



Darwin Initiative Main Project Annual Report

Important note: To be completed with reference to the Reporting Guidance Notes for Project Leaders:

it is expected that this report will be no more than 10 pages in length, excluding annexes

Submission Deadline: 30th April 2017

Darwin Project Information

Project reference	23-022
Project title	Developing long-term stakeholder capacity for elephant conservation in Mali
Host country/ies	Mali, Burkina Faso
Contract holder institution	The WILD Foundation
Partner institution(s)	The Mali Government: Ministry of the Environment, with its Direction Nationale des Eaux et Forêts (DNEF) as the principle contact; other Ministries as appropriate. The US Embassy to Mali The British Embassy to Mali The United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA)
Darwin grant value	£300,000
Start/end dates of project	1 st April 2016 – 31 st March 2019
Reporting period (e.g., Apr 2016 – Mar 2017) and number (e.g., Annual Report 1, 2, 3)	April 2016 – March 2017; Annual Report 1
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Project website/blog/Twitter	Website: http://www.wild.org/mali-elephants/ Blog: http://www.wild.org/category/blog/mali-elephants-blog/ Twitter: @MaliEleProject Facebook in Mali: https://www.facebook.com/gourmamali/ WILD Facebook: https://www.facebook.com/wildfoundation/
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1. Project rationale

The Malian NBSAP (2014) identifies the Gourma region as one of four areas of great significance for biodiversity. Chief among its threatened species is the northern-most population of African elephants that pre-conflict represented 12% of all West African elephants. It is classified as “vulnerable”, listed on Appendix II of CITES, and protected by a regional MoU.

The elephants undertake the longest annual migration of all elephants to find food, water and refuge over an area the size of Switzerland (see map in annexe). 85% of the 233,000 human inhabitants rely on subsistence livelihoods, but increasing human pressure is resulting in

desertification, biodiversity and habitat loss, reduced environmental and social resilience, and impoverished livelihoods.

Human population density is increasing sharply (1.9% and 4% per annum in rural and urban areas respectively), while “free-for-all” access to natural resources has led to their over-exploitation and degradation; and local livelihoods have suffered. National statistics show that local livestock ownership has declined for over two decades, while a study undertaken by the project showed that “prestige” herds belonging to distant, wealthy, urban-dwellers have mushroomed and make up around 96% of the livestock using the area. Anarchic habitat clearance blocks the migration route and increases human-elephant, and human-human, conflicts.

The armed conflict of 2012-2013 and subsequent insecurity, due to absence of government, pose a serious threat both to the people and the elephants (from poaching stimulated by international trafficking networks). It has opened up social wounds and reversed some project gains; however community-based natural resource management (CBNRM) unifies communities and promotes solidarity. The project is the only organisation that continued to operate throughout the conflict, demonstrating the resilience of its “war-tested” model, but outsiders currently profit from local efforts, and systems need to be established whereby communities can regulate access to natural resources.

The government is ill-equipped to deal with these mutually reinforcing factors and full local community empowerment is the only hope to sustain the elephants, habitats and people of the Gourma, and act as an essential complement to any military-based security interventions.

Previous studies demonstrated that the elephant migration route must be protected in its entirety although the two most urgent priorities for action were at Lake Banzena and the Porte des Elephants. The advent of conflict and absence of government required that communities be engaged throughout the range in elephant-based CBNRM to stand together against the insecurity and elephant poaching. The vast area and complex socio-ecological nature of the Gourma mean that a multi-faceted approach is required to target key points where progress can be made and to link these initiatives to mutually support each other (see map in annexe). This project is designed to:

- Address the urgent problem of Lake Banzena
- Spread CBNRM across as many communities as possible, particularly in the areas highest poaching risk. The benefits of this model have been demonstrated previously and this project was designed to capitalise on past learning.
- Develop income-generating activities with the women who provide a powerful demonstration of the benefits as they are not part of the armed groups and are a good way to target insecure areas of high poaching risk. As these are new activities, detailed monitoring of impact is included.

2. Project partnerships

The project has always worked closely with the Ministry of the Environment (MEADD) and its agency responsible for conservation, the Direction Nationale des Eaux et Forêts (DNEF). Although capacity and morale is generally very low, the project has always identified and supported competent and engaged individuals with the aim of increasing DNEF’s capacity. Working with a volatile government with frequent changes of personnel is challenging but the project has developed allies over the years who enable progress to be made, albeit sometimes much more slowly than at other times.

It now works also with the Malian army, and the Ministries of Defence, of Internal Security and of Territorial Administration, and a recent Presidential directive (in response to an alert issued by the project in annexe) has instructed the Cabinet of Ministers that all relevant government bodies and institutions to work together to conserve Mali’s elephants. The project also works with the Parliamentary Committee on Wildlife who raise issues in Parliament and act as a “watch-dog”.

During 2016-17 the MEP and its partners have developed a multi-agency strategy to protect Mali’s elephants by (1) continuing the community engagement through CBNRM to maintain community solidarity in the face of the insecurity and improve livelihoods through “elephant-

based” wise resource use initiatives; and (2) increasing the national capacity to combat poaching. This has resulted in the production of an updated 5-year national action plan to conserve Mali’s elephants and a multi-agency protocole d’accord stipulating the operating conditions of the anti-poaching unit. The project negotiated with the government to designate funds to sink a well in the Banzena relocation area (Tinsabara-Mayfata) to replace the boreholes sabotaged by jihadists and allow the Banzena population to return. None of this would have happened without the project’s close government engagement.

The United Nations Multidimensional Integrated Stabilization Mission in Mali (MINUSMA) has been a staunch ally and partner in securing funds together with the Canadian Embassy (\$490,000 for anti-poaching of which \$30,000 supported local community work), and identifying ways in which they can support project activities, for example in making introductions, and support to training, radio-communications, and in repairing the dam at Gossi (which will help relieve livestock pressure on Banzena). The head of the mission to Mali is personally engaged.

The Dutch and British Embassy has shown great interest, with the latter identifying useful contacts potential avenues of support, met with key government personnel, attended significant meetings to demonstrate international interest, and will be hosting a meeting of international partners in Mali. The US Embassy has donated equipment and secured the funds for additional women’s associations (see output 3)

3. Project progress

3.1 Progress in carrying out project Activities

Output 1. Revision of existing “Partial Elephant Reserve” text and boundaries re-drawn to cover the whole of the elephant range with Lake Banzena as a core protection zone.

Activity 1.1 A preliminary validation meeting was held in April with community traditional leaders of the clans (15) and the women (3) surrounding Lake Banzena regarding the provision of a well to reduce pressure on the core elephant use area; and to discuss the role of re-drafting the text of the elephant reserve legislation to support community conventions and designate Banzena as a core protected area. Other communities in the area (Daroma, Sartatane, Tinhadou) were also engaged in CBNRM and additional income-generating initiatives (Outputs 2 & 3) to support the process of reducing pressure on key elephant habitats.

Activities 1.2 – 1.4 have been delayed until year 2 as reported in the half-year report and agreed by modification request in October 2016 due to the challenges encountered (see s.11)

Output 2: Training provided to improve capacity in habitat protection, natural resource management and benefit sharing.

Activity 2.1. Throughout 2016-17, >10 days of CBNRM workshops were attended by >245 people in the 8 worst performing communities in the north and centre of the elephant range (mainly in the Hombori, Gossi & Inadiatafane poaching/conflict hotspots) implementing the model developed in a previous DI project that involved resource mapping, determining the structures and rules of resource use; in the context of the importance of community solidarity to fight the insecurity and elephant protection.

A 3-day meeting for 90 community leaders and representatives was held to discuss CBNRM and its relationship to the challenges in the area. Two training workshops were facilitated for the communities of Tara, Tinkaneye & Tintabakat (3 days, 46 participants) and Daka Kouko, Douni, Kigna, Daribangui and Fargabangou (4 days, 109 participants). In February 2017 additional training and support to form local CBNRM and habitat protection conventions was provided to the latter communities (see examples of community resource maps in annexe). 46 eco-guardians from the vicinity of these communities were also trained to take part in and monitor CBNRM and elephant monitoring activities and 56 built 28km fire-breaks this year.

Activity 2.2. Workshops for Banzena communities to restore the pre-conflict situation at Banzena are associated with the provision of a well at Tinsabara/Mayfata and are scheduled to take place in May-June 2017.

Activity 2.3. Workshops for foresters in working with the communities – This is not funded by Darwin but supports the DI project. Throughout all anti-poaching training activities an emphasis

has been placed upon the importance of working with local communities sensitively and effectively. The unit (fully operational since February 2017) includes a medic who administers health support to local people who had not received any health care for years and gathers important information about the status of natural resource use, the movements of elephants and any poaching-related activity. As a result, the APU has been called “l’armée gentille” (kind army) and provided an additional incentive for protecting the elephants and their habitats.

Output 3: Women’s associations created to manage and nurture non-timber forest products (NTFPs) in four test zones, thereby developing a model for sustainable revenue-generation from forest resources.

Activities 3.1 and 3.2. Preliminary meetings to discuss options for additional income- generating initiatives and provide initial training were held as shown in the chart below. Tools, enclosure materials and other items and training necessary for harvesting livestock fodder were provided in August and September for the Banzena and Kazey-Kazey test zones, and February for Wami-Masi. Activities in the Wami-Masi area were began later than the other test zones due to the social divisions created by a government proposal to sink a well in the area, however this idea was eventually dropped as the project suggested the Banzena relocation area would be a better place for the well.

At least 543 women participated although the establishment of these was delayed due to funding delays. 8 initiatives were established in four test zones:

The community eco-guardians have supported the activities of the women’s associations by assisting with manual labour and monitoring sustainable use zone. Training workshops covered technical aspects, financial management, record keeping and project monitoring.

Test zone	Communities involved	date of meetings	# women	Activity	date of training	# trained	# days	# eco-guardians
Banzena	Daroma, Sartatane	April	32	Sustainable harvest zones for dry season livestock fodder	Aug, Sept	102	6	32
Forested zone north of Porte des Elephants	N’gaw N’gaw	May, August	280	Vetiver restoration and harvesting				30
Kazey-Kazey	Kerwal, Tassouawat	June	To check	Gum Arabic (Commiphora) harvesting; sustainable harvest zones dry season livestock fodder	Sept	43	3	80
Wami-Masi	Douni, Bandja, Masi	February	231	sustainable harvest zones for dry season livestock fodder	Feb	231	3	85

Activity 3.3. In May 2016 training was provided to five field surveyors who are responsible for monitoring the performance of the women’s associations. Data are due to be collected in mid-May 2017

Output 4: Habitat, elephant and biodiversity loss and degradation are halted and reversed at four test sites.

Activity 4.1. Livestock and people surveys at Lake Banzena. - The livestock surveys could not be completed as planned at the end of the dry season (May-June) in year 1 due to the delay in receiving funds. 12 community eco-guardians were trained and visited Lake Banzena in March 2017 to attempt a baseline count of livestock numbers for Y1 but the vast and unprecedented number of livestock (over 75,000) made it impossible and the project is looking at alternative ways of measuring livestock using satellite imagery. See also outcome 2 and output 1

Activity 4.2. Tree-cutting and rodent surveys in four test-zones. Rodent track surveys have been replaced by point counts to monitor bird abundance and sticky trap surveys to monitor abundance of aerial invertebrates. Tree cutting surveys have been completed in a test zone and an adjacent control. Preliminary results reveal extensive forest degradation in unprotected elephant habitat. In the Inani forest surveyors recorded 2028 cut trees / km in comparison to the protected N’gaw-N’gaw forest where they recorded 1.25 cut trees / km (see photos in annexe).

Activity 4.3. Insect and bird abundance as indicators of biodiversity in four test-zones and control sites carried out at same time as tree cutting surveys (baseline tbd at beginning of project) - A “W” transect approach was used (refer to field monitoring manual, in annexe) at the test site and control. The results are currently being analysed but preliminary findings suggest no difference between protected and unprotected forests with respect to bird abundance. Future surveys will be repeated in the same locations as the baseline surveys.

Activity 4.4. Maintenance of database recording elephant killings (MIKE data) - the database is updated on a continuous basis and reports produced monthly, together with monthly reports of elephant GPS locations (and numbers) and security updates.

Output 5: Research outputs developed and shared with target audiences.

Activity 5.1. 9 reports and briefings to government and partners (written and oral) , a red alert (that resulted in a Presidential Directive to government), a focus-paper for the Ministerial workshop on elephant conservation; a budgeted and programmed 5 year plan; a draft of the FAMa-DNEF protocol and a 3-page concept/proposal on community engagement work required to secure the whole Gourma. Baseline = 3. MoV: Project reports, briefing papers, photos.

Activity 5.2. 6 blog/newsletter updates (target = 4 times per year) MoV:
<http://www.wild.org/category/blog/mali-elephants-blog/> See annexe for details

Activity 5.3. Papers in planning stages – “*Citizen science in a war zone: linking elephant presence data derived from community monitoring to surface water availability and vegetation productivity.*” We are also investigating the use of VHR imagery to count elephants and livestock as part of the development of a remote monitoring strategy to be used in conflict zones where conventional methods are not feasible.

Activity 5.4. Conference presentations and general talks (at least two per year). 11 presentations (target = 2).

In addition 1 article, 2 book chapters; and 1 monitoring manual were produced (see annexe for details).

3.2 Progress towards project Outputs

Output 1. Revision of existing “Partial Elephant Reserve” text and boundaries re-drawn to cover the whole of the elephant range with Lake Banzena as a core protection zone. Legislation gives government foresters the authority to help the people of the elephant range enforce existing CBNRM conventions throughout the elephant range.

After a preliminary meeting with community leaders in April 2016, further progress on this output has been delayed to Y2, see ss 3.1 and 3.3.

Output 2: Training provided to improve capacity in habitat protection, natural resources management and benefit sharing.

Progress, 2016-17: From a baseline of zero, at least 245 people in 8 of the worst performing communities in the north and centre of the elephant range were engaged in CBNRM as recorded by project reports, photographs and community resource maps (see annexe). These systems have been proved to generate benefits. Additional evidence could include measures of CBNRM activity such as eco-guard activity and firebreaks. The former is difficult to gather in a systematic way as the vast majority are illiterate and have no experience of record keeping, however 83km of fire-breaks were built by 168 eco-guards. The ultimate evidence would be restored habitat (from longer term monitoring) and improved livelihoods from socio-economic survey however this would require focusing effort on a smaller area and detract from the need to spread these systems as widely as possible, as soon as possible to deal with the current situation, and is creating a strong foundation for when security improves. The more detailed monitoring of test sites in output 3 is aimed to measure the benefits of CBNRM more finely.

The meetings at Banzena are scheduled for May-June 2017

From a baseline of zero, the new 50-strong anti-poaching unit has been operational since February 2017 and trained to work closely and harmoniously with local communities (see above).

Output 3: Women's associations created to manage and nurture NTFPs in four test zones, thereby developing a model for sustainable revenue-generation from forest resources.

From a baseline of zero there are 8 women's associations created in four test zones, initially involving at least 543 women supported by 247eco-guardians, as recorded by project reports, databases and photos (see annexe). Impact data will be available in May 2017 and it will be possible to assess the adequacy of indicators selected. The popularity of this activity meant that additional funds were raised to support a further 7 associations in areas of high poaching risk.

Output 4: Habitat, elephant and biodiversity loss and degradation halted and reversed at four test sites.

Monitoring livestock pressure at Lake Banzena has proved impossible (see above).

A monitoring program for impact on biodiversity and habitats was developed, but activities were delayed by the delay in funds and additional effort required to cope with a deteriorating security situation. Discussion with the local team concluded that two test sites could be monitored along with an adjacent control site for each. They were conducted in just one of the test sites and one control site in March 2017. The data are currently being analysed but preliminary results are recorded above.

The poaching rate has been reduced by 42% compared to the same period in 2015-16. In 2016-17, 44 elephants have been killed by poachers (3.67±4.92 / month). From April-September only 9 elephants were killed before a sudden escalation in October when 35 elephants were killed in the next 4 months. Since the APU became fully operational in February no elephants have been killed by poachers.

Output 5: Research outputs developed and shared with target audiences: local and national stakeholders/ communities; DNEF foresters and officials; local, regional and national government; international conservation and development community.

The last year has been particularly challenging for the reasons described in section 11. As a result the project has been very much more active than anticipated in producing documents and briefings for government and partners, and always tries to take advantages of any opportunities to deliver presentations. See section 3.1 and annexe for details

3.3 Progress towards the project Outcome

Outcome: Deeper deployment of locally adapted sustainable resource management that protects habitats, elephants and biodiversity, enhances local livelihoods and well-being, with a focus on four critical zones in the Malian Gourma.

Indicator 1: Rather than monitor just 52 communities to assess the relative progress in CBNRM, the project is in the process of compiling a database that includes all villages and "fractions" identified by the census in the elephant range and using this to monitor activities in each and level of CBNRM. This is a larger undertaking but is deemed more rigorous. The first draft of the database should be ready by the next half-year report.

Indicator 2: Activity related to restoring the pre-conflict situation at Lake Banzena (lynch-pin of elephant migration) has been delayed (see s.11) apart from CBNRM and income-generating activities with some of the communities covered in outputs 2 and 3.

Livestock numbers at the lake have increased to an extent (> 75,000) that it was impossible to count them. This is thought to be due to ongoing armed conflict on the Mali-Mauritania border exacerbated by the lack of rainfall in these areas last year. This has caused reduced water availability and quality and serious degradation to the surrounding pasture and woodlands.

Local clans are very concerned: “*I am 67 years old, and I have never seen so many domestic animals and foreign herders at Banzena as this year.*” In response the project has notified the DNEF that mitigation is urgently required and has proposed a number of actions to restore the pre-conflict situation (see annex) and negotiated with the government to sink a (non-sabotageable) well in the relocations zone and with MINUSMA to repair the dam at Lake Gossi to restore its water levels. The project is investigating the use of VHR imagery to monitor livestock numbers around Banzena.

Indicator 3: The data are due in May 2017; however the women’s income generation schemes have proved to be very popular. The project secured additional funding to launch an additional 7 on top of the 8 originally foreseen to target poaching hotspots. MoV: project reports, photos

Indicator 4: Preliminary results monitoring tree cutting have revealed extensive forest degradation in unprotected elephant habitats such as the Inani forest where surveyors recorded 2028 cut trees / km in comparison to a forest near N’gaw-N’gaw which is protected under a local convention where they recorded 1.25 cut trees / km. MoV: survey datasheets, photos

Indicator 5: See log-frame.

Indicator 6: Elephant poaching has been reduced by 42% compared to the same period in 2015-16 (April – March). from a baseline of 76/year in 2015-16 to 44/year in 2016-17. MoV: Elephant mortality and poaching database. See s.3.2.

Indicator 7: A monitoring field manual has been prepared for the field team (see annexe). A remote monitoring strategy is currently under development (e.g. VHR imagery for counting livestock and elephants at Banzena; satellite data for habitat monitoring) to overcome some of the difficulties of monitoring in a conflict zone. Biodiversity monitoring has been established in one key zone and control site to measure impact of CBNRM systems. MoV: Analysis of biodiversity (birds and insects) and tree cutting surveys.

3.4 Monitoring of assumptions

Assumption 1: The security situation does not deteriorate and allows the free movement of project staff and local people as well as the use of cameras and GPS without fear of attack and robbery. Comments: This is still the key assumption as decreasing security makes conducting project activities much more difficult and expensive. The project’s network of eco-guardians keeps the team updated on security risk. The team has developed a modus operandi to minimise danger.

Assumption 2: Funds/in-kind support are found to sink a well with manual pump to allow the Banzena population to relocate without fear of sabotage of water resources; plus the dam/bridge at Gossi is repaired to relieve livestock pressure on Lake Banzena. Comments: This is a key assumption for being able to restore the pre-conflict situation at Banzena. The government promised the funds for this if the project was able to cover the costs associated with the community consultation and engagement.

Assumption 3: Progress of Lake Banzena legislation text development and community engagement occurs as foreseen, with no surprise obstacles. Comments: This is still a key assumption and is linked to 1

Assumption 4: Least performing communities wish to improve their resource management. Comments: This also a key assumption although it could perhaps be rephrased as “Least performing communities wish to improve their resource management more than continue focusing their efforts on inter-clan rivalry”. It is also very much linked to 1.

Assumption 5: Markets for NTFPs remain buoyant and continue to bring in between 67% and 88% more than cutting wood for charcoal. This is an unknown, but the products can also be easily transported to markets further afield (the river towns) where the prices are higher (reflecting the cost of transport). Comments: This assumption still stands and will be tested in year 2

Assumption 6: Willingness on the part of individual households to disclose revenue. If not, calculations can be made if quantities harvested can be determined, using local market rates. Comments: This assumption still stands and will be tested in year 2

Assumption 7: Demonstrated value of NTFPs reduces tree cutting for charcoal. Comments: This assumption still stands

Assumption 8: Security situation allows free movement of project surveyors and/or eco-guardians can be trained in field survey – anti-poaching activities are aimed at increasing security situation. Comments: This assumption still stands. See comments on assumption 1. Since the anti-poaching unit was fully operational in February 2017, there have been no poaching incidents.

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

Impact statement: Social and environmental resilience is restored to the Gourma region through wise resource management that protects elephants, habitats, biodiversity and human livelihoods, enabling peaceful co-existence with humans for mutual benefit.

Despite a worsening security situation elephant poaching has decreased (see previous sections). This is clearly due to the impact of the anti-poaching unit's presence, however it is difficult to separate out quantitatively the impact of the elephant-based CBNRM. Community leaders labelling elephant poachers as thieves and deploying the eco-guards to uncover their identities clearly has a strong deterrent effect for the vast majority, and worked for 3 years (MoV poaching database) until security deteriorated further and banditry, traffickers and extremist groups flourished (MoV see annexe). Preliminary results demonstrate that wise resource management strongly prevents forest degradation. Data on other aspects of biodiversity and livelihoods are due in May-June 2017.

3.6 Contribution to the Global Goals for Sustainable Development (SDGs)

The project's work in promoting sustainable resource management and revenue generation based on that management benefits all parts of the community and contributes directly to goals 1, 2, 12, 15, and 16. Making more resources available that are of better quality improves the livelihoods of these subsistence populations and reduces their food security, while the revenue generation activities provide income, thereby contributing to reducing poverty and increasing food security within environmental limits. Not only do these practices not cause environmental degradation (see data on forest destruction) but they promote ecosystem restoration thereby combating desertification, land degradation (from previous DI grant on pasture resources) and biodiversity loss (pending results). This also contributes to improving resilience against climate change (goal 13). This model of sustainable resource management requires all parts of the community to be represented in coming together and a unity created through agreeing a common perception of the problems they face. Once this is agreed, solutions can be discussed. Transparent and accountable community structures are then created to determine and enforce rules of resource use, and the distribution of benefits, thereby promoting social cohesion (goal 16). As one eco-guard said *"when you eat around a fire after a day of working together building fire-breaks, you realise we all have the same problems"*.

Project activities contribute to goal 4 in providing training where necessary e.g. in book-keeping, project management, and technical aspects of resource management; and to goal 5 in supporting the women in creating associations for revenue generation activities. Helping the Banzena communities relocate to an area of good pasture and clean water outside the elephant range ensure availability and sustainable water management and reduction in water-borne disease for these communities (730 people in 2010) as evidenced pre-conflict, supports goal 6, as does the management of the use of water resources as part of the sustainable resource management plans. Providing the youth with an occupation as eco-guardians contributes to goal 8, as well as contributing to goal 16 in preventing radicalisation and taking up arms (MoV local community quotes). Empowering local communities to regulate the impact of "prestige" herds belonging to wealthy individuals and commercial interests from urban centres support goal 10, although this has become more difficult since the conflict.

4. Project support to the Conventions, Treaties or Agreements

The Gourma is mentioned in the National Biodiversity Strategy (adopted in 2001) as one of the four natural regions of highest biodiversity value in Mali, and this project addresses four of its

five specific programmes of work. It also addresses the key stated challenge (in the fourth and fifth national reports published in 2009 and 2014) of taking into account land-use rights of local communities. The project is supporting the implementation of the three main objectives of the CBD by conserving biodiversity (community-forester patrols and habitat protection initiatives); sustainable use (community based NRM, and habitat regeneration for fuel, pasture, and NTFPs); and equitable benefit-sharing (transparent consensus-based community structures).

The project directly contributes to helping Mali achieve Aichi targets 1, 2, 4, 5, 7, 11, 12, 14, 15, and 18. It will achieve targets 1, 2 and 4 through the tangible model of resource management that delivers benefits to local communities and national government, as well as using these results in outreach and awareness activities internationally. The project is contributing to target 5 through preventing habitat degradation, ensuring the protection of forests, lakes and pasture, and promoting habitat restoration, and to target 7 through community-devised local and inter-communal conventions enshrining sustainable resource use that prevents degradation, for example by banning practices such as abusive tree cutting, and tightly regulating resource extraction and hunting. It supports target 11 through its work in re-drafting the text of the protected area and in the creation of community protected areas, thereby contributing to the global 17% targets for terrestrial protected systems. Target 12 is supported through the prevention from extirpation of this unique elephant population, which nurtures biodiversity through its role as an umbrella and keystone species. By restoring ecosystems and preventing degradation the project improves the lives and livelihoods of local people including the provision of clean water for the communities of the Banzena area, which meant that the incidence of water-borne disease dropped dramatically, and target 14 is supported. The project is preventing forest clearance, annual burning of pasture, habitat degradation, thereby contributing to target 15; and target 18 is fulfilled because the project is founded on the effective participation of local communities and their traditional systems of resource management, which are then built on and developed to meet new challenges.

The project's work contributes to CBD Programme of work elements through integrating its community grass-roots approach with support to government frameworks so that the two mutually reinforce each other, as for example in the re-designation of the existing protected area to better serve the purposes of elephant and biodiversity conservation, and be part of integrated landscape planning and management. This will reduce the threats to any protected areas and the input required for enforcement. It promotes element 2 by supporting benefit-sharing and equity and involving the local communities in management while building capacity within government through developing a model and involving the government in the steps required (element 3). The project is also active in establishing monitoring systems to be able to scientifically assess the results of this work

The project contributes to Mali's obligations under the Convention on Migratory Species (CMS). The African elephant is listed in Appendix Two of the CMS and the West African elephant population is the subject of a MoU. By increasing the capacity for the national government and local communities to prevent further illegal elephant killings it addresses the CITES Appendix I listing.

The CBD/CITES focal point lies within DNEF and is therefore involved with all activities where appropriate, as for example, in attending the high-level workshop convened by the Minister on an action plan for elephants and the Gourma.

5. Project support to poverty alleviation

The projects hoped for impact on poverty alleviation is described in 4 above. The evidence of improved livelihoods from pasture management has been demonstrated in a previous DI project. The evidence from improved livelihoods through revenue generation activities is not available until May 7th, however the level of interest has been large. It is expected that the women of the target communities will be the greatest beneficiaries, and that this will also benefit their households. It is expected that their household income will increase. Notable achievements are that more of these projects have been launched than originally expected.

These also support the resource management activities through increasing the incentive for sustainable resource management. This improves food security through more resources being available for both humans and animals. It promotes a synergy between all sectors of the population and particularly the women and the youth, providing the latter with an occupation in

helping the women with manual labour, and therefore contributing to physical security through providing a safer occupation than joining armed groups. See section 4 for more details.

6. Project support to gender equality issues

The project's revenue generation activities are conducted by working with women through forming women's associations. This improves gender equity by providing the women with economic power and allowing them to demonstrate the superior income potential of these systems to others. The level of interest has exceeded expectations and it has proved a very effective way of supporting communities in sustainable resource management and promoting synergy with the actions of the young eco-guards (see photos of Vetiver restoration in annexe). The cycle ends on the 7th May when the impacts of these activities can be evaluated.

7. Monitoring and evaluation

The ongoing insecurity and changeable circumstances in the Gourma region require an adaptable approach to monitoring and evaluation to avoid diverting resources from critical initiatives. Immediate responses to crises (e.g. poaching; human-elephant conflict; insecurity) are often required which can delay planned monitoring activities. The Project Director monitors overall progress and plans the implementation of project initiatives through daily reports and discussions with the Field Manager. The Field Manager is supported by a small all-Malian field team led by two technicians who assist with training, logistics, community liaison and gathering field data. It is their responsibility to complete field surveys for monitoring project activities including tree-cutting and biodiversity surveys in the project test zones; livestock counts at Lake Banzena; recording human-elephant conflict incidents; and, before the anti-poaching unit was operational, recording poaching incidents. The vast area of operation means that regular reports to the field team from community members are essential and the community eco-guardians form an extensive monitoring network and often assist with field surveys. A "manual for field monitoring" (see annexe) has been drafted by the UK project team and the methods (selected based on achievability given limited resources and their suitability for potentially insecure areas) were trialled by the field team in the second half of year 1 after a training session in Bamako. The surveys (tree-cutting; bird and insect surveys; brief household surveys) were successfully completed at test sites (N'gaw-N'gaw and Inani; see annexe) and will be completed in the remaining test sites in Q1-Q2 of year 2 (please see below for explanation of delay). The field data are collated by the field team and sent by email or online data storage to the project assistant in the UK who is responsible for verifying and analysing the data and creating reports for the Project Director on a monthly basis. This regular flow of information through the chain of communication from the communities and the field team back to the UK project team enables regular assessments of project initiatives and informs short- and long-term strategic planning. Although it is sometimes difficult to quantify the impact or success of certain activities, this is an aspect of the project that has been prioritized for improvement to complement the field team's sound understanding of what actions benefit the elephants and the communities the most effectively. For example, during the survey of Lake Banzena in March, it became clear to the field team that it was impossible for them to count the livestock from the ground due to their huge numbers and widespread distribution. However, a single quote from a local clan member illustrated that the situation is grave and that action is urgently required: "*I am 67 years old, and I have never seen so many domestic animals and foreign herders at Banzena as this year.*" In an effort to provide robust evidence of the influx of livestock to Lake Banzena, and therefore stimulate action from the Malian government, the UK project team is currently implementing the use of Very High Resolution Imagery to count livestock remotely using semi-automated methods (see [LaRue et al. 2016](#)). Therefore, although project monitoring is challenging in a zone of armed conflict and insecurity, there is also a unique opportunity to demonstrate that it is possible using less conventional scientific methods and sound local knowledge.

Other issues: The delay in receiving the Darwin Initiative funds at the start of year 1 coincided with delays in receiving funds from three other grant providers. This significantly inhibited the ability of the field team to complete scheduled monitoring activities in addition to implementing planned initiatives. The escalation in poaching incidents from September also meant that the top priorities were to support anti-poaching activities and launch additional CBNRM activities in the highest risk areas (e.g. the eight communities south-east of Hombori which have been

targeted in output 2). Although some monitoring activities have been delayed, the field team have worked hard under challenging circumstances to carry out baseline field surveys which are currently being analysed and will be completed in Q1 of 2017-2018.

8. Lessons learnt

The principal lessons learned were in trying to establishing monitoring systems when it is not possible to deliver ongoing training in the field, in particular to ensure consistency in filling in all sections of monitoring datasheets for project activities. The key has been to allow the team to modify proposed data-sheets for their own use. The problem is not completely cracked but is improving

The field team members responsible for biodiversity monitoring were trained in Bamako, but as these are new activities, they needed to start with one site (which they did very well) and then progressively increase the number of sites as the activities feel more familiar.

Introducing monitoring technology has proved a huge challenge. Even a very simple system using automated text messaging proved to be impossible to implement systematically with illiterate populations although this might have been different if continual input could have been provided locally. The project wants to raise money to select the best eco-guards for professional development and monitoring will be a part of their work.

It was realised that the only way to rigorously keep track of the extent of CBNRM activities, their location and progress was to use the villages and fractions identified by the census. Even so, these do not always correspond to what are perceived as communities on the ground and so additional work is being conducted to create a master database that contains this information and allows progress to be tracked.

It is difficult to see what could be done differently given the constraints.

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

Not applicable – this the year 1 report.

10. Other comments on progress not covered elsewhere

The total absence of any interest, action or engagement from the Director of DNEF was an enormous problem and hamstrung everything: not only the progress of the re-drafting of the reserve text but also the deployment of the ranger force. DNEF is a para-military directorate and everything has to pass by the Director. This made moving forward extremely difficult and required much more effort for activities that are ultimately the responsibility of government, such as legislation and anti-poaching response. However the evaluation report of the ranger training enabled an intense learning process for the government and, together with the replacement of the Minister, led to the replacement of the Director of DNEF at the end of September, and the situation has been transformed. The recruitment of a previous Director as the project's government liaison officer has been invaluable in navigating these waters.

There has been an increase in armed attacks by jihadist groups against Malian military, government, UN, NGO and civilian personnel and equipment, particularly since September 2016 (see reports in annexe). The MEP field team remains fully operational, a testament to their commitment and skill, and closely monitors the situation on the ground.

The delayed release of funds for this grant and the new Darwin Initiative grant unfortunately coincided with substantial delays by many months in the release of funds from other funding partners (UN agencies). This unfortunate coincidence caused huge problems, as project activities risked losing momentum (and therefore requiring even more funds to re-establish) and the confidence/trust of the local people.

11. Sustainability and legacy

The project enjoys high profile in Mali, within the government, MINUSMA (*“everybody is talking about it in the mission”*), and certain embassies. Because the project works closely with government the Minister is very well briefed and the project provides a high level of technical support to the MEADD and DNEF in planning and management. In the last year the project has written 9 briefings on the insecurity and risk of poaching, and one extended red-alert to

government in February which resulted in the President issuing a directive to the government to ensure elephant protection (see section 3.1 output 5) The planned exit strategy is still the same

12. Darwin identity

The project includes the Darwin Initiative logo on documents related to activities funded by the Darwin Initiative and always includes the logo in all presentations. In articles a link is always included to a web-site of project funders of which the Darwin Initiative is one of the most prominent (<http://www.wild.org/mali-elephants/partners/>).. The British Embassy has demonstrated within Mali the interest and support of the British Government and local partners refer to “l’oiseau”. This has attracted attention as until recently British engagement in Mali has been very low. Project personnel are working flat out given the challenges presented by this area, however the WILD Foundation’s communications director could be asked to publicise the Darwin Initiative more on social media.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2016 – 31 March 2017)

Project spend (indicative) since last annual report	2016/17 Grant (£)	2016/17 Total 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				

Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2016-2017

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
<p>Impact</p> <p>Social and environmental resilience is restored to the Gourma region, through wise resource management that protects elephants, habitats, biodiversity and human livelihoods, enabling peaceful co-existence with humans for mutual benefit.</p>		<p>Despite a worsening security situation elephant poaching has decreased and preliminary results suggest that wise resource management strongly prevents forest loss and degradation. Data on the livelihood impact of income-generation schemes conducted by the women's associations will be collected in Y2 Q1. The project is providing briefings, concepts, plans and proposals for government and partners to scale up impact.</p>	
<p>Outcome</p> <p>Deeper deployment of locally adapted sustainable resource management that protects habitats, elephants and biodiversity, enhances local livelihoods and well-being, with a focus on four critical zones in the Malian Gourma.</p>	<ol style="list-style-type: none"> 1 The relative progress in CBNRM by 52 communities representing 24,700 people across the elephant range increased as measured by their advancement through the 5 levels of management quality, with the 8 least cohesive and least performing communities (580 households) in the poaching hotspots rising at least one level in implementation of resource management systems (baseline = 1), and improves level of social cohesion among brigades, raising social cohesion score by one category (baseline = 1). Area covered to be determined at start of project. 2 Pre-conflict situation re-established at Lake Banzena (lynch-pin of elephant migration) by April 2018, indicated by: <ul style="list-style-type: none"> • Zero human presence 	<ol style="list-style-type: none"> 1. Rather than monitoring 52 communities the CBNRM database will be based upon villages and fractions identified in the national census as a more rigorous way of estimating impact (numbers of people and households) and tracking progress across the elephant range <i>Issues:</i> The level of insecurity in key parts of the elephant range creates difficulties for the field team to visit certain communities. Local perception of communities often group places identified in the census. 2. <i>Progress & Issues:</i> The process of restoring the pre-conflict situation at Banzena has been delayed due to the reasons described in section 10 of the report: obstructive leadership of the DNEF for the first half of the year inhibiting the revision of the legal text (refer to section 2 of the HY report); the 	<ol style="list-style-type: none"> 1. The field team are currently collating the necessary data to compile the CBNRM database, taking into account the relationship between places identified in the census and local perceptions. The first draft is expected by the HY report. 2. <i>Legislation</i> - Conduct validation meetings with local communities; finalise the legislative text and pass the legislation through parliament <i>Restoration of bore-holes:</i> Conduct community consultation meetings to restore CBNRM systems and integrate the new water points into these; before

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
	<ul style="list-style-type: none"> • Proportion of women and children suffering from ill-effects of water-borne disease reduced from baseline of 54% to 25% by 2018 and 15% by 2019. • All 12 clans (approximately 730 people) have pasture at the end of the dry season; livestock fetches 30% higher prices; and revenue received from charging outsiders for access rights and sale of hay (target = £600 by April 2019) • Livestock numbers reduced at Lake Banzena and immediate hinterland from “several thousand head of cattle” in 2015 to 1,000 by April 2019. <p>3 Poverty of women reduced in four key test-zones through NTFP gathering and sale, in place of the less profitable and more destructive tree cutting for charcoal , aiming for an income of £100-£200/year per household, and establishing a model of revenue generation from protected and sustainably managed forests developed as additional and complementary to revenue generation from pasture resources.</p> <p>4 Forest degradation and loss halted, at four key zones by 2017 (baseline tbd at beginning of project).</p> <p>5 Crop destruction at the human-elephant conflict hotspot of Wami-Masi reduced to zero by April 2019</p>	<p>delay in receiving funds; a decrease in security.</p> <p><i>Current situation:</i> Livestock numbers have increased in 2016-17. causing reduced water availability and quality and serious degradation to the surrounding pasture and woodlands.</p> <p>In response the project has notified the DNEF that mitigation is urgently required and proposed a number of actions such as increasing water availability away from Banzena by restoring bore-holes and sinking a non-sabotageable well (see report in annex).</p> <p>3. <i>Progress:</i> 8 women’s associations created in the 4 test zones. Initial meetings to decide the activities undertaken; tools provided and initial training delivered (technical, book-keeping, planning and management).</p> <p>High levels of interest led to the project raising additional funds for another 7 communities</p> <p>4. <i>Progress:</i> Preliminary results of monitoring of tree cutting in one test zone and one control area suggests extensive forest degradation in unprotected elephant habitats (2028 cut trees / km) compared to the N’gaw-N’gaw forest which is protected under a local convention (1.25 cut trees / km).</p> <p>5. <i>Progress:</i> No incidents of conflict recorded at Wami-Massi. 2 deaths in Inadiatafane commune in November and 2 incidents of crop damage in Oct-Nov in Mondoro (south) and Korarou (west) communes. In response to the 2</p>	<p>repairing boreholes and sinking a well in the relocation area.</p> <p><i>Livestock monitoring:</i> see output 4</p> <p>3. Data collection in Q1 and analysis to determine livelihood impacts. Continued monitoring and support as necessary.</p> <p>4. <i>Monitoring:</i> The baseline information gathered in the last half of 2016-17 is currently being analysed and will be summarised during Q1-Q2 of 2017-18.</p> <p>5. <i>Monitoring:</i> Continued monitoring of HEC, and awareness raising of how to live peaceably with elephants</p>

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
	<p>from a baseline of 5 incidents/year.</p> <p>6 Reduced elephant poaching from a baseline of 57/year in 2015 to 6/year in 2019. <u>Corrected baseline: Apr 2015-Mar 2016 = 76 elephants poached (6.33±7.91 / month).</u></p> <p>7 Biodiversity monitoring established in 4 key zones and controls to measure impact of CBNRM systems.</p>	<p>fatalities the project launched a 3 month awareness campaign about how to live peaceably with elephants and several communities requested help to establish elephant-based CBNRM..</p> <p><i>Issues:</i> Poaching has pushed the elephants into areas where people are not used to them which has created a new dimension of HEC in the Gourma.</p> <p>6. <i>Progress:</i> The poaching rate has been reduced by 42% compared to the same period in 2015-16. In 2016-17, 44 elephants have been killed by poachers (3.67±4.92 / month). From April-September only 9 elephants were killed before a sudden escalation in October when 35 elephants were killed in the next 4 months. Since the APU became fully operational in February no elephants have been killed by poachers.</p> <p>7. <i>Progress:</i> A field monitoring manual has been produced (see annex) and the field team have successfully completed surveys of tree-cutting and bird and insect abundance at one test site and one control (see output 4 below).</p> <p><i>Issues:</i> This activity could not be carried out as scheduled due to funding delays which placed an unexpected additional burden on the field team at the same time as the level of security deteriorated and poaching increased. However, in Q4 initial surveys were completed.</p>	<p>6. The project will continue its two-pronged approach of (a) elephant-based CBNRM and (b) supporting “intelligent” anti-poaching that supports local communities.</p> <p>7. Surveys at additional test sites are planned for Y2 Q1-Q2. Field methods will be adapted as necessary depending on logistics and security.</p> <p>The project team are currently investigating the use of remote sensing methods to reduce the monitoring burden on the field team, particularly given the fluctuating levels of insecurity. Examples include counting livestock using VHR imagery; camera traps to monitor biodiversity (if security allows); and monitoring of key habitats with satellite imagery.</p>
Output 1. Revision of existing “Partial Elephant Reserve” text and boundaries	1.1. Legislative text validated at local level through community meetings	1.1. Initial meetings were held in April with 18 traditional community leaders of the 12 clans surrounding Lake Banzena (15 men and 3 women). Other communities	

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
re-drawn to cover the whole of the elephant range with Lake Banzena as a core protection zone. Legislation gives government foresters the authority to help the people of the elephant range (population = 165,650) enforce existing CBNRM conventions throughout the elephant range.	<p>throughout the elephant range (draft text developed prior to the project start date).</p> <p>1.2. Legislation passed and enters law by end of year 2.</p> <p>1.3. Communities aware of provisions within the legislation through a series of meetings with government, DNEF, local community leaders (elected and traditional) in every commune.</p> <p>1.4. Radio emissions to inform population and transhumants of the zone.</p>	<p>in the area (Daroma, Sartatane, Tinhabou) were also engaged in CBNRM and additional income-generating initiatives (see outputs 2 & 3) to start the process of reducing pressure on key elephant habitats.</p> <p>1.2.-1.4. Activities delayed until end of Year 2 - change request approved in October 2016.</p> <p><i>Actions required:</i> The MEP team to work with DNEF to finalise the legislative text during year 2; hold consultative meetings with the local communities in preparation for the creation of a new well and the new legislation (May-June 2017); present the new legislation for passage through parliament; monitor the situation at Banzena (see output 4)</p>	
Activity 1.1. Local community validation meetings		See 1.1 above. Additional stakeholder meetings will be facilitated by the project during year 2	
Activity 1.2. Text finalised		Activity delayed until end of Year 2 - change request approved in October 2016.	
Activity 1.3. Text passed through Parliament and enters law		Activity delayed until end of Year 2 - change request approved in October 2016.	
Activity 1.4. Community meetings in each commune to ensure that all are aware of the new protected area and its provisions		Activity delayed until end of Year 2 - change request approved in October 2016.	
Output 2. Training provided to improve capacity in habitat protection, natural resources management and benefit sharing.	<p>2.1 Workshops and training for:320 people from 8 least performing communities in key poaching areas</p> <p>2.2 Representatives from 12 clans (at least 48 people) occupying Lake Banzena to re-establish pre-conflict NRM systems</p> <p>2.3. 50 new DNEF foresters trained in working with community RM structures</p>	<p>2.1. <i>Progress:</i> From a baseline of zero >10 days of CBNRM workshops were attended by >245 people in the 8 worst performing communities in the north and centre of the elephant range in the Hombori, Gossi & Inadiatafane poaching/conflict hotspots (see map).</p> <p>2.2 <i>Progress:</i> these workshops are scheduled for May-June 2017</p> <p>2.3. NOT FUNDED BY DI <i>Progress:</i> 17 days of training for the new 36-strong anti-poaching unit in how to work with local communities (details in the activities below) plus 2 days human rights training. They have been called "l'armee gentile" (the kind army) by local people.</p>	
Activity 2.1. Workshops for least performing communities		<ul style="list-style-type: none"> • A 3-day meeting with 90 community leaders to discuss CBNRM and its relationship to current community challenges. • Training workshops for the communities of: <ul style="list-style-type: none"> • Tara, Tinkaneye & Tintabakat (3 days, 46 participants) 	

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period															
		<ul style="list-style-type: none"> Daka Kouko, Douni, Kigna, Daribangui and Fargabangou (4 days, 109 participants). Douni, Bandja, Massi and Daka Kouko (days and participants TBD) 46 eco-guardians from the vicinity of these communities were also trained in CBNRM and elephant monitoring, and 56 built 28km fire-breaks this year. <p>Action: continued monitoring and input where necessary</p>																
Activity 2.2. Workshops for Banzena communities		Progress: Meetings to restore the pre-conflict situation at Banzena are associated with the provision of a well at Tinsabara/Mayfata and are scheduled to take place in May-June 2017. See related outputs 1, 3 and 4.																
Activity 2.3. Workshops for foresters in working with the communities		Progress: Refer to indicator 2.2 above.																
<p>Output 3. Women's associations created to manage and nurture NTFPs in the four test zones, thereby developing a model for sustainable revenue-generation from forest resources. The zones are:</p> <ul style="list-style-type: none"> Banzena/Tinsabara – supporting the solution to secure Lake Banzena for elephant use only. 161 households. Gogoro – forested area north of the Porte des Elephants where elephant collect for a month before passing south, under threat of clearance. 74 households Wami-Masi – highest human-elephant conflict due to gardens tended by women on cleared elephant habitat. 85 households Kazey-Kazey – the most advanced community in the management/ revenue-generation from pastoral resources. 75 households 	<p>3.1. Number of women attending the three NRM and training meetings a year for the active women of 394 households in the four test zones (20% i.e. 78 households engaged in year 1 rising to 50% ie 197 households by year 3). Area covered to be determined participatively at the beginning of the project).</p> <p>3.2 Number of women's associations created to gather and market NTFPs (4 in year 1 rising to 12 by end of year 3).</p>	<p>3.1. & 3.2 At least 543 women participating in additional income generating activities based on wise resource use. Eight initiatives established in 4 test zones. The establishment of these was delayed due to funding delays and results from the first "cycle" will be collected in mid-May 2017. These are supported by 227 community eco-guardians who provide manual labour and monitoring sustainable use zones. Additional funds raised to establish another 7 associations to meet demand in the Adiora zone, a poaching hotspot and high insecurity (see map)</p>																
Activity 3.1. Preliminary meetings held with interested women from four test-zones; associations formed			<table border="1"> <thead> <tr> <th>Test zone</th> <th>Communities involved</th> <th>date of meetings</th> <th># women</th> <th>Activity</th> </tr> </thead> <tbody> <tr> <td>Banzena</td> <td>Daroma, Sartatane</td> <td>April</td> <td>32</td> <td>Sustainable harvest zones for dry season livestock fodder</td> </tr> <tr> <td>Forested zone north of Porte des</td> <td>N'gaw N'gaw</td> <td>May, August</td> <td>280</td> <td>Vetiver restoration and harvesting</td> </tr> </tbody> </table>	Test zone	Communities involved	date of meetings	# women	Activity	Banzena	Daroma, Sartatane	April	32	Sustainable harvest zones for dry season livestock fodder	Forested zone north of Porte des	N'gaw N'gaw	May, August	280	Vetiver restoration and harvesting
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Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017			Actions required/planned for next period																												
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Activity 3.2. Meetings and training workshops for the women's associations.		<table border="1" data-bbox="1102 647 2065 967"> <thead> <tr> <th data-bbox="1102 647 1352 719">Test zone</th> <th data-bbox="1352 647 1563 719">Communities involved</th> <th data-bbox="1563 647 1693 719">date of training</th> <th data-bbox="1693 647 1809 719"># trained</th> <th data-bbox="1809 647 1921 719">#days</th> <th data-bbox="1921 647 2065 719"># eco-guards</th> </tr> </thead> <tbody> <tr> <td data-bbox="1102 719 1352 759">Banzena</td> <td data-bbox="1352 719 1563 759">Daroma, Sartatane</td> <td data-bbox="1563 719 1693 759"></td> <td data-bbox="1693 719 1809 759"></td> <td data-bbox="1809 719 1921 759"></td> <td data-bbox="1921 719 2065 759">32</td> </tr> <tr> <td data-bbox="1102 759 1352 831">Forested zone north of Porte des Elephants</td> <td data-bbox="1352 759 1563 831">N'gaw N'gaw</td> <td data-bbox="1563 759 1693 831">Aug, Sept</td> <td data-bbox="1693 759 1809 831">102</td> <td data-bbox="1809 759 1921 831">6</td> <td data-bbox="1921 759 2065 831">30</td> </tr> <tr> <td data-bbox="1102 831 1352 903">Kazey-Kazey</td> <td data-bbox="1352 831 1563 903">Kerwal, Tassouawat</td> <td data-bbox="1563 831 1693 903">Sept</td> <td data-bbox="1693 831 1809 903">43</td> <td data-bbox="1809 831 1921 903">3</td> <td data-bbox="1921 831 2065 903">80</td> </tr> <tr> <td data-bbox="1102 903 1352 967">Wami-Massi</td> <td data-bbox="1352 903 1563 967">Douni, Bandja, Massi</td> <td data-bbox="1563 903 1693 967">Feb</td> <td data-bbox="1693 903 1809 967">231</td> <td data-bbox="1809 903 1921 967">3</td> <td data-bbox="1921 903 2065 967">85</td> </tr> </tbody> </table>	Test zone	Communities involved	date of training	# trained	#days	# eco-guards	Banzena	Daroma, Sartatane				32	Forested zone north of Porte des Elephants	N'gaw N'gaw	Aug, Sept	102	6	30	Kazey-Kazey	Kerwal, Tassouawat	Sept	43	3	80	Wami-Massi	Douni, Bandja, Massi	Feb	231	3	85	<p data-bbox="1102 1015 1767 1046"><i>Action:</i> continued monitoring and input where necessary</p>
Test zone	Communities involved	date of training	# trained	#days	# eco-guards																												
Banzena	Daroma, Sartatane				32																												
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Activity 3.3. Monitoring of revenue received from NTFPs.		<p data-bbox="1102 1062 2065 1126">In May 2016 training was provided to five field surveyors who are responsible for monitoring the performance of the women's associations.</p> <p data-bbox="1102 1142 1850 1174"><i>Action:</i> Performance data to be collected during Q1 of 2017-18.</p>																															
<p data-bbox="109 1190 562 1286">Output 4. Habitat, elephant and biodiversity loss and degradation halted and reversed [at four test sites]</p>	<p data-bbox="607 1190 1021 1254">4.1. Livestock pressure reduced at Lake Banzena.</p> <p data-bbox="607 1270 1066 1457">4.2. Tree cutting in four test zones reduced compared to 4 adjacent control zones. Control zones will also determine the degree to which wood cutting has been displaced to adjacent areas. (Baseline areas to be</p>	<p data-bbox="1102 1190 2065 1377">4.1. No progress has been possible on this during Y1 due to the problems identified in s 11 of the main report coupled with lack of rainfall on the Mali-Mauritanian border coinciding with armed conflict in these areas. However negotiating with the government to provide a well in the relocation zone plus a change in personnel in the DNEF/MEADD will allow this process to move forward in Y2.</p> <p data-bbox="1102 1409 2065 1465">4.2. <i>Progress:</i> A tree cutting survey in a women's association test zone and control site revealed extensive forest degradation in unprotected elephant</p>																															

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
	<p>determined participatively at beginning of project, and baseline level of tree cutting also to be determined at beginning of project).</p> <p>4.3. Insect and bird abundance as indicators of biodiversity in four test-zones and control sites carried out at same time as tree cutting surveys (baseline tbd at beginning of project). [modified from original through approved request]</p> <p>4.4. Project elephant mortality/poaching database. (Refer to outcome 6)</p>	<p>habitats (2028 cut trees / km in the Inani forest) compared to the N'gaw-N'gaw forest which is protected under a local convention (1.25 cut trees / km).</p> <p>4.3. <i>Progress:</i> Bird and insect abundance survey methods using a "W" transect was conducted in the same areas. The results are currently being analysed and preliminary findings indicate an encounter rate of 152-209 birds/km at test sites (no difference between protected and unprotected habitats).</p> <p>4.4. <i>Progress:</i> The poaching rate has been reduced by 42% compared to the same period in 2015-16. In 2016-17, 44 elephants have been killed by poachers (3.67±4.92 / month). From April-September only 9 elephants were killed before a sudden escalation in October when 35 elephants were killed in the next 4 months. Since the APU became fully operational in February no elephants have been killed by poachers.</p>	
Activity 4.1. Livestock and people surveys at Lake Banzena.		<p><i>Progress:</i> Funding delays meant baseline livestock surveys could not be performed in April-May 2016 (critical end of dry season period). 12 eco-guardians were trained in performing livestock counts and a survey attempted in March 2017 had to be abandoned as the numbers were too great (>75,000), a severe threat to water levels. See also outcome 2 and output 1.</p> <p>A summary report of the status of Banzena is provided in annex. Brief household surveys with the Banzena communities are due to be completed in Q1-Q2 of 2017-18.</p> <p><i>Action:</i> Alternative methods of surveying livestock at Lake Banzena are currently being investigated and include counting livestock using Very High Resolution imagery (<i>sensu</i> LaRue <i>et al.</i> 2017) and the use of the anti-poaching aircraft which is due for deployment by the Q3 of 2017-18.</p>	
Activity 4.2. Tree-cutting and biodiversity surveys in four test-zones.		<p><i>Progress:</i> Bird and insect abundance surveys and tree-cutting surveys using a "W" transect approach (see field monitoring manual in annex) have been trialled at one test site and one control site. The data are currently being analysed but preliminary findings suggest that forests under CBNRM are significantly protected compared to those not under CBNRM (see photos in annex), but that bird abundance does not appear to be different at an encounter rate of 152-209 birds/km</p> <p><i>Action:</i> Surveys at additional test locations will be completed in Y2</p>	
Activity 4.3. Maintenance of database recording elephant killings (MIKE data).		<p><i>Progress:</i> The elephant poaching and natural mortality databases are maintained as new incidents are reported from the field and monthly reports provided (together with monthly reports on elephant locations and numbers where known).</p>	

Project summary	Measurable Indicators	Progress and Achievements April 2016 - March 2017	Actions required/planned for next period
		<p>This information is shared with the DNEF.</p> <p><i>Action:</i> The APU is currently being trained to record all necessary data to meet MIKE protocols on carcass recording as well as necessary skills for gathering, recording and analysing evidence from poaching scenes and intelligence reports.</p>	
<p>Output 5. Research outputs developed and shared with target audiences: local and national stakeholders/ communities; DNEF foresters and officials; local, regional and national government; international conservation and development community.</p>	<p>5.1. Briefing reports about project progress presented orally at least three times per year at meetings with local, regional and national government representatives; and to project partners bi-annually.</p> <p>5.2. Newsletter (at least 4 times per year) and blog updates (via the Mali Elephant Project website and Nat Geo blog) about project developments to reach the wider international community.</p> <p>5.3. Two journal papers submitted by end year 3 (both open access).</p> <p>5.4. Conference presentations and general talks (at least two per year).</p>	<p>The last year has been particularly challenging for the reasons described in section 10 of the main report. As a result the project has been very much more active than anticipated in producing alerts and briefing reports.</p> <p>In addition there has been 1 article, 2 book chapters and a monitoring manual for the field team</p> <p>See activities below and annex for details</p>	
<p>Activity 5.1. Briefing reports to government and partners.</p>		<p><i>Progress:</i> 9 government reports and briefings, 1 red alert, a focus paper, a budgeted and programmed 5 year plan for elephants, the first draft of the multi-agency protocol, a concept paper on community engagement work required for the whole Gourma. These have also been shared with project partners in Mali</p> <p><i>Action:</i> Continue to provide data and documentation as required to ensure the agenda is moved forward within government</p>	
<p>Activity 5.2. Newsletter, blog updates, articles, talks and conference presentations</p>		<p><i>Progress:</i> 6 newsletter/blog updates and 11 presentations and talks</p> <p><i>Action:</i> Continue to communicate as possible and where opportunities arise</p>	
<p>Activity 5.3. Journal papers (2 submitted by project end).</p>		<p><i>Progress:</i> None</p> <p><i>Action:</i> data collection and analysis</p>	

Annex 2: Project's full current logframe as presented in the application form (unless changes have been agreed)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Impact: (Max 30 words)</p> <p>Social and environmental resilience is restored to the Gourma region, through wise resource management that protects elephants, habitats, biodiversity and human livelihoods, enabling peaceful co-existence with humans for mutual benefit.</p>			
<p>Outcome: Deeper deployment of locally adapted sustainable resource management that protects habitats, elephants and biodiversity, enhances local livelihoods and well-being, with a focus on four critical zones in the Malian Gourma.</p>	<p>1 The relative progress in CBNRM by 52 communities representing 24,700 people across the elephant range increased as measured by their advancement through the 5 levels of management quality, with the 8 least cohesive and least performing communities (580 households) in the poaching hotspots rising at least one level in implementation of resource management systems (baseline = 1), and improves level of social cohesion among brigades, raising social cohesion score by one category (baseline = 1). Area covered to be determined at start of project.</p> <p>2 Pre-conflict situation re-established at Lake Banzena (lynch-pin of elephant migration) by April 2018, indicated by:</p> <ul style="list-style-type: none"> • Zero human presence • Proportion of women and children suffering from ill-effects of water-borne disease reduced from baseline of 54% to 25% by 2018 and 15% by 2019. • All 12 clans (approximately 730 people) have pasture at the end of the dry season; livestock fetches 30% higher prices; and revenue received from charging outsiders for access rights and sale of hay (target = £600 by April 2019) • Livestock numbers reduced at Lake Banzena and immediate hinterland from “several thousand head of cattle” in 2015 to 1,000 by April 2019 <p>3 Poverty of women reduced in four key test-zones</p>	<p>1 Project database and maps showing the location and recording relative level of CBNRM quality in relation to the elephant migration route as measured by quantifiable indicators e.g. number of brigade members, existence of management committee, local conventions, maps, protected zones and features, resource management activity such as firebreak construction</p> <p>2 Project reports, household and revenue survey (2018 and 2019) and field surveys (Jan-July each year for people and cattle), photos and databases</p> <p>3 Revenue records held by associations</p>	<p>The security situation does not deteriorate and allows the free movement of project staff and local people as well as the use of cameras and GPS without fear of attack and robbery.</p> <p>Hypothesis to test:</p> <ul style="list-style-type: none"> • Legislation provides added incentive for local communities to adopt NRM systems and embrace additional income generation activities demonstrated by the project with test communities, particularly by the least cohesive societies. • Increased NRM improves the level of social cohesion in the least cohesive communities <p>Funds/in-kind support are found to sink a well with manual pump to allow the Banzena population to relocate without fear of sabotage of water resources; plus the dam/bridge at Gossi is repaired to relieve livestock pressure on Lake Banzena (negotiations are underway with USAID and AFRICOM).</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>through NTFP gathering and sale, in place of the less profitable and more destructive tree cutting for charcoal , aiming for an income of £100-£200/year per household, and establishing a model of revenue generation from protected and sustainably managed forests developed as additional and complementary to revenue generation from pasture resources.</p> <p>4 Forest degradation and loss halted, at four key zones by 2017 (baseline tbd at beginning of project)</p> <p>5 Crop destruction at the human-elephant conflict hotspot of Wami-Masi reduced to zero by April 2019 from a baseline of 5 incidents/year</p> <p>6 Reduced elephant poaching from a baseline of 57/year in 2015 to 6/year in 2019. <u>Corrected baseline: Apr 2015-Mar 2016 = 76 elephants poached (6.33±7.91 / month).</u></p> <p>7 Biodiversity monitoring established in 4 key zones and controls to measure impact of CBNRM systems</p>	<p>4 Biannual tree-cutting surveys</p> <p>5 Project reports based on data collected by project brigades</p> <p>6 Number of elephant illegally killed as registered by community brigades and DNEF records</p> <p>7 Analysis of sand trap counts (photos) at same time as forest-cutting surveys (four times per year)</p>	<p>Anti-poaching operations are covered by a separate set of activities but the community work ensures the grass-roots engagement that is crucial to the success of anti-poaching operations</p>
<p>Outputs:</p> <p>1. Revision of existing “Partial Elephant Reserve” text and boundaries re-drawn to cover the whole of the elephant range with Lake Banzena as a core protection zone. Legislation gives government foresters the authority to help the people of the elephant range (population = 165,650) enforce existing CBNRM conventions throughout the elephant range.</p>	<p>1.1. Legislative text validated at local level through community meetings throughout the elephant range (draft text developed prior to the project start date).</p> <p>1.2 Legislation passed and enters law by end of year 2.</p> <p>1.3 Communities aware of provisions within the legislation through a series of meetings with government, DNEF, local community leaders (elected and traditional) in every commune.</p> <p>1.4 Radio emissions to inform population and transhumants of the zone</p>	<p>1.1 Project reports, photographs of validation meetings</p> <p>1.2 Legal designation documents</p> <p>1.3 Project reports, photographs of information and awareness meetings</p> <p>1.4 Text and recordings</p>	<p>Progress of text development and community engagement occurs as foreseen, with no surprise obstacles</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>2. Training provided to improve capacity in habitat protection, natural resources management and benefit sharing</p>	<p>2.1 Workshops and training for: 8 320 people from 8 least performing communities in key poaching areas 9 Representatives from 12 clans (at least 48 people) occupying Lake Banzena to re-establish pre-conflict NRM systems</p> <p>2.2. 50 new DNEF foresters trained in working with community RM structures</p>	<p>4.1 – 4.2 Project reports on workshops and training courses, photos, and maps</p>	<p>Least performing communities wish to improve their resource management</p>
<p>3. Women's associations created to manage and nurture NTFPs in the four test zones, thereby developing a model for sustainable revenue-generation from forest resources. The zones are:</p> <ul style="list-style-type: none"> • Banzena/Tinsabara – supporting the solution to secure Lake Banzena for elephant use only. 161 households. • Gogoro – a key forest north of the Porte des Elephants where elephant collect for a month before passing south, under threat of clearance. 74 households • Wami-Masi – highest human-elephant conflict due to gardens tended by women on cleared elephant habitat. 85 households • Kazey-Kazey – the most advanced community in the management/ revenue-generation from pastoral resources. 75 households 	<p>3.1. Number of women attending the three NRM and training meetings a year for the active women of 394 households in the four test zones (20% i.e. 78 households engaged in year 1 rising to 50% ie 197 households by year 3). Area covered to be determined participatively at the beginning of the project)</p> <p>3.2 Number of women's associations created to gather and market NTFPs (4 in year 1 rising to 12 by end of year 3)</p>	<p>2.1 Project reports, photos and database.</p> <p>2.2. Number of women's associations registered with the project</p>	<p>Markets for NTFPs remain buoyant and continue to bring in between 67% and 88% more than cutting wood for charcoal. This is an unknown, but the products can also be easily transported to markets further afield (the river towns) where the prices are higher (reflecting the cost of transport).</p> <p>Willingness on the part of individual households to disclose revenue. If not, calculations can be made if quantities harvested can be determined, using local market rates.</p> <p>Demonstrated value of NTFPs reduces tree cutting from charcoal</p>
<p>4. Habitat, elephant and biodiversity loss and degradation halted and reversed at four test sites</p>	<p>4.1 Livestock pressure reduced at Lake Banzena</p> <p>4.2. Tree cutting in four test zones reduced</p>	<p>4.1 Monthly cattle surveys Jan-Jul each year</p> <p>4.2 Biannual tree-cutting surveys</p>	<p>Security situation allows free movement of project surveyors and/ or brigade members can be</p>

Project summary	Measurable Indicators	Means of verification	Important Assumptions
	<p>compared to 4 adjacent control zones. Control zones will also determine the degree to which wood cutting has been displaced to adjacent areas. (Baseline areas to be determined participatively at beginning of project, and baseline level of tree cutting also to be determined at beginning of project.)</p> <p>4.3. Insect and bird abundance as indicators of biodiversity in four test-zones and control sites carried out at same time as tree cutting surveys (baseline tbd at beginning of project). [modified from original through approved request]</p> <p>4.4 Project elephant mortality/poaching database</p>	<p>4.3 Sand trap data from quadrats along a degradation gradient conducted at the same time as tree cutting surveys</p> <p>4.4 see 7</p>	<p>trained in field survey – anti-poaching activities are aimed at increasing security situation</p>
<p>5. Research outputs developed and shared with target audiences: local and national stakeholders/ communities; DNEF foresters and officials; local, regional and national government; international conservation and development community.</p>	<p>5.1. Briefing reports about project progress presented orally at least three times per year at meetings with local, regional and national government representatives; and to project partners bi-annually.</p> <p>5.2. Newsletter (at least 4 times per year) and blog updates (via the Mali Elephant Project website and Nat Geo blog) about project developments to reach the wider international community.</p> <p>5.3. Two journal papers submitted by end year 3 (both open access).</p> <p>5.4. Conference presentations and general talks (at least two per year).</p>	<p>5.1. Project reports, briefing papers and photos.</p> <p>5.2 Web-links.</p> <p>5.3 Journal confirmation of receipt</p> <p>5.4 Presentation/talks & conference agenda</p>	
<p>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)</p> <p>1.1 Local community validation meetings</p> <p>1.2 Text finalised</p> <p>1.3 Text passed through Parliament and enters law</p> <p>1.4 Community meetings in each commune to ensure that all are aware of the new protected area and its provisions</p> <p>1.5 Radio emissions support community meetings and reach transhumant herders</p> <p>2.1 Workshops for least performing communities</p> <p>2.2 Workshops for Banzena communities</p> <p>2.3 Workshops for foresters in working with the communities</p>			

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<ul style="list-style-type: none"> 3.1 Preliminary meetings held with interested women from four test-zones; associations formed; and donkey and carts purchased 3.2 Meetings and training workshops for the women 3.3 Monitoring of revenue received from NTFPs 	<ul style="list-style-type: none"> 4.1 Livestock and people surveys at Lake Banzena 4.2 Tree-cutting and rodent surveys in four test-zones 4.3 Maintenance of database recording elephant killings (MIKE data) 	<ul style="list-style-type: none"> 5.1 Briefing reports to government and partners 5.2 Newsletter, blog updates, articles, talks and conference presentations 5.3 Journal papers 	

Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
6A – Number of people receiving other forms of training	667 community members received training in CBNRM implementation and activities related to women's associations for generating additional income based on wise resource use; 2 surveyors received training to monitor the income generating projects; 2 members of the field team received training in field survey methods.	71% of community members receiving training were women.	Malian	671			671	1,071
6B – number of training weeks provided	Based on training above – 31 days of training were provided ~4 weeks.	As above	Malian	4			4	12
7 – number of training materials produced to be used by host country.	Field manual for project monitoring surveys produced in French for the local field team and community eco-guardians.			1			1	2
14A – number of workshops organised to disseminate findings	6 strategic planning meetings with DNEF, Ministry of Environment and other partners			6			6	18
14B – number of	11 presentations /			11			11	24

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
conferences/ seminars attended at which findings from Darwin project were disseminated	talks were attended to disseminate project findings and future plans involving Darwin activities							
23 – value of resources raised from other sources								

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publisher s (name, city)	Available from (e.g. weblink or publisher if not available online)
Keeping the Elephants Alive	Newsletter / Blog	Susan Canney, June 2016	Female	British	WILD Foundation	http://www.wild.org/category/blog/mali-elephants-blog/
Be Part of the Solution on World Elephant Day	Newsletter / Blog	Melanie Hill, August 2016	Female	USA	WILD Foundation	As above
The Most Challenging & Dangerous Elephant Protection Operation	Newsletter / Blog	Rory Young, October 2016	Male	Zimbabwe	WILD Foundation	As above
Announcing our very own Disney Conservation Hero: Nomba Ganamé!	Newsletter / Blog	Melanie Hill, November 2016	Female	USA	WILD Foundation	As above
To Build the Happiest Communities in 2017, Put the Environment First	Newsletter / Blog	Amy Lewis, December 2016	Female	USA	WILD Foundation	As above
Tracking Mali's desert elephants near Timbuktu	Newsletter / Blog	Nigel Kuhn, Jan 2017	Male	Zimbabwe	WILD Foundation	As above
A Grassroots Battle to Save Mali's Elephants	Article & blog	Article: Susan Canney & Vance Martin Oct 2016	Female	UK	Africa R3 magazine	Article: Africa R3 magazine Blog: http://ar3blog.com/2016/12/a-grassroots-battle-to-save-

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
		Blog: Ethan Chorin				malis-elephants/
Turning the Tide in a Desert War	Media article	Oliver Tickell Jan 2017	Male	UK	Resurgence	http://www.resurgence.org/magazine/author328-oliver-tickell.html
Elephant protection – an interview with Susan Canney	Media article	Ian Mowll Oct 2016	Male	UK	Green Spirit magazine	
Chapter in: <i>Reflections of Elephants</i> by Bobby-Jo Clow	Book chapter	Clow, B	Female		Melbourne Books	http://www.melbournebooks.com.au/products/reflections-of-elephants
Chapter in: <i>Beyond enforcement: communities, governance, incentives and sustainable use in combating wildlife crime. Symposium Report.</i>	Book chapter	Dilys Roe	Female	UK	IIED	http://pubs.iied.org/G03903/

Annex 4 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	X
Is your report more than 10MB? If so, please discuss with Darwin-Projects@ltsi.co.uk about the best way to deliver the report, putting the project number in the Subject line.	N/A
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	N/A
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	