



Darwin Initiative Annual Report



Submission deadline 30 April 2010

Darwin Project Information

Project Ref Number	17-020
Project Title	Enhancing the Elephant Trade Information System to guide CITES policy
Country(ies)	All elephant range states in Africa and Asia
UK Contract Holder Institution	University of Reading
Host country Partner Institution(s)	TRAFFIC East/Southern Africa
Other Partner Institution(s)	
Darwin Grant Value	£239,399
Start/End dates of Project	1 September 2009 – 31 August 2012
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 September 2009 – 31 March 2010 Annual Report 1
Project Leader Name	Dr Fiona M Underwood
Project website	
Author(s) and main contributors, date	Dr Fiona M Underwood, Mr Robert W Burn, Mr T M Milliken

1. Project Background

This project aims to enhance the Elephant Trade Information System (ETIS), one of two global monitoring systems for elephants under CITES. It was first mandated by the CITES Parties in Resolution Conf. 10.10 in 1997 to support decision-making for elephants under CITES. ETIS aims to assess illicit trade in ivory and other elephant products, establish trends over time and determine whether or not such trends are related to CITES decisions. To achieve this ETIS collects and analyses illegal ivory seizure records received from law enforcement bodies in over 170 countries (CITES Parties). Currently the database contains over 15,000 illegal ivory seizure records.

ETIS is run by TRAFFIC East/Southern Africa (TESA), currently based in Harare, Zimbabwe. In 1997, CITES mandated TRAFFIC to develop and run ETIS, and provided some limited funding for ETIS' initial conception and design. Since then, funding from CITES has been minimal and sporadic, and the development of ETIS has generally been in response to CITES reporting requirements in a piecemeal manner with external funding. This project seeks to build a firm long-term foundation and framework for sustaining ETIS by focusing on problems in the following four areas:

ETIS database

The database of seizure records is the central component of ETIS. The existing database software was developed in a now obsolete framework. Also, after some ten years of operation, various shortcomings of the existing database structure and content have become apparent, and the system is in need of major revision and upgrading.

Analytical Framework and communication of technical results

To provide effective evidence to address the aims of ETIS, statistical analyses of the ETIS seizure records are required to reduce the many different sources of biases in the data. There are no off-the-shelf statistical tools available for this purpose and the current methods of analysis have been developed in one-off reports in response to the CITES reporting requirements. These methods have not been peer reviewed and the analytical methods are presented together with the results in the CITES reports. Furthermore the reporting procedure lacks simple indicators. For these reasons ETIS is perceived by policy makers and the media as too complex.

Strengthening support for operational procedures

Currently the operation of ETIS depends on a small number of key personnel and lacks adequate tools to promote long-term sustainability.

Building capacity for participation

Currently, reporting of seizure records is sporadic and uneven in quantity and quality, giving rise to a major source of bias in the data. For example, in Africa and Asia, many countries almost never report making ivory seizures themselves, but are regularly implicated in thousands of seizures made elsewhere in the world.

2. Project Partnerships

Project partnerships:

The project partner is TRAFFIC East and Southern Africa (TESA) and Mr Robert W Burn (RWB) is a project principal. The lead contact in TESA is Mr Tom Milliken (TM), the Regional Director of TESA and Mrs Louisa Sangalakula (LS), who manages the ETIS database, is also involved. The project is managed by Dr Fiona M Underwood (FMU). One principal partner is responsible for each of the four outputs although all require collaboration with the others. RWB has operational oversight of the project and as part of this has reviewed ETIS procedures from data entry through to reporting. He has responsibility for the database development and is working closely on the development of the analytical framework with FMU who has responsibility for this. TESA have responsibility for the development of standard operating procedures and capacity building.

FMU works with RWB via weekly face-to-face meetings. Both RWB and FMU are in contact with TESA via email and Skype on a regular basis. At the start of the project, a three day meeting was held at the TESA office in Harare which all four named staff attended. Two further face-to-face meetings were held with TM: one in Nairobi before the meeting of the ETIS Technical Advisory Group; and the other in Reading, UK.

Other Collaboration:

The project has served to strengthen links with the other global monitoring system for elephants – Monitoring the Illegal Killing of Elephants (MIKE). At a joint meeting of the MIKE and ETIS Technical Advisory Groups in Nairobi in December 2009, a presentation of the Darwin Initiative project for ETIS was presented by FMU and RWB. In particular, discussions focused upon: the integration and joint utilization of a number of the subsidiary database systems between the ETIS and MIKE programmes; the prospect of combining expertise to undertake future joint analyses on a sub-regional basis and to tackle a number of analytical and data issues of mutual concern.

Although TESA is based in Zimbabwe, we regard the host countries for this project as all elephant range states in Africa and Asia. The project will help these countries build their capacity to meet their CITES commitment via the planned capacity building exercises in reporting illegal ivory seizures (Years 2-4) and by the production of simple indicators of the ivory trade (Year 4).

3. Project progress

The project started in September 2009, so this Annual Report covers the first seven months. Work has focussed on laying the foundations for the development of new software and the analytical framework. The first detailed review of the ETIS system since it was initially designed has been completed and outline recommendations for the long-term capabilities of the system have been made. Over the next few months we will evaluate how far this project can go in achieving the long-term aims of the system and ensuring that if certain aspects are outside the scope of this project all developments within the project take the long-term aims into account.

3.1 Progress in carrying out project activities

Output 1: Database

A comprehensive review of the existing database system has been completed (Activity 1.1 see *document DatabaseReview Act1-1.pdf*). Redundant functions of the existing database and the desired capability of a new database system have been identified. Particular issues relate to:

(a) Wider access to the database

Currently the database is held on one computer in the TESA office. The long-term objective is for the database to be on a remote server and for it to be made available, under a strictly regulated system of access control, to a wider group of users and stakeholders likely to include agencies in countries that supply data to ETIS. There are, however, serious challenges and implications in moving a database to a remote server and allowing wider access. We are currently seeking advice from IT experts to assess whether this will be feasible within the duration of this project.

(b) Database structure

(i) Removing the minimum data requirement: Currently there is a two-stage data entry process whereby records not meeting a minimum data requirement are held outside of the database in an Excel file. The aim is to remove the minimum data requirement completely so that all illegal ivory seizure reports are entered into the database however incomplete. Incomplete records will be filtered out at the analysis and reporting stage.

(ii) Changing the information required for each seizure: A review of the standard data collection form, the fields currently used in analysis and the long-term aims of the analytical framework have identified a number of fields that are no longer required and a number of new fields that are important. Further discussion is required to fully define some of these new fields for the functional specification. Data for these new fields will need to be retrospectively entered into the database for the existing 15,000 records. This retrospective addition of new data is beyond the scope of this project, and will require additional funding.

(c) Database inputs

Currently only the database manager can enter data because the database is held in the TESA office. By putting the database online, CITES Management Authorities could directly enter their data over the internet. In addition, the database will need to have the capability to import data recorded in Excel spreadsheets and other formats. A series of procedures will need to be implemented to ensure data quality and that there is no duplication of records. Whether or not the database migrates to a remote server during this project, the database software will need to be designed to have the capability for the different modes of data entry contained within it.

(d) Providing more flexible reporting outputs

Outputs will include: (i) raw listings of subsets of seizure records; (ii) simple data summaries in tabular or graphical form; and (iii) results of statistical processing or modelling, such as bias reduction or trend analyses. If the database migrates to a remote server with on-line access, some of these outputs will ideally be available to

users accessing their data on-line. Other outputs will be specifically developed for the ETIS team who will be trained to carry out more sophisticated analyses.

(e) Software development platform

The entire system must be open-source and ideally platform independent. Statistical analyses will be carried out in the *R* statistical software, but the aim is to protect the user from this via a user-friendly interface. It may be possible to directly link this with the database software; otherwise procedures will be written to export relevant data from the database to serve as inputs to statistical procedures.

Based on this review and the review of existing procedures (Activity 3.1 - see *document OperationsReview Act3-1.pdf*), a functional specification for the new database (Activity 1.2) is currently being prepared.

Output 2: Analytical framework

A review of the existing analysis methods and recommendations for future analyses has been carried out (Activity 3.1). The key outputs for ETIS have been defined and sources of bias in the data identified. A conceptual framework linking sources of bias to ETIS outputs has been developed and subsidiary databases that may assist in providing proxy measures of these biases assembled. An analysis of the relationships between these different indicators has been completed (Activity 2.1 – see *document AnalysisIndicators Act2-1.pdf*). Various approaches to the analysis are being considered and developed under Activity 2.2 which continues until May 2011. Key points are described below:

(a) Key questions to be addressed

The existing ETIS analyses address three major questions: (1) What are the trends in illegal ivory seizures through time? (2) Which countries are the key players in the illegal ivory trade? and (3) What are the key drivers of illicit trade in ivory? Two new questions have also been identified: (4) What are the major trade routes? and (5) How are trade dynamics changing through time, in particular the characteristics of large-scale ivory seizures?

(b) Output measures

A key indicator required to address many of the above questions is a bias-adjusted relative measure of Raw Ivory Equivalent (RIE) in illegal ivory shipments calculated at various scales. Question (1) will require RIE for each year; question (2) for each country and each year and question (4) for each link in the trade chain. A second indicator will be a relative measure of the adjusted number of illegal ivory shipments. Both these output measures will need to be bias adjusted as existing ETIS records do not directly provide these data (see (c) below). Question (3) will be addressed using information on RIE for each year and country – see (d) below.

(c) Sources of bias

The sources of bias in the illegal ivory seizures records held by ETIS arise because: (1) some countries are good at making ivory seizures – that is they detect a large number of shipments that pass through their country – whilst others are not; and (2) some countries are good at reporting their ivory seizures to CITES, whilst others are not. Some seizure records have been collected via targeted methods whilst others have been obtained passively. The adjusted relative number of illegal ivory shipments needs to take account of these biases and this will assist in the estimate of the adjusted RIE. Measures of bias have been previously identified and used in existing analyses. Some of these measures need improving and further measures are required as described in *AnalysisIndicators Act2-1.pdf*

(d) Issues of causality

One aim of ETIS is to detect impacts of CITES decisions on illegal trade in ivory – this relates to question (3) listed above. The approach implicitly adopted in previous analyses has been to attempt to model the trade, ie RIE, in terms of all possible drivers of the illegal trade and see how particular CITES decisions are situated within the

spectrum of all possible causal factors. This will continue to be the strategy, although done in a more rigorous way, and the range of potential drivers will be expanded. Subsidiary databases containing UN and World Bank indicators of corruption, governance and development have been assembled and the relationships between these analysed in Activity 2.1.

(d) Analytical framework

Current analyses carry out bias adjustment on aggregated records for each country in each year. The proposed new analyses will consider a proper causal model relating individual seizures records to covariates that are likely to affect them. A natural modelling framework is a Bayesian graphical statistical model. This has the flexibility to include latent variables, describing unobservable processes. A dynamic version of this would lead to state-space modelling. Furthermore the modelling will need to take account of feedbacks in the system. Specifically making a seizure is an intervention in the process and can affect trading patterns of other shipments. Ideas from network modelling are being considered for describing trade routes, and extreme value theory investigated for its use in characterising large-scale ivory seizures. These approaches are being considered in Activity 2.2. We are conscious that this is an ambitious task and the analytical methods may need to be scaled back.

Output 3: Long-term operational sustainability

A detailed comprehensive review of all ETIS operations has been carried out (Activity 3.1 – see *document OperationsReview Act3-1.pdf*). This review covers all operations in ETIS from data capture through to presentation and communication of results, although the database itself was comprehensively reviewed separately in Activity 1.1. The review describes the current procedures and provides recommendations for the future direction of ETIS to ensure its sustainability. The document framework will also be used in the development of Standard Operating Procedures for the future system. The review of data capture, the seizures database and data management, are contributing to the development of the functional specification for the database (Activity 1.2), whilst the review of the existing analysis of ETIS data and the presentation and communication of results support the development of the analytical framework (Output 2).

Output 4: Enhancing ability of national CITES Management Authorities capacity for tracking and reporting illegal trade

This output and the activities within it are mainly carried out using the matched funding provided by the EU-funded project “Long Term System for Monitoring the Illegal Killing of Elephants (MIKE) Phase II” grant.

The focus of training is: (1) building understanding for, and participation in, ETIS amongst CITES Parties, particularly elephant range States; (2) supporting the collection of elephant product seizure data at the national level; and (3) improving reporting of seizures to ETIS. Awareness of ETIS in particular and CITES requirements for trade in ivory in general may also result in actually making seizures which might not otherwise occur. Training is to be targeted at those countries with the greatest needs. To identify such countries two different aspects were considered (Activity 4.1 – see document *TrainingPriorities Act4-1.pdf*).

(a) Problematic countries in the ETIS analyses

Countries that are considered to be 'problematic' are those where ivory seizures are infrequent, law enforcement effort is poor, high corruption values persist and large, unregulated domestic ivory markets continue with few signs of improvement over successive ETIS analyses. Thirteen African elephant and four Asian elephant range States were identified as problematic countries using the cluster analysis, in the ETIS analysis produced for CoP15 as CoP15 Doc. 44.1. Additionally, an assessment of the ETIS data for the six sub-regional groupings of African and Asian elephant range States, which was presented to CoP15 as CoP15 Inf. 53, against criteria on the number and scale of ivory seizures, law enforcement effort and domestic ivory markets scores, identified two more African elephant range States as problematic countries.

(b) Assessment of problematic countries against previous training initiatives

The nineteen elephant range States that are considered to be problematic countries were further assessed through an exercise that reviewed whether or not they have benefited from any previous ETIS training initiatives and, if so, what was their response in terms of subsequent performance under ETIS. If there has been no or little improvement following past training events, an attempt will be made to understand the underlying causes of this.

These assessments have given a prioritised list of problematic countries for immediate, mid-term and long-term attention for future capacity building initiatives and events.

The ETIS Action tool kit, the primary package of training materials for ETIS, has been reviewed and updated for general content under Activity 4.2 on the basis of input from various trainers who have used the tool kit in the recent past. This effort continues and will develop further after understanding the causes for the lack of improvement in some countries as detailed in (b) above. A new module on retrospectively collecting backlog data is being discussed with the consultant who produced the original ETIS Action Toolkit. Due to prior commitments he is unable to accept a consultation until later in 2010. The current toolkit has been translated into the Thai language and translation of the new module will occur once it has been completed (Activity 4.3).

3.2 Progress towards Project Outputs

Output 1: Database

The existing database has been reviewed (*DatabaseReview Act1-1.pdf*). The new database software is currently being designed and the functional specification being written so that the tender process for the programming can be implemented in the next few months. Measureable indicators will be relevant in Darwin Years 2, 3 and 4 of the project.

Output 2: Analytical Framework

The development of the analytical framework is underway and output measures and sources of bias identified (*AnalysisIndicators Act2-1.pdf*). Two MSc Biometry students at the University of Reading will be working on sub-components of the analysis to assist in its development. To further assist in the development of the analytical framework a paper is in preparation that will review the existing methods and define the key issues that need to be addressed when analysing seizures data.

Output 3: Long-term operational sustainability

The review has been completed (*OperationsReview Act3-1.pdf*) and the rest of the activity in this output is not due until 2011. TESA is mainly responsible for this output and they are fully consulted on the development of the database which has consequences for the standard operating procedures.

Output 4: Enhancing capability of national CITES Management Authorities for tracking and reporting illegal trade

The identification of priority elephant range States for future capacity building and training exercises has been completed (*TrainingPriorites Act4-1.pdf*), resulting in an initial cut of 15 African countries and four Asian countries for future focus. Where training has transpired in the past but subsequent participation in ETIS, especially the reporting of elephant product seizure cases, has not improved, an attempt is being made to elucidate the reasons for the lack of improvement. Where appropriate, ETIS training materials will be modified or otherwise improved as required and a training schedule is currently under preparation

Many of the measurable indicators for each of the four outputs will be verified by the ETIS Technical Advisory Group (TAG). FMU and RWB were present at the last meeting of the TAG, December 2009, and agreed the process by which the TAG will review these indicators.

3.3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Yr 2 Tot	Yr 3 Tot	Yr 4 Tot	Tot to date	Number planned for this reporting period	Total planned from application *
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	0				0	0	50
6B	Number of training weeks to be provided	0				0	0	3
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country	1 (ETIS Toolkit into Thai language)				1	1	3
8	Number of weeks to be spent by UK project staff on project work in the host country	1.2				1.2	1.2	5
11A	Number of papers to be published in peer reviewed journals	0				0	0	2
11B	Number of papers to be submitted to peer reviewed journals	0				0	0	2
12B	Number of computer based databases to be enhanced and handed over to host country	0				0	0	1

14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings	0				0	0	1
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	2 ETIS TAG + CITES CoP15				2	2	6
15A	Number of national press releases in host country(ies)	0				0	0	1
15B	Number of local press releases in host country(ies)	0				0	0	1
15C	Number of national press releases in UK	0				0	0	1
17B	Number of dissemination networks to be enhanced/ extended	0				0	0	1
18B	Number of national TV programmes/features in UK	0				0	0	1
19A	Number of national radio interviews/features in host county(ies)	0				0	0	1
19B	Number of national radio interviews/features in UK	0				0	0	1
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	0				0	0	#

** Note that in the final application we only specified that these standard measures would be relevant – we have now specified how many we would plan for each of these.*

This is difficult to estimate as we are currently identifying tasks that are required to assist with the project work.

Table 2 Publications

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
Pachyderm 45: July 2008 - June 2009, Journal of the African Elephant Specialist Group	ETIS update number 2: Progress in the Implementation of the Elephant Trade Information System by T. Milliken and L. Sangalakula (2009)	IUCN/SSC African Elephant Specialist Group, Nairobi, Kenya	http://www.african-elephant.org/pachy/pachy46.html	No cost
Document for 15 th meeting of the Conference of the Parties	The Elephant Trade Information System and the Illicit Trade in Ivory by T. Milliken, R.W. Burn and L. Sangalakula (2009)	CITES Secretariat, Geneva, Switzerland	CoP15 Doc. 44.1 Annex http://www.cites.org/common/cop/15/doc/E15-44-01A.pdf	No cost
Document for 15 th meeting of the Conference of the Parties	The ETIS data and African and Asian Elephant range States, by T. Milliken (2010)	CITES Secretariat, Geneva, Switzerland	CoP15 Inf. 53 http://www.cites.org/common/cop/15/inf/E15i-53.pdf	No cost

* These publications refer to the Darwin Initiative Project but are not outputs or results from the project.

3.4 Progress towards the project purpose and outcomes

In the first seven months of this project we have laid a strong foundation for the project. These seven months have focussed on identifying and developing the requirements for ETIS phase II by working closely with TESA to gain a clear understanding of the current context within which ETIS operates, reviewing its strengths and weaknesses and exploring the possibilities and scope for its future development. This effort coincided with, and was enhanced by, the practical application of ETIS to produce a comprehensive analytical report to the CITES Conference of the Parties. In addition stronger links have been built with the sister monitoring project MIKE.

The purpose level assumptions hold true.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

This project focuses on its impact in relation to CITES as ETIS was specifically developed in response to CITES Resolution Conf. 10.10 which mandated the creation of a long-term monitoring programme for tracking trade in ivory. This project will ensure the long-term sustainability of ETIS and the project has now outlined the long-term direction of ETIS to ensure this. The findings of ETIS contribute to the development of CITES policy for elephants, as seen in the last Conference of the Parties (CoP15) held during this reporting period. This project aims to improve how ETIS findings are communicated and interpreted by the development of "simple" indicators to accurately describe trends in the illegal ivory trade. Currently the main outputs of ETIS have been identified and analyses to produce these outputs and simple indicators will be identified in the next two years. The resolution also requires that

relevant CITES Parties are provided with training. This project has identified the relevant parties and in the next two years will train these countries in better data collection.

4. Monitoring, evaluation and lessons

Within the project team, monitoring has mainly consisted of FMU and RWB meeting weekly to discuss progress and regular discussions via Skype and email with TESA staff. The four named staff will also meet annually. We also have two formal processes monitoring this project.

1. ETIS Technical Advisory Group (TAG)

The ETIS TAG provides expert and transparent specialized oversight of ETIS. TM and RWB are members of the TAG. The ETIS TAG met in December 2010 and FMU was invited to attend. FMU and RWB gave presentations about the project to the TAG. In particular they explained how the TAG was required to approve a number of measurable indicators in the log-frame, confirmed that they would do this and discussed mechanisms by which this would take place. More generally, many of the items on the ETIS-TAG agenda were relevant to the Darwin Project, specifically: the development of the ETIS Phase 2 database; the analytical and reporting framework; and training. Discussions on these issues have fed into the reviews and development of the functional specification for the database and the analytical framework.

2. Project Monitoring Group (PMG)

This group was to be set up to monitor the progress of the project itself and to provide an entirely independent view of the project. Prof. E.J. Milner-Gulland (EJM-G) agreed to lead the PMG prior to the project starting. The other two members who have been appointed to the PMG are Mr Rognvald Smith (RS) (statistician at Centre for Ecology and Hydrology) and Dr Sara Oldfield (SO) (Secretary General of Botanic Gardens Conservation International). The PMG met for the first time in March 2010. FMU, EJM-G and RWB attended and RS was available on Skype. RWB and FMU gave a presentation about the Darwin Project and presented on behalf of TM, as he was unable to attend. Useful feedback was obtained and it was agreed that the PMG will function by commenting on the annual reports (these comments will be included in the following report) and by meeting annually to discuss the project in more detail.

The PMG met rather later than originally planned due a number of unfortunate circumstances. Initially, Mr Ivan Bond (DfID) was approached for membership. Ivan needed approval from DfID that there was no conflict of interest in joining the PMG. We were keen for Ivan to be on the PMG so waited until November 2009 when it was confirmed he could join. It was decided that the best way to proceed was to meet face-to-face but due to travel plans etc it was not possible to meet until mid-January 2010. This meeting was then postponed twice due to personal circumstances and sadly Ivan Bond died in February. It was decided that a meeting was important before the end of the project year so the two remaining PMG members (EJM-G and RS) met with the UK project individuals in March. TM was at the CITES CoP and unable to participate. At this meeting Dr Sara Oldfield was suggested as the third member of the PMG and she has kindly agreed.

4. Actions taken in response to previous reviews (if applicable)

Not applicable

5. Other comments on progress not covered elsewhere

The ETIS programme is obliged to present a comprehensive analysis on illicit trade in ivory to each meeting of the CITES Conference of the Parties, the most recent one of which was in March 2010. In the event, the CITES Parties reaffirmed their support of ETIS as one of the formal monitoring systems for elephants under the Convention. Further, the undertaking of a comprehensive analytical assessment which involved TESA staff and RWB assisted in shedding more light on a number of analytical issues that need to be considered in ETIS Phase 2. It also meant, however, that TESA staff were unable to spend as much time on the development of training activities as they otherwise would have been able to.

6. Sustainability

Construing the host countries of this project to encompass all elephant range States in Africa and Asia, during this period, TESA participated in two sub-regional meetings of the MIKE Steering Committee for all elephant range States in Southern Africa and in East Africa, and attended a meeting of the MIKE/ETIS Subgroup of the CITES Standing Committee. At all of these events, the scope of the Darwin Initiative project was briefly presented and the future development of ETIS discussed. It was equally apparent that the ETIS analysis at CITES CoP15 (which made direct reference to the Darwin Initiative grant) played a pivotal role in the elephant conservation discussions, with the CITES Parties reaffirming their support for the elephant monitoring systems and urging funding for their implementation. Recognition of the merits of ETIS was amplified in various decisions that emanated from CITES CoP15. For example, in Decision 13.26, the CITES Secretariat was mandated to take action against countries that are “identified through ETIS as being significantly affected by illicit trade” and, in Decision 14.79, ETIS was requested to provide input into all future meetings of the CITES Standing Committee. These decisions are operative over (at least) the next three years and were generated through the strong support for ETIS by elephant range States. As manifested at the most recent Conference of the Parties, ETIS remains an increasingly important feature in the CITES decision making process for elephants.

7. Dissemination

As the project is at an early stage dissemination has consisted of informing relevant bodies of the Darwin Initiative project and describing its planned outputs, including the MIKE and ETIS Technical Advisory Groups, the MIKE/ETIS Subgroup of the CITES Standing Committee and Sub-regional MIKE Steering Committee meetings that comprise wildlife authorities of elephant range States. Further, the Darwin Initiative project was described in the introduction of the ETIS analysis to CITES CoP 15, which is disseminated by the CITES Secretariat to the 176 Parties of the Convention and the general public through its website as a pdf document. Finally, appreciation for the Darwin Initiative grant was formally introduced by the host country partner during the ivory trade/elephant session of Committee I during CITES CoP15.

8. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 1 April 2009 to 31 March 2010)

Item	Budget	Expenditure	Variance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Laptop PC			
Others			
Salaries Dr Fiona M Underwood Mr Robert W Burn Mr Tom Milliken			
TOTAL			

9. **OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes**

NONE for this reporting period.

Annex 1 *Report of progress and achievements against Logical Framework for Financial Year: 2009/10*

Project summary	Measurable Indicators	Progress and Achievements September 2009 - March 2010	Actions required/planned for next period
<p>Goal: <i>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</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p>This project ensures the long-term, sustainability of ETIS, mandated by CITES Resolution Conf 10.10, and the project has outlined the long-term direction of ETIS.</p>	
<p>Purpose</p> <p>Development of ETIS Phase 2: Enhanced and sustainable collection, management, analysis and reporting of seizure data for the Elephant Trade Information System (ETIS) to monitor illicit trade in ivory as mandated by CITES.</p>	<p>a) Phase 2 ETIS database operational by end of project.</p> <p>b) Analytical framework is in place.</p> <p>c) Standard Operating Procedures adopted by TESA.</p> <p>d) Improved reporting of seizures in majority of targeted countries.</p>	<p>This year the project has been laying the foundations for this work by reviewing existing practices and structures and outlining strategies for phase 2. Consultations with TESA, the ETIS TAG and MIKE database coordinator have been held.</p>	<p>Functional Specification for database written, platforms evaluated and software development begins.</p> <p>Analytical framework continues to be developed</p> <p>Training materials further developed and training commences.</p>
<p>Output 1.1. Phase 2 ETIS software program developed, installed and in use.</p>	<p>1a. New database designed and functional specification written.</p> <p>1b. Available software platforms reviewed and evaluated.</p> <p>1c. Software developed.</p> <p>1d. Software installed and in use.</p> <p>1e. Train TESA staff in use of</p>	<p>Existing database has been reviewed and report on future aims of database provided. Indicators are appropriate for year 2 and year 3 of the project.</p>	

	software.	
Activity 1.1 Review of existing database system and identification of additional (and redundant) requirements.		Completed. Document <i>DatabaseReview Act1-1.pdf</i> is the review. This has been written by RWB and revised after receiving comments from TESA.
Activity 1.2 Prepare detailed functional specification for new database system.		A functional specification is being prepared by RWB. This will be discussed with TESA in May 2010 and revised subject to their comments.
Output 2. Improved analytical framework for assessing and reporting trends of illicit trade in ivory adopted and implemented.	<p>2a. Methodology for future analysis to produce bias-adjusted indicators of illegal ivory trade developed and tested.</p> <p>2b. Recommendations drafted for a reporting framework and indicators to assist CITES in policy making.</p> <p>2c. Recommendations for country specific reports developed.</p> <p>2d. Software tools for reporting developed.</p> <p>2e. TESA staff trained in use of reporting tools.</p>	A conceptual framework for the analysis is been developed. Indicators are relevant to years 2 and year 3 of the project.
Activity 2.1 Choose indicators and summary measures for ETIS outputs and identify variables (both in the ETIS database and from secondary sources) that contain information about them; identify sources of bias.		Completed. Report <i>AnalysisIndicators Act2-1.pdf</i> provides details of this activity. Output variables have been identified. The MIKE secondary database has provided data on many variables that are linked with these outputs and an analysis of these variables has been completed.
Activity 2.2 Using existing ETIS data, implement and evaluate potential statistical models for producing bias-adjusted indicators; make recommendations on methodology to TAG.		A conceptual framework has been developed and statistical models are being explored. This work continues until May 2011.
Output 3. Enhanced measures for supporting the long-term operational sustainability of ETIS in place and functioning.	<p>3a. Standard Operating Procedures (SOPs) for use of ETIS framework.</p> <p>3b. TESA staff trained in use of ETIS SOPs.</p>	A review of existing procedures and current standard operating procedures has been completed. Indicators are appropriate for year 2 and 3 of project.

Activity 3.1 Carry out review and detailed analysis of ETIS operations from data collection to reporting.	Completed – see document <i>OperationsReview Act3-1.pdf</i> .
Output 4. National CITES Management Authorities capacity for tracking and reporting illegal trade in elephant products in fulfilment of CITES requirements for participation in ETIS enhanced.	4a. Priority elephant range States where training most needed identified. 4b. Review and update existing training materials. 4c. Training programmes undertaken. 4d. Report on training written and submitted to TAG. Priority elephant range States have been identified (see document <i>TrainingPriorities Act4-1.pdf</i>) and training materials are being reviewed.
Activity 4.1 Identify and prioritise elephant range states with the greatest need for training.	Completed – see document <i>TrainingPriorities Act4-1.pdf</i>
Activity 4.2 Review and update existing training materials; produce new materials as required.	An in-house review of ETIS training materials was conducted which identified a number of issues that need to be addressed to improve the existing modules. A module on retrospectively collecting backlog data is being planned. This will be developed in late 2010 once the trainer is available.
Activity 4.3 Produce final training materials, translated into suitable languages.	The ETIS Action Toolkit, the existing ETIS training package has been translated into the Thai language. Translation of the new module (see 4.2) into a number of languages will take place once it has been completed.
Activity 4.4 Undertake training programmes in selected countries.	A training schedule based on priorities established in Activity 4.1 is being prepared and its implementation is under discussion within the TRAFFIC Network.

Annex 2 *Project's full current logframe*

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>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.</p>			
<p>Sub-Goal:</p> <p>CITES policy is effective in significantly reducing global illicit trade in African and Asian elephant ivory.</p>	<p>a) Vulnerable elephant populations stabilised.</p> <p>b) Declining trend in illegal trade in ivory.</p> <p>c) Reduction in illegal killing of elephants for ivory.</p>	<p>a) African Elephant Database (IUCN/SSC African Elephant Specialist Group);</p> <p>National elephant status reports in elephant range States.</p> <p>b) ETIS reports (TRAFFIC).</p> <p>c) MIKE reports (CITES Secretariat).</p>	
<p>Purpose</p> <p>Development of ETIS Phase 2: Enhanced and sustainable collection, management, analysis and reporting of seizure data for the Elephant Trade Information System (ETIS) to monitor illicit trade in ivory as mandated by CITES.</p>	<p>a) Phase 2 ETIS database operational by end of project.</p> <p>b) Analytical framework is in place.</p> <p>c) Standard Operating Procedures adopted by TESA.</p> <p>d) Improved reporting of seizures in majority of targeted countries.</p>	<p>a) Validation and approval of ETIS Phase 2, database, analysis and reporting, by TAG.</p> <p>b) Comprehensive ETIS analyses presented and accepted at MIKE/ETIS Subgroup of the Standing Committee.</p> <p>c) Changes in staff do not inhibit operation of ETIS.</p> <p>d) Seizure reporting rates to ETIS improved and gaps in historical data filled.</p>	<p>The mandate for ETIS remains in effect.</p> <p>CITES support for ETIS TAG continues</p> <p>CITES Management Authorities remain engaged and strive to improve performance</p>

<p>Outputs</p> <p>1. Phase 2 ETIS software program developed, installed and in use.</p>	<p>1a. New database designed and functional specification written.</p> <p>1b. Available software platforms reviewed and evaluated.</p> <p>1c. Software developed.</p> <p>1d. Software installed and in use.</p> <p>1e. Train TESA staff in use of software.</p>	<p>1a. Functional spec. reviewed by TESA and accepted by TAG.</p> <p>1b. Report on likely sustainability of each option.</p> <p>1c/d. Installation tested; report on its use prepared by ETIS operator and validated by TAG members.</p> <p>1e. TESA staff independently using software.</p>	
<p>2. Improved analytical framework for assessing and reporting trends of illicit trade in ivory adopted and implemented.</p>	<p>2a. Methodology for future analysis to produce bias-adjusted indicators of illegal ivory trade developed and tested.</p> <p>2b. Recommendations drafted for a reporting framework and indicators to assist CITES in policy making.</p> <p>2c. Recommendations for country specific reports developed.</p> <p>2d. Software tools for reporting developed.</p> <p>2e. TESA staff trained in use of reporting tools.</p>	<p>2a. Methodology approved by TAG and paper submitted for publication.</p> <p>2b. Recommendations accepted by TAG</p> <p>2c. Recommendations accepted by TAG and positive feedback from elephant range states.</p> <p>2d. Software installed and tested.</p> <p>2e. TESA staff produce CITES and country reports.</p>	<p>TAG accepts the recommendations on methodology.</p>
<p>3. Enhanced measures for supporting the long-term operational sustainability of ETIS in place and functioning.</p>	<p>3a. Standard Operating Procedures (SOPs) for use of ETIS framework.</p> <p>3b. TESA staff trained in use of ETIS SOPs.</p>	<p>3a. SOP manual approved by TAG and used by TRAFFIC.</p> <p>3b. Performance evaluation of staff demonstrate effective use of SOPs.</p>	

<p>4. National CITES Management Authorities capacity for tracking and reporting illegal trade in elephant products in fulfilment of CITES requirements for participation in ETIS enhanced.</p>	<p>4a. Priority elephant range States where training most needed identified.</p> <p>4b. Review and update existing training materials.</p> <p>4c. Training programmes undertaken.</p> <p>4d. Report on training written and submitted to TAG.</p>	<p>4a. Assessment reports from ETIS highlight elephant range States and other key countries with poor law enforcement effort ratios.</p> <p>4b. Final training materials produced in appropriate languages.</p> <p>4c. Rate of reporting seizures to ETIS by target countries improves following training; law enforcement effort ratio improves; backlog elephant seizure data submitted to ETIS.</p> <p>4d. Training Report accepted by TAG.</p>	<p>4a. CITES Management Authorities embrace training and include cross-sectoral law enforcement authorities as participants.</p> <p>4b. Suitable trainers with requisite language skills identified and engaged for training events.</p>
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Activities (details in workplan)

- 1.1 Review existing database software.
- 1.2 Prepare functional specification of new database.
- 1.3 Evaluate available software platforms.
- 1.4 Design and produce the software.
- 1.5 Install and test the software.
- 1.6 Revise the software.
- 1.7 Train TESA staff in using the new software.
- 2.1 Identify indicators and data required for them.
- 2.2 Analyse existing data to evaluate statistical methods for producing bias-adjusted indicators.
- 2.3 Design the new ETIS reporting framework.
- 2.4 Write two papers on methodology to submit to peer-reviewed journals.
- 2.5 Write software for producing the indicators.
- 3.1 Analyse and review all ETIS operations.
- 3.2 Draft a Manual of Standard Operating Procedures (SOPs).
- 3.3 Revise the Manual in the light of Output 1.
- 3.4 Submit SOPs to TAG and revise as required.
- 3.5 Train TESA staff in use of SOPs.
- 4.1 Identify range states with greatest need of training.
- 4.2 Review existing training materials.
- 4.3 Produce training materials.
- 4.4 Undertake training in key countries.
- 4.5 Prepare training report and present to TAG.

Monitoring activities:

Indicator 1: Visits by UK partners to work with host region partners in assessing (a) the new system, and (b) the effectiveness of staff.

Indicator 2: Presentation of methodological ideas for scrutiny in scientific and other technical forums, both in UK and the host region.

Indicator 3: On-going monitoring by TESA Director of development and adoption of SOPs by TESA staff.

Indicator 4: Feedback from trainees after each training event; regular recording of ETIS indicators that measure participation and law enforcement effort.

Annex 3 *Onwards – supplementary material (optional but encouraged as evidence of project achievement)*

This may include outputs of the project, but need not necessarily include all project documentation. For example, the abstract of a conference would be adequate, as would be a summary of a thesis rather than the full document. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

Evidence included are reports for activities 1.1, 2.1, 3.1 and 4.1 labelled as follows:

Activity 1.1 *DatabaseReview Act1-1.pdf*

Activity 2.1 *AnalysisIndicators Act2-1.pdf*

Activity 3.1 *OperationsReview Act3-1.pdf*

Activity 4.1 *TrainingPriorites Act4-1.pdf* – this is also the means of verification 4a.

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	YES
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the project number in the Subject line.	NA
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	YES
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	NO
Have you involved your partners in preparation of the report and named the main contributors	YES
Have you completed the Project Expenditure table fully?	YES
Do not include claim forms or other communications with this report.	