

## CEPF FINAL PROJECT COMPLETION REPORT

### I. BASIC DATA

**Organization Legal Name:** BirdLife International, Kenya Office

**Project Title (as stated in the grant agreement):** *Instituting a Standardized Sustainable Biodiversity Monitoring System in the Eastern Arc / Coastal Forests of Tanzania and Kenya*

**Implementation Partners for this Project:** Nature Kenya, Wildlife Conservation Society of Tanzania

**Project Dates (as stated in the grant agreement):** February 1, 2005 - March 31, 2009

**Date of Report (month/year):** 30<sup>th</sup> May 2009

### II. OPENING REMARKS

*Provide any opening remarks that may assist in the review of this report.*

Biodiversity is being lost at an accelerating rate as a result of the impact of anthropogenic activities on natural resources. Monitoring therefore becomes an integral part of biodiversity conservation because of the need to effectively measure the status trends and extent of these changes in biodiversity and avail the information at various policy formulation or implementation levels.

At a regional level, biodiversity monitoring can be complex especially given the diversity of actors involved, diversity of aspects to be monitored varying from species level (and the high species diversity), site level, habitats, landscape, ecosystem and in the context of the Eastern Arc Mountains and Coastal Forests of Kenya and Tanzania (hereafter EACF). In the EACF various monitoring systems and actors were in place and most actors were working either independently or with a select few number of interested stakeholders. It was also observed that a number of monitoring activities lasted only within project cycles. Yet monitoring data was scattered and housed at various institutions and not shared efficiently. There was therefore need to harmonise monitoring work in the EACF while making it sustainable. This project was therefore conceived to institute a standardised sustainable biodiversity monitoring system in the EACF. To achieve this, the project focused on priority needs such as: identifying and reviewing the existing monitoring initiatives within the region and the main actors/institutions; agreeing on a set of measurable biodiversity indicators and accompanying tools through a participatory process; mainstreaming biodiversity monitoring into institutional routines; and ensuring that the indicators are useful in measuring conservation outcomes. The project strongly and directly linked to Strategic Direction 3 of the Ecosystem Profile and sought to:

- Have standardised, simple and cost effective protocols agreed with all stakeholders to monitor biodiversity at priority sites in the EACF in terms of state, pressure and response,
- ensure the status of key taxa and ecosystem processes, particularly species of global conservation concern (CR, EN) will be monitored through partnerships with a wide variety of relevant institutions and individuals
- feed quickly and directly into mainstream government information and planning systems, civil society and CEPF Conservation Outcomes database data and monitoring information to improve site management and conservation action

### III. ACHIEVEMENT OF PROJECT PURPOSE

**Project Purpose:** A comprehensive sustainable monitoring system involving all key stakeholders is implemented in the EACF hotspot and the information is made widely available and accessible.

**Planned vs. Actual Performance**

Indicator	Actual at Completion
<b>Purpose-level:</b>	
<p><i>1. Standardised monitoring protocols, developed and agreed by all key stakeholders, are published by Sept 2005</i></p>	<p>A summary of 19 agreed biodiversity monitoring indicators and corresponding tools/methods (<b>Attachment 1</b>) was published and circulated as hard copy brochures (1300 copies), electronically (PDF version) and placed on the web (<a href="http://www.birdlife.org">www.birdlife.org</a>; <a href="http://cepf.tfcg.org">http://cepf.tfcg.org</a>; <a href="http://www.naturekenya.org">www.naturekenya.org</a>). This summary resulted from reviews and consultations using the following avenues and products:</p> <ol style="list-style-type: none"> <li>(1) A review of on-going monitoring efforts, main actors, methods/tools used and coverage in terms of sites and species (<b>Attachment 2</b>).</li> <li>(2) A review of the existing monitoring knowledge, major frameworks and methodologies, and a summary of stakeholders, where they are working and the tools they were employing EACF (<b>Attachment 3</b>)</li> <li>(3) A stakeholder workshop attended by &gt;60 participants was held to agree on common approach to monitoring in the EACF and report produced (<b>Attachment 4</b>)</li> </ol> <p>Even though the issue of sustainability still remains a challenge, efforts are being made to continue promoting these protocols amongst key government institutions and protected area managers so that they continue mainstreaming them in their regular monitoring work.</p>
<p><i>2. Monitoring efforts by stakeholders are taking place using the standardised protocols covering all key species and sites outcomes across the EACF hotspot by Dec 2005</i></p>	<p>A review in 2005 indicated that already five of the six forest sites identified as priorities in the CEPF ecosystem profile (Udzungwas, East Usambaras, Jozani, Taita Hills, and Ulugurus) were being monitored for various biodiversity aspects by at least 18 institutions, the main gap being the Lower Tana Forests. However follow-up reviews in 2008 indicated that changes in land cover and carbon storage had been assessed for Lower Tana Forests. Six other sites (West Usambaras, Pare Mountains, Ukaguru, South Ngurus, and Malundwe) and the coastal forests in general were also being monitored by some of the above and another three key institutions by 2005.</p> <p>Active monitoring using standardised</p>

	<p>protocols was done (2005-2008) by BirdLife and partners (Nature Kenya and WCST) for selected key species (Spotted Ground Thrush, Uluguru Bush-shrike, Sokoke Scops-owl, Clarke’s Weaver) and sites (Uluguru North, Rondo Plateau, Arabuko-Sokoke, Dakatcha Woodlands).</p> <p>Monitoring information from stakeholders across EACF was collated against the 19 agreed indicators, and a Status and Trends report compiled at the end of 2008 (<b>Attachment 5</b> – detailed; <b>Attachment 6</b> - summary). Some of the most popularly used monitoring tools were: Forest Disturbance Transects, Management Effectiveness Tracking Tools (METTs) and Remote Sensing and GIS for cover change detection. Overall, in the recent years especially since 2004, there seems to be an increased knowledge of the state of biodiversity in the EACF as a result of increased research efforts and sharing of information among stakeholders. This has led to e.g. discovery of many new species and review of Red List categories for many species. In most cases however, biodiversity in the EACF has continued to face increased pressure, except in a few exceptional cases where stable conditions have been observed. Response towards biodiversity conservation in the EACF has however been on the rise as may be demonstrated by the increased number of research and conservation actions, stakeholder engagement and improved management effectiveness of sites. It remains to be demonstrated as to whether these responses will have direct positive effect on the actual state of biodiversity in the EACF. In terms of mainstreaming into daily institutional routines and for sustainability, one strategy employed was supporting capacity of Protected Areas personnel in using the METT forms to collect data</p>
<p><b>3. EACF hotspot Conservation Outcomes database managed and maintained, and making information widely available to key institutions within the hotspot and on the web.</b></p>	<p>The outcomes database was continuously populated using new information received from the stakeholders and further information searched from a variety of sources (including &gt; 1350 pieces of literature). Due to the new information, several changes were witnessed during the project period:</p> <ol style="list-style-type: none"> <li>(1) New entries and removal of globally threatened species for various outcome sites. This was as a result of generation of new knowledge from past and ongoing work at KBAs and IUCN Red list reviews, which either</li> </ol>

	<p>resulted to uplisting or down listing of species. By the close of this project, the database had a total of 29 Critically Endangered (up from 24), 90 (up from 68) Endangered and 238 (down from 241) Vulnerable species. Overall, the entries for the globally threatened species captured in the database rose from 333 in 2002 to 358 in 2008.</p> <p>(2) Identification of five new Key Biodiversity Areas (KBAs) due to the presence of globally threatened species: Kambona Forest Reserve, Mtuli Hinju Proposed Forest Reserve, Mt Rungwe Forest and Ndechela Forest Reserve, were included as KBAs due the globally threatened species that they hold.</p> <p>(3) a review of the KBAs resulting into eight site mergers: Kaya Miungoni merged into Chuna Forest; Baricho near Arabuko Sokoke merged into Dakatcha Woodland; Kaya Ukunda merged into Ukunda, Tanga (Sigi River), Mahenge Sangarawe merged into East Usambara Mountains, Kwiro forest, Mahenge (Liondo) &amp; Mahenge (Lipindi) merged into Mahenge Mountains; Lindi (Kengedi) &amp; Lindi (Nondora) merged into Lindi; Masasi East merged into Masasi (Nyengedi); Mikindani (Mtwara inland), Mikindani District (Mtwara-Mikindani) &amp; Mtwara merged into Mtwara District Coastal Forests.</p> <p>The Outcomes Database was not placed on the web because this approach was reviewed and found to be likely to be prone to abuse by unscrupulous users (e.g. wildlife traders). Instead, other data availing options were used: (1) provision of data/information on request, (2) featuring articles in an electronic bulletin (3) summarising information from the outcomes database within the widely disseminated biodiversity trends (4) the Outcomes Database was merged with the World Biodiversity Database which could be accessed online though the access was restricted i.e. through a password and mainly by the database managers only.</p>
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***Describe the success of the project in terms of achieving its intended impact objective and performance indicators.***

The following are some of the key successes of the project:

- (1) mobilised biodiversity monitoring stakeholders in the EACF through a participatory process to agree on a harmonised set of standardised priority biodiversity monitoring indicators, tools and protocols to be applied in the Eastern Arc Mountains and Coastal Forests of Kenya and Tanzania.
- (2) Promoted and publicized these biodiversity monitoring indicators and tools widely and brought as many stakeholders on board. The stakeholders in turn contributed a wealth of information and data useful for determining the status and trends of biodiversity at various levels (taxonomic, sites, habitats, landscape and ecosystem).
- (3) Undertook actual field monitoring of four key sites and four species.
- (4) Significantly updated the biodiversity Outcomes Database for the EACF leading to identification of new Key Biodiversity Areas (KBAs) and re-assessment of boundaries of some existing KBAs.
- (5) Substantial information and data, that were initially scattered among stakeholders, were collated and helped giving an impression of how biodiversity is performing in the EACF and ensured a coordinated data storage, handling and sharing of information. To ensure frequent sharing of information, an electronic bulletin in which summarised new information from the various stakeholders was circulated quarterly.
- (6) The climax of the information sharing was the analysing the information submitted into a biodiversity status and trends report which was submitted widely to all the stakeholders, presentations made at various institutions and at the final assessment workshop for the CEPF 5-year conservation investment in the region.

***Were there any unexpected impacts (positive or negative)?***

Unexpected positive impacts:

- (1) The capacity built to undertake monitoring at demonstration sites and at the hotspot scale. At the model site level, the community members were engaged in a major way where knowledge was transferred to the participants at Dakatcha woodland and Arabuko Sokoke forest to undertake basic data collection and apply the knowledge and skills to monitor KBAs.
- (2) A comprehensive checklist of birds recorded in Dakatcha Woodlands was kept and will now be developed for publishing and use.
- (3) More capacity to undertake monitoring was realized on application of Management Effectiveness Tracking Tool (METT) to collect Protected Areas (PA) data. This was achieved by first conducting a training seminar for PA personnel and members of non-governmental organizations working to conserve the PAs. The capacity attained and the advocacy done for use of the METT tool has resulted in the uptake of use of the tool by Kenya Forest Service as well as the Tanzania's Forest and Bee-Keeping Division and this tool is being applied to sites outside the EACF hotspot.

**IV. PROJECT OUTPUTS**

***Project Outputs:***

**Planned vs. Actual Performance**

Indicator	Actual at Completion
<b>Output 1: A baseline of monitoring knowledge, data and practitioners in the EACF and the current main gaps and needs established. Information on existing</b>	<b>A baseline of biodiversity monitoring knowledge, data and practitioners in the EACF through a consultancy in 2005. A review of existing biodiversity monitoring</b>

<p><b>monitoring activity, baseline knowledge of the status of biodiversity and rates of biodiversity loss in the hotspot will be made available to underpin the development of standardised protocols for monitoring across the hotspot.</b></p>	<p><b>frameworks and data in the EACF was also made. These were compiled into comprehensive reports that were later availed to stakeholders to be used as references for developing standardised protocols for biodiversity monitoring across the hotspot, including advising where gaps needed to be filled.</b></p>
<p><i>1.1. Comprehensive list of main actors implementing biodiversity monitoring in the EACF hotspot available by end of March 2005</i></p>	<p>An initial analysis and review was done and a database of 150 main actors compiled in 2005. The list has however continued to grow since then, and now stands at c. 450. This database, which has been very dynamic, has continued to expand as new contacts were acquired. This contacts database has been instrumental in guiding us on the target people to contact in the process of soliciting for data, information and relevant publication to supplement our monitoring data needs. Information on the target data depositories was useful and continues to be useful in guiding us on where to get specific type of data and who needs to be approached. The contacts database has been a useful tool in ensuring that people create linkages amongst themselves. This was useful in terms of developing and sustaining links with ongoing initiatives and the main repositories of biodiversity data in the EACF Region to develop capacity in monitoring enhance information sharing and minimise duplication.</p>
<p><i>1.2. Comprehensive review of approaches and protocols used for biodiversity monitoring in the EACF hotspot available by end of March 2005</i></p>	<p>A review of existing monitoring frameworks in the region was conducted (<b>Attachment 3</b>). This exercise was useful in providing an overview of most common indicators and tools, who were applying them and where. It provided a baseline and guided the discussions at the inception stakeholders' workshops. It was published and disseminated widely to the stakeholders. It formed the basis on which discussions at the workshop on availability of data and consensus on a set of indicators and tools were based.</p>
<p><i>1.3. Gaps in monitoring data identified and approaches to fill them documented by end of June 2005</i></p>	<p>One of the key results of the stakeholders workshop convened at the beginning of the project was to identify gaps in monitoring and make recommendations to fill the gaps. This was documented both in the review of monitoring frameworks and the proceedings from this workshop (<b>Attachment 4</b>) and subsequently disseminated widely to the workshop participants and the stakeholders.</p>
<p><i>1.4. Baseline monitoring document reviewing ongoing activities and systems and highlighting gaps published by end Sept 2005</i></p>	<p>The baseline monitoring document (<b>Attachment 2</b>) reviewing ongoing initiatives was developed through a consultancy, discussed, published and widely disseminated.</p>

	<p>It captured the attributes being monitored, measuring habitat area and quality, status of sites, ecological process, species and socio-economics) attitudes, capacity and livelihoods). The review was compiled through interviews with some of the actors, review of literature and publications. It was also among the papers for review and discussion during the stakeholders' workshop held in Dar es Salaam, Tanzania at the start of the project.</p>
<p><b>Output 2: Protocols for biodiversity monitoring developed, agreed, standardised and implemented by all key stakeholders across the EACF hotspot. Building on the information above, a workshop of the key stakeholders will be convened as a main mechanism for developing consensus and ownership of the protocols. Agreements will be signed with the main stakeholders to institutionalise collaboration.</b></p>	<p><b>Protocols for biodiversity monitoring in the EACF were agreed upon, published and disseminated. They comprised of an aggregated list of 19 biodiversity indicators accompanied by suitable data collection methods/tools for each indicator. Detailed descriptions of various data collection methods/tools already existed on most cases and did not require being re-written. A simple format in which data holders could contribute to the project was also described. National BirdLife partners already had existing working relations with key stakeholders and only letters of commitment were exchanged instead of new agreements.</b></p>
<p><i>2.1. Workshop involving all key stakeholders in biodiversity monitoring in the EACF hospot organised in the region by June 2005.</i></p>	<p>The preliminary stage of reviewing and compiling a baseline of monitoring knowledge, data and practitioners in the EACF was useful in subsequent efforts to bring together the stakeholders and through a consensus, agree on a set of indicators and tools. The workshop held between 30<sup>th</sup> May and 1<sup>st</sup> June 2005 and brought together 78 participants. It was instrumental in consensus building, mobilizing commitment from the stakeholders in contributing to the standardised and sustainable biodiversity monitoring in the region. Participants were drawn from 45 institutions including independent or freelance researchers, government departments, civil society organizations working within the region and research and academic institutions.</p>
<p><i>2.2. Agreed common methodologies for species, sites and habitats monitoring available by June 2005.</i></p>	<p>A lot of consultations followed during the post workshop period. A Task Force constituted during the workshop to spearhead the process of aggregating and preparing a final list of the indicators agreed on at the workshop was useful in providing the technical guidance on priority indicators and tools. Subsequently, the product of this consultation was an aggregated list of indicators and the corresponding tools to achieve the indicators (<b>Attachment 1</b>). The Coordination Unit of the CEPF/EACF also played a critical role in this process. The next stage was to publish and publicize these</p>

	<p>indicators to all the stakeholders through various means including brochures, electronic bulletins, and emails thus reaching wide audience. This continued to be circulated in the course of project implementation as new contacts were established. The process of raising the profile of the indicators continued till the end of the project and it is anticipated that the process of promoting them will continue.</p>
<p><b>2.3.</b> <i>Standard monitoring protocol/manual explaining priority sites and species for monitoring; types of data and how they will be recorded; appropriate monitoring products; and allocation of responsibilities published by Sept 2005</i></p>	<p>A brochure was published containing all the indicators and the guidelines to stakeholders on how they were to contribute data, the format and the type of information needed and contact people to whom the data or monitoring information was to be sent to. Also as part of publicizing these protocols, presentations were scheduled and made at key institutions targeting the scientific staff from these institutions. Other presentations were made at local and regional conferences and workshops. Opportunistically taking advantage of these forums was useful in publicizing them and engaging and bringing on board as many people as possible.</p>
<p><b>2.4.</b> <i>MOUs signed between the key players involved in collection, handling and disseminating of monitoring information by Dec 05</i></p>	<p>Initially signing of MoUs was considered an effective means of committing institutions to share data and monitoring information. Institutions with which BirdLife would sign MoUs with were identified and even generic templates of MoUs drafted. However, with time, this idea of MoUs was abandoned for various reasons: (1) many of the institutions were already collaborating directly with BirdLife International in various programmes or already had cordial working relationships (either informal or formalized through previous MoUs) with BirdLife Partners in Kenya (NatureKenya) or Tanzania (Wildlife Conservation Society of Tanzania). Entering into other MoUs would have complicated the process of dispensing data because of the bureaucracy involved but also could have elicited suspicions thus compromising the already established collaborations. (2) The signing of an MoU between CEPF and the Forest and Beekeeping Division, Ministry of Tourism and Natural Resources, Tanzania significantly catered for data sharing issues from institutions particularly in Tanzania. In this MoU, there was a provision that committed these institutions to contribute data to this BirdLife coordinated biodiversity monitoring project; (3) the fact that all CEPF grantees were under contractual obligation to contribute data to the Outcomes database meant that since most of these researchers were drawn from local institutions, the initial</p>



	<p>understanding was that this mechanism would work effectively, (4) key institutions (especially key government departments) were engaged through incorporation of representative officials into the Project Steering Committee. This would promote the uptake and facilitate the process of mainstreaming monitoring into their routine activities.</p>
<p><b>Output 3: The trends in conservation status and threats to selected species, sites and habitats in the EACF hotspot after four years of CEPF investment assessed and documented. A set of model sites will be selected through a participatory process based on objective and pragmatic criteria. At these sites, data will be systematically collected by different stakeholders at species, sites and habitats/landscape levels using the protocols agreed above. Institutions and individuals working in the hotspot (both those receiving and those not receiving CEPF support) will be encouraged to contribute to monitoring. Mechanisms will be put in place to mainstream monitoring in government, institutions', and communities' programmes.</b></p>	<p><b>Biodiversity status and trends in four Key Biodiversity Areas and for four globally threatened bird species actively monitored systematically; and other stakeholders were mobilized into contributing information in relation to the agreed monitoring indicators. This led to an assessment of biodiversity status and trends in the EACF and production of a detailed and summary report at the end of 2009. Substantial support was also provided assessing the impacts of the five-year CEPF investment in the EACF.</b></p>
<p><b>3.1. Model sites to demonstrate biodiversity monitoring using the agreed framework set-up and running</b></p>	<p>In Kenya, two Key Biodiversity Areas were selected as model sites where demonstration on biodiversity monitoring using selected frameworks was implemented. The selected sites, species and frameworks were:  <i>(1) Model Site: <b>Dakatcha woodland</b>: Protocols utilized: Disturbance Transects and the Important Bird Area monitoring Framework; Model species: <b>Clarke's Weaver</b></i>  <i>(2) Model Site: <b>Arabuko Sokoke Forest</b>: Protocols utilized: Important Bird Area monitoring Framework; Management Effectiveness Tracking Tool; Model Species: <b>Sokoke Scops Owl</b></i></p> <p>In Tanzania the selected sites, species and frameworks were:  <i>(1) Model Site: <b>The Uluguru North Catchment Forest Reserve</b>. , Protocols utilized: Disturbance Transects. Model species: <b>Uluguru Bush-Shrike</b></i>  <i>(2) Model Site: <b>Rondo Plateau Forest Reserve</b> in the Lindi District Coastal Forests. . Protocols utilized: Disturbance Transects. Model species: <b>Spotted Ground Thrush</b>.</i></p> <p>Data and information generated during these monitoring sessions were compiled into reports (<b>Attachments 7,8,9,10</b>), used to populate the outcomes database, published as brief articles</p>

	<p>in newsletters, uploaded onto websites (Uluguru Bush Shrike feature on various websites). Plans are underway to analyze and publish scientific articles in peer reviewed journals the results from the model sites.</p>
<p><b>3.2. Systematic data collection at selected sites to monitor biodiversity at species, site, habitat/landscape/corridor levels taking place over the duration of the project.</b></p>	<p>Systematic data collection was conducted at the above sites seasonally between 2006 and 2008.</p> <p>In Dakatcha woodland, tracking of the Clarke's Weaver and habitat assessment was done in transects totaling to 70 Km from 2006 to December 2008, while IBA Monitoring Framework was applied at both basic and detailed levels. Detailed data collection was repeatedly done along six transects that were carefully selected to coincide with habitats preferred by Clarke's Weaver.</p> <p>In Arabuko Sokoke Forest habitat monitoring was also extended to cover the other known localities for the Sokoke Scops Owl. Monitoring using the IBA Framework was also applied and METT forms filled. The data collected on the model species, Sokoke Scops Owl, through the support of this project, will be comparatively analysed with past data collected by other stakeholders to reflect the conservation and trends of this bird since 1993.</p> <p>In Tanzania disturbance monitoring in the Uluguru North Catchment Forest Reserve and Rondo Forest Reserve were conducted in the following periods: 24th September to 2nd October 2006 and 7th to 19th November 2007. In 2008 Rondo Plateau forests were covered from 27th April to 3rd May 2008 and Uluguru North Catchment Forest Reserve covered from 26th September-4th October. Transect disturbance methodology was used. The Spotted Ground Thrush monitoring was based on a new protocol developed this species' monitoring and habitat quality assessment. Preliminary results show a decrease in number of sections affected by new tree cuttings in both Uluguru and Rondo forests. There has also been a slight decrease in number of poles while the number of affected timber has remained unchanged between years 2006-2007. During fieldwork, community members were actively involved as a way of developing their capacity and ensuring that their support can be leveraged during future monitoring.</p> <p>This project identified the METT as one of the monitoring tools that had a great potential to reveal a lot of information related to</p>

	<p>management of the protected KBAs. The project implementation team therefore prioritized to publicize and popularize the tool and therefore engaged the protected area managers in its use. To achieve this, capacity building workshops were organized where at least 21 and government staff from Kenya and Tanzania respectively, attended the training workshops. Reach out activities and hand holding efforts were initiated at the project areas and the head offices as a way of entrenching the tool in Protected Area management systems. In Kenya, these efforts resulted in the effective filling of METT forms for 40 Protected Areas in 2006, 40 in 2007 and so far 11 have been received for 2008 and more are expected to trickle in. The Kenya Forest Service (KFS) approached Nature Kenya requesting for copies of the METT which they could use in an effort to beef up their forest monitoring systems. KFS is currently using METT to collect management data for state forests outside the project area.</p> <p>In Tanzania, data filled METT forms were received for 22 KBAs in 2006, 13 in 2007 and are still being received for 2008.</p> <p>It is planned that the detailed the results of monitoring work at model sites will be compiled and published in peer reviewed journals including the Journal of East Africa Natural History.</p> <p>Initial plans to identify institutions which had previously conducted and continued with systematic monitoring efforts using any of the agreed standard monitoring frameworks at certain sites and also use these as model sites did not materialize. Even though institutions had previously monitored, the process was either not systematic or if systematic, had ended.</p> <p>As part of mainstreaming monitoring in community programmes, community members were already conducting monitoring (e.g Arabuko Sokoke Forest KBA) or trained on the job in monitoring techniques (Dakatcha Woodland and Rondo Plateau Forest Reserve). This monitoring will continue even though at a more reduced scale and frequency.</p>
<p><b>3.3. Regular reports on the biodiversity status and trends, changes in threats and actions to address them produced and disseminated widely over the duration of the project.</b></p>	<p>Reports on Biodiversity status and trends were not produced as regularly (annually) as had been originally planned, one year was observed to be relatively short and data contributions were not coming in as fast.</p>

	<p>Instead, the approach of producing quarterly electronic bulletins was adopted. These summarised new information on threats and actions and disseminated the list of contacts of main players.</p> <p>A first draft of a detailed biodiversity status and trends report was produced at the end of 2006 based on information collated from stakeholders by then. The report was circulated widely for review and to elicit more contributions. A second version that had benefited from wider contributions was then widely circulated at the end of 2008 (<b>Attachment 5</b>). A summary version of this report was then printed and circulated in February 2009 in form of a colourful booklet (<b>Attachment 6</b>). The report presents an analysis of the data submitted versus the indicators and tools used to capture information on the indicator, presents information based on the state-pressure-response model, highlights changes in biodiversity (species and sites) over the years, identify some of the driving factors and makes recommendations on interventions needed to address these issues to reverse current trends in biodiversity loss. Most of this information was presented also to an audience of over 100 people who attended the final workshop on CEPF investment within the region held on 25 – 26<sup>th</sup> February 2009 in Dar Es Salaam. The fact that the various drafts of the report were circulated to the stakeholders for input proved to be a useful mechanism of getting additional facts and figures as well as data, which subsequently was used in updating the final version of the report.</p>
<p><b>Output 4: A comprehensive database developed and maintained where information on the Conservation Outcomes of EACF hotspot is stored and from where such information is readily available and regularly distributed.</b></p>	<p><b>A comprehensive database was developed and maintained where information on the Conservation Outcomes of EACF hotspot was stored and continually updated. It was not placed online due considerations of likely improper use, but summaries were made readily available.</b></p>
<p><i>4.1. List of all major depositories of information on the EACF hospot available</i></p>	<p>The following institutions were identified as major data depositories in Kenya: National Museums of Kenya, Kenya Wildlife Service, International Livestock Research Institute, Regional Centre for Mapping of Resources for Development, Kenya Forests Service, Central Bureau of Statistics and Department of Resource Survey and Remote Sensing (DRSRS).Kenya Forestry Research Institute. Also documented is a summary of the information and data they hold.</p>

	<p>In Tanzania, the Tanzania Forest Research Institute (TAFORI), Forest and Beekeeping Division (FBD), Zoology Department of the University of Dar-es-Salaam (UDSM), Sokoine University of Agriculture (SUA), The Commission for Science and Technology (COSTECH), The Eastern Arc Mountains Endowment Fund (EAMCEF) were identified as major depositories</p>
<p><b>4.2. Updated Outcomes database available and populated continuously.</b></p>	<p>The Outcome Database which was housed at Nature Kenya and Wildlife Conservation Society of Tanzania and had dedicated database managers to regularly update it. The database was populated through processing the information received from the stakeholders in the hotspot and also searching for information from a variety of sources. Due to the new information availed to the database several changes were witnessed during the project period. The changes led to new entries of species as well as new Key Biodiversity Areas. Species changes were as a result of generation of new knowledge from past and ongoing work at KBAs, IUCN Red list reviews, which either resulted to uplisting or down listing of species. By the close of this project, the database had a total of 29 Critically Endangered (up from 24), 90 (up from 68) Endangered and 238 (down from 241) Vulnerable species. Overall, the entries for the globally threatened species captured in the database rose from 333 in 2002 to 358 species in 2008.</p> <p>With regard to site outcomes, Kambona Forest Reserve, Mtuli Hinju proposed Forest Reserve, Mt Rungwe Forest and Ndechela Forest Reserve, were included as KBAs due the globally threatened species that they hold. Additionally, a review of the KBAs was done and several amendments made resulting mainly to merging of sites as follows: Kaya Miungoni merged into Chuna Forest; Baricho near Arabuko Sokoke merged into Dakatcha Woodland; Kaya Ukunda merged into Ukunda, Tanga (Sigi River), Mahenge Sangarawe merged into East Usambara Mountains, Kwiro forest, Mahenge (Liondo) &amp; Mahenge (Lipindi) merged into Mahenge Mountains; Lindi (Kengedi) &amp; Lindi (Nondora) merged into Lindi; Masasi East merged into Masasi (Nyengedi); Mikindani (Mtwara inland), Mikindani District (Mtwara-Mikindani) &amp; Mtwara merged into Mtwara District Coastal Forests. These</p>

	<p>amendments were possible through combined efforts of the database managers, Royal Society for Protection of Birds (RSPB) – staff and the CABS team.</p> <p>Another key highlight for the project was the collation of biodiversity and conservation literature for the hotspot. Apart from the literature search that was being done by the database managers, requests were made to people working in the hotspot to provide information in form of technical reports or processed data. The reports and publications provided were useful sources of data that was eventually used to populate the Outcomes Database. Literature and data collation was achieved mainly through the use of the contacts database which had at least 450 contacts by the close of this project. Overall, at least 1350 pieces of literature in form of reports/publications and references were gathered by the close of the monitoring project.</p>
<p><b>4.3.</b> <i>Appropriate GIS data on EACF hotspot regularly analysed and readily available.</i></p>	<p>GIS data was collected from both volunteers and the model sites. This resulted to collection of polygons for all the Kenyan KBAs except for Cha Simba, Kambe Rocks, Mwarakaya, Kaya Rabai, Kisimani wa Ngoa, Msambweni, Nzovuni River &amp; Pangani. For KBAs in the Tanzania, polygons for 36 out of 99 KBAs were acquired. The GIS material especially the one generated from the demonstration sites was compiled and shared with the CABS team that was spearheading the forest change detection work.</p>
<p><b>4.4.</b> <i>Conservation outcomes database for the EACF hotspot available on the web</i></p>	<p>The main aim of uploading the Outcomes Database on the web was to ensure access by as many stakeholders as possible and therefore act as a guide towards conservation action and investment in the hotspot. However, this approach was reviewed and resulted in finding other options that were less prone to abuse by unscrupulous people. For this reason, this idea was shelved but other data access options remained open e.g. provision of data/information on request, featuring articles in the E-Bulletin and compiling the Biodiversity trends and status report which was based on the analysis of the information contained in the Outcomes Database.</p> <p>The Outcomes Database was however merged with the World Bird Database which could be</p>

	<p>accessed online though the access was restricted i.e. through a password and mainly by the database managers only.</p> <p>Another information sharing avenue that was employed during implementation of this project was use of the email-Forum, where individuals subscribed and therefore created a platform where information regarding the hotspot was shared. The e-Forum had a membership of 66 subscribers by the close of this project.</p>
<b>Output 5: A forest cover and change detection map (1990-2000) for the coastal forest areas of the Eastern Arc Mountains is produced and distributed widely within the region.</b>	<b>The entire of this output was handled by Conservation International's Center for Applied Biodiversity Science (CABS). A separate completion report on this output is submitted by CABS.</b>
<i>5.1. Initial image database created, and validation options finalized by month 3.</i>	See above (handled by CABS)
<i>5.2. Landsat images processed by month 5.</i>	See above (handled by CABS)
<i>5.3. Validation using aerial surveys and available supplementary ground data performed/gathered by month 7</i>	See above (handled by CABS)
<i>5.4. Fragmentation and overlay analyses models run on data by month 10.</i>	See above (handled by CABS)
<i>5.5. Map produced and distributed to partners by month 12.</i>	<p>See above (handled by CABS)</p> <p>Even though BirdLife role in this output was minimal, BirdLife and its Partners were partially engaged through providing georeferenced information for some of the KBAs particularly Dakatcha Woodland as well as supporting in the capacity building component during which 12 participants drawn from 8 institutions in Kenya and several from Tanzania were trained in GIS and remote sensing. Upon completion of the forest change (1990-2000) map produced as part of this output, BirdLife International and its Partners in Kenya and Tanzania who were part of the project implementation and coordination team assisted in disseminating over 450 of the 2000 copies of the maps published. This is exclusive of the other over 600 copies distributed by the Coordination Unit.</p>

***Describe the success of the project in terms of delivering the intended outputs.***

Firstly, the project established, through a consultancy, a baseline of biodiversity monitoring knowledge, data and practitioners in the EACF. A review of existing biodiversity monitoring frameworks in the EACF was also made. These were compiled into comprehensive reports that were later availed to stakeholders to be used as references for developing standardised protocols for biodiversity monitoring across the hotspot, including advising where gaps needed to be filled.

Secondly, through a stakeholder workshop followed by consultations within a taskforce emanating from the workshop, protocols for biodiversity monitoring in the EACF were agreed upon, published and disseminated. These basically comprised of a list of 19 biodiversity indicators accompanied by suitable data collection methods/tools for each indicator. Detailed descriptions of various data collection methods/tools already existed on most cases and did not require to be re-written. A simple format in which data holders could contribute to the project was also described. Throughout the project period the monitoring protocols continued to be popularised. Among the site monitoring tools that became quite popular during the project period included: Disturbance Monitoring Transects and Management Effectiveness Tracking Tool (METT). Indeed, a substantial level of mainstreaming METT in the national structures was achieved.

Thirdly, BirdLife and national partners in Tanzania and Kenya actively monitored systematically biodiversity trends in four Key Biodiversity Areas and for four globally threatened bird species. Final analyses for these are ongoing and will be published in peer-reviewed journals. BirdLife also helped in assessing the impacts of the five-year CEPF investment in the EACF.

Fourthly, stakeholders were mobilized into contributing information in relation to the agreed monitoring indicators. This led to an assessment of biodiversity status and trends in the EACF and production of a detailed and summary report at the end of 2009.

Fifth, a comprehensive database developed and maintained where information on the Conservation Outcomes of EACF hotspot was stored, continually updated and summaries made readily available.

Sixth, a stakeholder contact database was developed, regularly updated and maintained. This was done in order to reach as many people as possible. It contained contact details and where possible places they have worked. Over 450 contacts have been maintained in this database, which was also circulated bi-annually. This was also to encourage the various stakeholders to network amongst themselves and foster linkages and partnerships.

***Were any outputs unrealized? If so, how has this affected the overall impact of the project?***

The outcomes database was not uploaded online at the <http://cepf.tfcg.org> web for easier access by all the stakeholders as originally planned. This is because it was feared that this comprehensive data especially on species of global conservation concern (with their locality information) would have been exposed to unscrupulous people (i.e wildlife traders, hunters etc) thus increasing the vulnerability of these species. In this view, after many consultations amongst the project team as well as the Coordination Unit, this idea was abandoned because of the risks involved. However, to ensure that the information flow still continued, it was therefore recommended that summaries from regular analyses, reports, articles derived from the database be disseminated through other medium of communication such as newsletters, e-bulletins, and the status and trends report.

<b>V. SAFEGUARD POLICY ASSESSMENTS</b>
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***Provide a summary of the implementation of any required action toward the environmental and social safeguard policies within the project.***

<b>VI. LESSONS LEARNED FROM THE PROJECT</b>
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**Describe any lessons learned during the various phases of the project. Consider lessons both for future projects, as well as for CEPF's future performance.**

First, this project was dependent on voluntary data contribution from a wide range of stakeholders. It would be quite important to contractually commit selected stakeholders (across key biodiversity indicators, taxonomic groups and sub-regions or sites) on whom the project can depend for data. Otherwise it becomes challenging to be assured of unrestricted data flow from all stakeholders.

Second, when engaging stakeholders, frequent well packaged communication and consultation is critical and cost-effective in maximising the achievement of the goals and objectives of an initiative such as this one. More so, going out to meet some of the stakeholders, hold discussions with them, demonstrating the potential of the initiative is useful in mobilizing people and allaying any hitherto held fears or negative opinions.

CEPF investment in Kenya, especially through this project, enabled Nature Kenya to work in some of the "forgotten sites" but with important biodiversity. Dakatcha Woodlands which was chosen model sites had limited or no conservation activities before. The CEPF investment in this site gave extremely useful insights which enabled Nature Kenya to interest and develop a business case for biodiversity conservation investment from other donors. A key lesson here was that it is possible to create interest in areas where others have ignored and succeed in your conservation agenda.

Where data sharing composes a significant part of a project, it is very important to clearly define from the start - in what form the data are going to be delivered. From the experiences of this project, published reports and papers do serve as very useful forms of data where work is already complete. However simple broad conclusions serve even better for both unpublished and published work.

**Project Design Process: (aspects of the project design that contributed to its success/failure)**

**Success:**

The realization that monitoring in the region is taking place but in an ad hoc manner and therefore the need for harmonising and that there is a lot of data information just lying within institutions database and which needs to be synthesised and disseminated. Also starting of the project with a consultative workshop was useful in building consensus amongst different actors, institutions monitoring useful various indicators and tools.

Also the fact that there was going to be a feedback mechanism through which information and data gathered would be synthesised and disseminated back to the stakeholders ensured that they contributed information willingly.

**Project Execution: (aspects of the project execution that contributed to its success/failure)**

**VII. ADDITIONAL FUNDING**

**Provide details of any additional donors who supported this project and any funding secured for the project as a result of the CEPF grant or success of the project.**

Donor	Type of	Amount	Date Received	Notes
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	<b>Funding*</b>			
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		

**\*Additional funding should be reported using the following categories:**

- A** Project co-financing (Other donors contribute to the direct costs of this CEPF project)
- B** Complementary funding (Other donors contribute to partner organizations that are working on a project linked with this CEPF project)
- C** Grantee and Partner leveraging (Other donors contribute to your organization or a partner organization as a direct result of successes with this CEPF project.)
- D** Regional/Portfolio leveraging (Other donors make large investments in a region because of CEPF investment or successes related to this project.)

**Provide details of whether this project will continue in the future and if so, how any additional funding already secured or fundraising plans will help ensure its sustainability.**

### VIII. ADDITIONAL COMMENTS AND RECOMMENDATIONS

The following documents referred to within the report are provided as separate attachments:

1. Brochure summarising the biodiversity monitoring indicators and tools agreed upon by stakeholders and how to contribute data
2. Baseline report on biodiversity monitoring in EACF
3. A review of biodiversity monitoring frameworks used in EACF
4. Proceedings of consultative stakeholder workshop on biodiversity monitoring in EACF
5. A detailed biodiversity status and trends report for 2008
6. A summary biodiversity status and trends report for 2008
7. A field report on biodiversity monitoring at two Tanzania model sites for 2005-2007
8. A field report on biodiversity monitoring at two Tanzania model sites for 2005-2008
9. A field report on biodiversity monitoring at two Kenya model sites for 2005-2007
10. The annual outcomes database report for 2007

### VIII. INFORMATION SHARING

CEPF is committed to transparent operations and to helping civil society groups share experiences, lessons learned and results. One way we do this is by making programmatic project documents available on our Web site, [www.cepf.net](http://www.cepf.net), and by marketing these in our newsletter and other communications.

These documents are accessed frequently by other CEPF grantees, potential partners, and the wider conservation community.

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