

## Darwin Initiative Main and Post Project Annual Report

### Darwin Project Information

Project reference	25-030
Project title	Biodiversity Conservation and Community Development in Al-Makhroul Valley in Bethlehem, Palestine.
Host country/ies	Palestine
Lead organisation	Bethlehem University - Palestine Institute of Biodiversity and Sustainability/Palestine Museum of Natural History (BU-PIBS/PMNH).
Partner institution(s)	Institute for Community Partnership (ICP-BU).; Pioneer Consultancy Centre for Sustainable Development (PCC); Byspokes Sustainable Community Development.
Darwin grant value	287,343
Start/end dates of project	01 September 2018 - 31 March 2021
Reporting period (e.g., Apr 2018 – Mar 2019) and number (e.g., Annual Report 1, 2, 3)	01 September 2018 - 31 March 2019
Project Leader name	Professor Mazin Qumsiyeh
Project website/blog/Twitter	<a href="http://palestinature.org/conservation">palestinature.org/conservation</a> <a href="https://almakhroul.palestinature.org/">https://almakhroul.palestinature.org/</a>
Report author(s) and date	Mazin Qumsiyeh/ Rami Abu Saad/Roubina Ghattas/Elias Handal/Mohammad Abu Sarhan/Summar Shaheen/Nisreen Khaliyleh Mansour 30-04-2019

### 1. Project rationale

The project area, Al-Makhroul Valley, is the last remaining biodiversity-rich area in the Bethlehem district, 2.6 Km<sup>2</sup> of natural areas interspersed with agriculture and rich flora and fauna, and an equivalent buffer zone of more than 5 km<sup>2</sup>. It is also one of 13 IBAs in Palestine rich in cultural heritage, including old Roman tombs, ancient wells, old Palestinian watchtowers and a part which is considered a WHS by UNESCO (attached map). However, no management plans or conservation programmes have been implemented by any organization in the area. As the valley is located in Area C, it suffers from diverse pressures: (1) habitat loss and land fragmentation, causing biodiversity loss; (2) challenging livelihood conditions as a result of (among others) the lack of economic motivations, no subsidies for farming practices, and inadequate markets for extra production.

The following studies emphasize the importance of this proposed project and identify the problems:

- 1) Desktop study and 70 individual interviews covering private and public sectors using questions from Sutherland *et al.*<sup>[1]</sup> to SWOT analysis of sustainable environment in the Palestinian areas<sup>[2]</sup>.
- 2) In the target area, PIBS-BU conducted two studies that suggested decline in biodiversity

[1] Sutherland et al, 2009, *Conservation Biology*, 23, 557-567

[2] Qumsiyeh and Amr, 2016, Environmental Conservation and Protected Areas in Palestine: Challenges and Opportunities. Report done to The Hanns Seidel Foundation, Bethlehem, xii+159 pp, summarized at [http://www.mahmiyat.ps/uploads/171013%20HSF\\_Bethlehem\\_Printed%20Version\\_NC.pdf](http://www.mahmiyat.ps/uploads/171013%20HSF_Bethlehem_Printed%20Version_NC.pdf) and Anabtawi 2016, Is Development Under Occupation Sustainable? Agriculture as A Model – Permaculture. MICAD, Bethlehem University.

## **2. Project partnerships**

The project is implemented by four actors. PMNH-BU is the lead organisation with three partners; ICP-BU. Byspokes, PCC. The four partners have a mutual understanding to cooperate and implement the project based on mutual consent. The partners have participated in all stages of the project cycle since the development of the proposal. Furthermore, the partners participate in the project steering committee that meets on a periodic basis to oversee the project and give advice and guidance to the project team. In addition, they participate in the project technical committee. particularly the biodiversity committee and the ecotourism one.

Much has been achieved so far, yet there has been one main challenge which is related to the partnership method between Bethlehem University and PCC. Basically, the challenge arose because PCC is a private consulting firm, and when the proposal was written, we had not anticipated the complexity of reconciling the Bethlehem University (BU) accounting systems with a private consulting firm. The PCC and BU finance offices tried to figure out alternative ways to resolve this issue, but PCC could not fulfil the BU accounting system requirements. The work to resolve this challenge continued for first three months. In the end, a change request form was submitted to Darwin Initiation in October aiming at reallocating the agriculture tasks from PCC to BU with their associated budgets. See this link for the change request and approval <https://app.luminpdf.com/viewer/NB8vkYQvy2iExdFBw>. PCC is still contributing to the project through consultancy contracts to conduct the plant biodiversity part of the inventory.

The project adopted a participatory approach for the implementation of the project. Therefore, the project mangment developed partnerships with key relevant Palestinian ministrires (EQA, MoTA, MoA), local councils (Municipalities and Village councils), different CBOs in the four communities, as well as other NGO whose work intersects with the project such as Agriculture Development Society-PARC, Union of Agricuture Works Committes-UAWC. All actions related to project were developed via stakeholder meetings both in the design stage (before proposal submission) and during implementation stage. For example four agriculture committees were formed which helped select farmers. (see report sections below).

## **3. Project progress**

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

The project started on September 1, 2018. Therefore, only work for period between 1 September 2018 until 31 March 2019 is included in this report. Most of the work conducted during September focused on preparations and setting implementation methods and mobilizing stakeholders. These are not reflected in the logical framework. However, it is worth reporting them:

1. Recruitment of the project manager and project leader.

1) Project Leader: Prof. Qumsiyeh serves as overall project leader of the project. Project leader job description is posted here

<https://drive.google.com/file/d/1yFA-Fzpf8Q90PmGK1Zrj-kku06XXTWEs/view?usp=sharing>  
and his signed contract is here:

<https://drive.google.com/file/d/1K2twx1WiErWITMbMDRz0hNe51vgnKh1b/view?usp=sharing>

2) Project Manager: Mr. Rami Abu Saad was the successful candidate for the post. See project manager vacancy announcement posted on jobs.ps:

<https://www.jobs.ps/jobs/biodiversity-agriculture-project-manager-32538>

Please click hyperlink below to find a summary of the selection process.

<https://drive.google.com/file/d/1nIGbhcwtutK9QumM5PiKOjm5Lrbyaqvo/view?usp=sharing>

Documents related to the selected Project Manager are available here including his application, CV, university certificates, ID, Job description, and signed contract:

<https://drive.google.com/file/d/1n4Haf1jRDOETKAopwLIB1Bc4IyaoOIGL/view?usp=sharing>

1.3 Under the contribution of the PIBS/PMNH for the project, the project management assigned a team of researchers from PMNH staff to provide support to the project. The team consists of: Elias Handal (50%) and Mohammad Najajreh (50%). In addition, Mohammad Abu Sarhan, Reena Saed, and Aysha Al-Wahsh provide support when requested by the project management based on the needs during the implementation of the project. In January 2019 Mohammad Abu Sarhan replaced Mohammad Najajreh on the project. Also, ICP replaced Ibrahim Bandak with Nisreen Khaliliyeh Mansour. This change was approved by Darwin. See the link for Approval

<https://app.luminpdf.com/viewer/wNGvat2cet96tLhdD/share?sk=7f82f89a-64ff-4f9b-a049-b450b1c23110>

1.4 Consequent to change request 1 mentioned in the previous section (section 2 Project Partnership), PMNH had to hire a new agricultural specialist to assist the project leader and manager to run the agricultural intervention part of the project. The new PMNH's agriculture specialist replaced PCC's Mohammad Abu Amryeh. The Selection process took place during December 2018, and the winning candidate (Ms. Summar Shaheen) started work on 15 January 2019. See the summary of the selection process and Summer Shaheen C.V.

[https://drive.google.com/file/d/1UOuiVOHNYmgrtZbS6WOxTzQqd\\_JO4KdJ/view?usp=sharing](https://drive.google.com/file/d/1UOuiVOHNYmgrtZbS6WOxTzQqd_JO4KdJ/view?usp=sharing)

2) Conducting preparation meetings with the project Partners, Staff, and key stakeholders:

Partners: PMNH conducted a series of individual and group meetings with PCC, ICP and the grant control office at Bethlehem University. The meetings focused on planning and preparation for the progress of the project.

Staff: PMNH held meetings concerning the preparation of action plans as well as allocation of tasks among the project team.

Stakeholders: The Project Management met with the Environment Quality Authority (EQA), and the Ministry of Tourism and Antiquities (MoTA) on September 13, 2018 to discuss the management and conservation plan that the ministry has prepared for the area classified by UNESCO as a World Heritage Site (WHS). The targeted area of PMNH's Al-Makhrour project (funded by Darwin Initiative) intersects with the WHS. During the meeting it was also discussed establishing a Steering Committee for the PMNH Al-Makhrour project. Following this initial meeting, another meeting was conducted at MoTA on September 25, with broader participation from PA's ministries, village councils and municipalities (including targeted communities of PMNH's Al-Makhrour project), and other actors who implement projects in the area. At this meeting, PMNH Al-Makhrour project management presented the project and facilitated discussions focused on incorporating the project into the management plan and the other PA institutions plans relevant to the project. See this link for pictures.

<https://docs.google.com/document/d/16IPo5ey94c0Gti-7b5TKYRN0sUnCP1nx-E6XZq7Fg98/edit?usp=sharing>

Kickoff meeting: held on October 24, 2018 to launch the project. The meeting was attended by the project partners and stakeholders including , Environment Quality Authority, MoTA, MoA, local councils. One of the main outputs of the meeting was the formulation of the Project Steering Committee (PSC). PSC consists of members from the project partners, MoTA, EQA, and MoA. See this hyperlink or the kickoff meeting file that contains the agenda and program of the meeting, the meeting minutes, some pictures, and the media coverage for the event in local newspapers and on websites and social media platforms

<https://drive.google.com/drive/folders/1PZisxYl84ZpoMiWSnDKwqzuaVdg9WGnb?usp=sharing>

Exploratory field trips: to the project site: During the month of September, the project team conducted field trips to Al-Makhrour valley. The purpose of the visits was to prepare the plans for the implementation of the project. See the link

<https://docs.google.com/document/d/1x9AGEVtbxAM5qVWfiV6qMlPbPs52eHy3GwZubf9XeEQ/edit?usp=sharing>

Local Community Councils: Conduct one meeting with each of the four local councils (Beit Jala, Battir, Husan, and Al-Walajah), the meeting aimed to introduce the project and get them involved in the project implementation. A focal point from each council was nominated by the council for the project. For the meeting minutes, see the following hyperlink <https://drive.google.com/drive/folders/1VbCNfwY0U6RTLtqxIXFu8nSqPXi0xAE?usp=sharing>

**Here is a brief about the progress of the activities as per the logical framework**

### **Activities under output one**

Activity 1.1 Analyse literature for national and global relevant research documents. This activity has been carried out in the manner and time planned.

For this we did a comprehensive desktop study gathering all relevant resources including a literature review was done (part of it also done in October). Please use the following link

<https://app.luminpdf.com/viewer/cE66ke5vJknCufSzL/share?sk=bc34372d-80bf-4f77-bfa9-a253dd46895c>

The purpose of the desk and preliminary study was to evaluate existing literature and other resources available in this area covering all aspects of the forthcoming work. The three main aspects covered via studying resources and literature review included: a) biodiversity, b) anthropological issues including agriculture, and c) ecotourism. Understanding the landscape and what was studied before us is critical in developing our methodologies to do our own surveys. As can be seen from the link above, the desktop study reveals areas well studied and others in need of further study. Also the Desktop study showed us the map of the world heritage site that includes Wadi Al-Makhrour, but also Wadi Al-Aion between Husan and Battir which we thus decided to include (instead of Cremisan) based on the revised understanding of the area from both the Desktop study and initial exploratory field work (see section 3.10). Thus Husan is included in one of the villages instead of Al-Khader.

Activity 1.2 Initial town-hall style meetings for community members in each targeted locality. With the manner and time planned, the project team conducted one meeting for each of the four communities. The meetings aimed at introducing the project to the stakeholders at the community level, getting feedback on the project outcome, outputs and main activities, and getting them engaged in all over the project cycle stages. Therefore, the attendants represented the possible beneficiaries of the project, CBOs, representatives of the ministries and project partners. See this link for a summary of findings of the meetings, attendance sheets, and some pictures.

[https://drive.google.com/drive/folders/1SyLjFtqi0NgPv24mK0lc\\_7xCIGUYdM5M?usp=sharing](https://drive.google.com/drive/folders/1SyLjFtqi0NgPv24mK0lc_7xCIGUYdM5M?usp=sharing)

*Activity 1.3 Conduct biodiversity inventory for Al-Makhrour valley; including comprehensive surveys for ecosystem, habitats and species. The work towards this is still ongoing, but for the period of this reporting we already collected significant data*

*Activity 1.4 Next reporting periods.*

*Activity 1.5 & 1.6 Establish ecology, biodiversity, monitoring databases linked to project webpage (the indicators will be linked to specified area blocks along the valley and specified species population). We created a biodiversity committee consisting of key local experts with some outside consulting of scientists. It consisted of Mohamad Mahasna (Environmental Quality Authority,) Prof. Mazin Qumsiyeh (BU), Elias Handal (BU), Dr. Anyton Khallieh (Bird Expert), Dr.. Rami Arafah (PPU), Roubina Ghattas (PCC). The committee held three meetings during the period of this reporting and developed indicators that helped structure the project.*

Biodiversity inventory for animals and mushrooms and beginning of monitoring of threats found in this report

<https://app.luminpdf.com/viewer/CoLqS7fRWjDWtP4FG/share?sk=ab7c2e52-7559-45ff-90c7-41a446f228a0>

Plant biodiversity survey including monitoring parameters which were measured now and will be measured in two years is found here:

<https://drive.google.com/file/d/1op6STd7JV4u8QEb2nh9KHZA9MhosWjjg/view?usp=sharing>

### **Activities under output two**

Activity 2.1 Formulation of one committee for traditional farming program from key stakeholders. As recommended by the project steering committee, the project team, in coordination with the local councils, extended this by establishing committees for each community (4 in total), instead of one committee for the four communities. This was in order to improve the efficiency of the committee works and keep them more focused on the workload of their communities. See the following link for the committees' meeting minutes

<https://drive.google.com/drive/folders/1KE50DCiCq3mN8S1Xh20Ncunt0X6MjGG2?usp=sharing>

All activities from 2.2 to 2.8 are related to the farmers selection process and the distribution of the agriculture Input. All of these activities are completed. However, due to the delay resulting from PCC withdrawal from the project, the result of this was to transfer all PCC works (including implementation of the agriculture component of the project) with their associated budget to PMNH-BU. Activities 2.2 and 2.3 was postponed to Q4 instead of Q3 and are reported herewith. All of the activities are successfully completed in Q4. See this link <https://app.luminpdf.com/viewer/bJjCHnBrG6HTccEXL/share?sk=a43cf662-9e4a-41d8-839d-87cf52409651> for a summary of the farmers selection process, the distribution of the Agriculture inputs to them including different means of verification.

Activities 2.9-2.14 are due in the next reporting periods

Activity 2.15 Formulation of one committee for eco-tourism program from key stakeholders in the manner and time planned. See this link for the minutes of the first meeting for the committee.

[https://docs.google.com/document/d/1dZHGGs1cXzJ2hBA0yGD\\_dk3qyBkFUzpy\\_6bgCg2Xqk8/edit?usp=sharing](https://docs.google.com/document/d/1dZHGGs1cXzJ2hBA0yGD_dk3qyBkFUzpy_6bgCg2Xqk8/edit?usp=sharing)

Activity 2.16 "Study the Valley visitors' path and identify the best places to mark it."

While ecotourism remains a relatively emerging concept in Palestine (Isaac 2010a, b; 2016), as well as in the Middle East, it has a strong potential for expansion. The site being studied through this project has even higher potential for the fact that ecotourism is already taking place there. Al Makhroul Valley path, which can be traversed in around 3 hours, is considered one of the most visited paths in Bethlehem, as well as in Palestine. It has become a major destination for hiking for both locals and internationals. Part of the valley is now recognized as a World Heritage Site by UNESCO. The path starts from Beit Jala and ends in Battir, giving people the chance to admire their rich local fauna and flora.

In the past few decades, with movements growing to attract visitors that could help the local economy (devastated by colonialism), several initiatives have been launched to bring alternative tourists to Palestine. Ecotourism seemed a logical choice considering the beauty of the landscape and the rich fauna and flora. Thus paths were structured that sometimes mixed local cultural tourism with ecotourism (e.g. Masar Ibrahim, see <https://masaribrahim.ps> ). This is a new phenomenon, but has had some significant successes. Now is the time to grow such paths, and people are asking about the best method to do this in a way that produces maximum benefit to people and the environment (causing no damage). Paths must be structured based on scientific principles to be respectful of the ecosystems (including nature and people) they hope to serve. We at Bethlehem University's Palestine Institute for biodiversity and Sustainability are devoting significant resources and expertise to address these issues. Let us take two examples with a great potential for ecotourism as case studies:



The project team worked with Beit Jala Municipality and with the environmental quality authority to map alternative trails and then decide and mark a refined trail for ecotourism going through the valley from Beit Jala to Battir (see Fig.)

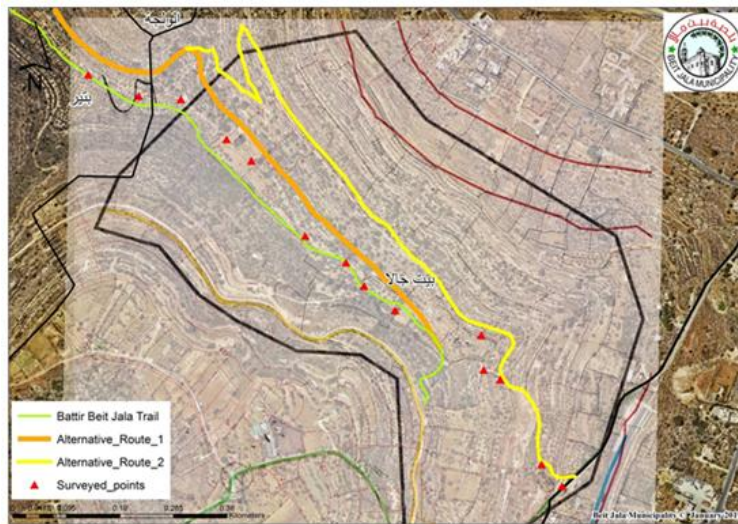


Fig. Earlier suggested ecotour trail map and two alternative routes that could reduce the pressure on the valley

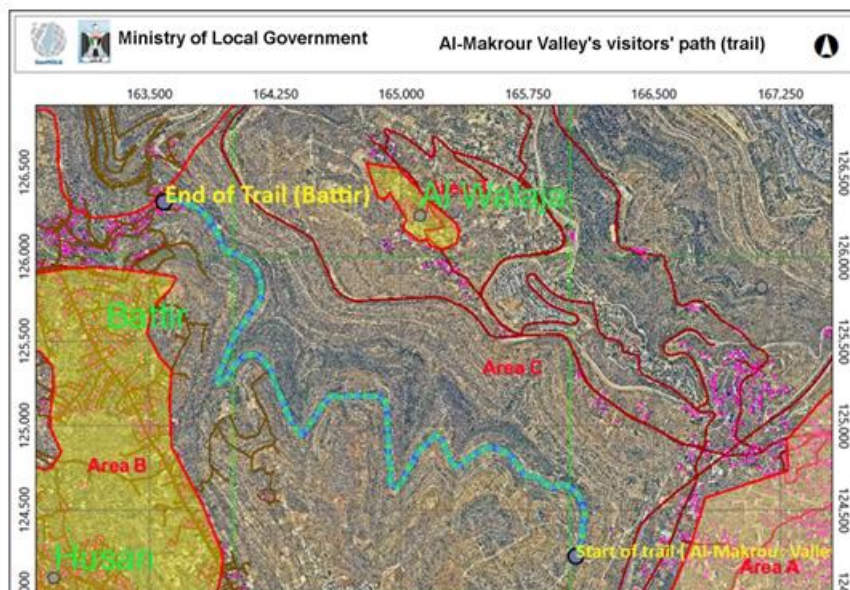


Fig. Finalized trail map Beit Jala to Battir with Ministry of local government

Signs and rest areas were introduced during this reporting period (though not funded by this project)



Activities 2.9-2.14 and 2.17-2.21 are due next reporting periods.

### **Activities under output three**

Activity 3.3 Conduct a two-day workshop for alternative tourism operators and the local targeted communities that work in the tourism sector, building an eco-tourism plan. We engaged the services of a tourism expert, who produced in consultation with locals and stakeholders a draft business plan for Al-Makhrou (this is still being developed and must be integrated with other components of this project in the next reporting period): see separate file <https://app.luminpdf.com/viewer/RhBwRDoHji5ADWrBK/share?sk=caaac833-f6d8-412a-bdbd-ad606868e4e3>

More details about the workshop is also available under output 3 of section 3.3.

Activity 3.11 Media coverage by disseminating up to 106 social media announcements, and 15 newspaper news items about the main project accomplishments and key findings.

During this reporting period 36 posts on social media were published by PMNH and stakeholders, including social media platforms from the four communities, covering the different activities of the project starting with the kickoff meeting, then the town hall meetings, field trips to the valley, announcements related to the farmers selection process, etc., Also press releases for the kickoff meeting were placed in two famous local newspapers, and 2 announcements on news websites. All of these media coverage will be presented through the different sections of this report. We also did boosting for 15 posts on Facebook presenting 15 different species we surveyed in Al-Makhrou valley. See this link for the summary of the boosting impact, including links to the posts

<https://app.luminpdf.com/viewer/wLnG8vswN6gtXBZxS/share?sk=09eafe26-2387-4763-a0a1-7c4f9b7c8f2a>

Activity 3.13 Prepare a webpage for the project under the PIBS- BU website to present all project accomplishments, follow-up reports, educational material, scientific research and publications.

Established see: <https://almakhrou.palhestinenature.org/>. The website is still under development for some content pages.

Activity 3.15 Conduct follow-up surveys for sample of local households (20% of total beneficiaries of which 50% females) to measure the impact of the project including environmentally sensitive practices.

This is what was accomplished: a) preliminary survey for agricultural applicants (69 households) link above, b) stakeholder discussions done in the four communities as focus groups

[https://drive.google.com/drive/folders/1SyLiFtgi0NgPv24mK0lc\\_7xCIGUYdM5M?usp=sharing](https://drive.google.com/drive/folders/1SyLiFtgi0NgPv24mK0lc_7xCIGUYdM5M?usp=sharing)

## 3.2 Progress towards project Outputs

**Output 1:** Inventory and assessment for biodiversity at both habitat and species level are conducted in order to consolidate the scientific data required to propose various forms of conservation management and protection within the project area

There were two measurable indicators during this reporting period. (1.1 & 1.4). Indicator 1.1 Up to 2.5 km<sup>2</sup> of Al-Makhrou valley is surveyed for its biodiversity components at both ecosystem and species levels. This includes 5 field trips/surveys covering the different seasons of the year (total 20 field trips per year). Comprehensive surveys in the first and updating for second project years (2018/2019, 2019/2020) and evaluation surveys in the third project year 2020.

We actually covered more area than we had planned, with over 4 km<sup>2</sup> surveyed. First, we did the desktop and preliminary investigation because we refocused the area to correspond to the World Heritage Site location as discussed above. The result of this is posted at <https://app.luminpdf.com/viewer/cE66ke5vJknCufSzL/share?sk=bc34372d-80bf-4f77-bfa9-a253dd46895c>

We also produced the initial biodiversity reports that describes the ecosystems, habitats at the Valley, threats and drivers of change, flora and fauna species, conservation values and others (some faunal studies are still ongoing and a repeat study to measure changes will be done in about one year). The initial biodiversity inventory for animals, mushrooms and beginning of monitoring of threats can be found in this report

<https://app.luminpdf.com/viewer/CoLqS7fRWjDWtP4FG/share?sk=ab7c2e52-7559-45ff-90c7-41a446f228a0>

The plant biodiversity survey, including monitoring parameters, which were measured now and will be measured in two years is found here:

<https://drive.google.com/file/d/1op6STd7JV4u8QEb2nh9KHZA9MhosWjjg/view?usp=sharing>

Three research papers are now in press from this project: 1) Handal, E.N. and Qumsiyeh, M.B. First Record of the Western Conifer Seed Bug *Leptoglossus occidentalis* Heidemann, 1910 (Heteroptera, Coreidae) from Palestine. Jordan Journal of Biological Sciences, 2) Najajrah Mohammad Hussein, Khalid Swaileh & Mazin Qumsiyeh. 2019. Survey of species, geographic distribution and ecological significance of Coccinellidae (Coleoptera) in Occupied Palestinian areas. Zootaxa, in press, 3) Thaler, Maximus Aysha Al-Wahsh, Alea Meuser & Mazin Qumsiyeh 2019. Macrofungi from The Hebron and Jerusalem Hills of Palestine. Mycotaxon. In Press

Indicator 1.2 to 1.3 were covered in the text above and are still ongoing (next period).

**Output 2:** Economic benefits to the local communities; including women and youth, in proximity to Al-Makhrou Valley will be secured through sustainable agriculture and eco-tourism enhancement

Indicator 2.1 By year 2 (2019), 40 dunums for 80 farmers (50% women farmers) will be provided green agriculture inputs including 56,000 meters of irrigation pipes (1400m/1dunum), 80 water tanks (1cubic meter), 80 pumps (1 horsepower), 44,000 vegetable seedlings (1100seedling/dunum) or 240kg seeds (6kg/dunum), 2000 sacs of organic compost (50 sacs/dunum). So far, we achieved the following along those lines:-Formulation of 4 local committees for traditional farming program, including participation from MoA directorate in Bethlehem Governorate, and others (40% females).

Furthermore, we have completed the selection of farmers and the distribution of agriculture input. Please see the agriculture report

<https://app.luminpdf.com/viewer/bJjCHnBrG6HTccEXL/share?sk=a43cf662-9e4a-41d8-839d-87cf52409651>

Indicator 2.4 Mark the Al-Makhrou visitors path by installing 20 arrow signs, 20 plant-info signs and 2 maps with some volunteer cleaning works along the Valley's trail.

Although this indicator is supposed to be achieved during the second year of the project, some activities were required to be accomplished during this reporting period, as follows: Formulation



of one committee for eco-tourism program from key stakeholders from local communities, MoTA directorate in Bethlehem Governorate, and others (40% females). The path was identified and marked as noted above. Some signs were posted via another project and we will evaluate activities in this output later.

**Output 3:** Raise awareness and build capacities of local communities and stakeholders to better manage their natural resources, support conservation measures and benefit from sustainable agricultural and eco-tourism interventions while impacting the national legislation and involving both females and youth

During this reporting period, only two indicators are due 3.7 & 3.9:

Indicator 3.7 Two-days workshop for alternative tourism operators (10 representatives – 2 persons each) and 12 representatives of the local communities (3 members per locality) that works in the tourism sector (50% women).

The workshop was conducted 25-26 February 2019. However, the project team and the tourism consultant hired decided to conduct an additional four one-day workshops in each community, prior to this main workshop. This was in order to enable the consultant to get better knowledge of the tourism status at each community; the community awareness of the tourism methods, eco-tourism practices, the community involvement in the tourism sector, with special focus on the women participation in the sector. It also aimed at raising community awareness in tourism. The main two-day workshop was attended by the community representatives and those who work or are interested to work in the tourism sector at community level. There was also active participation from MoTA, beside the participation of MoA, EQA, Beit Jala, Battir, Al-Walajeh and Husan municipalities. One of the main outputs of the workshop was that all relevant parties agreed to establish a coordinating committee, a member from each community to coordinate their works and maximize the benefits of promoting the eco-tourism in Al-Makhrou valley. PMNH-BU will be the coordination center for the eco-tourism promotion of the valley. At the end of the process, a comprehensive business plan was developed. This plan was shared with local councils and MoTA for their review. It will be finalized by the consultant and shared and adopted by the four local councils. All relevant means of verification for this were achieved, including developing ecotourism business plan. See this link to evaluation data:

[https://docs.google.com/spreadsheets/d/1\\_3inoENBLkv2VDT6kQRvBCY2OdqI9jDFFZrAxboFfm8/edit?usp=sharing](https://docs.google.com/spreadsheets/d/1_3inoENBLkv2VDT6kQRvBCY2OdqI9jDFFZrAxboFfm8/edit?usp=sharing) and see the link to the business plan above under activity 3.3 .

Indicator 3.9 At least 106 social media announcements, 15 newspaper news, and 4 TV sessions, a website for the valley will be disseminated. So far, 36 social media announcements, 2 newspaper news items, 2 announcements on online website news have been aired. A website for the valley has been established and is under development. Evidence provided in section 3.1. See activity 3.11 in the previous section.

All in all, the progress toward achieving the project's outputs as of year 1 of the project has been substantial. Furthermore, the project team believes that the indicators and its associated means of verifications are still valid, with no need for further changes.

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

Most of the efforts that should be made during this reporting period concentrated on preparation, planning and setting work methodologies. Therefore, most of the means of verifications will be completed during the second and third years of the project lifetime. However, the progress of the project so far shows enough indications that the project is progressing well and in its way to achieving the outcomes. This can be proved through the achievements made during the reporting period as documented in many places in the previous sections. This includes measured progress in biodiversity inventorying of fauna, flora, habitats, threats, and also includes the impact in the areas of tourism and agriculture (the latter mostly capacity building and planning at this stage). We are confident that the changes we made during this reporting period (such as tourism workshops in each of the four villages in addition to the one major workshop) will help us achieve the outcomes required. We will thus continue

to tweak the methods as needed in the next period to achieve and indeed exceed the outcomes proposed.

### 3.4 Monitoring of assumptions

No major changes occurred during the reporting period that requires updating the assumptions. Therefore, all the assumptions with its associated monitoring measures are still valid. Furthermore, the measures adopted by the project team to tackle the assumption during the reporting period proved its credibility. For instance:

1- There is an assumption on the outcome of the project which is “Assume supplies and equipment remain possible to be purchased with few restrictions”.

**Comment:** When procuring the lab and survey tools the project team faced difficulties in finding some of the products from the local market. Therefore they needed to buy them from abroad. This led to another difficulty because all items shipped to Palestine must pass the Israeli occupation borders. Some items were delayed or returned and the project team had to be flexible to import them, obtaining them through the cooperation with PMNH volunteers who come from different countries. See invoices

<https://app.luminpdf.com/viewer/7xz2t6cHxcxFLFWQA/share?sk=73478634-c889-4f4c-962b-e50dff7376ab>

2- Another assumption states that “Women participation in town hall meetings, interviews with stakeholders, or committee formulated for restoration, depends on the availability of women in related positions”.

**Comment:** This assumption is still valid, but measures were taken by the project team to promote women participation achieved some success. Women participated in different meetings, workshops, and committees under the project. See this link for some pictures [https://drive.google.com/drive/folders/1mqSp2-zXfP0yzNheSP2MSB0\\_dmu7jYK?usp=sharing](https://drive.google.com/drive/folders/1mqSp2-zXfP0yzNheSP2MSB0_dmu7jYK?usp=sharing)

Two additional assumptions should have been included in our proposal: 1) that our partners are able to participate as indicated (as noted above financial incompatibility between PCC and BU systems resulted in an approved change to bring the agricultural interventions under BU jurisdiction, 2) we assumed the short period of this project of 2 years 7 months would allow for work in the area leading to effective conservation measures (the current research on threats suggest they may be accelerating and we will need to intensify our work in that front in collaboration with government authorities). Number 1 was dealt with already and number 2 is an ongoing issue that may alter some time tables of interventions in the next period.

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

This is the preparatory phase of the project, so the measurable impact on poverty and biodiversity conservation is still not there. However, the work cited above involving direct contact between project staff and local people included launching workshops, holding stakeholder meetings, focus group meetings, farmer educational meetings, planning meetings and many others, which indeed results in awareness of the importance of biodiversity conservation. Some of this is measurable in time: we have baseline data for knowledge of workshop participants, for example, as cited above, and in the coming two years we will revisit and reassess knowledge to see not only knowledge change (achieved via facilitation by this project), but hopefully behavior changes. Similarly, for the farmers we do have some indications of economic situation from the cited surveys above before interventions. They will be growing their economy going forward thanks to support (transfer of knowledge and some material); we can measure the impact of it towards the end of the project period. Finally, the anticipated interventions in supporting tourism and women’s initiatives will be measured in future reporting.

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

Of the Global Goals for Sustainable Development, the project will help in (1) reducing poverty reflecting on SDGs 1, 2 by strengthening local communities' food security through sustainable agriculture; mainly increasing agricultural productivity and incomes of small-scale food producers, in particular women, secure agro-resources, and implement resilient agricultural practices, (2) sustaining community development reflecting on SDGs 8,11, by strengthening efforts to protect and safeguard Palestine's cultural and natural heritage, reducing the adverse environmental impact of human population, promoting sustainable tourism/agriculture that creates jobs (for women and youth) and promotes local culture and products (3) advocating for responsible consumption and production; reflecting on SDG 12 by introducing organic production concepts, reducing household's/community's waste through composting and adopting the traditional farming concepts, (4) securing gender equality reflecting on SDG 10 by integrating women in the project activities, where gender inclusion and women's full and effective participation and equal opportunities will be taken into consideration at all levels throughout project implementation, and giving women equal rights to economic resources; mainly through the business enterprises initiative that will take place during the project, (5) improving quality of life reflecting on SDG 13, 15 by introducing nature protection concepts, promoting the implementation of sustainable management of Al-Makhrour Valley, restoring degraded forest and rich biodiversity areas, enhancing adaptation to climate change, and integrating Al-Makhrour ecosystem and biodiversity values into national and local planning.

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

The project addresses the three key principles of CBD: (1) conservation of biological diversity, (2) sustainable use of nature, and (3) fair and equitable sharing of the benefits; by developing community empowerment in areas near ecologically sensitive areas (identified through our scoping study). In particular, the project will help in Palestinian compliance with several articles of CBD including:

(1) Article 8 on in situ conservation (communities protecting biodiversity with buy-in), reflected when the project identifies conservation targets, develops conservation frameworks and management plans, highlighting the special measures needed to be taken to conserve rich and sensitive habitats. The project promotes environmentally sound and sustainable development in areas adjacent to Al-Makhrour valley and restores selected degraded habitats along the valley (based on GIS/RS analysis for degraded areas and field verifications) while maintaining knowledge and practices of local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biodiversity.

(2) Article 10 on sustainability (sustainable communities of humans considering social inclusion, fauna, and flora): the project will integrate consideration of the conservation and sustainable use of biodiversity at Al-Makhrour valley and surroundings into local and national decision-making, improve the knowledge of local communities regarding reducing adverse impacts on biodiversity and the best practices for sustaining natural resources of the area, and the formulation of local committees for follow up and supervision of project interventions.

(3) Article 12 on research and training (developing our capacity to conduct research in areas of biodiversity and environmental impact), reflected as the project will encourage research in a developing country in the field of biodiversity conservation and eco-service sustainability. It will strengthen the capacity of local communities and related organizations to revive traditional farming methods and safeguard their cultural/natural landscapes.

(4) Article 14 on impact assessment studies (by empowering a specialized unit for this): the project will set national response plans for conserving the threatened habitats at Al-Makhrour valley, while encouraging local, national and international cooperation through participatory approach.

(5) Article 16 on access and transfer of knowledge (in our case of traditional farming as a tool of conservation in sensitive areas), among others.

The project calls for protecting the traditional knowledge of these farmers, ensuring that they share in the benefits from the use of resources and increasing farmers' capacity towards the sustainable use of their farms. The project is in line with the treaty of ITPGRFA, as it also

addresses the cultivation of native species and varieties in the targeted agro-ecosystem. It follows Article 5 (mainly 5.1) and Article 6 (mainly 6.2), Article 9 (mainly 9.2), Article 13 (mainly 13.2). The crops targeted by the project and covered by ITPGRFA are: broad beans, fava beans, peas, eggplant, radish and cabbage. All the above and others will be accomplished through the successful implementation of the project. This will support Palestine as a party to fulfil its obligation to the CBD and its protocols, in particular, the emphasis on the themes of agricultural sustainability, ecosystem services (including ecotourism), forest biodiversity, and inland waters biodiversity. The project contribution to CBD objectives will be coordinated with the CBD Focal Point in the Environment Quality Authority (EQA) Mr. Mohammed Mahassneh, who has been consulted during the design of the project. Mr. Mohammed I.M. Mahassneh (Environment Quality Authority) for CBD and ABS.

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

See section 3.5. The project will strive to develop and implement modules in ecotourism and sustainable agriculture, which will result in both improved food security, economic progress, and in biodiversity conservation. These outcomes will support local people in elevating themselves out of poverty by having better economic opportunities, promoting local tourism, encouraging buy-in for environmental protection, networking among producers and consumers at local cooperatives/associations level, producing green agriculture fresh/processed, even with limited natural resources, while protecting the biodiversity. Four rural communities, comprising at least 344 individuals (of which 185 women, and 119 young) targeted, are sensitized to the protection of the biodiversity/landscapes and appreciation of organic/sustainable agriculture, are able to run small business enterprises and are able to apply and transfer their knowledge to their communities through capacity building and awareness campaigns. The works in this reporting period focused on establishing systems and methods of work and implementing the necessary preparations. Therefore, the impact can not be measured during the reporting period. However, it still could be understood how the project is contributing to poverty alleviation. Under the agriculture component, 80 beneficiaries were already selected. The actual impact on their income will be measured during the second and third years. Under the ecotourism intervention, the developed business plan will be a main means to enable the targeted communities to enhance the income of poor families through the tourism sector. Also, promoting the eco-tourism through the media and through the visitors path will be a major means of bringing economic benefits to the targeted communities. Many other activities that will help in poverty alleviation will be implemented in the coming two years, for example, providing 4 sub-grants to 12-15 women who will directly benefit from these grants. marketing products through media and through networking, and selling points and festivals.

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

The project aim is to improve women's access to decent work in an attempt to promote social justice and economic growth by advancing gender equality while creating jobs of higher quality at the grassroots and community levels. We took care to involve women in all project activities. The project will provide small business enterprises owned by females (12-15), more jobs at cooperative level, and eco-tourism levels and better production of food (at least 40 female headed households). More than 162 women will be trained in diverse fields. They (up to 30) will have the opportunity to sell their own products in well-organized festivals, and they will be introduced to different market channels. The project will empower targeted women to have positive influence and decision making. Nothing will prevent females from accessing the opportunities created. Actual achievements during the reporting period: women participated in all formulated committees (see link for members of committees). Women actively participated in all meetings and activities held so far (tourism meeting and workshops). See this photo as an example:

<https://drive.google.com/file/d/1ioS8kk8-vkFj-FpPm9ScP4McKXtzqLq0/view?usp=sharing>

Most of the MoUs for the agricultural interventions were signed by males, but this is due to cultural issues. On the ground, women do much of the farming. One of the master students in Tourism and Hotel Management (Wisam Abbasi) decided to do her thesis on why women are



not involved as much in the tourism sector (thesis under the guidance of Project Leader Prof. Qumsiyeh). Interesting data is constantly being collected and will help us move towards gender equality.

## **8. Monitoring and evaluation**

The project leader and manager oversee monitoring and evaluation of the project, which is an ongoing and continuous process to monitor the timely and satisfactory achievement of outcomes/outputs via indicators (reported earlier). Monthly meetings with project staff feed into the M&E process. In addition, the project partners will also conduct M&E regarding the progress and outcomes of the interventions they are responsible for, while providing continuous follow up and evaluation reports to the project manager every time they accomplish one of their tasks. Project partners share the accomplishments and outcomes through an “in-house” evaluation meeting where they discuss progress, challenges (if any), and success. Hence, not only the main outputs of the project are monitored, but also each project activity. Here is one example summary updates received from PCC during the reporting period,

<https://app.luminpdf.com/viewer/BDnGQSPRrpyi2skoJ/share?sk=3a215cce-7bd0-4418-b1c5-be0bb3e65a06> in addition to the comprehensive report on plant inventory mentioned in section 3.2 under output 1.

The project adopted a participatory approach. and therefore established committees of key stakeholders to support the project including the monitoring and evaluation. Instead of four committees of key stakeholders that was initially preposedl, seven committees were established to support the project in facilitation, consultation and review for the project activities. A Project Steering Committee (PSC) was established to discuss the progress of the project and provide input to ensure an adaptive project management, and ensuring satisfactory achievements of indicators. The other project committees (Biodiversity conservation committee, restoration of key habitats, and traditional farming intervention in four local committees, and eco-tourism intervention committee) offer different areas of expertise and provide technical experience and knowledge in relevance to the intervention they support, will be available for consultation and will ensure full participation of relevant stakeholders while conducting the project. PSC was supposed to meet only twice a year, and the other technical committees two to three times during the project period. Instead, the project team and the stakeholders agreed to meet once every two months. Please see the meeting minutes for the PSC as an example.

[https://drive.google.com/file/d/1dfEjV3gxck0qgS\\_wnBRxsEEGj7LW-6U1/view?usp=sharing](https://drive.google.com/file/d/1dfEjV3gxck0qgS_wnBRxsEEGj7LW-6U1/view?usp=sharing)

## **9. Lessons learnt**

What worked: We were impressed by the quality of the faunal and floral survey data produced in the first few months (see section 3.2). We found local and national level cooperation and coordination to be better than we had expected. This encouraged us to increase stakeholder and community workshops, Overall progress on all outcomes and outputs was satisfactory.

Challenges: A delay in hiring a manager and noted difficulty with PCC & BU finance incompatibility combined with somewhat unrealistic expectations of the proposal logframe meant we did not get to do a first winter season planting with farmers and had to move to spring planting (ongoing). One of the noted challenges was bringing staff to speed (a form of capacity building). As time went by and with experience, the team learned to address challenges and it progressed more smoothly (continuous quality improvement).

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

N/A. No previous reviews. This is the first Annual Report.

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

The project team adopted a complementary approach. This is by coordinating and cooperating with other actors whose work intersects with the project activities. This is in order to avoid duplication of work with other actors, to increase the total number of beneficiaries in each

community, and to make sure to enlarge the project impact. For instance: 1) The project is coordinating with Caritas Jerusalem, which is implementing a project that targets Beit Jala's part of the Al-Makhrour Valley, offering training on eco-agriculture and providing some agriculture input to specific number of farmers from Beit Jala. To avoid duplication, the project team coordinated with the Caritas team and accordingly one of the selection criteria of this project was to give priority to farmers who didn't get benefits from other projects during the last period. 2) PARC and UAWC implemented project in agriculture (one involved a seed bank so we are getting some seeds from them). Please see meeting minutes with PARC and MoA [https://docs.google.com/document/d/107YB2G88sjO\\_qCuGTKUADDbPdyOpAQPvNvvLhktTYAY/edit?usp=sharing](https://docs.google.com/document/d/107YB2G88sjO_qCuGTKUADDbPdyOpAQPvNvvLhktTYAY/edit?usp=sharing)

## **12. Sustainability and legacy.**

This project fits perfectly in the visions of the Palestine Museum of Natural History and the Palestine Institute of Biodiversity and Sustainability (at Bethlehem University) which focuses on sustainable human and natural communities even in difficult political circumstances. It is also not a top-down, but bottom-up approach of involving communities in shaping their own future. Unexpected benefit from other projects we are implementing accrue to this project. For examples: 1) a project funded by National Geographic Society for exploration allowed us to cover a contract for bird and other studies not covered by this proposal's budget, 2) A project funded by the British Council for cultural heritage protection unexpectedly gave us data on traditional heritage that can be used in educational programs (current and forthcoming) for conservation using our heritage as an impetus for conservation.

As covered on page 7, there is already great visibility for this project that helps it achieve its stated outcomes. Further, the project is designed to reach a sustainable end point by various methods designed to make a long term impact: the formulation of committees of relevant key stakeholders to facilitate and sustain the project activities during and after the project ends, securing the support/willingness of authorities and other stakeholders to follow up the achievements of the project and adopt the project recommendations (see letters of support), and through providing advanced relevant training/capacity building to all project beneficiaries to run sustainably the inputs of the project. The six committees are: (1) for sustainable agriculture program (1/village) (2) for eco-tourism program (1 for the valley) (3) for restoration works (1 for the Valley). They are formulated of relevant Government bodies, local organizations, and village councils/municipalities. An agreement will be signed with the farmers / tourism operators emphasizing the sustainability of the relevant activities at the valley after the project ends. The conservation management plans will be adopted by EQA to follow up their implementation at the valley (see EQA support letter). The livelihood and eco-tourism activities are welcomed and highly-valuated by MoTA (Ministry of Tourism and Antiquities) and the selected local village councils/municipalities and communities based on the consultation/planning that took place with them (see support letters and cover letter).

## **13. Darwin identity**

The project team emphasizes that the project is funded by the Darwin Initiative and thus the UK government. This has occurred in the dozens of meeting conducted during the first year of the project. Participants include local people (direct beneficiaries, farmers and tour operators), government officials, local councils, and experts. In the social and mainstream media coverage (see page 7), the role of DI and the UK government is highlighted. Moreover, the project team is using the Darwin Initiative logo in all visibility materials (Banner, Roll-up, see picture below). They also use the logo in all documents produced and shared with the stakeholders. See for example the templates for the selection process of the farmers <https://drive.google.com/file/d/1qKWj0rtIliJWwJQDKsJRFrkHYcqWvRVj/view?usp=sharing>



Dr. Ahmad Rjoub, Director of World Heritage sites at the MoTA during the discussion in the kickoff meeting of the project. The project Roll-up with Darwin Initiative logo in the background.



The project banner with Darwin Initiative logo.

#### 14. Project expenditure

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

Project spend (indicative) since last annual report	2018/19 Grant (£)	2018/19 Total Darwin Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)	26,027	16,740		<p>Variation in figures has been approved by Darwin, as Follow:</p> <p>A) £4356 reallocated Consultancy Costs (See change request 1  <a href="https://app.luminpdf.com/viewer/M8XpjuH3PwBaCXbR/share?sk=aba6b7c8-aab2-4762-be45-3a77b7df0732">https://app.luminpdf.com/viewer/M8XpjuH3PwBaCXbR/share?sk=aba6b7c8-aab2-4762-be45-3a77b7df0732</a></p> <p>B) £3660 re-allocated to capital equipment. (See change request 2 linked above in section 2).</p> <p>C) £968 project manager started works mid of September, and not completed his master degree yet</p> <p>D) £303 remaining balance, mainly due to currency differences.</p>
Consultancy costs	2,657	6,610		<p>Add £4356 Reallocated from Staff costs (See change request 1).</p> <p>Then deduct, £403 remaining balance due to the actual costs of 3 consultancy contracts.</p>
Overhead Costs	5,148	4960.52		Draft
Travel and subsistence	496	490		Draft
Operating Costs	1,406	999		£407 due to actual figures, and to conducting a workshop in the museum premises instead of renting a hall as what was planned.
Capital items (see below)	25,813	29,432		<p>Draft.</p> <p>Add £3660 reallocated from staff costs (see change request 2).</p> <p>Then Deduct £41 remaining balance.</p>
Monitoring & Evaluation (M&E)	PMNH contribution			
Others (see below)	15,050	14,507.5		Draft
<b>TOTAL</b>	<b>76,597</b>	<b>73,739.02</b>		



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

Project summary	Measurable Indicators	Progress and Achievements April 2018 - March 2019	Actions required/planned for next period
<b>Impact:</b> The semi-natural ecosystems of the southern areas of the West Bank are sustainably maintained with resultant enhancement of Biodiversity conservation, traditional agriculture practices, and socioeconomic development of local people.		See below	
<b>Outcome</b> By 2021, the Palestinian communities' accessed benefits through valuation/conservation of their ecosystems, reviving traditional farming, and enhancing ecotourism activities at Al-Makhroul valley where at least 344 households will directly benefit	<p>0.1 Baseline study of biodiversity covering the area of 2.6 km<sup>2</sup> core area (5 km<sup>2</sup> with buffer zones) then re-evaluation at end of three years shows preservation or increase of biodiversity (versus the decline that has been going on in the past few years)</p> <p>0.2 Number of households acting in environmentally sensitive ways around their homes increase to 30 households (average 6 members of each household) by the first years and then to 244 households (50% females) by year three</p> <p>0.3 By year 3, at least 224 households 80 hh in farming - 50% females) including 80 hhs in festivals (50% females) and 40 hhs in food processing (100% females), 60hh running cooperatives (50% females), 12 hhs running market points (100% females), 32 hhs in</p>	See section 3.3	<p>Prepare baseline evaluation report for ecosystem/biodiversity status at Al-Makhroul valley. Then prepare biodiversity management plan for the valley.</p> <p>Identify key sensitive habitats along the valley and set their conservation frameworks, building on the findings of previous activities: 1.3, 1.5, and 1.7</p> <p>Evaluation report for summer /winter vegetables production and income generation/food self-sufficiency.</p> <p>Conduct first festival during harvesting period of summer cultivation season</p> <p>Prepare follow up report for the level of enhancement in tourism sector in targeted area.</p> <p>Provide four sub-grants (for 4000 (£)</p>

	<p>eco-tourism (50% females) have developed income generating activities like sustainable agriculture, marketing and ecotourism activities and act as models in their communities</p> <p>0.4 Sustainable agricultural productivity increases at targeted sites where vegetables production increases by 30% of yearly production (estimated between 18-22 tons for 40 dunums per year)</p> <p>0.5 By year 3, at least 10 modules of transferrable knowledge are developed in a manner that would enhance conservation and sustainability</p> <p>0.6 Reduction of damaging human activities (hunting, logging, trash dumping) in the protected areas by 10% annually from baseline</p>		<p>each) for four existing/initiated women business enterprises.</p> <p>Prepare follow up and evaluation report for the progress of the initiated SMEs. Conduct several training workshop in the process of capacity building for the targeted communities. Topics focus on cooperatives partnerships, introduction to Fair Trade Networks, Gender, enhance marketing networks, initiation of small business enterprises, and methods of governance, best sustainable farming practices, best practices in conserving biodiversity, and on food processing.</p> <p>Target schools to raise environmental awareness, and create school environment clubs; supported with educational materials/modular.</p> <p>Prepare and Print brochure for the project area; includes a description, management plans, key area for conservation and restoration, touristic plan and potential business opportunities, guiding tour with a map (locating the visitors path, villages in proximity, selling points, etc.), guiding orientations for tourists with recommendations for best practices at the sites, etc.</p>
<p><b>Output 1.</b></p> <p>Inventory and assessment for biodiversity at both habitat and species</p>	<p>1.1 Up to 2.5km<sup>2</sup> of Al-Makhrouir valley is surveyed for its biodiversity components at both ecosystem and species levels. This includes 5 field trips/surveys covering the</p>	<p>There were two measurable indicators during this reporting period. (1.1 &amp; 1.4).</p> <p>For Indicator 1.1 we actually did more area than we had planned with over 4 km<sup>2</sup> surveyed. Evidence provided in section 3.2.</p> <p>For indicator 1.4: The project team conducted one meeting for each of the four</p>	

level are conducted in order to consolidate the scientific data required to propose various forms of conservation management and protection within the project area	<p>different seasons of the year (total 20 field trips per year). Comprehensive surveys in the first and updating for second project years (2018/2019, 2019/2020) and evaluation surveys in the third project year 2020.</p> <p>1.4 Four town-hall style meetings will be conducted for 40 community members for each targeted locality (total 160 local participants, 50% women) about plans of project development, SWOT analysis for key challenges, environmental remedies and ecological economic potentials</p>	communities. the meetings aimed at introducing the project to the stakeholders at community levels, getting their feedback on the project outcome, outputs and main activities, and getting them engaged in all over the project cycle stages. Therefore, the attendants represented the possible beneficiaries of the project, CBOs, representatives of the ministries and project partners. Evidence provided in section 3.1 activity 1.2	
Activity 1.1 Analyse literature for national and global relevant research documents.		Completed	
Activity 1.2 Initial town-hall style meetings for community members in each targeted locality.		Completed	Follow up meetings with stakeholders at different levels, especially at community level, in order to keep them involved in the project, raise their awareness in the different themes of the project, get their feedback and suggestions to improve performance and to ensure sustaining the project impact.
Activity 1.3 Conduct biodiversity inventory for Al-Makhrour valley; including comprehensive surveys for ecosystem, habitats and species.		The work towards this is still ongoing but for the period of this reporting we already collected significant data	Continue unit end of Q1 of year two.
Activity 1.5 & 1.6 Establish ecology, biodiversity, monitoring databases linked to project webpage (the indicators will be linked to specified area blocks along the valley and specified species population).		<p>Biodiversity inventory for animals, mushrooms and beginning of monitoring of threats found in this report</p> <p><a href="https://app.luminpdf.com/viewer/CoLqS7fRWjDWtP4FG/share?sk=ab7c2e52-">https://app.luminpdf.com/viewer/CoLqS7fRWjDWtP4FG/share?sk=ab7c2e52-</a></p>	The faunal biodiversity data are still being collected but the data from flora and fauna will be used to create a management plan next which will be then shared and feedback sought to fine tune the interventions needed which then will be implemented and

		<a href="https://drive.google.com/file/d/1op6STd7JV4u8QEb2nh9KHZA9MhosWjjg/view?usp=sharing">7559-45ff-90c7-41a446f228a0</a> Plant biodiversity survey including monitoring parameters which were measured now and will be measured in two years is found here: <a href="https://drive.google.com/file/d/1op6STd7JV4u8QEb2nh9KHZA9MhosWjjg/view?usp=sharing">https://drive.google.com/file/d/1op6STd7JV4u8QEb2nh9KHZA9MhosWjjg/view?usp=sharing</a>	monitoring and evaluation done to see effect of these interventions over the remaining period of this project.
<b>Output 2.</b> Economic benefits to the local communities; including women and youth, in proximity to Al-Makhrour Valley are secured through sustainable agriculture and eco-tourism enhancement	2.1 By year 2 (2019), 40 dunums for 80 farmers (50% women farmers) will be provided green agriculture inputs including 56,000 meters of irrigation pipes (1400m/1dunum), 80 water tanks (1cubic meter), 80 pumps (1horse power), 44,000 vegetable seedlings (1100seedling/dunum) or 240kg seeds (6kg/dunum), 2000 sacks of organic compost (50 sacks/dunum). 2.4 Mark the Al-Makhrour visitors path by installing 20 arrow signs, 20 plant-info signs and 2 maps with some volunteer cleaning works along the Valley's trail.	Indicator 2.1 So far, we have achieved the formulation of 4 local committees for traditional farming program including participation from MoA directorate in Bethlehem Governorate, and others (40% females). Furthermore, we have completed the selection of farmers and the distribution of agriculture input. See section 3.2, the agriculture report.  Indicator 2.4 Path was identified and marked. Some signs were posted via another project and we will evaluate activities in this output later. Evidence provided in 3.1 activity 2.16	
Activity 2.1 Formulation of one committee for traditional farming program from key stakeholders.		As recommended by the PSC, the project team in coordination with the local councils established one community for each community (4 in total), instead of one committee for the four communities. This is in order to improve the efficiency of the committee works and keep them more focused on the workload of their communities.	Continue working with the committees, getting their feedback on the work progress to make sure that the project will achieve its objectives.
Activity 2.2. to 2.8		All activities from 2.2 to 2.8 are related to the farmers selection process and the distribution of the agriculture Input. All of these activities are completed.	Follow up visits to monitor the implementation of the agriculture intervention. Conduct training workshops on best sustainable farming



		<p>However, due to the delay resulted from PCC withdrawal from the project. and that the result of this was to transfer all PCC works (including implementation of the agriculture component of the project) with their associated budget to PMNH-BU. Activities 2.2 and 2.3 was postponed to Q4 instead of Q3 and are reported herewith. All of the activities are successfully completed in Q4.</p>	<p>practices and work with the on enhancing marketing.</p>
Activity 2.15 Formulation of one committee for eco-tourism program from key stakeholders.		Completed	<p>Continue working with the committee to supervise the implementation of the tourism intervention of the project. Direct the committee work with the communities to benefits from the business plan to create economic benefits for the communities.</p>
Activity 2.16 Study the Valley visitors' path and identify the best places to mark it.		<p>Completed. The project team worked with Beit Jala Municipality and with the environmental quality authority to map alternative trails and then decide and mark a refined trail for ecotourism going through the valley from Beit Jala to Battitr.</p>	<p>Revisit the path and evaluate the situation, then procure and install the arrows and signs and the two main instruction maps. This will be after consulting with the other project that installed some signs in path. The final action through the project will be decided accordingly.</p>
<p><b>Output 3.</b> Raise awareness of and build capacities of local communities and stakeholders to better manage their natural resources, support conservation measures and benefit from sustainable agricultural and eco-tourism interventions while impacting the national legislation and involving both females and youth.</p>	<p>3.7 Two-days workshop for alternative tourism operators (10 representatives – 2 persons each) and 12 representatives of the local communities (3 members per locality) that works in the tourism sector (50% women)</p> <p>3.9 At least 106 social media announcements, 15 newspaper news, and 4 TV sessions, a website for the valley will be disseminates</p>	<p>During this reporting period, only two indicators due. (3.7 &amp; 3.9).</p> <p>Indicator 3.7: See section 3.2</p> <p>Indicator 3.9: See section 3.1</p>	

Activity 3.3 Conduct two-days workshop for alternative tourism operators and of the local targeted communities that works in the tourism sector, build eco-tourism plan.	Completed. See section 3.2
Activity 3.11 Media coverage through disseminate up to 106 social media announcements, and 15 newspaper news about the main project accomplishments and key findings.	During this reporting period 36 posts on social media were published by PMNH and stakeholders including social media platforms from the four communities, covering the different activities of the project starting with the kickoff meeting, then the town hall meetings, field trips to the valley, announcements related to the farmers selection process,..etc., Also press release for the kickoff meeting in two famous local newspapers, and 2 announcements on news websites. All of these media coverage will be presented through the different sections of this report. We also did boosting for 15 posts on facebook presenting 15 different species we surveyed in Al-Makhrourou valley. Evidence provided in section 3.1 activity 3.11
Activity 3.13 Prepare a webpage for the project under the PIBS- BU website to present all project accomplishments, follow up reports, educational material, scientific research and publications.	Established see: <a href="https://almakhrourou.palhestinenature.org/">https://almakhrourou.palhestinenature.org/</a> . The website is still under development for some content pages.
Activity 3.15 Conduct follow up surveys for sample of local households (20%of total beneficiaries of which 50% females) to measure the impact of the project including environmentally sensitive practices.	This is what was done a) preliminary survey for agricultural applicants (69 households) link above, b) stakeholder discussions done in the four communities as focus groups. Evidence provided in section 3.1 activity 3.15

## 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
<b>Impact: The semi-natural ecosystems of the southern areas of the West Bank are sustainably maintained with resultant enhancement of Biodiversity conservation, traditional agriculture practices, and socioeconomic development of local people.</b>			
(Max 30 words)			
<b>Outcome:</b> (Max 30 words)  <b>By 2021, the Palestinian communities' accessed benefits through valuation/conservation of their ecosystems, reviving traditional farming, and enhancing ecotourism activities at Al-Makhrou valley where at least 344 households will directly benefit</b>	0.7 Baseline study of biodiversity covering the area of 2.6 km <sup>2</sup> core area (5 km <sup>2</sup> with buffer zones) then re-evaluation at end of three years shows preservation or increase of biodiversity (versus the decline that has been going on in the past few years)	<ul style="list-style-type: none"> <li>Baseline (year 2019) and end line (2020) reports for ecology/biodiversity components,</li> <li>3-5 scientific publications,</li> <li>Ecology, flora, fauna and birds databases including monitoring indicators (see activities for e.g.)</li> <li>20 Field visit reports including photos and maps</li> <li># of field survey equipment</li> <li>Maps delineating the valley, forested area surrounding it and semi-natural areas inside the village boundaries</li> <li>5 project progress reports (one every six months); from September 2018 to February 2021.</li> <li>Final technical and financial reports</li> </ul>	<p>Political turmoil does not interfere in project implementation; (the project has flexibility in shifting locations when one community has disturbances).</p> <p>Staff and workers employed by the project are living in Bethlehem Governorate to ensure their availability during needed periods during the project implementation despite any political turmoil</p> <p>Assume supplies and equipment remain possible to be purchased with few restrictions.</p> <p>Continued cooperation of local and national authorities.</p>
	0.8 Number of households acting in environmentally sensitive ways around their homes increase to 30 households (average 6 members of each household) by the first years and then to 244 households (50% females) by year three	<ul style="list-style-type: none"> <li>1 baseline and 2 follow up surveys (one per year) of sample of local households (20% of total beneficiaries (of which 50% females) targeted per year) by staff and volunteers</li> <li>Follow up reports every year; to measure impact of the project including environmentally sensitive practices (includes findings of follow up surveys)</li> <li>Field visit reports by project staff</li> </ul>	

		<ul style="list-style-type: none"> <li>• 5 project progress reports (one every six months); from September 2018 to February 2021.</li> <li>• Final technical and financial reports</li> </ul>	
	0.9 By year 3, at least 224 households 80 hh in farming - 50% females) including 80 hhs in festivals (50% females) and 40 hhs in food processing (100% females), 60hh running cooperatives (50% females), 12 hhs running market points (100% females), 32 hhs in eco-tourism (50% females) have developed income generating activities like sustainable agriculture, marketing and ecotourism activities and act as models in their communities	<ul style="list-style-type: none"> <li>• Follow up report at end of the project (year 3); to measure impact of the project including generation of income where number of M&amp;E questions are embedded.</li> <li>• Maps locate the targeted farms, festival, selling market points, eco-tourism visitors' path, etc.</li> <li>• 5 project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Project audit report every year.</li> <li>• Final technical and financial audit reports</li> </ul>	
	0.4 Sustainable agricultural productivity increases at targeted sites where vegetables production increases by 30% of yearly production (estimated between 18-22 tons for 40 dunums per year)	<ul style="list-style-type: none"> <li>• Follow up reports every year; to measure impact of the project including increase in vegetables production at targeted sites where number of M&amp;E questions are embedded</li> <li>• Project audit report every year.</li> <li>• Field visit reports by project staff</li> <li>• 5 project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	0.5 By year 3, at least 10 modules of transferrable knowledge are developed in a manner that would enhance conservation and sustainability	<ul style="list-style-type: none"> <li>• Finalized modular that are based on project studies in different project field including composting, traditional farming, eco-tourism, biodiversity and conservation, advanced marketing, etc. that is transferrable to people documented in writings and via photos.</li> </ul>	



		<ul style="list-style-type: none"> <li>Final project technical report</li> </ul>	
	0.6 Reduction of damaging human activities (hunting, logging, trash dumping) in the protected areas by 10% annually from baseline	<ul style="list-style-type: none"> <li>Baseline report to measure impact of damaging human activities on the environment of the targeted site; upon conducting an initial assessment for major indicator reflecting on the mentioned issues.</li> <li>Follow up report at end of the project (year 3); to measure impact of the project including reduction of damaging activities where number of M&amp;E questions are embedded</li> <li>Final technical and financial audit reports</li> </ul>	
<b>Outputs:</b>  1. Inventory and assessment for biodiversity at both habitat and species level are conducted in order to consolidate the scientific data required to propose various forms of conservation management and protection within the project area	1.1 Up to 2.5km <sup>2</sup> of Al-Makhrour valley is surveyed for its biodiversity components at both ecosystem and species levels. This includes 5 field trips/surveys covering the different seasons of the year (total 20 field trips per year). Comprehensive surveys in the first and updating for second project years (2018/2019, 2019/2020) and evaluation surveys in the third project year 2020.	<ul style="list-style-type: none"> <li>Literature Reviews for national and global relevant research documents</li> <li>20 Field visit reports by project team</li> <li>Two biodiversity reports that describes the ecosystems, habitats at the Valley, threats and drivers of change, flora and fauna species, conservation values and others</li> <li>Ecology, flora, fauna and birds databases including monitoring indicators (see activities for e.g.)</li> <li>3-5 publications in scientific journals utilizing data of biodiversity in the targeted areas</li> </ul>	<p>Potential travel restrictions could delay arrival via alternative roads (we need flexibility in timing of project activities).</p> <p>Women participation in town hall meetings, interviews with stakeholders, or committee formulated for restoration, depends on availability of women in related positions.</p>
	1.2 One ecosystem management plan will be developed for the whole valley using CMP model (Conservation Measures Partnership, 2013) and IUCN relevant guidelines	<ul style="list-style-type: none"> <li>12 Interviews with stakeholders (4 village councils, 4 GOV. Bodies, and 4 local organizations) – questionnaires, attendance and photos.</li> <li>One report that describes the management plan for the Valley,</li> </ul>	

		considering both the landscape, socio-ecological systems, and climate change aspects to be handed to relevant decision makers and stakeholders. Data disaggregated by gender when appropriate	
	1.3 Three priority habitats at the Valley, their conservation frameworks and restoration schemes were identified and designed with their assessments and monitoring data sets	<ul style="list-style-type: none"> <li>• Formulation of one committee for restoration actions from key stakeholders from local communities, EQA and MoA directorates in Bethlehem Governorate, and others (40% females).</li> <li>• 6 field visits for selected habitats</li> <li>• One report that describes the conservation values including the priority habitats, their conservation frameworks and restoration schemes (where necessary), and list of monitoring datasets (linked to database mentioned in 1.1).</li> <li>• Up to 3 dunums will be restored, the method for restoration will be decided based on the type of pressures and threats affecting the sites.</li> </ul>	
	1.4 Four town-hall style meetings will be conducted for 40 community members for each targeted locality (total 160 local participants, 50% women) about plans of project development, SWOT analysis for key challenges, environmental remedies and ecological economic potentials	<ul style="list-style-type: none"> <li>• Media coverage, newspaper announcement, list of attendees, photos</li> <li>• a report about main findings and recommendations; data disaggregated by gender</li> </ul>	

<p>2. Economic benefits to the local communities; including women and youth, in proximity to Al-Makhrour Valley are secured through sustainable agriculture and eco-tourism enhancement</p>	<p>2.1 By year 2 (2019), 40 dunums for 80 farmers (50% women farmers) will be provided green agriculture inputs including 56,000 meters of irrigation pipes (1400m/1dunum), 80 water tanks (1cubic meter), 80 pumps (1horse power), 44,000 vegetable seedlings (1100seedling/dunum) or 240kg seeds (6kg/dunum), 2000 sacks of organic compost (50 sacks/dunum).</p>	<ul style="list-style-type: none"> <li>• Formulation of one committee for traditional farming program from key stakeholders from local communities, MoA directorate in Bethlehem Governorate, and others (40% females).</li> <li>• Announcement inviting farmers to apply for selection process for the agriculture intervention</li> <li>• Applications filed by farmers from targeted villages/towns</li> <li>• Inspection field visits for sample of farmers before signing MoUs.</li> <li>• List of selected farmers</li> <li>• Signed MoUs with the selected 80 farmers</li> <li>• Order of purchase for agricultural inputs</li> <li>• 4 Field visit reports per farmer per season (640 visit/year),</li> <li>• evaluation report for vegetables production (expected to produce 1500-2000 kg/dunum),</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	<p>Getting “buy-in” by local people. (Willingness and interest of local people is a key stone that the project rely on and hence the team will always work to secure this factor especially during the selection process of beneficiaries for the different interventions and through the formulated project committees)</p> <p>Cooperation of local authorities of targeted localities (town councils and municipalities) while implementing the project activities. (The applicant collected letters of support during the planning of the project local authorities, emphasizing their continuous involvement in the project activities, formulated committees and follow ups))</p>
	<p>2.2 A two-day workshop for 20 cooperatives (10 productive coop – at least 3 member each (sell local fresh and processed local products) and 10 consumption coop – at least 3 members each (buy local fresh and processed products)) to build marketing networks and partnerships (contacts will be exchanged).</p>	<ul style="list-style-type: none"> <li>• Workshop’s invitation,</li> <li>• list of attendees and their contacts,</li> <li>• Minutes of meeting and photos,</li> <li>• Evaluation sheets filled by attendees</li> <li>• follow up report for marketing progress done yearly (years 2019 &amp; 2020)</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> </ul>	

		<ul style="list-style-type: none"> <li>• Final technical and financial audit reports</li> </ul>	
	2.3 Two market festivals for Al-Makhroul local products; 40 local farmers/festival (50% female farmers); one selling summer agro-produce (June or July 2019) and the second selling winter agro-produce (February or March 2020)	<ul style="list-style-type: none"> <li>• Fees for renting a venue and setting the bazar area for the festivals,</li> <li>• Order of purchase for goods for setting the festival (tents, chairs &amp; tables, packaging material)</li> <li>• list of farmers participating at each festival,</li> <li>• field visit reports and photos,</li> <li>• Follow up report for the progress and impact of the festivals,</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	2.4 Mark the Al-Makhroul visitors path by installing 20 arrow signs, 20 plant-info signs and 2 maps with some volunteer cleaning works along the Valley's trail.	<ul style="list-style-type: none"> <li>• Formulation of one committee for eco-tourism program from key stakeholders from local communities, MoTA directorate in Bethlehem Governorate, and others (40% females).</li> <li>• Specifications and order of purchase for signs, and maps</li> <li>• Field visit report for installation and cleaning works at Al-Makhroul valley including photos</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	2.5 Four sub-grants for 4000 (£) each are given to four existing/initiated women business enterprises (an average 3 women members per enterprise) for market local products at	<ul style="list-style-type: none"> <li>• Announcements at local authorities for the sub-grant,</li> <li>• Application forms for sub-grant request,</li> <li>• Evaluation reports for selection</li> </ul>	

	four targeted localities	<p>ensuring the integrity and governance of the process</p> <ul style="list-style-type: none"> <li>• List of 12 women for initiating business selling points (each 3 will start a selling point at their village)</li> <li>• Signed MoUs with women to start the four initiatives.</li> <li>• Four market selling points' business plans for marketing the valleys agricultural and cultural and touristic products,</li> <li>• Government registration certificates,</li> <li>• Follow up reports every year to measure the success of this initiative.</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
<p><b>3.</b> Raise awareness of and build capacities of local communities and stakeholders to better manage their natural resources, support conservation measures and benefit from sustainable agricultural and eco-tourism interventions while impacting the national legislation and involving both females and youth</p>	<p>3.1 One day workshop for 20 main stakeholders from targeted localities, governmental bodies mainly EQA, MoA, and MoTA and media to present the Valley's biodiversity management plans to be considered at legislative level.</p>	<ul style="list-style-type: none"> <li>• Workshop's invitation, agenda, presentation, and distributed document (biodiversity plan report prepared by the project earlier),</li> <li>• Minutes of meeting including photos, list of attendees,</li> <li>• Pre and post evaluation reports reflecting on the knowledge base concerning the status of biodiversity at targeted area and the stakeholders' willingness to adopt the plan and implement it later on the ground,</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	<p>Locals including schools willingness to participate in training sessions and workshops to learn about local and national environment, biodiversity conservation, and business interventions for better livelihoods (the project will initiate this activity through Ministry of Education and Higher Education)</p> <p>The trainees buy-in the training educational materials, orientations and recommendations (the project will ensure motivation and engagement of all participants)</p>



	3.2 Four 1-day workshop to emphasize marketing networks, initiation of small business enterprises, and methods of governance and of sustaining their businesses for farmers and relevant cooperatives	<ul style="list-style-type: none"> <li>• Workshop's invitation, agenda, presentation, and educational material</li> <li>• Minutes of meeting including photos, list of attendees,</li> <li>• Pre and post evaluation reports reflecting on the knowledge base of participates in relevant aspects and highlighting the benefits they gained from this workshop in their business,</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	Some of the targeted farmers might change by the project team during the project implementation; only in case they show inefficiency in delivery aimed at outputs. The project team will perform the selection upon the same set of criteria; used at the beginning of the project.
	3.3 Four 2-days training sessions for best sustainable farming practices (organic, permaculture, managing the farm, etc.) (80 farmers in total, 50% women, 20 farmers per workshop)	<ul style="list-style-type: none"> <li>• Training invitation, agenda and presentation (including training material),</li> <li>• Pre and post evaluation reports reflecting on the knowledge base of participates in relevant aspects; highlighting the benefits they gained from this training in their farming practices,</li> <li>• attendees, educational material, photos,</li> <li>• Project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	3.4 Four 2-days training sessions for best practices in conserving biodiversity and maintaining the eco-system services (theoretical and practical at the valley)	<ul style="list-style-type: none"> <li>• Training invitation, agenda and presentation (including training material,</li> <li>• Pre and post evaluation reports</li> </ul>	

	(60hhs in total, 15 hhs per village) (50% women)	<p>reflecting on the knowledge base of participates in relevant aspects; the level of valuation for biodiversity and the importance of tis conservation at targeted area, and best practices to conduct conservation practices,</p> <ul style="list-style-type: none"> <li>• list of attendees, educational material, photos,</li> <li>• Project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	3.5 One-day training session for women entrepreneurs who has initiated their business selling points during the project (12 women in total)	<ul style="list-style-type: none"> <li>• Training invitation, agenda and presentation</li> <li>• Business plan for each selling point</li> <li>• Pre and post evaluation reports reflecting on the knowledge base of participates in relevant aspects; highlighting the benefits they gained from this training in their business,</li> <li>• list of attendees, educational material, photos,</li> <li>• Project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	3.6 Two 2-days food processing training sessions for women headed households (one in first year 2019 and one in second year 2020 of the project) (40 women in total, 5hhs/village/year, (100% women))	<ul style="list-style-type: none"> <li>• Training invitation, agenda and presentation (theoretical session)</li> <li>• Order of purchase for food processing tools</li> <li>• Pre and post evaluation reports reflecting on the knowledge base of participates in relevant aspects; highlighting the benefits the women</li> </ul>	

		<p>gained from this training especially in terms of quality control and good packaging,</p> <ul style="list-style-type: none"> <li>• list of attendees, educational material, photos,</li> <li>• Project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	
	<p>3.7 Two-days workshop for alternative tourism operators (10 representatives – 2 persons each) and 12 representatives of the local communities (3 members per locality) that works in the tourism sector (50% women)</p>	<ul style="list-style-type: none"> <li>• Workshop invitation, agenda, list of invitees and educational material in best method for successful eco-tourism plan and business enterprises</li> <li>• Tourism business plan for the valley is set by both parties (tourism operators and local communities with benefit sharing concept),</li> <li>• Pre and post evaluation reports reflecting on the knowledge base of participates in relevant aspects; highlighting the benefits they gained from this workshop in their business.</li> <li>• list of attendees and their contacts,</li> <li>• Minutes of meeting and photos,</li> <li>• follow up report for eco-tourism progress done yearly (years 2019 &amp; 2020)</li> <li>• project progress reports (one every six months); from September 2018 to February 2021</li> <li>• Final technical and financial audit reports</li> </ul>	

	3.8 Ten meetings for 5 schools located in Bethlehem District to present the project, the valley, raise environmental awareness, and create school environment clubs (20 students each, 50% females).	<ul style="list-style-type: none"><li>• Letter of cooperation from Ministry of Education and higher Education (MEHE)</li><li>• Letter of invitation for the schools</li><li>• Educational material and modular</li><li>• Meetings minutes of meetings, photos, list of students</li><li>• Schools' environmental clubs evaluation and follow up reports</li><li>• project progress reports (one every six months); from September 2018 to February 2021</li><li>• Final technical and financial audit reports</li></ul>	
	3.9 At least 106 social media announcements, 15 newspaper news, and 4 TV sessions, a website for the valley will be disseminates	<ul style="list-style-type: none"><li>• The announcements and news documented in progress reports,</li><li>• fees for newspapers, development of the website and TV sessions upon bidding procedure).</li></ul>	
	3.10 Up to 2500 copies of brochures for education about the valley, its trail and potential conservation and development opportunities	<ul style="list-style-type: none"><li>• the brochure print outs</li><li>• Fees for montage and print outs</li><li>• project progress reports (one every six months); from September 2018 to February 2021</li><li>• Final technical and financial audit reports</li></ul>	
<b>Activities</b> (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)			
0.1 Recruit project coordinator, scientific researchers, consultants, and local field staff			
0.2 Project start up workshop inviting relevant stakeholders including GOVs., NGOs, Universities, Local authorities (village councils/municipalities), tourism operator, cooperatives, media, and many others at Bethlehem University.			
<b>Output 1: Inventory and assessment for biodiversity at both habitat and species level are conducted in order to consolidate the scientific data required to propose various forms of conservation management and protection within the project area</b>			
1.1 Analyse literature for national and global relevant research documents. This includes a desk study and collection of data of relevance to the project and its outputs.			
1.2 Initial town-hall style meetings for community members in each targeted locality about plans of project development, SWOT analysis for key challenges, environmental			

remedies and ecological economic potential; supported with media coverage and reporting. (Gender inclusion for attendees).

- 1.3 Conduct biodiversity inventory for Al-Makhrour valley; including comprehensive surveys for Al-Makhrour Valley ecosystem, identification of habitats, including flora and fauna species, birds (winter/summer migration), values of biodiversity, conservation targets and their threats using RSCN methodology for fauna surveys<sup>1</sup> and Braun and Blanquet for flora surveys<sup>2</sup>, IUCN guidelines<sup>3</sup> and GIS/RS analysis). This includes five field trips/surveys per targeted locality and the whole valley at the different year seasons (total 20 field trips).
- 1.4 Prepare baseline evaluation report for ecosystem/biodiversity status at Al-Makhrour Valley (conducted during Spring year 2019)
- 1.5 Establish ecology, flora, fauna and birds databases; information will be gathered from literature review, stakeholders meetings, and field surveys.
  - 1.5.1 Ecology section with set of indicators such as: studying areas, borders, physical characteristics, type /area of vegetation cover, type/area ecosystem type and number/type of habitats, and other cultural/ natural features/resources and heritage items of the targeted area, and others. Using GIS and RS applications.
  - 1.5.2 Flora and fauna section will be based on measuring taxonomic diversity of a targeted geographic area; looking at species richness, abundance and frequency, etc. at this area, conservation values of targeted habitats using Braun and Blanquet method for flora, IUCN red listing, species global / national conservation status, utilization/economic values, endemism and others<sup>4</sup>.
- 1.6 Establish monitoring database including monitoring indicators divided into sections related to the natural feature investigated such as ecology, habitat, flora, fauna, and birds. Examples on indicators are: total degraded area of total targeted area (using GIS&RS applications), changes in degradation, changes in habitats and NDVI over 10-15 years, habitat/species richness from baseline to end line surveys and others
- 1.7 Prepare biodiversity management plan for the Valley, considering both the landscape, socio-ecological systems, and climate change aspects to be handed to relevant decision makers and stakeholders supported with CMP model (CMP, 2013)<sup>5</sup> and interviews with stakeholders and gender inclusion.
- 1.8 Identify key sensitive habitats along the valley and set their conservation frameworks and restoration schemes for selected habitats; supported with field visits, reporting and monitoring data base (section 1.6) (referring to IUCN, 2012)<sup>6</sup>; building on the findings of previous sections 1.3, 1.5, and 1.7 and others<sup>7</sup>.
- 1.9 Hand the management plan, conservation frameworks and restoration schemes documents to EQA and MoA.
- 1.10 Formulation of one committee for restoration actions from key stakeholders from local communities, EQA and MoA directorates in Bethlehem Governorate, and others (40% females).
- 1.11 Restore up to max. 3 dunums of key habitats where found necessary, the method for restoration will be decided based on the type of pressures and threats affecting the sites.
- 1.12 Prepare end line evaluation report for updating ecology/biodiversity status at Al-Makhrour valley conducted in Spring 2020
- 1.13 Publish 3-5 scientific publications of relevant to this project output

<sup>1</sup> RSCN. 2005. The Royal Society for the Conservation of Nature: Field Research Manual.

<sup>2</sup> <https://link.springer.com/article/10.1007/BF01866672>

<sup>3</sup> Example: <https://www.iucn.org/content/how-incorporate-gender-conservation>

<sup>4</sup> <file:///C:/Users/User/Downloads/9783319154633-c2.pdf> and

<sup>5</sup> CMP, 2013. Open Standards for the Practice of Conservation of the Conservation Measures Partnership (<http://cmp-openstandards.org/wp-content/uploads/2014/03/CMP-OS-V3-0-Final.pdf> )

<sup>6</sup> IUCN, 2012. Ecological Restoration of Protected Areas: Principles, Guidelines and Practices (<https://portals.iucn.org/library/sites/library/files/documents/PAG-018.pdf> )

<sup>7</sup> Folke, C., R. Biggs, A. V. Norström, B. Reyers, and J. Rockström. 2016. Social-ecological resilience and biosphere-based sustainability science. Ecology and Society 21(3):41. <http://dx.doi.org/10.5751/ES-08748-210341>



- 1.14 Follow up report at end of the project (year 3); to measure impact of the project on reduction of damaging activities (hunting, logging, dumping waste, fires, etc.) where number of M&E questions are embedded. It will include sum the findings of other conducted follow up surveys during the project period such as the ones mentioned in 1.4, 1.6, 1.7, 1.8, and 1.12.

**Output 2: Economic benefits to the local communities; including women and youth, in proximity to Al-Makhrou Valley are secured through sustainable agriculture and eco-tourism enhancement**

- 2.1 Formulation of one committee for traditional farming program from key stakeholders from local communities, MoA directorate in Bethlehem Governorate, and others (40% females)
- 2.2 Prepare and distribute announcement invitation to local farmers to apply for the selection process for the project agriculture intervention, invitations are distributed at key organization, shop, and religious sites
- 2.3 Revise the applications filed by farmers from targeted villages/towns with the formulated committee based on set of criteria for the selection process; supported with inspection field visits for a sample of selected farmers (50% of targeted farmers)
- 2.4 Sign MoUs with the selected 80 farmers to specify the roles and responsibilities of both parties; emphasizing the obligation to sustain the inputs after the project ends
- 2.5 Purchase agricultural inputs for 40 dunums for both agricultural summer/winter seasons 2019 and summer/winter seasons 2020 including
- 2.5.1 Irrigation network: main pipes (1200 meters of 16 ml pipes/dunum) and secondary pipes (200 meters of 25 and 32 ml pipes/dunum)
  - 2.5.2 Up to 1 water tank (1 cubic meter and 1 pump (1 horse power) for each farmer beneficiary.
  - 2.5.3 Up to 1100 seedlings and /or 6 kgs of seeds of vegetables per dunums per season (summer vegetables will be Battiri eggplants, hot & sweet pepper, cowpeas, beans, squash, cucumber, tomatoes, okra and others. Winter vegetables will be cauliflower, cabbage, lettuce, spinach, raddish, broad beans, onions, thyme and others)
  - 2.5.4 Up to 25-30 sacks of organic compost per dunum per season
- 2.6 Land preparations, weed removal and organic compost additions for selected land-farms (0.5 dunum for each selected farmer)
- 2.7 Distribution of agricultural inputs and cultivation of diverse summer and winter vegetable crops at selected farms under optimum sustainable conditions
- 2.8 Conduct 4 follow up field visits per farmer per season (320 visit/ season), supported with reports
- 2.9 Conduct two cross village exchange and demonstration visits (during first three cultivation seasons). After having a successful plantation season an exchange visit will be arranged per season to demonstrate sites, and to foster collaboration and cooperation between participating villages/farmers and extension to villages outside the scope of this project.
- 2.10 Evaluation report for summer /winter vegetables production (expected to produce 1500-2000 kg/dunum) and income generation / food self-sufficiency of this activity on yearly basis
- 2.11 Conduct first /second festival during harvesting period of summer cultivation season in Battir village and of winter cultivation in Beit Jala upon consultation with formulated committee and the 40 selected farmers (50% women) for each festival. This includes renting an accessible open place in Battir/ Beit Jala, setting tables with simple tents, all necessary coordination and announcements and media coverage, etc. Priority will be given to project targeted farmers.
- 2.12 Prepare the follow up report for the success and lessons learnt from the festival events after one month from ending the festivals
- 2.13 Conduct a 2 day workshop for cooperatives partnerships, introduction to Fair Trade Networks (Palestinian and Arab) and business enhancement and prepare workshop minutes of meeting including list of attendees and their contacts, photos and recommendations
- 2.14 Prepare the follow up report for marketing progress of the selected cooperatives on yearly basis (years 2019 & 2020), based on evaluation survey for the cooperatives

- 2.15 Formulation of one committee for eco-tourism program from key stakeholders from local communities, MoTA directorate in Bethlehem Governorate, and others (40% females)
- 2.16 Study the Valley's path and identify the best places to mark the visitors' path; supported with specification for the marks and consultation of the relevant formulated committee
- 2.17 Conduct cleaning works and install 20 arrow signs, 20 plant-info signs and 2 maps with some volunteer works along the Valley's visitors' path
- 2.18 Prepare follow up report for the level of enhancement in tourism sector in targeted area
- 2.19 Provide four sub-grants (for 4000 (£) each) for four existing/initiated women business enterprises for marketing local products at four targeted localities based on consultation with eco-tourism committee, selection process, market selling business plans and after signing agreements with the initiatives. The project will support them with ideas and provide them with the required entrepreneurial and business coaching that enables them to develop their ideas into successful businesses
- 2.20 Prepare follow up and evaluation report for the progress of the initiated SMEs on yearly basis
- 2.21 Follow up report at end of the year; to measure impact of the project including generation of income, including outcomes of the other follow up surveys and evaluation reports (2.9, 2.12, 2.14, 2.18, and 2.20)

**Output 3: Raise awareness of and build capacities of local communities and stakeholders to better manage their natural resources, support conservation measures and benefit from sustainable agricultural and eco-tourism interventions while impacting the national legislation and involving both females and youth**

- 1.1 Conduct one-day workshop for key stakeholders to present the Valley's biodiversity management plans to be considered at legislative level. Gender inclusion.
- 1.2 Conduct four one-day workshop to enhance marketing networks, initiation of small business enterprises, and methods of governance, and protecting traditional knowledge for farmers and relevant cooperatives supported with educational material and gender inclusion
- 1.3 Conduct two-days workshop for alternative tourism operators and of the local targeted communities that works in the tourism sector; supported with educational material and gender inclusion.
- 1.4 Conduct four two-days training sessions for best sustainable farming practices, permaculture, organic farming and biological control for benefited farmers; supported with educational material, training evaluation, and gender inclusion
- 1.5 Conduct four two-days training sessions for best practices in conserving biodiversity and maintaining the eco-system services; supported with educational material, training evaluation, and gender inclusion
- 1.6 Conduct one-day training session for women entrepreneurs who has initiated their business selling points; supported with a business plan for each initiative, educational material, and training evaluation
- 1.7 Conduct two two-days food processing training sessions for women headed households; supported with educational material, and training evaluation.
- 1.8 Ten meetings for 5 schools located in Bethlehem District to present the project, the valley, raise environmental awareness, and create school environment clubs; supported with educational materials/modular, cooperation of MEHE, and gender inclusion
- 1.9 Finalized 10 modular that are based on project studies and in different project fields
- 1.10 Follow up report for the school environmental clubs at the selected schools
- 1.11 Disseminate up to 106 social media announcements, 15 newspaper news
- 1.12 Conduct 4 TV sessions to discuss on air the different subjects the project is dealing with and supporting. Specialists and decision makers will be invited.
- 1.13 Prepare a webpage for the project under the PIBS- BU website to present all project accomplishments, follow up reports, educational material, scientific research and publications

- 1.14 Prepare and Print brochure for the project area; includes a description, management plans, key area for conservation and restoration, touristic plan and potential business opportunities, guiding tour with a map (locating the visitors path, villages in proximity, selling points, etc.), guiding orientations for tourists with recommendations for best practices at the sites, etc.
- 1.15 Conduct follow up surveys for sample of local households (20% of total beneficiaries (of which 50% females); to measure impact of the project including environmentally sensitive practice
- 1.16 Progress reports every six month summarize the project achievements, on-going activities, success stories and evaluations; all supported with relevant verification means.
- 1.17 Final technical and financial audit reports. The technical part will describe the accomplishments of the projects, impacts (based on project follow up reports and surveys), facts and main findings, sustainable outputs, opportunities for development and building on, etc.

## Annex 3: Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Gender of people (if relevant)	Nationality of people (if relevant)	Year 1 Total	Year 2 Total	Year 3 Total	Total to date	Total planned during the project
2	Master students' participation	2 Female 1 Male	Palestine	3			3	Not planned, now estimate 5
4 A	Undergraduate research	3 F, 2 M	Palestine	5			5	Not planned, now estimate 10
5	Hired staff training	1 F, 1 M	Palestine	2			2	2
6A	Farmers	8 F, 59 M	Palestine	67			67	67
7	Training material (powerpoints etc)	NA	NA	4			4	10 (est)
9	Management plan for valley	NA	NA	1			1	1
10	Field guides/manuals	NA	NA	0			0	3 (est)
11 A	Number of papers to be published in peer reviewed journals	NA	NA					8
11 B	Number of papers to be submitted to peer reviewed journals			3				10
12 A	Number of computer based databases to be <b>established</b> and handed over to the host country	NA	NA	1				3
13 A	Number of species reference collections to be <b>established</b> and handed over to the host country(ies)	NA	NA					8
14A	Number of conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings	NA	NA					3
14B	Number of conferences/seminars/ workshops <b>attended</b> at which							3

	findings from Darwin project work will be presented/ disseminated.							
23	Value of resources raised from other sources (i.e., in addition to Darwin funding) for project work	NA	NA	24000				?>50000

**Table 2 Publications**

Title	Type (e.g. journals, manual, CDs)	Detail (authors, year)	Gender of Lead Author	Nationality of Lead Author	Publisher s (name, city)	Available from (e.g. weblink or publisher if not available online)
Three publication in press not yet available.* For list see Output 1 on page 8						

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

Partnerships and activities:

- 1) Nature lovers' initiative (Ecophilis) is an initiative that helped us preserve what the Darwin Project is doing in protecting and developing Wadi Al-Makroun and studying its biodiversity. We were pleased to partner with them on a cleaning project on the hiking trail in Wadi Makhroun. 39 bags of waste were collected from the track and the entrance of the valley. More still needs to be done.





- 2) Women day: The project team chose to celebrate the International Women's Day March 8 by organizing a hike and educational day in the valley (study site) from Beit Jala to Battir to raise awareness about Palestinian women's contributions and roles in agricultural, the environment, and heritage. The tour was organized by the Palestine Museum of Natural History (PMNH) in partnership with Masar Ibraheem Al Khalel and the Municipality of Battir. Arriving at Ein Al Balad in Battir to meet a group of farmers who introduced us to the agricultural and environmental cultural heritage of the this world heritage site and the contributions of Palestinian women in it through stores and folktales. Our hiking through Al-Makroul Valley raised public awareness about the role of women in the Palestinian cultural heritage.



- 3) School trips: In partnership with the Environmental Quality Authority and facilitated by the National Geographic Society (via an explorer grant) we organized four tours for school students to Al-Makroul Valley to highlight biodiversity conservation. This was led by the tourism committee of the Darwin Funded project.



## Checklist for submission

	Check
<b>Is the report less than 10MB?</b> If so, please email to <a href="mailto:Darwin-Projects@itsi.co.uk">Darwin-Projects@itsi.co.uk</a> putting the project number in the Subject line.	Yes
<b>Is your report more than 10MB?</b> If so, please discuss with <a href="mailto:Darwin-Projects@itsi.co.uk">Darwin-Projects@itsi.co.uk</a> about the best way to deliver the report, putting the project number in the Subject line.	No
<b>Have you included means of verification?</b> You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	Yes
<b>Do you have hard copies of material you want to submit with the report?</b> If so, please make this clear in the covering email and ensure all material is marked with the project number. However, we would expect that most material will now be electronic.	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.	