

Darwin Plus: Overseas Territories Environment and Climate Fund Annual Report

To be completed with reference to the "Project Reporting Information Note"
(<https://darwinplus.org.uk/resources/information-notes>)

It is expected that this report will be a **maximum of 20 pages** in length (excluding annexes)

Submission Deadline: 30th April 2023

Submit to: BCF-Reports@niras.com including your project ref in the subject line

Darwin Plus Project Information

Project reference	DPLUS114
Project title	Tropical Important Plant Areas and Important Plant Species in TCI
Territory(ies)	Turks and Caicos Islands (TCI)
Lead Partner	Royal Botanic Gardens Kew
Project partner(s)	Department of Environment and Coastal Resources (DECR), TCI Government
Darwin Plus grant value	£304,743
Start/end dates of project	01 April 2022 – 31 March 2025
Reporting period (e.g. Apr 2022-Mar 2023) and number (e.g. Annual Report 1, 2)	April 2022 – March 2023 Annual Report 1
Project Leader name	Stuart Cable
Project website/blog/social media	www.kew.org/science/our-science/projects/TIPAS-turks-and-caicos @KewUKOTs
Report author(s) and date	Colin Clubbe and Stuart Cable, 26 April 2023

1. Project summary

To enable the sustainable management of the natural resources and biodiversity of the Turks and Caicos Islands comprehensive data on the plants and habitats are required. Currently these data are incomplete and scattered. This project was co-designed to identify and map areas of high conservation value, threatened habitats and plant diversity across the territory using the established Tropical Important Plant Areas (TIPAs) methodology (Darbyshire et al., 2007, <https://doi.org/10.1007/s10531-017-1336-6>) resulting in the identification and documentation of the most important sites for wild plant species diversity in TCI which can be managed to ensure their long-term conservation for future generations. One of the Kew project team was part of the team that developed TIPAs and is an author on this publication. Post project this Network of Tropical Important Plant Areas will be adopted by the TCI Government and used as a core resource in site-based conservation built on the best available scientific evidence helping TCI meet its commitments under the Kunming-Montreal Global Biodiversity Framework (<https://www.cbd.int>). As a result of successfully completing this project botanical knowledge, local capacity and public awareness of the importance of plants will be increased, facilitating future species management and outreach and ultimately a better outlook for TCI's precious plant resources.

The Turks and Caicos Islands is a UK Overseas Territory comprising two groups of tropical islands separated by a deep-water trench, the Turks Islands Passage (Fig 1). Located in the western Atlantic Ocean, they form the southernmost island group of the Lucayan archipelago which comprises the Commonwealth of the Bahamas and the Turks and Caicos Islands. This chain of islands shares a common climate, geology, and flora.

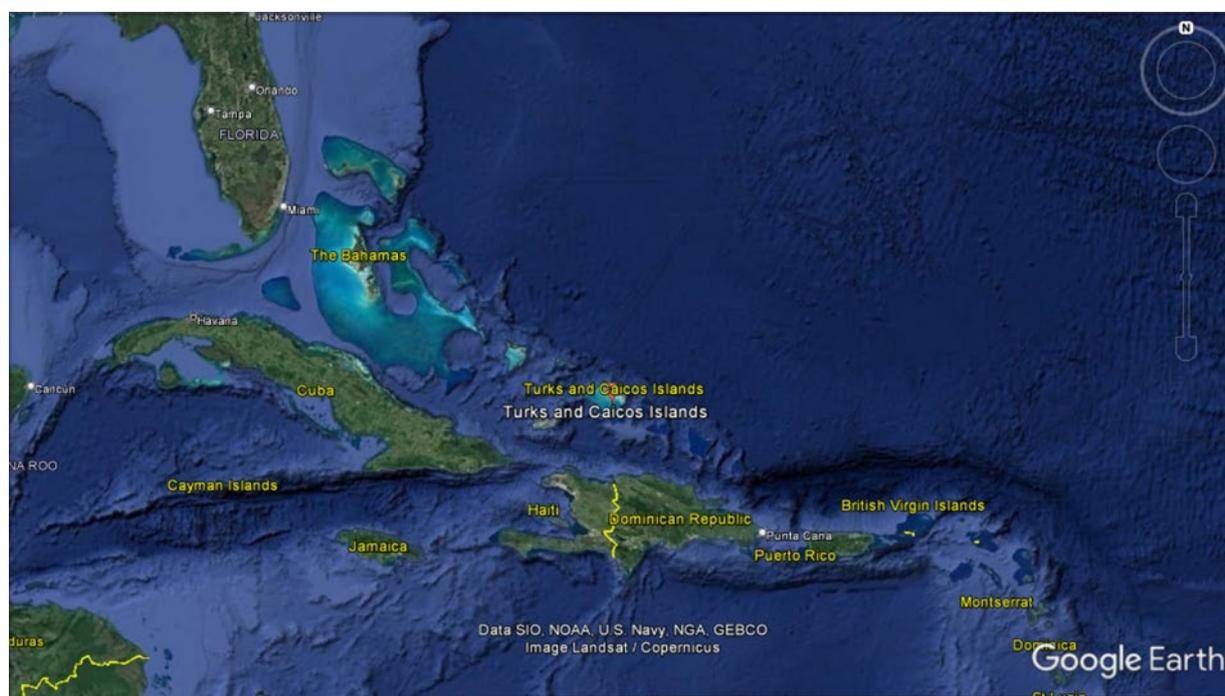


Figure 1: Location of the Turks and Caicos Islands in the south-western Atlantic Ocean (source Google Earth)

TCI has a total land area of approx. 616 km² including eight inhabited islands with a population of approx. 46,000 most of whom live on the main island of Providenciales. The flora of TCI comprises approx. 541 species of vascular plants. Eight of these are endemic to TCI and 49 of restricted range and are the main target for the fieldwork in this project.



Figure 2: Typical coastal shrubland, Middle Caicos, TCI (photo Colin Clubbe, RBG Kew).

2. Project stakeholders/partners

The Royal Botanic Gardens Kew (Kew) and the TCI Government's Department of Environment and Coastal Resources (DECR) have a long- and well-established collaborative partnership and have been working together on a range of plant conservation challenges for more than a decade, most notably the Caicos pine recovery project (www.kew.org/read-and-watch/rescued-pine-from-turks-and-caicos; <https://gov.tc/decr/projects/caicos-pine-recovery-project>).

DECR's Assistant Director of Research & Development, B Naqqi Manco, attended a regional workshop in the British Virgin Islands that Kew hosted with the National Parks Trust of the Virgin Islands on Tropical Important Plant Areas. It was during this workshop that interest was shown in a TIPAs network for TCI and the first ideas discussed about a potential Darwin Plus application (https://www.researchgate.net/publication/317237266_BVI_fieldwork_report_559-13). The subsequent shaping of the project was a joint activity between Kew and DECR and was refined to meet TCI's specific needs. DECR requested that Kew be the lead partner and submit the proposal.

The project had a Defra-approved two-year delay in starting due to the Covid pandemic and significant staff changes at Kew. Throughout that time communications were maintained between Kew and DECR to help shape project lead-in and eventually start it on 1 April 2022. A Project Team was established comprising all the staff at Kew and DECR who are working on the project. We agreed a schedule of monthly meetings, facilitated by video conferencing which has been improved in both Institutions since the pandemic. It was agreed by all concerned that meeting monthly would be beneficial to maintaining project momentum and delivery and for monitoring progress. Agendas are jointly formulated, and minutes are produced of each meeting to provide a formal record of discussions and action points which are tracked using an action point log (See Project Team minutes). These are circulated electronically, stored on a project SharePoint at

Kew and will be archived in the Kew Research Repository where we are establishing an open access TCI TIPAs reference collection (<https://kew.iro.bl.uk>).

A launch workshop was held at the DECR headquarters in Providenciales, TCI (see Workshop Report in May 2022 Fieldwork report at <https://doi.org/10.34885/q8ay-kz63>). During the joint preparations for the workshop potential local stakeholders were identified and invited to attend an open first day of the workshop (see section 3, Activity 4.1 for details). The Project Steering Group was also established which includes the Director of DECR together with key project staff from DECR and Kew (see section 3, Activity 6.2 for details).

The DECR-Kew partnership has been strengthened by renewing the Memorandum of Collaboration (MoC) for a further 5-year period to include the activities of this project plus planned post-project activities. DECR-Kew have had an active MoC since 2008.

Synergies have been established with DECR's other D+ projects (DPLUS129 – Ramsar mapping project lead by Environment Systems; DPLUS181 – East Caicos Wilderness project lead by RSPB) so that our various fieldwork complements each other enabling efficiencies for DECR staff and better outcomes for all three projects. These will be developed further in Year 2 particularly with reference to work on East Caicos.

3. Project progress

3.1 Progress in carrying out project Activities

Output 1: Tropical Important Plant Areas (TIPAs) Geographic Information System (GIS) established.

Activity 1.1: Compile existing TCI data into project GIS

Project GIS created incorporating existing point data for TCI plants from the UK Overseas Territories Species and Specimen database (specimen data can be viewed on the UKOTs online herbarium <http://brahmsonline.kew.org/UKOT>). These data were uploaded onto the team's field smartphones, so they are accessible during fieldwork in TCI which helps to target fieldwork and fill in data gaps for the TIPAs programme.

Activity 1.2: Incorporate field data into project GIS

A workflow has been developed whereby all new data collected in the field is collected electronically on smartphones using the shareware Survey 123 (<https://survey123.arcgis.com/>). These data are uploaded to the Cloud once internet connectivity is available in TCI. Each member of the team (both DECR and Kew team members) have an individual account with ArcGIS online provided through Kew Science's corporate subscription to ArcGIS online. The Kew team are then able to download these data from the Cloud when back at Kew and incorporate them into the project GIS. These can then be manipulated at Kew to provide the desired outputs. A selection of these have been incorporated into the TCI TIPAs StoryMap (<https://storymaps.arcgis.com>). The workflow is described in the supplementary document Quick reference guide for data collection using Survey123, BRAHMS 7 & LightRoom Version 2022.1.

Activity 1.3: Analyse data and produce GIS layers

Year 3 activity.

Activity 1.4: Provide GIS data to DECR

Year 3 activity.

Output 2: Capacity building to enable DECR to identify TIPAs.

Activity 2.1: Produce and agree Training and Evaluation Plan

Training and Evaluation Plan agreed and produced (See Supplementary document: Training and Evaluation Plan). Training and Evaluation Plan approved by Steering group (See Supplementary document: Steering Group minutes).

Activity 2.2: Training of DECR staff in TIPAs methodology, field data collection and survey techniques delivered by Kew specialists.

Training and evaluation plan updated after each piece of joint field work where training was provided. This occurred twice during the current reporting period (See Supplementary document: Training and Evaluation Plan).

- Joint fieldtrip 1: 9-20 May 2022. Kew staff participating in the fieldtrip and training: Sara Barrios, Marcella Corcoran, Colin Clubbe (See May Fieldtrip report at: <https://kew.iro.bl.uk/concern/reports/d9f04466-fbac-460c-a1bf-948f36380763>)
- Joint fieldtrip 2: 20 November-9 December 2022. Kew staff participating in the fieldtrip and training: Marcella Corcoran, Amy Barker (See December Fieldtrip report at: <https://kew.iro.bl.uk/concern/reports/beb22b3d-8be0-4339-8a08-bd1464ae21bf?locale=en>).
- Additional training provided for DECR staff on Red List evaluation. This took the form of an online training session provided by Sara Barrios and Amy Barker, both IUCN accredited red list assessments trainers. All four core DECR project staff attended the online training (See Supplementary document: Training and Evaluation Plan).

Activity 2.3: Training of DECR staff evaluated by Kew specialists and reviewed by Steering Group

Training completed reported to and approved by the Steering Group (See Supplementary document: Steering Group minutes).

Activity 2.4: Produce Final report 'Training' section

Year 3 activity.

Output 3: Data and sample collection to inform species threat assessments and phylogenomics

Activity 3.1: Field surveys to gather species and habitat data and samples

Two joint DECR-Kew field trips have been successfully completed during year 1 as outlined in the log frame.

Prior to the first field trip, field data collection protocols were drawn up and agreed (See Supplementary document: Quick reference guide for data collection using Survey123, BRAHMS 7 & LightRoom Version 2022.1).

Occurrence data points for target species collected during May joint fieldtrip at sites on Providenciales, North Caicos and Middle Caicos. DNA collections made from *Agave* and *Encyclia* species. Seed collection made from *Agave millspaughii*. Full details of the field trip are documented in the *Turks and Caicos Islands (TCI) May 2022 Fieldwork Report* which is available at <https://doi.org/10.34885/q8ay-kz63>.

Second collaborative 3-week field trip completed in December 2022. Surveys completed on 7 Islands (Providenciales, Grand Turk, Salt Cay, Big Ambergris Cay, West Caicos, North Caicos, Middle Caicos). Data collected through Survey 123 app. Herbarium specimens and DNA specimens collected and processed ready to send to Kew. Full details of the field trip are documented in the *Turks and Caicos Islands fieldwork report 20th November – 12th December 2022 Darwin Plus 114-11550-100* which is available at:



Figure 3: Collecting herbarium specimens of TCI plants on North Caicos, TCI (photo Colin Clubbe, RBG Kew).

Activity 3.2: Collate available species occurrence data and digitise new records

All historical TCI species occurrence data have been compiled into GIS map and uploaded to mobile phones for cross-reference in the field. All new records are born digital using Survey 123 App and are uploaded to the Cloud once connection to the internet is available so that data are continuously added to the project database (see Activities 1.1 and 1.2) so the step to digitise new records is no longer necessary because of the methodology adopted.

Activity 3.3: Undertake species threat assessments

Red Listing activities have been started this year. We developed a list of 118 potential Least Concern Species generated by the Least Concern Automated Tool developed at Kew (<https://bdj.pensoft.net/article/47018/>). Fifty (approx. 42%) draft red list assessments have been completed and are out with specialists to review before being uploaded to the IUCN Red List (<https://www.iucnredlist.org/>). Red list assessments of the remaining potential Least Concern species are underway. Separately a target list of likely threatened species based on known distribution and endemism has also been prepared which will be the focus of Year 2 activities. All relevant data and records for these species are being assembled to progress the red listing of these target species and this will be the main focus of the first two quarters of Year 2.

An online Red List training workshop was held for DECR team, plus members of the Kew project team unfamiliar with the red listing process. Two red list assessments were completed as part of this training workshop (See Supplementary document: Training and Evaluation Plan). Participants were directed to the online training materials produced by IUCN which were utilised during the workshop for more information (<https://www.iucnredlist.org/process>).

Activity 3.4: Undertake phylogenomic analyses

Year 2 activity. However, during the first year of the project some DNA specimens of *Agave* species and *Encyclia* species have been collected ready to be analysed in year 2. Species of the orchid *Encyclia* are listed on Appendix 2 of CITES (<https://cites.org/eng>) as so require both export and import permits to send the specimens to Kew. We are in the process of applying for these permits which will be in place in good time to send the specimens to Kew for phylogenomic analyses.

Output 4: A network of Tropical Important Plant Areas (TIPAs) identified for TCI

Activity 4.1: Undertake workshop to engage stakeholders and launch project

Successful hybrid workshop and project launch held in TCI and online, 12-13 May 2022. Twenty-two people attended the workshop which was held at the Department of Environment & Coastal Resources Headquarters on Providenciales, TCI and six people, attended online from TCI, UK and USA (Turks and Caicos Islands (TCI) May 2022 Fieldwork Report which is available at <https://doi.org/10.34885/q8ay-kz63>, see p22 for participant list). TCI public TV attended opening ceremony and broadcast material from the workshop which included interviews with B Naqqi Manco (Associate Director, Research & Development, DECR, and DECR project lead) and Dr Colin Clubbe (Senior Research Leader and Kew workshop lead) (<https://www.youtube.com> - piece on TIPAs workshop starts at 10.53). Full details of the workshop can be found in the Turks and Caicos Islands (TCI) May 2022 Fieldwork Report which is available at <https://doi.org/10.34885/q8ay-kz63>. (Workshop report starts at p19).

Activity 4.2: Identify TCI TIPAs National Team members

The membership for the National TIPAs Team has been identified and ratified by the Steering Group (See Supplementary document: Steering Group minutes -see minutes of second Steering Group meeting). In addition to membership from the core DECR and Kew project team it includes representation from the TCI National Trust and the TCI Department of Culture. Additionally, expertise is provided by specialists in the TCI flora and conservation from the Bahamas National Trust plus an Independent consultant. The main period for the team's activities will be leading up to and during the TIPAs workshop (end of Year 2/beginning Year 3).

Activity 4.3: Prepare species and habitat tables and spatial data for workshop

Year 2/3 activity.

Activity 4.4: Undertake workshop to identify TCI TIPAs

Year 3 activity.

Activity 4.5: Agree final TIPAs boundaries and network

Year 3 activity.

Output 5: Important Plants and Tropical Important Plant Areas of the TCI guide and interpretation produced for local use

Activity 5.1: Design & agree TCI TIPAs Brand

Discussions were held amongst the project team and during the launch workshop and a TCI TIPAs brand designed and agreed. It comprises a base map of the Turks and Caicos Islands as a graphic with the phase TCI TIPAs across it and the TCI endemic orchid, *Encyclia caicensis*, incorporated. The draft design is with a design company in Providenciales for development into a final logo which will be completed in Yr2Q1 and be incorporated into all the outputs of the project together with the Darwin Plus logo.

Activity 5.2: Develop and agree content for TCI guide and interpretation

Year 3 activity.

Activity 5.3: Design & produce TCI TIPAs Interpretation Panels

Year 3 activity.

Activity 5.4: Design & produce TCI TIPAs guide

Year 3 activity.

Activity 5.5: Distribute guide and install panels

Year 3 activity.

Output 6: Monitoring and Evaluation and project reporting

Activity 6.1: Produce Monitoring and Evaluation Plan

Monitoring and Evaluation Plan produced. Plan updated each quarter with details of project activity and progress (See Supplementary document: Monitoring and Evaluation Plan). Plan reviewed regularly at Project Team meetings and Steering Group meetings.

Activity 6.2: Produce quarterly progress reports

Monitoring and Evaluation (M&E) Plan is a standard agenda item for the project team meetings and is reviewed regularly at Project Team meetings. Progress reports completed quarterly and added to the M&E Workbook, reviewed by the Project Team, and approved by the Steering Group (See Monitoring and Evaluation Plan; Project Team Meeting minutes; Steering Group minutes).

Activity 6.3: Produce half-year and annual reports

DPLUS114_Yr 1_HYR1 written, circulated to full project team for input and comment, finalised and submitted on time. DPLUS114_Yr1_AR1 completed with input from team members (this report).

Activity 6.4: Undertake Steering Group meetings and produce minutes

A Steering Group was identified comprising the leads in each of the project specialisms. The Steering group is co-chaired by Ms Lormeka Williams (Director, DECR) and Dr Colin Clubbe (Senior Research Leader, Kew). The Steering Group meets 6-monthly, although the second Steering group meeting had to be postponed twice due to hurricane impacts and then holiday activities (see Monitoring and Evaluation Plan). We have discussed frequency of Steering group meetings and agreed that 6-monthly is appropriate given that there is a monthly project meeting which is minuted. The frequency and role of the Steering group is regularly reviewed by the Steering Group and will be amended if/when deemed appropriate. Each meeting is minute with Action Points (See Supplementary document: Steering Group minutes).

Activity 6.5: Produce final technical report

Year 3 activity.

Progress towards project Outputs

Output 1: Tropical Important Plant Areas (TIPAs) Geographic Information System (GIS) established.

This is a final output of the project. However, the initial stages have been completed. A TIPAs GIS has been established and a project workflow agreed which captures new data from the field directly in an electronic format which is then uploaded to the Cloud and accessed by GIS specialists at Kew for incorporation into the project GIS (see section 3.1 and Quick reference guide for data collection using Survey123, BRAHMS 7 & LightRoom Version 2022.1). So, with regard to the plants of TCI we have brought together all the digitally available point record data and incorporated them into a GIS. This map has been uploaded onto our field smartphones and so can be used iteratively to guide fieldwork and more efficiently fill data gaps. We are now working on the habitat level data which is the second element of the TIPAs network. This work is a focus of Year 2 of the project.

Output 2: Capacity building to enable DECR to identify TIPAs.

Capacity Building for the DECR team is at the heart of this project. The project team has developed a Training and Evaluation workbook which has been approved by the Steering group (see Section 3.1 and Training and Evaluation Plan). The main elements of this capacity building will be in years 2 and 3 as we move into using these data collected during our joint fieldwork and apply these to identify and mapping TIPAs.

Output 3: Data and sample collection to inform species threat assessments and phylogenomics

The data and sample collection protocols have been established (see Section 3.1 and Quick reference guide for data collection using Survey123, BRAHMS 7 & LightRoom Version 2022.1). Joint collaborative Kew-DECR fieldwork has started and two fieldwork exercises have been completed (See Section 3.1 and May and December Fieldwork reports at: <https://kew.iro.bl.uk>). The field data collection work which is the core of the project is on track.

Output 4: A network of Tropical Important Plant Areas (TIPAs) identified for TCI

Year 3 activity. However, the project launch and workshop in May 2022 brought the whole concept of Tropical Important Plant Areas (TIPAs) to light in TCI. The wide range of stakeholders attending the launch and workshop and the TV coverage provided a good introduction to the project, the project goals and the value of TIPAs to TCI (See Section 3.1 and workshop report in the May 2022 Fieldwork report at <https://doi.org/10.34885/q8ay-kz63> and the YouTube video of the TV coverage (<https://www.youtube.com/watch?v=CY2h9bsrKGE> - piece on TIPAs workshop starts at 10.53).

Output 5: Important Plants and Tropical Important Plant Areas of the TCI guide and interpretation produced for local use

Year 3 activity.

Output 6: Monitoring and Evaluation and project reporting

The project Monitoring and Evaluation framework has been established and the project is being regularly evaluated by the Project Team and the Steering Group (see Section 3.1 and Monitoring and Evaluation workbook; Training and Evaluation Workbook; Project team minutes; Steering Group minutes).

3.2 Progress towards the project Outcome

The project has made a good start in Year 1 and is well on its way to achieving its Outcome by the end of the project.

A successful project launch and introductory TIPAs workshop was held in TCI in May 2022. The TIPAs concept is a relatively new one for the TCI despite the fact that some initial work had been done by two Kew MSc students some years ago, but using the older criteria which have now been updated (see Darbyshire et al, 2007, <https://doi.org/10.1007/s10531-017-1336-6>) We had good representation from our target stakeholder group (See Section 3.1 and workshop report in the Turks and Caicos Islands (TCI) May 2022 Fieldwork Report which is available at <https://doi.org/10.34885/q8ay-kz63>). During this initial workshop the data gaps were identified which has informed the planning of the joint field programme to collect the data required to apply the TIPAs criteria and identify a network of TIPAs for TCI by the end of the project. Two joint field exercises have been completed in year 1, one after the workshop (see <https://doi.org/10.34885/q8ay-kz63> for details) and one in December (see <https://kew.iro.bl.uk> for details). These have ground-truthed the data gathering protocol developed for this project (see Quick reference guide for data collection using Survey123, BRAHMS 7 & LightRoom Version 2022.1).

The indicator for the Outcome is a clear one and remains appropriate.

3.3 Monitoring of assumptions

Year 1 of the project has progressed well, and we are confident that the project is well on course to achieving its Outcome (See Section 3.3). The Outcome and Output assumptions remain relevant and are being monitored by both the Project Team and the Steering Group.

Outcome Assumption: Project partners able to undertake field work to fill data gaps and hold workshops to agree TCI TIPAs network.

Comments on Outcome Assumption: The DECR-Kew project team has gelled well which is unsurprising as we have been working together on biodiversity conservation challenges and joint projects since 2008. Communications between the DECR and Kew are effective using a TCI Plants WhatsApp channel set-up for the project, email and monthly video Team Meetings. The monthly Project Team meetings are minuted and a list of Action Points produced which are monitored enabling the team to discuss progress and plan fieldwork. Two major joint field trips have been completed (See fieldtrip reports for details <https://doi.org/10.34885/q8ay-kz63> for the May workshop and fieldtrip and details and one <https://kew.iro.bl.uk/concern/reports/beb22b3d-8be0-4339-8a08-bd1464ae21bf> for the December field trip). These are going a long way to filling the data gaps which will enable us to identify the network of TIPAs by the end of the project. Planning is underway for the next field in June 2023.

Output 1 Assumption 1: Kew and TCI GIS specialists remain involved in the project, IT equipment, software and infrastructure are fit for purpose at Kew and in TCI.

Comments on Output 1 Assumption:

During year 1 the Kew and TCI specialists have been fully engaged with the projects and we have no reason to think that this will not continue as the project moves into its second year. The TCI GIS specialists outside the immediate project team have had relatively little involvement at this stage of the project. Their role is part of year 3's activities. The IT equipment available to the project is adequate and suits all the current needs. As more data are collected and the needs for the GIS increase this assumption remains valid and we will continue to monitor it.

Output 2 Assumption 1: Kew specialists able to convey theory and practise to TCI partners who can understand theory and implement methodology. Trained personnel remain in post.

Comments on Output 2 Assumption:

TCl partners have responded well during the workshop and training in TIPAs methodology, although this is only the initial training (See section 3.1 and Workshop report in May 2022 Fieldwork Report: <https://doi.org/10.34885/q8ay-kz63>). The main part of this training will be delivered during the TIPAs workshop planned for Year 3. Assumption remains valid for project.

Output 3 Assumption 1: Project partners able to undertake field work to collect data and samples required to complete Red List Assessments, phylogenetic studies and identification of TIPAs network.

Comments on Output 3 Assumption 1:

Fieldwork has progressed well and to plan during Year 1 (See Section 3.1 and Fieldwork reports: <https://kew.iro.bl.uk/collections/5f1b28e7-868c-4174-9b85-5b87d4a5fe75?locale=en>). All samples so far needed have been collected and are being worked on. Planning is underway for Year 2 joint fieldwork to continue filling data gaps and collecting required specimens. Assumption remains valid for Year 2.

Output 4 Assumption 1: Areas that meet criteria for species composition/abundance or habitat type occur in TCl. Applying internationally agreed criteria is possible in TCl. IT equipment, software & infrastructure are fit for purpose at Kew. Access to TIPAs website maintained by Kew.

Comments on Output 4 Assumption 1:

Year 3 activities. Assumptions remain valid.

Output 5 Assumption 1: Kew specialists and DECR colleagues able to agree appropriate format for guide; IT equipment, software and infrastructure are fit for purpose at Kew.

Comments on Output 5 Assumption 1:

Year 3 activities. Assumptions remain valid.

Output 6 Assumption 1: ResearchGate website continues to be maintained and available for free public use.

Comments on Output 6 Assumption 1:

ResearchGate decided to unilaterally stop supporting projects areas on their website. This was a decision which was announced to users and there was no discussion about the potential impacts. So, ResearchGate is no longer an option as the open access website to host project materials as documented in the project proposal. Kew has been participating in a shared Research Repository developed by the British Library for cultural and heritage organisations (<https://iro.bl.uk/>). This is now up and running and we have established a dedicated area for DPLUS114 called the Turks and Caicos Islands Tropical Important Plant Areas (<https://kew.iro.bl.uk/collections/5f1b28e7-868c-4174-9b85-5b87d4a5fe75?locale=en>). This has only been live for a relatively short time and so we are only just beginning to populate it with project outputs. However, it is already proving itself to be a good replacement for ResearchGate and we will be uploading more materials to this site over the coming months.

3.4 Project support to environmental and/or climate outcomes in the UKOTs

This first year of the project has focussed on setting up the data gathering protocols and beginning the survey work to identify a network of Tropical Important Plant Areas for TCl (see Sections 1, 2 and 3). Through this work we will gain a better understand of the distribution of rare and threatened native plant species and habitats to improve management of natural resources, minimize biodiversity loss, inform policy and implement conservation actions, whilst also being valuable for climate change mitigation. Our project partner, the Department of Environment and Coastal Resources (DECR) is the statutory government body responsible for biodiversity conservation and sustainable use of biological resources (<https://www.gov.tc/decr/>). These data generated by this project, available in an immediately accessible format as GIS layers on national mapping will enable the DECR to fulfil their environmental commitments and ensure a better outlook for TCl's precious biodiversity and in particular their key goal to "Protect and improve the

environment and conserve and enhance biodiversity within the territorial boundaries of the Turks and Caicos Islands and beyond, and to support government policies and international treaties and conventions towards sustainable development”. An important international treaty that this work will directly contribute to implementing is the Convention on Biological Diversity’s new Kunming-Montreal Global Biodiversity Framework (<https://www.cbd.int/article/cop15-final-text-kunming-montreal-gbf-221222>), particularly Target 3 to conserve 30% of terrestrial areas by 2030. This project will identify where the most important areas in TCI are for plants and provide a framework for their long-term conservation.

4. Gender equality and social inclusion

Please quantify the proportion of women on the Project Board ¹ .	43%
Please quantify the proportion of project partners that are led by women, or which have a senior leadership team consisting of at least 50% women ² .	100%

The project team endeavours to balance gender and gender roles in all project activities and decisions it makes. For example, at the launch workshop the core part of the morning session after the project launch was a set of four talks setting the scene for the TIPAs project and the TIPAs methodology. Two of these were given by female scientists and two by male (See Workshop Report in May Fieldtrip Report at: <https://doi.org/10.34885/q8ay-kz63> workshop report starts at p19). The training elements of the project have been delivered by a majority of female scientists (See Training and Evaluation Plan). The Steering Group is co-chaired by a female and male co-chair.

5. Monitoring and evaluation

A Monitoring and Evaluation workbook was developed jointly by the Project Team and approved by the Steering Group (see Section 3.1, M&E Workbook, Project Team minutes and Steering Group minutes). A Training and Evaluation workbook was developed in a similar way (see Section 3.1, Training & Evaluation Workbook, Project Team minutes and Steering Group minutes). Both these documents have proven adequate during year 1 of the project and have not been materially changed during the course of this year. A review of both documents is included as a standing agenda item on Project Team meetings and Steering Group meetings. Lists of Action Points accompany the minutes and these are tracked and reported on in the following meeting.

6. Lessons learnt

The project has settled in well during Year 1. It builds on an established partnership between Kew and DECR (See Section 2). The establishment of a Project Team comprising all the staff from Kew and DECR who will be involved in delivering the project, regardless of how small or large a role they may have in the project has proven valuable in terms of providing a regular platform to discuss activities, evaluate progress and deal with any issues that arise as they arise. It also provides an inclusive project ethos with all voices of equal value during discussions (See Section 3 and Project Team Minutes for more details).

¹ A Project Board has overall authority for the project, is accountable for its success or failure, and supports the senior project manager to successfully deliver the project.

² Partners that have formal governance role in the project, and a formal relationship with the project that may involve staff costs and/or budget management responsibilities.

Periods of intense joint fieldwork were built into a yearly schedule that took allowances of the Hurricane season and our collective knowledge of the field conditions, so all fieldwork was avoided during the times of the year where greatest risk of hurricanes are experienced (July-October). Consequently, we are in a good place with regard to fieldwork completed and data gaps filled and are on track with this central part of the project (see Section 3.1 and Project Fieldwork reports for more details).

Scheduling of Steering Group meetings has been a challenge during the year. Time availability of both the Director of DECR and the Associate Director is restricted because of their enormous portfolio of responsibilities in TCI. We have discussed this and will set dates for Steering Group meetings further in advance and at times when they can prioritise attending these meetings over the other demands on their time.

Finances have been a challenge during year 1 (see Section 9) and had we known how significant delaying the project start would be in terms of increased prices we may have discussed this with Darwin when we were discussing delaying the project start.

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

No action required. This is the first annual report.

8. Risk Management

The only significant new risk factor for the project is the project budget. The original budget for the project was developed at the time of the original submission based on costs at the time with a modest 2% increase in staff costs annually. Consequently, the budget is based on 2018/19 costs as the budget was developed with TCI partners during 2018 for an April 2019 start. The project was delayed for two years, firstly due to the Covid-19 pandemic and secondly due to a major changes in personal at Kew. Darwin approved the delayed start date and the project started in April 2022. Prices, particularly of flights and accommodation in TCI have increased significantly since then. We have sourced some match funding from within Kew to support the launch workshop costs which were greater than budgeted for (total approx. £603). To support year 2 costs, we have applied for several small grants to supplement the project budget. We have been successful in securing £3,600 to help support the extra costs of mounting an expedition to East Caicos. We have also secured £6,400 in external funding to bring two TCI project team members to Kew for training/exposure during summer 2023.

9. Other comments on progress not covered elsewhere

All major points on progress during Year 1 of this project have been covered in earlier sections.

10. Sustainability and legacy

See Section 12 for details on how we have promoted the project during the first year. We are confident that we can increase the profile of the project during year 2 as we have more concrete outputs and interesting results to share with the wider TCI public. We will continue to invite interested and influential parties to join our fieldwork to see what the project is undertaking and how the work is conducted. For example during the May 2022 joint fieldtrip Deputy Permanent Secretary from the Ministry of Tourism, Environment, Fisheries and Maritime Affairs, Culture and Heritage, Agriculture, Religious Affairs and Gaming, Ronlee James, joined us for the day on Middle Caicos (see Fieldwork Report <https://doi.org/10.34885/q8ay-kz63>). We will encourage TCI public TV to continue to cover our project activities for the general public as they did for the launch workshop (see Section 3.1 and YouTube <https://www.youtube.com> at 10.35). We will continue to enhance our website (www.kew.org/science/our-science/projects/TIPAS-turks-and-caicos) with more activities and outputs from our project work to inspire readers on the

importance of plants and to provide project updates for the Green Pages of Times of the Islands (<https://www.timespub.tc/green-pages/>).

11. Darwin Plus identity

The Darwin Initiative is relatively well known in TCI as there have been several projects funded by Darwin Plus run in the territory over recent years. DECR regularly include project updates in the *Green Pages* of the magazine TCI Times of the Island magazine (<https://www.timespub.tc/green-pages/>). For example, in the Winter 2022/23 issue the TCI project team wrote three articles talking about partnerships and the two new Darwin projects started this year (<https://www.timespub.tc/2022/12/building-on-the-past/>). The project launch was covered by TCI Public TV (<https://www.youtube.com/watch?v=CY2h9bsrKGE> - piece on TIPAs workshop starts at 10.53 – see Section 3.1).

All materials the project produces includes the new Darwin Plus logo (see for example Project Team minutes and Steering Group minutes). A project landing page has recently been established on the Kew website to highlight the project (www.kew.org/science/our-science/projects/TIPAS-turks-and-caicos). This will be populated with project information as the project progresses. A dedicated area called *Turks and Caicos Islands Tropical Important Plant Areas* has been established on the Kew Research Repository which provides open access to all project materials and related outputs (<https://kew.iro.bl.uk/collections/5f1b28e7-868c-4174-9b85-5b87d4a5fe75?locale=en>). This will be enhanced as the project progresses and provides the main access points for project documentation.

An online StoryMap is being developed on ArcGIS which will track the project development and provide information about the project (<https://storymaps.arcgis.com>). Will be linked to on the project page as part of the RBG Kew website.

The @KewUKOTs twitter account has been used to promote the project during active periods of fieldwork in TCI. Tweets also carried links to @Defra_Darwin and then once the Biodiversity Challenge Funds handle was launched links to this were included. The Department of Environment and Coastal Resources (DECR) do not have their own Twitter handle, so links were made to the general TCI Government handle. Links were also made to @KewScience to help reach wider audiences.

A poster about the project was produced, initially for display at the Botanical Bridges 2022 Congress held in the Bahamas (<https://botanicalbridges2022.com/>) where it was part of the poster session for the Congress. Two copies were produced in hardcopy, one for permanent display in DECR in TCI and one for permanent display in the Herbarium at Kew. A digital copy has been deposited into Kew Research Repository with a DOI for open access and wider dissemination of the project (https://kew.iro.bl.uk/concern/conference_items/5447849b-6a52-4313-8609-e38e9f22fd6d). At the same conference Colin Clubbe gave a talk on Kew's TIPAs work in the Caribbean and featured DPLUS114 (<https://botanicalbridges2022.com>).

12. Safeguarding

Has your Safeguarding Policy been updated in the past 12 months?	No
Have any concerns been investigated in the past 12 months	No
Does your project have a Safeguarding focal point?	[REDACTED]
Has the focal point attended any formal training in the last 12 months?	Not in this period, but all Kew staff receive biannual online training in safeguarding.
What proportion (and number) of project staff have received formal training on Safeguarding?	Past: 64% [7] Planned: 64% [7]

Has there been any lessons learnt or challenges on Safeguarding in the past 12 months?
Please ensure no sensitive data is included within responses.

None

Does the project have any developments or activities planned around Safeguarding in the coming 12 months? If so please specify.

All Kew staff undertake renewal of safeguarding training every two years. Some of the project staff will renew their training during the coming 12 months. Safeguarding training is not yet embedded in TCI and currently there is no timetable for the integration of safeguarding training for DECR staff. DECR project staff are aware of and have read Kew's Safeguarding policy and are aware of the importance of safeguarding issues. The whole project team is committed to implementing Kew's safeguarding policy throughout project activities.

13. Project expenditure

Table 1: Project expenditure during the reporting period (1 April 2022 – 31 March 2023)

Project spend (indicative) in this financial year	2022/23 D+ Grant (£)	2022/23 Total actual D+ Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items				
Others (Please specify)				
TOTAL	99,187	95,968		

Table 2: Project mobilising of matched funding during the reporting period (1 April 2022 – 31 March 2023)

	Matched funding secured to date	Total matched funding expected by end of project
Matched funding leveraged by the partners to deliver the project.		
Total additional finance mobilised by new activities building on evidence, best practices and project (£)		

14. OPTIONAL: Outstanding achievements or progress of your project so far (300-400 words maximum). This section may be used for publicity purposes

I agree for the Biodiversity Challenge Funds Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here).

File Type (Image / Video / Graphic)	File Name or File Location	Caption, country and credit	Online accounts to be tagged (leave blank if none)	Consent of subjects received (delete as necessary)
				Yes / No
				Yes / No
				Yes / No
				Yes / No
				Yes / No

Annex 1: Report of progress and achievements against logframe for Financial Year 2022-2023 – if applicable

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
<p>Impact</p> <p>Plants and habitats of the Turks and Caicos Islands are better understood, managed and conserved through local implementation of national legislation informed by evidence-based, internationally recognised methodologies</p>		<p>Project launch introduced the idea of Tropical Important Plant Areas and identifying the best areas in TCI for wild plant species. This is an important first step to better understanding and conserving plant diversity at a site level.</p>	
<p>Outcome</p> <p>Tropical Important Plant Areas (TIPAs) are identified in TCI through collaborative efforts by applying internationally recognised criteria to high quality and expert-reviewed records to enable long-term conservation.</p>	<p>0.1 Network of TIPAs identified, mapped and published by YR3 Q4</p>	<p>TIPAs methodology introduced at TIPAs workshop held in TCI in May 2022 (see Section 3.1). Joint fieldwork programme underway to collect data to enable identification of TIPAs network for TCI in Yr 3 (See Section 3.1)</p>	<p>Continue with agreed joint fieldwork to collect data to enable the identification of a TIPAs network for TCI. Continue red listing of target species to provide data to apply criterion A of TIPAs methodology.</p>
<p>Output 1. Tropical Important Plant Areas (TIPAs) Geographic Information System (GIS) established</p>	<p>1.1 TIPAs GIS operational and analyses undertaken before final workshop in YR3 Q1</p> <p>1.2 Three GIS layers produced by YR3 Q4 showing 1) distribution of threatened and high conservation importance plant species in TCI, 2) locations of nationally threatened habitats and 3) the network of TCI TIPAs</p>	<p>1.1 Project GIS established (See Section 3.1). Data collection workflow established, and all data collected electronically and incorporated into project GIS routinely after the completion of each joint fieldtrip (See Section 3.1)</p> <p>1.2 Year 3 activity</p>	
<p>Activity 1.1 Compile existing TCI data into project GIS</p>		<p>All historical TCI specimen and occurrence data incorporated into project GIS (See section 3.1)</p>	<p>Activity complete</p>
<p>Activity 1.2 Incorporate field data into project GIS</p>		<p>Data from two joint field trips (May and December 2022) incorporated into project GIS (See Section 3.1)</p>	<p>June 2023 fieldtrip being planned and data will be incorporated into</p>

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
			project GIS. Further fieldwork planned for February 2024
Activity 1.3 Analyse data and produce GIS layers		Year 3 activity	Year 3 activity
Activity 1.4: Provide GIS data to DECR		Year 3 activity	Year 3 activity
Output 2. Capacity building to enable DECR to identify TIPAs	2.1 Four TCI partners trained in application of the TIPAs methodology by YR3 Q2 2.2. Two DECR staff trained in field data collection and survey techniques by YR2 Q3	2.1. Four DECR project staff attended 2-day project launch and TIPAs workshop in May 2022 which outlined the TIPAs methodology and types of data needed to apply the TIPAs methodology to TCI in order to establish a network of TIPAs for TCI (see Section 3.1). 2.2 Four DECR staff participated in training in field data collection and survey techniques conducted by Kew staff during the May and December joint fieldtrips (See Section 3.1)	
Activity 2.1. Produce and agree Training and Evaluation Plan		Training and Evaluation Plan produced and approved by Steering Group (see Section 3.1).	Activity complete. Training plan updated with training activities conducted during Year 2.
Activity 2.2. Training of DECR staff in TIPAs methodology, field data collection and survey techniques delivered by Kew specialists.		Training and Evaluation Plan updated after each joint field programme with training undertaken. Four DECR staff participated in training in TIPAs methodology, field data collection and survey techniques (see Section 3.1) Additional online training in the application of red listing assessments completed for three DECR staff and 1 Kew staff (See Section 3.1).	Continue training activities during joint fieldwork programmes planned for June 2023 and Feb 2024
Activity 2.3: Training of DECR staff evaluated by Kew specialists and reviewed by Steering Group		Training ratified by the Steering Group (see Section 3.1)	All training will be reviewed by the Steering Group
Activity 2.4: Produce Final report 'Training' section		Year 3 Activity	Year 3 Activity
Output 3. Data and sample collection to inform species threat assessments and phylogenomics	3.1 Three collaborative field surveys undertaken to collect species data and	3.1 Two collaborative fieldtrips (May and December 2022) completed in Yr. 1 (see section 3.1) 3.2 Red listing process commenced (see Section 3.1)	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
	<p>samples and ground truth existing vegetation maps by YR2Q4</p> <p>3.2 Threat assessments of 20 plant species undertaken by YR2 Q4</p> <p>3.3 Phylogenomics for 6 plant species completed by YR3 Q2</p>	3.3 Yrs 2&3 activities, but some sampling of <i>Agave</i> and <i>Encyclia</i> species started during Yr 1 field activities (See Section 3.1)	
Activity 3.1. Field surveys to gather species and habitat data and samples		Two collaborative fieldtrips (May and December 2022) completed in Yr. 1 (see Section 3.1)	June 2023 field trip in planning to include East Caicos. Further field trip planned for Feb 2023
Activity 3.2: Collate available species occurrence data and digitise new records		All historical TCI species occurrence data have been compiled into project GIS. These data have been uploaded to mobile phones for cross-reference in the field (see section 3.1).	All new records are born digital using Survey 123 App and are uploaded to the Cloud once connection to the internet is available so that data are continuously added to the project database and do not require separate digitisation.
Activity 3.3: Undertake species threat assessments		50 draft red list assessments have been completed and are out with specialists to review before being uploaded to the IUCN Red List (see Section 3.1)	Continue with red list assessments.
Activity 3.4: Undertake phylogenomic analyses		Year 2 activity. However, during Yr 1 some DNA specimens of <i>Agave</i> species and <i>Encyclia</i> species have been collected ready to be analysed in year 2.	Undertake phylogenomic analysis.
Output 4: A network of Tropical Important Plant Areas (TIPAs) identified for TCI	<p>4.1 Number of TIPAs increase beyond the six currently proposed using old criteria by YR3 Q4</p> <p>4.2 Network of TIPAs identified and published by YR3 Q4</p>	Year 3 activity	

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Activity 4.1: Undertake workshop to engage stakeholders and launch project		Successful hybrid workshop and project launch held in TCI and online, 12-13 May 2022. 22 people attended in person and 6 people attended online from TCI, UK and USA. Good coverage of event on TCI public TV (See Section 3.1).	Activity complete. Continue engagement with various stakeholders by promoting the project activities and results during Yr 2.
Activity 4.2: Identify TCI TIPAs National Team members		Membership of the National TIPAs Team has been identified and ratified by the Steering Group (see Section 3.1).	Continue to work with National Team in preparation for TIPAs workshop in Yr3Q1
Activity 4.3: Prepare species and habitat tables and spatial data for workshop		Year 2/3 activity	Prepare species and habitat tables and spatial data (Yr2Q4) for workshop in Yr3Q1
Activity 4.4: Undertake workshop to identify TCI TIPAs		Year 3 activity	Year 3 activity
Activity 4.5: Agree final TIPAs boundaries and network		Year 3 activity	Year 3 activity
Output 5: Important Plants and Tropical Important Plant Areas of the TCI guide and interpretation produced for local use	5.1 Guide produced covering high conservation importance native plants and TCI TIPAs network by YR3 Q4 5.2 TIPAs Network and Important Plants of the TCI interpretation panels produced by YR3 Q4	Year 3 activity	
Activity 5.1: Design & agree TCI TIPAs Brand		The design for the logo has been developed and agreed by the Project Team and ratified by the Steering Group (See section 3.1). Delays have been encountered with the TCI-based media company who are producing the final design options.	Finalise and approve design option with the TCI-based media company and produce logo files for use on project outputs.

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Activity 5.2: Develop and agree content for TCI guide and interpretation		Year 3 activity	Year 3 activity
Activity 5.3: Design & produce TCI TIPAs Interpretation Panels		Year 3 activity	Year 3 activity
Activity 5.4: Design & produce TCI TIPAs guide		Year 3 activity	Year 3 activity
Activity 5.5: Distribute guide and install panels		Year 3 activity	Year 3 activity
Output 6: Monitoring and Evaluation and project reporting	6.1 Monitoring and Evaluation Plan produced by YR1 Q2 6.2 Progress reports produced and circulated to Steering Group by end of each quarter 6.3 Steering Group meetings held, and minutes produced each quarter 6.4 Final technical report including 'M&E' section produced by YR3 Q4	6.1 M&E Plan produced (see Section 3.1) 6.2 Quarterly reports produced (see Section 3.1) 6.3 Steering Group decided that six-monthly meetings were the appropriate level of monitoring given the Project Team is meeting monthly and there is overlap in monitoring activities (see Section 3.1). 6.4 Year 3 activity	
Activity 6.1: Produce Monitoring and Evaluation Plan		Monitoring and Evaluation Plan produced. Plan updated each quarter with details of project activity and progress (see Section 3.1).	Continue to update M&E plan each quarter.
Activity 6.2: Produce quarterly progress reports		Progress reports completed quarterly and added to the M&E Workbook, reviewed by the Project Team, and approved by the Steering Group (see Section 3.1)	Continue to produce quarterly progress reports
Activity 6.3: Produce half-year and annual reports		DPLUS114_Yr 1_HYR1 and DPLUS114_Yr1_AR1 completed and submitted on time (see Section 3.1)	Continue to produce half-year and annual reports and submit on time

Project summary	SMART Indicators	Progress and Achievements April 2022 - March 2023	Actions required/planned for next period
Activity 6.4: Undertake Steering Group meetings and produce minutes		Steering Group identified. Two meetings held during year 1. Minutes produced and circulated (See Section 3.1)	Continue to hold regular Steering Group meetings, produce, and circulate minutes.
Activity 6.5: Produce final technical report		Year 3 activity	Year 3 activity

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

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>Impact: Plants and habitats of the Turks and Caicos Islands are better understood, managed and conserved through local implementation of national legislation informed by evidence-based, internationally recognised methodologies.</p>			
<p>Outcome: Tropical Important Plant Areas (TIPAs) are identified in TCI through collaborative efforts by applying internationally recognised criteria to high quality and expert-reviewed records to enable long-term conservation.</p>	<p>0.1 Network of TIPAs identified, mapped and published by YR3 Q4</p>	<p>0.1 TCI TIPAs network maps and site summaries published via open access website</p>	<p>Project partners able to undertake field work to fill data gaps and hold workshops to agree TCI TIPAs network.</p>
<p>Output 1 Tropical Important Plant Areas (TIPAs) Geographic Information System (GIS) established</p>	<p>1.1 TIPAs GIS operational and analyses undertaken before final workshop in YR3 Q1 1.2 Three GIS layers produced by YR3 Q4 showing 1) distribution of threatened and high conservation importance plant species in TCI, 2) locations of nationally threatened habitats and 3) the network of TCI TIPAs</p>	<p>1.1 Project progress reports, Final Technical Report including TCI plant species of conservation importance list and TCI threatened habitats list published via open access website 1.2 TCI National GIS contains the three project produced GIS layers</p>	<p>Kew and TCI GIS specialists remain involved in the project, IT equipment, software and infrastructure are fit for purpose at Kew and in TCI.</p>
<p>Output 2 Capacity building to enable DECR to identify TIPAs</p>	<p>2.1 Four TCI partners trained in application of the TIPAs methodology by YR3 Q2 2.2. Two DECR staff trained in field data collection and survey techniques by YR2 Q3</p>	<p>2.1 Project progress reports, field visit reports and Final Technical Report published via open access website 2.2 Project progress reports, field visit reports and Final Technical Report published via open access website</p>	<p>Kew specialists able to convey theory and practise to TCI partners who can understand theory and implement methodology. Trained personnel remain in post.</p>
<p>Output 3</p>	<p>3.1 Three collaborative field surveys undertaken to collect species data and</p>	<p>3.1 Samples accessioned at Kew and data for TCI plant species and</p>	<p>Project partners able to undertake field work to collect data and samples required to complete Red List</p>

Project summary	SMART Indicators	Means of verification	Important Assumptions
Data and sample collection to inform species threat assessments and phylogenomics	<p>samples and ground truth existing vegetation maps by YR2 Q4</p> <p>3.2 Threat assessments of 20 plant species undertaken by YR2 Q4</p> <p>3.3 Phylogenomics for 6 plant species completed by YR3 Q2</p>	<p>threatened habitats available in TIPAs GIS</p> <p>3.2 Species threat assessments reviewed and accepted for IUCN SIS Database</p> <p>3.3 Sequence data uploaded to GenBank and Final Technical Report published via open access website</p>	Assessments, phylogenetic studies and identification of TIPAs network.
<p>Output 4</p> <p>A network of Tropical Important Plant Areas (TIPAs) identified for TCI</p>	<p>4.1 Number of TIPAs increase beyond the six currently proposed using old criteria by YR3 Q4</p> <p>4.2 Network of TIPAs identified and published by YR3 Q4</p>	<p>4.1 TCI TIPAs summaries and final maps available in Final Technical Report on open access website</p> <p>4.2 TCI TIPAs summaries and final maps available in Final Technical Report on open access website</p>	Areas that meet criteria for species composition/abundance or habitat type occur in TCI. Applying internationally agreed criteria is possible in TCI. IT equipment, software and infrastructure are fit for purpose at Kew. Access to TIPAs website maintained by Kew.
<p>Output 5</p> <p>Important Plants and Tropical Important Plant Areas of the TCI guide and interpretation produced for local use</p>	<p>5.1 Guide produced covering high conservation importance native plants and TCI TIPAs network by YR3 Q4</p> <p>5.2 TIPAs Network and Important Plants of the TCI interpretation panels produced by YR3 Q4</p>	<p>5.1 Guide available from open access website</p> <p>5.2 Panel artwork available from open access website</p>	Kew specialists and DECR colleagues able to agree appropriate format for guide; IT equipment, software and infrastructure are fit for purpose at Kew.
<p>Output 6</p> <p>Monitoring and Evaluation and project reporting</p>	<p>6.1 Monitoring and Evaluation Plan produced by YR1 Q2</p> <p>6.2 Progress reports produced and circulated to Steering Group by end of each quarter</p> <p>6.3 Steering Group meetings held, and minutes produced each quarter</p> <p>6.4 Final technical report including 'M&E' section produced by YR3 Q4</p>	<p>6.1 Quarterly progress report available on ResearchGate</p> <p>6.2. Quarterly progress report available on ResearchGate</p> <p>6.3 Quarterly progress report available on ResearchGate</p> <p>6.4. Final Technical Report available on ResearchGate</p>	ResearchGate website continues to be maintained and available for free public use

Project summary	SMART Indicators	Means of verification	Important Assumptions
<p>Activities (each activity is numbered according to the output that it will contribute towards, for example 1.1, 1.2 and 1.3 are contributing to Output 1)</p> <ul style="list-style-type: none"> 1.1 Compile existing TCI data into project GIS 1.2 Incorporate field data into project GIS 1.3 Analyse data and produce GIS layers 1.4 Provide GIS data to DECR 2.1 Produce and agree Training and Evaluation Plan 2.2 Training of DECR staff in TIPAs methodology, field data collection and survey techniques delivered by Kew specialists 2.3 Training of DECR staff evaluated by Kew specialists and reviewed by Steering Group 2.4 Produce Final report 'Training' section 3.1 Field surveys to gather species and habitat data and samples 3.2 Collate available species occurrence data and digitise new records 3.3 Undertake species threat assessments 3.4 Undertake phylogenomic analyses 4.1 Undertake workshop to engage stakeholders and launch project 4.2 Identify TCI TIPAs National Team members 4.3 Prepare species and habitat tables and spatial data for workshop 4.4 Undertake workshop to identify TCI TIPAs 4.5 Agree final TIPAs boundaries and network 5.1 Design & agree TCI TIPAs Brand 5.2 Develop and agree content for TCI guide and interpretation 5.3 Design & produce TCI TIPAs Interpretation Panels 5.4 Design & produce TCI TIPAs guide 5.5 Distribute guide and install panels 6.1 Produce Monitoring and Evaluation Plan 6.2 Produce quarterly progress reports 6.3 Produce half-year and annual reports 6.4 Undertake Steering Group meetings and produce minutes 6.5 Produce final technical report 			

Annex 3: Standard Indicators

Table 1 Project Standard Indicators

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
DPLUS-A01	2.1 Four TCI partners trained in application of the TIPAs methodology by YR3 Q2	Number of officials from National Department of Environment who attended training on TIPAs methodology	People	4 men (100%)	4			4	4
DPLUS-A01	2.2. Two DECR staff trained in field data collection and survey techniques by YR2 Q3	Number of officials from National Department of Environment who attended training on TIPAs methodology	People	4 men (100%)	4			4	4
DPLUS-A02	Extra to original project	Number of secondments or placements completed by individuals of key local and national stakeholders	People	Gender					3
DPLUSA14		Number of local/national organisations ⁴ with improved capability and capacity as a result of project.	Number of organisations	National Department of Environment and Coastal Resources	1				1
DPLUS-C01	5.1 Guide produced covering high conservation importance native plants and TCI TIPAs network by YR3 Q4	Number of best practice guides and knowledge products published and endorsed	Number	Botany/ Field Guide/Reference document					1
DPLUS-C02	3.2 Threat assessments of 20 plant species undertaken by YR2 Q4	Number of new conservation assessments published	Number	Red List category (Global)					100
DPLUS-C08	4.2 Network of TIPAs identified and published by YR3 Q4	Areas of importance for biodiversity identified.	Area (ha)	Tropical Important Plant Areas					Unknown until evaluation complete
DPLUS-C09	3.1 Three collaborative field surveys undertaken to collect species data and samples and	Species reference collections made	Number	Flora (herbarium specimens/ Seed					3 specimen collections

DPLUS Indicator number	Name of indicator using original wording	Name of Indicator after adjusting wording to align with DPLUS Standard Indicators	Units	Disaggregation	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
	ground truth existing vegetation maps by YR2 Q4			collections/ DNA collections)					(herbarium, seeds, DNA)
DPLUS-C15		Number of Media related activities.	Number	Type of media	2			2	6
DPLUS-C19	3.1 Three collaborative field surveys undertaken to collect species data and samples and ground truth existing vegetation maps by YR2 Q4	Number of records added to accessible databases.	Number	Threatened plant data points	Being analysed				Being evaluated
DPLUS-C18		Number of unique papers submitted to peer reviewed journals ¹⁶ .	Number						1
DPLUS-C19	5.2 TIPAs Network and Important Plants of the TCI interpretation panels produced by YR3 Q4	Number of other publications produced ¹⁸ .	Number	TIPAs interpretation panels					Determined by number of TIPAs identified in Year 3

Table 2 Publications

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publishers (name, city)	Available from (e.g. weblink or publisher if not available online)
No publications this year						

Checklist for submission

	Check
Different reporting templates have different questions, and it is important you use the correct one. Have you checked you have used the correct template (checking fund, type of report (i.e. Annual or Final), and year) and deleted the blue guidance text before submission?	X
Is the report less than 10MB? If so, please email to BCF-Reports@niras.com putting the project number in the Subject line.	Yes
Is your report more than 10MB? If so, please discuss with BCF-Reports@niras.com about the best way to deliver the report, putting the project number in the Subject line.	X
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	No
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 15)?	No
Have you involved your partners in preparation of the report and named the main contributors	Yes
Have you completed the Project Expenditure table fully?	Yes
Do not include claim forms or other communications with this report.	