Department for Environment Food & Rural Affairs

DARWIN INITIATIVE

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Darwin Initiative
Final Report

*To be completed with reference to the Reporting Guidance Notes for Project Leaders (http://darwin.defra.gov.uk/resources/) it is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)*

Darwin project information

Project Reference	19-014
Project Title	Implementing CITES in Madagascar
Host country(ies)	Madagascar
Contract Holder Institution	University of Kent
Partner Institution(s)	• Madagasikara Voakajy (MV) • Management Authority CITES Madagascar • Scientific Authority CITES Madagascar
Darwin Grant Value	£254,788
Funder (DFID/Defra)	Defra
Start/End dates of Project	1 April 2012 – 31 March 2016
Project Leader's Name	Professor Richard A. Griffiths
Project Website/blog/twitter	www.madagasikara-voakajy.org
Report Author(s) and date	Christian J. Randrianantoandro Raphali R. Andriantsimanarilafy Julie H. Razafimanahaka Richard A. Griffiths 25 June 2016

1 Project Rationale

This project was undertaken in Madagascar, a globally important biodiversity hotspot. Madagascar ratified CITES in 1974. However, Madagascar is underachieving in its implementation of CITES Article IV, on the regulation of trade of species included in Appendix II. There is a concern that unless significant improvements are made, both the number of species and the number of individuals exported will become so few as to jeopardize the potential wider benefits of a sustainable trade. There are 141 Malagasy animal species on Appendix II of CITES, many of which have been suspended from the trade (48 chameleons, 28 geckos) or have attracted scrutiny from the CITES Animals Committee (e.g. *Mantella* frogs, *Uroplatus* lizards), indicating actual or potential problems with the implementation of the convention. In addition, cases of illegal trade of species either with zero quotas, or in Appendix I or in the Category I Class I of the appendix of Malagasy law, have been reported (e.g. Thailand). Moreover, CITES exports provide few apparent benefits to local livelihoods or biodiversity conservation. This project focused on improving CITES implementation in Madagascar, through (1) dedicated support for the national Management and Scientific Authorities (Fauna); and by (2) developing an approach for delivering wider trade-related benefits for conservation and livelihoods.

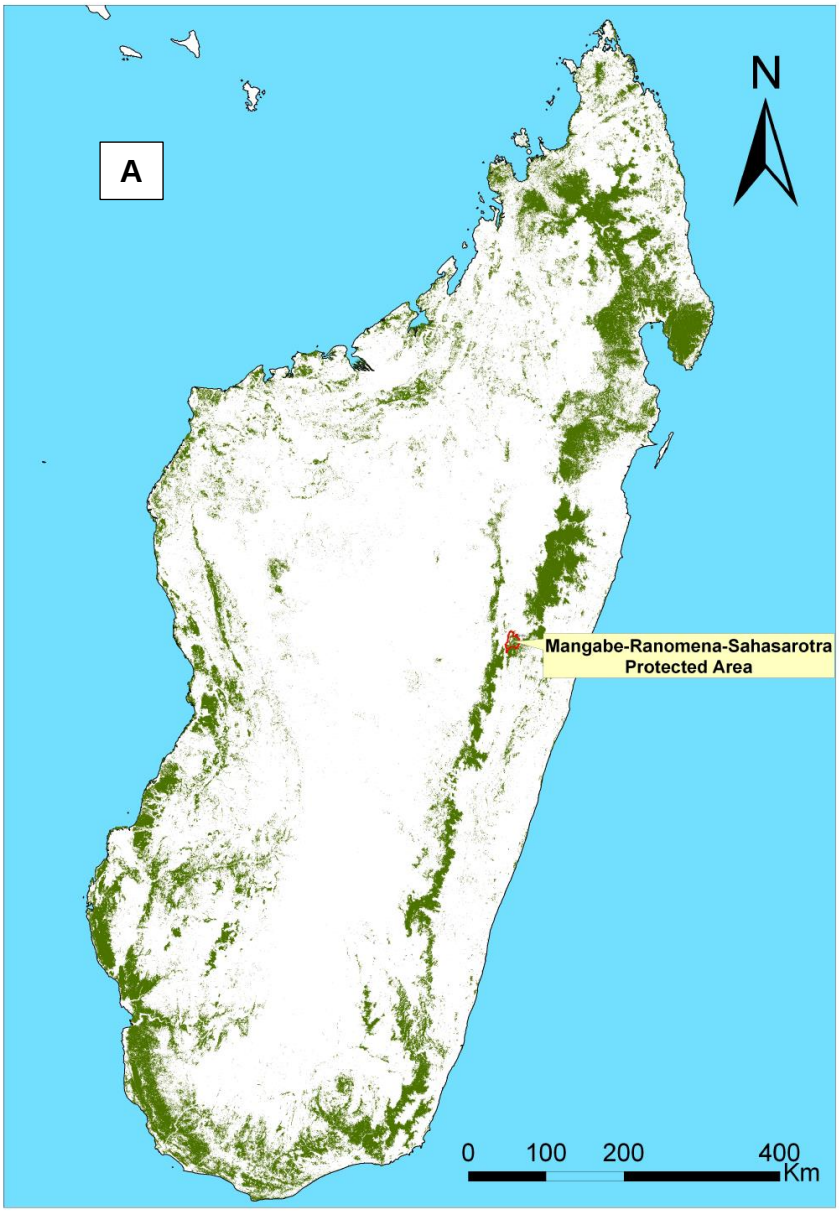

Fig. 1. (A) Map of Madagascar showing main forested areas (green), and the location of the new Mangabe-Ranomena-Sahasarota Protected Area; (B) golden mantella *Mantella aurantiaca*: (C) women's artisanal and embroidery group with project team; (D) new research camp at Mangabe.

The project was not location-specific, as much of the work related to issues at the national scale. However, much of the fieldwork was carried out in the Mangabe region, and a significant outcome was the creation of the new Mangabe-Ranomena-Sahasarota protected area and the establishment of a permanent research station in the park (Fig.1).

The lead partners in the project were DICE, University of Kent and Madagasikara Voakajy, a Malagasy NGO established in 2005 with Darwin Initiative funding. In addition, the CITES Management and Scientific Authorities in Madagascar played a fundamental role as additional host country partners and end-users of the project outputs. Further infrastructural support and expertise was provided by Calumma Ecological Services, IUCN and the British Herpetological Society. A major new partnership was established in the final year with the North of England Zoological Society (Chester Zoo) who have subsequently committed to supporting the project in the longer term, thereby securing the legacy.

2 Project Achievements

2.1 Outcome

Outcome:	To deliver compliance with CITES and CBD with respect to the use and conservation of Appendix II endemic reptiles and amphibians			Comments (if necessary) Project outcome achieved.
	Baseline	Change by 2016	Source of evidence	
Indicator 0.1 Most threatened animal species subject to no wild harvest (yr2), or closely monitored collection and trade for CITES-endorsed quotas (yr3)	• Most threatened amphibian and reptile species (e.g. *Uroplatus* spp., *Calumma, Furcifer* and *Brookesia*) were collected and/or exported legally or illegally • There was no monitoring of collection and trade in place for the most threatened amphibians and reptiles' species.	• Zero quota was published for eight species of *Uroplatus*, and the amphibian *Mantella viridis* • A closed monitoring of the collection and trade was undertaken for the golden frog *Mantella aurantiaca* and for the chameleon *Furcifer campani*.	• Annex 7: quotas 2011, 2012, 2013, 2014 (2), 2015, 2016 • Annex 8: Documents sent to CITES Secretariat on *Mantella aurantiaca*	Ongoing monitoring of wild populations of some species is occurring post-project as part of the legacy
Indicator 0.2 Non-detriment findings for all export quotas by end of yr2	Most of the traded species are exported without non-detriment findings	Newly proposed or revised quotas were associated with non-detriment findings (*Furcifer campani,* five species of *Uroplatus, Mantella aurantiaca, Mantella bernhardi, Mantella expectata, Scaphiophryne gottlebei, Furcifer angeli*). The documents were supported by opinions of experts or by identification materials for *Furcifer*, *Brookesia* and	• Annex 9: Documents sent to CITES on *Furcifer campani, Uroplatus, Mantella bernhardi, Mantella expectata, Scaphiophryne gottlebei, Furcifer angeli, Mantella viridis*) • Annex 10: Identification guides for *Furcifer, Brookesia* and *Palleon, Uroplatus*.	In 2014, new quotas were proposed by the Authorities CITES, based on the IUCN Red List status and range of previous quotas. This was outside our control as the recommendations were made by personnel outside the Scientific Authority of CITES. However, the team provided supporting information for the quota following a request from UNEP-WCMC and the

		Palleon and *Uroplatus* species.		European Commission.
Indicator 0.3 Communities engaged in, and rewarded for, responsible collection, monitoring and conservation yrs1-3	Communities were only considered as collaborators while establishing a protected area	• The collecting procedures were established so people received direct benefit from the collection fees. • Collection sites of *Mantella aurantiaca* were identified with fixed quotas, and monitored to see the impact of the trade. • Local community based associations received training on the sustainable use and management of the natural resources. They became more responsible for collections and conservation by participating in the monitoring of biodiversity. • The habitat protection ensured the sustainable use of other forest products. • Local communities and women's association received training and are able to sell their products.	• Annex 11: Collecting procedure • Annex 12: Definitive status of the protected area Mangabe-Ranomena-Sahasarotra (*Mantella aurantiaca*)	Some collectors avoid collection of specimens at the designated collecting sites.

2.2 Impact: achievement of positive impact on biodiversity and poverty alleviation

Impact statement from logframe:

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.

This project is having a positive impact on biodiversity by:

- Identifying species that could not be traded (zero quota) due to the lack of information, lack of monitoring or to the importance of threats, and species that could be traded supported by NDFs and quotas based on the best available scientific information.
- The suspension of trade for some species prevents the decline and/or the extinction of those species by the trade.
- Providing new information to CITES and other stakeholders about taxonomy and the identification of species collected by the trade.
- Annexes cited in section 2.1 provide the evidence that is linked to the logframe.

2.3 Outputs

Output 1:	*Export quota for Appendix II animal species in Madagascar amended based on best available scientific information.*		
	Baseline	Change recorded by 2016	Source of evidence
Indicator 1.1 Standard procedures for making non-detriment findings in Madagascar adopted and used for all exported App. II animal species by yr 3	There was no standard procedure so proposed quotas were not supported by non-detriment findings	A standard procedure is available and used to support export quotas of animal species (*Furcifer campani, Furcifer angeli, Uroplatus* spp., *Phelsuma* spp., *Mantella aurantiaca, Mantella viridis, Mantella berhnardi, Scaphiophryne gottlebei*).	Section 2.1 of the report
Indicator 1.2 No endemic Malagasy animal species included in a CITES Significant Trade Review by yr 3	Some *Mantella* species are in a CITES Significant Trade Review	The number of species in Significant Trade Review decreased following documents or reports sent to CITES and notification from CITES (e.g. *Mantella bernhardi*).	Annex 13: Letter from CITES Secretariat excluding *Mantella bernhardi* in Significant Trade Review.
Indicator 1.3 Zero quotas issued/maintained for high risk species by yr 1	Risk assessments were not undertaken for traded appendix II species so species were traded without knowledge of the level of risk	Zero quota issued for species listed in CITES Appendix II with a high risk (*Brookesia lambertoni*).	Section 2.1 Indicator 0.1 Annex 7
Indicator 1.4	No action was made	• Quotas were	Section 2.1

Resumed trade in species that are currently suspended or subject to zero quota by yr 2	for suspended species or subject to zero quota	attributed to *Furcifer campani* and *Mantella expectata,* previously suspended and with zero quota. • Zero quota was fixed for *Mantella viridis* following the availability of new information from the field. • New information was collected in the field on *Furcifer angeli*. The proposed quota is awaiting CITES approval. • Following new methods to revise quotas used by CITES, new quotas were allowed for some chameleon species (e.g. *Brookesia minima, B. nasus, B. peyrierasi, Calumma parsonii, C. oshaugnessyi, Furcifer willsii, and F. petteri*), *Uroplatus sameiti* and *Mantella laevigata.*	Indicator 0.1 Annex 7
Output 2:	*Trade review (population surveys, legal and illegal trade) of Appendix II and non-CITES listed reptile and amphibian species from Madagascar*		
Indicator 2.1 Report submitted to national scientific authorities and experts by yr 2	No trade review was undertaken for Appendix II and non-CITES listed reptile and amphibian species	A list of low, medium and high risk species presented, discussed and approved by the CITES authority and experts.	Annex 14: MSc thesis on trade review by Mrs Jessica Raharimalala
Indicator 2.3 Publication in a scientific journal by yr 3	No publication on the recent trade review of Appendix II and non-CITES listed reptile and amphibian species from Madagascar	A draft of the manuscript is ready for submission to the scientific journal: Madagascar Conservation and Development.	Annex 15: Draft of the manuscript
Indicator 2.4 Uplisting proposals considered (and submitted if	Species threatened by trade with a non-zero quota of exports	A proposal to include the gecko *Paroedura masobe* in the CITES	Annex 16: Proposal for inclusion of

necessary) to CoP for species deemed threatened by trade by yr2		Appendix II has been submitted to CITES for the 17th Conference of Parties.	*Paroedura masobe* in CITES Appendix II
Indicator 2.5 Economic viability assessment of trading species in low numbers for which it is costly to implement provide NDFs and/or recommendations from the Animals Committee completed by y3	There was a lack of the economic viability of trading species	Socio-economic study completed analysing incomes of local communities involved in animal collection for the trade.	Draft thesis chapter and manuscript by DICE PhD student Janine Robinson completed.
Output 3:	*Improved capacity of the national Management and Scientific Authorities, and resource experts to manage the export of species that enter the trade from 2011*		
Indicator 3.1 Identification materials made available for traded Appendix II reptile species by yr3	No identification material available for either traded non-traded species of *Brookesia* and *Palleon,* and *Uroplatus*	• Two identification guides on *Uroplatus* spp. and *Brookesia* and *Palleon* were produced and distributed to stakeholders controlling collection and export. • New version of the identification guide of *Furcifer*, showing the three distinct species of *Furcifer lateralis*.	Annex 10: Identification guides for *Uroplatus* ; *Brookesia* and *Palleon*; and *Furcifer* species
Indicator 3.2 Attendance and evaluation of training events for national Management Authority staff (including customs) annually	The knowledge of personnel in charge of species identification or control during collection and before exportation was unknown or unassessed.	• Management Authority staff, exporters, representatives of local communities, forest agents working in the region and the international airport received theoretical and practical training on chameleon identification. • In collaboration with the Civil Society working for the protection of the environment, the judicial police officers received	• Annex 17: Photos of the participants at the training events.

		training on species identification, to discern legal and illegal collection, and to combat illegal trade.	
Indicator 3.3 Representatives of the Management and Scientific Authorities attend each Animals Committee meetings and COP	Attendance of a representative of the Authorities CITES at the Animal Committee or Standing Committee meetings and Conference of Parties (CoP) was irregular due to lack of funding.	Representative of Management Authority attended the 26th and 27th Animal Committee meetings, the Standing Committee 62th and 63rd, and the 16th CoP meetings.	Annex 18: Photos of the participants at CITES conference.
Indicator 3.4 Representatives from Scientific Authority and Lead Partner to obtain MSc in Conservation and International Wildlife Trade by yr3	No Malagasy personnel in host country qualified in Conservation and International Wildlife	• A representative of the CITES Scientific Authority Fauna Dr Rakotomalala Zafimahery followed MSc course (taught and research components) at DICE and obtained his MSc degree in Conservation and International Wildlife Trade. • Madagasikara Voakajy's representative for the MSc course didn't achieve the IELTS English language requirements for a Tier 4 student visa by a score of 0.5. Instead, DICE personnel conducted training workshop in Madagascar for CITES authorities, experts on conservation, biologists and for the 22 regional representative of the Ministry of Environment, Ecology, and Forests.	• Annex 19: MSc dissertation of Dr Rakotomalala Zafimahery. • Annex 21: Photo of the trainees on International Wildlife Training and Biodiversity Conservation: With Dr David Roberts from DICE and Dr Angus Carpenter from UEA in March 2015. Photo of the participants at the workshop training on CITES, different procedures, plants and animals species identification for the 22 Regional Directors of Environment, Ecology, and Forests in June 2015.
Indicator 3.5 Four DESS students from	No research projects on trade review and	• Three "ingénieur agronome" students	Annex 21: Ingénieur and MSc

University of Antananarivo graduate and receive professional training	population ecology and biology are available for graduate students	followed professional training and obtained their "ingénieur" degree. • One MSc student on Animal Ecology and Biology follow professional training on population assessment of the harlequin mantella frog.	dissertations.
Indicator 3.6 Six personnel from CITES MA and SA and key experts completed courses on CITES Virtual College in yr 1	No people followed and completed the CITES Virtual College in Madagascar.	More than six people completed the CITES Virtual College courses. The capacity of the Authorities CITES Madagascar, and experts improved by the accomplishment of the CITES virtual college courses.	Annex 22: Photo of the participants at the CITES virtual college
Output 4:	*Promote local stewardship of biological diversity so that trade in Appendix II species benefits livelihoods and conservation*		
Indicator 4.1 Consultation meetings with local communities, CITES authorities and exporters before Sept. 2012	There was no collecting procedure agreed and followed by the stakeholders on collect and trade.	The collecting procedure was adopted with the involvement of local community based associations, local and regional authorities, and exporters.	Section 2.1, Indicator 0.3, Annex 11
Indicator 4.2 Population status data on frogs and chameleons collected annually	There was no monitoring of the populations of *Mantella aurantiaca* and *Furcifer campani*	New data and information on the populations structure of *Mantella aurantiaca* are obtained	Section 2.1, Indicator 0.2, Annex 9
Indicator 4.3 Revised export quota accepted by CITES using new field data by yr 3	Revision of export quota was made based on ancient or non-exploitable data	Document showing the revised quota of *Mantella aurantiaca* from 550 to 280 was sent and accepted by CITES. Survey protocols for *Mantella aurantiaca* developed; Froggotron facility developed at Paignton Zoo for ex situ research on habitat selection of mantellas.	Section 2.1, Indicator 0.2, Annex 9 MSc dissertation by DICE student Victoria Stephens submitted on population viability analysis and in situ/ex situ comparisons of *Mantella aurantiaca*

Indicator 4.4 Key frog breeding sites in new rainforest protected area with improved conservation status by yr 1	No protected area with the golden mantella frog *Mantella aurantiaca*	Definitive protection status of protected area obtained for Mangabe-Ranomena-Sahasarotra	Annex 22: Decree n° 2015-725 of 21st April 2015 on Definitive protection status of the protected area Mangabe-Ranomena-Sahasarotra
Indicator 4.5 Communities participate in annual monitoring of harvested species	Local communities had no knowledge and were not involved on the monitoring of harvested species	After workshop training on the sustainable use of natural resources, local communities participated in biodiversity and habitat monitoring	Annex 23: Report of the monitoring
Indicator 4.6 Local communities rewarded for sound stewardship and receive support for development projects and a community festival	Local communities used/managed areas following theirown initiative without reward or support of their projects	Festival was organised annually for public awareness and local community rewards. The funds received were used for development projects (pond restoration, building office)	Annex 24: Photo of a community festival
Indicator 4.7 Local communities benefiting from sustainable use of forest products by yr 3	No benefit from the sustainable use of forest products obtained by the local communities	Local communities obtain benefits from the use of the forest products in the zone for sustainable use.	Section 2.1, Indicator 0.3, Annex 11
Indicator 4.8 Four womens' groups benefitting from production of locally produced arts and crafts by yr 3	Women were not trained to produce or market local arts and crafts.	Twenty four women from Ampahitra village received embroidery training course and got certificates. They produced shirts, trousers, and costumes decorated with project-related motifs, presented and sold to the visitors.	Annex 24: Photos of women's group receiving training course on embroidery

3 Project Partnerships

A partnership between DICE and Madagasikara Voakajy (MV) was developed through an agreement signed by both parties during year one. The key individuals from MV were Christian Randrianantoandro (Herpetology Program Manager and coordinator of this project) and Mhy Andriamampionona (Finance and Administration). The MV team involved in this project met at least once a month for project planning to discuss project achievements and/or progress. Future activities were discussed during the Program Manager's meeting held every two months. Interim meetings were organized to regulate important and emerging issues. Communications to The UK-Based PI were managed mostly via e-mails and skype. Project management meetings were carried out during the visits of project leader and advisor

respectively Professor Richard Griffiths and Dr Lee Brady in January 2013, January-February 2014, November 2014 and another project advisor Dr Richard Jenkins (IUCN) in August 2013 in Madagascar and the project coordinator in host country in June 2013 and September 2015. These visits consisted of meetings and field trips. Fig. 2 shows the relationships between the partners and personnel.

Two DICE PhD students - Janine Robinson and Wayne Edwards – undertook research projects relating to the project objectives using additional funds. Janine undertook a socioeconomic survey with the MV team to assess the relative importance of collection for the trade for livelihoods. Wayne undertook population assessments and habitat suitability of golden mantellas with the MV team, and developed a survey protocol for ongoing population and habitat monitoring that will continue beyond the end of the project. The habitat data collected by Wayne is being applied to the design of the Froggotron facility at Paignton Zoo. This unique facility is being used to study the responses of mantellas to changing microhabitat and climatic conditions as a further ex situ part of the PhD project.

In Madagascar, the project team worked closely with partners, the Management and Scientific Authorities of CITES and other institutions (e.g. Department of Animal Biology at the University of Antananarivo, Conservation International Madagascar, and Traffic) and individual experts in conservation biology. These relationships were based on organized face-to-face meetings and workshops. The main contact at the Department of Animal Biology (DAB) was Dr Felix Rakotondraparany. Until it was disbanded, DAB served as the Scientific Authority (SA) for Fauna CITES in Madagascar and nominated a MSc student (a representative of the SA Fauna) for the MSc on Conservation and International Wildlife Trade in DICE at the University of Kent. Dr Falitiana Rabemananjara is the new CITES Scientific Authority Fauna contact point for amphibians and reptiles in Madagascar and we communicated with him for delivering required information in formal letters from CITES Secretariat or other institutions such as the European Commission and World Conservation Monitoring Centre.

The main collaboration with the government was through the Director of the Valorisation of Forest Resources in the Ministry of Environment, Ecology, Sea and Forests (MEEMF). Our main contact in this department was Mrs Sahondra Rabesihanaka who is the CITES focal point, but the project also received strong support from the General Director of the Forests (Head of the Management CITES Authority – several changes in personnel during the course of the project). This collaboration was initiated with the presentation of the project to the main partners at the beginning of the project (May 2012). Subsequently, Christian Randrianantoandro has been in regular contact by phone or meetings with Mrs. Sahondra Rabesihanaka at strategic points in the project. Invitations to meetings (e.g. workshop, CITES meetings) and/or authorizations (e.g. training, visits and interview) were arranged by the CITES Management Authority staff as required.

A key partnership that was developed during the third year was with Chester Zoo. Initially this involved Dr Gerardo Garcia (Curator of Herpetology) who carried out training for local teams on marking amphibians for population assessment, with Chester Zoo donating much-needed equipment to the value of about £10,000 (i.e. weather stations, dataloggers, tagging equipment etc.) for the local teams. This was followed up by a visit by team leader Ben Baker to assist with fieldwork, resulting in an additional 90 days of staff field support for the project. The relationship culminated with Chester Zoo sending 12 staff to Madagascar in January 2016 as part of their annual 2-week expedition to further support MV with their ongoing Darwin project work at Mangabe:

http://www.actforwildlife.org.uk/blog/blog/post/453-video-chester-zoo-expedition-to-madagascar

This has resulted in the ongoing partnership with MV being elevated to one of Chester Zoo's long-term and high-profile overseas programmes, supporting additional work on the harlequin frog, lemurs and Damba fish. In addition, this involvement results in exposure of the project to Chester Zoo's 1.6 million visitors and 80,000 members, as well as by the zoo's significant social network.

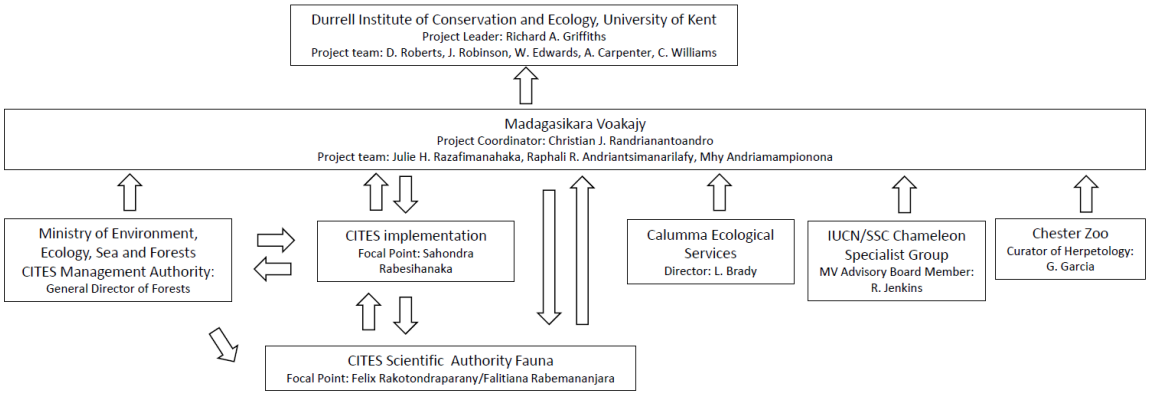

Fig. 2. Organogram showing the relationships between the project partners and personnel.

4 Contribution to Darwin Initiative Programme Outputs

4.1 Contribution to SDGs

The project contributed to the following United Nations Sustainable Development Goals:

SDG12: Ensure sustainable consumption and production patterns.
The project combined population assessments of traded species with analyses of collection and incomes to local communities. It also developed alternative livelihoods (e.g. arts, crafts and embroidery) within women's groups. Collectively, the project strengthened the protection of species threatened by the trade by providing the evidence and training needed to deliver improved compliance with CITES. In addition, improved understanding of incomes within communities engaged in wildlife trade has enabled more targeted alternatives to be developed.

SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
The project has contributed to the designation of a new protected area at Mangabe. Evidence produced by the project has enabled this area to be zoned according to strict protection and sustainable use. Training and capacity building has resulted in members of the local community being employed as rangers to monitor the protected areas and report any illegal or unsustainable use of resources.

4.2 Project support to the Conventions or Treaties (CBD, CMS, CITES, Nagoya Protocol, ITPGRFA))

The project-specific sub goal is:
Improved conservation and sustainable use of endemic animal species subject to legal overseas trade.

This is being achieved through revised quotas based on risk assessments and NDFs, as well as improved capacity to meet CITES reporting requirements. The project is integrally linked to supporting CITES in Madagascar through the activities and outputs described above.
The entire project rationale is based around improving the capability of the CITES Management and Scientific Authorities in Madagascar to meet their international obligations under this convention. This ranges from obtaining the relevant field data to support NDFs and quotas; training of relevant government and non-government personnel; and funding relevant personnel to attend CITES meetings. The evidence that this is being met is provided in the outputs submitted within the supporting material.

4.3 Project support to poverty alleviation

This project is having a positive impact on poverty alleviation by:

- Improving the implementation of Article IV of CITES to ensure that trade occurs at levels that do not impact wild populations.
- Local community based associations are involved in the collections and monitoring, and could obtain benefits from the collect and non-consumptive use of the biodiversity in new protected areas.
- Women's groups were trained in embroidery and handcrafts that could be sold through local markets.

4.4 Gender equality

In the host country, the project is managed by a man (Christian Randrianantoandro) and a woman (Mhy Andriamampionona). Team also is composed also by males and females.

The local community based associations that we are working for are composed of men and women. Local rangers are mainly men, but the project supported womens' associations in the development of arts, crafts and embroidery.

4.5 Programme indicators

- *Did the project lead to greater representation of local poor people in management structures of biodiversity?*

Local community associations received training on the sustainable management of the natural resources from the project. They gained knowledge about their local biodiversity and were empowered to oversee monitoring in their respective areas.

- *Were any management plans for biodiversity developed?*

A management plan for the protected area Mangabe-Ranomena-Sahasarotra was developed. This includes research, conservation, and sustainable use of the biodiversity occurring in this area. At species level, a mid-term review of the species conservation strategy of the golden mantella frog was undertaken.

- *Were these formally accepted?*

The management plan was developed during the process of creation of the protected area. The definitive protection status is obtained so the plan is officially accepted. The report of the review of the conservation strategy was published and shared to all stakeholders.

- *Were they participatory in nature or were they 'top-down'? How well represented are the local poor including women, in any proposed management structures?*

Both were participatory: the management plan was developed from a series of consultation meetings with the local communities including women; the mid-term evaluation of the conservation strategy was effectuated with the involvements of local communities.

- *Were there any positive gains in household (HH) income as a result of this project?*

The project provided training to local communities on new methods for producing arts and crafts which contributes to the increase of their products. The women obtained cash for selling their handicraft products.

- *How many HHs saw an increase in their HH income?*

Not a direct goal of the project.

- *How much did their HH income increase (e.g. x% above baseline, x% above national average)? How was this measured?*

Not a direct goal of the project.

4.6 Transfer of knowledge

Did the project result in any formal qualifications?

i. How many people achieved formal qualifications?

Two students obtained an MSc degree. Two students obtained "ingenieur degree". One student is preparing an MSc degree dissertation. Two DICE students have undertaken PhD research as part of the project using funding leveraged by the project. One is writing up her thesis and the other is carrying out analysis of field data collected in Madagascar.

ii. Were they from developing countries or developed countries?

Four are from developing and three (1 x MSc and 2 x PhD from developed countries.

iii. What gender were they?

They are comprised by two males and five females.

4.7 Capacity building

i. Did any staff from developing country partners see an increase in their status nationally, regionally or internationally? For example, have they been invited to participate in any national expert committees, expert panels, have they had a promotion at work?

The project representatives in host country: Mr Christian Randrianantoandro and Raphali Andriantsimanarilafy are active members of the Chameleon Specialist Group of IUCN SSC, and provide scientific advice, information on NDFs, quotas and collection sites to the CITES Scientific Authority. They prepared documents on amphibians and reptiles (except crocodiles) submitted by Madagascar to the CITES Secretariat. Mr Christian Randrianantoandro attended the CITES 16th Conference of Parties in 2013 as a representative of the CITES Scientific Authority Fauna. He participated in the meeting with the CITES Management Authority of Thailand. Mr Christian Randrianantoandro was also appointed national coordinator of the fight against the invasion of the Asian toad and is now a member of the national committee on this matter.

ii. What gender were they?

They are both males.

4.8 Sustainability and Legacy

Considerable capacity has been built during the four years of the project at all levels (i.e. from local communities to CITES Management Authority personnel). This increased capacity and the establishment of Scientific Committee on CITES will contribute to sustainability. Achievement of the long-term legacy of ensuring that the Madagascar is well-equipped to deliver implementation of CITES Article IV is therefore well on track. The exit strategy therefore remains unchanged.

The project has a high profile amongst the CITES authorities in Madagascar, and other stakeholders. In addition to the project we also make significant efforts to promote the Darwin brand and make regular use of the logo during meeting, workshop, t-shirts, banners, festivals etc. The project will be leaving behind improved capacity at all levels (i.e. from local communities to government officials).

During the final year of the project the Project Leader (RG) and Project Officer (CR) liaised with the North of England Zoological Society (Chester Zoo) over developing a project legacy. This involved CR spending a week at Chester Zoo for further training and project development. Chester Zoo have subsequently provided equipment, further funding for project personnel (including for the post held by Christian Randrianantoandro) and infrastructural support for the project. The project has now become one of Chester Zoo's main overseas programmes (see section 3 – project partnerships). The appointment of RG to a trusteeship of Chester Zoo will ensure that this significant ongoing legacy will maintain some Darwin project oversight.

5 Lessons learned

The two main issues that arose were:

(1) Only one of the two proposed Madagascar students was able to undertake the MSc Conservation and International Wildlife trade programme at DICE. This was a result of the tightening of student visa regulations by the UK government that resulted in the nominated applicant being unable to obtain a visa because of a 0.5 deficit in his English language test score. This problem was compensated for by sending two DICE personnel to Madagascar to run a modified version of the core MSc module in-country instead. This actually benefitted a very wide range of stakeholders involved with wildlife trade issues in Madagascar.
(2) The disbanding of the original Scientific Authority Fauna by the Management Authority in October 2012. This was confirmed by a ministerial decree in January 2013. Invitations to become a member of the new Scientific Authority for Fauna were sent to individual taxon experts in January and February 2013. As project staff were among those receiving invitations, the project remained fully engaged with the CITES processes despite this reorganisation.

5.1 Monitoring and evaluation

This is largely covered in the previous sections. In summary, the regular management meetings in Madagascar, and the annual project monitoring visit (usually January – February each year) provide the mechanisms to check project progress. The annual project monitoring visits included meetings with the British Ambassador in Madagascar (Mr Tim Smart) which was important for ensuring that the project resonated with wider British interests in Madagascar. Outcomes and outputs were regularly checked against those laid down within the original proposal and logframe and adjustments made if necessary.

The project team evaluation and monitoring meetings (see section 2 above) that take place at least every two months provide the main mechanism to achieve this. Results of these meetings were fed back to the project leader at DICE, who then provided further advice on progress and monitoring with input from other DICE personnel as appropriate (e.g. a DICE PhD student carrying out research in conservation programme impact assessment was assigned to evaluate the golden mantella species action plan). Project progress then fed back into the MV management team meetings (also held every two months) so they could benefit from wider assessment within the organisation. Round table meetings with a total of six UK personnel (5 from DICE 1 from IUCN) who have visited Madagascar during the course of the year have provided further opportunities for evaluation, monitoring and development of new initiatives. This process of continuous feedback has ensured excellent communication between all the project partners so that no significant management or administrative issues have arisen. The proposed reorganisation of the Scientific Authority Fauna was notified to the project at an early stage, and the ensuing discussions with the CITES Management Authority – involving both Madagascar and UK project personnel – has ensured that this event has not hindered the achievement of project goals.

However, the most informative evaluation mechanism is through ongoing monitoring of how project outputs are being adopted within the existing remits of the CITES Secretariat, Animals Committee and Madagascar Management and Scientific Authorities. How this has been carried out so far is described in the preceding sections.

5.2 Actions taken in response to annual report reviews

All feedback was disseminated to project partners. All previous reports were positively received and we have included an organogram in the final report as recommended (Fig. 2).

6 Darwin identity

The Darwin Initiative logo has featured very prominently in all activities associated with the project, both in Madagascar and the UK. With their considerable experience of running Darwin Initiative projects in Madagascar, MV are ensuring that the whole project continues to carry the relevant branding and identity. The Darwin brand and logo is widely promoted during all events, including meetings and workshops, and the logo is used on vehicles, posters, identification guides, reports, T-shirts, banners, festivals etc. The fact that this is the primary externally

funded project in Madagascar that has an explicit link to CITES means that the Darwin Initiative resonates strongly within the relevant agencies there.
The MV team had an opportunity to present the project to the former Prime Minister Omer Beriziky during the celebration of International Environmental Day in June 2014.
The project has a strong identity and high profile amongst the CITES authorities in Madagascar, and all the other stakeholders. Because of the long-standing impact of Darwin Initiative projects in Madagascar, the programme is widely understood by government and non-government agency officials at all levels.

7 Finance and administration

7.1 Project expenditure

Project spend (indicative) since last annual report	2015/16 Grant (£)	2015/16 Total actual Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL	**8314**	**8238.72**		

Staff employed (Name and position)	Cost (£)
TOTAL	

Capital items – description	Capital items – cost (£)
TOTAL	

Other items – description	Other items – cost (£)

Open access costs Software, Academic Lab subscription license	
TOTAL	3727.76

7.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
British Herpetological Society	
CITES Secretariat	
The Van Thienoven Foundation	
Chester Zoo (Conserving the golden mantella frogs)	
Chester Zoo (Conserving the golden mantella frogs)	
Chester Zoo (Conserving the golden mantella frogs)	
Chester Zoo (Conservation of the golden and the harlequin mantella frogs, and campsite construction)	
U.S. Fish and Wildlife Service (Protecting the Golden Mantella frogs)	
U.S. Fish and Wildlife Service (Conserving the Tarzan chameleon)	
Rufford Foundation	
Size of Wales	
WWF	
TOTAL	**132,949**

1USD=0.691297£ and 1Euro=0.784242£

Source of funding for additional work after project lifetime	Total (£)
The funds provided above by Chester Zoo are ongoing.	
TOTAL	

7.3 Value for Money

There were several 'added value' components to the project that were not included in the original proposal:

Two DICE PhD students core-funded through other sources carried out (1) a socioeconomic survey of livelihoods in communities involved in wildlife trade; and (2) population and habitat assessments of golden mantellas. A DICE MSc student (self-funded) also carried out a population viability analysis using data collected from the project that provided valuable insights into harvesting for a sustainable trade.

In addition to the 'donated time' provided in the original proposal by DICE personnel, two additional DICE staff travelled to Madagascar to run the wildlife trade module at no cost to the project (apart from expenses).

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your Stage 2 application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert the Stage 2 logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: 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.			
Purpose: To deliver compliance with CITES and CBD with respect to the use and conservation of Appendix II endemic reptiles and amphibians	• Most threatened animal species subject to no wild harvest (yr2), or closely monitored collection and trade for CITES-endorsed quotas (yr3). • Non-detriment findings for all export quotas by end of yr2. • Communities engaged in, and rewarded for, responsible collection, monitoring and conservation yrs1-3.	• Check official CITES documentation on their website for annual export quota, submissions to Animals Committee meetings, recommendation Animals Committee meetings, documents about COP. • Check Management Authority and Lead Partner's website for updates and electronic materials.	Political landscape in Madagascar remains stable enough to allow the project to proceed.
Outputs: **1**. Export quota for Appendix II animal species in Madagascar amended based on best available scientific information.	1.1 Standard procedures for making non-detriment findings in Madagascar adopted and used for all exported App. II animal species by yr 3 1.2 No endemic Malagasy animal species included in a CITES Significant Trade Review by yr 3 1.3 Zero quotas issued/maintained by for high risk species by yr 1 1.4 Resumed trade in species that are currently suspended or subject to zero quota by yr 2	• Risk assessment and NDFs provided for all Malagasy Appendix II species; • Check meeting documents (pdfs) on CITES website; • Check annual quota for Madagascar on CITES website; • Evidence that NDF procedure was endorsed by national authorities (letter of signed meeting minutes);	Willingness by Malagasy authorities to change long-standing export quota (management Authority balances science and commercial interests). NGOs and other experts remain committed to assisting the CITES authorities.
2. Trade review (population surveys, legal and illegal trade) of Appendix II	2.1 Report submitted to national scientific authorities and experts	• Copies of publication/s and reports;	Management Authority in Madagascar makes available data

and non-CITES listed reptile and amphibian species from Madagascar	by yr 2; 2.3 Publication in a scientific journal by yr 3 2.4 Uplisting proposals considered (and submitted if necessary) to CoP for species deemed threatened by trade by yr2 2.5 Economic viability assessment of trading species in low numbers for which it is costly to implement provide NDFs and/or recommendations from the Animals Committee completed by y3	• Online documentation for COP;	on the export quantities of non-CITES listed reptiles.
Output 3. Improved capacity of the national Management and Scientific Authorities, and resource experts to manage the export of species that enter the trade from 2011	3.1 Identification materials made available for traded Appendix II reptile species by yr3 3.2 Attendance and evaluation of training events for national Management Authority staff (including customs) annually. 3.3 Representatives of the Management and Scientific Authorities attend each Animals Committee meetings and COP. 3.4 Representatives from Scientific Authority and Lead Partner to obtain MSc in Conservation and International Wildlife Trade by yr3 3.5 Four DESS students from University of Antananarivo graduate and receive professional training. 3.6 Six personnel from CITES MA and SA and key experts completed courses on CITES		

	Virtual College in yr 1		
4. Promote local stewardship of biological diversity so that trade in Appendix II species benefits livelihoods and conservation	4.1 Consultation meetings with local communities, CITES authorities and exporters before Sept. 2012 4.2 Population status data on frogs and chameleons collected annually 4.3 Revised export quota accepted by CITES using new field data by yr 3. 4.4 Key frog breeding sites in new rainforest protected area with improved conservation status by yr 1 4.5 Communities participate in annual monitoring of harvested species. 4.6 Local communities rewarded for sound stewardship and receive support for development projects and a community festival 4.7 Local communities benefiting from sustainable use of forest products by yr 3 4.8 Four womens' groups benefitting from production of locally produced arts and crafts by yr 3	• Documents submitted to CITES explaining how collection is monitored, how the community benefits and how the export quota is related to the survey data; • Copies of maps and meeting minutes during which the project was discussed with local communities and authorities in the sites concerned.	CITES Animals Committee permit Madagascar to export the species for which this part of the project intends to focus on.

Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)

1.1 Creation and adoption of a Non-Detrimental Findings standard operating procedure
1.2 Conduct Risk Assessment for all Appendix II species
1.3 Prepare revised quota and NDFs for Low and Medium Risk species
2.1 Trade review for Appendix two frogs and reptiles
2.2 Necessary preparations for COP16

2.3 Viability assessment of NDFs and previous Animals Committee recommendations
3.1 New identification materials for *Uroplatus* geckoes and *Scaphiophryne* frogs
3.2 Testing and evaluation of new identification materials
3.3 Training for personnel involved in the trade to identify legal and illegal species exports
3.4 Malagasy CITES Authorities and project partners attend COP16
3.5 Preparations and submission for AC26
3.6 Malagasy CITES Authorities and project partners attend AC26 (assuming Q4)
3.7 Preparations and submission for AC27
3.8 Malagasy CITES Authorities and project partners attend AC27 (assuming Q4)
3.9 Malagasy CITES Authorities and project partners do CITES Virtual College courses
3.10 Malagasy trade students to follow UK MSc (taught component)
3.11 Malagasy trade students to follow UK MSc (research component)
3.12 Malagasy DESS students (research projects)
3.13 Malagasy DESS students complete CITES Virtual College courses
4.1 Consultations with CITES authorities and exporters about revised collection procedures
4.2 Consultations with CITES authorities, exporters and communities
4.3 Field surveys (wet season) of focal species: amphibian and lizard
4.4 Feedback meetings with stakeholders – evaluation of new approach
4.5 Participatory monitoring of key habitat features
4.6 Community festival and distribution of rewards
4.7 Handicraft training for womens' associations

Annex 2 Report of progress and achievements against final project logframe for the life of the project

Note: For projects that commenced after 2012 the terminology used for the logframe was changed to reflect DFID's terminology.

Project summary	Measurable Indicators	Progress and Achievements in the last Financial Year	Actions required/planned for next period
Goal/Impact: Improved conservation and sustainable use of endemic animal species subject to legal overseas trade		Local communities living in areas with exceptional biodiversity are involved in conservation and get benefits from sustainable use	Do not fill not applicable
Purpose/Outcome To deliver compliance with CITES and CBD with respect to the use and conservation of Appendix II endemic reptiles and amphibians	1. Most threatened animal species subject to no wild harvest (yr2), or closely monitored collection and trade for CITES-endorsed quotas (yr3). 2. Non-detriment findings (NDF) for all export quotas by end of yr2. 3. Communities engaged in, and rewarded for, responsible collection, monitoring and conservation yrs1-3.	• Zero quotas for eight species of *Uroplatus* and *Mantella viridis*. Low quotas fixed for *Furcifer campani, Furcifer angeli*. Document reporting the results of monitoring and revised quota of *Mantella aurantiaca* sent and agreed by CITES. • In 2014, Zero quotas were established for Critically Endangered and Endangered species at the IUCN Red List status except *Mantella aurantiaca* and *M. madagascariensis*. • Proposed export quotas were supported by NDFs during submission or after requirements from UNEP-WCMC or European Commission. • Local communities aware and engaged in collecting procedure, monitoring and conservation	Do not fill not applicable

<table>
<tr>
<td>Output 1.

Export quota for Appendix II animal species in Madagascar amended based on best available scientific information.</td>
<td>1.1 Standard procedures for making non-detriment findings in Madagascar adopted and used for all exported App. II animal species by yr 3

1.2 No endemic Malagasy animal species included in a CITES Significant Trade Review by yr 3

1.3 Zero quotas issued/maintained by for high risk species by yr 1

1.4 Resumed trade in species that are currently suspended or subject to zero quota by yr 2</td>
<td>• A standard procedure is available and used to support export quotas of animal species (Chameleon species, Mantella aurantiaca, Mantella viridis, and Mantella berhnardi).

• Recommendations from Animals Committee or Standing Committee meetings were followed for Mantella species, Uroplatus species, and chameleons. The number of species in Significant Trade Review decreased following documents or reports sent to CITES and notifications from CITES. All Phelsuma species (except P. madagascariensis, P. lineata, P. quadriocellata, P. kochi) are with zero quota.

• Zero quota was established for the non-CITES species Paroedura masobe from 2015.

• Zero quotas issued or maintained for CITES Appendix II species with a high risk (Brookesia lambertoni) and all Critically Endangered or Endangered species at the IUCN Red List (except Mantella aurantiaca).

• New quotas were allowed for some chameleon species (e.g. Brookesia minima, B. nasus, B. peyrierasi, Calumma parsonii, C. oshaugnessyi, Furcifer willsii, F. petteri), Uroplatus sameiti and Mantella laevigata. These were supported by scientific information following a request from UNEP-WCMC and European Commission.</td>
</tr>
<tr>
<td colspan="2">Activity 1.1 Creation and adoption of a Non-Detrimental Findings standard operating procedure</td>
<td>A standard procedure for making NDFs in Madagascar created and adopted by the CITES authorities and experts in July 2012.</td>
</tr>
<tr>
<td colspan="2">Activity 1.2. Conduct Risk Assessment for all Appendix II species</td>
<td>The risk assessments of all reptile and amphibian species in CITES Appendix II and non-CITES conducted. A list of low, medium and high risk species was produced. The results adopted by the Madagascar CITES authorities are shown in the table below.
<table>
<tr><td></td><td colspan="2">Number of species Amphibian</td><td colspan="2">Number of species Reptiles</td></tr>
<tr><td>Level of risk</td><td>CITES Appendix II</td><td>Non-CITES</td><td>CITES Appendix II</td><td>Non-CITES</td></tr>
<tr><td>High</td><td>00</td><td>08</td><td>01</td><td>20</td></tr>
<tr><td>Medium</td><td>14</td><td>153</td><td>67</td><td>155</td></tr>
<tr><td>Low</td><td>03</td><td>49</td><td>34</td><td>41</td></tr>
</table>
</td>
</tr>
<tr>
<td colspan="2">Activity 1.3. Prepare revised quota and NDFs for Low and Medium Risk species</td>
<td>Quotas were revised with NDFs for low and medium risk Uroplatus, chameleon, Phelsuma, Mantella species.</td>
</tr>
</table>

Output 2. Trade review (population surveys, legal and illegal trade) of Appendix II and non-CITES listed reptile and amphibian species from Madagascar	2.1 Report submitted to national scientific authorities and experts by yr 2; 2.3 Publication in a scientific journal by yr 3 2.4 Uplisting proposals considered (and submitted if necessary) to CoP for species deemed threatened by trade by yr2 2.5 Economic viability assessment of trading species in low numbers for which it is costly to implement provide NDFs and/or recommendations from the Animals Committee completed by y3	• The results of the trade review of Appendix II and non-CITES amphibian and reptile species from Madagascar, made by Mrs Jessica Raharimalala to obtain her "ingenieur" degree, were presented and endorsed by the Madagascar CITES authority. • A draft of the manuscript is ready to submit for publication in the scientific journal Madagascar Conservation and Development. • A proposal for including non-CITES species *Paroedura masobe* was completed and submitted to CITES for the Conference of Parties (CoP) 17th in collaboration with the European Commission. • Socio-economic study of the role of the trade in livelihoods is completed by PhD student Mrs Janine Robinson from DICE and a thesis chapter/manuscript has been produced.
Activity 2.1. Activity 2.1. Trade review for Appendix II frogs and reptiles		• Trade review was conducted by an ingenieur student Mrs Jessica Raharimalala. Data from the CITES Trade Database, the website, UNEP-WCMC, the CITES Management Authority in Madagascar and the regional representatives of the MEEMF in two regions Analamanga and Atsinanana who export frogs and reptile species were collated to review the export of Appendix II and non-CITES frog and reptile species. These included the quota for each species, the number of specimens imported from Madagascar, and number of specimens exported for Appendix II and non-CITES frogs and reptile species from 2000 to 2011. Results showed that since 2000, 134 amphibians and 157 reptiles non-CITES species were exported. Compared with the IUCN Red List status and the Malagasy national law, the exportation of species classified as Critically Endangered and/or in Category I Class I should be regulated under CITES. Mrs Jessica Raharimalala obtained her ingenieur degree with this subject in December 2013. • A draft manuscript is produced and will be published in a scientific journal.
Activity 2.2. Necessary preparations for CoP16		• A preparation meeting for CoP 16th was organized with WWF. Proposals for inclusion in CITES Appendices were made on the fauna. • Proposal for the inclusion of the gecko *Paroedura masobe* in CITES Appendix II was submitted to CITES. MV's representative received an

	invitation and letter of support from the Management Authority of CITES Madagascar to attend this conference.
Activity 2.3. Viability assessment of NDFs and previous Animals Committee recommendations	• The 26th CITES Animals Committee (AC) meeting in Geneva, 15-20th March 2012 accepted the export quota for *Furcifer campani* of 250 live specimens for 2012 and 2013 and this was endorsed by the 62nd Standing Committee (SC) in July 2012. Zero export quotas for *Calumma brevicorne, C. crypticum, C. gastrotaenia, C. nasutum, C. parsoni, Furcifer antimena* and *F. minor* were also agreed. • ***Mantella aurantiaca*:** The progress made by Madagascar to establish and maintain quotas of 550 for 2012 and 2013 was noted by the Standing Committee (SC) during the 63rd Meeting in March 2013. The report of the mid-term evaluation of the species conservation strategy was handed to the CITES Secretariat in August 2013 in Madagascar. An electronic copy was submitted in February 2014. Madagascar considered that the export quota for *Mantella aurantiaca* of 280 individuals per year from 2014 will not be detrimental to the survival of the species and is in compliance with Article IV, paragraphs 2 (a) and (3). The report document, showing the number of specimens collected and the location of the collection sites and its level of risk as 'medium', a revised quota with NDFs, and designated collecting sites outside of the Mangabe-Ranomena-Sahasarotra Protected Area, and availability of an identification guide, was sent by Madagascar and it was approved by CITES during the SC 65th meeting in 2014. The quota was published on the CITES website in March 2015. A population viability analysis for the species was completed by DICE MSc student Victoria Stephens. • ***Mantella viridis*:** following new data and information collected from the field, a report sent to CITES mentioned that collection is detrimental to this species. *M. viridis* may be easily confused with other *Mantella* species (*M. ebenaui, M.* cf. *viridis,* and *M.* cf. *ebenaui*) occurring in the same area. Also, *M.* cf. *viridis,* and *M.* cf. *ebenaui* may have highly restricted distributions, and most of the known distribution areas are situated inside of Protected Areas where collections are prohibited. Potential collecting sites are located in buffer zones of Protected Areas so any possible collections could have an impact on the conservation of this species. The quota zero proposed by Madagascar is published by CITES for 2014 and 2015. • ***Mantella bernhardi*:** This species was excluded from the Significant Trade Review in January 2014.

		• ***Mantella baroni*:** This species was removed from the Review of Significant Trade during the AC 23rd meeting. The quota was increased from 5000 to 10,000 live specimens for 2012 and 2013. Madagascar reviewed the export quota of this species and it was reduced to 3000 for 2014 and this was maintained for 2015. • ***Uroplatus* species:** Madagascar provided information on the distribution and abundance of the *Uroplatus* spp., NDFs of the 2011 export quotas (if not zero), and any zero quotas established for *Uroplatus* species to the Secretariat, for publication on the CITES website. An identification guide to *Uroplatus* species was produced by Madagascar, a draft was sent in February 2013, and a hard copy was given to the CITES Secretariat in August 2013. The final version (2015) was shared with the people working on the control of collection and trade of amphibian and reptile. • ***Phelsuma* sub-species:** The 26th CITES Animals Committee (AC) meeting in Geneva, 15-20th March 2012 accepted the shared quotas for *Phelsuma* species previously considered as a sub-species. • ***Furcifer angeli*:** A document to resume trade with a new proposed quota and supporting NDFs was sent to CITES in February 2014.
Output 3. Improved capacity of the national Management and Scientific Authorities, and resource experts to manage the export of species that enter the trade from 2011	3.1 Identification materials made available for traded Appendix II reptile species by yr3 3.2 Attendance and evaluation of training events for national Management Authority staff (including customs) annually. 3.3 Representatives of the Management and Scientific Authorities attend each Animals Committee meetings and COP. 3.4 Representatives from Scientific Authority and Lead Partner to obtain MSc in Conservation and International Wildlife Trade by yr3 3.5 Four DESS students from University of Antananarivo graduate and receive professional training.	• Two identification guides on *Uroplatus, Brookesia* and *Palleon* produced and distributed to stakeholders controlling the collection and trade of amphibians and reptiles in Madagascar. • Annual training provided by MV's representative in collaboration with the other experts on species identification to the Management Authority staff, regional representatives of Ministry of Environment, Ecology, Sea, and Forests (MEEMF), forest agents working at the Airport of Ivato, traders, and local communities involved in site monitoring and collection of animals. • Representative of the Management Authority attended the AC 26th and 27th, SC 62th and 63rd meetings and 16th CoP. • A representative of the CITES Scientific Authority, Dr Rakotomalala Zafimahery obtained his MSc in Conservation and International Wildlife Trade at DICE. As a result of student visa issues and with agreement of Defra, the second MSc scholarship was converted to an in-country workshop on International Wildlife Trade and Biodiversity conservation for the CITES authorities, conservation practitioners, and the 22 regional representatives of MEEMF. • As no DESS student was available this was changed to the recruitment of Agronome and MSc students. Three "ingénieur Agronome", and one MSc

	3.6 Six personnel from CITES MA and SA and key experts completed courses on CITES Virtual College in yr 1	in Animal Biology and Ecology students followed professional training. The first three obtained their diplomas. • More than six people completed the CITES Virtual College courses. The capacity of the Madagascar CITES authority. • The CITES Authorities and other experts in Madagascar attended a workshop led by the CITES Secretariat in August 2013.
Activity 3.1. New identification materials for *Uroplatus* geckoes and *Scaphiophryne* frogs		• The identification guide originally planned for *Scaphiophryne* frogs (Non-CITES) was changed to *Brookesia* and *Palleon* (CITES Appendix II) following recommendations from the CITES authorities. • Identification guides for *Uroplatus* and *Brookesia* and *Palleon* completed in collaboration with Malagasy experts Dr Fano Ratsoavina and Mr Bertrand Razafimahatratra.
Activity 3.2. Testing and evaluation of new identification materials		The identification material for *Uroplatus* was tested and evaluated by experts, students in conservation biology, and other end-users.
Activity 3.3. Training for personnel involved in the trade to identify legal and illegal species exports		• Training sessions were organized to build capacity in chameleon identification (using the identification guide to *Furcifer* species created in a previous DI project 'Conservation and Trade of Chameleons in Madagascar). These sessions included the launching of the final version of the brochure attended by 26 persons; one day of training, for four Foress Agents of the department of control working at Ivato Airport; practical training sessions were held near the collecting sites of *F. campani*, firstly to 21 personnel from the local authorities and communities, and secondly to two Forest Agents, two personnel from the Management Authority CITES, one person from the Direction of the Control of Ivato Airport accompanied by three delegates from the regional representative of the MEEMF. The proficiency was evaluated by the identification of chameleon species previously collected by MV in the field. • A capacity building workshop for judicial police officers on species identification, legal and illegal collection, and to combat illegal trade, was organized by the Civil Society working for the protection of the environment and attended by the project's representatives (Raphali Andriantsimanarilafy on chameleons, Roma Randrianavelona on *Mantella* and Christian Randrianantoandro on *Uroplatus* and *Phelsuma* spp.) as trainers. • A workshop on International Wildlife Training and Biodiversity Conservation: What role should researchers and conservation

	organizations should take? was organized for the CITES authorities and experts in Madagascar in March 2015. • A workshop on CITES procedures, plant and animal species identification, was provided for the 22 Regional Directors of Environment, Ecology, Sea and Forests in June 2015.
Activity 3.4. Malagasy CITES Authorities and project partners attend COP16	This activity was completed by the participation of Management Authority of CITES and MV representative (Christian Randrianantoandro) at the CITES CoP16th in Bangkok.
Activity 3.5. Preparations and submission for AC26	Documents reviewing chameleon (*Calumma* and *Furcifer*), *Furcifer campani, Phelsuma*, and *Uroplatus* species were prepared with the SA Fauna and submitted by the MA for review at the 26th CITES AC meeting in Geneva, 15-20th March 2012.
Activity 3.6. Malagasy CITES Authorities and project partners attend AC26 (assuming Q4)	The CITES focal point Mrs Sahondra Rabesihanaka and Dr Richard Jenkins (IUCN) participated in the 26th AC meeting which accepted the export quota for *Furcifer campani* of 250 live specimens for 2012 and 2013 (this was endorsed by the 62nd SC meeting in July 2012), zero export quotas for *Calumma brevicorne, C. crypticum, C. gastrotaenia, C. nasutum, C. parsoni, Furcifer antimena* and *F. minor,* maintained zero or revised quotas for *Uroplatus* spp., as well as shared quotas for *Phelsuma* species previously considered as a sub-species.
Activity 3.7. Preparations and submission for AC27	Meetings were held with Dr Richard Jenkins, then with Prof Richard Griffiths in the UK and Madagascar, and with the Madagascar CITES Authority to identify submissions required to CITES for the AC27. Documents for this AC meeting including proposals for a quota and NDF for *Furcifer angeli,* responses to the recommendations made concerning *Mantella aurantiaca,* and the preliminary version of the identification guide of *Uroplatus* species were submitted to CITES Secretariat in February 2013.
Activity 3.8. Malagasy CITES Authorities and project partners attend AC27 (assuming Q4)	The CITES Focal Point (Mrs Sahondra Rabesihanaka) attended the 27th AC meeting and 21st Plants Committee meetings held on 28th April – 3rd May 2014 in Veracruz, Mexico. The quota of *F. angeli* is not yet published, but the new revised quota of 280 for *M. aurantiaca* for 2015 is published on the CITES website.
Activity 3.9. Malagasy CITES Authorities and project partners do CITES Virtual College courses	Completed by the participation of the CITES Authorities of Madagascar, Malagasy experts and MV staff involved with the project, the CITES Virtual college in June and July 2012.
Activity 3.10. Malagasy trade students to follow UK MSc (taught component)	Dr Rakotomalala attended MSc courses on Conservation and International Wildlife Trade at DICE University of Kent.

Activity 3.11. Malagasy trade students to follow UK MSc (research component)		Dr Rakotomalala obtained his MSc degree by investigating into the implications of the ban on crocodile exports on livelihoods.
Activity 3.12. Malagasy DESS students (research projects)		Three Ingenieurs students from the Department of Waters and Forests of the School of Agronomy, University of Antananarivo participated in the project: Jessica reviewed the species on Annex II (see Activity 2.1) while Malala Ramarosonarivo and Zolalaina Rakotomanga focused their studies on the golden mantella frog *Mantella aurantiaca* in Mangabe Ranomena Sahasarotra New Protected Area.
Activity 3.13. Malagasy DESS students complete CITES Virtual College courses		Malagasy ingenieurs student (Jessica Raharimalala) completed CITES Virtual college course.
Output 4. Promote local stewardship of biological diversity so that trade in Appendix II species benefits livelihoods and conservation	4.1 Consultation meetings with local communities, CITES authorities and exporters before Sept. 2012 4.2 Population status data on frogs and chameleons collected annually 4.3 Revised export quota accepted by CITES using new field data by yr 3. 4.4 Key frog breeding sites in new rainforest protected area with improved conservation status by yr 1 4.5 Communities participate in annual monitoring of harvested species. 4.6 Local communities rewarded for sound stewardship and receive support for development projects and a community festival 4.7 Local communities benefiting from sustainable use of forest products by yr 3 4.8 Four womens' groups benefitting from production of locally produced arts and crafts by yr 3	• The collecting procedure was adopted with the involvement of local community based associations, local and regional authorities, and exporters. • Collecting sites were selected and established with the involvement of local communities, regional representative of MEEMF, CITES Authorities, experts, and exporters. • New data on frog (*Mantella aurantiaca* and *M. viridis*) and chameleon (*Furcifer campani, F. angeli, F. rhinoceratus, F. belalandaensis, F. verrucosus, F. lateralis* and *Brookesia brygooi*) were collected and this was done annually for *M. aurantiaca.* • Quotas on *Mantella aurantiaca, M. viridis, Furcifer campani, F. angeli* were revised using the new data. • The limits of the strict conservation zone, areas for sustainable use, and areas occupied by people in Mangabe Ranomena Sahasarotra New Protected Area were established with the involvement of all stakeholders. • Local community based associations received training on sustainable management of natural resources and started on biodiversity monitoring and conservation, especially for *M. aurantiaca*. • Mantella monitors and local community based association monitor and control the collecting sites of *Mantella aurantiaca* and *Furcifer campani*. • Festival was organized annually to reward the most active local community based association in conservation and monitoring of the biodiversity. • Training was organized for the local communities and womens' group for sustainable use of the forest products and to generate activities to

		increase their income.
Activity 4.1. Consultations with CITES authorities and exporters about revised collection procedures		A standard collecting procedure developed with the involvement of CITES Authorities, exporters and regional representative of the MEEMF regarding collect in Alaotra-Mangoro, Vakinankaratra and Sofia regions.
Activity 4.2. Consultations with CITES authorities, exporters and communities		Collecting sites and quotas for each site identified for *F. campani* and *M. aurantiaca*, and possibly for *F. campani* once the quota will be published by CITES.
Activity 4.3. Field surveys (wet season) of focal species: amphibian and lizard		New data from survey and monitoring were collected for *M. aurantiaca, F. campani* and *F. angeli.*
Activity 4.4. Feedback meetings with stakeholders – evaluation of new approach		• Regular meetings were held with the regional representative of MEEMF, as well as with the local community based association in charge of the monitoring and conservation for each known pond with *M. aurantiaca* to evaluate the efficiency of the new approach. • A meeting was held on 13 August with the national CITES authorities, regional representatives of the MEEMF, and exporters to review the collecting procedures. General collecting procedures were established during the workshop in November 2013.
Activity 4.5. Participatory monitoring of key habitat features		• Training on the sustainable management of the natural resources offered to the local community associations who participated to the biodiversity monitoring. • A capacity building workshop was organized from in Mangabe Ranomena Sahasarotra New Protected Area, with the staff of the regional representative of the MEEMF to train local community based associations on the monitoring of *M. aurantiaca* and/or other animal species important for biodiversity, as well as habitats.
Activity 4.6. Community festival and distribution of rewards		A committee was created annually to evaluate the results of the monitoring undertaken by local community based associations. This committee is in charge of the organization of the festival, evaluation of the local community based association and distribution of awards.
Activity 4.7. Handicraft training for womens' associations		Four womens' groups registered interest in receiving the handicraft training. Twenty four women from the active group of Ampahitra village attended an embroidery training course and got their certificates. They presented products such as shirts, trousers and costumes decorated with project-related motifs to the UK project team during their visits to Ampahitra Madagascar. This group has developed a project proposal to MV for funding

	and further markets for the handicrafts are being explored.

Annex 3 Standard Measures

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
Training Measures							
1a	Number of people to submit PhD thesis	1	British	Female	A socio-economic study on the role of wildlife collection in llivelihoods of local communities in Madagascar	English	By Ms Janine Robinson at DICE University of Kent
1b	Number of PhD qualifications obtained	0					
2	Number of Masters qualifications obtained	2	Malagasy, British	Male and Female	• Madagascar crocodile skin trade and the effects of export bans • A population viability analysis of the golden mantella	English	• By Zafimahery Rakotomalala for MSc Degree in Conservation and International Wildlife Trade at DICE University of Kent in 2014 • By Mrs Victoria Stephens for MSc degree in Biodiversity Management at DICE University of Kent in 2015
3	Number of other qualifications obtained	3	Malagasy	Females	• Investigation of the deforestation history in	French	• By Mrs Malala Ramarosonarivo for “ingénieur” degree at the

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
					Mangabe-Ranomena-Sahasarotra over the past 20 years using Landsat images from 1993, 2001 and 2011 • The resilience of the golden mantella habitats to forest fragmentation • Analysis of the vulnerability to the trade of endemic Herpetofauna in Madagascar		University of Antananarivo Madagascar in 2013 • By Mrs Zolalaina Rakotomanga for "ingénieur" degree at the Department of Waters and Forests of the School of Agronomy, University of Antananarivo Madagascar in 2013 • By Mrs Jessica Raharimalala for "ingénieur" degree at the Department of Waters and Forests of the School of Agronomy, University of Antananarivo in 2014
4b	Number of training weeks provided to undergraduate students	6	Malagasy	Male and Female	• CITES Virtual College	French	• Online course facilitated by Mr Raphali Andriantsimanarilafy and Dr Zafimahery

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
					• Data collection, compilation, and analysis		Rakotomalala • Field methods and MSc writing
4c	Number of postgraduate students receiving training (not 1-3 above)	9	Malagasy	Male and Female	• CITES, Non-Detriment Findings • CITES and Authority Scientific Fauna in UK	Malagasy, French, English	Training provided to students at the Animal Biology at the University of Antananarivo
4d	Number of training weeks for postgraduate students	2	British	Female	Data collection, compilation, and analysis	English	
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification(e.g., not categories 1-4 above)	0					No long-term training (>1yr) was provided in this project
6a	Number of people receiving other forms of short-term education/training (e.g., not categories 1-5 above)	355	Malagasy	Male and Female	• Environmental Education • Amphibian, Reptiles specially chameleon identification • Field methods and data analysis on Herpetology	Malagasy, French	• For children at three primary schools, local associations • For police and gendarmes, forest agents, regional director of the Ministry of Environment, Ecology and

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
					• Training on biodiversity and sustainable management of natural resources • Embroidery		Forests • For undergraduate students at the Universities • Local communities • Women's association, , experts on conservation biology, Scientific Authorities Fauna and Flora, Management Authority staff,
6b	Number of training weeks not leading to formal qualification	5	Malagasy	Male and Female	See Code 6a	Malagasy, French	See Code 6a
7	Number of types of training materials produced for use by host country(s) (describe training materials)	5	Malagasy	Male and Female	• Posters "Conservation and Trade of Uroplatus" and "Conservation and Trade of Chameleons" showing species could be or not could be	French	Posters

Code	Description	Total	Nationality	Gender	Title or Focus	Language	Comments
					traded. • Poster "*Brookesia perarmata*" CITES Appendix I species: Collect and trade prohibited. • Poster "*Calumma tarzan*" zero quota but a similar and sympatric with *Calumma gastrotaenia* with an annual quota of 500.		

Research Measures		Total	Nationality	Gender	Title	Language	Comments/ Weblink if available
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (ies)	2	Malagasy	Male	• Development and Management Plan of Mangabe-Ranomena-	French	Participatory process? field visits for data collection, consultation

					Sahasarotra Protected Area. • Report of the mid-term evaluation of the conservation strategy of *Mantella aurantiaca*		meetings with local communities and authorities, workshop for approval.
10	Number of formal documents produced to assist work related to species identification, classification and recording.	3	Malagasy	Male and Female	• The Chameleons of Madagascar and Archipelago of Comoros genus *Furcifer*. • The Chameleons of Madagascar genera *Brookesia* and *Palleon*. • The leaf-tailed geckos of Madagascar (genus *Uroplatus*)	French	Pocket identification guides
11a	Number of papers published or accepted for publication	5	Malagasy,	Male and	• New	English	

	in peer reviewed journals		French, Welsh, Portuguese, Italian	Female	distribution record of the Critically endangered chameleon *Calumma tarzan* west of the Mangoro river in eastern Madagascar. • New findings of *Phelsuma grandis* and *P. laticauda* (Sauria: Gekkonidae) at the souther edge of the range of the endangered *Phelsuma serraticauda* in eastern Madagascar. • Extinction risks and the conservation of Madagascar's reptiles. • Morphology and		

					molecules reveal two new species of the poorly studied gecko genus *Paragehyra* (Squamata. Gekkonidae) from Madagascar. • Distribution, threats and conservation of a Critically Endangered amphibian (*Mantella aurantiaca*) in eastern Madagascar.		
11b	Number of papers published or accepted for publication elsewhere	0					Location?
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	0					
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	0					
13a	Number of species reference collections established and handed over to host country(s)	0					
13b	Number of species reference collections enhanced and	0					

	handed over to host country(s)						

Dissemination Measures		Total	Nationality	Gender	Theme	Language	Comments
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	7	Malagasy, British	Male and Female	• Presentations of the project to partners. • Annual presentation on project progress to Madagasikara Voakajy's board members by the project coordinator in host country. • Presentation of the socio-economic study by Ms Janine Robinson from DICE. • Mini-workshop on CITES and European Union, Scientific Authority in UK by Ms Janine Robinson from DICE. • Conference to present MSc dissertation in Conservation and International Wildlife Trade	French, Malagasy, English	• By the project coordinator in host country • By the project coordinator in host country • By Ms Janine Robinson, a PhD candidate at DICE • By Dr Zafimahery Rakotomalala at the Department of Animal Biology University of Antananarivo • By Dr David Roberts from DICE

					• Workshop training on International Wildlife Trade and Biodiversity Conservation. • Workshop training on Sustainable Management of the natural resources • Workshop training on exploitation of non-timber forest products		and Dr Angus Carpenter from the University of East Anglia • By experts from Madagasikara Voakajy • By Management Authority CITES and experts
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	5	Malagasy, French, British, Italian	Male and Female	• 16th Conference of Parties of CITES • Workshop training on CITES and Non-Detriment Findings • A Conservation Strategy of Amphibians in Madagascar (second) • Supplying the Exotic Pet Trade: Commercial Wildlife Trade and Livelihoods in	• English, French • French, Malagasy • English	• By CITES • By Secretariat CITES • By the Amphibian Specialist Group of IUCN SSC • By Ms Janine Robinson, a PhD candidate at

					Madagascar at the SCCS • Amphibian and reptile trade in Madagascar		DICE • By Prof R.A. Griffiths

Physical Measures		Total	Comments
20	Estimated value (£s) of physical assets handed over to host country(s)		
21	Number of permanent educational, training, research facilities or organisation established	1	One camp site used for research and monitoring was established near of the monitoring sites of *Mantella aurantiaca* in the northern entrance of the protected area Mangabe-Ranomena-Sahasarotra.
22	Number of permanent field plots established	5	Four field plots for population survey and monitoring of *Mantella aurantiaca* in the Mangabe-Ranomena-Sahasarotra, and one for *Mantella cowanii* in Fohisokina.

Financial Measures		Total	Nationality	Gender	Theme	Language	Comments
23	Value of additional resources raised from other sources (e.g., in addition to Darwin funding) for project work	• £ *(from* British Herpetological Society) • US (from CITES and European Commission) • € (from	Malagasy	Male	• Conservation of Mantellas • Survey to resume trade of *Mantella viridis* and *Furcifer angeli* • Survey and monitoring of chameleons	• English, French	• £ (annually from BHS) • US$2for each species of frog and chameleon • Complementary support for workshop realisation was provided by WWF

		The Van Thienoven Foundation) • (from Chester Zoo) • (from U.S. Fish and Wildlife Service) • (from U.S. Fish and Wildlife Service) • (from Rufford Foundation			in Belalanda South-western Madagascar • Conserving the golden mantella frogs (2013-2016) and the Harlequin Mantella frog (2014-2016). • Protecting the Golden Mantella frogs from Gold mining in Golden ponds • Conserving the Tarzan chameleon: preventing illegal traffic and protecting natural habitats • Conservation of the Mangabe-Ranomena-Sahasarotra		•

		) • US (from Size of Wales) • (from WWF)			while supporting the local communities		

Annex 4 Aichi Targets

	Aichi Target	Tick if applicable to your project
1	People are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.	+
2	Biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.	+
3	Incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.	
4	Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.	
5	The rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.	+
6	All fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.	
7	Areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.	+
8	Pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.	
9	Invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.	
10	The multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.	
11	At least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.	
12	The extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.	+
13	The genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.	

14	Ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.	+
15	Ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.	
16	The Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.	
17	Each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.	
18	The traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.	
19	Knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.	
20	The mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.	

Annex 5 Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers (name, city)	Available from (e.g. web link, contact address etc)
Journal	Christian Randriana ntoandro, J. C. 2012. New distribution record of the Critically endangered chameleon *Calumma tarzan* west of the Mangoro river in eastern Madagascar.	Malagasy	Malagasy	Male	The Societas Europaea Herpetologica	http://www.herpetologynotes.seh-herpetology.org/Volume5_PDFs/Randrianantoandro_Herpetology_Notes_Volume5_pages165-166.pdf
Identification Manual	Christian J. Randriana ntoandro, Harison, H. Randriana solo, Richard, K. B. Jenkins, Toky Rasolofoar imanana, Raphali R. Andriantsi manarilafy, Olivier Hawlitsche k & Frank Glaw. 2012 Les caméléons du genre *Furcifer* de Madagasc	Malagasy	Malagasy	Male		www.madagasikara-voakajy.org

	ar et de l'Archipel de Comores.					
Online-only journal **Herpetology Notes**	Dubos, N., Piludu, N., Andriantsimanarilafy, R. R., Randrianantoandro, J. C., Andreone, F. 2012. New findings of *Phelsuma grandis* and *P. laticauda* (Sauria: Gekkonidae) at the souther edge of the range of the endangered *Phelsuma serraticauda* in eastern Madagascar. 7: 21-23	French	French	Male	The Societas Europaea Herpetologica	www.herpetologynotes.seh-herpetology.org/contents7.html
Journal	Richard K. B. Jenkins, Marcelo F. Tognelli, Philip Bowles, Neil Cox, Jason L. Brown, Lauren Chan, Franco Andreone, Alain Andriamazava, Raphali R. Andriantsimanarilafy, Mirana Anjeriniain	Welsh	British	Male	PLoS ONE 9(8)	e100173. doi:10.1371/journal.pone.0100173

	a, Parfait Bora, Lee D. Brady, Elisoa F. Hantalalaina, Frank Glaw, Richard A. Griffiths, Critically endangered daig Hilton-Taylor[1], Michael Hoffmann, Vineet Katariya, Nirhy H. Rabibisoa, Jeannot Rafanomezantsoa, Domoina Rakotomalala, Hery Rakotondravony, Ny A. Rakotondrazafy, Johans Ralambonirainy, Jean-Baptiste Ramanamanjato, Herilala Randriamahazo, J. Christian Randrianantoandro, Harison H. Randrianasolo, Jasmin E. Randrianirina, Hiarinirina Randrianizahana, Achille P. Raselimanana, Andriambolantsoa					

	Rasoloher y, Fanomeza na M. Ratsoavin a, Christophe r J. Raxworthy , Eric Robsoman itrandrasa na, Finoana Rollande, Peter P. van Dijk, Anne D. Yoder, Miguel Vences. 2014. Extinction risks and the conservati on of Madagasc ar's reptiles					
Journ al	Angelica Crottini. D. James Harris, Aurélien Mirrales, Frank Glaw, Richard K. B. Jenkins. J. Christian Randriana ntoandro. Aaron M. Bauer, Miguel Vences. 2014. Morpholog y and molecules reveal two new species of the poorly studied gecko	Port ugue us	Port ugal	Fe mal e	Organ isms Divers ity & Evolut ion	Doi.10.1007/s13127-014-0191-5

	genus *Paragehyra* (Squamata. Gekkonidae) from Madagascar					
Online-only journal **Herpetology Notes**	Nicola Piludu, Nicolas Dubos, Julie Hanta Razafimanahaka, Pierre Razafindraibe, Joseph Christian Randrianantoandro, Richard K. B. Jenkins. 2015. Distribution, threats and conservation of a Critically Endangered amphibian (*Mantella aurantiaca*) in eastern Madagascar. Volume 8: 119-123	Italian	Italian	Male	The Societas Europaea Herpetologica	http://www.biotaxa.org/hn/article/download/9442/12623
Identification Manual	Fanomezana Mihaja Ratsoavina, Christian J. Randrianantoandro, Harison, H. Randrianasolo, Miguel	Malagasy	Malagasy	Female		www.madagasikara-voakajy.org

	Vences, Frank Glaw, Achille P. Raseliman ana. 2015. Les geckos à queue plate ou les Uroplates (genre *Uroplatus*)					
Identi ficatio n Manu al	Bertrand Razafimah atratra, Christian J. Randriana ntoandro, Achille P. Raseliman ana, Frank Glaw, Harison H. Randriana solo, Lee D. Brady & Richard K. B. Jenkins. 2015. Les Caméléon s de Madagasc ar des genres *Brookesia* et *Palleon*	Mala gasy	Mala gasy	Mal e		www.madagasikara-voakajy.org