



## Darwin Initiative/Darwin Plus Projects Half Year Report (due 31<sup>st</sup> October 2020)

<b>Project reference</b>	26-015
<b>Project title</b>	Traditional African vegetables strengthen food and nutrition security in Madagascar
<b>Country(ies)/territory(ies)</b>	Madagascar
<b>Lead organisation</b>	World Vegetable Center
<b>Partner(s)</b>	World Vegetable Center, Centre National de la Recherche Appliquée au Développement Rural (FOFIFA), Université d'Antananarivo (UA), SEMANA
<b>Project leader</b>	<i>Sognigbe N'Danikou</i>
<b>Report date and number (e.g. HYR3)</b>	<b>30 October 2020</b>
<b>Project website/blog/social media</b>	N/A

**1. Outline progress over the last 6 months (April – Sept) against the agreed project implementation timetable (if your project has started less than 6 months ago, please report on the period since start up to end September).**

This report includes the period from 1 April - 30 September 2020.

**Output 1: Good understanding of the status of agro-biodiversity in Malagasy food systems.**

- The study of the diversity and conservation of traditional vegetables of Madagascar was part of a continental analysis of patterns of the distribution of 126 selected vegetable crops. This study is now accepted for publication in Diversity and Distributions journal (van Zonneveld et al. 2020). The study showed that at country level, Madagascar has a relatively high richness in domesticated traditional vegetables compared to other countries in Sub-Saharan Africa, but low observed richness of semi-domesticated and wild vegetables. This indicates historic introductions from Africa and Asia resulting in a unique set of local varieties. Hotspots of diversity can be found in the North, South and East Madagascar. Madagascar also harbours interesting endemic wild relatives, including *Vigna keraudnii* a relative to cowpea and three wild relatives of Malabar spinach (*Basella alba*).
- Agrobiodiversity (ABD)-4 cells assessments were conducted in four new sites (two per region), making a total of eight sites studied in different agroecological zones. Data is being compiled for analysis and four MSc students working on this task will graduate in 2021. The ABD data will help to understand the current use and conservation status of traditional vegetables and other Malagasy food plants. The results will also feed the development of the ABD catalogue. Collected herbarium specimens during the inventories will be deposited in the national herbarium of Madagascar, as reference specimens for future studies.

**Output 2: Protected and characterized genetic resources of vegetable diversity.**

- A permit was granted to the project beginning of March 2020 by the Malagasy competent authority, to collect germplasm of TAVs. However, the Covid-19 outbreak in the country has hampered the collecting missions. Now that the situation is improving the team has started to plan the collecting missions between December and January.

- Agro-morphological characterization of 12 crop varieties (4 of nightshade, 5 of amaranth, 1 of African eggplant and 2 of Ethiopian mustard) was carried out at FOFIFA's research station in Antsirabe. This was completed in July with seed harvest. The data was analysed and an abstract submitted for oral presentation at the "[Power on Your Plate](#)" Summit in January 2021 in Tanzania. One MSc student was involved with the research and will be defending his dissertation in 2021.

**Output 3: Malagasy extension workers and women farmers trained on seed saving and production of traditional vegetables.**

- 250 seed kits of 14 WorldVeg lines/ crop varieties were developed and sent to Madagascar for cultivation by 200 women farmers and home gardens in the project year 2.
- The trained 200 women farmers evaluated on-farm the 12 of the 14 vegetable crop varieties from WorldVeg. Most of the introduced WorldVeg varieties performed very well at the different sites except African eggplant variety DB3, which showed slow growth. A survey of preferences indicated that farmers preferred the amaranth variety Ex Zim-Sel (Madiira 1), the nightshade cultivars RC 10-ES13-3 (Malala) and BG 16-Sel (Nduruma), as well the Ethiopian mustard varieties ST 3-Salt (Arumeru) and ML EM 1-Sel (Rungwe). An abstract on the participatory on-farm evaluation is submitted for oral presentation at the TAV "Power on Your Plate" summit in January 2021.
- By August 2020, the trained women farmers have saved seeds of the vegetable varieties provided to them, except of the late maturing Ethiopian mustard varieties. The monitoring and evaluation indicated that 95% of the beneficiaries have prepared and consumed, and about 53% have sold their produce. Also 50% of them have shared the fresh vegetables, and 28% have shared seed and seedlings of the varieties with 340 other community members for cultivation and consumption. The local NGO "ACTION CONTRE LA FAIM" is partnering with local governments at project sites to buy and distribute the TAV seeds produced by trained women farmers. These seeds will be distributed by the NGO to other community members free of charge, to encourage agricultural diversification and healthy diets for the households. Though an incipient initiative, about 5kg of seeds is distributed.

**Output 4: Regional school garden programs strengthened to promote conservation and use of agro-biodiversity.**

- The establishment of the school gardens had to be stopped due to the Covid-19 pandemic. Schools are expected to reopen classes in November 2020 and the school garden-related activities will be started as soon the schools are open.
- The outline of the agro-biodiversity catalogue is drafted. The ABD assessment data of how much crops and varieties are being used in local communities is being compiled and will feed the write-up of the catalogue.

**Output 5: Malagasy women farmers trained on seed production for commercialization.**

- 40 of the trained women farmers have started selling their seeds of traditional African vegetables. This resulted from a partnership with the municipalities of Arivonimamo I and Arivonimamo II and the local NGO "ACTION CONTRE LA FAIM" who are collecting seeds for distribution to vulnerable communities in the intervention sites. The next step is to encourage such initiatives at other project sites as well.
- 10 progressive women farmers have been selected from the initially 200 women farmers who received training. SEMANA is planning, in collaboration with FOFIFA and WorldVeg, the training of these farmers in commercial seed production and the development of seed businesses.

**2a. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months (for Covid-19 specific delays/problems, please use 2b). Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

Longer than expected field-testing procedures of the plant quarantine services delayed the distribution of seed kits to beneficiary farmers in year 1. Not all farmers could receive the seed kits at the right time. This is now solved and all selected farmers have received the seed kits. Limited access to land by women farmers is another limitation at some sites. There was a case where the husband has withdrawn the land which he initially gave to the wife to cultivate vegetables. The partners have made efforts to discuss with the husbands of the beneficiary women farmers to avoid similar situations.

**2b. Please outline any specific issues which your project has encountered as a result of Covid-19. Where you have adapted your project activities in response to the pandemic, please briefly outline how you have done so here. Explain what residual impact there may be on your project and whether the changes will affect the budget and timetable of project activities.**

The lockdown due to Covid-19 delayed the establishment of the school gardens, because the schools are closed since April 2020. Also, the germplasm collection could not take place yet and had to be rescheduled for December-January 2020/21. If the situation has not changed by December 2020, the project team will consider submitting a budget change request.

**2c. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?**

Discussed with LTS: No

Formal change request submitted: No

Received confirmation of change acceptance No

**3a. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this year?**

Yes  No  Estimated underspend: £

**3b. If yes, then you need to consider your project budget needs carefully.** Please remember that any funds agreed for this financial year are only available to the project in this financial year.

**If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary. Please DO NOT send these in the same email as your report.**

**4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?**

No.

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but **should also** be raised with LTS International through a Change Request. **Please DO NOT send these in the same email.**

Please send your **completed report by email** to [Darwin-Projects@ltsi.co.uk](mailto:Darwin-Projects@ltsi.co.uk). The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 25-001 Darwin Half Year Report**