

## Darwin Initiative Main and Post Project Annual Report

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### Darwin Project Information

Project reference	24-024
Project title	Integrating Biodiversity & Elephants into Peace & Development
Host country/ies	Burma
Lead organisation	Elephant Family (EF)
Partner institution(s)	Compass Films (CF) Grow Back for Posterity – Myanmar (GBP) WCS Myanmar (WCS)
Darwin grant value	Year 2: £122,846
Start/end dates of project	1 April 2017 – 31 March 2020
Reporting period	April 2018 – March 2019, Annual Report 2
Project Leader name	Belinda Stewart-Cox, MSc, OBE
Project website/blog/Twitter	<a href="http://elephant-family.org/what-we-do/where-we-work/myanmar-burma/biodiversity-and-elephants">http://elephant-family.org/what-we-do/where-we-work/myanmar-burma/biodiversity-and-elephants</a>
Report author(s) and date	Belinda Stewart-Cox, Caitlin Melidonis, Alex Diment, Khin Myo Myo, Klaus Reisinger, Aung Myo Chit - 17th May 2019

### 1. Project rationale

As noted in our Yr1 report, over 70% of Myanmar's population still reside in rural areas and most of those villagers depend on natural resources for their subsistence including fish, bush meat, medicinal plants, bamboo and timber. With widespread poverty, no secure land tenure and little control over natural resources, there are significant barriers to maintaining a healthy ecosystem and food security.

Recent research has highlighted Myanmar's accelerating forest loss and serious declines in the distribution of endangered species. Wild elephant numbers dropped from 10,000 in the 1960s to under 2,000 by 2004. Deforestation is cited as the predominant driver of this decline<sup>1</sup>, exacerbating a situation in which elephant populations exist mostly outside protected areas<sup>2</sup>. Elephants are not only culturally and historically important in Myanmar, but as a wide-ranging species with an 'ecosystem engineering' role in forest cycles<sup>3,4</sup>, they are also an effective umbrella species for land-use planning and for ensuring connectivity in watersheds and forest blocks.

In spite of peace agreements signed with ethnic minorities and the reduced military conflict that ensued, there had been little land-use planning in Myanmar. The result is habitat loss and fragmentation caused by development projects such as dams, reservoirs, commercial agriculture, mining, land-grabbing by well-connected entrepreneurs and the migration of new settlers into forest land within the elephant range. Over 100,000 Karen refugees who were living in Thailand for decades (including many who were born there) are gradually resettling into southern and central Myanmar<sup>5</sup>, often along roads that bisect forest tracts. These people have no historical knowledge of how to co-exist with elephants. As a result, there is likely to be a rapid escalation in the number and intensity of conflicts where farmers feel vulnerable and increasingly hostile towards elephants. This poses a notable threat to the lives, livelihoods and wellbeing of people and elephants.

<sup>1</sup> Songer, M. et al. "Drivers of Change in Myanmar's Wild Elephant Distribution" *Tropical Conservation Science* Oct-Dec 2016.

<sup>2</sup> Leimgruber, Peter, et al. "Current status of Asian elephants in Myanmar." *Gajah* 35 (2011): 76-86.

<sup>3</sup> Jones, CG; Lawton, JH; Shachak, M (1994). "Organisms as ecosystem engineers". *Oikos*. 69 (3): 373–386

<sup>4</sup> Campos-Arceiz, A & Blake, S. "Megagardeners of the forest – The role of elephants in seed dispersal". *Acta Oecologica*, 2011

<sup>5</sup> <https://reliefweb.int/report/myanmar/third-group-myanmar-refugees-return-home-thailand-unhcr-support>

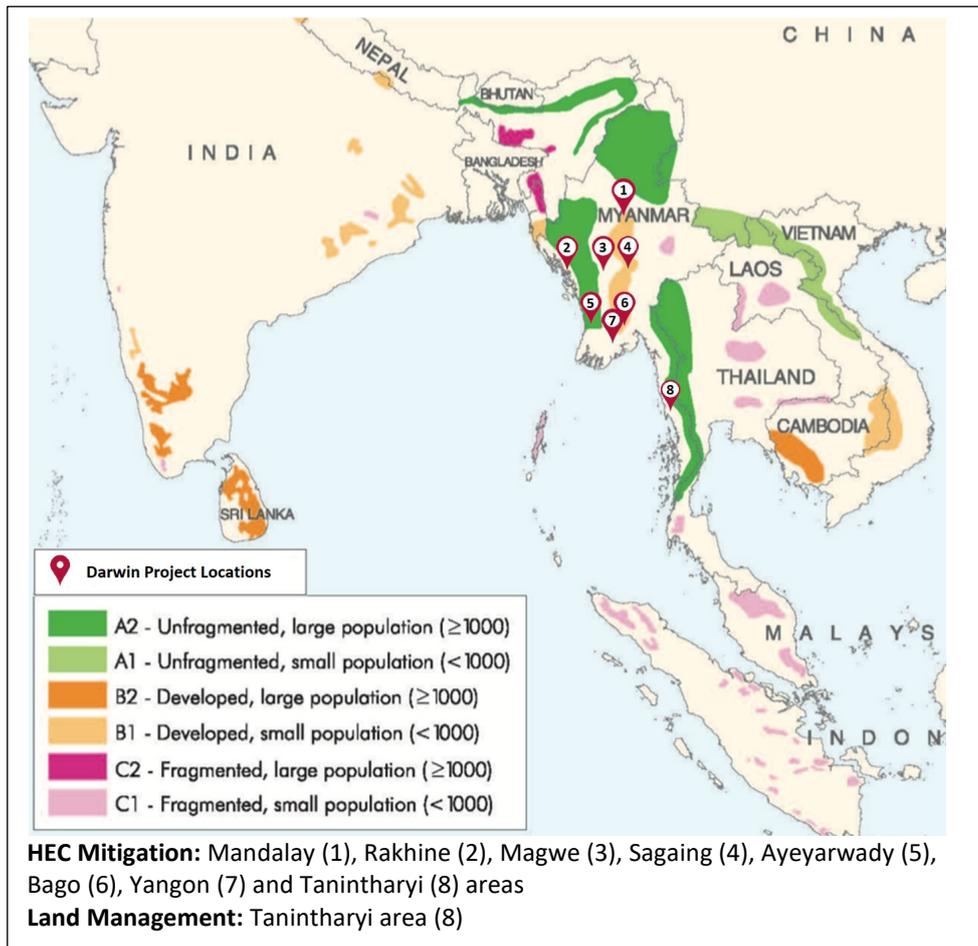


Figure 1: Darwin Project Locations across Myanmar overlaid on map showing fragmentation level of habitat and elephant population size (Leimgruber et al., 2003)

Land use policy is currently being revised in Myanmar and needs input from rural areas to ensure that effective participatory approaches are built into the legal processes. Without this, deforestation and its associated fragmentation will continue, yet more biodiversity will be lost, livelihoods will deteriorate and we will miss the opportunity to help protect Myanmar's forests and wildlife by contributing to the formulation of well-informed laws that benefit local land-users and provide working examples at a landscape scale.

## 2. Project partnerships

As noted in our project proposal and Yr1 report, Elephant Family only ever works in partnership with local people and organisations to deliver its conservation programme across Asia<sup>6</sup>. This approach was used to design the project from concept stage to final proposal, and is an essential component in its implementation.

Myanmar's conservation organisations, both local and international, need the help provided by constructive collaboration with outside partners. Many of its NGOs carry out conservation work in near isolation from other NGO's working in different locations but similar landscapes. Elephant Family recognised the value of sharing local knowledge between organisations working on the same issue so that resources and energy could be conserved and instances of 're-inventing the wheel' avoided.

The partnerships that are central to this project were conceived by Elephant Family during the first MECAP (Myanmar Elephant Conservation Action Plan) workshop to bring together the land-use planning and biodiversity monitoring expertise of WCS with a tested model for HEC<sup>7</sup> awareness and media outreach developed by Grow Back for Posterity and Compass Films. Under this project, we are also facilitating learning with NGOs in Karen National Union (KNU) controlled Karen State along the Thai border. Elephant Family

<sup>6</sup> [www.elephant-family.org](http://www.elephant-family.org)

<sup>7</sup> Human-elephant conflict

oversees the M&E part of the project and, with its partners, disseminates lessons learned both in-country and within our respective networks.

As a result of our M&E field trips this year and last when we met the project teams, listened to informative presentations, watched them at work, and got to know them and their working situation better, the partnerships have been strengthened. Every partner is responsible for planning their own part of the project, collaborating as needed, and for providing regular updates. The two in-country partners also work closely with national and local government agencies and with other stakeholders.

***Our partners:***

***WCS-Myanmar:*** has regularly engages with senior staff in the Forest Department. With an active office in Naypyidaw, committed policy-level staff and 25 years of experience working with the Myanmar government, their exchanges have proved extremely productive in shaping national policy and practice, in part because they incorporate lessons learned from field experiences. Over the last year, WCS has worked more and more closely with numerous local partners, both GO and NGO.

- Government collaborations include: The Forest Department, Tanintharyi Nature Reserve Project (TNRP), General Administration Department (GAD), Department of Agricultural Land Management and Statistics (DALMS), as well as multi-stakeholder coordination groups. Relations with the State government strengthened when the main counterpart over 3-years, the Minister for Natural Resources and Environmental Conservation, became Chief Minister of Tanintharyi.
- This year, the relationship with TNRP is also stronger as WCS was asked to join the Technical Coordination Committee, and is invited to join the Project Coordination Committee as an observer. WCS is the only entity outside the government and TNRP donors involved in this way.
- WCS also engages with a range of local CSOs<sup>8</sup>, including the Karen Development Network (KDN), Dawei Research Association (DRA), Tanintharyi Coastal Conservation Association (TCA), Tanintharyi River and Indigenous People Network (TRIPNET), TAKAPAW, and Covenant, a local NGO consortium. WCS convened one coordination meeting with these organisations, and attended two more organised by others. The WCS team has regular exchanges with these groups.
- WCS also engages with international groups, particularly those with local project teams, including the Land Core Group, OneMap, WWF, FFI, and Landesa. This year the partnership with Landesa has grown, as this group has become more closely involved in land issues in Tanintharyi. As a well-regarded international organisation, with an approach that links field experience with policy reform, Landesa is a great ally to influence the legislative and policy process.

***GBP/CF:*** Grow Back for Posterity and Compass Films have worked together since 2014 to help mitigate human-elephant conflict (HEC) under its H.EL.P (Human-Elephant Peace) project). No other local NGOs or INGOs work on HEC in GBP's target areas although WWF-Myanmar, with the Smithsonian, is monitoring collared elephants in south-west Myanmar and helping to strengthen forest patrols. This year, in targeting six divisions (Ayeyarwady, Yangon, Bago, Mandalay, Magwe, Sagaing) and one state (Rakhine), GBP has worked closely with:

- The Elephant Emergency Response Unit of the Myanmar Timber Enterprise which uses its captive elephants to encourage wild elephants away from human settlements as/when needed;
- Senior staff in the national and local offices of the Forest Department including the Forest Police, and nature and wildlife conservation.
- Relevant members of Myanmar's Department of Education in order to develop an officially recognised environmental conservation educational policy.
- Parliamentarians in each region, from the lower and upper legislative chambers, as well as local and national officials in the Department of General Administration.
- As well as supplying WCS, GBP has also provided copies of its HEC education kits to Fauna and Flora International which works in southern Tanintharyi.

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<sup>8</sup> Community Service Organisation

**Achievements:** Until Elephant Family brought these project partners together, they were not in the habit of collaborating or even of communicating. As a result, they had no familiarity with and therefore no particular regard for each other's work. But from the moment this project was conceived and designed, they have shown a remarkable ability to 'pull together' and adapt to issues that arise, turning every challenge into an opportunity. Elephant Family's role as a relationship facilitator is made much easier by the fact that every participant is keen to achieve our common aim. Its role in evaluating project progress and achievements is also easier because we, in turn, benefit from our partner's good working relations with other GO and NGO groups, providing us with easy access to them for feedback and suggestions.

**Lessons learned:** we are reminded how valuable it is to open, and then maintain, regular dialogue with and between project partners as well as with other project stakeholders. We are also reminded how much easier it is for well-resourced NGOs, usually international ones, to develop their capacity and nurture their field teams and local collaborators. Therefore, by contrast, we are also reminded how valuable it is to facilitate the development of, and strengthen, the sustainability of local NGOs as they have an equally important and complementary role to play in the long-term conservation of their country and its wild lands. They also need capacity-building and resources in order to acquire the ability to recruit and retain good staff.

### **3. Project progress**

#### **3.1 Progress in carrying out project Activities**

**Output 1: Families across the Tanintharyi area (n=5,400) are empowered & knowledgeable about bottom-up land use management processes that incorporate ecosystem functionality and local land use needs under current development plans and under likely future impacts of resettled migrants from Thailand.**

##### *Activity 1.1. Review existing land-use plans*

The WCS field team has now conducted participatory reviews of 59 land use plans this year (Yr2) (Appendix 1), all of them either inside the Myitmoethket Key Biodiversity Area, or adjoining the Tanintharyi Nature Reserve. These involved 8,249 households with 43,624 people – almost 50% more than the target number. The reviews help communities refine and implement their management plans, as well as explore the options for formalising their plans, through Permanent Forest Reserves, Community Forestry, or the new Community Protected Area designation, which is still emerging. These field-based reviews complement and build on the 48 desk-reviews that were delivered in Year 1 (Appendix 2).

##### *Activity 1.2. Complete participatory land-use planning in at least 21 additional villages*

Over the past year, WCS field teams have completed the participatory land use planning process in a further 10 villages, involving a total of 304 community representatives, in close collaboration with several government departments: The Forest Department, General Administration Department, Department of Agricultural Land Management, and Department of Land Records and Statistics, as well as support through several local CSOs, most notably the Karen Development Network (KDN). These 10 new villages have a population of 1,767 households, or 10,430 people. This brings the total number of completed bottom-up land use plans to 63 villages, across five townships, covering over 236,000 ha of community land, and supporting land designation for over 40,000 people (Appendix 2).

##### *Activity 1.3. Feed learning from local level into regional and national land-use policy reform*

After many years of work by WCS and the Forest Department, the revised Biodiversity Conservation and Protected Areas Law has finally passed into law. For the first time, this includes Local Community Protected Areas (CPAs) as a land designation, linking to the international standards for Indigenous Community Conservation Areas (ICCAs). WCS led the consultation process for the development of the detailed "Rules and Regulations" which details how the law should be applied on-the-ground. Over 800 comments were received at a series of 16 workshops around the country to support this process.

The WCS team in Tanintharyi worked closely with the Forest Department and regional government at a workshop, in Dawei, to advise on the development of the Rules and Regulations. UNDP, UNESCO, and other

conservation organisations (including WWF and Fauna and Flora International) were also involved. Three other workshops were held in other parts of the country, and over 700 public comments were received. These are now being consolidated and considered by the government, with technical support from WCS. The field-teams were able to provide feedback on their experiences of applying land use planning at local level with indigenous communities, and made recommendations on the rules and regulations for the development of Community Protected Areas. While CPAs are still at an early stage, and will need to be piloted, it is hoped that CPAs will be developed in Dawei district, as part of our broader program in the coming years.

WCS is now working with the Land Core Group in a similar consultation process for the Forestry Law which was also passed this year. WCS is also sharing its experience through other policy platforms, such as OneMap and Landesa, adding a voice to the implementation of this component, and building the base of the Land Core Group to advocate nationally.

WCS is also involved directly with policy reform at the regional level, supporting the development and consultation process for the Environmental Management Action Plan for the Tanintharyi Region which is being developed by the Environmental Conservation Department of the Ministry of Natural Resources and Environmental Conservation (MONREC). Around 120 community members have been engaged with this process (supported by WCS) as well as local CSOs, NGOs, related departments, and other key stakeholders. This policy vehicle will be important for mainstreaming land and forest issues and minimising human-wildlife conflict.

#### *Activity 1.4. Monitoring livelihoods and wellbeing, in a representative sample of target villages.*

As an integral part of the Participatory Land Use Process (PLUP), WCS field teams collect baseline data on livelihoods and wellbeing from women and men (separately and together) including seasonal resource use, perceived trends in resources, and future aspirations. During this year they collected data from an additional nine villages.

Indirectly, the WCS project team is also involved in broad-scale monitoring of trends in livelihoods and wellbeing through its engagement with larger groups, such as the Joint Peace Fund, the 'LIFT' funded project led by Covenant Consult, and indigenous representation groups, the Takapaw and Ban Chaung committees. This year, WCS got involved with the youth group of the programme for resettlement of Karen refugees. Working with the Karen Development Network (KDN) and the Tanintharyi Karen Peace Support Inference (TKPSI), it supported the quarterly Networking meeting on Livelihood Developments, which has at least 30 relevant participants. With co-funding, WCS also provided financial support for training in community forestry and agro-forestry for livelihood development. This involved 22 communities from four townships.

Using co-funding, WCS is also facilitating livelihood development, including ecotourism. For these activities, it is collecting basic data on existing and potential livelihoods, while linking with local private sector tourism operators, as well as with the Ministry of Hotels and Tourism. This involved a study tour for 11 community members from Tanintharyi to visit the Ayeyarwady Dolphin Conservation Area, and the associated Community-based Ecotourism project that WCS has been supporting since 2014.

### **Output 2: Spatial plans completed and adopted in villages in the Tanintharyi area based upon existing knowledge of important wildlife corridors and economically productive zones, available as examples and learning tools for other regions in Myanmar as well as other Asian countries.**

#### *Activity 2.1. By combining all 40 village plans into a broader landscape plan, incorporate this into district and regional development planning*

Working with the government, WCS has compiled village plans into a landscape scale plan so that they are directly considered in regional planning, even though there is as yet no mechanism for them to be formally protected by law. The Land Law revisions, in process, have been very slow since 2015. WCS has completed 63 plans which cover 8,249 households (43,624 people). These cover large continuous areas and over 270,000 ha of community land. Now there is only one key gap, in Myitta township, where WCS will focus in Year 3, assuming the security situation allows them to.

This year WCS received parallel funds from the French Development Agency (AFD) to extend land-use plans into coastal communities – including into the ocean - to work on both marine and terrestrial spatial planning with the regional government, and coordinate these plans for fisheries, mangrove, forest, watershed, river, and coastal resource mapping. This exciting development shows the important role that this Darwin project has played in supporting terrestrial mapping to reduce resource conflicts.

*Activity 2.2. Present plans to regional government for acceptance and recognition*

The WCS team presented its findings at a Karen Indigenous Workshop, an important vehicle to demonstrate and discuss progress on indigenous people's land use planning, customary tenure issues, and natural resource management. The output/findings of the consultation workshop will be provided to regional and national level planning processes for their consideration, and for incorporation into ongoing land tenure reforms. The Dawei/Myeik District secretary from the KNU, Director from the Regional Forest Department and relevant government staffs, CSOs, CBOs<sup>9</sup>, NMSP<sup>10</sup>, and INGOs were all participating, with over 100 people engaged in this consultation workshop.

WCS also held an introductory workshop on spatial planning for the Tanintharyi Coastal Resources Management Committee which is the first state/regional level committee to be established, mirroring an equivalent national group. The group includes 22 government agencies, chaired by the Chief Minister, with technical line ministries, and parliamentary members joining to support co-management of marine and mangrove forest areas, as well as coordinated spatial planning to link land-use and sea-use plans. WCS is the accredited trainer for this process, having itself been trained by a global GIZ<sup>11</sup> project to support Integrated Coastal Management and Marine Spatial Planning.

*Activity 2.3. Develop & distribute reports on the benefits of this approach for community land tenure and livelihoods.*

Recently, WCS helped create the USAID Land Tenure Reform project's guide (in Burmese & English) for Participatory Land Use Planning. This year it helped the Swiss Development Cooperation's Gulf of Motama project, and the international group Helvetas, with technical support for their participatory spatial resource planning process. It also collaborated with a new international partner, Landesa, who will be using WCS materials and models in its resource mapping work in Tanintharyi and beyond.

*Activity 2.4. Attend/support Land Core Group workshops to mainstream this approach with other local communities in Myanmar.*

This year, WCS worked with the Land Core Group and other local and national groups, including the Tanintharyi River Indigenous People Network (Trip-Net), the Mekong Region Land Governance (MRLG) and the KNU, with close involvement of the regional government. With the Land Core Group, it also worked on legislative reforms for the "Indigenous Community Conservation Areas" law – known as ICCAs in global parlance but Community Protected Areas (CPAs) in Myanmar (see 1.3 above). WCS also engaged with 36 participants at a land tenure research forum in Tanintharyi Region, led by GRET<sup>12</sup>, and attended by groups from several key KNU-held border areas (Palaw, HteeKee, and Ban Chaung)

**Output 3: Important areas of connected habitat for elephants & biodiversity intactness are identified in relevant villages in Tanintharyi so that HEC can be mitigated.**

*Activity 3.1. Local communities actively engaged with elephant movement/presence surveys & mapping*

This year, WCS undertook more interview surveys for human-elephant conflict, elephant presence/ absence and possible movements, to identify current and future hotspots around six villages. In most cases, 5-7 key informants were interviewed in each village. A further three villages were surveyed in partnership with the Tanintharyi Nature Reserve Project (TNRP).

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<sup>9</sup> Community Based Organisation

<sup>10</sup> New Mon State Party

<sup>11</sup> German Society for International Cooperation

<sup>12</sup> Professionals for Fair Development

During the outreach and land use planning reviews this year, we also conducted ad-hoc surveys of elephant presence/absence and H in 15 villages, with 2-5 informants in each village (Appendix 3).

#### *Activity 3.2. Hotspots of likely HEC under current and future scenarios identified*

Data were compiled and analysed so that the current and likely hotspots for HEC could be mapped. WCS collected habitat data from various partners, and used predictive models to identify areas of elephant occurrence and movement, based on climate, topography, and all existing landscape data. That information was then compared to existing and projected land-use changes to identify potential hotspots outside our data collection area (Appendix 3).

Government, communities, and non-specialist staff are now benefitting from the online tools that WCS has developed, including Intact Forest and Forest Connectivity Tools. These tools, together with easier access to satellite imagery, have greatly simplified access to available data.

#### *Activity 3.3. Delivery of HEC awareness/mitigation work in hotspots*

WCS completed outreach activities in 14 villages this year, with a total of 692 adults participating, as well as 967 students involved in the school programme. The WCS outreach team used education materials developed in Year 1, including an elephant board game (similar to snakes & ladders) and exercise books inspired by the training and games provided by GBP during the collaborative training workshop in year 1. GBP's teaching materials are best suited for younger primary school students whereas WCS is mostly targeting high-school and middle-school students and their teachers. (Appendix 4)

#### *Activity 3.4. Regular forest cover monitoring via GIS and remote sensing.*

The WCS team continues to monitor forest cover change, using its bespoke online tool for simple access to recent satellite monitoring data and deforestation information. This tool was completed this year and is now available for wider use (see <http://myanmar-geotools.appspot.com> for the current version). WCS expects to launch this tool publically in May 2019, in partnership with the Myanmar government.

To embed this knowledge into the local region, WCS has provided training on basic GIS for 14 trainees from local CSOs, and a more detailed training course, over a 10-day period, for 59 research students at Department of Geography of the University of Dawei.

Appendix 3 illustrates how the online tool can be used for relevant assessments, including identifying intact forest, fragmentation and connectivity issues, and land-use and land-cover changes over time. WCS has included Climate Change models into the portal so that local stakeholders can run climate models on their own areas using diverse parameters, in order to project climate impacts in the future.

#### *Activity 3.5: Team members from KNU and civil society groups, trained in HEC awareness and PLM*

A WCS team member worked with six staff from the KNU and Karen Forest Department, to share information on and discuss human-elephant conflict, and the HEC awareness programme, as well as land-use planning and community land tenure, at the KNU liaison office at Dawei. WCS also delivered a one-day training in HEC awareness to 22 rangers and staff from the Tanintharyi Nature Reserve.

**Output 4: 40 village representatives are empowered in HEC mitigation in Tanintharyi and awareness about HEC is created across all 190 villages in 5 areas such that vulnerable groups are able to co-exist peacefully with elephants and have the ability to mitigate elephant encounters**

#### *Activity 4.1. Production of educational kits for HEC awareness/mitigation*

Last year, WCS distributed 20,000 of the GBP educational kits (including DVDs, posters and memory games) in the Tanintharyi area but this year they added their own kits for middle and high school students, distributing 10-15 sets of materials (including an elephant board game) to relevant teachers in each school, as well as elephant exercise books for students. T-shirts were also awarded to the most outstanding students who fully engaged in the programme (Appendix 4).

This year, GBP distributed another 18,000 booklets, 18,000 DVDs, 11,000 board games and 2,250 posters (5ft x 4ft) (Appendix 5). More materials were needed due to a much higher demand than was anticipated, so GBP is trying to raise funds in Myanmar to print extra education materials.

**Activity 4.2. Training workshop held for new GBP educational teams and the WCS team.**

Last year the GBP team trained the WCS team in HEC educational activities, and helped put them into practice at three schools. This year, the WCS team held a 1-day in-house workshop in Dawei to evaluate project progress, plan future activities, assess outcomes to date and review its monitoring processes.

In Yr2, GBP used its WCS training budget to hold HEC workshops for political and administrative leaders in the Tanintharyi area, as well as in Dawei, as well as for some communities in Tanintharyi. These workshops were planned with the WCS team with whom it was also decided that the HEC outreach work should continue but slowly and without notable expanding the education team's capacity until it is clear that the political climate is fully stable and supportive.

Fauna & Flora International (FFI) has also asked GBP to provide thousands of its HEC education kits for its outreach team that is working in southern Tanintharyi. FFI will pay for these kits but GBP will arrange for them to be produced by its printer. In Yr 3, GBP will train the FFI outreach team in how to use them.

Following the departure of a lead educator from GBP's field team, two new team members were hired and are learning the role 'on the job', working with the remaining three educators. This hands-on training is the most effective way of maintaining the high quality of GBP's education workshops.

**Activity 4.3. Introductory workshop for teachers/headmasters to introduce campaign material.**

When GBP moves into a new area, the first step is to provide a H.EL.P educational workshop and share associated materials with regional government officials and the heads/assistant heads of schools. This is most frequently done at the obligatory monthly regional meeting for school headmasters hosted by the Ministry of Education. This facilitates initial contact with headmasters and other education officials throughout each region. In Yr2, GBP has made 500 heads/assistant heads in six divisions (Ayeyarwady, Yangon, Magwe, Dawei, Sagaing, Bago) aware of HEC although not all of them came from HEC areas.

Having experienced GBP's H.EL.P workshop, the headmasters and/or officials from villages affected by HEC then invariably ask GBP to hold one in their communities. The team then coordinates with school and village representatives to schedule the best time to visit a specific area for a week providing 1 to 2 workshops in different villages per day over that week, including at the village temple to raise awareness among local monks since they are also educators. Thousands of educational kits are distributed on each occasion. In Yr2, GBP engaged 26 heads/assistant heads, 90 teachers and 70 regional government officials. It has also held this training for 150 teachers (46 males, 104 females) at teacher training colleges.

GBP has also given presentations to senior staff at the MoE headquarters in Yangon and to 15 members of the Union government's parliamentary environmental committee in Naypyidaw. Consequently, this programme is now well known in relevant government circles.

**Activity 4.4. Hold school outreach workshops at 40 schools annually each year**

After being trained by GBP, WCS held outreach events at nine schools, involving 967 students. It also held a special outreach event for 'World Elephant Day' (12 August). This took place in middle school at Mayan Chang village near the Tanintharyi Nature Reserve, with 87 students and nine teachers participating. It was covered by local media, and widely disseminated through social media.

In the project's 2nd year, GBP held workshops in 97 villages in six regions (29 in Ayeyarwady, 29 in Yangon and Bago, 12 in Magwe, 19 in Rakhine and 8 in Mandalay) with 21,052 attendees in total (in 59 villages, workshops were held at the school and the community centre, but in the 38 villages that had no school, workshops were held at the community centres only). Of these, 12,685 villagers were identified by gender (male = 4,598/36%, female = 8,087/64%). These workshops involved teachers, school children and interested

parents and, in spite of inclement weather and a wild radio-collared elephant destroying crops nearby one workshop venue, foresters, mahouts and forest police also made an effort to attend. See Appendix 6 for information and photos from the school HEC workshops.

H.EL.P presentations were also given to government staff at the Forest Department (FD), the Myanmar Timber Enterprise's Emergency Elephant Response Unit (EERU), and the General Administration Department (GAD), the most senior civilian local authority. Nowadays, every time GBP holds an HEC educational workshop, at least one person from the local FD office, 2-3 from the local EERU station and 1-2 from the local GAD office join the meeting. As a result, scores of provincial government officers now know more about elephants and HEC. This is hugely beneficial. However, to enable their attendance, GBP (i.e. this project) pays for the petrol they need to join the meetings. The government does not have a budget for this additional cost.

GBP has visited significantly more communities than was proposed in the project plan in part because community leaders in every village affected by HEC have asked the outreach team to return more than once to hold another workshop or to discuss HEC issues. This has proved hugely constructive because, after the second visit, villagers come forward voluntarily to participate as assistant educators, to serve as elephant guardians reporting poachers or sightings of dead elephants, and to encourage other villagers to participate and listen to the presentations. This is especially true in areas within or near large elephant habitats where raids are frequent. These villagers want to talk about many related issues (crop raids, poachers, habitat loss etc.) and are keen to ask questions. More recently there has been an increase in the number of calls from community representatives to the GBP team, requesting advice and providing information on HEC and poaching activities. Developing a relationship that is regularly nurtured is evidently key to the team's impact.

#### ***Activity 4.5. Conduct impact surveys to analyse effectiveness of the HEC awareness campaign***

After each workshop, the GBP team asks 8-10% of participants to complete a survey form. The Yr1 form has a choice of 'yes/no' and 'just now' answers and is still used for comparative purposes (Appendix 7). In Yr2, 12 multiple choice questions were added (carefully worded so as not to 'lead' the respondent) to assess how well participants had understood the advice given about HEC and avoiding being hurt. During EF's M&E visit in Feb 2019 (Appendix 8), GBP accepted the advice of the external advisor to add a basic before-&-after question in Yr3. So from April 2019, as well as completing the post-workshop surveys, participants will be asked to raise their hands in response to a few questions at the beginning and end of each workshop so that GBP can assess with more certainty their audience's prior knowledge about HEC and the impact of the workshop's teachings. Information is also being collected on human deaths and injuries resulting from HEC, to help this assessment but it was agreed with the external advisor that the target to reduce property damage was beyond the scope of this project, and would not be monitored or reported.

For Yr3, GBP will add a phone survey of village heads and other community leaders after completing its HEC-awareness programme in each area to find out whether the community has made use of what it learned and if the situation in villages has changed as a result of GBP's educational efforts. See Appendix 9 for list of phone survey questions.

The 1,545 impact survey forms (a kind of mini test) from Yrs 1&2 were completed by, on average, 12% of participants at each workshop. A preliminary statistical analysis reveals that an average of 81% of participants accurately recalled the information about elephants and HEC asked in the questions (17% were 100% accurate). The oldest respondent was 65 (with a score of 75%), the youngest was three (two 3-year-olds scored 33%, one scored 58%). The mean score for respondents under the age of 10 was 72% but those aged 11 or more scored, on average, 83%. There is no significant difference between genders (the male and female scores were 80% and 81% respectively). Messages asking about the value of elephants generate highly positive responses on 78-91% of respondents, those asking about the law protecting elephants indicated that 77% of respondents knew that killing an elephant carried a penalty of 7-years in prison, and 92% of respondents agreed that it is safer to store food in towers, out of reach of elephants (Appendix 10). So although the survey forms are necessarily simple, they do suggest that those who attend GBP's workshops come away with constructive knowledge about elephants and HEC prevention.

#### **Activity 4.6. Monitor and evaluate campaign progress**

In Yr1, proof of progress was provided by various indirect indicators: a government plan to review the poaching law following intense media coverage of dead elephants; villagers reporting poaching incidents and suspected poachers in their villages, and four poachers being arrested as a result; MITV, the government TV station, asking to broadcast the H.EL.P films about HEC mitigation. In Yr2, the government continued to demonstrate its commitment to anti-poaching (32 poachers were arrested by Forest Police and the penalty increased from 7 to 10 years' imprisonment) and 49 local VIPs/celebrities joined a TV campaign that was broadcast extensively on both national TV channels to promote elephant protection and anti-poaching efforts (Appendix 14).

#### **Activity 4.7. Adapt the content of educational kits to meet new and changing requirements and realities as needed.**

To further communicate its H.EL.P message to anyone in the target areas who could not attend the HEC workshops, the GBP team has created a series of posters that explain the Do's and Don'ts of interacting with wild elephants. But, as a result of its HEC awareness training, the team is now being asked repeatedly whether it can provide a more practical solution to protect crops – a question that is also reflected in the impact surveys. In fact, in 2018, GBP/CF did work with the Sri Lanka's Centre for Conservation Research (CCR) and the Smithsonian Institution to test the temporary solar-powered electric fencing pioneered by CCR. This would also be a realistic and affordable scheme for villagers in Myanmar and BGP/CF hope to the method to its target areas, providing instructional films and training to villagers and government officials as a follow-on project to the current HEC awareness and 'staying safe' training. The Forest Department is keen to collaborate with this scheme with the aim of setting up a specialist unit to help train and oversee the implementation of a safe and systematic seasonal electric fencing strategy to be initiated, if possible, from 2020.

#### **Activity 4.8. Hold workshops for NGO and media representatives.**

In Yr2, GBP held four press conferences in Yangon and Naypyidaw with national and international media representatives to explain the work of the Darwin-funded H.EL.P education initiative. Joint press conferences were held with WWF-Myanmar in front of Yangon City Hall and at Yangon Zoo to publicise the education and prevention activities being used against elephant skin poaching and the illegal trade in wildlife products. This was in addition to the TV campaign in which 49 local VIPs (artists, sportsmen, religious and political leaders) provided studio voiceovers for the GBP/CF films calling for better protection of Myanmar's elephants. The campaign is still broadcast on national TV every month or so. This media coverage moved the government to support GBP's seasonal electric fencing scheme and increase the capacity of the forest police to tackle poaching and the illegal trade in wildlife products in HEC-affected villages. More than 50 poachers have been arrested since these public announcements were launched. In a little over a year before, the number was zero.

GBP/CF also provided high-quality material for the new government-funded Elephant Museum in central Yangon near the celebrated Shwedagon Pagoda (Appendix 11). A permanent exhibition of multiple video screens are spooling the educational films and documentaries produced by GBP/CF during this project. CF has also provided life-sized (3x3 metre) high resolution photographic portraits of elephants which are also on permanent display. The H.EL.P printed material is also on sale in the museum shop.

### **3.2 Progress towards project Outputs**

***Output 1: Families across Tanintharyi area (5,400) are empowered and knowledgeable about bottom-up land-use management processes that incorporate ecosystem functionality and local land use needs under current development, and under future effects of resettled migrants.***

During the last two years, this project's participatory land-use planning approach has reached 59 villages in the Tanintharyi area, incorporating 8,249 households (around 43,624 people) – 50% more than target (Appendix 2). The process of community consultation, engagement, data collection, documentation and review, which is fundamentally bottom-up and community-led, has also required government agencies to engage with our target communities to ensure recognition of community land issues. Data has now been

collected for all three of the proposed townships and future growth scenarios are now being drafted. Using information about ecosystems and areas identified as conservation hotspots (at least 8) because they are important for biodiversity and forest connectivity, WCS is working with local partners, the region's only official protected area, and key experts to support their conservation and land use mapping efforts, including identifying vital areas for protection.

WCS has identified biodiversity and ecosystem function indicators (specifically habitat integrity and deforestation related measures), and set robust baselines against which to track progress over the long-term. Our online tools, which we are piloting in this area, allow all local stakeholders (government, community, CSOs, and our own staff) to have easy access to key data.

***Output 2: Spatial plans completed and adopted in villages in Tanintharyi area based upon existing knowledge of important wildlife corridors and economically productive zones and available as examples and learning tools for other regions in Myanmar & other Asian countries.***

The 10 new village-level plans which WCS has created have been combined with reviews of previous data, making a new total of 63 plans available, relevant to 40,000+ people. This land-use planning has been assessed along with community and government biodiversity data to identify key hotspots and projections of areas of the highest biodiversity importance under future scenarios. WCS is actively working with 11 communities to support Community Forest designation, currently the only mechanism which can get official land and resource tenure. WCS is also using its work as an example of what can be achieved through bottom-up participatory processes, and is mainstreaming this into regional practice, through the Forest Department's OneMap project. In Yr2, WCS gave presentations at six learning events, as well as a training course on spatial planning at the government's Forestry Training Centre in Yangon. So far the target has been exceeded by 50%.

***Output 3: Important areas of connected habitat for elephants and for biodiversity intactness are identified, as are conflict hotspots in relevant villages such that HEC can be mitigated or avoided.***

This year, by interviewing villagers to tap their extensive local knowledge, WCS has identified and mapped numerous elephant corridors, both for current and for future land-use scenarios. Many of these can be combined to form three principal elephant corridors. Known and likely elephant movements along these corridors have been mapped along with habitat characteristics, elephant records and community data (see Appendix 3).

WCS has also mapped all known HEC incidents to predict future problem areas. Four broad areas of potential conflict are identified, involving some 15 villages. Baseline data has been established in 10 of these villages so that comparative data can be collected in Yr3 from 50% of the collaborators in each village. WCS' outreach teams are now engaging with those communities to carry out HEC mitigation work, and do participatory reviews of land-use.

Baseline government data on human deaths from HEC have been compiled. It turns out that the baseline figure of 95 human deaths from HEC noted in the original indicator refers to national data and includes mahouts killed by captive elephants which are not comparable. So WCS is now recording local media reports of HEC deaths to serve as a more realistic baseline.

This year, WCS trained another five local groups in the facilitation skills needed for participatory land-use management, data collection, and supporting communities to access tenure and forest land security. These groups were: The Karen National Union (KNU), Takapaw, Tanintharyi River and Indigenous People's Network (TRIPNET), GRET, and the Tanintharyi Nature Reserve Project (TRNP). This is 60% higher than the target figure.

Because this approach proved so effective during this pilot training, WCS will use the same approach in a new region - the Rakhine Yoma Elephant Range – starting in 2019.

**Output 4: Forty village representatives are empowered in HEC mitigation in Tanintharyi and awareness about HEC is created across all 190 villages in five areas (Tanintharyi, Bago, Ayeyarwady, Mandalay, Sagaing) such that vulnerable groups are able to co-exist peacefully with elephants and have the facility to mitigate elephant encounters.**

In Yr1, after training by GBP, the WCS educational team held outreach events at six schools in six villages, involving 814 students and their teachers. In Yr2, this team held outreach events at nine village schools, involving 967 students. To date, therefore, 15 schools in the Tanintharyi region (reaching a total of 1,781 students as well as their teachers) are now familiar with how best to avoid conflict with wild elephants. In Yr1, GBP held HEC outreach workshops in 61 villages and in Yr2, it covered 97 villages (59 schools), reaching 21,052 individuals (students and adults, including teachers), dispersed 18,000 educational booklets, 18,000 DVDs, 2,250 posters and 11,000 memory games (Appendix 5). GBP has therefore engaged 158 villages to date. So far, this project had empowered 173 villages in five areas in HEC mitigation. This represents 91% of the project target. Moreover, GBP has estimated that around five people use one kit which means that 150,000 people may have been reached by them in Yrs 1 & 2.

The additional phone survey with community leaders being added in Yr3 on the advice of EF's M&E consultant should provide better information on the degree to which lessons learned from HEC workshops are being implemented by each community. Some of the indicators are, in fact, beyond the scope of this project as currently formulated so, advised by the M&E consultant and pending DI's approval, one (4.6) will be deleted, one (4.2) will be reformulated with a new target, and three will be assessed as part of the telephone survey to community leaders being done in Yr3 (see Appendix 12).

### **3.3 Progress towards the project Outcome**

**Outcome:** *Land is managed sustainably and incorporates local knowledge and technical expertise, in 5 areas of high biodiversity and elephant conflict in Myanmar, anticipating human migration and serving as national examples.*

In Dawei District, the project has made notable progress towards the anticipated outcomes, exceeding most of its targets to date. Over 250,000 hectares of community land in forest corridors in Tanintharyi region has been mapped and revised through the Participatory Land Management Process. Our combined approach using local knowledge and technical inputs has delivered a widely-accepted assessment of the location and movements of elephants throughout the corridor areas. Our participatory land management approaches have involved large numbers of people, and continue to support the sustainable livelihoods of many thousands of community members.

The WCS team has also been involved in Karen refugee settlement meetings held by UNHCR to oversee the daunting task of integrating thousands of people, many of whom have no experience of rural living, back into the Dawei forest landscape. This team has also participated in smaller meetings to discuss the same subject with the Forest Department and with the Karen National Union.

The indicators are proving to be adequate benchmarks for measuring the overall outcomes. We have achieved great progress with four of the five indicators, and the fifth seems on-track, though this will be measured in the final year of the project. This project is now being highlighted as an example to be followed nationwide, with a national land-use manual using our approach now serving as a model with several case studies. During Yr3, we will use co-financing resources to begin replicating this approach in another Elephant hotspot in the west of Myanmar.

In the final year of the project, WCS will finalise the spatial plans for any remaining 'gaps' in the current spread of villages to ensure that the target landscape is mapped in its entirety. It will also feedback data to key stakeholders for verification and refinement, incorporating this information into other priority spatial schemes, such as key biodiversity areas (KBAs). It will also pilot this project approach in other regions of Myanmar which continuing to contribute to government processes and consultations for land-use planning, land conflict resolution, major developments (especially the special economic zone highway to Dawei) and refugee resettlement planning, partly to ensure that stakeholders are aware of the online tools available to them, including those produced by this project.

The GBP/CF team is also on track to reach its intended outcome. So far it has provided HEC awareness workshops to 50% more than the proposed number of schools and communities aimed for each year, and it has included one additional region (Sagaing). A comparison of the post-workshop surveys completed during Yrs 1&2 also reveals that over 75% of respondents are absorbing the HEC safety and mitigation information shared with them (Appendix 10). This is still an adequate indicator for measuring this portion of the outcome although it is proving to be an underestimate of what is possible. GBP's HEC workshops have also generated such active support from the regional and national government departments with which it interacts that it was asked to provide HEC training in key areas not previously proposed and to contribute permanent exhibits to Myanmar's new Elephant Museum (Appendix 11).

### 3.4 Monitoring of assumptions

As Myanmar is a politically unpredictable country, we continue to keep an eye on project risks and assumptions. Those listed in the project proposal are still valid but we note two minor qualifiers below.

#### Outcome Indicators & Assumptions

- ▶ **Assumption O.1** *Political stability will be retained*  
**Comments:** Political situation in the project area remains relatively stable, and has not affected project activities substantially. There remains some tension between the Karen National Union (KNU) and the New Mon State Army (NMSA) but there have been no recent clashes within the project area. Political tensions between the KNU and the central government have been growing, resulting in additional areas being restricted, and access to several KNU-controlled areas has not been possible for the project team. Instead, we have used local community information from nearby areas, and also worked with local groups who know these areas well.
- ▶ **Assumption O.2** *Local communities are willing and able to actively and freely participate in discussions about development plans.*  
**Comments:** Nothing has happened to undermine the participation of local communities.
- ▶ **Assumption O.3** *No land use planning results in higher rates of deforestation and wildlife presence recorded provides an accurate representation of the wider landscape. Elephant crop-raiding takes place more frequently in development areas rather than rural areas.*  
**Comments:** So far, this assumption holds true.
- ▶ **Assumption O.4** *Central government can coordinate approaches and recognise common participatory processes*  
**Comments:** So far this assumption also holds true.
- ▶ **Assumption O.5** *All incidents of human-elephant conflict are recorded; people adhere to HEC mitigation recommendations.*  
**Comments:** As noted last year, the number of reported human deaths resulting from HEC has increased, as has the number of reported poaching incidents. However, we still cannot confirm whether incidents of HEC have actually increased, or whether people now know who to report incidents to whereas in the past they did not. The ability to report such incidents has also expanded greatly in Myanmar, with rapidly increased penetration of mobile telephones and internet. The government does record deaths from HEC but not always consistently from every area of the country, and some areas do not separate deaths from wild and captive elephants. We have good anecdotal reports that local communities are adhering to the HEC mitigation recommendations but this will be confirmed when follow up surveys are undertaken in Yr3 – particularly the proposed telephone survey to community leaders. A closer involvement with individual villagers, especially farmers, over a longer-term would also provide more accurate data from project areas.

#### Output Indicators and Assumptions

- ▶ **Assumption O.1** *All partners are available at the same time for the inception meeting.*  
**Comments:** The inception meeting was held during Year 1 of the project

- **Assumption 1.1** *Villagers participate in land-use planning discussions in the project time frame.*  
**Comments:** This assumption still holds true.
- **Assumption 1.1-1.5** *KNU government continues to allow project activities in KNU-controlled areas.*  
**Comments:** Access to Karen National Union areas continues to be somewhat problematic, with access denied to areas close to the Thai border. There was a flare-up of conflict earlier this year in Karen State (well north of the project area) between the Karen National Liberation Army and the Democratic Karen Buddhist Army, both in conflict with the Armed Forces of the Government of Myanmar. This led to the death of several people, including a noted environmental activist. This has increased tensions between KNU and government, including in the project area.
- **Assumption 2.1** *Communities adhere to sustainable use guidelines.*  
**Comments:** This assumption still holds true.
- **Assumption 2.3** *Plans adopted by end of project*  
**Comments:** So far this seems likely to be the case.
- **Assumption 2.4** *Participants in other Asian landscapes interested in attending workshop*  
**Comments:** This assumption holds true in that knowledge is being shared widely at other meetings involving participants from other Asian landscapes both within and outside Myanmar. For this reason, we all decided that it is unnecessary to hold our own workshop to share lessons learned.
- **Assumption 3.1** *Elephant habitat requirements for movement and corridors serve as adequate proxies for the predictability of conflict incidents and for other wildlife species*  
**Comments:** This assumption still holds true.
- **Assumption 3.2-3.5** *Incidents of property damage, crop loss, human deaths from HEC are reported.*  
**Comments:** As far as we know, this assumption holds true but we will know more by the end of Yr3 following the results of our telephone survey to community leaders. The project teams do not record these incidents themselves, although WCS is now monitoring media reports of HEC deaths.
- **Assumption 3.6** *Local civil society groups are identified and willing to be trained in HEC awareness and participatory land-use mapping (PLM).*  
**Comments:** This assumption still holds true.
- **Assumption 4.1** *Villagers see value in collaborating and calling upon village representatives for HEC mitigation efforts*  
**Comments:** This assumption holds true. The GBP outreach team is regularly contacted by village representatives and has been asked to return more than once to areas with HEC issues.
- **Assumption 4.2** *Awareness material is used to mitigate HEC*  
**Comments:** This assumption appears to hold true. We know that tens of thousands of educational kits have been distributed by GBP and are positively received by workshop participants. The efficacy of these kits is proven indirectly by the fact that, in the past, Myanmar's Forest Dept (FD) held educational sessions with villagers using photo-copied texts. This effort had no notable impact and did not foster community engagement. By contrast, GBP's teams are frequently told how helpful their kits are and now the FD is requesting direct collaboration with GBP, as government authorities realize that its approach is effective. The telephone survey with community leaders in Yr3 will tell us the degree to which this material is being used by each community to mitigate HEC.
- **Assumption 4.3** *Villages are willing to participate in the awareness programme.*  
**Comments:** This assumption is undeniably true. In fact, there are more willing participants than there are sufficient educational kits. Some requests for workshops were refused due to a lack of educational Kits. Presentations without educational kits are a waste of time as the persistence of the safety message provided by GBP depends on participants sharing the material at home with family members and friends, and re-reading its information. There is a lot to absorb in them, and the printed and audio-visual material is helps people retain the information in the mid-long term.
- **Assumption 4.5-4.7** *Crop loss, house damage and elephant-related human deaths are reported.*  
**Comments:** This assumption appears to hold true. However, although we do know that incidents of crop loss, house damage and HEC deaths are being reported to the authorities, we do not know if all incidents

are reported in all areas. As noted above, collecting this data is beyond the scope of this project but the telephone survey to community leaders in Yr3 may reveal how well incidents are being reported and recorded.

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

*The proposed impact stated for this project is:* forest habitats in Myanmar are sustainably managed to increase ecosystem function, improve local livelihoods and minimise biodiversity-loss while preventing human-wildlife conflict, and incorporating use of landscapes by wildlife.

#### **Impact achievements to date:**

WCS project outputs, such as mapping tools and outreach materials, are already being used widely by government and local communities to improve forest management. And importantly, collaborative land-use mapping is now widely acknowledged as the best tool for facilitating forest and biodiversity protection by local communities and for preventing human-elephant conflict in the long term.

One notable impact of the WCS and GBP teams has been the confidence and trust they have established with villagers and government staff alike. Where it is allowed to work, WCS is a welcome and respected partner. And GBP's approach to teaching people about human-elephant conflict and how to stay safe around wild elephants is now recognised by three key agencies (Forest Dept., General Administration Dept. and Ministry of Education) as highly effective. Hence the invitation to provide educational and film material for the new National Elephant Museum's permanent exhibits. Moreover GBP has been so well received by the communities it has worked with that it has been asked to return not just once but repeatedly to help reinforce its messages about HEC, the cultural and ecological value of elephants, and the need to establish a peaceful co-existence with them. Consequently, many people are now asking GBP to help establish benign crop-protection methods – ideally temporary seasonal fencing which villagers could afford to erect and maintain themselves - that would safeguard their livelihoods without harming elephants. No one has asked for elephants to be driven away or translocated. This suggests that the H.EL.P training is bearing fruit by fostering a positive attitude towards elephants and a desire to co-exist comfortably. These communities are also reporting poachers to the authorities which they did not do before. This augurs well for the future.

According to community leaders who joined a workshop at the Tayoke Lal Kyin village primary school, villagers did not report information on wild elephants, poachers and crop damage in the past out of shyness, but now that they understood the value of elephants, they would inform the authorities in future, especially if anyone unfamiliar or suspicious came into the village to buy betel nuts or cigarettes.

### **4. Contribution to the Global Goals for Sustainable Development (SDGs)**

This project is facilitating participatory land use planning, allowing communities to use their natural resources sustainably as well as set aside conservation areas. This contributes to 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'.

### **5. Project support to the Conventions, Treaties or Agreements**

Outputs 1 & 2 of this project support Action 2.2.1 of Myanmar's National Biodiversity Strategy and Action Plan (NBSAP): "work with at least two states or regions to incorporate biodiversity into integrated land use plans". WCS is working to ensure that traditional practices and natural values are recognised and built into a long-term, sustainable approach to land use. Raising awareness of the importance of elephants to forests and their watersheds, as well as their behaviour and ecology, is vital if elephants are to be valued ecologically and culturally in Myanmar. These messages are incorporated into the WCS and GBP education programmes.

Outputs 2 and 3 support Action 12.1.3 of the CBD: to "integrate the conservation of wide-ranging species ... into local, regional and national landscape planning". Although the project's primary focus is to create a framework for land-use planning that accommodates elephant movement, elephants are an umbrella species and connecting habitats and maintaining functioning ecosystems will support the conservation of all wide-ranging species.

Indirectly, this project has also contributed to the deliberations of CITES by translating the Elephant Family report on the illegal trade in elephant skin that is particularly threatening Myanmar's wild elephants into Burmese (see Appendix 13). The English version of this report was read by delegates at the 70<sup>th</sup> meeting of the CITES Standing Committee in Sochi (October 2018) and thereby contributed to the amendment of decision 17.217 and 17.218 which govern the trade of Asian elephants and their parts. These amended decisions will be submitted for ratification at the next conference of the parties. The Burmese version of the report was picked up by all the main media in Myanmar as well as by the Ministry of Environment and by key parliamentarians (notably U Zaw Thein and Daw Naw Hla Hla Soe who are both very active in their support for conservation and elephants). They in turn shared the report with other lawmakers and their associated legal advisors.

## **6. Project support to poverty alleviation**

This project's contribution to poverty alleviation was nicely outlined in last year's report. The key achievement towards poverty alleviation is in supporting the foundation of local livelihoods – land tenure. Through this project, WCS has already increased land security for some 43,000 people across 63 villages. Although there are still challenges in getting land tenure legally recognised in the long-term – notably the slow policy reforms of the relevant land law – the efforts made by this project have been effective in helping communities document their land-claims and deter land-grabbing by outsiders.

By teaching villagers about elephants and how to avoid conflict with them, GBP's H.EL.P workshops are fostering a strategy of peaceful coexistence, persuading people to accept elephants as neighbours rather than enemies and reducing the likelihood of human injury or death from defensive-aggressive elephants. This approach improves the prospects for an efficient and viable property protection scheme in future, without further reducing elephant numbers. Protecting lives and livelihoods is a first step towards alleviating poverty.

## **7. Project support to gender equality issues**

Gender equality is a core value for every project team. Every effort is made to provide equal opportunities for those of any gender while also delivering project activities. Elephant Family consists primarily of women, the WCS project team is gender balanced, with a female landscape coordinator, and four female community outreach staff. This helps the team engage more effectively in communities where both men and women are, and need to be, equally involved.

During all land-use planning field-work, the WCS team consults elders, women and men in planning meetings, ensuring that representatives of each age and gender class participate. Separate meetings are held with women and men to make sure that both genders can express their ideas and opinions equally. When collecting resource-use information, women and men are also consulted separately, as their perspective on important resources, and key species for management, can be very different.

Although the GBP field team currently comprises men, most of the teachers and educational staff it works with are women, and all workshops are equally open to men/women, or boys/girls. Overall, more women than men attend daytime workshops, presumably because men are often away at work but this is useful as women are often responsible for minding the household stores and may be the only parent in the village full-time, putting them at risk of elephant encounters near the home. Curiously, our data suggests that 40% more female (n=9,126) than male (n=5,218) students attend the school workshops. However, male and female participants engage equally in the Q&A sessions that follow presentations.

## **8. Monitoring and evaluation**

Monitoring and evaluation has closely followed the original logical framework structure, which has proved useful for tracking progress towards the outputs via the indicators. Key indicators, such as those on mainstreaming participatory land use planning into regional government documents and HEC awareness-raising in all village consultation exercises, are important 'intermediate states' towards the outcome. The process-level indicators, such as number of villages, or hectares supported, are relatively easy to measure. The bespoke spatial monitoring tools that WCS has developed now provide excellent and reliable methods for monitoring landscape habitat quality. Many indicators rely on government data, some of which are considered reliable, but some not.

The targets which measure 'attitudes' are likely to be challenging, and proxy measures are being developed for the final stages of the project M&E cycle. WCS also has a target for consultations on resettling refugees. This is an equally important element to include in our 'mainstreaming' effort.

While some indicators have proved more difficult to measure (e.g. crop damage, as government data is unreliable), WCS has tried to use secondary measures, including media reports of elephant damage. As elephant damage is currently rare in Tanintharyi (and the projects aims to keep it that way), we hope these media reports will be a reasonable indicator of the level of damage.

In project areas in southwest Myanmar where crop-raiding and other forms of human-elephant conflict are frequent but the GBP team has not yet held a H.EL.P workshop, villagers still use confrontational methods to scare away elephants and elephants are often killed, either in retaliatory killings for crop-raiding or by poachers. This is likely to make the elephants defensive-aggressive and therefore more dangerous. By contrast, in areas where GBP has provided HEC prevention training, more peaceful methods of HEC mitigation are now being used (at least in part) fewer elephants are killed by irate farmers and over 50 people have been arrested for killing elephants.

In Feb 2019, Elephant Family took an M&E consultant to Myanmar on its annual M&E visit (Appendix 8) to provide an independent assessment of progress and review project indicators (see Appendix 12). The discussions prompted by this consultant proved extremely valuable as all of us had concerns about some of the proposed indicators (set by the original project leader who has since left Elephant Family) that need to be addressed by the end of Yr3. Several modifications were agreed:

- Indicator 4.3 (at least 75% of village representatives regularly consulted and called upon to act with HEC methods) is hard to interpret as it combines the number of HEC incidents with the level of community engagement. For example, if there are few incidents, the percentage will be low. We therefore agreed to reformulate this indicator as:
  - *4.3. At least XX village representatives are called upon to act on HEC or poaching incidents and communicate with the H.EL.P. team by end of year 3.*

The number of calls from community representatives to the GBP team requesting advice or giving information on HEC and poaching activities has increased. The baseline was 0, and the number of calls received in the first year was 10. A target figure will be set to replace "XX" for Yr3.

- Indicators 4.4 (70% of vulnerable families used HEC methods learned), 4.5 (50% reduction in property damage from elephants) and 4.7 (>30% reduction in human deaths from HEC) will be assessed via a telephone survey with village representatives. Questions will be compiled by the GBP team and agreed with Elephant Family and sent by SMS to the village representatives so that they can compile the necessary data. GBP will then call them to record the answers.
- Indicator 4.6 (>50% reduction in crop loss from elephants across target groups by end of year 3, Baseline to be established during year 1 surveys) cannot be achieved because the GBP component of the project never planned to help prevent of crop loss, but rather to focus on the preventing the loss of human lives or property damage by avoiding direct confrontations with elephants. A new phase of the H.EL.P. programme will seek funds for a seasonal electric fencing project to address crop loss. As this intervention was never part of the original formulation or work plan, we propose deleting it.
- Indicator 4.8 (50% increased well-being/positive attitudes towards HECx) will be assessed using existing the survey forms and Q&A sessions by adding a few additional questions about attitude.

## 9. Lessons learnt

In the Yr1 report, we noted nine lessons learned. All these still apply, including the value of involving an independent M&E advisor earlier in the project. Another (be adaptive to new impacts) refers here to the increased unrest in KNU held lands in the project area. As a result, WCS has slightly revised its project area and activities in response to the security situation, with an increased focus on accessible villages, and an emphasis on working through partners for the restricted areas. There will, necessarily, be some data-gaps in

the restricted border areas but WCS expects to use predictive modelling and remote sensing to fill those gaps to some extent, while hoping that the security situation improves, and that the KNU re-joins the Nationwide Ceasefire Agreement and the National Peace Process.

Two other lessons from last year – that villagers like to learn and are keen to become champions of wildlife conservation – are gratifying but they also incur higher costs. GBP is being asked to give so many workshops (more than anticipated) that it needs to find local funding to print more educational kits. It also wants to create a network of villagers to work as project ambassadors in each village but this may also require a small budget for occasional per diems and local travel costs. Other lessons learned are:

- *Recurrent visits are invaluable*: by going back to the same villages at least once, sometimes more, our project partners have been able to build the stakeholder confidence that is necessary to develop trust and a more constructive relationship. Only then can the project teams influence attitudes.
- Provide high quality educational kits, not cheap photo-copies: this has proved essential for ensuring that the materials provided are valued, re-used and shared. Cheaper version would be thrown away.
- *Improve video projection quality*: it is not always possible to darken the meeting room sufficiently well to ensure that the videos are clearly visible and therefore more dramatic. It is noticeable that when the room is dark and the video images are bright, the audience is more attentive.
- *Develop the capacity of local NGOs*: as noted in section 2 and by the M&E advisor, national NGOs can face challenges in meeting the requirements for management and reporting in their interactions with international funding bodies. For non-native English speakers, communication in English is not always easy, and even national offices of international NGOs can struggle in this way. It is therefore important for internationally-funded projects to assess the needs for building specific capacities in national NGOs, and to include some elements of training, mentoring, or other capacity support in proposals. A related aspect of institutional sustainability is the ability of NGO partners to retain staff who are well-trained and competent, especially when international NGOs may also want to employ these personnel. Project budgets should include staff salaries that allow national NGOs to compete for and retain good people, and thus maintain their operational capacity.

## **10. Actions taken in response to previous reviews (if applicable)**

In Yr2, three actions were taken in response to post-proposal reviews of our biodiversity outcome indicators. In Yr2, we also involved an external M&E consultant (Appendix 12) In response to our Yr1 report, Darwin asked us to provide three annexes of information (i) a breakdown of the status of land-use plans under this project, (ii) some sample spatial plans and (iii) the results from the GBP survey to assess the awareness-raising of training participants. These are added as Appendix 2, 1 and 10.

## **11. Other comments on progress not covered elsewhere**

*Asian elephant skin trade*: Last year, Elephant Family reported a link between this project and its investigation into the illegal trade in elephant skin. Villagers who trusted GBP began to report finding elephants that had been poached for their skin. When GBP had to print its educational material, it added information about the illegality of poaching elephants and shared the poaching information with relevant authorities - resulting in at least one arrest. GBP also translated Elephant Family's report '*Skinned: the growing appetite for Asian elephants*' into Burmese and distributed it widely around parliamentarians and government agencies (Appendix 13). We all hoped that by being adaptive and nimble, we would help stem this emerging threat. Since then, there have been fewer reports of elephants being found skinned but we do not know if that means fewer elephants were killed, whether poachers moved to other areas, or whether villagers stopped reporting this gruesome sight. We hope it is the first explanation but only time will tell.

## **12. Sustainability and legacy**

As noted in our Yr1 report, the participatory land-use planning process that WCS is implementing works through existing government and non-government groups; the Forest Department, district administration, the KNU, and civil society groups. This ensures long-term sustainability, providing for land management plans

that are developed, adopted, followed, reviewed and adapted as needed. The project also supports Myanmar government officials and others with the skills and tools they need to improve their work. In this way, this project is institutionalizing these activities so that the Myanmar Government will continue to implement them into the future, and we therefore achieve lasting change without requiring long-term external support. However, WCS accepts that it must continue to raise funds in the medium-term to maintain key activities. To this end, it is approaching other donors to support the extension of this project. It continues to receive funds from the French Development Agency (AFD), as well as the US government's Forest Service, who are supporting WCS to develop Community Forestry approaches in the region. WCS has also had strong indication of future funding support from AFD for a second phase of activities, which would extend the project benefits. In the meantime, WCS will use match funding from EF, to map HEC in Rakhine State in west Myanmar (working with 78 villages around a major elephant area with large tracts of intact forest).

GBP is planning to extend its H.EL.P educational work into HEC areas adjoining this project's target areas while continuing to work with its current stakeholders to establish temporary seasonal electric fences (based on the system pioneered by Dr Pruthu Fernando of the Centre for Conservation Research in Sri Lanka) which villagers can afford to erect and maintain. The Forest Department has already agreed to support for this plan by setting up an HEC mitigation unit which it has asked GBP to train. EF will work with GBP to develop this proposal.

### 13. Darwin identity

- ▶ **Websites and newsletters:** Elephant Family acknowledges the support of Darwin Initiative and the UK Government online and in electronic newsletters that are sent to 16,000+ EF supporters around the globe. Darwin Initiative and UK Aid are both credited for this project in Elephant Family's 'What We Do' publicity to donors/partners, on the website/social media channels (<http://elephant-family.org/what-we-do/where-we-work/myanmar-burma/biodiversity-and-elephants>).

Elephant Family's communications specialist has placed regular updates on Facebook, Twitter and Instagram as well as on the website. The DI logo is also displayed on GBP's website and project vehicles. GBP has a dedicated H.EL.P Facebook page which is the most common social media platform in Myanmar. A part-time GBP staff member is constantly updating project activity reports in Burmese with the continuous presence of Darwin logos on all visual and textual publications. A link to Darwin UK is also provided on GBP's Facebook page <https://www.facebook.com/Human-Elephant-Peace-769921153111397/>.

- ▶ **NGO & field team recognition:** Although our field partner, WCS, has significant matching funds from Agence Française de Développement (AFD), the Darwin project is recognised as playing an important role in completing the project's community land use planning, and expanding the community outreach part of their programme by using materials that are being shared by the project's other partner, Grow Back for Posterity/Compass Films. Without Darwin funding, this collaboration would not have happened – a fact that is acknowledged by all parties associated with this project. Consequently, the support of DI and the UK government is visibly advertised at all WCS project workshops and events as well as on its awareness-raising materials, including a school booklet (Appendix 4)
- ▶ **National recognition/awareness:** Funding from the Darwin Initiative was highlighted in press interviews given by GBP staff and its director, Aung Myo Chit. The Ministry of Environmental Conservation and Forestry (MOECA), Forest Department, Myanmar Timber Enterprise (MTE) and Forest Police staff and senior staff are aware of the Darwin UK funding of GBP educational activities, through direct presentations to the directors and staff.
- ▶ **T-Shirts & teaching materials:** The Darwin Initiative logo is clearly visible on all GBP educational materials (board game, information booklet, DVD) and all the banners used at workshops and training sessions (Appendix 5). The DI logo is also added to T-shirts worn by the GBP team when they visit communities to conduct HEC awareness/education workshops and is highly visible on its vehicles. The logo has also been added to T-shirts worn by WCS teams when they visit local villages to carry out participatory land-use mapping (PLUM) exercises.

#### 14. Project expenditure

**Table 1: Project expenditure during the reporting period (1 April 2018 – 31 March 2019)**

Project spend (indicative) since last annual report	2018/19 Grant (£)	2018/19 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)				
Monitoring & Evaluation (M&E)				
Others (see below)				
<b>TOTAL</b>				

## Annex 1: Report of progress and achievements against Logical Framework for Financial Year 2018-2019

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
<p><b>Impact</b></p> <p>Forest habitats in Myanmar are sustainably managed to increase ecosystem function, improve local livelihoods and minimise biodiversity-loss while preventing human-wildlife conflict and incorporating use of landscapes by wildlife.</p>		<p>Project outputs (e.g. mapping tools and outreach materials) are being used by government and local communities to improve forest management.</p> <p>In Tanintharyi, collaborative land-use mapping is now recognised as the main tool for preventing HEC in the long term.</p> <p>Although incidents seem to have reduced, local communities continue to report poaching and other illegal activities to our project partner which may demonstrate a growing sympathy for elephants and an awareness of the law against killing them.</p> <p>Government departments are now asking to collaborate in HEC education/mitigation efforts and, in future, to any seasonal electric fencing initiative, offering to provide man-power and some funding. Trained by GBP, government people are now using the H.EL.P educational kits to prevent HEC.</p>	
<p><b>Outcome</b></p> <p>Land is managed sustainably and incorporates local knowledge and technical expertise, in 5 areas of high biodiversity and elephant conflict in Myanmar, anticipating human migration and serving as national examples.</p>	<p>O.1 Spatial plans from 40 villages available in draft form and plans incorporated in regional government planning processes by 2020</p> <p>O.2 21 Local villages are consulted, including a proportionally representative number of women, and are actively</p>	<p>O.1 - Spatial plans are available, and coordination with relevant stakeholders continues.</p> <p>O.2 - 25 Consultations complete, with more expected.</p>	<p>Finalising spatial plans for remaining 'gaps' in the current spread of villages, to ensure complete landscape connectivity is mapped.</p> <p>Feedback of data to key stakeholders for verification and refinement, and piloting in other regions of Myanmar. Incorporation</p>

	<p>engaged around development planning by 2018</p> <p>O.3 Technical experts/community trackers provide evidence and mapping of forest cover and species-use of landscapes, especially elephants by 2020.</p> <p>O.4 Consultation with regional and national government representatives about refugee resettlement in 3 townships in Tanintharyi by 2019</p> <p>O.5 Human-elephant conflict awareness is raised for 75% of families interviewed compared to 2017 baselines.</p>	<p>O.3 - Collection of community data complete, data analysed and mapped.</p> <p>O.4 - Attended consultation meeting on refugee resettlement led by UNHCR. Other smaller meetings held to discuss resettlement with KNU and FD.</p> <p>O.5 - In Yr1, 100 of those surveyed had prior knowledge of HEC safety measures. In year Yr2, 1,400 of those surveyed at repeat workshops had knowledge of HEC safety measures. So, there was a 14-fold increase in knowledge as a result of the workshops.</p> <p>Basic statistical analysis of post-workshop surveys from Yr1 &amp; Yr2, indicates that over 75% of workshop participants surveyed have absorbed the HEC safety and mitigation techniques promoted. (see Appendix 10).</p>	<p>into other spatial prioritisation in process (e.g. Key Biodiversity Areas)</p> <p>Continue input into government processes and consultations for land-use planning, land conflict, major developments (especially the SEZ highway) and refugee resettlement planning, with special effort to ensure that stakeholders are aware of online tools.</p> <p>Our goal is to ensure HEC prevention awareness in at least 75% of participants in areas not yet serviced. Surveys will be continued in Year 3 of the project.</p>
<p><b>Output 1.</b></p> <p>Families across Tanintharyi area (5,400) are empowered and knowledgeable about bottom-up land use management processes that incorporate ecosystem functionality and local land use needs under current development, and under future effects of resettled migrants</p>	<p>0.1 By the end of the 1<sup>st</sup> quarter in the 1<sup>st</sup> year of the project, all partner NGOs and stakeholders will meet to participate in partner’s inception meeting in Myanmar.</p> <p>1.1 5,400 families from 40 villages have access to information and support to develop maps and/or implement plans for their communities by the end of year 2</p> <p>1.2 Three township scenario planning exercises foreseeing growth or settlements completed by end of year 2</p>	<p><i>0.1 Partner inception meeting completed in 2018</i></p> <p>1.1 Information is now available for 59 villages, incorporating 8,249 households (43,624 people) which is almost 50% above our target.</p> <p>1.2 Data collection is complete for all 3 townships, and scenarios are being drafted.</p> <p>1.3 Data collection is complete, and at least 8 conservation hotspots have been identified. We are now incorporating intact forest assessments, and forest connectivity issues to note vital areas. Done in collaboration with local partners, the region’s only official protected area, and key experts.</p>	

	<p>1.3 &gt;8 high conservation value areas identified by the end of year 3</p> <p>1.4 Biodiversity indicators for monitoring ecosystem function identified and measured</p> <p>1.5 Learning incorporated into national and regional policy frameworks by end of year 3</p>	<p>1.4 Biodiversity / ecosystem function indicators identified (specifically habitat integrity and deforestation measures). Robust baseline measures set. Online tool developed and piloted for data monitoring by local stakeholders and government.</p> <p>1.5 Information documented, reports in Burmese drafted and shared with senior government and operational level staff, and presented so far at 6 workshops, including a course at the government Forestry Training Centre.</p>
Activity 0.1 Partner’s inception meeting held with project leaders from Elephant Family, WCS, Compass Films and Grow Back For Posterity in attendance. [Led by EF]		<i>This Activity was completed in Yr1 of the project: Partner's inception meeting was redefined as an M&amp;E meeting due to delay in funding and rainy season which held up the meeting until Feb 2018. This meeting was held at the same time as the launch of the Myanmar Elephant Conservation Action Plan. This trip included field-visit to Tanintharyi landscape, and meetings with key stakeholders.</i>
Activity 1.1 Review existing land-use plans with 19 villages with draft plans, and confirm zonation and local regulations, considering forest connectivity and local elephant populations and movements [led by WCS]		Reviews of 25 village plans complete, with additional follow-up expected in further villages, as well as outreach to local KNU authorities. We are 30% over target.
Activity 1.2 Complete participatory land-use planning in at least 21 additional villages, including awareness raising, and considering ecosystem function, future development and resettlement scenarios and local elephant and wildlife populations and movements. [led by WCS with government and local CSOs]		An additional 10 village plans have been completed, coordinating directly with 304 community representatives, and reaching a total of 1,767 households (over 10,400 people).
Activity 1.3 Feed learning from local level into regional and national land-use policy reform, primarily working through the Land Core Group and OneMap Myanmar [WCS]		Regular engagement with KNU, local CSOs and international partners to support input directly into the Regional Environmental Management Action Plan, coordinated by the Environmental Conservation Department.
Activity 1.4 Monitoring of livelihoods and wellbeing, completed in a representative sample of target villages.		Baseline livelihoods data collected in all ten new villages, along with targeted surveys for specific livelihoods interventions, such as ecotourism development
<p><b>Output 2.</b></p> <p>Spatial plans completed and adopted in villages in Tanintharyi area based upon existing knowledge of important wildlife corridors and economically productive zones and available as examples and learning tools for other regions in Myanmar &amp; other Asian countries.</p>	<p>2.1 By the end of Yr2, 19 spatial plans created with local knowledge from communities and technical input from government and civil society, designed to lessen HEC while offering economic return in sustainable use zones</p> <p>2.2 By end of Yr3, at least 50% of villages (2,700 families) feel an improved sense of well-being or economic opportunity based on access to/knowledge of productive zones</p>	<p>2.1 A total of 63 plans now available, including 10 new village-level plans - all assessed along with HEC data and projections to incorporate HEC minimisation. Target exceeded by 230%.</p> <p>2.2 Baseline livelihood data is available. Comparative data will be collected in Yr3.</p>

	<p>2.3 At least 9 plans officially recognised at local and regional level by the end of Yr2</p> <p>2.4 19 Examples of plans distributed to other regions and at national level by the end of Yr2</p> <p>2.5 Learning events (x4) showcasing the bottom-up planning approach in this area to other communities (in Myanmar and other Asian countries) and decision-makers by end of Yr1</p>	<p>2.3 Eleven plans officially received and submitted for further approval. One community forestry certificate issued. Target exceeded by 20%</p> <p>2.4 Example plans made available and online for Government access through the OneMap project.</p> <p>2.5 Presentations at six learning events during Year 2, as well as training course on spatial planning at the government’s Forestry Training Centre in Yangon. So far target exceeded by 50%.</p>
Activity 2.1 Through combining all 40 village plans into a broader landscape plan, incorporate this into district and regional development planning, considering relevant scenarios including refugee and IDP resettlement. [WCS along with government and local civil society groups]		Based on draft plans, land-zonation categories transferred for 11 villages to support community forest tenure.
Activity 2.2 Present plans to regional government for acceptance and recognition [WCS]		Regular engagement with regional and local government - especially Forest Dept, as well as Chief Minister (former MONREC Minister) - to discuss plans.
Activity 2.3 Develop and distribute report on the benefits of the approach for community land tenure and livelihoods, as well as resource management, biodiversity, and coexistence with wildlife. [WCS with support from EF]		Input into several Burmese language reports on land-use planning process, and mainstreaming with local partner, Landesa.
Activity 2.4 Attend and support Land Core Group workshops to mainstream this approach with other local communities in Myanmar, also present findings and approach at relevant regional fora, to decision makers from areas facing similar land use issues in other countries (e.g. in Cambodia, Indonesia or India) [led by WCS with support from other partners]		<p>Land Core Group regularly engaged, especially for ongoing legislative reform of the Forestry Law, as well as new partner Landesa, for local-level implementation,</p> <p>Presentations at 5 events attended by numerous local partners, including a land tenure research project with over 36 relevant participants from border regions.</p> <p>Applied to present at major international “International Congress on Conservation Biology” to be held in Kuala Lumpur in July, with over 2000 delegates.</p>
<p><b>Output 3.</b></p> <p>Important areas of connected habitat for elephants and for biodiversity intactness are identified as are conflict hotspots in relevant villages such that HEC can be mitigated and avoided.</p>	<p>3.1 Increase of 30 elephant corridors identified with local knowledge by the end of Yr3 Baseline = 0</p> <p>3.2 Three human-elephant conflict hotspots identified and targeted for mitigation actions by the end of Yr2 Baseline = 0</p>	<p>3.1 Local knowledge surveys completed, and data collected. Three major elephant corridors identified (comprising many smaller ones). Likely elephant movement mapped. (See Appendix 3). This approach will be rolled out in the Rakhine Yoma Elephant Range (another of WCS’s project areas) in far western Myanmar as a supplementary activity.</p> <p>3.2 Likely projected HEC hotspots mapped, and presented to local communities. At least four areas identified around 15 key villages.</p>

	<p>3.3 &gt;50% of village target groups feel they have a source of knowledge about elephant movements through ‘corridors’ and about HEC hotspots by the end of Yr3. Baseline to be established from Yr1 surveys</p> <p>3.4 75% of village target groups feel they have more predictive knowledge about elephant use of corridors and relevant HEC mitigation techniques for protection against property and crop damage by elephants. Baseline to be established from Yr1 surveys</p> <p>3.5. &gt;30% reduction in human deaths by end of Yr3. Baseline = 95</p> <p>3.6 At least three local civil society groups trained as facilitators in HEC awareness and PLM</p>	<p>3.3 Baseline established in 10 target villages. Comparative data to be collected in Yr3 from 50% of collaborators in each village.</p> <p>3.4 Baseline established in 10 villages. Comparative data to be collected in Yr 3.</p> <p>3.5 Baseline data from government compiled. However, original indicator was derived from national data (and included mahout deaths by captive elephants) so not directly comparable. Recording local media reports of deaths instead to serve as baseline.</p> <p>3.6 Five key local groups (KNU, Takapaw, TRIPNET, GRET, and TRNP) trained in facilitation skills for PLM. Target exceeded by over 60%.</p>
Activity 3.1 Local communities actively engaged with elephant movement/ presence surveys and mapping. [WCS with support from EF and GBP]		Community data collection and mapping completed in 9 villages, with typically 7 key informants per village.
Activity 3.2 Hotspots of likely HEC under current and future scenarios identified through local knowledge and mapping [WCS]		Hotspots identified and predicted, as well as habitat suitability modelling and an online tool developed for forest connectivity analysis.
Activity 3.3 Delivery of HEC awareness/mitigation work in hotspots (using materials and approaches tested in 4 below) [led by GPB, with support from WCS]		HEC mitigation approaches delivered in 14 villages, involving 692 adults and over 950 children.
Activity 3.4 Regular forest cover monitoring via GIS and remote sensing. [WCS]		Regular forest-cover monitoring completed and online tool developed for easy access to data by all local stakeholders to monitor forest cover changes and satellite maps.
Activity 3.5 Team members from KNU and civil society groups, such as KWCI, trained in HEC awareness and PLM [WCS with input from GBP]		Mentoring continued for 6 KNU personnel to support their land-use planning efforts. Also a training course for 22 rangers and staff from TNRP.
<p><b>Output 4</b></p> <p>Forty village representatives are empowered in HEC mitigation in Tanintharyi and awareness about HEC is created across all 190 villages in five areas (Tanintharyi, Bago, Ayeyarwady, Mandalay, Sagaing) such that vulnerable groups are able to co-exist peacefully with</p>	<p>4.1 Print material &amp; video broadcasts given to 190 villages, including 96,000 students and 75,000 women about coping strategies in human-elephant coexistence by end Yr3.</p> <p>4.2 Forty village communities knowledgeable of HEC mitigation methods by end Yr3. Baseline = to be determined</p>	<p>4.1 In Yr2, WCS held outreach events at 9 village schools, with some 967 students involved. GBP held its workshops at 97 villages involving 21,052 individuals. GBP Distributed 18,000 education booklets, 18,000 DVDs, 2,250 posters and 11,000 memory games. 157 villages have been visited to date, reaching 33,582 people of which 19,582 were female. Estimated number of people reached through video broadcasts will be estimated during Yr3.</p> <p>4.2 Basic statistical comparison of Yrs 1&amp;2 suggests that over 75% of the participants surveyed have absorbed the mitigation and safety techniques promoted. Outreach</p>

<p>elephants and have the facility to mitigate elephant encounters</p>	<p>4.3 At least 75% of village representatives regularly consulted and called upon to act with HEC methods by the end of year 3 Baseline = 0</p> <p>4.4 At least 70% of vulnerable families within target villages use methods learnt from the educational material by communities by end Yr 3. Baseline = 0</p> <p>4.5 50% reduction in property damage from elephants across target groups by end Yr3. Baseline to be established during year 1 surveys</p> <p>4.6 &gt;50% reduction in crop loss from elephants across target groups by end of Yr3, Baseline to be established during Yr1</p> <p>4.7 &gt;30% reduction in human deaths by the end of Yr3, Baseline = 35</p> <p>4.8 &gt;50% increased well-being and positive attitudes towards human-elephant co-existence by the end Yr3. Baseline to be established during year 1 surveys</p>	<p>activities increased in Yr2 due to higher community, government and other NGO interest. Number of villages reached by GBP in Yr2 alone was 97 villages, almost trebling the total target. More detailed analysis of post-workshop surveys completed in Yrs 1 and 2 will be included in Yr3 report but we know now that 100 people surveyed in Yr1 felt they knew about HEC safety and mitigation. By the end of Yr2, 1,400 people felt they were knowledgeable about HEC, a 14-fold increase.</p> <p>4.3 Indicator not clear (see independent M&amp;E report) so, in Yr3, a phone survey among village leaders will be added to gauge number of HEC incidents and how often village representatives were called upon to use the HEC methods shared.</p> <p>4.4 At present, the post-workshop surveys measure knowledge acquired, not the use of methods. So follow up surveys to determine the exact % of families that use mitigation techniques will be completed in Yr3 by asking participants at repeat workshops to raise their hands before the workshop if they/their family have used any methods taught in the previous workshop/s. This measure will be an indicative figure rather than an exact one as some people may not attend a repeat workshop (unless obliged to do so) if they feel they learned as much as they need to know at the first workshop.</p> <p>4.5 This will also be assessed via the phone survey to village leaders as this project is not collecting property damage figures, and never planned to do so (see M&amp;E report).</p> <p>4.6 This indicator will be deleted (as per M&amp;E consultant's advice) as it is not applicable. Monitoring crop-loss is not, and never was, an activity that was included in this project.</p> <p>4.7 Original baseline was calculated from national figures which include mahout deaths by captive elephants, so is being revised by WCS and GBP to reflect relevant local data. In the GBP outreach areas, one person has been killed by elephants in each of the last three years (i.e. including the year before this project started) in three of GBP's six target areas. So the new baseline =1/yr. This indicator will be assessed towards the end of Yr3 by the phone survey with village representatives (Appendix 9).</p> <p>4.8 As advised by the M&amp;E consultant, this indicator will be revised to use 'levels of engagement' as a proxy indicator for positive attitudes and improved well-being. This can be assessed using existing surveys which measure knowledge &amp; use of HEC methods.</p>
<p>Activity 4.1 Production of educational kits for HEC awareness/mitigation [GBP supported by CF]</p>		<p>The educational kits produced and distributed in Yr2 were: 18,000 educational booklets, 18,000 DVDs, 2,250 large vinyl posters, and 11,000 memory games.</p>
<p>Activity 4.2 Training workshop held for new GBP educational teams and WCS team [GBP supported by CF]</p>		<p><i>WCS training by GBP completed in Yr1 of project</i></p>

	<p>Yr2 training budget used for direct HEC outreach in WCS project area (Tanintharyi) to provide hands-on support to communities, and to hold HEC workshops for political and administrative leaders in Tanintharyi, Sagaing and Magwe region, so they can help give future outreach workshops to communities. Training government and local NGO staff (especially in Tanintharyi) prepares them to help provide HEC workshops as soon as the political climate allows the education team to expand its operation using their capacity. If it can raise adequate funds to pay for materials and training, FFI has requested 1,000+ educational kits (up from 100 a year ago) for its own educators to use in southern Tanintharyi. This is an additional partnership engagement for GBP.</p>
<p>Activity 4.3 Introductory workshop for teacher/headmasters to introduce campaign material. 3-5 of these workshops will be held annually depending on the region. [GBP supported by CF]</p>	<p>Before moving into a new area to deliver HEC training, GBP holds educational workshops for the area's regional government officials (General Administration Department or GAD) and school heads/assistant heads (Ministry of Education or MoE). The school heads and community leaders from areas experiencing HEC then ask GBP to organise a workshop in their school/community.</p> <p>In Yangon, Bago, Ayeyarwady, Mandalay, Sagaing and Magwe divisions, GBP held workshops (n=5) at the MoE's monthly meeting in each division, reaching a total of 500 heads from different schools. The number of school heads/assistant heads (who are also teachers) in HEC areas with whom GBP then worked closely in Yr2 is 26/90. At the GAD training workshops (n=5), the number of local officials reached was 70.</p> <p>GBP also held HEC workshops at teacher training colleges reaching a total of 150 teachers (46 male, 104 female).</p>
<p>Activity 4.4 Hold school outreach conferences at 40 schools annually each year for three years in Tanintharyi, Bago, Ayeyarwady, Mandalay, Sagaing or specific target spots confirmed each year based on need. [Led by GBP supported by CF]</p>	<p>After training by GBP in Yr1, WCS held outreach events at 9 schools in Yr2, involving at least 967 students. In Yr2, GBP held HEC outreach events in 97 schools and/or community centres in five regions (Ayeyarwady 29, Yangon/Bago 29, Magwe 12, Rakhine 19, and Mandalay 8). The total number of students trained in HEC mitigation in Yr2 was 8,367 (male 4,132, female 4,325). See Appendix 6 for list of schools with student figures and gender breakdown.</p>
<p>Activity 4.5 Conduct impact surveys to analyse effectiveness of the HEC awareness campaign/school conferences [GBP supported by CF]</p>	<p>In Yr1, 895 survey forms were filled by 8.23% of participants at school workshops. In Yr2, 1,543 survey forms were filled by 8-9 % of students. A basic statistical comparison of the two data sets has been done. A more detailed one will be provided at the end of Yr3. Appendix 7 for English translation of survey form; Appendix 10 for the summary analysis.</p>
<p>Activity 4.6 Monitor and evaluate campaign progress [Led by CF, supported by GBP]</p>	<p>Proof of campaign progress is shown by indirect indicators: the government action on anti-poaching efforts (32 poachers arrested by Forest Police in 2018); the increased penalty for poachers from 7 to 10 years in prison; 49 local VIP/ celebrities participated in a TV campaign recorded in Yangon and Naypyidaw studios and broadcast on MITV/MRTV national TV, expressing their support for the protection of elephants, and speaking out against poaching and trade in elephant skin (Appendix 14).</p>

<p>Activity 4.7 Adapt content of educational kits to meet new and changing requirements and realities as needed. [Led by CF, supported by GBP]</p>	<p>Working with Dr Pruthu Fernando of the Centre for Conservation Research in Sri Lanka (who designed, tested and implemented affordable seasonal electric fencing using solar power), CF/GBP has investigated the feasibility of introducing this method to its current project area in Myanmar. A project proposal to test this approach has been submitted to USFWS for co-funding. If successful, this would be a direct and logical extension of this H.EL.P programme, introducing a practical and effective method of crop-protection that deters but does not harm elephants, and is also affordable for villagers in Myanmar.</p>
<p>Activity 4.8 Hold workshops for NGO and media representatives to encourage independent communication initiatives on other biodiversity issues, ethics and technical production. [Led by CF, supported by GBP]</p>	<p>Educational materials and films/photos were provided by GBP/CF for the government's new National Elephant Museum in Yangon. CF/GBP's videos about elephants and HEC are now part of a permanent multi-screen installation. CF also provided many life-sized (3x3m) high resolution photographic portraits of elephants in Myanmar which are also part of the permanent exhibit. The H.EL.P printed educational materials are on sale in the museum shop. News conferences (n=5) were also held in Yr2 and the head of GBP contributed regularly to a growing number of elephant stories in print media. A government-sponsored TV campaign involving 49 VIPs and broadcast on MITV and MRTV to encourage elephant protection also generated a lot of print media stories (Appendix 14).</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><b>Impact:</b>                      Forest habitats in Myanmar are sustainably managed to increase ecosystem function, improve local livelihoods and minimise biodiversity-loss while preventing human-wildlife conflict and incorporating use of landscapes by wildlife.                      (Max 30 words) 28</p>			
<p><b>Outcome:</b>                      (Max 30 words) (30)                       Land is managed sustainably and incorporates local knowledge and technical expertise, in 5 areas of high biodiversity and elephant conflict in Myanmar, anticipating human migration and serving as national examples.</p>	<p><b>O.1</b> Spatial plans from 40 villages available in draft form and plans incorporated in regional government planning processes by 2020</p> <p><b>O.2</b> 21 Local villages are consulted inc. a proportionally representative number of women) and are actively engaged around development planning by 2018</p> <p><b>O.3</b> Technical experts/community trackers provide evidence and mapping of forest cover and species-use of landscapes, especially elephants by 2020.</p> <p><b>O.4</b> Consultation with regional and national government representatives about refugee resettlement in 3 townships in Tanintharyi by 2019</p> <p><b>O.5</b> Human-elephant conflict awareness is raised for 75% of families interviewed compared to 2017 baselines.</p>	<p><b>O.1</b> Mapping of landscapes by GIS undertaken, ground-truthed, and reported</p> <p><b>O.2</b> Development plans available for inspection; meeting attendance, gender presence and support for decisions will be documented.</p> <p><b>O.3</b> Satellite images of forest cover, photographs of and maps of elephant and notable wildlife movement. Location and incidents of HEC, specifically crop-raiding.</p> <p><b>O.4</b> Government meeting attendance records, meeting minutes and photographs.</p> <p><b>O.5</b> Surveys of well-being &amp; changing attitudes towards elephants, and human-elephant conflict reports/data, and livelihoods baseline data</p>	<p><b>O.1</b> Political stability will be retained</p> <p><b>O.2</b> Local communities are willing and able to actively and freely participate in discussion about development plans.</p> <p><b>O.3</b> No land use planning results in higher rates of deforestation. Wildlife presence recorded provides an accurate representation of the wider landscape. Elephant crop-raiding takes place more frequently in areas of higher development compared to rural areas</p> <p><b>O.4</b> Central Government can coordinate approaches and recognise common participatory processes</p> <p><b>O.5</b> All incidents of Human-Elephant Conflict are recorded; people adhere to</p>

<p><b>Outputs:</b></p> <p>1. Families across Tanintharyi area (5,400) are empowered and knowledgeable about bottom-up land use management processes that incorporate ecosystem functionality and local land use needs under current development, and under future effects of resettled migrants</p>	<p>0.1 By the end of the 1<sup>st</sup> quarter in the 1<sup>st</sup> year of the project, all partner NGOs and stakeholders will meet to participate in partner’s inception meeting in Myanmar.</p> <p>1.1 5,400 families from 40 villages have access to information and support to develop maps and <a href="#">/or implement</a> plans for their communities by the end Yr 2</p> <p>1.2 Three township scenario planning exercises foreseeing growth or settlements completed by end of year 2</p> <p>1.3 &gt;8 high conservation value areas identified by the end of year 3</p> <p>1.4 Biodiversity indicators for monitoring ecosystem function identified <a href="#">and measured</a></p> <p>1.5 Learning incorporated into national</p>	<p>0.1 Inception meeting minutes, photographs</p> <p>1.1 Gender Disaggregated Statistics and livelihoods baseline data</p> <p>1.1 – 1.4 Village meeting minutes and photographs / registers of participation</p> <p>1.2 – 1.4 Large poster maps produced for all villages, Regional monitoring data</p> <p>1.5 Land Policy and land-use regulations</p>	<p>All partners available at the same time for the meeting.</p> <p>Villagers fully participate in land-use planning discussions within time frame of project</p> <p>Karen National Union Government continue to allow project activities in KNU-controlled areas.</p>
<p>2. Spatial plans completed and adopted in villages in Tanintharyi area based upon existing knowledge of important wildlife corridors and economically productive zones and available as examples and learning tools for other regions in Myanmar &amp; other Asian countries.</p>	<p>2.1 By the end of Year 2, 19 spatial plans created with local knowledge from communities and technical input from government and civil society, designed to lessen human-wildlife conflict while offering economic return in sustainable use zones</p> <p>2.2 By end of Year 3, <a href="#">at least</a> 50% of villages (2,700 families) feel an improved sense of well-being or economic opportunity based on access to and knowledge of productive zones</p>	<p>2.1 Plans available</p> <p>2.2 <a href="#">Evaluation of the contribution of increased land-security to reducing poverty and disadvantage.</a></p>	<p>Communities adhere to sustainable use guidelines.</p> <p>Plans adopted by end of project</p>

## 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
9	Number of land-use/habitat management plans to be submitted to local government (written Burmese) planned for submission in year 2-3			0	35		35	55
14A	Number of 1-day education training planned on Human Elephant Conflict (HEC) mitigation			61	97		157	120 (40 per year)
14B	Number of villagers/students to receive 1-day education training on Human Elephant Conflict (HEC) mitigation	Female Male	Burmese Burmese	6,221 4,650	13,361 9,350		19,582 14,000	10,000 10,000
7	HEC education materials. Information booklet, DVD, Game, Posters, videos. All educational materials are written in both Burmese and English. The game and information booklet has also been translated into the Karen language			53,180	49,250		53,180	49,500
20	Value of Educational material handed over to host country							
23	Match funding raised for Darwin project (across all project partners)							

**Table 2**

**Publications**

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers	Available from (e.g. weblink or publisher if not available online)
H.ELP educational HEC video	DVD	Compass Films, 2017	Male	Austrian		<a href="https://vimeo.com/176714180/d9e2f10e76">https://vimeo.com/176714180/d9e2f10e76</a>
H.ELP educational segments for TV broadcast	TV shorts	Compass Films, 2017	Male	Austrian		SG01 <a href="https://vimeo.com/170000020/9904c787ec">https://vimeo.com/170000020/9904c787ec</a> SG02 <a href="https://vimeo.com/176730785/8c4348fea5">https://vimeo.com/176730785/8c4348fea5</a> SG03 <a href="https://vimeo.com/170000019/622839f7c2">https://vimeo.com/170000019/622839f7c2</a> SG04 <a href="https://vimeo.com/169983040/b4d76204b0">https://vimeo.com/169983040/b4d76204b0</a> SG05 <a href="https://vimeo.com/169982964/f04300bcd7">https://vimeo.com/169982964/f04300bcd7</a> SG06 <a href="https://vimeo.com/169982911/80de95ca19">https://vimeo.com/169982911/80de95ca19</a> SG07 <a href="https://vimeo.com/169982913/2270023051">https://vimeo.com/169982913/2270023051</a> SG08 <a href="https://vimeo.com/170000017/a92413b1fc">https://vimeo.com/170000017/a92413b1fc</a> SG09 <a href="https://vimeo.com/169988634/fe15738a80">https://vimeo.com/169988634/fe15738a80</a> SG10 <a href="https://vimeo.com/170000018/7591b507c8">https://vimeo.com/170000018/7591b507c8</a> SG11 <a href="https://vimeo.com/169982914/d3c6d9f889">https://vimeo.com/169982914/d3c6d9f889</a> SG12 <a href="https://vimeo.com/170001809/6066f6afd5">https://vimeo.com/170001809/6066f6afd5</a>
MITV Celebrity Broadcasts – HEC campaign	TV shorts	MITV	Unknown	Burmese	MITV, Myanmar	<a href="https://vimeo.com/258823377/51d2962321">https://vimeo.com/258823377/51d2962321</a> <a href="https://vimeo.com/258825295/2d24ffe1e2">https://vimeo.com/258825295/2d24ffe1e2</a> <a href="https://vimeo.com/258834363/750d80b38e">https://vimeo.com/258834363/750d80b38e</a> <a href="https://vimeo.com/258834363/750d80b38e">https://vimeo.com/258834363/750d80b38e</a> <a href="https://vimeo.com/258849106/99fac6dfaf">https://vimeo.com/258849106/99fac6dfaf</a> <a href="https://vimeo.com/258839205/5d87a0dc89">https://vimeo.com/258839205/5d87a0dc89</a>

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

### Checklist for submission

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