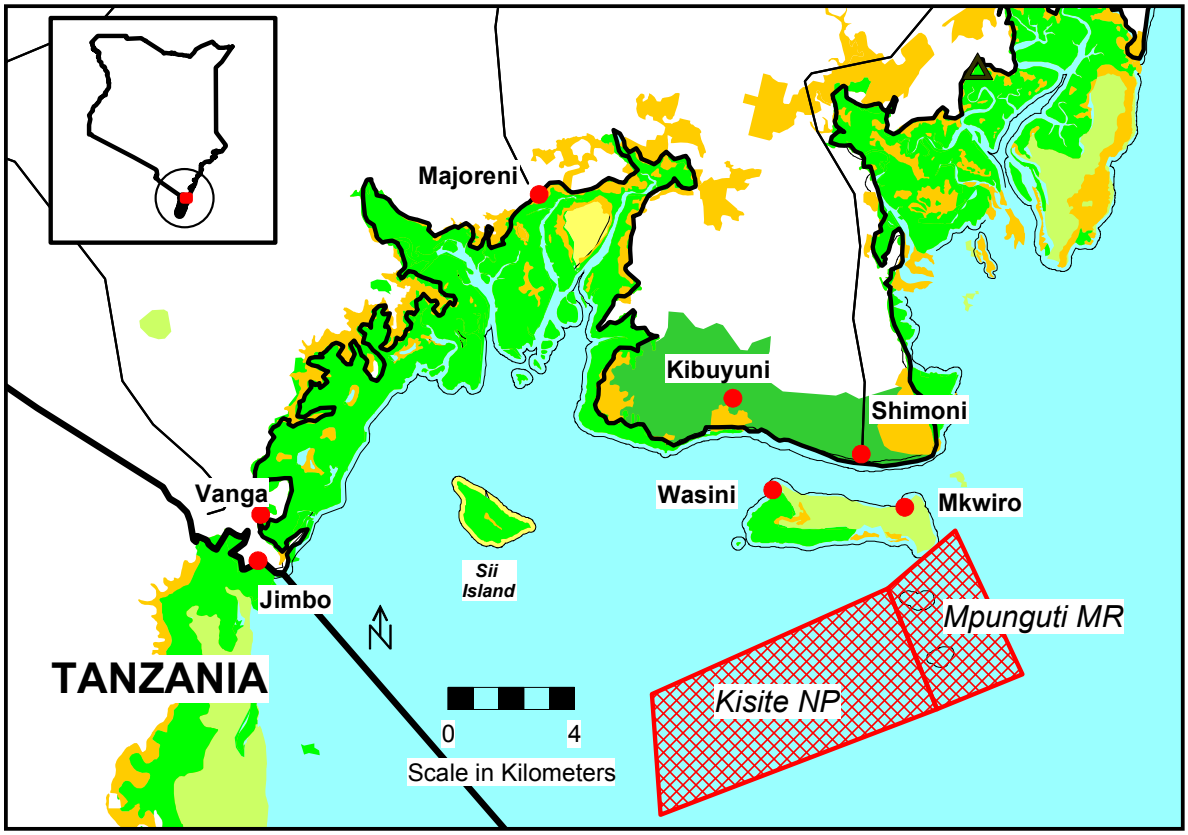
Darwin project information

Project Reference	17-016
Project Title	Conservation and Sustainable Management of Kenya's Coastal and Marine Resources
Host country(ies)	Kenya
UK Contract Holder Institution	Fauna & Flora International (FFI)
UK Partner Institution(s)	Fauna & Flora International (FFI)
Host Country Partner Institution(s)	East African Wild Life Society (EAWLS)
Darwin Grant Value	£
Start/End dates of Project	1st April, 2009/ 31st March, 2012
Project Leader Name	Dr. Richard H Lamprey
Project Website	
Report Author(s) and date	Dr. Richard Lamprey, Joy Juma, Dishon Murage, Agatha Ogada, 20th May, 2012

1 Project Background

This DI project is implemented in the marine environment of Kenya's south coast, an area renowned for its high biodiversity. The project purpose is 'biodiversity conserved and livelihoods of coastal communities improved through conservation and sustainable management of coastal and marine resources'. The project promoted community-based management of marine resources, and delivered conservation measures for coral reefs, seagrass beds and mangrove forests.

The main achievements are (1) developing seven community-based 'beach management units' (BMUs), according to government policy, for the management of the marine environment, and (2) reaching agreement with communities to establish seven community-conserved areas, totalling 200 sq.km of inshore ocean.



Map of the project area, and partner communities

2 Project support to the Convention on Biological Diversity (CBD)

The project has contributed towards the following focal areas under the 2010 CBD biodiversity target:

• Reducing the rate of loss of the components of biodiversity, including: (i) biomes, habitats and ecosystems; (ii) species and populations; and (iii) genetic diversity	• Important biodiversity areas have been protected through the establishment of seven CCAs and instituting management measures that provide for local communities to manage these resources sustainably. • Trends from the annual biodiversity surveys undertaken in the no-take areas indicate an increase in the abundance and distribution of benthic cover, particular fish species and seagrass beds.
• Addressing the major threats to biodiversity • Promoting sustainable use of biodiversity	• Approximately 200 sq. km. of marine ecosystem is under sustainable management • Threats to biodiversity such as unsustainable fishing practices have been addressed with a marked reduction in incidences in some sites. • Genetic diversity and connectivity has been enhanced by the establishment of a network of CCAs within the south coast region. The

	CCAs through the various measures adopted by the BMUs such as closed areas and sustainable fisheries methods i.e. removal of illegal and destructive fishing gears within certain areas ensure that fish and associated valuable species have been protected particularly species that are endemic and sessile organisms such as important coral species.
• Maintaining ecosystem integrity, and the provision of goods and services provided by biodiversity in ecosystems, in support of human well-being	• The wellbeing of communities who depend directly on ecosystem goods and services has been enhanced as indicated in the socio-economic survey results. • "No take" zones have led to an increase in fish catch in some areas thus improving food security and increasing local income.
• Protecting traditional knowledge, innovations and practices	• Both the local communities and the government participated in identifying, mapping and demarcation of CCAs with science based approaches being used vis-a-vis indigenous knowledge to develop management measures and strategies.
• Ensuring the fair and equitable sharing of benefits arising out of the use of genetic resources	• Local communities have been collaborating with government in the planning, implementation and monitoring of project activities • Improved benefit sharing systems through local governance structures (Beach Management Units- BMUs). Revenue collection systems have been defined in BMU by-laws that were developed as a consultative process between all partners.
• Mobilizing financial and technical resources	• Project provided technical expertise in management planning for locally managed marine areas (LMMAS)

The project's contribution to Articles under the CBD may be indicated as follows:

Article No./Title	**Article Description**	**Project Contribution**
7. Identification and Monitoring	Identify and monitor components of biological diversity, particularly those requiring urgent conservation; identify processes and activities that have adverse effects; maintain and organise relevant data.	Baseline assessments undertaken in the targeted sites highlighted areas requiring urgent conservation action. Subsequent assessments were undertaken on an annual basis covering both protected and unprotected sites to highlight changes in biodiversity and to inform management decisions.
8. In-situ Conservation	Establish systems of protected areas with guidelines for selection	Genetic diversity and connectivity has been

Article No./Title	Article Description	Project Contribution
	and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems and recovery of threatened species; control risks associated with organisms modified by biotechnology; control spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.	enhanced by the establishment of a network of CCAs covering approximately 200 sq.km. within the south coast. Various management measures are adopted by the BMUs such as closed areas and sustainable fisheries methods to ensure that fish and associated valuable species have been protected (particularly species that are endemic and sessile organisms such as important coral species).
10. Sustainable Use of Components of Biological Diversity	Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.	Support to local populations to implement management actions as defined in their co-management plans and by-laws has been critical in the sustainable use of marine resources in the south coast.
11. Incentive Measures	Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.	Local communities developed by-laws that provide for economically and socially sound incentives such as levies on fishing and tourism activities to conserve and promote the sustainable use of biodiversity. Each BMU has exclusive user rights to defined areas hence can benefit from revenue generated within these areas.
15. Access to Genetic Resources	Whilst governments control access to their genetic resources they should also facilitate access of environmentally sound uses on mutually agreed terms; scientific research based on a country's genetic resources should ensure sharing in a fair and equitable way of results and benefits.	The government has taken the steps to collaboratively manage marine and coastal resources with local communities as exemplified in the pilot CCAs. Previously access to and management of resources was exclusively government driven.

Host country capacity building

Training was provided to the host country institutions, the East African Wildlife Society and to the community-based Beach Management Units (BMUs), in implementing marine conservation measures. The EAWLS received support in project management skills, in logistics and operations, and in management planning for locally managed marine areas. In addition, EAWLS were supported for attending a training program in

marine spatial planning conducted by International Tropical Marine Ecosystems Management Symposium held in Guadeloupe, France in December, 2011 for the on-site project leader.

Beach Management Units received training in fisheries management, governance, and monitoring control and surveillance (MCS), and socio-economic surveys.

Interaction with host country CBD points

Kenya Wildlife Service (CBD focal point) has been actively engaged in the implementation of the project through development and review of CCAs co-management plans as well as providing training to local BMUs in Monitoring, Control and Surveillance of the CCAs.

3 Project Partnerships

The lead institution was **Fauna and Flora International (FFI**), based in Cambridge UK. On-the-ground implementation was conducted by the host country partner, the **East African Wild Life Society (EAWLS**), with technical and administrative oversight from the FFI East Africa Office.

The EAWLS is a Nairobi-based conservation NGO, established in the early 1960s, that has played a key role in advocacy in, and reporting on, conservation issues throughout the East Africa region. FFI has a long history of working with the East African Wildlife Society (EAWLS). This partnership has evolved out of FFI's support in building the capacity of EAWLS in forestry and marine project management, in fostering the development of EAWLS as a scientific authority on biodiversity management, and in support to EAWLS as an advocacy body for environmental conservation in the region. The FFI East Africa Office (FFI-EA) is physically located within the offices of EAWLS, and there are daily interactions concerning project development and management, accountability and workplans.

Since 2005, on the basis of formal requests from coastal communities, EAWLS has championed the establishment of locally-managed marine areas in Kenya. The initial example of the Kuruwitu Beach Management Unit has provided an impetus for similar initiatives along the Kenya coast, but it has been challenging for EAWLS to take this approach further, as resources and expertise have been limited. Therefore, this DI project has been built on a foundation of local needs and aspirations, with technical expertise and resources from the UK.

During project startup, FFI and EAWLS formulated an MOU to facilitate the implementation, evaluation and monitoring of the project. Both partners developed standard financial accounting and reporting procedures that enabled real time reporting of funds expenditure and implementation of project activities in line with Darwin Initiative requirements.

Throughout the project period, FFI implemented a continuous monitoring program in liaison with its main partner EAWLS and others partners i.e. Ministry of Fisheries Development, by conducting in-situ visits to determine progress in training of BMUs, identification and mapping of CCAs and development of alternative livelihood options for local communities.

FFI and EAWLS worked closely on identified needs and capacity gaps. FFI supported the host country institution in the following:

- Direct liaison with DI/LTS for project reporting and financing
- Project management, accountability, mid-term audits and funds transfer

- Review of EAWLS workplans, activities, budgets, sourcing of local consultants
- GIS and mapping outputs for the project area and CCAs
- Sourcing of UK-based technical expertise for developing management plans for the CCAs.
- Direct support in key workshops (travel and subsistence costs)

The EAWLS was directly responsible for the following actions:

- Working with the Department of Fisheries (FiD) in formulating the by-laws that established seven BMUs.
- Assisting DiF in developing training modules for BMUs, for governance, fisheries management, and monitoring, control and surveillance.
- Sourcing local consultants for biodiversity and socio-economic surveys, and working with consultants in developing training plans that can be implemented into the future.
- Working with the Kenya Wildlife Service to train local community scouts in monitoring, control and surveillance
- Liaison and follow-up directly with communities in defining the CCAs and assisting in management plan development.
- Overseeing the DI-funded development of infrastructure for BMUs, including BMU headquarters and meeting halls.

The key UK-based institution that has been involved in this project is the Plymouth Marine Laboratory, who, under contract with FFI-EA, seconded Dr Stephen Mangi as planning expert to the project for a period of 2 months in Jan-Feb 2011. Dr Mangi is Kenyan, and he originates from the Kenya coast; he has a long expertise in marine monitoring and management, both in Kenya and in the UK. Working with FFI-EA, EAWLS and communities, his expertise was key in developing the management plans for the community-conserved areas.

Other major local partners in the DI Project are the Fisheries Department (FiD), CORDIO and Kilimanyika Ltd. The **Ministry of Fisheries Development (MFD),** Government of Kenya, and specifically the **Fisheries Department (FiD)** of the ministry, has been a key partner. The project has provided financial support to the FiD in addressing BMU development, and in return the FiD has given strong endorsement to project objectives and activities. This support has been critically important in building credence for the project team in conducting its work with communities. At the start, an MOU was developed between FFI, EAWLS and the FiD to identify the roles and responsibilities of each partner. The MOU supported the implementation of the programme of work for the period 2009-2012 and specifically addressed objective 2 on the establishment and strengthening of community based institutions in the seven villages through individual and institutional capacity building. Other activities incorporated within the MOU were on development of a network of CCAs, development of sustainable livelihood options and on information and public awareness programs.

The FiD regards the DI project on the Kenya south coast as a crucial player in coastal BMU development, and the seven BMUs developed under the project are seen as the example of others to follow. There are now 61 BMUs on the Kenya coast, and there are now site visits to the Darwin area from other communities to learn how to develop their own BMUs.

Coastal Oceans Research and Development in the Indian Ocean (CORDIO) is a marine conservation NGO working in the East Africa region. CORDIO supports biophysical monitoring and research on coral reefs, participatory monitoring of artisanal fisheries (biological, resource and socio-economic), education and awareness-raising,

and policy development. Under agreement with the EAWLS, CORDIO has implemented the biodiversity surveys for the project.

Kilimanyika Ltd is a local consultancy group specialising in ecological and socio-economic development activities. Under agreement with the EAWLS, Kilimanyika have conducted two socio-economic surveys of communities in the Darwin area, and have developed a socio-economic training manual for use by local community enumerators.

The 'primary partnership' between FFI and EAWLS has worked well, although there are generic issues in the way all such partnerships are forged that remain challenging. Notably, host partner institutions may have their own financial and accountability procedures that have evolved on the basis of local laws, and on the governance decisions of their own boards. Such mechanisms may not be entirely compatible with the financial reporting requirements of DI, and evidence of this may not become apparent until the project has run for some time. Therefore, it is essential that accountability procedures are identified early on, and that host partner systems are adjusted to ensure compatibility.

Another important challenge is that the project has sought to develop community-based organizations, the BMUs, that are sanctioned under Kenya government law as 'co-management' bodies between communities and the Government (the Fisheries Department). As such, the key components of their development depend on the speed at which Government works. As with many government departments, the FiD is constrained by shortage of resources and expertise, and consequently certain BMU development processes have been slow. For example, it was not possible to engage fully with communities until their BMUs had been formally established, a process that is formalized by the FiD. Hence, the project assisted FiD with the necessary financial resources to develop BMU by-law templates, and training modules for BMU committee, in order to ensure that the necessary framework was in place for the project to operate.

Challenges such as implementation delays, limited capacity and time constraints were experienced over the project period. To address these and other issues the project partners, in a process initiated by the project and coordinated by the Fisheries Department established a Coordination and Harmonization Group representing a total of 8 organizations (CORDIO, WCS, Eco-Ethics, EAWLS, FiD, ReCOMAP, Plan-International, CRDO), to provide a forum for organizations working within the same project area to share experiences, best practices and lessons learned so as to enable project partners review activity work plans and align proposed project activities to avoid duplication.

Other challenges have emerged in connection with managing a project that is located far from office base. In this case, the Kenya south coast is some 800 km by road from the FFI/EAWLS headquarters in Nairobi, with the result that travel to the project area was both time consuming and costly. This constraint eventually necessitated the need for EAWLS to set up a marine office in Mombasa, which improved the access considerably. Even with this measure, the project site remained a half-day travel from the project HQ.

During the course of the project it became apparent that the budgeted time for the FFI Team Leader (8 days/year) was not sufficient for the task of administering this complex project, in terms of reporting, accountability and technical input. Therefore, some reallocation of time was needed within FFI's budget in order that this could be rectified.

Despite these issues, the FFI-EAWLS partnership has proved to be robust, with an even stronger foundation for future collaboration.

4 Project Achievements

4.1 Impact: achievement of positive impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

Impacts on biodiversity

The project has made great progress towards achieving the long-term purpose; "biodiversity conserved and livelihoods of coastal communities improved through conservation and sustainable management of coastal and marine resources". These achievements will potentially be maintained beyond the project period as there is strong local community ownership through support to the BMUs. Information from the various surveys has been used to derive appropriate and sustainable approaches for the management of the CCAs by BMUs.

Over the project period there has been a marked increase in fish populations (indicated by a significant increase in fish biomass for both target and non-target fish species) within the closed and sustainable fisheries areas. Biodiversity monitoring assessments conducted during the project implementation period (2009-2012) indicate that fish biomass within this areas has increased by 80% in closed areas (Wasini) and 30-60% for sustainable fisheries areas (Jiwe Jahazi, Baazo and Sii island).

Recovery of coral reefs indicated by increased coverage and diversity has also been noted for most of the sites where the CCAs are operational. Coral cover has increased by an average of 10-15% for sites such as Baazo (Vanga), Wasini and Sii Island. Designating these sites for protection as CCAs has enhanced the recovery of important coral species and cover and also removal of destructive fishing practices will increase the resilience of these sites to climate change. In addition, the removal of such destructive fishing gears such as the beach seines in some of the CCAs by the local communities has ensured that seagrass beds recover.

Sustainable use of resources

Sustainable fishing areas have been defined by the local communities in the seven villages. Though not all are operational, destructive fishing gears such as beach seines, spear guns and ringnets have been removed for the three operational CCAs of Wasini, Jimbo and Kibuyuni. By-laws have been enacted by the BMUs and approved by the Fisheries Department and these provide for the removal of illegal and destructive fishing gears and practices within the sustainable fishing area. These include use of such gears as the hook and line, small seine nets and traditional traps (basket and fence). Such measures have led to a reduction in conflicts and increase in exploitable fish species.

In a directly 'tangible' way, the project has developed BMUs by supporting the rehabilitation and construction of BMU offices/meeting places in Wasini and Majoreni. With a central headquarters and meeting point in the village, BMUs can function in a more coordinated way, in terms of fisheries management, monitoring and surveillance, revenue collection, and liaison with other BMUs, government bodies, tourist operators etc.

Equitable sharing of benefits

Substantial resources have been invested in establishing and developing BMUs within the seven villages to empower the marginalized members of the community such as women and the youth participate to actively in fisheries management. This input has been effective; in four villages (Wasini, Mkwiro, Jimbo and Kibuyuni) the number of women participating in BMU decision-making has significantly increased.

In addition, community members have developed alternative livelihood closely linked with the CCAs. These include eco-tourism in Wasini and mariculture in Mkwiro and Kibuyuni.

4.2 Outcomes: achievement of the project purpose and outcomes

The project went a long way to achieving its purpose. Out of the proposed seven CCAs, at least three are fully functional thus protecting some critical biodiversity sites. Local communities have also been empowered to manage resources sustainable through formally recognized governance structures – the BMUs.

The project has successfully facilitated a change in the attitude and perception of conservation within the project sites. Local communities have endorsed "exclusion" zones which were previously viewed as tools to restrict access to resources. There has also been a shift in the management style adopted by the government; from a top down to a bottom-up approach that seeks to be inclusive of all community members who depend on the ocean for their livelihoods.

There has been enhanced food security as a result of increased fish catch in some areas. Increased income as result of the sales has also been an indirect outcome. The site based by-laws within each village has provided for a proper system for revenue collection and benefit sharing.

Finally in some cases, the BMUs have served as a village governance structure which was an unexpected outcome. These governance structures have been used as units that support social cohesion and provide guidance on various local issues.

4.3 Outputs (and activities)

Output 1: Socio-economic and bio-physical evidence for developing and monitoring CCAs

Biodiversity surveys were conducted for fish, corals and other benthic communities with an initial baseline assessment conducted in 2010. Subsequent assessments have been conducted to monitor the impact of the project on the biota within the CCAs compared to sites that have no protection. In total, three surveys were conducted since the start of the project. The results have highlighted significant improvements in areas that are protected.

Mangrove surveys were conducted in the 2010 and 2012 and the results showed no significant change in mangrove cover within the period, but we would not expect to see significant change in mangrove cover in such a short period.

A baseline socio-economic and livelihoods assessment was undertaken at the beginning of the project (2009) and a final survey undertaken in Year 3 (2011). The assessment provided also highlighted the perceptions and attitudes of the local communities which were referenced as key indicators of change. A simple socio-economic monitoring plan was developed for subsequent surveys, which can be implemented by community enumerators trained by the project.

Output 2: Establishment and strengthening of community based institutions

Under Kenya's BMU legislation (Legal Notice 402), the establishment of a BMU is formalized through a by-law agreed between the community and the FiD. Up until 2009 the process of BMU development on the Kenya coast was stalled due to the Fids lack of resources in developing a suitable methodology and template for such by-laws. The

Darwin project worked with FiD to develop this template, and then to roll out this by-law development to the seven communities in the project area, namely Shimoni, Wasini, Mkwiro, Kibuyuni, Majoreni, Vanga and Jimbo. BMUs had previously been established in Shimoni, Vanga and Majoreni, but without support these were nascent; under the Darwin project, these were strengthened with the new-by-laws. The project by-law process established BMUs in the following communities where these had not formally existed before; Wasini, Mkwiro, Kibuyuni and Jimbo.

Capacity building programs such as training of the BMUs in fisheries management, financial management and the roles of BMUs were implemented. A total of 60 participants drawn from all the seven BMUs were trained. In addition 14 community members were trained in socio-economic and biodiversity assessments and participated in data collection in the villages. Sixteen community members have also been trained in monitoring, control and surveillance of the CCAs from Shimoni, Wasini, Mkwiro and Kibuyuni. This training took place with the assistance of the Kenya Wildlife Service (KWS). In addition, the project supported the development of BMU training modules for coastal fisher communities.

Each of the seven BMUs has a membership totalling 200-400 members, and thus the project has impacted about 2500 BMU members, and their 7000 dependents.

The project area also has important mangrove forest, fringing the Sii Island Bay. This is the third largest mangrove area in Kenya. Mangroves fall under the jurisdiction of the Kenya Forest Service (KFS). Under Kenya forestry law, communities may be empowered to manage their local forests through establishment of Community Forest Associations (CFAs). Under a UNDP match-funding agreement with the Darwin project, the process of establishing a CFA was launched in the mangrove areas of Vanga and Jimbo. A management plan for this mangrove forest, prepared with local consultation, prescribes the controlled and sustainable harvesting of mangroves. This plan was completed in 2012, but the management measures have not yet been operationalized.

Output 3: Network of at least 6 CCAs established

Logically, the project area comprised seven communities rather than six, and therefore a total of seven areas were surveyed and mapped through a participatory process with communities. This mapping was achieved by moving by boat with BMU members, to map out with a GPS the general fishing zones, and proposed no-take zones, used by each community. This information was then transferred to a GIS system in FFI-EA, for formal mapping of the CCA areas.

Participatory draft management plans have been produced covering seven community conservation areas (CCAs). The exercise was guided through a consultancy awarded to Plymouth Marine Laboratories (PML), United Kingdom.

Due to financial and time limitations, the development of the CCAs management plans was divided as follows:-

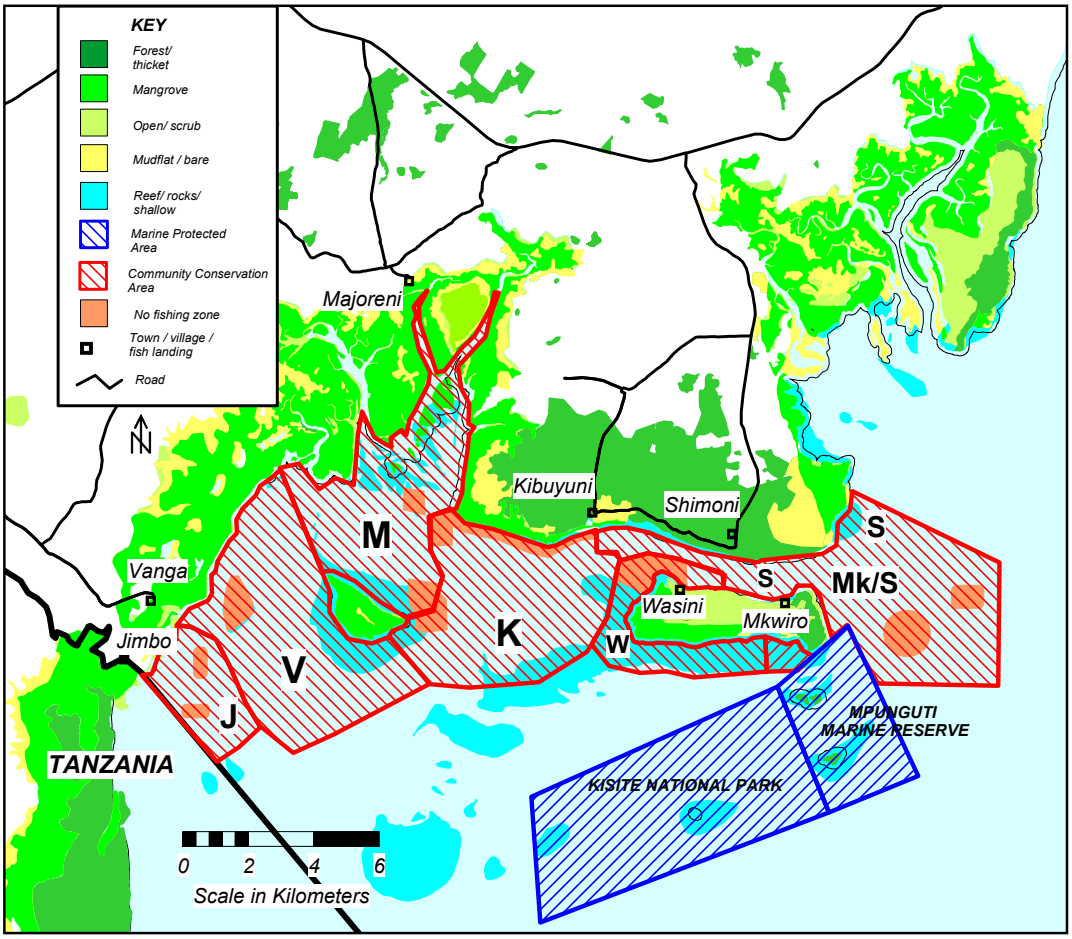
- Two comprehensive management plans produced for; Wasini and Majoreni
- Four summary management plans produced for; Kibuyuni, Vanga/Jimbo (one plan for these linked areas), Shimoni and Mkwiro.

The management plans were developed in a consultative and participatory manner over a period of two months in January-March 2011 with extensive consultations with local communities and partners. The field planning process culminated in a one day stakeholders workshop held in early March 2011 in Shimoni to provide feedback to the communities and other members on the draft management plans. A total of 55 participants drawn from the 7 participating BMUs, EAWLS, FFI, Kenya Wildlife Service,

Fisheries Department, Wildlife Conservation Society, Global Vision International and Coastal Rural Development Organization attended the workshop held in Shimoni.

The participatory CCA/co-management plans produced under this project are the first of their kind on the Kenya coast. The planning approach is not yet complete, as the final stage of approval by FiD is required. This will involve final consultation with the communities/BMUs that could not be completed within project timeframe, but a roadmap is in place to complete the process in 2012-13. FiD is keen to replicate the success of this initiative with other BMUs along the coast.

Following the identification of the CCA areas, a consultant was commissioned to undertake the Environmental Impact Assessments in the proposed sites which were approved by the local regulatory authority, National Environmental Management Authority (NEMA).



Map of the seven Community-Conserved Areas (CCAs) established under the project: J- Jimbo; V-Vanga; M-Majoreni; W-Wasini; K-Kibuyuni; S-Shimoni; Mk-Mkwiro

According to the NEMA EIA Regulations, the study incorporated the following:-

a) A description of the initial Environmental Evaluation (reference) state with which predicted changes are to be compared and a prediction of the future environmental reference state in the absence of the proposed activities
b) A description of the methods and data used to collect and forecast the impacts of the proposed activities
c) Estimation of nature, extent, duration, intensity of the likely direct impacts of proposed activities

d) Consideration of possible indirect or second order impacts of the proposed activities
e) Consideration of cumulative impacts of the proposed activity in the light of the planned/proposed activities
f) Identification of measures, including monitoring that could be taken to minimize or mitigate impacts of the proposed activities

The study was done through a consultancy awarded to CORDIO as one of the partners in the implementation of the project. The EIA approval for the CCAs was granted by NEMA on 6 January 2012 (EIA Licence NEMA/CP/PR/1/1/1199), on the basis of specific standard conditions (reporting, environmental audits etc). The Darwin CCAs are probably the first such marine areas to have NEMA approval in Kenya.

Output 4: Marine and land based alternative livelihoods supported

Livelihoods assessments were undertaken (2009 and 2011) as stated earlier. These provided information on the feasibility of specific livelihood options that could be promoted.

Ecotourism have been promoted and supported as alternative livelihood options. In Wasini, the community has set aside a local reef within its CCA as a diving area for tourism, that is well preserved and competes with the local marine national ark, Kisite-Mpunguti, for tourists. This no-fishing diving area is demarcated with buoys, paid for by the Darwin Project.

Local communities were also sensitised on sustainable fishing gear which led to a reduction in the use of destructive fishing gear in some sites. Illustrated posters on legal and illegal fishing gears, and of the location of CCAs, are currently under production.

Beekeeping has been supported in 80 families, through the match-funding of the UNDP project that aims to conserve mangrove areas.

Output 5: Awareness of linkages between sustainable management and community well-being

In July 2009 a meeting was held with key stakeholders to launch the project and to sensitize local communities on the aims and objectives of the project. The project was well received by a spectrum of stakeholders.

During the project period, posters and brochures were produced to create awareness on the need to sustainably manage the marine environment. High resolution maps and posters have been produced showing the CCA areas, and no-take zones. These will shortly be posted in all BMU headquarters and FiD stations. Both FFI and EAWLS regularly produced updates for publication to create awareness in the region.

Regular sensitization meetings were regularly held with local communities in partnership with FiD, KWS and NEMA.

An end of project meeting was held with key stakeholders including local BMU leaders, FiD officials, Kenya Wildlife Service and local tourism operators to discuss the achievements, challenges and future plans.

Challenges

Normal challenges such as implementation delays, limited capacity and time constraints were experienced over the project period. To address these and other issues the FiD established a Coordination and Harmonization Group representing a

total of 8 organizations (CORDIO, WCS, Eco-Ethics, EAWLS, FiD, ReCOMAP, Plan-International, CRDO), to provide a forum for organizations working within the same project area to share experiences, best practices and lessons learned so as to enable project partners review activity work plans and align proposed project activities to avoid duplication.

4.4 Project standard measures and publications

4.5 Technical and Scientific achievements and co-operation

The main technical outputs of the project include the following. Each follows a technical format of background, objectives, methodologies, results and conclusions:

- Socio-Economic Surveys of the Project Communities (2009, 2011).
- Training Manuals for Community-based Enumerators in Socio-Economic Surveys (2011).
- Biodiversity Surveys of the Project Area (2009, 2011).
- Biodiversity Monitoring Plan and Training Manual (2011).
- Management Plans for the CCAs

A standardized scientifically-based monitoring program on the biodiversity within the CCAs has been established with local community participation to enhance ownership. Simple but practical monitoring manuals have been developed to enable the BMUs within the project area to implement a monitoring program on fish species (biomass and diversity), coral cover and biodiversity and other benthic assessment as well as conduct or participate in socio-economic assessments.

One of the major outputs is a set of scientific reports on the status of various biota within the CCAs indicating fish species (biomass and diversity), coral cover and diversity and other benthic organisms and two year worth of data on the above biota within the CCAs. Staff from the project partners (4), Fisheries Department (1) and BMUs (28) have been involved in this process. Results of the biodiversity surveys are in process of publication, with submission to the *Journal of Tropical Conservation Science*, special edition on locally-managed marine areas (LMMAs), on behalf of the WIOMSA (Western Indian Ocean Marine Science Association).

Training of project partners was undertaken by CORDIO for the biodiversity assessments and Kilimanyika Consultants for the socio-economic assessments.

4.6 Capacity building

The Darwin project has been essential in building the capacity of the EAWLS Marine Programme over the last 3 years, through training, logistical and salary support, and also by building project management skills and accountability protocols. The project supported two staff positions within EAWLS that provide marine and coastal resource management skills. This is in support of an organizational EAWLS Marine Programme strategy that FFI facilitated prior to the project.

The Marine and Coastal Resources Programme Coordinator of EAWLS also received training in marine spatial planning in 2011. This training session which was facilitated by International Coral Reef Initiative (ICRI) was also attended by a representative from the FFI East Africa office.

The project has been instrumental in building the capacity of communities in managing their marine resources. Through support to formulation of by-laws, the project has helped communities to build the 'constitutions' for their BMUs, in terms of how they function democratically, manage their fisheries, and manage their finances. The project assisted the FiD in developing BMU training modules in Fisheries Management,

Financial Management, Roles and Responsibilities of BMUs, and then undertaking training courses for BMU committee members, using this modular approach. There is still a significant way to go in how these mechanisms can be fully operationalized, but the foundations have been laid for the future.

Finally, continuous mentoring and support to EAWLS and the FFI East Africa office was provided by the FFI's Marine Programme Manager and the Livelihoods and Governance team based at the FFI office in Cambridge, UK.

4.7 Sustainability and Legacy

The BMUs developed under the project are lasting community-based institutions, sanctioned under Kenya law. Building their capacity through training programmes, and through other support such as construction of BMU headquarters, has increased the ability of the communities to manage their fisheries after the project has ended.

In addition, the project has demonstrated to local communities that the CCA approach can work in fisheries management. They have been able appreciate and understand the impacts of the CCAs on local fisheries and biodiversity and have already initiated alternative livelihoods to support the CCAs. Through fees and commissions charged by BMUs for fisheries and others uses within the CCAs, it is hoped BMUs will set aside funds for the management of CCAs through Monitoring, Control and Surveillance of the CCAs.

With these primary steps completed, a number of very important tasks remain for follow-up in 2012-2013. These are concerned with the financial management and governance of the BMUs. In November 2011, a review by the FiD, supported by the Darwin project, identified the following issues:

- Unclear memberships of BMUs, many BMU committees were unable to track their own membership, which was swelling to large numbers. The committees were unable to call assembly meetings, as a result.
- The general BMU membership (the 'assembly') unaware of their rights and responsibilities in BMU management.
- BMU executive committee members operate illegal fishing gear and ring-net fishing boats. Many members of a community will be dependent on a small 'elite', who may operate with impunity.
- Capture of BMU revenues by the committee elite, and failure to account for revenues.

Building effective governance measures into BMU operations is the subject of follow-up for this project, as well as for other fisheries initiatives on the coast.

The project has forged strong links between four partners; FFI, the EAWLS, the communities, and the Fisheries Department. This synergy is strong and enduring, and there are ongoing discussions between partners to ensure that momentum is not lost. Both FFI and EAWLS will continue working together to secure additional support for the CCAs which still need to be strengthened post-project. Management plans for the CCAs must be finally endorsed and signed off, and a new project phase will help BMUs to implement these plans.

5 Lessons learned, dissemination and communication

5.1 Lessons Learned

Some of key lessons learned through the implementation of the project and that might be essential in future implementation of similar projects include:-

Partnership and collaboration between the key stakeholders (target communities), mandated government institutions and civil society organizations (both local and international) is important as this enables the project implementers tap into the various skills, resources and support each of the stakeholders is able to provide

The involvement and participation of local communities in resource management through locally based institutions such as the BMUs has enabled change in local community perceptions on ownership of the resource with their increasing involvement in decision-making processes particularly in regard to developing by-laws and defining fishing areas. This has led to better relationships between resource managers and users.

There is a need to structure and focus future awareness and training programs on BMUs assemblies rather than committees only, to ensure that the assemblies provide an oversight role on the management of the BMUs. Additionally, BMUs need to also recognise other potential benefits of well managed ecosystems beyond financial benefits.

Strengthened village based institutions such as the BMUs have led to BMUs being used as entry points to encourage the participation of local communities within the seven villages in natural resource management by the government and other stakeholders.

The establishment of BMUs within the villages has also enabled the participation of marginalized groups within the villages particularly the women and the youth. Previously, women and youth role in marine and coastal resource management had not been recognized.

Requirement that any future project's implementation are versatile to enable them to address emerging threats such as climate change, new fishing methods and illegal fishing practices.

There is a need to enhance cross-sectoral communication and collaboration between government agencies in the establishment of CCAs.

Use of scientific data and incorporation of local knowledge important as it enables buy-in by the local community in the process and community participation in information dissemination.

In terms of project management, the key lessons that may be drawn have been summarized in section 2.

5.2 Information dissemination

From the beginning, creation of awareness on the project within and outside the project area was recognized as one of the most important activities which will enable the replication of similar initiatives along the Kenyan coast, inform local communities on the CCAs and provide for positive engagement with partners and other stakeholders in project activities.

A total of 11 articles have appeared within the EAWLS newsletter on the Darwin Initiative project. The newsletter is distributed online to EAWLS members (more than 3,000 people) and other recipients who include individuals and organizations working within the marine and coastal environment. The articles appearing in the newsletter covered various project achievements to date such as on the revised BMU training module, BMU capacity building initiatives, CCAs mapping and development of management plans.

In addition, a special article on the Darwin Initiative project was published within the Swara magazine, an EAWLS publication with a worldwide distribution and readership. Swara reaches some 5000 people.

Through the Darwin Initiative support, EAWLS was active in advocating for the suspension of the ringnet fishery until a management plan guiding the use of the net within the Kenyan waters had been developed. The use of the ringnet within certain areas some of them within the project area was increasingly becoming a threat to local community livelihoods and a potential threat to the development of sustainable fisheries measures.

Through this advocacy, use of the ringnet is currently suspended pending the development of a management plan through a taskforce established by Fisheries Department of which EAWLS is a member.

Awareness and education materials that include posters, banner, t-shirts and brochures have also been produced and disseminated throughout the project area. Information contained within the awareness materials include information on achievements of the Darwin Initiative project such as on community trainings and highlights on progress made by the local communities in development of CCAs. The project has delivered a plethora of reports, including the following:

- Socio-Economic Survey Reports, and Training Manuals for Local Enumerators
- Biodiversity Survey Reports, and Training Manuals
- BMU by-laws, in English and KiSwahili
- Management Plans for the Seven Community-Conserved Areas
- EIA Reports for Establishing the Seven CCAs, according to the requirements of Kenya's National Environment Management Authority
- Evaluation Reports of BMU progress, in conjunction with the Fisheries Department
- Popular articles describing the project, in local conservation magazines
- Posters of legal and illegal fishing methods, and of location of CCAs

It is expected that information dissemination will continue after project completion as both project partners have substantial material on the project and this will be used for both publicity and dissemination.

5.3 Darwin Identity

The DI logo has been used on all information materials produced with Darwin Initiative funding and the Darwin Initiative project has been recognized as a distinct project as this was the first initiative within the south coast on CCAs.

Nearly 80% of the local communities within the seven villages are familiar with the Darwin Initiative project. Information relating to the implementation of the project will be found within the BMUs and partners such as EAWLS, FiD, CORDIO, KEMFRI, Kilimanyika and NEMA.

6 Monitoring and evaluation

6.1 Strategy for M&E

The project implementation partners adopted a number of strategies to monitor progress in the implementation of the project based on the indicators, outputs and targets defined in the project logframe approved by Darwin.

Monitoring and Evaluation of the project was undertaken by two bodies i) the Project implementation partners (FFI and EAWLS) and other partners ie FiD, CORDIO and Kilimanyika.

Both FFI, EAWLS and FiD developed joint workplans and project activities were evaluated against this with bi-annual progress reports including both technical and financial information. These provided detailed information on the activities conducted, projected progress and achievement.

During the project implementation period, the project partners met a number of times both in Nairobi and onsite to evaluate implementation of project activities while local partners had regular meetings with Fisheries Department to review and revise implementation of project activities specifically those targeted to the development of the BMUs within the project area. A total of 14 meetings were held between the project implementing partners both in Nairobi and Mombasa.

Monitoring of project implementation was done against the indicators, which show that the project achieved most of its stated outputs.

Ecological surveys were undertaken on a continuous basis to evaluate the impact of the project within the ecosystem, whether the development of CCAs were contributing effectively in reducing the decline in fisheries and providing for the recovery of degraded ecosystems. Monitoring of the ecosystem was done by CORDIO a collaborating partner in the implementation of the project. The relative impact of the project on local communities was undertaken through socio-economic assessments undertaken by the Kilimanyika in Year 1 and Year 3.

Additionally, both EAWLS and FiD undertook an evaluation of the relative performance and effectiveness of BMUs within the project area in terms of management of the CCAs and local fisheries resources.

6.2 Actions taken in response to annual report reviews

The only formal DI annual report review was conducted against the Year 1 Annual Report, submitted April 2010. Thereafter, annual reports were deemed as 'accepted'. The 2010 review had the following comments:

"This is a great start to a project with real progress made in laying the foundations for the next 2 years. The project team are obviously very well organised and well practised in delivering strong project management as highlighted in the progress made this year. This community conservation approach is quite unique in that it is in partnership with both the government and with the target communities. This does impose challenges of course to ensure that an inclusive approach is being taken, but one that also follows government policy. Positively this team appear well entrenched with the Ministry of Fisheries and have supported them to shape the approach and policy to meet the requirements of the target communities and ecosystems. Hopefully this careful balance will continue…… Section 6 of the report was particularly illuminating in understanding the challenges and risks facing the project and the steps the team are taking to address these. It would be useful in future though for the team to submit some of the supporting evidence to allow the reviewer a greater insight into the project and its progress. This is a mild comment though and intended purely to strengthen the team's reports".

To address the issue of supporting evidence, the Year 2 Annual Report (April 2011), attached the Biodiversity Survey Report, CCA Management Plans, and BMU By-Laws.

7 Finance and administration

7.1 Project expenditure

The Table overleaf gives details of expenditures over the project period, by original budgetline. The following notes apply for the general breakdown:

- The expenditure figures remain provisional, pending the final audit to be conducted September 2012. The annual expenditure figures are those reported in the Annual Reports (Years 1 and 2).
- The indicated carryovers are as agreed with DI/LTS at the start of each year.
- This project was selected for audit of Year 1 expenditure. All financial documents were submitted to DI/LTS in October 2010 for audit; the overall findings were satisfactory (Darwin email response).
- The original budget includes 'other' as a budget line, this being for consultancy costs. Annual Financial reports have reported on this line, and it is retained here.
- As indicated in the Year 1 Annual Report, Dr Catherine MacKenzie, who was designated as providing major oversight of the project, left FFI in July 2009, just after the start of the project. Her position was not filled for another year. Therefore, her oversight responsibilities fell largely to the Team Leader, with the result that her salary time was transferred to the Team Leader.
- Expenditure percentages are by major budgetline, as agreed with LTS in Year 1, and as indicated in the Year 1 annual report.
- In January 2012 DI/LTS agreed to transfer of GBP 4500 from 'other' budgetline to FFI salaries, to provide staff time for final field travel, meetings, accountability etc as the project approached its final month..
- Expenditure in Kenya is incurred as Kenya Shillings (KES). For Years 1 and 2, the conversion to GBP was based on the average exchange rate for the year, as reported in the Annual Reports. For Year 3, this conversion was refined, being based on the rate for the month in which the expenditure was incurred.

7.2 Additional funds or in-kind contributions secured

During the reporting period, the EAWLS Marine Programme received funding (USD 37,000) from the UNDP/ GEF/ Small Grant Program to support the protection and sustainable use of the mangrove forest in Vanga, Jimbo and Kiwengu. This was achieved through collaborative participation and strengthening of local institutions and organizations including the private sector, local government and communities. In particular, the support targeted the establishment of a community forest association (CFA) for the forest, and the formulation of a management plan for the mangrove area. The support covered the period August 2010 – March 2012.

The marine project also received funding (GBP 36,000) from the Waterloo Foundation (UK) as support for the development of sustainable fisheries practices within the project area. This support, which directly matched the Darwin funds, and ran from September 2010-July 2012, went towards

- Assistance to the FiD participatory planning process to develop the Ringnet Fisheries Management Plan. Assistance involved provision of costs to communities to attend the meetings.

Project expenditure

Budgetline	Original Budget (GBP)	2009-2010 Expenditure (GBP)	2010-2011 Expenditure GBP	2011-2012 Expenditure GBP	Total Expenditure GBP	% utilization
1. Overhead costs						**94%**
2. Travel/Subsistence						**89%**
3. Operating costs						**91%**
4. Capital Equip.						
Computing						
Vehicle						
S/Total Capital[1]						**111%**[a]
5. Other costs						
FFI						
Consultancy costs (Plymouth Marine Lab.)						
EAWLS						
Consultancy Costs (Biodiversity and Socio-Economic Surveys)						
S/Total Other						**89%**
6. Salaries						
FFI						
Rob Brett						
Bruce Liggitt						
Richard Lamprey						
Joy Juma						
Catherine Mackenzie[c]						
Helen Anthem						
S/Total						**122%**[b] **(109%)**
EAWLS						
Dishon Murage						
Halinishi Yusuf						
S/Total						**99%**
Unspent balances EAWLS						
FFI Carbon Costs						
Agreed carryover to following year						
TOTAL Expend. GBP						**100%**

Specific Notes on figures:

a: Overspend agreed with DI/LTS
b: Overspend reduced to 109% when January 2012 budgetline transfer taken into account (agreed with DI/LTS).
c: Catherine MacKenzie left FFI July 2009
d: this salaried cost to Josephine Nzilani, FFI-East Africa Project Officer

(Additional funds or in-kind contributions secured, continued)

- Support to the FFI/EAWLS Coast Programme Orientation Workshop, held in April 2012 at Shimoni, south coast.
- Construction of the BMU building at one of the flagship BMUs, Wasini, and renovation of the BMU building at one of the more neglected BMUs, Majoreni
- Support to the Socio-Economic Survey of the seven target communities.
- Support to EAWLS and FFI-EA staff for SLED Training at BMUs, using the community of Mkwiro as a test case.
- Production of awareness materials, particularly posters on illegal fishing methods, maps of the CCAs
- Support to the East African Wildlife Society marine programme, salaries and office support.

A third addition to the project was support from the Mayer Foundation for determining whether mariculture is an option for the south coast communities. This involves the following activities:

- Sensitization meetings with BMUs, to discuss mariculture options
- Scoping of the seven communities for mapping of potential mariculture sites
- Exchange visits to key mariculture sites in Kenya
- Exploration of tourism markets for mariculture products

This grant, totalling GBP 10,300, is for the period July 2012 – June 2013.

7.3 Value of DI funding

DI funding has enabled Kenya coastal communities, and the Kenya government, to pioneer the Beach Management Model of marine and coastal resource management along the south coast of Kenya that has led to improved conservation, and enhanced local livelihoods. This would not have been possible without the funding and access to UK technical support.

The seven BMUs, and associated CCAs, that have been developed under the project are seen by the Fisheries Department as the model to follow in building capacity of the other 54 BMUs of the Kenya coast.

Annex 1 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2012	Actions required/planned for next period
Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources		(report on any contribution towards positive impact on biodiversity or positive changes in the conditions of human communities associated with biodiversity eg steps towards sustainable use or equitable sharing of costs or benefits)	(do not fill not applicable)
Purpose (insert original project purpose statement) Biodiversity conserved and livelihoods of coastal communities improved through conservation and sustainable management of coastal and marine resources	(insert original purpose level indicators) • Functional community or co-managed marine conservation areas by end of Year 2 • Improved management and utilisation of marine and coastal resources by end of Year 3 • Strong community institutions in place by end of Year 3 • Increased household income from coastal/marine resources and/or alternative livelihoods by end of Year 3	(report on progress towards achieving the project purpose, ie the sum of the outputs and assumptions) Strong community based resource governance structures/institutions (Beach management Units) established and strengthened in Shimoni, Mkwiro, Wasini, Majoreni, Vanga, Kibuyuni and Jimbo Community Conserved Areas (CCAs) established in Wasini, Kibuyuni and 4 other CCAs identified, mapped and by-laws developed for Shimoni, Mkwiro, Majoreni, Vanga and Jimbo Beekeeping developed as an alternative livelihood option for the women and youth in Vanga and Jimbo for a total of 80s household (under UNDP match-funds) Eco-tourism supported and developed as an alternative income	(Highlight key actions planned for next period)

		generating option for the local communities in Wasini	
Output 1. (insert original outputs with activities relevant to that outputs in lines below. Activities relevant to more than one output should be cross-referenced rather than repeated) 1. Socio-economic and bio-physical evidence base for developing and monitoring community-conserved areas established through participatory methods, disseminated and maintained.	(insert original output level indicators) • Priority marine and coastal habitats, species and resources identified and assessed by end of Year 1 • Socio-economic, institutional and livelihoods surveys conducted in coastal communities by end of Year 3 • Information gathered on policy background and legal basis for community-based management of marine resources	(report general progress and appropriateness of indicator) Baseline bio-diversity assessments conducted in Yr1 and continuous monitoring program for habitats, species and resources implemented in Yr2 and Yr3 Baseline socio-economic, community livelihood assessment conducted in Yr 1 and an assessment conducted in Yr3	
Activity 1.1 insert activities relevant to this out put 1.1.Participatory baseline biodiversity survey undertaken		(report completed or progress on activities that contribute toward achieving this output), and what will be carried out in the next period Baseline biodiversity survey undertaken in Yr1 and report provided	
1.2.Review of existing biodiversity information and compilation		Review undertaken as part of a consultancy undertaken by CORDIO and report provided	
1.3.Biodiversity monitoring plan developed		Biodiversity monitoring plan developed in Yr1, reviewed in Yr2 with community biodiversity monitors trained in Yr 2 and Yr 3	
1.4.Survey of local community knowledge on marine and coastal biodiversity		Survey undertaken as part of the biodiversity and socio-economic baseline survey undertaken in Yr1	
1.5.Socio economic survey		Baseline survey in Yr1 and final socio-economic survey in Yr3	
1.6. Socio economic monitoring plan developed		Socio-economic monitoring plan developed in Yr3 and community trained	
Output 2. (insert original output) Community based organisations in	(insert original output level indicators)	(report general progress and appropriateness of indicator) Representative, legally recognized community based resource	

Shimoni, Majoreni and Vanga established and strengthened through sustained individual and institutional capacity building	Organizational assessment and training needs assessment undertaken by end of Year 1 Technical skills training i.e. biodiversity assessment and monitoring, business and entrepreneur skills Well managed and organized community institutions	governance institutions i.e. Beach Management Units established in all the seven villages within the Shimoni-Vanga area for the management of the marine resources Development of Training Modules on Fisheries Management, Financial Management, Roles and Responsibilities of BMU undertaken in Yr1 and training of BMUs done in Yr2 BMUs trained in biodiversity assessments in Yr1 and Yr 2
Activity 2.1. 2.1.Organisational and Training needs assessment undertaken		Development of Training modules for newly formed BMUs undertaken in Fisheries Management, BMU Roles and responsibility and Financial Management. Assessment of BMUs capacity undertaken in Yr 3 to assess their performance
Activity 2.2 2.2.Capacity building and training plan developed 2.3.Capacity building and training plan implemented based on needs assessment		Training of 60 members of the BMUs executive committee from the 7 villages undertaken based on the BMU Training modules Training of BMUs in biodiversity and socioeconomic assessment undertaken
Output 3. , Network of up to six marine/coastal community conserved areas (CCAs) in Shimoni, Majoreni and Vanga established, and resource management plans in place	• Participatory assessment of marine and coastal issues by end of Year 1 • Up to 6 potential CCAs surveyed and mapped end of Year 1 • Up to 6 CCA management plans developed and implementation initialised by End of Year 2 • Initiation of the gazettement of the CCAs by Year 3 • Local Environmental Impact Assessment done, as required by NEMA by end of Year 1 • Network governance committee established and community scouts in place by end of Year 1	Seven CCAs have been surveyed and mapped, 2 CCAs have been demarcated in Kibuyuni and Wasini Seven Approved By-laws developed for the 7 BMUs, indicating areas of jurisdiction, and translated to Swahili (local language) Monitoring, Patrols and Surveillance committees established for the 7 CCAs and training for scouts undertaken for Shimoni, Wasini, Mkwiro and Kibuyuni CCAs (16 scouts) EIA undertaken for CCAs

	•	
3.1 Participatory assessment of marine/coastal issues		2009 and 2011 Biodiversity and Socio-Economic Reports produced, and Management Plans for the seven BMUs, indicating marine/ coastal issues.
3.2 Identification and mapping of CCA sites		2011, Seven CCA sites mapped as part of the Management Plan exercise, sites maps prepared using GIS technology at FFI-EA. CCA maps produced as posters for BMU and Fisheries offices.
3.3 Demarcation of CCAs		Demarcation of closed fishing areas, for Wasini and Kibuyuni CCA areas, using buoys (installed April 2012)
3.4 EIAs undertaken for CCA sites		2011, EIA Assessment undertaken and licence issued by National Environment Management Authority (NEMA)
3.5 Initiation of process to gazette CCAs		Formal gazettement still in process, once management plan for CCAS finalized.
3.6 Identification and training of community scouts		2012, Monitoring, Patrols and Surveillance committees established for the 7 CCAs and training for scouts undertaken by Kenya Wildlife Service for Shimoni, Wasini, Mkwiro and Kibuyuni CCAs (16 scouts)
3.7 Participatory development of management plan for CCAs (includes mangrove forest management and sustainable fisheries management plan		2011, 2 Comprehensive CCA co-management plans developed for Wasini and Majoreni and 4 summarized co-management plans developed for Mkwiro, Shimoni, Kibuyuni, Vanga/Jimbo. This as required under BMU regulations
3.8 Participatory development of CCA by-laws/ guidelines		Seven Approved By-laws developed for the 7 BMUs, indicating areas of jurisdiction, and translated to Swahili (local language)
3.9 Publication and dissemination of CCA guidelines		Some publication materials, eg posters / brochures of CCAs, with guidelines. In process.
3.10 Implementation and monitoring of management plans		Implementation to start, once the Management Plans are finalized. In process for 2012-13
Output 4 Marine and land-based alternative livelihoods identified and promoted and existing livelihoods developed sustainably	• Incomes of CBO members improved by 40% by End of Year 3 • Number of alternative livelihood strategies pursued by CBO members by end of Year 3 • Existing livelihood strategies of CBO members strengthened	Beekeeping as an alternative income generating option benefitting up to 80 households developed for women and youth groups in Jimbo and Vanga Eco-tourism as an alternative income generating option supported in Wasini village

	• Small enterprises established, with business planning guidance and support by Mid of Year 3	
4.1.Participatory livelihoods assessment,		Community livelihood assessments undertaken by Kilimanyika Consultants in Yr1
4.2.Identify shortlist of livelihoods initiatives to support at each site		Shortlist of livelihood initiatives to support at each site identified through a consultancy awarded to Kilimanyika consultants in Yr 1
4.3.Market analysis/feasibility studies for prioritization		Not done
4.4.Training of community members on business planning, management, and AIG specific skills		Not done/Not budgeted
4.5.Promotion of sustainable fisheries- appropriate fishing gear		Not done
4.6.Establish and distribute regulations/guidelines for sustainable fishing methods/gear		Not done
4.7.Small enterprises established and supported		Support for BMUs through construction and rehabilitation of BMUs bandas to enable the BMUs have a centralized location to conduct their activities
Output 5 Awareness of linkages between sustainably managed coastal marine environment and community well-being enhanced amongst fishers/fishmongers, children, youth and the wider community in Shimoni, Majoreni and Vanga and surrounding areas	• Knowledge, attitude perceptions survey by mid of Year 1 • % community with improved knowledge • % reduction in destructive and illegal practices • % participation in livelihood development activities • % participation in conservation activities	A total of 11 articles have appeared within the EAWLS newsletter on the Darwin Initiative project with a readership of more than 3,000 people A special article on the Darwin Initiative project published in Swara Magazine Removal of illegal fishing practices such as spear-guns observed in Wasini and support for the removal of ringnet fishing inshore areas provided Production of various awareness and education materials that include posters, banner, t-shirts and brochures and disseminated throughout the project area

5.1. Organise a project launch to create awareness of the proposed project	Project launch done with the attendance of all project partners and community representatives Community meetings conducted in all villages to raise awareness of the project and
5.2. Attitudes and perceptions survey undertaken	Attitudes and perception survey undertaken as part of the socio-economic survey in Yr 1
5.3. Facilitate the production and dissemination of various educational and awareness materials ie posters, information boards, pamphlets, press briefings, etc	Information brochures, posters, banners and t-shirts produced in Yr1
5.4. Support the establishment of an educational resource centre in Shimoni- which is centrally located	Not done/not budgeted
5.5. Hold sensitization meetings at each of the three project sites (Shimoni, Majoreni and Vanga) Study tours/ exchange visits	Sensitization meetings held in each of the 7 villages held in Yr 1 and on a continuous basis each year

Annex 2 Project's final logframe, including criteria and indicators

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal: Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.			
Sub-Goal: Coastal and marine biodiversity in the south coast region of Kenya is conserved and natural resources are managed and utilised sustainably and equitably by local communities	• Reduced damage to the coral ecosystem • Increased stocks of fish and other exploited species • Trends in abundance and distribution of selected species • Changes in the status of threatened species over the long term • Increased household income from coastal/marine resources and/or alternative livelihoods	• Project baseline biodiversity surveys, socio-economic surveys, perceptions surveys, livelihood assessment surveys • Project monitoring reports • Mid-term review • End of project and/or DI Closed project evaluation	[redacted]
Purpose Biodiversity conserved and livelihoods of coastal communities improved through conservation and sustainable management of coastal and marine resources	• Functional community or co-managed marine conservation areas by end of Year 2 • Improved management and utilisation of marine and coastal resources by end of Year 3 • Strong community institutions in place by end of Year 3 • Increased household income from coastal/marine resources and/or alternative livelihoods by end of Year 3	• Project progress reports, including analysis of resource use monitoring and socio-economic indicators • Mid-term review report and final evaluation report • Fisheries Department reports	• Existing policy and legislation environment remains in force • Minister approves gazette notices • Political environment remains stable

Outputs 1. Socio-economic and bio-physical evidence base for developing and monitoring community-conserved areas established through participatory methods, disseminated and maintained.	• Priority marine and coastal habitats, species and resources identified and assessed by end of Year 1 • Socio-economic, institutional and livelihoods surveys conducted in coastal communities by end of Yr • Information gathered on policy background and legal basis for community-based management of marine resources	• Ecological surveys and mapping of natural resources • Resource mapping reports • Socio-economic (perceptions and attitudes) study reports • Alternative livelihoods assessment study • Study of operative legislation and policy, specific to community-based resource management schemes • Assessment reports, annual reports	• Competent technical expertise available
2. Community based organisations in Shimoni, Majoreni and Vanga established and strengthened through sustained individual and institutional capacity building	• Organizational assessment and training needs assessment undertaken by end of Year 1 • Technical skills training i.e. biodiversity assessment and monitoring, business and entrepreneur skills Well managed and organized community institutions	• Organization and training needs assessment reports • Community Based Resource Use Association minutes • Training and identification manuals • Annual General Meeting and meeting reports • Monitoring and field reports	• Community stakeholders have essential education and skills to benefit from training, • Other resources can be leveraged for continued operations of CBOs
3. Network of up to six marine/coastal community conserved areas (CCAs) in Shimoni, Majoreni and Vanga established, and resource management plans in place	• Participatory assessment of marine and coastal issues by end of Year 1 • Up to 6 potential CCAs surveyed and mapped Yr 1 • Up to 6 CCA management plans developed and implementation initialised by	• Mapping and survey reports • Minutes of stakeholders consensus meetings • District Environment Committee minutes • Government gazettement notice • Management plans and bylaws	• Agreement by communities for CCA approach • Favourable legislation for the gazettement of the CCAs • Political goodwill

	End of Year 2 • Up to 6 CCA bylaws produced and disseminated by End of Year 2 • Initiation of the gazettement of the CCAs by Year 3 • Local Environmental Impact Assessment done, as required by NEMA by end of Year 1 • Network governance committee established and community scouts in place by end of Year 1	• Guidelines for site selection and consultation process • Lessons learned and best practice guidelines • EIA report • Committee reports and minutes	
4. Marine and land-based alternative livelihoods identified and promoted and existing livelihoods developed sustainably	• Incomes of CBO members improved by 40% by Yr 3 • Number of alternative livelihood strategies pursued by CBO members by Yr 3 • Existing livelihood strategies of CBO members strengthened • Small enterprises established, with business planning guidance and support by Mid of Year 3	• Socio economic baseline reports and subsequent monitoring reports • Mid-term review report • Project progress monitoring reports • End of project evaluation	
5. Awareness of linkages between sustainably managed coastal marine environment and community well-being enhanced amongst fishers/fishmongers, children, youth and the wider community in Shimoni, Majoreni and Vanga and surrounding areas	• Knowledge, attitude perceptions survey by mid of Year 1 • % community with improved knowledge • % reduction in destructive and illegal practices • % participation in livelihood development activities • % participation in conservation activities	• Survey reports • Project and CBO monitoring reports • Media and press briefs • Awareness materials i.e. brochures, pamphlets, posters etc • Project, meetings and workshop reports • KAP survey in communities	• Support from community leaders, local and national government, media bodies

Annex 3 Project contribution to Articles under the CBD

Project Contribution to Articles under the Convention on Biological Diversity

Article No./Title	Project %	Article Description
6. General Measures for Conservation & Sustainable Use		Develop national strategies that integrate conservation and sustainable use.
7. Identification and Monitoring	20	Identify and monitor components of biological diversity, particularly those requiring urgent conservation; identify processes and activities that have adverse effects; maintain and organise relevant data.
8. In-situ Conservation	55	Establish systems of protected areas with guidelines for selection and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems and recovery of threatened species; control risks associated with organisms modified by biotechnology; control spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.
9. Ex-situ Conservation		Adopt ex-situ measures to conserve and research components of biological diversity, preferably in country of origin; facilitate recovery of threatened species; regulate and manage collection of biological resources.
10. Sustainable Use of Components of Biological Diversity	25	Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.
11. Incentive Measures		Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.
12. Research and Training		Establish programmes for scientific and technical education in identification, conservation and sustainable use of biodiversity components; promote research contributing to the conservation and sustainable use of biological diversity, particularly in developing countries (in accordance with SBSTTA recommendations).
13. Public Education and Awareness		Promote understanding of the importance of measures to conserve biological diversity and propagate these measures through the media; cooperate with other states and organisations in developing awareness programmes.
14. Impact Assessment and Minimizing Adverse Impacts		Introduce EIAs of appropriate projects and allow public participation; take into account environmental consequences of policies; exchange information on impacts beyond State boundaries and work to reduce hazards; promote emergency responses to hazards; examine mechanisms for re-dress of international damage.
15. Access to Genetic Resources		Whilst governments control access to their genetic resources they should also facilitate access of environmentally sound uses on mutually agreed terms; scientific research based on a country's genetic resources should ensure sharing in a fair

Article No./Title	Project %	Article Description
		and equitable way of results and benefits.
16. Access to and Transfer of Technology		Countries shall ensure access to technologies relevant to conservation and sustainable use of biodiversity under fair and most favourable terms to the source countries (subject to patents and intellectual property rights) and ensure the private sector facilitates such assess and joint development of technologies.
17. Exchange of Information		Countries shall facilitate information exchange and repatriation including technical scientific and socio-economic research, information on training and surveying programmes and local knowledge
19. Bio-safety Protocol		Countries shall take legislative, administrative or policy measures to provide for the effective participation in biotechnological research activities and to ensure all practicable measures to promote and advance priority access on a fair and equitable basis, especially where they provide the genetic resources for such research.
Other Contribution		Smaller contributions (eg of 5%) or less should be summed and included here.
Total %	100%	Check % = total 100

Annex 4 Standard Measures

Code	Description	Totals (plus additional detail as required)
Training Measures		
1a	Number of people to submit PhD thesis	
1b	Number of PhD qualifications obtained	
2	Number of Masters qualifications obtained	
3	Number of other qualifications obtained	
4a	Number of undergraduate students receiving training	
4b	Number of training weeks provided to undergraduate students	
4c	Number of postgraduate students receiving training (not 1-3 above)	
4d	Number of training weeks for postgraduate students	
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification(ie not categories 1-4 above)	
6a	Number of people receiving other forms of short-term education/training (ie not categories 1-5 above)	2 people (On-Site Project Coordinator Dishon Murage and the FFI Marine programs coordinator Joy Juma) received training in Marine Spatial planning 60 BMU Executive committee members trained in Fisheries Resource management, BMU Roles and responsibilities and Financial management 14 BMU members trained in socio-economic assessment 14 BMU members trained in biodiversity assessments 16 BMU Patrols, Monitoring, Control and Surveillance Sub-Committee members trained in monitoring, control and surveillance
6b	Number of training weeks not leading to formal qualification	20 weeks
7	Number of types of training materials produced for use by host country(s)	Harmonized BMU training modules on Fisheries Management, BMU roles and responsibilities and Financial management Community Socio-economic assessment manual

Code	Description	Totals (plus additional detail as required)
		Community biodiversity manual+
Research Measures		
8	Number of weeks spent by UK project staff on project work in host country(s)	2 weeks
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (s)	6 Draft Co-management plans produced for the 7 CCAs (Vanga/Jimbo with common plan)
10	Number of formal documents produced to assist work related to species identification, classification and recording.	
11a	Number of papers published or accepted for publication in peer reviewed journals	
11b	Number of papers published or accepted for publication elsewhere	1 paper abstract accepted for publication in a special edition of the WIOMSA (Western Indian Ocean Marine Science Association) journal
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	
13a	Number of species reference collections established and handed over to host country(s)	4 workshops –Co-management plans drafting workshop, review of co-management plans, partners workshop and Darwin Initiative project feedback workshop
13b	Number of species reference collections enhanced and handed over to host country(s)	
Dissemination Measures		
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	2 major workshops; for Management Plans (2011), and Conclusions (April 2012)
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	1-WIOMSA Symposium in October, 2011
15a	Number of national press releases or publicity articles in host country(s)	
15b	Number of local press releases or publicity articles in host country(s)	1-Darwin Initiative article in the SWARA magazine an internationally distributed magazine on environmental and conservation issues
15c	Number of national press releases or publicity articles in UK	

Code	Description	Totals (plus additional detail as required)
15d	Number of local press releases or publicity articles in UK	
16a	Number of issues of newsletters produced in the host country(s)	4-EAWLS Newsletter articles
16b	Estimated circulation of each newsletter in the host country(s)	4000
16c	Estimated circulation of each newsletter in the UK	
17a	Number of dissemination networks established	
17b	Number of dissemination networks enhanced or extended	
18a	Number of national TV programmes/features in host country(s)	
18b	Number of national TV programme/features in the UK	
18c	Number of local TV programme/features in host country	
18d	Number of local TV programme features in the UK	
19a	Number of national radio interviews/features in host country(s)	
19b	Number of national radio interviews/features in the UK	
19c	Number of local radio interviews/features in host country (s)	
19d	Number of local radio interviews/features in the UK	
Physical Measures		
20	Estimated value (£s) of physical assets handed over to host country(s)	Vehicle to host country partner, the EAWLS. Value GBP 6000
21	Number of permanent educational/training/research facilities or organisation established	
22	Number of permanent field plots established	6 within the CCAs (Wasini closed area, Jiwe Jahazi, Baazo, Sii island, Kibuyuni, Marembo)
23	Value of additional resources raised for project	$37,000 from UNDP/GEF/SGP and £30,000 from Waterloo foundation. £10,300 from Mayer Foundation for Mariculture Study. Other inputs for staff time from other project partners such as fisheries and collaborators has not been included
Other Measures used by the project and not currently including in DI standard measures		

Code	Description	Totals (plus additional detail as required)

Annex 5 Publications

Type * (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Consultants report	Livelihoods of the South coast: A socio-economic background for the development of community conservation areas within Shimoni-Vanga Area, Kenya, Paul Harrison and James Laizer, 2009 Socio-economic assessment survey on the conservation and sustainable management of Kenya's marine and coastal resources, 2011		East African Wildlife Society, P.O. Box 20110-00200, Nairobi, Kenya	
Consultants report	Coral reef biodiversity assessment of the Shimoni-Vanga Area, South coast Kenya 2010, 2011 & 2012		East African Wildlife Society, P.O. Box 20110-00200, Nairobi, Kenya	
Training Modules	MODULE 2: Orientation of roles of Beach Management Units on co-management in coastal and marine fisheries resources MODULE 4: BMU Financial management		East African Wildlife Society, P.O. Box 20110-00200, Nairobi, Kenya & Fisheries Department, P.O. Box 90423-80100, Mombasa Kenya	
Manuals	A Socio-Economic Monitoring Plan Manual providing methodology for future surveys		East African Wildlife Society, P. O. Box 1976-80100, Mombasa, Kenya	

	within the Darwin Initiatives project area Community biodiversity Assessments and monitoring training manual			
Other documents	Beach Management Unit By-laws English and Swahili translated version for Wasini, Kibuyuni, Shimoni, Mkwiro, Majoreni, Vanga and Jimbo		East African Wildlife Society, P.O. Box 1976-80100, Mombasa Fisheries Department, P.O. Box 90423-80100, Mombasa, Kenya	
Report	Environmental Impact Assessment study report for the proposed 'Conservation and sustainable management of Kenya's marine and coastal resources' project covering the Shimoni-Vanga area within Msambweni district, Kenya		East African Wildlife Society, P.O. Box 1976-80100, Mombasa National Environment Management Authority, P. O. Box 84700-80100, Mombasa, Kenya	

Annex 6 Darwin Contacts

Ref No	17-016
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