



## Darwin Initiative Main Project Annual Report

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

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

**Submission Deadline: 30<sup>th</sup> April 2017**

### Darwin Project Information

Project reference	23-007
Project title	Safeguarding Mesoamerican crop wild relatives
Host country/ies	El Salvador, Guatemala, Honduras, Mexico
Contract holder institution	IUCN
Partner institution(s)	Comisión Nacional para Conocimiento y Uso de la Biodiversidad (CONABIO; National Commission for the Knowledge and Use of Biodiversity) and Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP) Mexico, Instituto de Ciencia y Tecnología Agrícolas (ICTA) Guatemala, Centro Nacional de Tecnología Agropecuaria y Forestal "Enrique Álvarez Córdova" (CENTA) El Salvador, , Oficina Regional de la UICN para Mexico, Centro América y el Caribe (ORMACC), University of Birmingham and IUCN
Darwin grant value	£297,401
Start/end dates of project	01 August 2016 - 31 July 2019.
Reporting period (e.g., Apr 2016 – Mar 2017) and number (e.g., Annual Report 1, 2, 3)	Apr 2017 – Mar 2018, Annual Report 2
Project Leader name	Richard Jenkins
Project website/blog/Twitter	<a href="http://www.psmesoamerica.org/en/">www.psmesoamerica.org/en/</a>
Report author(s) and date	Bárbara Goetsch, Francisca Acevedo, Patricia Koleff, Tania Urquiza, María Andrea Orjuela, Alicia Mastretta, Wolke Tobon, Ángela Cuervo, Jesús Alarcón; Oswaldo Oliveros, Esmeralda Urquiza, Richard Jenkins, Shelagh Kell and Nigel Maxted. 27 April 2018

## 1. Project rationale

Crop wild relatives (CWR) are wild plants that are the ancestors and close relatives of crop species and to which they can transfer adaptive traits required by breeders and farmers in particular to help to mitigate the adverse impacts of climate change. They are therefore of direct socio-economic importance to people across the globe. Mesoamerica is one of the world's most important centres of origin and diversity of crops and harbours numerous wild relatives of globally and regionally important crops, such as maize, beans and squashes. Many of these species, whose inherent genetic diversity represents



insurance for the future of global food security, are currently both threatened by habitat loss, degradation, invasive species and introgression with genetically modified organisms and are not subject to any dedicated conservation action, either in situ or ex situ. Although there is significant CWR diversity in Mesoamerica, according to EURISCO (European Cooperative Programme for Plant Genetic Resources) only 10% of CWR taxa in the region have any germplasm held ex situ in European gene banks (this number still remains unknown for the Mesoamerican region) and there is very limited active in situ maintenance of CWR genetic diversity in protected areas or other area-based conservation measures. Governments in the region, currently led by Mexico, recognize the importance of CWR for future food security and the need to actively and systematically conserve them, especially species of restricted distribution and those threatened by anthropogenic disturbance. IUCN invited a government institution of Mexico (CONABIO) and the University of Birmingham to combine their respective expertise and existing initiatives in Mexico to enhance knowledge and capacity to directly address the lack of active in situ and ex situ conservation action for CWR in the wider region. Because Mexico currently has the greatest capacity of Mesoamerican countries in CWR conservation, this project concentrates on transferring expertise and processes from Mexico and the UK to three other Mesoamerican countries. The project also builds on existing bi-lateral relationships between the various project partners, including an initiative between the National Centre of Genetic Resources, of the National Institute for Agricultural, Livestock and Forestry Research (INIFAP-CNRG) and the University of Birmingham. Results of the project will be a first step to formulate national and regional conservation strategies for CWR in a participatory manner, including national project partners, national and international experts, local communities, NGOs and other governmental agencies.

## 2. Project partnerships

During Year 2 of the project the relationship between the three lead partners continued to develop and strengthen, as well as the relationship between partner institutions. A workshop held in Mexico, June 2017, was a great opportunity to bring all project partners together again, and it was also the first opportunity for the lead researcher from the University of Birmingham to meet with project partners from Mexico, Guatemala and El Salvador. This workshop also allowed partners from Central America to observe and participate in the conservation planning process in Mexico which led to establishing the collaborative support needed in the region with the leadership of CONABIO.

Representatives of Guatemala's ICTA and CONANP attended the workshop and this helped reinforce collaboration between the two institutions to deliver on the project, since both members have been involved in decision-making with regard to project activities. Previous collaborations between the new representative from ICTA and one of the colleagues from CENTA, El Salvador, also helped to improve communication between these two partners in Year 2.

After initial delays in Year 1, the formal participation of Honduras in the project was secured in February 2018. The new partner, DiBio/MiAmbiente, knew about the project through our communications with the Nagoya Protocol National Focal Point who sits in this institution and will now act as the project's focal point. Links through the regional IUCN Mesoamerican office in

Honduras helped us to manage the change in the Directorship at DiBio/MiAmbiente in February 2018 and we have held two remote meetings with the new personnel from this partner.

### 3. Project progress

#### 3.1 Progress in carrying out project Activities

The activities planned for Year 2 (April 2017 to March 2018) included two outputs: 1) **Output 1** improving in-country human capacity and knowledge, which includes activity 1.3 *Induction on identification of key biodiversity areas by practical application of methods learned to priority CWR (associated to indicator 1.2); Activity 1.4 Run a webinar for partner institutions carrying out field work and managing the collections in seed banks (associated to indicator 1.3), Activity 1.5 Information to be presented in the video selected by stakeholders (linked to indicator 1.4); Activity 1.8 Information to be presented on the poster to be selected to generate a draft design to be discussed with stakeholders (linked to indicator 1.5)* and 2) **Output 2** identifying areas to safeguard threatened and vulnerable CWR, encompassing activity 2.8 *Run 5 day expert workshop to identify important sites for the conservation of CWR a) in situ and b) ex situ in each country and to propose overall management strategies of genetic reserves (linked to indicator 2.2); Activity 2.9 Elaborate a report in Spanish summarizing the main findings of the project and necessary actions to promote the conservation of CWR (associated to indicator 2.3);*

- 1) **Activity 1.3.** In preparation for the first part of the conservation planning workshop in Mexico, CONABIO brought together both its experts on species conservation planning and on CWR to discuss different criteria and approaches during a pre-workshop meeting (Annex 4 SM25). A 3-day workshop for the induction in conservation planning convened by CONABIO and IUCN and organized, hosted and led by CONABIO, took place in Mexico City, 19-21 June 2017 (Annex 4 SM26a, SM26b). Participants included representatives from partner countries and institutions: Mexico's CNRG-INIFAP, Guatemala's ICTA, El Salvador's CENTA, IUCN, and the University of Birmingham. A total of 42 CWR experts participated (25 from different universities and research institutes in Mexico, 2 from the University of Birmingham, 2 from Guatemala, 1 from El Salvador, 10 from CONABIO and 1 from IUCN) (Annex 4 SM26a). This was the first of a two-part conservation planning workshop that will take place in Mexico and its objective was to define, with the help of experts and involving all project partners, key ecological, social and economic aspects to consider when identifying important areas for CWR conservation and to start the development of an *in situ* conservation plan to protect the genetic diversity of CWR.

The workshop included a series of presentations that helped set the background for group discussions featuring the following topics: 1) Project background and current status and results by Dr. Barbara Goettsch (IUCN), 2) Experiences in CWR conservation planning by Prof. Nigel Maxted (University of Birmingham), 3) An ethnobotanical perspective of CWR by Dr. Robert Bye (UNAM, Mexico), 4) Considerations on agrobiodiversity conservation using the global maize project as an example, by Dr. Francisca Acevedo (CONABIO), Dr. Jorge Larson (CONABIO) and Alejandra Barrios (M.Phil., SEMARNAT, Mexico), and 6) Phylogeographic patterns of genetic diversity in Mexico by Dr. Alicia Mastretta (CONABIO), 7) Patterns emerging from CWR occurrence data in the context of ecological regions by Wolke Tobón (M.Phil.) and Oswaldo Oliveros (CONABIO), 8) Using species potential distribution models as a tool to fill in collection gaps by Dr. Emma Gómez and Dr. Ángela Cuervo (CONABIO), 9) Ecogeographic Land Characterization by Dr. Aremi Contreras (University of Birmingham) and 10) Sociocultural context in conservation planning by Dr. Tania Urquiza (Conabio) (Annex 4, SM26 short summary of the memorandum in English SM28).

The main results of the workshop were (i) partners decided on the methodology and tools to identify areas for the persistence of CWR in Mesoamerica and (ii) a set of key environmental and socioeconomic variables and (iii) taxa attributes that are most relevant for both conducting conservation planning of CWR and identifying important areas for the

persistence and conservation of CWR. Information on habitat specificity for 234 CWR was provided by CWR experts (Annex 4 SM29). The methodology adopted by the regional partners differed from that used by the project team from the University of Birmingham.

- 2) **Activity 1.4** Representatives of Mexico's CONABIO, CNRG-INIFAP, Guatemala's ICTA, Honduras's DiBio-MiAmbiente participated in the first of two webinars led by IUCN on 20 March 2018. The topics addressed were 1) Information needed to plan field work - priority species and collecting sites, 2) Collection permits- accessions in seed banks, accession's passport information, 3) Months in which collection should be planned, 4) Planning Webinar 2 - Capacity building for the identification of CWR, methodology to define priority species and collecting sites and (Annex 4 SM34a, SM34b).
- 3) **Activity 1.5** The production of the video is underway. The aim, content and target audience of the video was agreed following discussions with experts and project partners from Guatemala and El Salvador during the first part of the conservation planning workshop. Interview guides for experts and producers were produced by CONABIO and shared with experts and project partner's (Annex 4 SM35). The video will feature a series of images of CWR and fragments of interviews with experts of the participating countries in the Darwin Initiative project. The project's Research Assistant Esmeralda Urquiza with the help of Dr. Margarita Cano and CONABIO's communications department, recorded the first expert interview video featuring Dr. Flavio Aragón from partner institution INIFAP, and audio recorded interviews with producers during the VII Agrobiodiversity Fair, 2 December 2017, Oaxaca, Mexico (Annex 4 SM37a). Interviews with producers (audio records) were also conducted (Annex 4 SM36). The remaining interviews with experts will be completed during the second part of the conservation planning workshop, México City, 28-30 May 2018 and during the conservation planning workshops in Guatemala, El Salvador and Honduras. The final script for the video will be developed based on these interviews.
- 4) **Activity 1.6** Progress was made towards the communication plan for a media campaign. It was agreed that the general public is the target audience of the campaign. Final decision on the quantity of posters is awaiting the final design format. The poster and video will be made available to download from partners' institutional websites.
- 5) **Activity 1.8** CONABIO and IUCN discussed the content, design and target audiences of the informative poster as part of the series of meetings (Annex 4 SM39, SM40, SM41). CONABIO is currently working on the design and expects to have the first version by May 2018 to share with project partners.
- 6) **Activity 2.7.** The priority species were identified with the help of experts using the results from the red listing workshop that took place in Year 1. This list was used to define important areas for the conservation of CWR and for producing potential distribution maps using modelling techniques needed to inform spatial planning. However, CONABIO, experts and project partners agree that within each group of crops and its related CWR there is a continuum that contributes to the process of maintaining the genetic diversity responsible for its adaptive capacity and must therefore be conserved using different approximations. For this reason, priority CWR species are being used as proxy with a wider set of criteria defined by experts at the workshop held in June 2017 in Mexico City (Annex 4 SM25, SM30, and SM31) for the identification of important areas for the conservation of CWR that consider this genetic continuum.
- 7) **Activity 2.8.** Excellent progress was made in 2017 towards the preparation of the second part of the conservation planning workshop in Mexico and the national consultations in Guatemala and El Salvador. Through a series of meetings between CONABIO's experts on both CWR and conservation planning, and IUCN, progress towards generating the scientific inputs for the second Mexican workshop was made (Annex 4 SM30, SM31). Based on the inputs provided by experts during the first workshop a roadmap and methodology to identify important areas for the persistence and conservation of CWR has

been developed, progress has also been discussed and monitored in meetings involving all the relevant staff from CONABIO and IUCN (Annex 4 SM38, SM39, SM40).

A key step was the generation of 186 potential distribution models out of the 251 taxa evaluated for the IUCN Red List in Year 1. A total of 128 models were reviewed and validated by taxa experts (Annex 4 SM43). The taxonomic groups for which distribution maps were generated include: Chillies, *Capsicum* spp. (4 taxa), Squashes, *Cucurbita* spp. (10), Cotton, *Gossypium* spp. (6), Avocado, *Persea* spp. (20), Beans, *Phaseolus* spp. (23), Gooseberry, *Physalis* spp. (66), Potatoes, *Solanum* spp. (26), Gamagrass, *Tripsacum* spp. (16), Vanilla, *Vanilla* spp. (9) and Maize, *Zea* spp. (6). In the model review process with experts the initial number (186) was reduced to 155 for various reasons (e.g. some taxa had less than 20 records which is insufficient to produce a robust model). The validated maps will be used as proxies to identify important areas for the conservation of CWR (Annex 4 SM32). Mesoamerica has not only important and evolving CWR taxa, but the domestication and diversification processes of these taxa are still underway, which must be considered in the definition of these areas. CONABIO also made good progress on the development and/or compilation of key inputs to produce a high-resolution spatial zoning for CWR conservation, such as spatially explicit environmental and social information. The methodology and resulting maps highlighting areas of high biological and social value will be presented to the experts during the second part of the conservation planning workshop taking place in Mexico City, 28-30 May 2018. The aim of this workshop will be to discuss and refine results, and to propose a series of recommendations for the conservation of CWR in these areas. Another important aspect that will be discussed during this workshop is the strategy for field work to fill gaps in *ex situ* collections in Year 3. The preliminary results from these exercises will be presented in a webinar to partners in Central America before the workshop scheduled for May in Mexico. Contracts with partners in Guatemala and El Salvador are in place and the contract with Honduras is being reviewed.

- 8) **Activity 2.9** The technical report in Spanish is being prepared with the incoming inputs resulting from the project activities. An initial index was proposed to guide the elaboration of the technical report (Annex 4 SM42).
- 9) **Activity 3.1** A meeting between representatives of CONABIO and INIFAP-CNRG took place the 25th of January of 2018, aimed at establishing a work agenda for the collaboration between INIFAP-CNRG and CONABIO to conduct the field work in Year 3. CONABIO agreed to lead the process to define the list of priority CWR and collection sites with the support of experts from INIFAP-CNRG. INIFAP-CNRG agreed to request the collection permits to the corresponding authorities (Annex 4 SM44). CONABIO will define the list of CWR and criteria to identify potential collecting sites in Mexico and with the help of experts and INIFAP-CNRG these will be refined during the workshop planned to take place by the end of May 2018.

### 3.2 Progress towards project Outputs

**Output 1:** Good progress was made during the first 2 years of the project to achieve Output 1, **Indicator 1.1** This indicator was successfully completed in Year 1. **Indicator 1.2** was mainly achieved in Year 1 when several experts were trained to conduct species extinction risk assessments and climate change vulnerability assessments using The IUCN Red List Categories and Criteria and IUCN guidelines, respectively. We were hoping to train two experts on CWR from each of the partner countries and although we fulfilled this target for Mexico and El Salvador, we only trained one expert from Guatemala and none from Honduras. However, in February 2018 a workshop to assess the extinction risk of agaves (many of which are classed as CWR) was organised by IUCN and led by the project's Manager in Mexico and one other CWR expert from Guatemala, Mario Véliz and one expert from Honduras, José Linares, were trained (Annex 4 SM48a, SM48b and SM48c). As a result, by 2018 we had fulfilled our entire target for all partner countries except Honduras, as only one of two experts have been trained. The baseline for this indicator was the number of experts trained, at the beginning of the project this was 0 for

Guatemala, 0 for El Salvador, 0 for Honduras, 5 for Mexican (staff in CONABIO) and 0 for Mexican experts. By the end of Year 2 our indicator is 2 experts from Guatemala and El Salvador, 1 for Honduras and 32 for Mexico.

With regard to training on identification of sites of global significance for the persistence of biodiversity, in Year 2 a 3 day workshop on conservation planning and identification of areas important for CWR took place in Mexico City. The baseline of our indicator (at least 2 experts from each country trained) at the beginning of the project was 0 Honduras, 0 El Salvador, 0 Guatemala, 2 Mexico (species experts) and 4 Mexico (CONABIO). By the end of Year 2 our indicator is 1 El Salvador, 2 Guatemala, 26 Mexico (species experts) and 8 Mexico (CONABIO). Unfortunately, we had no experts from Honduras (Annex 4 SM26a). Even though we have not yet reached our target we are very likely to do so by the end of Year 3 as in May 2018 one expert from Guatemala and one expert from El Salvador will attend the second part of the conservation planning workshop in Mexico and will stay for two more days to receive dedicated training by staff from CONABIO on the use of the tools utilised in the project.

Even though we had a delay (reported in Half-year report Year 2) on running the webinar under **Indicator 1.3**, this allowed for further conversations on how to approach the training in a more effective way. In discussions with INIFAP-CNRG and CONABIO, it was agreed to split the webinar training session into two parts, the first one to re-establish contact with all colleagues involved and to agree on information needed before running the second part of the training. We successfully ran the first part (Annex 4 SM34a, SM3b) and have agreed on tentative dates for the training.

**Indicator 1.4** was first discussed at the project's Inception meeting in Year 1. During Year 2 we made good progress. Based on discussions at the first part of the conservation planning workshop in Mexico, June 2017, the aim, content of the video and target audience were agreed by all project partners present. CONABIO has developed the interview guides for experts and producers (Annex 4 SM35) and the first expert and producer video and producer audio interviews have been recorded (Annex 4 SM36, SM37a, SM37b). Other experts will be interviewed and recorded during the national consultations scheduled for May and July 2018. All partners have agreed to upload the video on their institution's web pages (also see text under Activity 1.5).

Good progress was made towards **Indicator 1.5** and we are well on time to deliver by Year 3 (also see text under Activity 1.8 and Annex 4 SM39, SM40, SM41).

No change was expected in Year 2 for Indicators 1.6, 1.7 and 1.8. However, progress to achieve this by Y3 is on track.

Progress was made towards **Output 2** in Year 1 and 2, **Indicator 2.1** was successfully completed in Year 1. Good progress was also made towards **Indicator 2.2**, even though we had a delay due to the contract with partners, a lot of work in preparation for the national consultations has been done, for details on progress see text under Activity 2.8. For **Indicator 2.3**, the technical report is being prepared with the incoming inputs resulting from the project activities (Annex 4 SM42), for details on progress see text under Activity 2.8. A series of meetings were held to tackle **Indicator 2.4**, where methods and analysis used for the spatial zoning for *in situ* conservation of CWR were proposed and refined (Annex 4 SM38, SM39, SM40, SM43), for details on progress, see text under Activity 2.9, **Indicator 2.5** will also be reviewed at the national consultations taking place in Year 3.

**Output 3:** No change was expected for Year 3, however progress was made towards this output. For example, for **Indicator 3.1** conversations have started between CONABIO, INIFAP-CNRG to establish a work agenda for the collaboration on field work, the delineation of the methodology to identify priority CWR for collection and selection of localities for collection (Annex 4 SM39, SM40, SM44) - for details on progress see text under Activity 3.1. **Indicator 3.2** Representative seed samples of a maximum of 30 priority species accessioned on four national seed banks (Year 3) - No change was expected by the end of year two. However, progress to achieve this by Y3 is on track (see text under Activity 3.1).

### 3.3 Progress towards the project Outcome

The state of the progress towards the project outcomes as measured by the corresponding indicators are summarized in Annex 1.

**Outcome:** National governments of the four countries are aware of the importance of conserving CWR and start to implement policies and actions to promote their conservation in situ and ex situ including the CBD and its Nagoya Protocol and the ITPGRFA.

**Indicator 0.1** Even though the final product from this indicator will be developed in Year 3, very good progress was made towards through the production of key information in Year2 that is relevant and useful to develop national conservation plans for CWR (Annex 4 SM29, SM32).

No change was expected by 2018 for **Indicators 0.2, 0.3 and 0.4**. However, progress to achieve this by the end of 2019 is on track.

### 3.4 Monitoring of assumptions

**Indicator 1.1. Assumption Output 1:** Staff who attend the inception meeting remains in the institutions.

**Comments:** Emma Gómez, the project's Research Assistant based in CONABIO, resigned in July 2017 to take up a permanent position in the Universidad Autónoma de Nuevo León. From that date on, Maria Andrea Orjuela, a specialist in risk analysis and genetic resources from the Risk Assessment and Biosafety Coordination (CONABIO), temporarily resumed the activities. In August, Esmeralda Urquiza Haas was hired as the new Research Assistant for the Darwin project; she is now working in conjunction with Maria Andrea Orjuela implementing the activities defined for this appointment together with the rest of the CONABIO team.

**Indicator 1.3. Assumptions Output 1:** All register participants join the webinar.

**Comments:** Due to other work commitments the representative from El Salvador cancelled her participation in the webinar. However, the webinar was recorded and minutes were taken and distributed among all project partners, including those not present at the webinar.

**Assumptions Output 2:** All experts are able to attend the workshop.

**Comments:** 42 experts were invited to the 3-day first part of the conservation planning workshop, Mexico City, June 2017, of which 100% attended the workshop.

**Assumptions not accounted for on the initial proposal:** The UKs decision to leave the European Union (Brexit) continued to impact the project in the same manner as reported last year. The value of the British pound dropped significantly following the referendum result and, even though the exchange rate during Q1 and Q2 of Year 2 increased, it was not until Q3 that the exchange rate was comparable to when the project budget was originally created. We do not know how this will continue to affect the project in Years 3 and 4. During Year 2, additional in-kind contributions by IUCN and CONABIO helped overcome the deficit. Moreover, in kind staff resources and the level of commitment from CONABIO increased as the project advanced. In kind staff resources increased from an estimated 19,128 GBP in Year 1 to 36,760 GBP in Year 2. Personnel from CONABIO dedicated on average 24% of their time (but as high as 80%) to activities toward the achievement of project objectives. Additionally, one researcher who works at CONABIO but is paid by the National Council of Science and Technology (CONACYT) dedicated 10% of her staff time to the project. Moreover, the project has benefited from the time that experts on agrobiodiversity dedicated during workshops and for the validation of CWR distribution models.



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

The project will have a positive impact on biodiversity through the assessment of the extinction risk of CWR species (Indicator 2.1) and will feed into the process of prioritisation, conservation and identification of areas to preserve them *in situ* and will aid to identify those species in more need of *ex situ* conservation (Indicator 2.2). The project will have an impact on poverty alleviation, additional positive impacts towards biodiversity and steps towards equitable sharing of benefits of crop wild relative species will be reached towards the end of the project.

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

Three of the Sustainable Development Goals are relevant to our project. Below we detail the contribution made for each goal over the past year:

**Goal 2.** End hunger, achieve food security and improved nutrition and promote sustainable agriculture. In Year 2 54 extinction risk assessments of Mesoamerican CWR were published on the IUCN Red List of Threatened Species (Annex 4 SM50), which is the starting point to plan conservation actions.

**Goal 13.** Take urgent action to combat climate change and its impacts. No further progress towards this Goal on Year 2.

**Goal 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. In Year 2 54 extinction risk assessments of Mesoamerican CWR were published on the IUCN Red List of Threatened Species (Annex 4 SM50).

The project and the importance of the assessments on the extinction risk of crop wild relatives carried out during it was highlighted on IUCN's position paper (Annex 4 SM49) for the session of the High Level Political Forum to review the implementation of the SDGs that took place at the United Nations in New York in July 2017.

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

The project will contribute to the Convention on Biological Diversity, its Nagoya Protocol (with the exception of El Salvador which is not signatory) and the International Treaty on Plant Genetic Resources for Food and Agriculture (with the exception of Mexico which is not signatory).

### Strategic Plan for Biodiversity 2011–2020 (Aichi Targets):

**Target 1:** By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

- In Year 2 good progress was made towards the production of an informative poster aimed at the general public and producers on the importance of CWR and their conservation. Progress was made in 2017 on identifying the target audience, content, format of the poster and its design is underway. The production of an informative video is also underway. This will feature experts and producers and will be aimed at the general public and producers (Annex 4 SM36, SM37a, SM37b, SM41).

**Target 12:** By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

- Good progress was made in Year 2 towards conservation planning of Mesoamerican CWR (see text under Activity 2.8 and 3.1).

**Target 13:** By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable



species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

- Satisfactory progress was made in 2017 towards Activity 2.8, through which important areas for the conservation of CWR in 4 countries will be identified.

### **CBD's Global Strategy for Plant Conservation,**

**Target 2:** An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action.

- 54 extinction risk assessments of Mesoamerican CWR were published on the IUCN Red List of Threatened Species (Annex 4 SM50).

**Target 7:** At least 75 per cent of known threatened plant species conserved in situ.

- Good progress towards the identification of areas important for the persistence of CWR was made in Year 2 (see Activity 2.8), in this process the extinction risk of species will be considered.

### **Nagoya Protocol**

- In 2017 progress was made by capacity building for plant conservation and sustainable use through the first part of the conservation planning workshop held in Mexico, where 42 participants attended the workshop

### **ITPGRFA**

- We assessed and published on the IUCN Red List of Threatened Species many of the wild relatives of crops included under the Multilateral System of the ITPGRFA (Annex 4 SM50).

The project will also assist four Mesoamerican countries to respond to the CBD notification of August 2015 (Ref.: SCBD/SAM/DC/DCo/84808), which encourages Parties (to CBD and ITPGRFA) to “review, develop or strengthen, national strategies for in situ conservation of CWR through protected areas and integrated approaches that link conservation to sustainable use and Goal 2.5 of the Second Global Plan of Action for Plant Genetic resources for Food and Agriculture: to end hunger by improving food security, nutrition and sustainable agriculture through maintaining the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species”. Since the beginning of the project we have been and continue to be in communication with the CBD, Nagoya Protocol and ITPGRFA NFPs in each of the host countries. The representative of the Nagoya Protocol Focal Point for Mexico (Alejandra Barrios Perez in representation of Edda Fernandez Luiselli from the Ministry of the Environment, SEMARNAT), the representative of the Nagoya Protocol Focal Point (César Azurdia in representation of José Echeverría Tello, CONANP) and the ITPGRFA Focal Point for El Salvador (Aura Jasmín Morales de Borja) attended the part one of two conservation planning workshops in Mexico (Annex 4 SM26b). The Nagoya Protocol Focal Point for Honduras (Marlé Aguilar) participated in the webinar on 20 March 2018 (Annex 4 SM34a and 34b).

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

During Year 2 of the project notable achievements on indirect impact on poverty alleviation were reached in enhanced human capacity to identify areas important for the persistence of CWR (see text in Activity 1.3) and also through the publication of extinction risk assessments of 54 CWR (SM50) and the generation more information on CWR species that will help plan conservation on Year 3 of the project has been generated in the form of potential distribution maps which have been validated by experts. These maps will be utilised during the national consultation in Year 3 to select important areas for the persistence of CWR.

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

We followed the same approach as last year and we made sure that when possible (i.e. when they exist) female experts are invited to all project events. We monitored gender and age at the project's workshop (Annex 4 SM26b) and are following IUCN's Gender Policy ([http://cmsdata.iucn.org/downloads/gender\\_policy.pdf](http://cmsdata.iucn.org/downloads/gender_policy.pdf)), recognising that gender is an essential component in the sustainable use, management and conservation of natural resources. In the first part of the conservation planning workshop, Mexico City, 19-21 June 2017, there were 42 participants of which 28 were women (Annex 4 SM26b). Equity is another way of measuring equality (as exposed by ILTS at the Darwin introductory workshop), we have monitored the age of workshop participants through anonymous questionnaires to make sure young people, in particular women are included, the data of number of women and men and their ages are presented in Annex 4 SM47.

## **8. Monitoring and evaluation**

We continue to monitor the project against the indicators used in the logical framework, making sure it is feasible to reach our targets (e.g. inviting our target number of experts expected to be trained and included in the meeting and workshop agendas activities expected to be covered). We use reports from CONABIO, who were responsible for event organisation and coordination, to monitor progress. The Research Assistants based in CONABIO produce the minutes of all internal meetings. The Project Manager holds weekly Skype meetings with the project's Research Assistants to monitor progress towards activities, as well as frequent Skype calls with senior management in CONABIO. The Project Manager visited CONABIO in February 2018 to discuss the logical framework and the overall progress and achievements of Year 2 and priorities for Year 3 (Annex 4 SM40). Additionally on 26 March CONABIO's project Leaders and the Project Manager had a meeting to monitor the project finances. The financial status of the project (e.g. exchange rates and total funds received in each payment in Mexican pesos) is closely monitored by CONABIO and IUCN. Monthly meetings are held with IUCN (Project manager and Project Leader) and the University of Birmingham. The Project Leader and Project Manager have weekly meetings to discuss progress and emerging matters of the project and the logical framework is revised every 6 months.

## **9. Lessons learnt**

Some delays caused by the internal legal and administrative processes were experienced in Year 2 and although these were generally shorter than in Year 1, the national consultation schedule was impacted.

Because not all the regional experts speak English and the region's official language is Spanish, meetings and workshops were held in this language. We were able to ensure full participation by non-Spanish speakers (from IUCN and the University of Birmingham) by staff members from CONABIO simultaneously translating presentations. As mentioned in Year 1 report, we explored the costs of professional simultaneous translations, however the project was unable to afford them as the service was extremely expensive (Annex 4 SM46).

Cash flow in implementing partners, that are all government institutions, had the potential to impeded project progress because they were unable to advance significant funding for major activities. However, IUCN was able to amend its payment schedule to accommodate the needs these partners.

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

We have responded to the issues raised in the Year 1 review in different sections of Year 2 report summarised below:

Comment 1 – response on section 2. Project partners

Comment 2 – response on section 3.1 Progress towards project Outputs under Indicator 1.2

Comment 3 - response on section 7. Gender equality issues

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

An aspect that worked really well and has highly enhanced the project was the inclusion of partners from Guatemala and El Salvador in the conservation planning workshop in Mexico. This has had a positive effect on the interaction between the partners. During this workshop it was also agreed between Central American colleagues that they would attend the national consultations in each other's countries, thereby facilitating regional cooperation and understanding of CWR conservation.

In a similar manner to the conservation planning workshop in Mexico, the project was enhanced by organizing the webinar in two sessions. This allowed us to include more topics than was originally planned, including the need to document the phenology of the target species before the national consultations. Another benefit from running the second session on training in Year 3 is that more experts in need of training can be identified during the national consultations.

The collaboration between CONABIO and IUCN on the Red List workshop has worked really well. After the experience with the in the Red List workshop in Year 1, in particular on mapping, we have developed a methodology together to keep track of the use of occurrence point data to generate species distribution maps and clean the databases. This in addition to the training and experience on mapping gain at the Red List workshop in Year 1 resulted in CONABIO providing key support during a Red List workshop to assess agaves and yuccas in Mexico in February 2018.

Having both CONABIO staff María Andrea Orjuela and Project Assistant Esmeralda Urquiza, has enhanced the project as their skills complement each other and very efficient progress is made towards project activities.

## **12. Sustainability and legacy**

The profile of the project during Year 2 was raised in Mexico and internationally through the presentation of the project and its results so far at the Mexican Congress of Ecology and the International Symposium on Genetic Resources given by CONABIO's Maria Andrea Orjuela (Annex 4 SM33). The project was also highlighted in two presentations given by Shelagh Kell from project partner University of Birmingham, in which the importance of Mesoamerican CWR diversity was emphasized (Annex 4 SM33d and SM33e). With the inclusion of partners in the first part of the conservation planning workshop in Mexico, more communication and support exists now between partners in the region. The exit strategy is still valid and the project is having the expected impact in terms of national government agencies related to conservation being involved and by leaving an enhanced human capacity and knowledge. The relationship between CONABIO, who has leadership and the most capacity in the region, and project partners and other national institutions involved in Guatemala and El Salvador will allow a successful exit strategy.

## **13. Darwin identity**

The project has made every effort to publicise the Darwin Initiative, the logo is included in all communications, as shown in many of the documents attached in Annex 4 (SM26b, SM27, SM33a, SM33b, SM33d and SM33e). Banners with the Darwin Initiative logo, project partners' logos and the project name (in English and Spanish) were displayed in project events (Annex 4 SM27). The Darwin logo also appears on the project's webpage ([www.psmesoamerica.org](http://www.psmesoamerica.org)). Project partners fully understand how the Darwin Initiative works as they were involved in submitting the proposal. The Darwin Initiative are always explained, for example, what the Darwin Initiative is, how it operates, where funds come from, what its objective is, how many times a year the call is open, what kind of projects and where projects are funded (Annex 4 SM33a, SM33b).

#### 14. Project expenditure

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

<b>Project spend (indicative) since last annual report</b>	<b>2016/17 Grant (£)</b>	<b>2016/17 Total Darwin Costs (£)</b>	<b>Variance %</b>	<b>Comments (please explain significant variances)</b>
Staff costs (see below)			9	
Consultancy costs				
Overhead Costs			-20	UoB spend more funds on staff time than overheads
Travel and subsistence			-8	
Operating Costs			5	
Capital items (see below)				
Others (see below)				
<b>TOTAL</b>			<b>0</b>	

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

Project summary	Measurable Indicators	Progress and Achievements April 2017 - March 2018	Actions required/planned for next period
<p><b>Impact</b></p> <p>Important crop wild relatives (CWR) of Mesoamerica are safeguarded in situ and ex situ, delivering improved food-security for present and future generations.</p>		<p>Good progress was made towards the impact of the project through the use of the information generated in Year 1 on the assessment of the extinction risk of CWR species in the process of prioritising conservation and identifying areas to preserve them <i>in situ</i>. This information will also be used to elaborate the strategy for field work and will aid to identify those species in more need of <i>ex situ</i> conservation. Additional positive impacts towards biodiversity and steps towards equitable sharing of benefits of crop wild relative species will be reached towards the end of the project.</p>	
<p><b>Outcome</b></p> <p>National governments of the four countries are aware of the importance of conserving CWR and start to implement policies and actions to promote their conservation in situ and ex situ including the CBD and its Nagoya Protocol and the ITPGRFA</p>	<p>0.1 Developing of national plans for the conservation of CWR using information from this project are underway in the four partner countries (end of year 3)</p> <p>0.2 Partner countries include the results of this project in their national reports to the CBD and its Nagoya Protocol and the ITPGRA (end of year 3)</p> <p>0.3 Breeding and research programs on CWR are improved in the four partners countries through better national seed collections (a maximum of new important CWR incorporated in collections and at least 50% used in breeding programs) and are made available for inter-country exchange of genetic material, so supporting the ITPGRA (with the exception of Mexico) and Nagoya Protocol (with the</p>		

	<p>exception of El Salvador) (end of Year 3)</p> <p>0.4 In situ conservation of CWR improved through a better understanding of the importance of CWR by stakeholders in proposed genetic reserves (end of year 3)</p>		
<p><b>Output 1.</b></p> <p>Improved in-country human capacity and knowledge for identifying and establishing conservation priorities for CWR to improve human livelihoods, through the evaluation of the extinction risk of species, including climate change vulnerability, identification of important areas for biodiversity and raising awareness of their importance</p>	<p>1.1 Attendance of at least 2 identified key stakeholders from each of the partner countries at the initial inception meeting (beginning of year 1)</p> <p>1.2 At least two national CWR experts from each of the four partner countries trained to conduct species extinction risk assessments using The IUCN Red List Categories and Criteria and climate change vulnerability assessments using IUCN guidelines (by end of year 1), and identification of sites of global significance for the persistence biodiversity areas based on the IUCN's globally approved standard (end of year 3)</p> <p>1.3 At least two botanists from El Salvador, Honduras and Guatemala trained in seed bank collection and preservation by Mexican experts (end of year 2)</p> <p>1.4 Key stakeholders use the knowledge generated through this</p>	<p>Good progress has been made towards this Output in Year 2 of the project, we have had two main activities in Year 2 which have contributed to reaching this Output, the first part of the conservation planning workshop which is related to Activity 1.3 and also the first part of the webinar to train experts on collection, identification and preservation of CWR. So far the indicators used have been appropriate to measure progress towards the Outcome.</p> <p>The first part of this indicator was tackled in Year 1 and the second part related to the identification of sites of global significance for the persistence of biodiversity is well underway (see text under Activity 1.3 and 2.8)</p> <p>Some progress has been made towards the training of botanists from Central America. A first meeting with representatives of CNRG; IUCN and CONABIO took place on March 20, 2018, in which several topics related to field work planning and collection for ex-situ conservation (see text under Activity 1.4).</p>	

	<p>project on CWR species, key sites for conservation and their importance for food security to create a video for a general public awareness and plan a strategy for a media campaign (starting in year 1, revisited and finalised in year 3)</p> <p>1.5 Key stakeholders use the knowledge generated through this project on CWR species, key sites for conservation and their importance for food security to create an informative poster (2,000 copies) and plan a dissemination strategy to distribute poster to targeted audiences such as rural agronomy schools, meeting centres for landowners and managers, NGO's, government offices related to the environment and agriculture making sure woman and young audiences are included (starting in year 1, revisited and finalised in year 3)</p> <p>1.6 National agencies responsible for conserving CWR and for reporting against the relevant conventions are informed about the results in a dedicated regional event convened by IUCN (year 3)</p> <p>1.7 Publication for the scientific community on a regional analyses on the conservation of CWR (year 3)</p> <p>1.8 Face to face communications in each country with the local authority representatives for sites identified as</p>	<p>The video is underway (see text under Activity 1.5 and 1.6).</p> <p>The poster is underway (see text underactivity 1.6 and 1.8)</p> <p>Y3</p> <p>A draft of the first scientific publication is underway, which focuses on the conceptual framework to conduct CWR conservation in highly diverse regions, such as Mesoamrica.</p> <p>Y3</p>
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	important areas for the conservation of CWR (year 3)	
Activity 1.1 Inception meeting convened by IUCN hosted by CONABIO including participants from all four partner countries to discuss project planning, design, logistics, implementation, reporting, legal and ethical compliance.		Completed in Y1
Activity 1.2 Five day training workshop including both, theoretical and practical, on the assessment of species extinction risk and climate change vulnerability assessments, as a tool for conservation planning followed by practical application of methods learned to the CWR selected by the stakeholders.		Completed in Y1
Activity 1.3 Induction on identification of key biodiversity areas by practical application of methods learned to priority CWR.		In order to identify the important areas for the persistence and conservation of CWR two expert workshops were planned. The first was carried out with the aim of introducing conservation planning approaches and tools to experts, and identify with the help of experts key environmental and socioeconomic variables to be considered when conducting conservation of CWR and for the selection of areas important for the persistence and conservation of CWR (Annex 4, SM26). Participants included representatives from the partner countries and institutions: Mexico's INIFAP, Guatemala's ICTA, El Salvador's CENTA, the IUCN, and the University of Birmingham. In total 30 experts in CWR participated (25 from different universities and research institutes in Mexico, 2 from the University of Birmingham, 2 from Guatemala and 1 from El Salvador). This workshop was the first of a set of two that will take place in Mexico (Annex 4 SM26-SM29). The objective of this first workshop was to define, with the help of the experts, the key ecological, social and economic aspects to take into account in order to identify important areas for CWR conservation and to induce the development of an <i>in-situ</i> conservation plan to protect the genetic diversity of CWR which have the potential to improve crops and contribute to food security in the future (Annex 4 SM26).
Activity 1.4 Run a webinar for partner institutions carrying out field work and managing the collections in seed banks to exchange methodologies on seed collection and their preservation.		The first part of this two part webinar took place on 20 March 2018 and participants from Mexico's INIFAP-CNRG, CONABIO, Guatemala's ICTA, Honduras' DiBio/MiAmbiente and IUCN participated. The topics addressed were 1) determination of the priority species and collecting sites, 2) collection permits, 3) accessions in seed banks, 4) collecting passport, 4) capacity building for the identification of CWR and methodology to define priority species and collecting sites (Annex 4 SM34a, SM34b).
Activity 1.5 Information to be presented in the video selected by stakeholders.		Good progress was made towards this goal (Annex 4 SM35, SM36, SM37). CONABIO will lead the production of a video directed to the general public to

		convey what are CWR, why are they important, , what are their threats and which general actions different stakeholders can undertake to favour their conservation. Some of the inputs required to produce the video have already been developed, including the interview guides for experts and producers, and a set of images of CWR. The video recorded interviews with experts will be carried out during the expert's workshop in May 2018 and during the workshops in Central America. The video script will be developed based on the experts' responses and in the whole process will be coordinated by CONABIO with input from partners.
Activity 1.6 Plan a strategy for a media campaign to broadcast informative video and selection of platforms where the video will be shown discussed with stakeholders in early stages of project and revisited after obtaining project results.		Some progress was made towards the strategic plan for a media campaign. For example, it was confirmed by partners that the video could be uploaded on their institutional websites.
Activity 1.7 Broadcast video on national TV and websites of stakeholders.		Y3
Activity 1.8 Information to be presented on the poster to be selected to generate a draft design to be discussed with stakeholders.		Good progress has been made towards this activity the target audience, aim and themes to include in the informative poster were discussed during meetings (SM38, SM39, SM40). We are currently generating its contents (Annex 4 SM41) and expect to have the first version by May 2018.
Activity 1.9 Strategic dissemination plan for poster discussed with stakeholders in early stages of project and revisited after obtaining project results.		Good progress on this activity was made. Many other outlets have been proposed including the experts workshop of May 2018 in Mexico, the expert workshop in Central America, seed fairs in Mexico, and through regional agronomy schools. Furthermore, the poster will be available for its download through the institutional pages of the partner countries.
Activity 1.10 Distribute informative poster on crop wild relatives in relevant sites (e.g. rural agronomy schools, meeting centres for landowners and managers, NGO's, government offices related to the environment and agriculture) and according to the dissemination plan.		Y3
Activity 1.11 Generate list of key invitees and send out invitations to event to present the results of the project.		Y3
Activity 1.12 Hold event to present the project's results.		Y3
<b>Output 2.</b> Areas to safeguard threatened and vulnerable crop wild relatives identified and information shared to assist in future conservation of sites	2.1 Regional workshop to assess the extinction risk of at least 250 species of CWR attended by at least 2 participants from each of the four partner countries, including civil society, academia and governments (year 1). Making sure female experts are invited (if there are any).	We have made good progress towards this Output through the evaluation of the extinction risk of 251 CWR taxa, i.e. species, subspecies, varieties and in some cases populations.

	<p>2.2 Four national consultations workshop (one in each country) to identify important sites for the conservation of CWR a) in situ and b) ex situ (year 2).</p> <p>2.3 Technical report that identifies the sites, prioritise and proposes management strategies written for national stakeholders in Spanish (year 3).</p> <p>2.4 Key sites for in situ CWR conservation identified in each of the 4 partner countries.</p> <p>2.5 At least one key site proposed as a genetic reserve in each partner country.</p>	<p>The dates for three of these consultations are set and much progress have been made in producing the inputs necessary for the consultations (see text under Activity 2.8)</p> <p>The production of the report in Spanish is underway (see text under Activity 2.9)</p> <p>CONABIO team is currently working in the elaboration of different scenario maps to highlight important areas for the conservation of CWR in Mesoamerica, using the criteria defined by the experts during the 3-day workshop held in June 2017 in Mexico City (see text under Activity 2.8).</p> <p>Y3</p>
Activity 2.1. Generate a preliminary species list based on global CWR		Completed in Year 1
Activity 2.2. Review preliminary list by stakeholders to allow a consensus list that includes global, regional, national and local CWR conservation priorities.		Completed in Year 1
Activity 2.3 Collate spatial data provided by national experts to generate species distribution maps to be reviewed during extinction risk assessment workshop.		Completed in Year 1
Activity 2.4 Collate published data on CWR to be assessed and enter it onto the IUCN's, Species Information Service online database.		Completed in Year 1
Activity 2.5 Run 5 day expert workshop, including participants from each of the four partner countries and international experts, to assess the extinction risk of at least 250 CWR.		This activity has been completed. See text under Activity 1.2.
Activity 2.6 Peer review process of assessments of crop wild relatives including editing, consistency check and standards for publication on the red list.		This activity started in Year 1 during Activity 2.5 and continued in Year 2, and we are now close to completion.

<p>Activity 2.7 Generate priority CWR species list based on the results from expert workshop.</p>	<p>A list of priority CWR was defined using the results from the Red List workshop (see section 3.2 under Activity 2.7).</p>				
<p>Activity 2.8 Run 5 day expert workshop to identify important sites for the conservation of CWR a) in situ and b) ex situ in each country and to propose overall management strategies of genetic reserves.</p>	<p>In June 2017, we held a 3-day conservation planning workshop in Mexico, organized by CONABIO.</p> <p>Based on the results of this workshop, much preparation for the second part has taken place. Series of meetings have taken place between CONABIO working group and Barbara Goettsch from IUCN to discuss the methods and tools to be employed in the definition of the important areas for the conservation of CWR. was agreed that the software Zonation will be used to identify these areas given that it represents a flexible and cost-effective method that meets the needs of the mentioned analysis (Annex 4 SM30, SM31).</p> <p>The second part of the conservation planning workshop in Mexico will take place 28-30 May 2018. A total of 51 participants have been invited, including representatives of partner institutions in Guatemala, El Salvador, Honduras and the UK. The aim of this workshop is manifold: 1) To discuss the methodology used for the identification of areas of high biological and social value for the conservation of CWR and review the final results, 2) to refine the methodology and results based on the opinions of experts, 3) to generate a series of recommendations for the conservation of CWR in identified areas, 4) to come up with a first set of priority species and areas for the collection of CWR.</p>				
<p>Activity 2.9 Elaborate a report in Spanish summarizing the main findings of the project and necessary actions to promote the conservation of CWR.</p>	<p>The elaboration of the report is currently underway.</p>				
<p><b>Output 3.</b> Priority Mesoamerican CWR conserved ex situ in national seeds banks.</p>	<table border="1"> <tr> <td data-bbox="618 869 1099 975"> <p>3.1 At least 3 field expeditions in each of the partner countries to collect seed samples of priority CWR (year 3).</p> </td> <td data-bbox="1099 869 2096 1294" rowspan="3"> <p>Contracts with partners in Guatemala and El Salvador are in place and under review in Mexico and Honduras. A first meeting involving representatives from Mexico's CONABIO, CNRG-INIFAP, Guatemala's ICTA, Honduras' DiBio/MiAmbiente and IUCN to harmonize filed work has taken place (see text under Activity 3.1).</p> </td> </tr> <tr> <td data-bbox="618 975 1099 1114"> <p>3.2 Representative seed samples of a maximum of 30 priority species accessioned on four national seed banks (year 3).</p> </td> </tr> <tr> <td data-bbox="618 1114 1099 1294"> <p>3.3 Duplicate samples of at least 50% of material collected from 3 signatory countries to ITPGRFA are made available to be sent to international collections (year 3).</p> </td> </tr> </table>	<p>3.1 At least 3 field expeditions in each of the partner countries to collect seed samples of priority CWR (year 3).</p>	<p>Contracts with partners in Guatemala and El Salvador are in place and under review in Mexico and Honduras. A first meeting involving representatives from Mexico's CONABIO, CNRG-INIFAP, Guatemala's ICTA, Honduras' DiBio/MiAmbiente and IUCN to harmonize filed work has taken place (see text under Activity 3.1).</p>	<p>3.2 Representative seed samples of a maximum of 30 priority species accessioned on four national seed banks (year 3).</p>	<p>3.3 Duplicate samples of at least 50% of material collected from 3 signatory countries to ITPGRFA are made available to be sent to international collections (year 3).</p>
<p>3.1 At least 3 field expeditions in each of the partner countries to collect seed samples of priority CWR (year 3).</p>	<p>Contracts with partners in Guatemala and El Salvador are in place and under review in Mexico and Honduras. A first meeting involving representatives from Mexico's CONABIO, CNRG-INIFAP, Guatemala's ICTA, Honduras' DiBio/MiAmbiente and IUCN to harmonize filed work has taken place (see text under Activity 3.1).</p>				
<p>3.2 Representative seed samples of a maximum of 30 priority species accessioned on four national seed banks (year 3).</p>					
<p>3.3 Duplicate samples of at least 50% of material collected from 3 signatory countries to ITPGRFA are made available to be sent to international collections (year 3).</p>					
<p>Activity 3.1 Field expeditions conducted in all four countries to collect seed samples of CWR identified in earlier stages.</p>	<p>Progress was made towards this activity during the Inception meeting where discussions on legal and ethical compliance and health and safety compliance for field work and seed collection were discussed (Annex 4 SM4). Conversations on the kind of data and the importance of all institution gathering the same information was discussed and it will be picked up during Activity 1.4 (Webinar).</p>				

	Representatives of CNRG, IUCN and CONABIO met to set the work agenda to collaborate in order to meet activity 3.1
Activity 3.2 Enter information from field expeditions into national databases.	Y3
Activity 3.3 Assertion of seeds in national seed bank.	Y3
Activity 3.4 Seed exchange between institutions.	Y3

## 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>                      .Important crop wild relatives (CWR) of Mesoamerica are safeguarded in situ and ex situ, delivering improved food-security for present and future generations.</p>			
<p><b>Outcome:</b> National governments of the four countries are aware of the importance of conserving CWR and start to implement policies and actions to promote their conservation in situ and ex situ including the CBD and its Nagoya Protocol and the ITPGRFA</p>	<p>0.1 Developing of national plans for the conservation of CWR using information from this project are underway in the four partner countries.</p> <p>0.2 Partner countries include the results of this project in their national reports to the CBD and its Nagoya Protocol and the ITPGRA.</p> <p>0.3 Breeding and research programs on CWR are improved in the four partners countries through better national seed collections (a maximum of new important CWR incorporated in collections and at least 50% used in breeding programs) and inter-country exchange of genetic material, so supporting the ITPGRA (with the exception of Mexico) and Nagoya Protocol (with the exception of El Salvador).</p> <p>0.4 In situ conservation of CWR improved through a better understanding of the importance of CWR by stakeholders in proposed</p>	<p>0.1 Draft plan and outputs of meetings convene to discuss it</p> <p>0.2 National reports to the conventions</p> <p>0.3 Updates from the partner institutions responsible for the curation and exchange of CWR genetic resources</p> <p>0.4 Reports from consultation meetings held with stakeholders that outline</p>	<p>Momentum for this work is maintained after the life of the project</p>

<p><b>Output 1</b></p> <p>1. Improved in-country human capacity and knowledge for identifying and establishing conservation priorities for CWR to improve human livelihoods, through the evaluation of the extinction risk of species, including climate change vulnerability, identification of important areas for biodiversity and raising awareness of their importance</p>	<p>1.1 Attendance of at least 2 identified key stakeholders from each of the partner countries at the initial inception meeting (beginning of year 1)</p> <p>1.2 At least two national CWR experts from each of the four partner countries trained to conduct species extinction risk assessments using The IUCN Red List categories and Criteria and climate change vulnerability assessments using IUCN guidelines (by end of year 1), and identification of sites of global significance for the persistence biodiversity areas based on the IUCN's globally approved standard (end of year 2)</p> <p>1.3 At least two botanists from El Salvador, Honduras and Guatemala trained in seed bank collection and preservation by Mexican experts (end of year 2)</p> <p>1.4 Key stakeholders use the knowledge generated through this project on CWR species, key sites for conservation and their importance for food security to create a video for a general public awareness and plan a strategy for a media campaign (starting in year 1, revisited and finalised in year 3)</p> <p>1.5 Key stakeholders use the knowledge generated through this project on CWR species, key sites for conservation and their importance for food security to create an informative poster (2,000 copies) and plan a dissemination</p>	<p>1.1 Project inception meeting report and group picture</p> <p>1.2 List of workshop participants with signature, certificates of attendance and participation, group picture. Published assessments of species extinction risk will contained the trained staff names as authors.</p> <p>1.3 Copy of emailed invitation and list of webinar participants. Botanists trained participate in the project's collection expeditions</p> <p>1.4 Strategic plan for media campaign ad video widely available on multiple platforms (e.g. National TV, youtube and stakeholder webpages)</p> <p>1.5 Printed poster and dissemination strategic plan including list of sites, institutions, NGO's, rural agronomy schools to which the poster will distributed</p>	<p>Staff who attended the inception meeting remains in the institutions</p> <p>Trained staff remains in the host institution</p> <p>Registered participants join the webinar. Botanists can participate in field expeditions in year 3</p>
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	<p>strategy to distribute poster to targeted audiences such as rural agronomy schools, meeting centres for landowners and managers, NGO's, government offices related to the environment and agriculture making sure woman and young audiences are included (starting in year 1, revisited and finalised in year 3)</p> <p>1.6 National agencies responsible for conserving CWR and for reporting against the relevant conventions are informed about the results in a dedicated regional event convened by IUCN (year 3)</p> <p>1.7 Publication for the scientific community on a regional analyses on the conservation of CWR (year 3)</p> <p>1.8 Face to face communications in each country with the local authority representatives for sites identified as important areas for the conservation of CWR (year 3)</p>	<p>1.6 Copy of invitation to the event sent by email to stakeholders and convention focal points 1.7 Draft version of peer review paper 1.8 List of responsible authorities and feedback from communicators.</p>	<p>Stakeholders attend the event</p> <p>Paper is accepted for publication</p> <p>Local representatives for key sites for biodiversity are available and effective communication develops with this key stakeholder group</p>
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<p><b>Output 2</b></p> <p>Areas to safeguard threatened and vulnerable crop wild relatives identified and information shared to assist in future conservation of sites</p>	<p>2.1 Regional workshop to assess the extinction risk of at least 250 species of CWR attended by at least 2 participants from each of the four partner countries, including civil society, academia and governments (year 1). Making sure female experts are invited (if there are any) and.</p> <p>2.2 Four national consultations workshop (one in each country) to identify important sites for the conservation of CWR a) in situ and b) ex situ (year 2).</p> <p>2.3 Technical report that identifies the sites, prioritise and proposes management strategies written for national stakeholders in Spanish (year 3)</p> <p>2.4 Key sites for in situ CWR conservation identified in each of the 4 partner countries 2.5 At least one key site proposed as a genetic reserve in each partner country</p>	<p>2.1 Workshop report that include a list of evaluated species and their respective extinction risk category and vulnerability to climate change and list of participants</p> <p>2.2 Consultation workshop report including list of important sites for the conservation of CWR and list of participants</p> <p>2.3 Printed report</p> <p>2.4 List of key sites and map showing them. Spatial data on sites fed to national and global databases.</p> <p>2.5 List of key sites proposed as genetic reserves in each partner country, map showing them and overall recommendations for their management</p>	<p>All experts are able to attend the workshop</p>
<p><b>Output 3</b></p> <p>Priority Mesoamerican CWR conserved ex situ in national seeds banks</p>	<p>3.1 At least 3 field expeditions in each of the partner countries to collect seed samples of priority CWR (year 3)</p>	<p>3.1 Field work report, including list of species and localities where seeds were collected</p>	<p>Contractual agreements developed between lead institution (IUCN) and national seed banks in each country</p>

	<p>3.2 Representative seed samples of a maximum of 30 priority species accessioned on four national seed banks (year 3)</p> <p>3.3 Duplicate samples of at least 50% of material collected from 3 signatory countries to the ITPGRFA sent to international collections (year 3)</p>	<p>3.2 List of species and their accession number</p> <p>3.3 List of the institutions duplicate specimens will be sent to and the list of duplicates, including name of species and accession number</p>	<p>Acquisition of relevant permits received on time</p>
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### Activities

- 1.1 Inception meeting convene by IUCN hosted by CONABIO including participants from all four partner countries to discuss project planning, design, logistics, implementation, reporting, legal and ethical compliance.
- 1.2 Five day training workshop including both, theoretical and practical, on the assessment of species extinction risk and climate change vulnerability assessments, as a tool for conservation planning followed by practical application of methods learned to the CWR selected by the stakeholders.
- 1.3 Induction on identification of key biodiversity areas by practical application of methods learned to priority CWR.
- 1.4 Run a webinar for partner institutions carrying out field work and managing the collections in seed banks to exchange methodologies on seed collection and their preservation.
- 1.5 Information to be presented in the video selected by stakeholders
- 1.6 Plan a strategy for a media campaign to broadcast informative video and selection of platforms where the video will be shown discussed with stakeholders in early stages of project and revisited after obtaining project results
- 1.7 Broadcast video on national TV and websites of stakeholders.
- 1.8 Information to be presented on the poster to be selected to generate a draft design to be discussed with stakeholders.
- 1.9 Strategic dissemination plan for poster discussed with stakeholders in early stages of project and revisited after obtaining project results
- 1.10 Distribute informative poster on crop wild relatives in relevant sites (e.g. rural agronomy schools, meeting centres for landowners and managers, NGO's, government offices related to the environment and agriculture) and according to the dissemination plan
- 1.11 Generate list of key invitees and send out invitations to event to present the results of the project.
- 1.12 Hold event to present the project's results.
- 2.1 Generate a preliminary species list based on global CWR conservation targets.
- 2.2 Review preliminary list by stakeholders to allow a consensus list that includes global, regional, national and local CWR conservation priorities.
- 2.3 Collate spatial data provided by national experts to generate species distribution maps to be reviewed during extinction risk assessment workshop.
- 2.4 Collate published data on CWR to be assessed and enter it onto the IUCN's, Species Information Service online database
- 2.5 Run 5 day expert workshop, including participants from each of the four partner countries and international experts, to assess the extinction risk of at least 250 CWR.

- 2.6 Peer review process of assessments of crop wild relatives including editing, consistency check and standards for publication on the red list.
- 2.7 Generate priority CWR species list based on the results from expert workshop.
- 2.8 Run 5 day expert workshop to identify important sites for the conservation of CWR a) in situ and b) ex situ in each country and to propose overall management strategies of genetic reserves.
- 2.9 Elaborate a report in Spanish summarizing the main findings of the project and necessary actions to promote the conservation of CWR.
- 3.1 Field expeditions conducted in all four countries to collect seed samples of CWR identified in earlier stages
- 3.2 Enter information from field expeditions into national databases
- 3.3 Assertion of seeds in national seed banks
- 3.4 Seed exchange between institutions

## 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 project
Established codes								
1B	PhD attained	Female	Mexican		1			
4A	Undergraduate student trained in generating Red List draft assessments and using the IUCN Red List Categories and Criteria	Female	Brazilian	1				1
4B	24							
6A	Field work and techniques to preserve seeds in germplasm banks		Guatemala El Salvador Honduras					
6A	Conservation planning tools training		Guatemala El Salvador					2
12A	Occurrence data for species evaluated for the Red List			1				
12A	Red List assessments information for species evaluated			1				1
14B	Project presented at CBD COP13 side event #2221	Female	Mexican	1				3
14B	Talk at the Mexican Ecology Congress (July 30th to August 4th, Leon, Guanajuato)	Female	Colombian		1			
14B	Talk at the International Symposium on	Female	Colombian and British		2			

	Genetic Resources							
23	Resources raised towards project implementation			15,800 USD				
23	In kind contributions from CONABIO			19,128 GBP	36,760 GBP			
23	In kind contribution from lead organization IUCN			16,463 GBP	16,463 GBP			
23	In kind contribution from UoB			Being calculated				

**Table 2 Publications**

<b>Title</b>	<b>Type</b> (e.g. journals, manual, CDs)	<b>Detail</b> (authors, year)	<b>Gender of Lead Author</b>	<b>Nationality of Lead Author</b>	<b>Publishers</b> (name, city)	<b>Available from</b> (e.g. weblink or publisher if not available online)
IUCN Red List assessments	Online database with journal status	2017			IUCN, Cambridge	Annex 4 SM50