



# Terminal Evaluation Report

Strongem Waka lo  
Community fo Kaikai  
(SWoCK): Resilience in  
Agriculture and Food  
Security in the Solomon  
Islands

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# Terminal Evaluation Report

Strongem Waka lo Community fo Kaikai (SWoCK): Resilience in Agriculture and Food Security in the Solomon Islands

|                                     |  |
|-------------------------------------|--|
| <b>Title of the project</b>         | <b>Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security</b>  |
| <b>Adaptation Fund project ID#</b>  | <b>SLB/MIE/Food/2010/1</b>   |
| <b>UNDP PIMS ID</b>                 | <b>4451</b>  |
| <b>Evaluation time frame</b>        | <b>July 2016</b>   |
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| <b>Country</b>                      | <b>Solomon Islands</b>   |
| <b>Region</b>                       | <b>Asia and the Pacific</b>  |
| <b>Title of implementing entity</b> | <b>MIE implementing</b>  |
| <b>Implementing entity</b>          | <b>UNDP</b>  |
| <b>Executing entities</b>           | <b>Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) through its Climate Change Division, and the Ministry of Agriculture and Livestock (MAL)</b> |
| <b>Implementing partners</b>        | <b>School of Natural Resources (SNR), Kastom Gaden Association (KGA), Nut Growers Association of Solomon Islands (NGASI)</b>   |
| <b>Evaluation team members:</b>     | <b>Mr. José Antonio Cabo Buján (international)<br/>Mr. Titus Sura (national)</b>   |

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## Contents

|  |    |
|--|----|
| Acknowledgements.....  | 3  |
| Abbreviations .....  | 6  |
| Executive Summary .....  | 8  |
| Evaluation rating table .....  | 13 |
| 1. Introduction .....  | 15 |
| 1.1 Definition, purpose and ethics .....   | 15 |
| 1.2 Methodology of the evaluation .....  | 15 |
| 2. Project description .....   | 19 |
| 2.1 Project costs and duration .....   | 19 |
| 2.2 Society, agriculture, food security and climate change in the Solomon Islands..... | 19 |
| 2.2 Root causes and barriers addressed by the project and preferred solution .....     | 21 |
| 2.3 Project sites and beneficiaries .....  | 23 |
| 3. Findings .....  | 26 |
| 3.1 Project strategy .....   | 26 |
| 3.1.1 Conclusions and recommendations .....  | 30 |
| 3.2 Project implementation .....   | 32 |
| 3.2.1 Project level monitoring and evaluation systems .....                            | 32 |
| 3.2.2 Conclusion and recommendations (M&E) .....                                       | 33 |
| 3.2.3 Management arrangements and stakeholder engagement .....                         | 34 |
| 3.2.4 GEF Partner Agency (UNDP) execution .....  | 38 |
| 3.2.5 Implementing Partner Agency (MECDM) execution .....                              | 38 |
| 3.2.6 Conclusions and recommendations (Project Implementation) .....                   | 38 |
| 3.3 Results .....  | 40 |
| 3.3.1 Relevance .....  | 40 |
| 3.3.2 Effectiveness .....  | 42 |
| Outcome 1.....   | 42 |
| Conclusion: achievement of the intended outcome and outputs .....                      | 49 |
| Outcome 2.....   | 51 |
| Conclusion: achievement of the intended outcome and outputs .....                      | 54 |
| Outcome 3.....   | 57 |
| Conclusion: achievement of the intended outcome and outputs .....                      | 58 |
| 3.3.3 Achievement of project objective .....   | 60 |
| 3.3.4 Recommendations and lessons learned .....  | 61 |
| 3.3.5 Efficiency .....   | 63 |

|  |     |
|--|-----|
| 3.3.6 Conclusion (Efficiency) .....  | 66  |
| 3.3.7 Recommendations (Efficiency).....  | 66  |
| 3.4 Impact.....  | 67  |
| 3.4.1 Conclusions (Impact).....  | 71  |
| 3.4.2 Recommendations (Impact).....  | 71  |
| 3.5 Sustainability .....   | 72  |
| 3.5.1 Financial risks .....  | 72  |
| 3.5.2 Socio-economic risks .....   | 72  |
| 3.5.3 Institutional risks .....  | 73  |
| 3.5.4 Environmental risks.....   | 75  |
| 3.5.6 Conclusions on sustainability .....  | 75  |
| 4. Overall conclusions, and summary of recommendations and lessons learned ..... | 77  |
| Annex 1. Terms of Reference .....  | 81  |
| Annex 2. Evaluation Matrix .....   | 89  |
| Annex 3: evaluation consultant code of conduct agreement form .....              | 91  |
| Annex 4 References.....  | 93  |
| Annex 5. List of persons interviewed .....                                       | 97  |
| Annex 6. Description of field visits .....                                       | 99  |
| Annex 7 Gallery .....  | 105 |
| Annex 8. Adaptation Fund’s Result Tracker .....                                  | 106 |
| Annex 9. UNDP-GEF TE Report Audit Trail .....                                    | 109 |

## Abbreviations

|       |  |
|-------|--|
| AF    | Adaptation Fund  |
| ALSP  | Agriculture and Livestock Sector Policy                                      |
| ARD   | Agricultural Research Division   |
| ARG   | Automated Rain Gauge   |
| ATC   | Advisory Technical Committee   |
| AWS   | Automated Weather Stations   |
| CCD   | Climate Change Division (of MECDM)   |
| CLEWS | Climate Early Warning Systems  |
| CO    | Communications Officer   |
| DAPLU | Department of Agricultural, Planning and Land Use                            |
| EU    | European Union   |
| FDG   | Focus Discussion Group   |
| GIS   | Geographical Information Systems   |
| GIZ   | Gesellschaft für Internationale Zusammenarbeit                               |
| IFS   | Integrated Farming Systems   |
| IGA   | Income Generating Activity   |
| IPDM  | Integrated pest and disease management                                       |
| KGA   | Kustom Gaden Association   |
| LUPO  | Land Use Planning Officer  |
| MAL   | Ministry of Agriculture and Livestock  |
| MECDM | Ministry of Environment, Climate Change, Disaster Management and Meteorology |
| MFMR  | Ministry of Fisheries and Marine Resources                                   |
| MoF   | Ministry of Finance  |
| MoME  | Ministry of Mines and Energy   |
| MPAC  | Ministry of Planning and Aid Coordination                                    |
| MTFS  | Medium Term Fiscal Strategy  |
| MTR   | Midterm Review   |
| NA    | Not applicable   |
| NARI  | National Agricultural Research Institute (PNG)                               |
| NCCP  | National Climate Change Policy   |
| NDMO  | National Disaster Management Office  |

|       |  |
|-------|--|
| NGASI | Nut Growers Association of the Solomon Islands                   |
| NIM   | National Implementation Modality                                 |
| NRLUP | National Rural Development and Land Use Policy                   |
| PACC  | Pacific Adaptation to Climate Change                             |
| PAPP  | Pacific Agriculture Policy Project                               |
| PCCSC | Provincial Climate Change Steering Committees                    |
| PGRFA | Plant Genetic Resources for Food and Agriculture                 |
| PMU   | Project Management Unit  |
| PNG   | Papua New Guinea   |
| PPC   | Provincial Project Coordinator                                   |
| SBD   | Dollars of the Solomon Islands                                   |
| SIBC  | Solomon Island Broadcasting Corporation                          |
| SICHE | Solomon Islands College of High Education                        |
| SIMS  | Solomon Island Meteorological Services                           |
| SINU  | Solomon Islands National University                              |
| SISNO | Solomon Islands National Statistical Office                      |
| SPO   | Senior Project Officer   |
| SNRAS | School of Natural Resources and Applied Sciences (of SINU/SICHE) |
| SPREP | Pacific Regional Environmental Programme                         |
| SWoCK | Strongem Waka Io Community fo Kaikai                             |
| TE    | Terminal Evaluation  |
| TNC   | The Nature Conservancy   |
| UNDP  | United Nations Development Programme                             |
| UNEG  | United Nations Evaluation Group                                  |
| USD   | Dollars of the United States of America                          |

## Executive Summary

The project *Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security (SWoCK)*<sup>1</sup>, has been implemented in the Solomon Islands from 2011 till 2016, with a total project cost of USD 5,533,500. The project responds to challenges explicitly mentioned in the Solomon Island's National Adaptation Plan of Action (NAPA) of 2008 and constitutes, in fact, the vehicle to implement several components of the Solomon Islands NAPA's first project profile.

The SWoCK project's final evaluation has been a systematic and objective assessment of the completed project, including its design, implementation, and results. The findings of the evaluation are the result of a comprehensive review of documents produced by the project, other peer reviewed and grey literature, as well as interviews with an array of stakeholders, including officials from the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) and Ministry of Agriculture and Livestock (MAL), as well as focus group discussions with household representatives from 7 wards in the provinces of Isabel, Malaita and Makira, representing 39% of the 18 communities included in the project and a cross-section of all the field activities implemented by the project.

The project strategy was based in overcoming identified information, policy and capacity barriers to achieve the project objective of strengthening ability of communities in Solomon Islands to make informed decisions and manage likely climate change driven pressures on food production and management systems. Thus the project design revolved around the achievement of three coordinated outcomes:

- *Outcome 1 Promoted and piloted community adaptation activities enhancing food security and livelihood resilience in pilot communities in the following three geographical regions in Solomon Islands*
- *Outcome 2, Adjusted national and sub-national policies related to governing agriculture in the context of a range of climate change futures*
- *Outcome 3 Fostered the generation and diffusion of knowledge on adapting to climate change in a systematic manner at the community and regional level*

The project strategy was hampered by an extensive geographical scope, comprising 18 isolated communities, dispersed across five out of nine provinces of the country and three agro-climatic zones, as well as its thematic scope, as the project intended to solve most of the issues identified in the Solomon Islands NAPA, from support to smallholder agriculture through climate-smart practices, to emergency preparedness and income generating activities, and mainstreaming climate change risks into national and provincial decision-making. The diversity of location and topics made the strategy very vulnerable to delays and administrative backlogs, compounded by several assumptions on financial and human resources capacities of implementing partners that were not adequately evaluated. Moreover, albeit consultations were held with a number of key stakeholders, and government officials actively participated in all phases of project design, including the formulation of the project document, the consultation did not reach all

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<sup>1</sup>The acronym SWoCK stands for Strongem Waka lo Community fo Kaikai, a Solomon Pidgin translation of the project title

levels and departments involved in the implementation of the project, and, as a result, the capacities of several key partners, and availability of necessary technical expertise and equipment were not adequately assessed.

The wide scope and complex activity sequence of the project necessarily needed the fine and engaged coordination of a multitude of national actors that did not have, initially, the capacities to perform according to the project document, compounded by the difficulties in completing the recruitment of a highly skilled PMU in a country with limited population and hence limited pool of professionals with the required skills. The utmost critical role of an energetic project manager was absent during most of the first three years of implementation of the project. However, especially after the midterm review (MTR) process conducted in 2014, UNDP and MECDM (executing agency) actively engaged in project implementation and strived to provide solutions to the numerous challenges faced, albeit with some limitations, such as the moderate success of UNDP in effectively communicating the reasons for their financial controls and strict administrative procedures to national stakeholders, alienating partners and creating the perception of a “UNDP project” to some degree. Also, and in spite of the engaged role taken by the National Project Director and the support and engagement of technical and senior officials of the MECDM in implementing particular activities, this mostly happened during the last two years of implementation as prior to the MTR process the engagement of MECDM seems to have been rather limited participation on what was perceived to be a predominantly agricultural project, while focusing primarily on the meteorological component.

The project was burdened by significant transaction costs to deliver its outputs: travel to remote communities is not only costly, challenging and to some extent perilous, and the dispersion of targeted communities along five provinces without basic road network or regular transport services necessarily meant limited attention and services to project beneficiaries: almost a quarter (23%) of the total budget was expended in travel, mostly domestic travel and management expenditures incurred almost double their budget (183%). Moreover, the variety of thematic activities handled by the project, from national planning processes to provincial coordination efforts, from installation of weather stations to set-up university training courses, from extension services to farmers to basic research on crop varieties entailed negotiations with an array of government and non-government organizations, and involvement in multiple procurement and recruitment processes. In spite of the extraordinary recovery of delivery rate after 2014, the project was almost two years behind schedule. Moreover, one output supposed to implement community-based food processing enterprises was never delivered although equipment worth USD\$70,000 was procured.

In spite of the challenges and delays incurred, SWoCK reached out to 18 isolated wards without access to government services where subsistence agriculture was practiced in a context of declining productivity and increasing threat by climate-driven hazards. In the 18 communities targeted, farmers are now bringing back fallow fields to production, have recovered lost varieties of crops and, through climate-smart agriculture practices such as contours, mulching and use of compost, they have increased productivity, nutritional value in their diets and even obtained some limited additional income from sales of surpluses. This means that the project’s first objective target, *Farming systems introduced in 18 wards, to maintain or increase food production and food security and cope with climate variability and change* has been achieved.

Moreover, the project has decisively contributed to a 100% expansion of the national meteorological network and the capacities of the Solomon Island Weather Services by procuring four automatic weather stations and supporting the acquisition of another two, as well as eight

automatic weather gauges installed so far, together with trainings on operation and use of meteorological data, as well as trainings and data management equipment. This has already started to feed real time data to improve climate services such as the three-month precipitation outlook. However, four automatic rain gauges need yet to be installed, budget constraints at the meteorological services having obstructed their setup so far.

In terms of mainstreaming climate change into national policy, although in a narrow sense the project's policy target has been at least partially achieved in that two national policies, on climate change and agriculture, have been crafted and reviewed respectively, and that the project has decisively supported setting up four instruments of the national climate change policy (Provincial Climate Change Steering Committees), the climate change policy instruments remain a statement of intentions rather than an actual government plan, mainstreamed in appropriately funded service delivery functions. Moreover, the agricultural policy is rather aligned with macroeconomic objectives and intends to support commercial and export agriculture.

Also, the project failed to develop the expected geo-referenced database or environmental/ agricultural/ meteorological knowledge management system that could be used to start a more systematic planning of adaptation at provincial level. Said database could have been enriched if the soil analyses and germplasm testing were satisfactorily performed and data were properly used in land use planning. For instance, the potential knowledge on performance of different crop varieties bulked at test sites was lost due to mismanagement of the plots. Moreover, the GIS facility and community training facilities supposed to be in operation early in the life of the project were still being finalized at the time of the terminal evaluation, which severely limited the impact of both measures.

At farm level, beneficiary households increased their income through revenues and savings in magnitudes equal or surpassing the average rural household expenditure and the national poverty line: **the gross benefit per crop cycle/ batch reported represent between 22 to 157% for of the average monthly household expenditure and between 89 to 644% of the monthly basic needs poverty line**, which demonstrate how direct investment in smallholder agriculture rapidly produce results in terms of poverty reduction. However, adoption of improved practices has been indeed limited to those families directly supported by the project, typically 30% of the total number of households of the 18 target wards. While a wider adoption by other households could be expected in the face of the apparent success of the improved practices, this has not yet taken place, likely due to risk aversion and perceived need of further support: farmers themselves consider continuous assistance by the government or external projects as a necessary condition to expand and consolidate benefits. Moreover, while the impact at farm level has been significant, the benefits generated are just a minimal fraction of the USD 2,169,793.462 expended under outcome 1. This seems to confirm that the geographical and thematic scope of the project greatly increased the transaction costs involved in the delivery of its services, severely limiting the impact of the project.

In terms of sustainability, the two main impacts brought about by SWoCK, improved practices at farm level and expanded meteorological network are moderately likely to be sustained after the project conclusion. For instance, reported increases in productivity and expressed confidence in future returns may lead to the consolidation and even expansion of climate-smart agriculture in the communities targeted by the project without further support. Also, automatic

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<sup>2</sup> Up to December 2015

weather stations and automatic rain gauges are not likely to be destroyed or stop functioning for the next decade, allowing SIMS to continue efforts to deliver improved climate services and products, while confidently making the case for adequate public funding.

In sum, the project design stacked together too many interrelated results, including provision of extension services to communities, strengthening national capacities for the generation, management and communication of climate information, mainstreaming climate change and strengthening provincial development planning processes, implementation of income generating activities at community level and creation of an effective knowledge management system that would enable stakeholders to communicate results and make the case for climate change funding from national and international sources. Thus, the resulting logical framework was characterized by an intricate and complex sequence of activities and outputs, compounded by limitations in recruitment and procurement processes and, critically, wrong assumptions on the financial, technical and logistical capacities of key stakeholders, particularly the NGOs KGA and NGASI, as well as SNRAS, but also of the key government services involved in the implementation.

Yet, against all this challenges, the project did manage to accomplish the implementation of improved climate-smart agricultural practices in all 18 targeted ward and duplicated the capacities of the Solomon Islands Weather Services to deliver better climate products.

Based on the conclusions outlined above, the terminal evaluation makes a series of recommendations to round up and finalize the project and to include in the design of future projects:

1. Immediate actions to complete and consolidate project results to be implemented by MECDM with support of the UNDP:
  - a. Provide or facilitate funding for the immediate installation of the pending 4 automatic rain gauges yet to be setup, as well as support SIMS to develop better ways to communicate weather and seasonal forecasts to farmers. While SIMS has been publishing them at their provincial headquarters and in the internet, the possibility of using mobile telephone solutions of this purpose should be explored.
  - b. Follow-up on the finalization and consolidation of the GIS training center and facilitate the expansion and use of GIS technology with to support MECDM's plan to set up an environmental database. In this regard, integrate, consolidate and publish, including at the project website all the information collected by the project, including case studies and all data on smallholder agriculture and germplasm generated from the project's target communities, as well as to coordinate with MAL, particularly its Research Division to continue their assessment of crop varieties collected by project
  - c. Follow-up on the finalization and actual use of the integrated farming system training facility at SNRAS and promote not just the conduct of training and courses for students and farmers, but the development of IFS alternatives that can actually be implemented at community level, using available material and labor resources

2. In a more general way, future project design should include the following items (lessons learned):
  - a. Reduce transaction costs by concentrating in a particular geographical and political unit, such as one province or local government unit that includes one or several connected basins, a continuous agro-climatic region, an island with several characteristics of interest.
  - b. Strengthen logical framework by focusing in correcting one particular government failure or environmental or social externalities and base the theory of change in a rigorous assessment of risk and assumptions.
  - c. Align policy objectives with the governments service delivery functions as expressed in the work and corporate plans of relevant government agencies to ensure linkage to public expenditure envelopes, and support policy mainstreaming goals with science-based arguments and cost-benefit analysis.
  - d. Target awareness and communication strategies to achieve concrete objectives, e.g. making the economic case for smallholder agriculture in national agricultural planning to achieve increase funding for extension services.
  - e. Recruit project managers and technical advisor nationally and internationally in contexts with limited pool of qualified professionals.
  - f. Promote more engagement of UNDP procurement and administration specialists in project design to develop realistic sequence of activities, workplans and deliverables.
  - g. UNDP should strengthen its client oriented approach when assisting implementing partners in administrative processes, such as recruitment, procurement and disbursement of funds to ensure that partners understand the procedures and timeframe, as well as the need for them

The SWoCK final terminal evaluation mission reconfirmed the real challenges of Solomon Islands situation when implementing projects such as this, which included limited logistical support, inadequate project management capacity, and limited technical expertise, low literacy rate of rural farmers and poor communication and transport network to link rural communities and islands. These challenges were beyond the project's scope and design. The international evaluator and national counterpart felt really honored and privileged to be given the task to evaluate this project. The evaluation team recognized the difficulties and challenges especially the UNDP project management office, the executing entity MECDM, and implementing agencies MAL, SNRAS, KGA and NGASI went through to implement this project. Therefore, the overall satisfactory rating of this project is a result of your hard work and commitment and that of all the members of the project sites of Guadalcanal, Makira, Malaita, Isabel and Choiseul provinces, all the credit goes to you.

## Evaluation rating table

| Criteria                                  | Rating                  | Comments   |
|---|-------------------------|--|
| <b>Monitoring and evaluation</b>          |                         |  |
| Overall quality of M&E                    | Satisfactory            | Indicator framework with moderate shortcomings. Monitoring well implemented and used as base for adaptive management after midterm review. Reports complete, but data generated by the project scattered.  |
| M&E design                                | Marginally satisfactory |  |
| M&E plan implementation                   | Satisfactory            |  |
| <b>IA &amp;EA execution</b>               |                         |  |
| Overall quality of project implementation | Satisfactory            | Project initially with significant delays and low delivery rate due to weak leadership. Root causes are the limited national capacities and coordination failures. However, after 2014 MTR process, a strengthened PMU with new management and support from both UNDP and MECDM were able to correct course and brought the project back on track. |
| Implementing agency performance           | Satisfactory            |  |
| Executing agency performance              | Satisfactory            |  |
| <b>Outcomes</b>                           |                         |  |
| Overall quality of project outcomes       | Marginally satisfactory | Most deliverables achieved despite most of the implementation of the project having taken place only in the last two years. Implementation of climate/smart agriculture and strengthening of national weather service has been successful. However, there have been shortcomings in the achievement of outcomes                                    |
| Relevance                                 | Relevant                | Project gives answer to national policy and plans and concerns and issues raised by communities  |
| Effectiveness                             | Marginally satisfactory | Intended outcomes have been only partially achieved. While climate-smart practices have been implemented, adoption rate has been limited and policy and knowledge management targets only partially achieved. Expansion of meteorological network successful but yet to be completed.  |

| Criteria                       | Rating                  | Comments   |
|--------------------------------|-------------------------|--|
| <b>Outcomes</b>                |                         |  |
| Efficiency                     | Marginally satisfactory | Funds and national capacity not sufficient for the broad geographical and thematic scope of the project  |
| <b>Impact</b>                  |                         |  |
| Increases in adaptive capacity | Significant             | Significant increases in income household in target communities and human capital (skills).<br>100% expansion of the national meteorological network   |
| <b>Sustainability</b>          |                         |  |
| Overall sustainability         | Moderately likely       | National meteorological services and improved practices at farm level likely to be sustainable and weather and agricultural services moderately confident to continue service delivery and increase budge ceilings. However, adoption rate of improved practices limited and still vulnerable to climate hazards |
| Financial sustainability       | Moderately likely       | Communities enabled to continue improved practices in spite of weak national financial capacities and limited service delivery. AWS likely to stand and deliver data for over a decade but both vulnerable to social instability and climate hazards   |
| Socio-economic sustainability  | Moderately likely       | Development pressure on resources may degrade ecosystem services and increase vulnerability  |
| Institutional sustainability   | Moderately likely       | Agricultural and climate know-how and technology in place, but policy support to smallholders still weak. Priorities are cash crops and natural resources as drivers of economic growth. At community level, population growth continues to be an important threat linked to weak educational achievement.       |
| Environmental sustainability   | Moderately likely       | Socio-economic drivers may combine with climate change driven environmental degradation to increase vulnerability, but hazard intensity and exposure unlikely to raise in non-linear manner in the near future   |

# 1. Introduction

## 1.1 Definition, purpose and ethics

A project final evaluation is defined as a systematic and objective assessment of a completed project, including its design, implementation, and results. The aim of a final evaluation is to determine the relevance and fulfillment of objectives, development efficiency, effectiveness, impact, and sustainability of the project outcomes, i.e. the five Development Cooperation Committee's (DAC) evaluation criteria (Adaptation Fund, 2012). The final evaluation gives answers to the questions of the evaluation matrix (annex 2) with evidence-based information. The evaluation has been conducted according to the principles of independence, impartiality, credibility and transparency and regard for the welfare, beliefs and customs of respondents, and in accordance with UNEG's code of conduct. A code of conduct signed by the international and national consultants is attached to this report as annex 3.

## 1.2 Methodology of the evaluation

The evaluation team, composed of an international consultant with expertise in climate change adaptation and UNDP project cycle and a national expert, former high official of the Ministry of Agriculture and with vast experience in agriculture in the Solomon Islands, evaluated the design and formulation process, quality of implementation, its results, sustainability and impact, as well as mainstreaming and catalytic effects.

**Project formulation** examined the robustness of the project's theory of change and the degree to which the project design is relevant to national and local development priorities. The assessment was based on the analysis of relevant national and provincial policies and on interviews conducted with project stakeholders (table 1). A full list of stakeholders interviewed can be found attached as annex 5.

**Table 1. Project's stakeholder interviews**

| Stakeholder  | Interest/ role in the project   | Interviews  |
|--|---|---|
| Ministry of Environment, Climate Change, Disaster Management and Meteorology | Executing agency, responsible for the delivery of the project's outputs.              | National project director and permanent secretary, directors of meteorological services (SIMS) and climate change division (CCD), technical staff from SIMS and CCD |
| Ministry of Agriculture and Livestock  | Implementation of land planning and agricultural technology activities of the project | Permanent secretary, directors of the Research and Land Use Plan Divisions  |
| Malaita, Choiseul, Isabel, Western, Guadalcanal Provincial Governments       | Implementation of land planning and agricultural technology activities of the project | Officials from Isabel, Guadalcanal and Makira provincial governments  |

| Stakeholder   | Interest/ role in the project   | Interviews  |
|---|---|---|
| Provincial Agriculture Extension Divisions            | Implementation of land planning and agricultural technology activities of the project                     | Officials from Isabel, Guadalcanal and Makira field offices |
| Ministry of Development Planning and Aid Coordination | Oversight of all ODA projects   | Director for planning                                       |
| Kastom Garden Association of Solomon Islands          | Implementation of agricultural technology activities of the project.                                      | Not available for interviews                                |
| School of Natural Resources and Applied Sciences      | Development of training materials and implementation of agricultural technology activities of the project | Dean and faculty member                                     |
| Nut Growers Association of Solomon Islands            | Implementation of agricultural technology activities of the project.                                      | Not available for interviews                                |

**Project implementation** deals with agency performance, monitoring and evaluation and financial management of the project. Agency performance refers to the degree to which both UNDP and the national executing agency and co-implementing partners provided the necessary resources and technical and administrative support for the implementation of the project. The final evaluation based its assessment on a review of the implementation process as recorded in annual reports, financial reports, including combined delivery reports (CDR) of expenditure, as well as audit reports. Responsiveness of the project executive board was established through interviews with PMU and UNDP officials and board members. The project's monitoring and evaluation (M&E) system is examined for its design effectiveness, i.e. the degree to which the indicators of the logical framework do measure the hypothesized effects (outcomes) of the project, as well as efficiency, i.e. the degree to which the information has been cost-effectively obtained, as well as the degree to which monitoring and evaluation results have been taken into account for adaptive management.

Rating. Project implementation has been rated for agency performance and effectiveness of the M&E system. Agency performance, rated on a six-point scale<sup>3</sup> based on the quality and timeliness of the agencies' technical and administrative support to project implementation as expressed in project's annual performance reports, audit reports and interviews with stakeholders from the project team, as well as the implementing and executing agency. Likewise, the M&E system has been rated on a 6-point scale based on a) quality of the indicators, b) evidence of adaptive management based on monitoring reports, e.g. as reflected in minutes of meetings of the project board and c) interviews with project team members, and key officials from both implementing (UNDP) and executing agencies (MECDM and MAL).

**Project results** are assessed for their relevance, effectiveness and efficiency. Relevance of the results has been established based on the degree to which they are the expression of explicit

<sup>3</sup> The 6-point rating scale used in GEF and Adaptation Fund evaluations rates a project dimension as follows: highly unsatisfactory (1 point), unsatisfactory (2 points), moderately unsatisfactory (3 points), moderately satisfactory (4 points), satisfactory (5 points) and highly satisfactory (6 points).

NAPA targets and their linkages to other relevant national development objectives. Effectiveness was measured against the indicators defined in the project’s logical framework analysis, as far as the indicators have been deemed by the evaluator to accurately measure the progress toward project outcomes. The basis for the quantitative analysis of achievement of the targets associated to the project’s indicators was provided by the project team and the project reports, verified through interviews with government officials and community members. Efficiency refers to the cost-effectiveness of the project results. The assessment of efficiency was based on the delivery rate of the project, i.e. actual disbursement and expenditure against planned budget.

**Impacts** refers to intended and unintended long-term changes to drivers of global environmental benefits at local, national or regional levels. This was determined by observed changes in the vulnerability or vulnerability drivers of ecological or human systems e.g. measures for effective management of production landscapes and provision of resilient livelihood options and by improvements in status and/or trends of said systems, e.g. improved habitat quality, biodiversity and adaptive capacity.

At local (ward and provincial) level, results and impacts were assessed through field visits including 1-hour focus discussion groups (FDG) with representatives of 7 communities (39% of the total project sites), selected in agreement between the UNDP, project team, implementing partner (MECDM) and evaluation team. The criteria used for the selection were:

1. Representation of all the activities conducted or supported by the project
2. Representation of all the agro-climatic zones defined by the project document
3. Logistic feasibility of visit in the two-week mission timeframe

The communities selected were the result of a compromise between the desire to include as many communities as possible and the limited transportation means in the Solomon Islands. Thus, only three of the five provinces could be included (table 2), which however included a cross-section of all the activities supported by the project. As the FDGs were meant to provide a qualitative and holistic understanding of community processes and the changes experimented as a consequence of the project intervention, a non-project community has been included to control for maturation or project-independent developments. The qualitative information provided by the site visits and interviews also served to verify the information provided by the project reports, which has been found to be concordant with the observations made by the evaluation team.

**Table 2. Communities visited during the field mission of the final evaluation (TE mission)**

| Province    | SWoCK Pilot sites                             | number of sites | % of sites visited for the TE mission |
|-------------|---|-----------------|---------------------------------------|
| Isabel      | Tirotonna, K'manga                            | 4               | 75%                                   |
| Malaita     | Lilisiana, Daolusu, Radeakoa                  | 12              | 25%                                   |
| Makira      | Wanehata, Parengo, Marunga (non-project site) | 4               | 50%                                   |
| Guadalcanal | -   | 4               | 0%                                    |
| Choiseul    | -   | 6               | 0%                                    |

**Table 3. Number of project households (HH) and number (#) of respondents at FDGs of TE mission**

| Name               | Province | Total # of HH | HH in TE FDGs | Project's HH     | % of project HH in TE FDG | % project HH (project HH/total HH) |
|--------------------|----------|---------------|---------------|------------------|---------------------------|------------------------------------|
| Lilisiana, ward 1  | Malaita  | 96            | 10            | 11               | 91%                       | 11%                                |
| Daolusu, ward 30   | Malaita  | 40            | 9             | 13               | 69%                       | 33%                                |
| Radeaekoa, ward 30 | Malaita  | 102           | 13            | 13               | 100%                      | 13%                                |
| Parego, ward 19    | Makira   | 75            | 7             | 10               | 70%                       | 13%                                |
| Wanehata, ward 17  | Makira   | 24            | 6             | 18               | 33%                       | 75%                                |
| Marunge, ward 19   | Makira   | 120           | 6             | Non-project site |                           |                                    |
| K'manga, ward 8    | Isabel   | 49            | 5             | 23               | 22%                       | 47%                                |
| Tirotonna, ward 6  | Isabel   | 56            | 6             | 18               | 33%                       | 32%                                |

**Sustainability** refers to the likelihood of advances achieved by the project being sustained for an extended period of time after project completion. The TE assessed this dimension by means of a risk analysis of financial, socio-economic, institutional and environmental risks defined as follows. Sustainability rating will be based on a risk analysis of the four dimensions of sustainability with information supplied by project documents, available peer-review and grey literature, as well as triangulation through individual and group interviews.

The draft report has been reviewed by national stakeholders and UNDP national and regional expert teams. As a result of their review, some modifications have been introduced in the report that can be tracked in annex 9, audit trail.

## 2. Project description

### 2.1 Project costs and duration

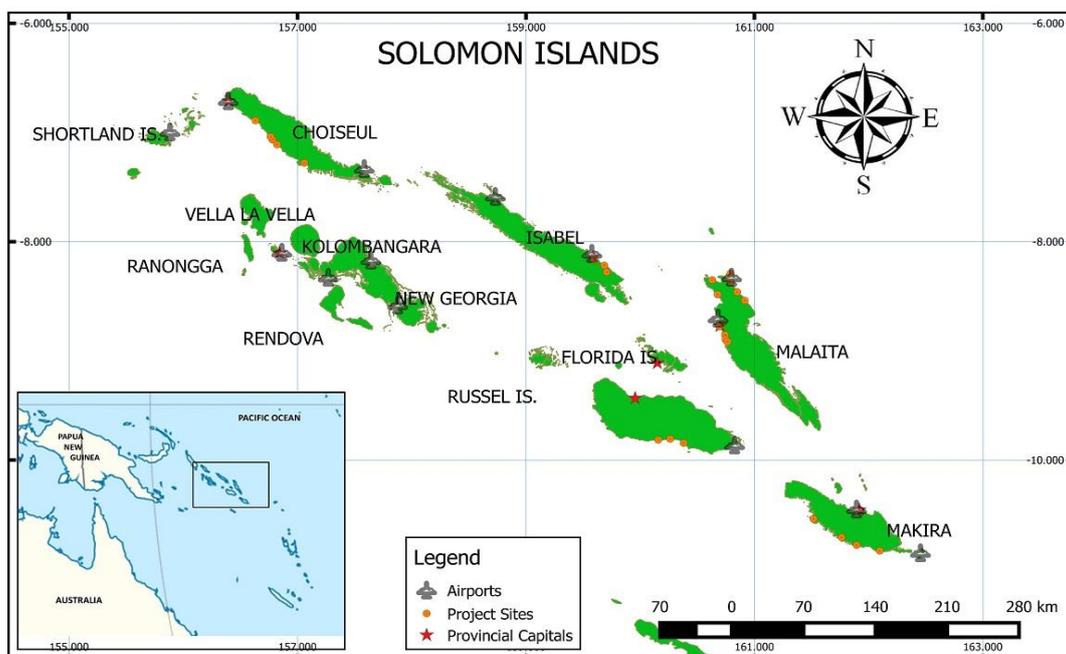
The project *Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security* (PIMS # 4451), has been implemented in the Solomon Islands from 2011 till 2016, with a total project cost of USD 5,533,500 (UNDP, 2009). The subtitle *Strogem Waka lo Community fo Kaikai* is a Solomons Pidgin translation of the formal title and literally means Strengthening Communities (or rather communities' livelihoods) for Food Security.

The project, approved by the Adaptation Fund (AF) in 2011 generated high expectations among national stakeholders, as it was one of the first AF projects approved and indeed the first to be implemented in the Solomon Islands, as well as being the vehicle for the implementation of the National Adaptation Programs of Action.

### 2.2 Society, agriculture, food security and climate change in the Solomon Islands

The Solomon Islands is an archipelagic country comprised of 900 islands (UNDP, 2009), dispersed on an extensive economic exclusive zone of 1.34 million km<sup>2</sup> of which the land area just comprises 2% or 28,785 km<sup>2</sup> (MECM, 2008).

**Figure 1. Map of the Solomon Islands and project sites** (PMU, 2016).



The climate of the Solomon Islands is humid tropical, daily average temperature ranging from 23°C to 30°C and rainfall from 3,000mm to 5,000mm depending on geographical location and time of year. There are two main climate zones determined by the Southeasterly Trade Winds: the windward side or weather coast and the leeward side of the main islands. The country usually experiences 1-2 tropical cyclones per year, from December to March and mainly in the southern and eastern parts. The main factor affecting climate variability is El Niño-Southern Oscillation (ENSO) that may cause severe drought and consequent lack of food in parts of the country, affecting food gardens, e.g. during the 2009 El Niño event. (UNDP, 2009).

The Solomon Islands face severe development issues expressed, among others, in a low human development index (i.e. shortcomings in income, health and education), extreme dependence on natural resources, insufficient provision of government services, and high degree of dependency on foreign aid. Moreover, communications in the Solomon Islands are extremely difficult, the road network of the Solomon being limited to the islands of Guadalcanal and Malaita, and even there, weather coasts are particularly isolated and reachable only by boats. Government capacities for service provision have been greatly diminished due to the structural adjustments applied in the 80's compounded by the high unit cost of service delivery determined by its geography (UNDP, 2009).

The population of the Solomon Island reached 510,000 inhabitants in 2009, and is mostly rural (85%) and spatially dispersed with a high variety of languages and social customs (UNDP, 2009) (MECM, 2008). Commonly, people in the Solomon Islands live in villages or hamlets (wards) that may be comprised by one or several tribes or clans, a form of extended kin that constitutes the basic political unit in the country, albeit an informal one. Traditionally, agriculture was practiced through shifting cultivation that allowed for regeneration through fallowing for extended periods. However, this is becoming increasingly constrained due to population growth (UNDP, 2009), leaving only the option of productivity intensification (Tugunau & Fülöp, 2014). Typical subsistence agriculture plots are less than half a hectare and many are located on steep slopes, up to 40° (Tugunau & Fülöp, 2014). Coastal dwellers, particularly on atolls and artificial islands have even more limited production means, including smaller plots (10-100 m<sup>2</sup>) for which even the soil may need to be imported, depending to a higher degree on remunerated work, forest product collection and fishing for survival. Yet, smallholder agriculture is crucial for food security and development of the Solomon Islands: the production of root crops is estimated at 1.189 billion Solomon Dollars (USD 150.316 million) per annum. Hence, unsustainable land use practices and climate change, which reduce the agricultural productivity, will place significant cost burdens on the government (UNDP, 2009).

The main food crops in the Solomon Islands are sweet potato (*Ipomoea batatas*), cassava (*Mahinot sculenta*), banana (*Musa spp.*), taro (*Colocasia esculenta*), greater yam (*Dioscorea alata*) pana (*Dioscorea esculenta*) and breadfruit (*Artocarpus altilis*) among starchy staples, slippery cabbage (*Abelmoschus manihot*), edible ferns and pumpkin tips (*Cucurbita spp*) and taro leaf among leafy greens, pineapple (*Ananas comosus*), papaya or pawpaw (*Carica papaya*), watermelon (*Citrullus lanatus*), cucumber (*Cucumis sativus*), and tomato (*Solanum lycopersicum*) among fruits, as well as sugar cane (*Saccharum edule*), beans (*Phaseolus sp*) and long beans (*Vigna unguiculata*) (SWoCK PMU) (Iese, Holland, Maeke, Wairu, & Naidu, 2015) (ACIAR, 2010) (French, 2010). Rice and noodles, mostly imported, are gaining importance in the diet of the Solomon Islanders (Tugunau & Fülöp, 2014) and many rural household are also involved in the production of cash crops, such as copra, oil palm and cocoa (SWoCK-PMU, 2015).

Land ownership and management has been traditionally exerted by the clan or village chief, whose legitimacy comes from his lineage. Traditional leadership enforces clan customs, including customary land use, maintaining the traditional hierarchy, but also a certain balance in resource use dictated by tradition and experience. However, government promotion of land registration and formal ownership, which has the objective to facilitate development and prevent pervasive land conflicts may allow individual households and chiefs to seek uncoordinated short term objectives that may lead to degradation of resources (SIG, 2015).

In spite of the challenges faced by smallholder, rain-fed agriculture in the Solomon Islands, communities have an adequate level of food security (SIG, 2015). Food shortage occur during natural disasters affecting areas of high population density, if communities are cutoff from transportation and access to (Tugunau & Fülöp, 2014).

## 2.2 Root causes and barriers addressed by the project and preferred solution

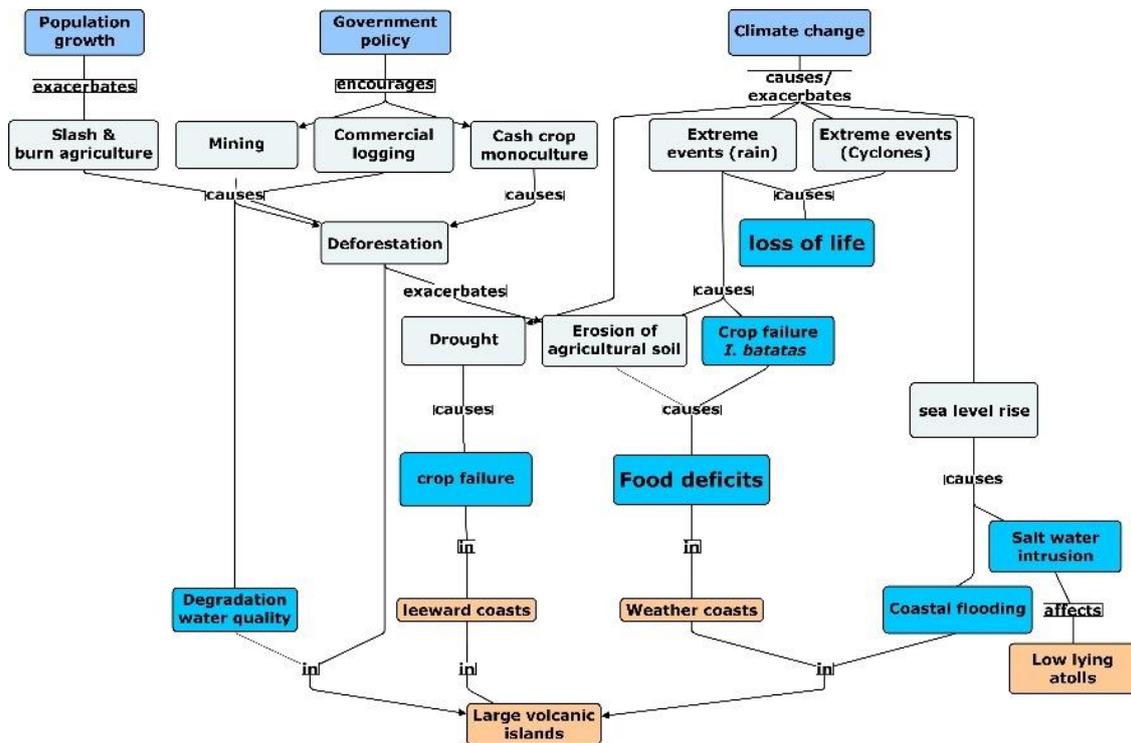
The population of the Solomon Islands is growing at a high rate of 2.8%<sup>4</sup>, and is characterized by a high youth dependency ratio (41% of the population under 14 years old). As 85% of the population depends and/or is engaged in agriculture (UNDP, 2009), population growth is leading to degradation of soil and water resources due to deforestation and soil erosion, with consequent losses in fertility and productivity (UNDP, 2009) (SIG, 2015). Climate change is expected to induce changes in the average and variability of temperature and rainfall patterns, as well as the changing frequency of incidences of extreme weather (such as tropical cyclones) and sea level rise that would impact food production systems through soil erosion and nutrient leakage, drought, floods and salinization, thereby undermining development (UNDP, 2009) (SIG, 2015). The two main pressures on ecosystem services, population growth and climate change are compounded by deforestation due to logging, mining and monoculture cash crop agriculture, which are partially driven by national agricultural policy and incentives to monoculture cash crops, such as coconut and oil palm plantations (UNDP, 2009).

Knowledge on current impacts of climate change in the Solomon Island is mostly reduced to casual observation by communities, i.e. changes in growing season, increase in frequency of extreme rain events and sea level rise (MECM, 2008). Although the thin historical meteorological record does not allow statistical downscaling of regional circulation models, increases in temperature, consistent with the 0.3 °C decadal increase detected in the South Pacific for the last three decades have been measured (MECM, 2008). Given its dependency on agriculture, increases in precipitation extremes and temperature, as well as potential increase in magnitude of tropical cyclones, would have a very significant impact on a vulnerable country like the Solomon Islands (UNDP, 2009) . A further threat, especially for coastal, small islands and atoll communities is sea level rise, which in the Melanesian region has been rising at a rate of 8 to 10 mm per year (MECM, 2008).

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<sup>4</sup> Although the rate is diminishing. See section [Sustainability](#)

Figure 2 Root causes according to project design



The project design identifies capacity, policy and information barriers that prevent government agencies and communities from undertaking the necessary transformations to adapt smallholder farming systems to climate change. The identified barriers can be summarized as follows:

**Information barriers:** unsystematic collection of meteorological, agricultural and ecological information and absence of knowledge management systems impedes learning and communication, resulting in low awareness at all levels, from government decision makers at national and provincial level to communities on the impacts of climate change, vulnerability and impacts (costs) to development, as well as the feasibility and costs of adaptation actions. Policy barriers are a consequence of the limited information available to political decision-makers.

**Policy barriers:** Relevant Government institutions and the policy framework governing the development and management of the agriculture sector and related fields (e.g. land use, forestry, water management) have not systematically included climate change risks and opportunities, and when it is done, e.g. at the Agriculture and Livestock Sector Policy, the necessary instruments and mechanisms to support and facilitate adaptation measures are not developed (UNDP, 2009).

**Capacity barriers:** Additionally, insufficient technical skills, insufficient human resources and insufficient operational budgets are identified in the project document.

## 2.3 Project sites and beneficiaries

Based on the criteria of population density, exposure to meteorological hazards and socio-economic indicators, 18 wards in three distinct agro-climatic zones across five provinces have been selected:

- Windward basins on main islands (weather coasts), high population density, low human development with very limited access to communication and government services, as well as being exposed to extreme precipitation events (mean precipitation of 4,000-5,000 mmyr<sup>-1</sup>). Communities in these basins depend on rain-fed agriculture on small plots on slopes with declining soil fertility. The project identified and worked with communities in the weather coast of Guadalcanal, Makira and Choiseul (UNDP, 2009).
- Leeward basins on main islands, high population density, exposed to drought and water scarcity, with rain-fed smallholder production landscapes on sloping land with fragile soil systems. Communities of this region have been identified in the provinces of Malaita and Isabel, namely North Malaita and Central Maringe respectively (UNDP, 2009).
- Artificial islands located on the leeward side of Malaita, with very high population density and very limited land area. The population depends on a mix economy of fishing, fruit collection, labor and growing vegetables, which is crucial to supplement their diet. They are exposed to drought and water scarcity, compounded by the need to import water, soil and firewood from the mainland. The project identified communities in Lau lagoon and Langa Langa lagoon in Malaita Province (UNDP, 2009).

The total population of the target villages amounts to 5,713 people in 1,014 households (PMU, 2016) all living in wards out of the reach of the very limited capacities of government services, particularly agriculture extension, and/ or weather services, although they differ in access to health centers, transportation and most have been beneficiaries of projects mostly delivered through NGOs such as World Vision, Red Cross and others. Common issues to all the villages included in the project are declining yields, forest cover and quality of water resources. They all obtain energy from firewood but diverge in their degree of dependency of purchased foods (higher at artificial islands), access to land, water sources for human consumption, plot size, livelihood, population trend and awareness and effects of the regulatory framework. For all coastal villages, fishing represents an important livelihood and/ or food source. Fish catch was reported as declining at all coastal location with the notable exception of two leeward communities in Isabel, K'manga and Tirotonna, which reported increasing reef fish stocks as a result of their traditional coastal fishery management practice. Table 4 summarizes the results of the information shared by communities during the TE mission.

**Table 4. Status and trends of the villages visited by the TE mission**

| Name      | Zone    | Pop. | plot size (m <sup>2</sup> ) | Food source   | Water source (human) | Livelihood (%)   | Population trend          | Drivers population changes                             | Human capital  | Effects of regulatory framework            |
|-----------|---------|------|-----------------------------|---|----------------------|--|---------------------------|--|--|--|
| Lilisiana | Island  | 1000 | 25                          | fish rice, canned tuna, noodles   | rain water           | Fishing (100)  | rapid growth              | Lack of family planning                                | fishing skills, weak primary completion                              | Increasingly important over last 5 years   |
| Daolusu   | Island  | 328  | 25                          | fish, koa <sup>5</sup> , rice, canned tuna, noodles                                       | rain water           | Fishing (50), agriculture (40), mangrove timber and fruit collection (10)                          | rapid growth              | open marriage, young marriage, lack of family planning | fishing and agriculture skills, poor education                       | Improving but weak enforcement             |
| Radeaekoa | Island  | 437  | 25                          | fish, rice, canned tuna, noodles  | rain water           | Shell money (80), fishing (10), SWoCK (6), labor for ship building (4)                             | rapid growth              | open marriage, young marriage, lack of family planning | educational level improving offering better employment opportunities | Improving but weak enforcement             |
| Parego    | Weather | 400  | 160                         | banana, sweet potato, cassava, swamp fern, cabbage, swamp taro, pumpkin                   | spring               | Cocoa (50), copra (20), timber (10), trochus (10), marketing (5), employment (5)                   | increasing at a slow rate | Family planning and awareness                          | educational level not changed  | Not aware of government policies and rules |
| Wanehata  | Weather | 300  | 1420                        | banana, sweet potato, cassava, spare-line, and water fern all locally grown and collected | streams              | Food gardening (50), copra (20), cocoa (6), logging employment (2), fishing (3), SWoCK project (6) | increasing at a slow rate | Family planning and awareness                          | educational level slightly improving                                 | Not aware of government policies and rules |

<sup>5</sup> Fruit of *Bruguiera gymnorrhiza*, a common mangrove tree

| Name      | Zone    | Pop. | plot size (m <sup>2</sup> ) | Food source   | Water source (human) | Livelihood (%)   | Population trend         | Drivers population changes    | Human capital  | Effects of regulatory framework   |
|-----------|---------|------|-----------------------------|---|----------------------|--|--------------------------|-------------------------------|--|---|
| Marunge   | Weather | 500  | ND                          | Banana, sweet potato, swamp taro, rice, water fern and cabbage              | wells and streams    | Cocoa (60), copra (20), food crops (20), fishing (5), timber milling (3), logging employment (2)       | ND                       | ND                            | Youth better education and access to employment              | Not aware of government policies and rules. Slow deterioration of law and order situation |
| K'manga   | Leeward | 358  | 130                         | Banana, sweet potato, fish, rice, Slippery cabbage and water fern           | wells                | Casual jobs (60), marketing (10), timber milling (10), Copra (10), fishing (5), house construction (5) | Increased at a slow rate | Family planning and awareness | Youth better education and access to employment              | Not aware of government policies and rules, reliance on traditional hierarchy             |
| Tirottona | Leeward | 387  | 225                         | Taro, sweet potato, Cassava, Rice, Slippery cabbage, cabbage and Water fern | wells and streams    | Marketing (75), fishing (10), casual jobs (10), livestock (5)  | Increased at a slow rate | Family planning and awareness | Youth better educated but not willing to help in agriculture | Not aware of government policies and rules  |

## 3. Findings

### 3.1 Project strategy

The project strategy depended on a number of explicit or implicit assumptions, related to the development and environmental context of the project:

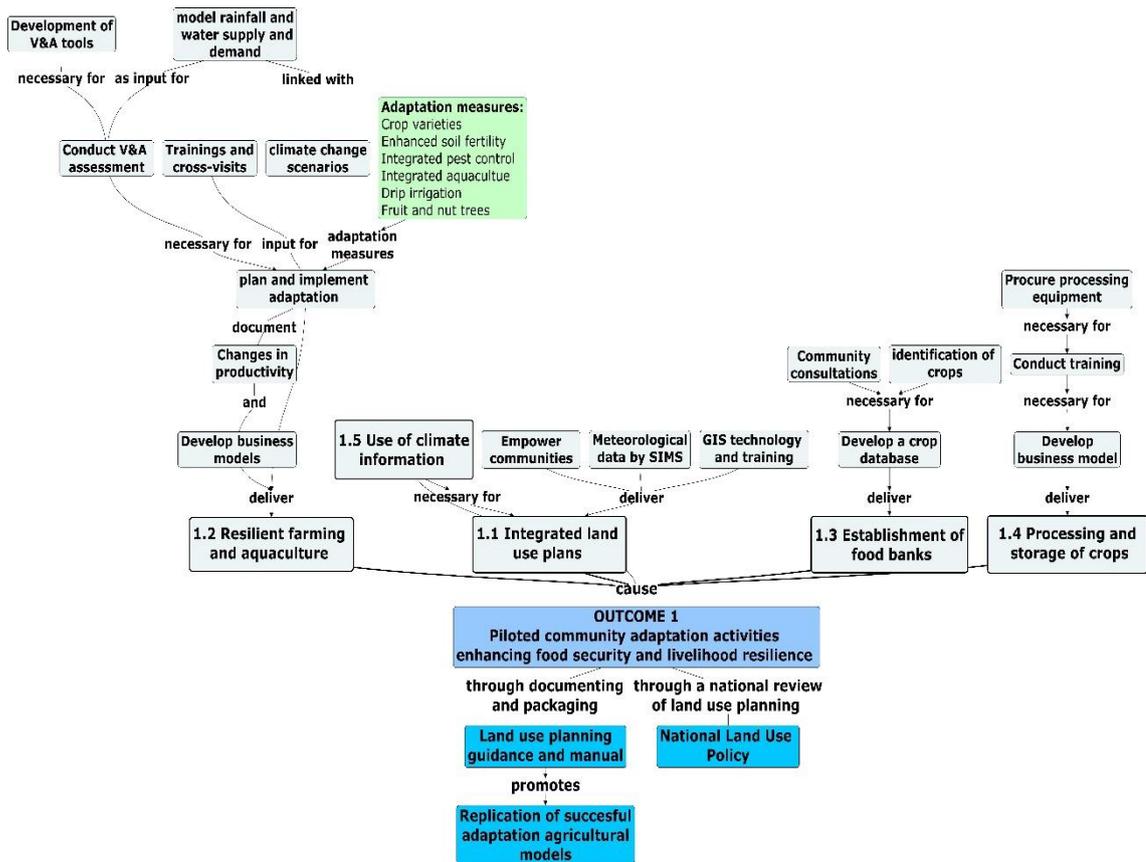
- Policies mainstreamed with project support are likely to receive the necessary political and budgetary support for their implementation, and will achieve their expected impact
- Private finance and agricultural service providers will not have the capacity or interest to reach smallholder farming in the Solomon Islands in the near future, hence the need for proactive government support
- Improved demonstration fields will be more productive, so that farmers will be willing to adopt them and assume the necessary initial investment without further support
- Income generating activities (IGA) will be to be financially and socially sustainable
- Land use plans at ward level are relevant and will guide community actions
- All government agencies involved will strongly cooperate with the project and will have the capacity to provide the necessary staff and logistic support (facilities/ vehicles), as well as the technical skills necessary to assimilate trainings
- Capacity developed through trainings and training materials will be retained within participating government agencies and NGOs
- Current available meteorological information or data provided by the automatic weather stations supplied by the project are sufficient to provide sufficient data for adaptation and land use plans

Based on those assumptions, the objective of the project is to *strengthen ability of communities in Solomon Islands to make informed decisions and manage likely climate change driven pressures on food production and management systems* through three outcomes:

Outcome 1 Promoted and piloted community adaptation activities enhancing food security and livelihood resilience in pilot communities in the following three geographical regions in Solomon Islands, needs capacity development activities and technology transfer to provide communities with physical and human capital tools to adapt and replicate successful experiences, with the following sequence of activities/deliverables (figure 3):

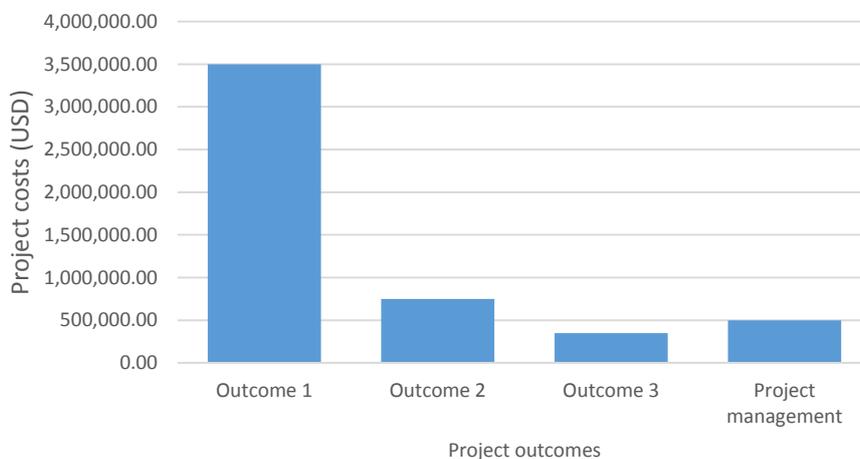
1. Outputs 1.1 and 1.5: Capacity development for land use planning and vulnerability assessment (including GIS technology and incorporation of meteorological data and projections into agricultural planning, in turn depending on output 2.2 and 2.3) for MECDM and MAL officials.
2. Output 1.1: Conduct of vulnerability assessments and formulation of land use plans to rationalize land use and select adaptation options.
3. Output 1.2 and 1.3: Plan and implement the necessary measures for resilient agriculture: crop selection, soil fertility management, integrated pest management, integrated agro-aquaculture systems, drip irrigation and agroforestry
4. Output 1.4: Develop capacities and provide equipment for processing and storage of food to be used for emergency situations and as income generating activity.

Figure 3. Outcome 1 strategy

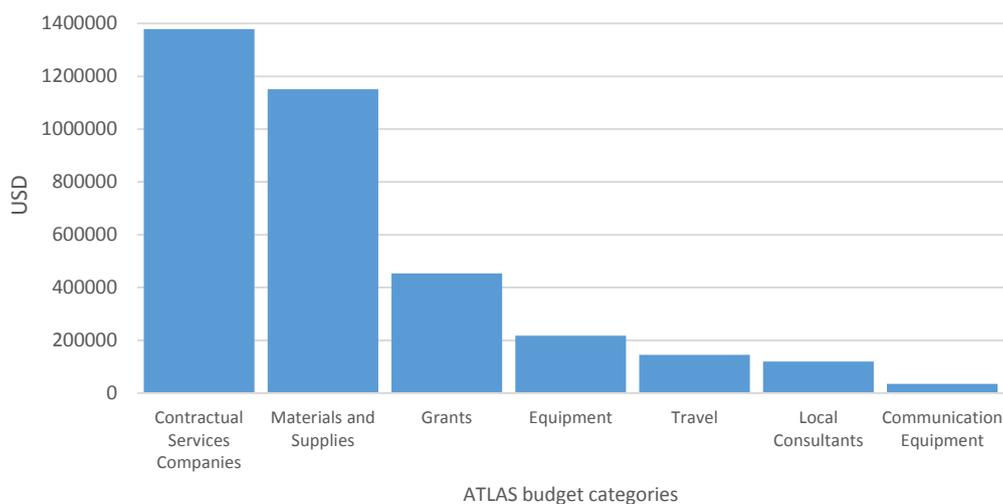


Delivering the outputs of this outcome needed active engagement of technical and logistical capacities of several partners identified in the project document, primarily the research and extension divisions of the Ministry of Agriculture and Livestock (MAL), the NGOs Kastom Gaden Association (KGA) and Nut Growers Association of the Solomon Islands (NGASI). The financial needs for outcome 1 amounted to USD 3,500,000 or over two thirds of the total project cost. Not surprisingly, almost three quarters of the total budget for outcome 1 would have been expended with service providers and materials (UNDP, 2009)

Figure 4 Project outcome budget allocation

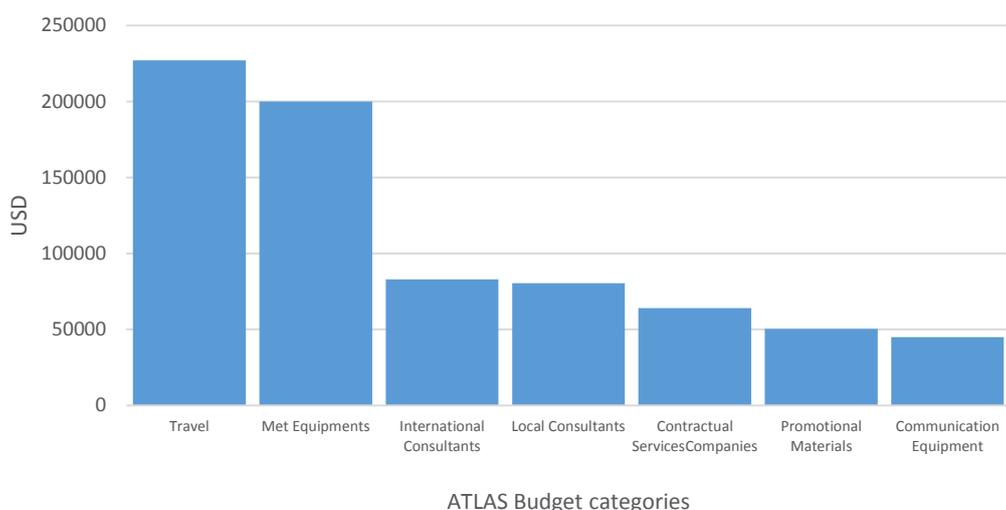


**Figure 5 Budget accounts outcome 1**



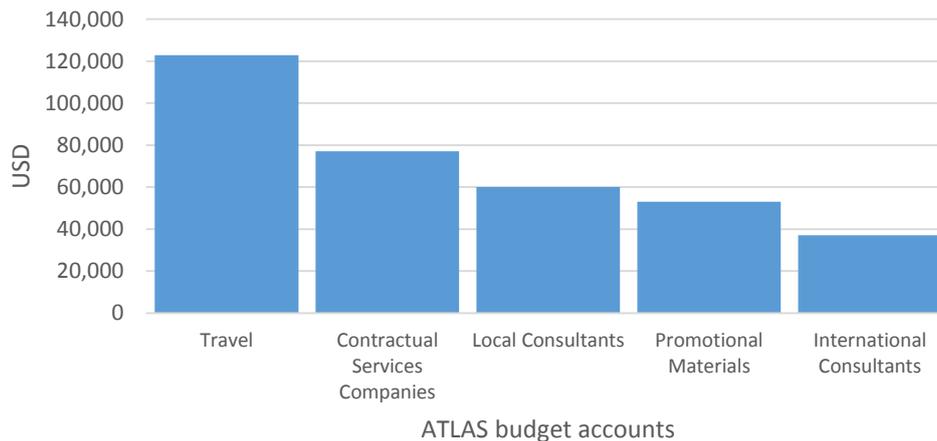
Outcome 2, Adjusted national and sub-national policies related to governing agriculture in the context of a range of climate change futures depended on the set-up of automatic weather stations (AWS) (output 2.2) and a GIS laboratory (output 2.3) to strengthen the capacity of officials MECDM and MAL to support land use planning activities at national level, i.e. support the mainstreaming of climate change considerations into agricultural and land use planning policy (output 2.1), as well as to support land use planning exercises at provincial and local level. The outcome will be dependent on the early procurement and setup of the GIS lab and the AWS, as well as on the recruitment of a land use planning expert. The budget for the outcome amounted to USD 750,000 a third of which earmarked for the acquisition of the meteorological equipment and another for travel.

**Figure 6 Budget accounts outcome 2**

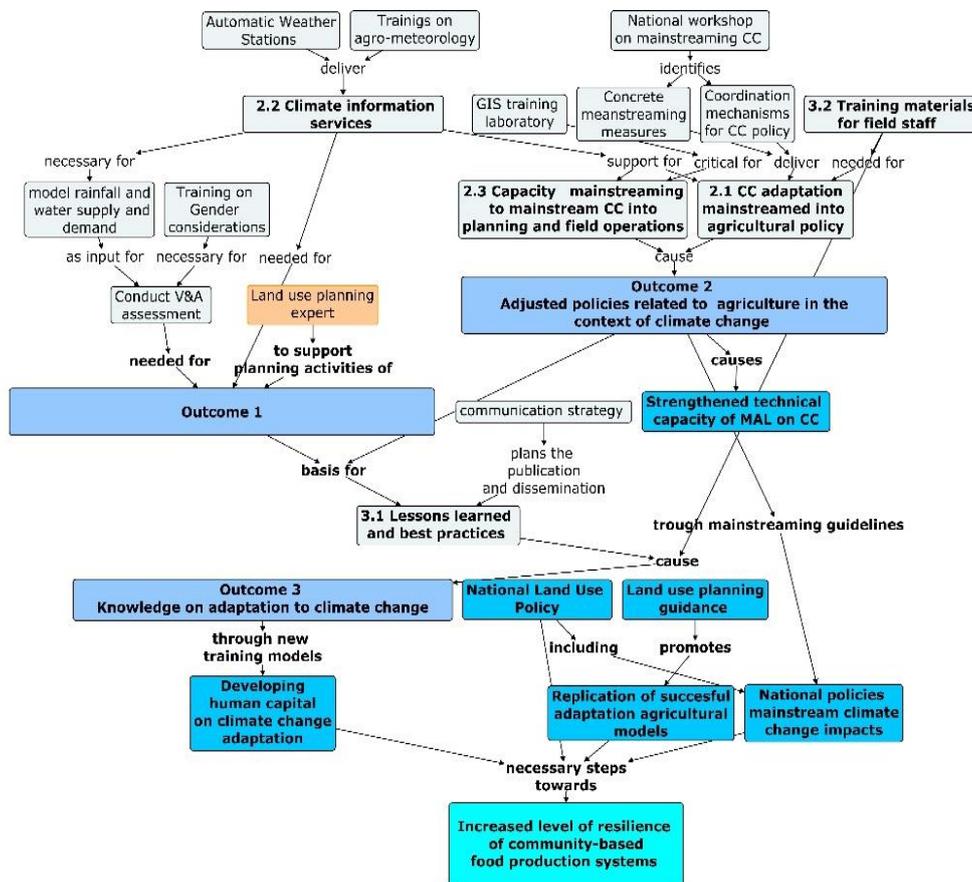


Outcome 3 Fostered the generation and diffusion of knowledge on adapting to climate change in a systematic manner at the community and regional level depended on the successful delivery of the outputs under outcomes 1 and 2 for production of knowledge products, according to the project’s communication strategy (output 3.1). At the same time, this outcome provides funds for the production of training materials needed for the capacity development activities under outcomes 1 and 2 (output 3.2). The outcome’s budget amounts to USD 350,000, mostly travel and contractual services with companies.

**Figure 7 Budget accounts outcome 3**



**Figure 8. Strategy and linkages between outcomes 2 and 3**



### 3.1.1 Conclusions and recommendations

The project strategy is within the AF and UNDP vulnerability and climate change adaptation frameworks. The low regret approach adopted by the project, i.e. reducing vulnerability and bridging the adaptation gap, enabling communities to adapt to current weather patterns is appropriate considering the low human development and consequent limited adaptive capacities, as well as to the high degree of uncertainty in climate projections for the South Pacific (Reisinger, et al., 2014), which would not advice significant investment for very specific impacts.

However, the geographical scope of the project posed severe challenges to the implementation, as it comprises 18 communities dispersed across five out of nine provinces of the country and three agro-climatic zones, compounded by the high costs of travel and shipping in the Solomon Islands. Moreover, the project intends to solve most of the issues identified in the NAPA, from support to smallholder agriculture through climate-smart practices, to emergency preparedness and income generating activities, while increasing capacities of MAL, SIMS, CCD and other agencies and mainstreaming climate change risks into national and provincial decision-making. The diversity of location and topics made the strategy very vulnerable to delays and administrative backlogs, compounded by several assumptions not adequately evaluated at project design: for instance, the food processing component, intended both as an emergency food security solution (better storage and conservation) and as a potential IGA and women empowerment mechanism assumed away the financial and social sustainability without ignoring constraints in terms of capacities to setup a training facility of the two implementing partners, SNRAS and ARD, as well as logistics (storage and transportation) and issues of business capacities and connectivity, strong barriers for the marketing of community produce and processed food. Moreover, albeit consultations were held with a number of key stakeholders, and government officials actively participated in all phases of project design, including the formulation of the project document, the consultation did not reach all levels and departments involved in the implementation of the project, and, as a result, the capacities of several key partners, and the rapid mobilization and availability of necessary technical expertise and equipment from project inception were not well founded, as it will show in its implementation. Finally, the project's dimensions and complexity would have demanded excellent management skills by the project manager and precise technical skills by his/ her staff, as well as sufficient allocation of human resources by the implementing partners. However, given that human resources in most government ministries in the Solomon Islands are not sufficient to carry on current plans and policies, the project strategy should have been better adjusted to the actual capacities of the implementing partners. Moreover, the project strategy was naïve regarding availability of human resources (recruitment) for the PMU and transaction costs (travel, communications, disputes, coordination) involved in the implementation of activities

Therefore, the terminal evaluation recommends that the capacities of partners to implement project activities be better evaluated at project design through consultation at all necessary levels involving all departments/ sections that will be involved in the implementation. The necessary steps to achieve intended outcomes, and the services and goods needed to be procured and/ or supplied by each of the implementing partners must be carefully laid out to accurately estimate costs and timeframes involved. Also, as interlinked, dependent sequence of activities and outputs are vulnerable to delays cascading down the results chain, logistic concerns, including constraints posed by communications and transportation infrastructure and

climatic factors<sup>6</sup>, as well as timeframes involved in the recruitment and procurement processes must be mainstreamed into the activity sequence and undergo a critical feasibility analyses with appropriate technical inputs, i.e. from procurement and human resources officials from both UNDP and government agencies.

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<sup>6</sup> e.g. rainy or cyclone seasons

## 3.2 Project implementation

### 3.2.1 Project level monitoring and evaluation systems

The monitoring instruments of the project were quarterly progress reports, 6-month technical monitoring reports, midterm and final evaluations and a project terminal report. Additionally, the Adaptation Fund requires the submission of an annual project progress report that includes a results tracker (annex 8). Lastly, the UNDP produces, quarterly, combined delivery reports of project expenditure and an annual independent audit report. To assist monitoring of progress towards results, the project document included an indicator matrix of 12 indicators with their corresponding baselines and end-of-project (EOP) targets. Project indicators were, in general terms, appropriate, and complied with SMART criteria. They included measures of increases in productivity, delivery of climate services and documentation of project results. However, all indicators of capacity development results (outcome 2) and dissemination of knowledge products (outcome 3) were left at output level, i.e. number of trainees and number of knowledge products rather than, e.g. capacity to deliver extension services, or capacities to mainstream climate change into development planning or training modules incorporated in capacity development plans of relevant government agencies. This means that the indicator framework offers no means to measure the intended effect (outcome).

Annual project performance reports were filed each year that contained aggregated data on project achievements and assessment of implementation by the project manager and the UNDP. More details are found in the quarterly reports and mission reports. Quarterly and mission reports are scarce prior to 2014 but, from that year onwards, they were filed after every mission by SWoCK staff (PPCs, CO, SPO, LUPO) and included photos, detailed description of activities and frank discussion of the situation, as well as recommendations. The same applies for project quarterly reports. During the implementation period 2014-2016, the project manager was actively involved in the collection and monitoring data, which were used as basis for the elaboration of workplans.

However, the data collected by the project is somewhat dispersed in many quarterly and mission reports, what limits the facility to report changes of status of communities and production landscapes. So far, no government agency in the Solomon Islands has a comprehensive, accessible database on agricultural and environmental, including meteorological database. This has been identified as an unaccomplished yet expected objective of this project by implementing partners.

A midterm evaluation was conducted between November and December 2013 (report finalized in January 2014 and management response by May 2014) that correctly identified the very low level of delivery and accomplishments achieved by the project in its 2 first years of implementation. The MTR process sent shock waves across the involved implementing partners, reaching even the highest levels of decision-making at government and UNDP global levels. The action taken based on the MTR recommendations combined with profound reforms at the staff of the project management unit and with the new project national leadership that took over by the end of 2013, meant that project implementation effectively took off by 2014.

**Table 5. MTR issues and responses**

| <b>MTR Issue</b>   | <b>MTR recommendation</b>   | <b>Response</b>   |
|--|---|---|
| Project implementation not in track to achieve results   | Extension of the project by 1 to 1.5 years  | Revision of delivery, adjustment of work plans and securing of extension                            |
| Weak management: unclear reporting lines, lack of regular board meeting, limited involvement by partners and unsatisfactory record keeping | Strengthen management through recruitment and capacity development  | Recruitment of new Project Manager and staff, and more active involvement by project board          |
| Inappropriate and incomplete mission arrangement and preparations resulting in ineffective results from missions                           | Secure fuel supply for field visits and use meteorological services for planning the field activities and sea travel                | Better planning of field activities, but limited capacities to establish adequate travel facilities |
| Lengthy UNDP-led procurement processes and discouragement by service providers   | Re-establish financial credibility of the UNDP with the service providers   | UNDP reviewed procedures and more energetic management facilitated processes                        |
| Limited technical skills by PMU staff resulting on inappropriate actions taken at field level  | PMU to be assisted with a project management and an agricultural and an aquaculture expert preferable with international experience | Recruitment process of international technical advisor initiated but not completed                  |

### 3.2.2 Conclusion and recommendations (M&E)

The monitoring and evaluation system of the project, comprising annual, quarterly and mission reports, and the indicator framework could have provided sufficient basis for adaptive management. However, indicators for the outcomes 2 and 3 merely tallied delivery of outputs, and did not measure the intended outcome. Moreover, for the first three year of project implementation, weak technical and management skills by the project management unit, compounded by limited involvement of partners and the project board meant unsystematic record keeping and feedback into decision-making.

However, after the MTR process, more pro-active engagement of the UNDP, combined with changes in the national project leadership (national project director and project manager) led to a complete revamp of PMU staff and consequent re-establishment of mission reports and consideration of monitoring results in work plans. However, there is still room to improve systematization and integration of project generated data.

Therefore, UNDP and MECDM must consolidate, and systematize data generated by the project on communities and production landscapes and publish and share it with the research division and land use planning unit of MAL and the Climate Change Division of MECDM for its future integration in a national agricultural and environmental database.

### 3.2.3 Management arrangements and stakeholder engagement

SWoCK was implemented under the National Implementation Modality (NIM) of the UNDP with the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) as the project's implementing partner<sup>7</sup>, i.e. the entity responsible and accountable for managing the project and achieving project outputs (UNDP, 2011). The Ministry of Agriculture and Livestock (MAL), the School of Natural Resources and Applied Sciences of the Solomon Islands National University<sup>8</sup> (SNRAS-SINU), as well as the non-government organizations Kastom Garden Association (KGA) and Nuts Growers Association of the Solomon Islands (NGASI) were identified as responsible parties for the delivery of specific components. MAL was insufficiently consulted at appropriate technical levels (i.e. division level) prior to implementation, in spite of being represented at the inception workshop. Combined with the fact that the Research Division was involved in the implementation of other ODA projects, including the EU-funded ARD-NARI project, MAL officials could not be engaged in project activities as much as needed.

Limitations in coordination also contributed to the collapse of the food processing component of the project, in spite of the investment made in equipment and training: limited participation by SNRAS and weak communications from the PMU compounded the design problems<sup>9</sup> carried by the food processing component of the project the abandonment of the proposed training facility and the actual food processing equipment acquired to be used for community trainings by MAL still sits unused due to lack of facilities.

Considering capacity constraints at both implementing and responsible partners (Ernst & Young, 2014), SWoCK followed a cash transfer modality called "National Implementation with UNDP support" in which the UNDP country office<sup>10</sup> handles all procurement and recruitment processes. This modality is one of four cash transfer modalities under NIM and was chosen to ensure delivery of the outputs of the project duly justified with the correspondent capacity assessment of the implementing and responsible partners (SWoCK PMU, 2012). The cash transfer modality does not involve any delegation of authority or responsibility for the implementation of the project and delivery of its outputs by the implementing partner, the MECDM. However, **national stakeholders participating in the terminal evaluation process did not concur with said capacity assessment** and manifested the wish of a more relevant role in the management of funds in the future.

A project steering committee or project board (PB), responsible for general guidance of implementation and approval of annual work plans was duly constituted, chaired by the Permanent Secretary of the MECDM, the Permanent Secretary of the Ministry of Agriculture and Livestock (MAL), the UNDP deputy resident representative. The first meeting was held in July 2011 (MECDM, 2011). Board meetings were held at least once annually, for the review of project performance and approval of the annual work plan, but at a rate insufficient to provide sufficient support for project implementation or even satisfactorily solve coordination issues among responsible partners. The PB intensified its engagement in the post-MTR period, providing more support and response to management issues.

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<sup>7</sup> Executing agency in the terminology of the Adaptation Fund

<sup>8</sup> Solomon Islands College of Higher Education at the time of the signature of the project document

<sup>9</sup> See [Project strategy\ Conclusion](#)

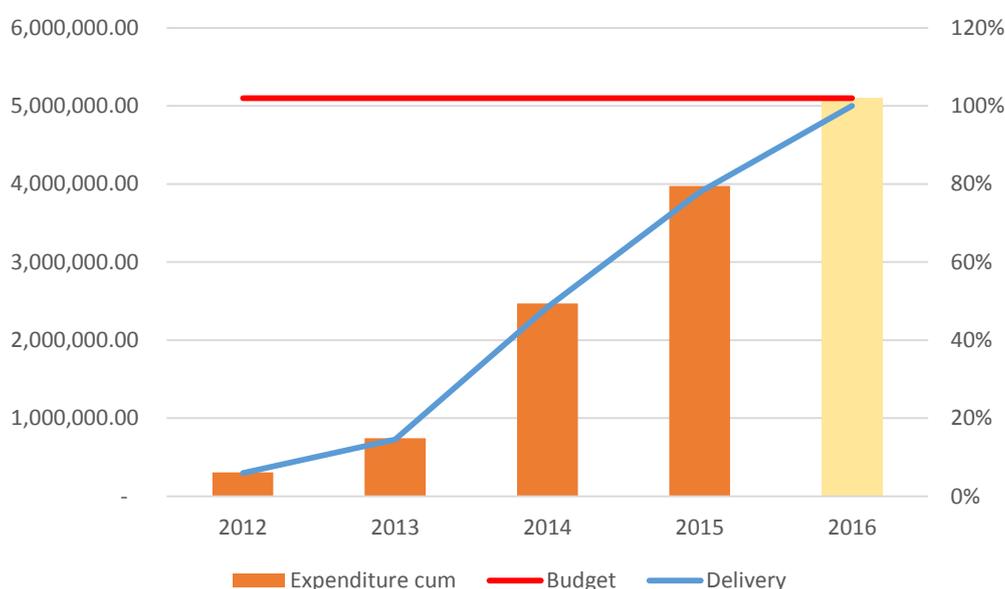
<sup>10</sup> in this case, the Solomon Island sub-office and the UNDP Pacific Multi Country Office (based in Fiji).

Day-to-day project management was assigned to a project management unit (PMU) headed by a project manager, with administrative support by a finance assistant and a procurement assistant, and technical support by a land use planning officer, 2 climate change adaptation officers and 2 farming system officers. To coordinate the project's fieldwork, the PMU engaged five field coordinators, called provincial project coordinators (PPC), each for every province involved (MECDM, 2011). An advisory technical committee (ATC) was planned to provide technical assistance to project activities, and composed of multilateral organizations, such as SPREP, bilateral organizations, such as GIZ, and international NGOs, like TNC, currently working in the Solomon Islands, as well as representatives of the Government of Fiji. The ATC was never actually formed despite a recommendation to this effect made in the MTR. However, a national technical working group under MAL leadership did assist the conduct of community vulnerability assessments by the project (SWoCK-PMU, 2013).

Implementation and output delivery was extremely slow during the first three years of the project. Recruitment constraints for the PMU, inaccurate assessments of capacities of responsible parties, wrong assessment of capacities of project managers, weak coordination with responsible parties and procurement processes being the main drivers behind the delay.

**Figure 9 Cumulative project expenditure and delivery rate**

*2016 figures are projections included in the annual work plan*



Implementation of a project of the complexity and dimension of SWoCK required very strong management and technical skills on a range of topics, and this combination of skills proved difficult to find. The first project manager was dismissed due to poor performance within the first year of implementation leaving the position remaining vacant for a year, compounded by the fact that, by 2012, only the administrative part of the PMU had been recruited. However, by mid-2013, a new project manager was hired, together with 5 Provincial Project Coordinators, 2

Farming System Officers, 1 Communication Officer, 1 Adaptation Community Coordinator, 2 Climate Change Officer, 1 Land use Planning Officer. In spite of this developments and due to weak management and insufficient technical skills by the PMU staff, the **implementation of the project did not improve significantly till a PMU revamp was prompted by the midterm review in 2014**. A complete new team, from project manager to provincial officers took over and implementation rate improved dramatically (figure 9). Additionally, a senior technical advisor provided support to the PMU from 2014 onwards.

National agencies participating in the implementation of the project also suffered important deficits of capacity in terms of human resources, financial management and coordination capabilities (SWoCK PMU, 2012). A shortage of government staff hinders operations of most state agencies in the Solomon Islands, a fact acknowledged in the project document. In the case of the project, community work depended to a great degree on the availability of MAL officials, both at central and extension levels, particularly considering the weak technical skills of the original PMU team.

Moreover, limited staff, technical and financial capacities at MECDM hampered the critical procurement process of automatic weather station: the development of technical specifications took over a year to complete, and, more importantly, four of the 8 automatic rain gauges purchased have not yet been installed due to budget constraints of the MECDM.

The NGOs Kastom Garden Association (KGA) and Nut Growers Association of the Solomon Islands (NGASI) and the School of Natural Resources and Applied Sciences (SNRAS) had a prominent role in the conduct of field activities as per the project document. However, actual implementation of planned activities was delayed as KGA, NGASI and SNRAS did not have either the human capacity or the facilities for implementation of basis project activities, such as the development of training manuals, implementation of field activities and setup of GIS facilities (SWoCK PMU, 2012). While SNRAS is bound to complete almost all of its intended outputs, albeit with great delay, the role of KGA and NGASI needed to be absorbed by the PMU and MAL, with the support of the NGO ZainaTina.

**Table 6 capacity issues and actual engagement of stakeholders in the project**

| Organization | Role in Project Document  | Capacity issues   | Actual role   |
|--------------|---|---|---|
| MAL-ARD      | Research cropping systems in different climatic zones, e.g. food crops that can tolerate drought, flooding or long wet periods and disseminates the results across the country      | Limited staff capacities and operational budget, hence highly dependent on ODA projects to support field operations | Provincial extension officers supported SWoCK staff in setting demonstration plots in communities, accompanying project missions and providing use of field experimental stations       |
| MAL-DAPLU    | Lead land use planning processes<br>Capacity development to:<br>Support integration of climate risks into land use planning and field operations                                    | Limited staff, operation budget and technical capacities (SIG, 2015)  |   |
| MECDM-CCD    | CCD is the division of MECDM that deals with all climate change issues, including reporting to the UNFCCC. For SWoCK it should provide training for the conduct of V&A assessments, | Limited staff and operational budget, highly dependent on ODA projects  | Developed the National Climate Change policy with limited project support. It was strengthened by adaptation officers hired by the project and incorporated into CCD after project end. |

| Organization     | Role in PD   | Capacity issues   | Actual role  |
|------------------|--|---|--|
| MDPAC            | Support to mainstreaming   | Capacity development on mainstreaming climate change into policy will result in financial plans and budgets considering climate change impacts                          | Supported the process of setting up the provincial climate change steering committees  |
| MFMR             | None   | Capacity development on mainstreaming climate change into policy will result in financial plans and budgets considering climate change impacts                          | Feasibility study on the establishment of the integrated aquaculture demonstration at SNRAS<br>Assessment of mangrove afforestation sites in South Choiseul  |
| MoF              | Participation in mainstreaming of climate change concerns into national policy instruments (budgets)   | Not rated   | Not involved   |
| MoME             | Provide technical advice for hydrological models   | Not rated   | Not involved   |
| NDMO             | The NDMO is the state agency responsible for relief operations including food distribution in case of drought or flood. NDMO would use information prepared by the project on food banks for relief operations | Not rated   | Acquired two additional AWS with their own funds bringing the total AWS to 6.  |
| KGA              | Development of a soil management and crop selection manual and provision of technical assistance to communities to develop sustainable production methods  | Insufficient human and technical capacities to deliver the tasks assigned   | Involvement in assistance to communities only from 2014 onwards through the support of the NGO ZainaTina   |
| NGASI            | Assistance to communities to grow and market nut trees   | Insufficient human and technical capacities to deliver the tasks assigned   | Non-performance: NGASI activities assigned to MAL  |
| SNRAS            | Develop training modules on integration of climate risks into land use planning and field operations, through the installation of a GIS laboratory at SNRAS, including IT equipment and software               | Limited staff and available facilities to implement their activities, as well as limited participation in project governing bodies with consequent coordination issues. | Technical assistance to vulnerability assessment through faculty staff<br>Hosting IFS site and GIS-lab (under construction at the time of TE)<br>Food processing trainings failed due to coordination issues |
| WorldFish        | None   | Not rated   | feasibility study on the establishment of the integrated aquaculture demonstration at SNRAS  |
| ZainaTina<br>NGO | None   | Not rated   | Trained lead farmers on adaptative and organic farming techniques and systems  |

### *Selection of beneficiaries*

The selection procedure was initiated by the provincial project coordinators (PPC), in agreement with MAL field office staff. The initial problems experienced by the project in terms of slow recruitment, inadequate skill mix and weak logistic coordination caused several delays in the selection process and lack of regularity in the visits of the PPCs, which significantly delayed trainings and adoption of improved farming practices. All of this caused the community to lose trust on project staff and the selection procedure. Community representatives interviewed consistently identified the high staff turnover and the long periods of inactivity as the main handicaps of the project. However, as the implementation took off in the post MTR implementation period, community perceptions changed accordingly, and, by the time of the terminal evaluation, community members considered the project as having significantly contributed to their livelihood, awareness and skills. Nonetheless, the delay in the full implementation of the community support component had significant effects at results and sustainability, as is described in sections [Effectiveness](#) and [Sustainability](#).

### 3.2.4 GEF Partner Agency (UNDP) execution

UNDP carried most of the administrative project support, including all procurement and recruitment. More importantly, UNDP actively engaged national partners and its own international experts network to provide administrative and technical assistance for the implementation of the project. However, UNDP did generate the perception among national stakeholders to be delaying the project to some degree by overzealously scrutinizing fund expenditure, particularly when either procuring local services that have limited capacities to provide the necessary documentation or the long timeframes for the complex authorization procedures when this involved the Fiji multi-country office.

### 3.2.5 Implementing Partner Agency (MECDM) execution

The implementing partner was actively involved in the project from the design phase throughout the implementation. The National Project Director in particular was of critical importance to facilitate, engage and move national stakeholders to provide support at specific backlogs during the latter part of the project implementation timeframe. However, this active involvement only happened during the second half of the project implementation, after the MTR: the initial role of MECDM was mostly limited to the procurement of meteorological equipment and some degree of technical assistance to vulnerability assessments, while delegating most of the project activities to UNDP and MAL.

### 3.2.6 Conclusions and recommendations (Project Implementation)

The wide scope and complex activity sequence of the project necessarily needed the fine and engaged coordination of a multitude of national actors that did not have, initially, the capacities to perform according to the project document, compounded by the severe challenge of completing the recruitment of a highly skilled PMU in a country with limited population and hence limited pool of professionals with the required skills. The utmost critical role of an energetic project manager was absent during most of the first three years of implementation of the project.

UNDP and MECDM did strive to solve the problems, but with the following limitations:

- Albeit UNDP's role was vital throughout the project and eventually put it back on track to success, it did fail to convincingly convey to national stakeholders the reasons for their financial controls and strict administrative procedures, alienating partners and creating the perception of a "UNDP project" to some degree.
- In spite of the engaged role taken by the National Project Director and the support and engagement of technical and senior officials in implementing particular activities, this only applies to the last two years of implementation: prior to the MTR process the engagement of MECDM seems to have been rather limited participation on what was perceived to be a predominantly agricultural project, while focusing primarily on the meteorological component.

Despite the limitations, both agencies (UNDP and MECDM) did actively engaged in project implementation and strived to provide solutions to the numerous challenges faced in the project and therefore their performance is rated as satisfactory.

Projects implemented in countries with limited pool of human resources should open recruitment at international and national levels from the date of project approval. Limited human resources with necessary skills for the implementation of complex project activities are determined by either a small national population and/ or limited access to tertiary education. International recruitment options would apply for both technical and management positions and particularly for the critical positions of senior technical advisor and project manager. For the case of international project managers, necessary capacities on local knowledge and cultural context would be provided by the UNDP CO and the implementing partner.

UNDP should engage in a more active and duly documented communication with national stakeholders at all phases of the project, from design to implementation and all levels of implementation, including technical assistance and especially administration support. This means adopting a coaching, customer-oriented approach towards national stakeholders at all levels: Not only should management and program staff actively engage with all stakeholders but, critically, procurement and program assistance personnel must take time to coach and guide implementation partners and PMU staff through the procedural steps and timeframes involved in procurement and recruitment process, as well as actively search for solutions to implementation challenges within reasonable timeframes. This will help to create a common understanding and avoid perceptions of lack of transparency and/ or support.

The inputs of UNDP administration and procurement staff on the operational aspect of the project is of critical importance at the design and inception phases, as well as implementation and must be considered at the same level as technical feasibility assessments of project activities. Therefore, UNDP should identify and solve constraints and limitation of its procurement and administration areas by e.g. providing additional manpower or strengthening existing capacities to handle and coach stakeholders with a solution-oriented vision.

Project implementing partners must understand and assume their leadership role regarding responsible parties and lead in coordination and planning, regardless if issues addressed are outside their sector's responsibilities. UNDP would play an important support role in this matter by providing the political leverage and neutrality that such coordination agreements may require. In spite of its comparatively small funding size, UNDP's competitive advantage lies precisely in that the projects supported by UNDP do aim to correct important market or government failures, like, in the case of this project, lack of meteorological information or extension support to isolated communities, which would not normally be addressed by government budgets or bigger donor's sector or budget support approaches.

## 3.3 Results

### 3.3.1 Relevance

SWoCK responds to challenges explicitly mentioned in the Solomon Island's National Adaptation Plan of Action in 2008. In fact, SWoCK is the vehicle intended by the Government of the Solomon Islands to implement several components of NAPA's first project profile, *Managing the Impacts of and Enhancing Resilience to Climate Change and Sea Level Rise on Agriculture, Food Security, Water Supply and Sanitation, Human Settlements, Human Health and Education, Awareness and Education* (MECM, 2008):

1. *Agriculture and Food Security*, which included provincial food banks, crop diversification and tolerant crop species, weather forecasting and weather stations and fruit trees as adaptation measures to achieve increased production, enhanced self-reliance, sustainable land management and the provision of climate information products for land and water management, component
2. *Water Supply and Sanitation*, featuring rainwater harvest, and development of institutional capacities and component
3. *Human Settlements*, which included community vulnerability assessments.

SWoCK also links with the Solomon Islands National Development Strategy (NDS) under the objective of "promoting sustainable use of natural resources to increase production, productivity, value adding and rural incomes", and strategy of "developing agriculture and livestock through agricultural marketing and land planning to improve food security, livelihoods and community sufficiency in the rural areas through targeted multi-disciplinary interventions to diversify agriculture and promote agribusiness and alternative livelihoods", as well as the National Climate Change Policy (NCP 2012-2017) and National Disaster Risk Management Plan 2009 (UNDP, 2009). However, the issues championed by the project have a less prominent role in the Midterm Fiscal Strategy 2012-2017 and the Agriculture and Livestock Policy 2015-2019.

SWoCK also gives answer to issues raised at communities, as recorded by the project and the final evaluation mission, including degradation of ecosystem services such as soil fertility and water catchment, changing patterns in precipitation and growing season, sea level rise and low awareness of climate risks (table 7)

**Table 7. Issues raised by communities assisted by the project**

| Name      | Issues in community profiles produced by the project   | Issues raised at focus discussion groups during the TE mission   |
|-----------|--|--|
| Parego    | <ul style="list-style-type: none"> <li>• Low crop production due to unsustainable farming practices</li> <li>• Soil erosion, pest and disease outbreaks</li> <li>• Lack of knowledge on gardening on slopes and impacts of climate change</li> <li>• No access to markets, transport and communication</li> <li>• Vulnerable to natural disasters</li> </ul>         | <ul style="list-style-type: none"> <li>• Declining crop yields, forest cover and water quality due to population growth, sea level rise and deforestation due to slash and burn practices</li> </ul>   |
| Wanehata  | <ul style="list-style-type: none"> <li>• Low crop production due to unsustainable farming practices</li> <li>• Soil erosion, pest and disease outbreaks</li> <li>• Lack of knowledge on gardening on slopes and impacts of climate change</li> <li>• No access to markets, transport and communication</li> <li>• Vulnerable to natural disasters</li> </ul>         | <ul style="list-style-type: none"> <li>• Declining fish and other marine catches</li> <li>• Low crop yields,</li> <li>• Depleting forest and timber resources</li> <li>• Polluted fresh and seawater sources</li> <li>• Eroding coastlines</li> </ul>  |
| Lilisiana | <ul style="list-style-type: none"> <li>• Lack of access to suitable farmland and poor soil quality</li> <li>• No access to water, forest and land</li> <li>• Coastal erosion and salt water inundation</li> <li>• Lack of knowledge on climate change</li> </ul>   | <ul style="list-style-type: none"> <li>• Insecure access to firewood, soil and water</li> <li>• Declining fish catches</li> <li>• Poor crop yields</li> <li>• Depleting forest and land resources</li> <li>• Polluted fresh and seawater sources</li> </ul>  |
| Daolusu   | <ul style="list-style-type: none"> <li>• Lack of access to suitable farmland and poor soil quality</li> <li>• No access to water, forest and land</li> <li>• Coastal erosion and salt water inundation</li> <li>• Lack of knowledge on climate change</li> </ul>   | <ul style="list-style-type: none"> <li>• Declining fish catches</li> <li>• Poor crop yields</li> <li>• Depleting forest and land resources</li> <li>• Polluted fresh and seawater sources</li> </ul>   |
| Radeakoa  | <ul style="list-style-type: none"> <li>• Limited access to suitable gardening land, soil infertility and poor land use</li> <li>• Salt water inundation due to Sea Level Rise (SLR) and poor water supply system</li> <li>• Unsustainable use of marine resources</li> </ul>   | <ul style="list-style-type: none"> <li>• Insecure access to water: dependent on rain water and contaminated water (saline) due to sea level rise</li> <li>• Insecure access to firewood depending on permission by mainland tribes</li> </ul>  |
| K'manga   | <ul style="list-style-type: none"> <li>• Poor farming techniques and gardening on slopes and lack of knowledge in land systems and land suitability</li> <li>• Lack of crop diversity affects crop production</li> <li>• Degrading soil quality due to slash &amp; burn: shorter fallow period and soil erosion</li> <li>• Poor water resource management</li> </ul> | <ul style="list-style-type: none"> <li>• Low crop yields due to shifting agriculture and destruction of food gardens by pigs</li> <li>• Depleting forest and timber resources due to logging and shifting agriculture</li> <li>• Polluted fresh water</li> <li>• Eroding coastlines due to sea level rise</li> <li>• Strong winds</li> </ul> |
| Tirotonna | <ul style="list-style-type: none"> <li>• Increasing gardening on slopes and near water catchment areas</li> <li>• Lack of water catchment management</li> <li>• Degrading soil quality due to slash &amp; burn: shorter fallow period and soil erosion</li> <li>• Inadequate knowledge on climate change</li> </ul>  | <ul style="list-style-type: none"> <li>• Depleting forest and timber resources due to logging and shifting agriculture</li> <li>• Lack of proper roads to link community to the provincial capital Buala</li> </ul>  |
| Marunga   | <ul style="list-style-type: none"> <li>• NA (non-project community)</li> </ul>   | <ul style="list-style-type: none"> <li>• Decreasing crop yields under subsistence gardening, mainly due to shifting cultivation practice, gardening on sloping land and high rainfall</li> <li>• Inconsistent shipping services to transport copra, cocoa</li> </ul>   |

### 3.3.2 Effectiveness

#### Outcome 1.

Under this outcome, the project conducted a number of trainings including: 2,700 community farmers (30% women) trained in organic and conservation farming techniques and 550 farmers trained in land use planning, as well as developed guidelines for vulnerability assessments and land use planning. The project also provided agricultural tools and assets, such as tools, seeds, planting materials, chicks, materials for poultry houses and raised boxes. Moreover, the project also procured IT equipment to strengthen the capacities of the Land Use Planning Division of the MAL. The following results were observed:

##### *Output 1.1. Community-Based Land Use Plans (CBLUP)*

Community land use plans are expected to rationalize land use, optimize productivity and prevent environmental degradation and land conflict. The project supported the preparation of 18 community land use plans, which were discussed by community representatives in workshops held in mid-2014 and facilitated by SWoCK's provincial officers (Tohaimae, 2015). The plans include a community vision statement for sustainable land use planning, e.g. *in 10-50 years this community would like to be a food secured community, increase crop production through improved farming techniques, improve road access for efficient transportation to market, improve understanding of land system in agriculture and promote youth education and strengthen community collaboration and cohesion*. The plans themselves are simple logical frameworks that include 4 to 5 issues, and corresponding actions, responsible parties and timeframe for implementation. Issues would normally be weak capacities for collective action, as well as land degradation, e.g. soil erosion, loss of soil fertility, deforestation. Corresponding actions involve collective action with support from government and, indeed, SWoCK. Such as reforestation of water catchment. This activity, mapping and marking of the catchment area, reforestation and establishment of tree nurseries for future reforestation, was actually implemented in two communities. However, reforestation of water catchments was not always successful and instances of neglect are reported. Thus, communities may discontinue efforts to protect the catchments if no further support is provided. Moreover, all other actions included in the plans involve development of capacities in emergency preparedness, sea level rise monitoring and farming that are completely dependent on supply by projects and government services. The land use planning process is illustrated in a 10-minute long video produced by the project and available at: <https://www.youtube.com/watch?v=gV2CTtqshiU>. This output would have been supported by training for government and NGO field staff on use of climate information for land use plans (output 1.5). However, the trainings did not have the extent or the intended effect, as there was no systematic use of climate information either in land use plans or vulnerability assessments.

##### *Output 1.2 Vulnerability assessments and improved agricultural practices*

Baseline data and vulnerability assessments were conducted in the target wards during 2013 (SWoCK-PMU, 2013) by teams composed of SWoCK, MAL and SNRAS staff that collected information through participatory rapid rural appraisal methods, including household surveys

transect walk, focus group discussions and seasonal calendar, to obtain biophysical, socioeconomic and agricultural data. Soil samples were also collected for analysis of structure, texture, pH, moisture and stoniness although most of the samples could not be analyzed due to transport and budget constraints. Findings from the vulnerability assessments were then integrated into work plans to enhance food security in the selected wards, i.e. type of training, e.g., training on soil management, food banks with collection of local varieties, etc. (Saunana, 2013). However, the vulnerability assessments, conducted prior to the conclusion of the project's own technical guidelines<sup>11</sup>, diverge in methods and contents, and provide limited justification for the adaptation measures suggested (table 8). Moreover, the information they content was not fed into a geo-referenced database as planned in the project document. In strong contrast, for the province of Choiseul, the project used the vulnerability assessment conducted in 2013 in the frame of the SPC/GIZ-US Aid-SPREP funded project *Securing the Future of Luru Now*<sup>12</sup> (Mataki, Solo, Donohoe, Alele, & Sikajajaka, 2013). This assessment, based on literature review and household and transect surveys, contains a comprehensive description of the main biophysical, meteorological and socio-economic (population, livelihood, income, agriculture, infrastructure) status of the island's communities and ecosystems, and systematically presents the information. Vulnerability is assessed based on a sensitivity analysis and current climate trends and impacts, combining community perception with actual meteorological and survey data.

In spite of the vulnerability assessment shortcomings, the project succeeded in establishing 50 backyard gardens in all targeted communities by selecting lead 10-15 lead farmers per ward, who provided their plots and labor for demonstration and are expected to disseminate the techniques. While most vegetable gardens produce mostly root crops, the project also distributed seed of vegetables such as, as well as saladeer, pak choi and kwan mong (*Brassica spp*), slippery cabbage (*Abelmoschus manihot*) tomatoes (*Solanum lycopersicum*), eggplant (*Solanum melongena*), shallots (*Allium cepa*), beans (*Phaseolus sp*) and *Capsicum spp*, to provide essential nutrients traditionally collected from forest wild vegetables, now scarce. Different varieties of staple crops were also collected and distributed to communities, essentially varieties of sweet potato (*Ipomeoea batatas*), taro (*Colocassia spp*), yams (*Dioscorea spp.*) and swamp taro (*Cyrtosperma merkusii*), as well as banana (*Musa cultivars*). Additionally, soil management techniques such as contour farming (with trees and vetiver grass to set the contours), composting, mulching were demonstrated in all 18 communities.

Integrated farming systems (IFS) are combinations of livestock, fishponds and crop farming activities to increase smallholder farm productivity and income, common across South Asia and South East Asia. Project's IFS would have included a small 25 m<sup>2</sup> pond for *Tilapia sp*, and a poultry house but adoption was very limited due to supply constraints: pipes and other materials. (Wasi, 2016). The project also distributed 180 chicken and supported construction of poultry houses that have already generated significant gross benefits at farm level with little mortality. Additionally, a demonstration plot with four up-scaled ponds and corresponding poultry houses was being built at SNRAS at the time of the terminal evaluation. **The site is intended to become a community training center, albeit the size, equipment (well, pump, pipes) and materials (poultry houses) would not be available at communities.**

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<sup>11</sup> The technical guidelines were only completed in 2014

<sup>12</sup> Available online: <https://www.sprep.org/publications/choiseul-province-climate-change-vulnerability-and-adaptation-assessment-report-solomon-islands>

Adoption rates reached 65% to 100% of project households for root crop diversification, food banks and composting and mulching but only 4 to 25% of the costlier, more labor intensive techniques, such as contour farming and integrated farming systems (table 9). Poultry was very successful but only adopted by households who were provided with chicks. Farmers assessed the project's contribution as an overall positive, and the techniques introduced as new, even considering the project's limitations in distribution of tools, water tanks, seeds and livestock inputs. All farmers interviewed are actively implementing one or several practices supported by the project and have reported actual or expected gains in plot productivity (table 10) as a result of soil management techniques adopted. Moreover, some farmers reported additional benefits obtained from the sale of poultry and/ or vegetables (table 11) that at least in one count are contributing to pay for the household's primary education expenditure. Gross benefits obtained by poultry operation ranged between SBD 1,950 and 4,750 (USD 446 to 600) per batch of ca. 20 chicks in the three island communities where data was collected. Gardening productivity varied greatly between the three zones, reaching an average of SBD 1,735 (USD 219) at island communities and an average of SBD 328 in the mainland communities (weather and leeward coasts) or USD 41. The differences in revenue generated can be accounted for by the proximity to markets and mobility of the communities at small artificial islands, who are mainly fishing communities and have access to boats. Annex 7 contains pictures of different measures undertaken in communities with project support. The project has also produced videos on its agricultural activities, namely organic gardens in small islands, <https://www.youtube.com/watch?v=grAz2T0g-fs> and improved germplasm and bulking <https://www.youtube.com/watch?v=fofOpMe0aGE>.

#### *Output 1.3. Food Banks*

Food banks are plots that can be maintained over long time with resilient crops, tolerant of heavy rainfall, drought and pest, e.g. giant swamp taro or kakake (*Cyrotosperma merkusii*), wild yam (*Dioscorea bulbifera*) and fruits and nuts, e.g. bread fruit (*Artocarpus altilis*), banana (*Musa cultivars*) and sago palm (*Metroxylon rumpiti*). They have been promoted by the project at community level and are spontaneously replicated by families (Tohaimé & Odoná, 2015). Local varieties of taro, sweet potato, yam and banana were collected to test yield in different conditions from across the five provinces of the project, in close coordination with the Research Division of MAL. However, most test plots generated no valid data due to mismanagement and neglect. Nonetheless, 3 provincial and 40 community food banks were created with collected varieties. It is expected that private and provincial plots be used to assess crop yields, formally, with support from MAL or informally, by community members and use according to necessity and conditions.

#### *Output 1.4. Food processing*

Establishment of community food processing ventures, intended as IGA and emergency food storage did not take place. Although some equipment was procured by the project, cross visits for MAL and SNRAS officials conducted, and some training at community level, the equipment is yet to be used, requiring appropriate facilities according to MAL officials. Equipment intended for communities was never acquired, as weak coordination between PMU and SNRAS prevented the inclusion of this activity in the work plan in 2013.

**Table 8. Comparison of vulnerability assessments conducted by SWoCK**

| Province | Methods  | Socio-economic variables   | Agriculture & Livestock   | Climatic  | Climate change impacts  | Adaptive capacity   | Conclusions   | Adaptation measures proposed  |
|----------|--|--|---|---|---|---|---|---|
| Malaita  | Household surveys, focus group discussions, seasonal calendar, transect walks, informal interviews | Average # of people per household, sources of food supply, access to land, sources of income | Main crops, staples, farming practices, trends in productivity, livestock housing and feed types  | NA  | Food production, adaptation measures, food source in emergencies                        | NA  | Limited access to garden land<br>Narrow crop base<br>Livestock common (chicken and pigs)<br>Dependent on marine resources<br>Declining productivity, salt intrusion and flooding as climate related threats | Soil management<br>Crop diversification<br>Pest and disease management<br>Backyard gardening  |
| Isabel   | Household surveys, focus group discussions, transect walks, informal interviews                    | NA   | Soil structure, pH, slope, texture, main crops, processing methods,   | Temperature, precipitation, wind, disasters, livelihood activities, bio-indicators, food production, infrastructure | Prevalence of pest and diseases<br>Declining productivity<br>Food scarcity              | Assessment: weak  | NA  | Soil management<br>Crop diversification<br>Pest and disease management<br>Contour farming<br>Food bank  |
| Makira   | Household survey, soil test, focus group discussion, seasonal calendar, transect walk              | Population, # of households, range # of people per household, family expenditure             | Plot size, main crops, cash crops, soil structure, pH, texture, moisture, stoniness, productivity, farming tools, farming practices, pest and diseases, livestock types, feeds, prices and challenges | Temperature, precipitation, wind, disasters, seasonality  | Changes in wind strength and direction<br>Increase number of hot days<br>Sea level rise | Household adaptation measures: done nothing, moved plot inland, extend fallow period, replant, reduce crops, reduce fallow period, change crops | Low yields<br>Prevalence of pest and diseases<br>Water logging and erosion<br>Poor soils  | Provision of capital to cocoa farmers<br>Establishment of markets<br>Promotion of eco-tourism<br>Establishment of livestock farmer's association<br>Installation of AWS |

**Table 9. Adoption of measures from project support and trainings**

| <b>Community</b> | <b>Project supported measures</b>  | <b># HH adopted</b> | <b># Project HH</b> | <b>% project HH adopted</b> |
|------------------|------------------------------------|---------------------|---------------------|-----------------------------|
| K'manga          | Contour farming                    | 1                   | 23                  | 4%                          |
|                  | Household food bank                | 20                  | 23                  | 87%                         |
|                  | Mulching and composting            | 15                  | 23                  | 65%                         |
|                  | New sweet potato varieties         | 15                  | 23                  | 65%                         |
|                  | Raised boxes                       | 2                   | 23                  | 9%                          |
| Tirotonna        | Contour farming                    | 1                   | 18                  | 6%                          |
|                  | Household food bank                | 18                  | 18                  | 100%                        |
|                  | Mulching and composting            | 15                  | 18                  | 83%                         |
| Raeaekoa         | Poultry operation                  | 10                  | 20                  | 50%                         |
|                  | Vegetable gardens in raised boxes  | 20                  | 20                  | 100%                        |
|                  | Vegetable nursery                  | 20                  | 20                  | 100%                        |
| Daulusu          | Integrated farming systems         | 3                   | 13                  | 23%                         |
|                  | Poultry operation                  | 10                  | 13                  | 77%                         |
|                  | Raised boxes for vegetable gardens | 13                  | 13                  | 100%                        |
|                  | Vegetable nursery (seeds)          | 13                  | 13                  | 100%                        |
| Lisiana          | Poultry operation                  | 10                  | 10                  | 100%                        |
|                  | Vegetable gardens in raised boxes  | 10                  | 10                  | 100%                        |
|                  | Vegetable nursery (seeds)          | 10                  | 10                  | 100%                        |
| Wanehata         | Contour farming                    | 3                   | 20                  | 15%                         |
|                  | Food bank                          | 20                  | 20                  | 100%                        |
|                  | Mulching and composting            | 10                  | 20                  | 50%                         |
|                  | New crop varieties (pana, yam)     | 20                  | 20                  | 100%                        |
| Parego           | Food bank                          | 20                  | 20                  | 100%                        |
|                  | Mulching and compost               | 20                  | 20                  | 100%                        |
|                  | New crop varieties (pana, yam)     | 20                  | 20                  | 100%                        |

**Table 10. Project benefits and changes in the communities.** Extracts from community interviews

| Community | Project benefits   |
|-----------|--|
| Parego    | <ul style="list-style-type: none"> <li>• Slight improvement in food security, bringing back lost crops like yam and pana.</li> <li>• Lead farmers and community members adopted the new gardening techniques such as mulching, composting, crop rotation, without burning, resulting in improving soil nutrients and structure, increasing yield, crop diversification, improving family diet and nutrition, as well as some (limited) additional earnings</li> <li>• Broader understanding of climate change</li> </ul>   |
| Wanehata  | <ul style="list-style-type: none"> <li>• Different farming methods and techniques to the community</li> <li>• Unity and encouragement of community participation: Initially started with 10 lead farmers now the interest increases and brought together 20 plus farmers who adopted the idea and technologies</li> <li>• Improves yield of tuber crops and leafy vegetables, addressing health and food nutrition issues, as well as limited income generation through sales</li> </ul>   |
| Lilisiana | <ul style="list-style-type: none"> <li>• Provision of water tanks (3x1000 liters) but not sufficient to cover water needs for crops and human consumption, ideally 15,000-liter capacity</li> <li>• Training, provision of tools and setting up of gardening boxes and nurseries</li> <li>• Provision of 5 chicken to 10 farmers and training in poultry that is already producing gross benefits</li> </ul>   |
| Daolusu   | <ul style="list-style-type: none"> <li>• Production of vegetables, chicken meat, and some additional income</li> <li>• Enhanced family/household/community cooperation and cohesiveness, harness community coordination and confidence</li> <li>• Encouraged institutionalization and good governance</li> </ul>   |
| Radeakoa  | <ul style="list-style-type: none"> <li>• Provision of water tanks (2x1000 liters) but not sufficient to cover water needs for crops and human consumption, ideally 5,000-liter capacity tank per household</li> <li>• Training, provision of tools and setting up of gardening boxes and nurseries</li> <li>• Provision of 5 chicken to 10 farmers and training in poultry that is already producing gross benefits</li> <li>• <b>Income generated paid school fees and meet basic household needs</b></li> </ul>  |
| K'manga   | <ul style="list-style-type: none"> <li>• Unity and encouragement of community participation, as well as some knowledge and skills to build resilience to the effects of climate change risks</li> <li>• 15 lead farmers have adopted improved agricultural methods: mulching and composting, as well as raised boxes. Some also have adopted contour farming. Productivity has increased and new land has been brought under production, and farmers are convinced that the soil improvement techniques they use whether on backyard or contour farming helped to improve soils and the growth of crops planted, but they said it will take some times to actually see any significant results</li> <li>• Provision of agricultural tools</li> </ul> |
| Tirotonna | <ul style="list-style-type: none"> <li>• Family/household/community cooperation and cohesiveness, harness community coordination</li> <li>• Reintroduction of banana, yam and pana to the community's subsistence food gardening and <b>discouraged slash and burn agriculture</b> as it destroyed the biological and nutrient cycling system</li> <li>• Tree planting to protect and conserve the water catchment</li> <li>• Lead farmers are convinced the soil improvement techniques they use whether on backyard or contour farming helped to improve soils and the growth of crops planted, but they said it will take some times to actually see any significant results</li> <li>• Provision of agricultural tools</li> </ul>                |

**Table 11. Additional gross benefits per zone per activity with description of the activity**

| Zone    | Activity  | Average plot size (m <sup>2</sup> ) | Crop/ Livestock  | Zone average gross benefits gardening per crop cycle (SBD) | Zone average productivity per m <sup>2</sup> gardening (SBD) | Zone average gross benefits poultry per batch (SBD) |
|---------|---|-------------------------------------|--|--|--|---|
| Leeward | Gardening in raised boxes with compost and mulching<br>Contour farming on slope with compost and mulching | 242                                 | Slippery cabbage, Chinese cabbage, beans, sweet potato, pitpit   | 396.67   | 1.64   | NA  |
| Island  | Gardening in raised boxes and mulching  | 55                                  | Long beans, tomatoes, Chinese cabbage, paw-paw, banana, eggplant, green pepper, slippery cabbage, and bush cabbage | 1.735.00   | 25.77  | NA  |
|         | Poultry   | NA                                  | 45 chicken (2 batches of 25)   | NA   | NA   | 5.798.33  |
| Weather | Garden of flat land with mulching   | 213                                 | Corn, sweet potato, cassava, banana, pana  | 258.75   | 1.22   | NA  |

## Conclusion: achievement of the intended outcome and outputs

The outcome has been achieved in terms of its indicators (table 12) i.e. 18 wards have completed a land use planning process and have implemented improved practices to increase yields, as well as established emergency food banks that can also serve as genetic reservoir of common crop plants. Changes in productivity at farm level and household income are discussed in section [Impact](#).

Although, the formal planning process at community level in the 18 communities supported by the project is still at its infancy, compounded by the weakness of the policy and regulatory framework (see outcome 2), farming household confidently expressed that the project has developed their awareness and capacities to plan and confront climate risks. Moreover, the agricultural practice that the project has supported have been internalized and farmers do express confidence in obtaining better yields even out of plots abandoned due to degradation.

However, it must be noted that communities interviewed for the terminal evaluation unanimously manifested the need for further support, both as technical assistance (extension services), as grants and donations of materials and tools.

Although there have been some shortcomings, most notably the failure to setup food processing operations at target communities, and that more external support would be needed for the implementation of community plans, outcome 1 has been achieved in the sense that improved agriculture which could improve resilience to climate change, together with planning methods that have helped communities better manage collective actions have been introduced and have been adopted by farmers in 18 wards.

**Table 12 Targets and assessment of outcome 1**

| Indicator (target)   | Status   | Achievement  | Rating (points)         |
|--|--|--|-------------------------|
| 18 wards have integrated climate risks into land use and agriculture production aspects          | Land use plans (LUP) have been prepared in 18 wards across the three ecosystem types and five provinces. LUPs require continuous support for their implementation  | The target has been partially achieved as the completion of LUPs necessary step in the mainstreaming of climate risk. However, the plans cannot be implemented without further support     | Satisfactory (5)        |
| 18 wards developing climate-resilient farming and aqua-culture production techniques and systems | Climate resilient measures, such as organic backyard gardens, and to some extent soil management and food banks have been introduced/ tested in 18 wards with a total of 123 farmers. However, adoption was limited and documentation of yields absent or incomplete | Farmers beneficiaries of the technology transfers and tools rate the inputs very positively but hardly system-changing. Further support would be needed to assess and document performance | Satisfactory (5)        |
| <b>Total rating outcome 1</b>  |  |  | <b>Satisfactory (5)</b> |

The TE rates the effectiveness of the outcome, based on observed changes at community level described above and the achievement of the indicators, as satisfactory. However, the failure of some of the components of the outcome must be noted (table 12) and the fact that they are not reflected in the outcome indicators.

**Table 12 b. Output rating for outcome 1.**

| Output | Rating         | Expenditure  | Justification for rating   |
|--------|----------------|--------------|--|
| 1.1    | Satisfactory   | 823,503.70   | All community plans were formulated and adopted by communities. However, plans require external support and they are not explicitly linked to systematic climate data                    |
| 1.2    | Satisfactory   | 1,470,645.26 | Improved practices adopted at all 18 target wards, with promising results. However, adoption ratio is very limited   |
| 1.3    | Satisfactory   | 187,000.00   | Food banks set up, and rated as positive by respondents at communities. However, systematic collection of data has not been conducted.   |
| 1.4    | Unsatisfactory | 734,435.62   | Food processing equipment procured but never used. Limited training for communities did not resulted in adoption as community based component not implemented due to coordination issues |
| 1.5    | Unsatisfactory | 198,000.00   | Trainings conducted have not resulted in systematic integration of climate data into vulnerability assessments or land use plans   |

## Outcome 2

### *Output 2.1. Climate change mainstreaming*

The project supported the development of the National Rural Development and Land Use Policy (NRDLUP) 2015-2019, the revision and mainstreaming of climate change risks into the Agriculture and Livestock Sector Policy 2009-2014, as well as developed guidelines and training modules for the integration of gender considerations into agricultural policy. Also, the project has contributed to the development of instruments planned in the National Climate Change Policy of 2012, namely Provincial Climate Change Steering Committees (PCCSC) in the provinces of Malaita, Makira, Isabel and Guadalcanal. The PCCSCs are established to coordinate and integrate climate change at the provincial level and were established in 2015 and 2016.

The NRDLUP is expected to be implemented over 5 years from 2015 onwards with the objective of promoting and mainstreaming formal land use planning processes in the Solomon through the development of institutional partnerships for collaboration, coordination, integration and resource sharing. The NRDLUP considers land use planning as a primary entry point to mainstreaming climate change risks into planning processes. The policy was developed jointly by the SWoCK PMU with the support of an international technical advisor and the involvement of the Ministry of Agriculture and Livestock through its permanent secretary and PB member. The policy includes provisions for monitoring and evaluation, including a midterm review in 2018 and a final evaluation in 2020, but, crucially, it does not include costing or a reference to fund sources or a timeline of activities (Prior, Saelea, Fidali, & Sefa, 2015).

Likewise, the project also supported the revision for the new Agriculture and Livestock Sector Policy (ALSP) 2015-2019 that would supersede the former planning cycle of 2009-2014. SWoCK collaborated with the European Union-funded, SPC implemented Pacific Agriculture Policy Project (PAPP) to review the policy through a multi-stakeholder workshop to discuss mainstreaming of climate change risk into the agriculture sector (SWoCK PMU, 2015) (SIBC, 2015). The new ALSP has the objective of achieving food sovereignty and improving rural livelihoods through the promotion of agriculture for import substitution and increasing trade or the key priority crops cocoa, coffee, kava, palm oil, coconut, rice, and vanilla (PAPP, 2015). To achieve its revenue objectives, the policy sees the role of MAL as provider of infrastructure and extension services to farmers, as well as promote agro-processing (for export) and disaster risk mitigation and climate change adaptation. The stated priority objectives are: development of oil palm production, establishment of commercial rice production, rehabilitation of product developments of coconut and cocoa and the revival of the cattle industry. The smallholder objectives are limited to improve the sustainability of small livestock projects and improve production and processing of staple food crops and spices. However, the ALSP does cite the LURDP and stresses the importance of facilitate land use planning processes, albeit without concrete actions. Climate change is also cited as a threat and proposed actions are coordination with the MECDDM and the development of plans and approaches (PAPP, 2015).

The Provincial Climate Change Steering Committees (PCCSC) are part of the 2012 National Climate Change Policy (NCCP) that proposes, under its title 8, the development of provincial climate change strategies, and the establishment of formal climate change coordination agreements within provincial governments. Functions of the “formal coordination agreements” are not defined but it is understood that they should promote the mainstreaming of climate

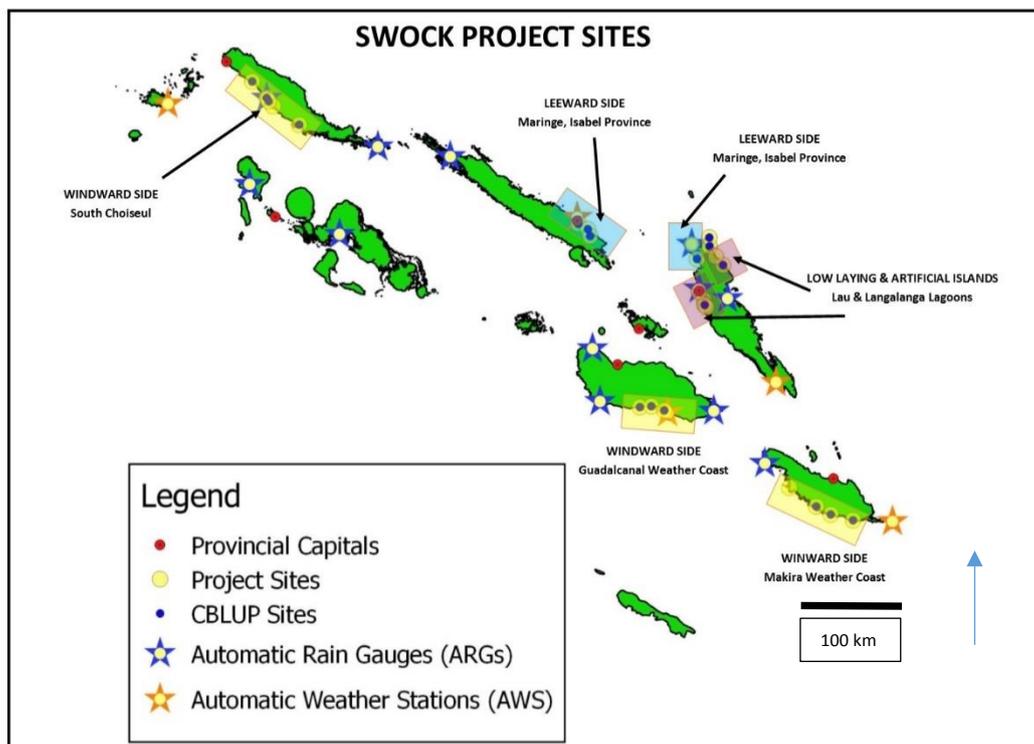
change into provincial planning processes. As in the case of the NLURDP there are no concrete timetables or mechanisms for implementation defined therein. The development of the NCCP was supported by the through the Pacific Adaptation to Climate Change (PACC) Project implemented through the UNDP, and executed by the Secretariat of the Pacific Regional Environment Program (SPREP) with additional support by SWoCK project at the beginning of its implementation (MECDM, 2011).

*Output 2.2. Strengthening of meteorological services*

The capacities to generate meteorological information by the Solomon Islands Meteorological Services (SIM) have been expanded from a baseline of just five manual weather stations at the beginning of the project to the current **additional 6** automatic weather stations (AWS) and 8 Automatic Rain Gauges (ARG). Of the ASW, four were procured and installed with SWoCK funds and two were funded by the National Disaster Management Office (NDMO). Although the project procured 12 ARGs four are still pending installation due to SIMS budget constraints. To permit the reception and process of the data generated by AWS and ARGs the project also procured the corresponding server and other IT equipment. The procurement package included the training of SIMS by the AWS provider, the National Institute of Water and Atmospheric research (NIWA) of New Zealand.

**Figure 10. Location of project sites and AWS and ARGs (PMU, 2016)**

NMDO’s AWS at Tikopia, in the far East, 725 km SE from San Cristobal (Makira) not shown. The other NMDO AWS is wrongly positioned on Shortland Island (Western Province), while its actual location is Mono Is. 30 km to the SW of the depicted location.



The new AWS have already enabled SIMS to generate and disseminate, through its webpage, real time data as well as more accurate daily forecasts <http://www.met.gov.sb/public-weather-forecast>, as well as a three-months rainfall outlooks, <http://www.met.gov.sb/3-months-rainfall-outlook>, of critical importance for agricultural planning. The installation and service of the AWS can be seen in a 10-minute video produced by the project and available at: [https://www.youtube.com/watch?v=wayWZ\\_2-Vyo](https://www.youtube.com/watch?v=wayWZ_2-Vyo).

However, as of September the first, 2016, only real time data from three stations was available through the SIMS webpage. Moreover, the dissemination of data remains a critical challenge in the Solomon Islands. Internet access is marginal and certainly not available in remote communities, whose only access to the outside world would be in many cases UHF radios located in the main coastal settlements. In spite of the huge impact in terms of meteorological capacity, the optimal weather station density for the Solomon Islands is far from being reached: highland stations are of special importance for agriculture and flood early warning information. Moreover, developing of meteorological products for agriculture will not only need additional AWS but the generation of corresponding research on crop response to climate variables to be able to formulate and test the corresponding models. A major shortcoming was the failure to secure budget for the installation of four automatic rain gauges that are still stored at the SIMS headquarters in Honiara. Their eventual installation will depend on the provision of sufficient budget for their shipping and installation, mostly local labor, which will not be available this year.

Finally, SWoCK also procured a rotating laser level and laser detectors, standard engineering and mapping equipment to map contour lines and be able to monitor sea level rise. A mapping exercise was conducted by PMU staff in 3 villages in Isabel province, using said equipment (Tooler & Leghuau, 2013). The equipment is now regularly used by the MECDM to monitor water level changes.

### *Output 2.3. National Capacities: CLEWS and GIS*

The project design foresaw the establishment of an ambitious knowledge management structure that would include a georeferenced database that would include Climate Early Warning Systems, which would be setup, on the one hand by the procurement of the AWS and ARGs and the establishment of a GIS facility at the Climate Change Division of MECDM together with a massive training drive involving at least 200 government officials and establishing a training facility at the School of Natural Resources and Applied Sciences.

Although basic GIS training at SNRAS was imparted by a project-hired expert, who also developed teaching modules, and 35 Government field staff (SIMS and MAL Extension) were trained to use AWS and ARG data and on CLEWS basics (PMU, 2016) using NIWA modules, the GIS training facility is yet to start operation and there has been no actual development of early warning systems or systematized GIS-based vulnerability assessments or database.

The reasons for the shortcomings can be tracked down to the failures already identified in this report in section [Project Strategy](#), namely lack of vision of the timeframes involved in the significant procurement processes needed, failure to adequately assess SNRAS capacities to host the GIS lab and likely lack of common understanding on the complexities involved in the setting up and operation of agricultural early warning systems, not counting the communication of climate products to end users, compounded with the long periods without project operations at several times during the first three years of project implementation.

## Conclusion: achievement of the intended outcome and outputs

Policies such as the project supported National Land Use Planning and Rural Development, the National Climate Change Policy, the 2007 World Bank-supported Agriculture and Rural Development Strategy and many others do constitute interesting policy exercises that created awareness and development of capacities to formulate plans and policies, as well as potentially serve to create synergies among donors and government agencies. But the fact remains that they are formulated within the frame of donor-driven initiatives, which, although they may count with full government support, they rarely belong to the core priorities of the government, as reflected in fundamental documents like the Medium Term Fiscal Strategy (MTFS). The MTFS is very much centered in economic growth through the enhancement of the export sector, fundamentally natural resources: mining, fisheries and logging. Thus, the main actual priorities of the government are, other than creating an enabling environment for business and investment, the development of key infrastructures, such as power generation plants, airports and mining and fishing ports, as well as the development of the productive sectors by removing barriers to growth, especially tourism, agriculture, mining and fishing (Ministry of Finance and Treasure, 2013). In this sense the new Agriculture and Livestock Policy, oriented to the development of export crops, is better aligned with said priorities.

All this does not mean that donor-supported initiatives that aim to build community resilience to climate change are not needed. However, more work is needed to bring climate change concerns closer to the core decision-making and the central line-ministers of Planning, Finance, Agriculture and Public Works. Failure to tap public funding and interest for adaptation or smallholder support measures will bring all the donor-supported efforts to a dead track.

The 100% expansion of the national meteorological network, from 5 to 11 weather stations and consequent improvement of capacities to deliver specific climate services like seasonal forecasts and early warning has been a great accomplishment of the project. However, there is still a long way to go in terms of achieving an adequate density of weather stations, covering a minimum of locations to be able to effectively work as part of flood or drought early warnings systems. Moreover, the dissemination of information and the capacities of the intended end users, smallholder farmers, to access and interpret the information still needs the development of said capacities and the corresponding communication channels. The financial and human resource constraints facing the National Weather Services compounded by the rigidity of government budgetary cycles and the weakness of public sector management in the Solomon Islands (ADB, 2012) (AUSAid, 2013) have also hampered the full delivery of this important outcome, as four of the 12 automated rain gauges are still pending to be installed. While the SIMS remains confident of achieving a sufficient budget envelope or further external support to allow the continuation of the installation of the equipment procured by SWoCK, the SIMS, the project, the MECDM and the UNDP should have better planned and coordinated to avoid wasting equipment life time and risking its deterioration. Again, this is partly a consequence of the difficult history of the project and the weakness of management during its first three years of implementation.

Setting up and running early warning systems or a climate and environmental database is a complex process that would have required more careful planning and better baseline assessments. However, both the UNDP and SIMS have experience in this field, e.g. through GEF-funded projects such as the project ICCRA&HSS – Integrating Climate Change Risks in the Agriculture and Health Sectors in Samoa (MNRE; MAF, 2014), which also counted with collaboration from NIWAS. SIMS runs a relatively simple, yet effective malaria early warning

system, MalaClim, that emits periodic bulletins based on precipitation forecasts. Given the knowledge and experience gathered by both organizations and the sufficient budget capacity within SWoCK to procure the necessary equipment and recruit the required experts to help setup the system, the performance shortcomings can only be attributed to the project's excessively wide scope and leadership and management weakness at the initial stages of the project implementation by both UNDP and MECDM. Nonetheless, some capacities on setting up CLEWS have been developed in terms of skills learned by MAL and MECDM officials and indeed the equipment procured, as well as the expected shortly start of operation of the SNRAS GIS lab as training facility.

Therefore, in view of the shortcomings of this outcome, and in spite of the significant contribution made by the project to the Solomon Islands Weather Services, the terminal evaluation must rate this outcome as marginally satisfactory.

**Table 13. Targets and assessment outcome 2**

| Indicator (target)   | Status  | Assessment  | Rating (points)                    |
|--|---|---|------------------------------------|
| Three policy and legislative frameworks (new Food Security Policy, Land Use Policy, and Agriculture Act) of national and four provincial governments incorporate climate change risks  | 2 national policies have been developed and reviewed to incorporate climate change issues. Provincial climate change steering committees may serve as basis to integrate climate change into provincial planning processes  | Although 2 out of three national policies and 4 out of 4 provincial planning mechanisms achieved actual implementation needs development of implementation mechanisms   | Marginally satisfactory (4)        |
| At least 3 automatic weather stations established and 12 manual weather stations installed in the country, meeting WMO standards and contributing data to national weather service and early warning system  | 6 automatic weather stations (4 funded by the project) and 8 automatic rain gauges (12 procured) have been installed and are generating meteorological data   | The over 120% increase in data capacity puts the Solomon Islands on track to achieve appropriate early warning systems and a better integration of meteorological data into agricultural planning.  | Satisfactory (5)                   |
| 200 officers at the policy and field officer level within MAL, MECDM, NGOs and SNR trained in methods to support communities integrate climate considerations into agriculture production and land-use planning.   | At most, 75 officials and farmers have been trained   | The target of 200 was a gross overestimation considering the limited staff of the government agencies. However, the target has not been reviewed, e.g. at MTR   | Marginally satisfactory (4)        |
| GIS laboratory and GIS based agriculture and climate information system established. 16 MAL MECDM and SNR staff trained and at least 12 training courses developed and implemented on climate-sensitive land-use planning for policy makers, field staff and community representatives | GIS laboratory facilities is under construction at the time of the terminal evaluation. A training module for GIS has been provided by the project to SNRAS and will be used in future courses offered. GIS capacities have also been increased at the Land Planning Division of MAL with training and equipment. | The GIS laboratory seems to be near completion. However, the laboratory and GIS capacities were to be an important part of the land use planning sequence of activities. To date, a GIS based agriculture and climate information system is still far from being achieved | Marginally unsatisfactory (3)      |
| <b>Total rating outcome 2</b>  |   |   | <b>Marginally satisfactory (4)</b> |

The indicators of outcome 2 are aligned with its three outputs, and hence the assessment of results at output level is the same. Table 13b lists expenditure and rating per output.

**Table 13 b. Output rating for outcome 2.**

| <b>Output</b> | <b>Rating</b>             | <b>Expenditure</b> | <b>Justification for rating</b>  |
|---------------|---------------------------|--------------------|--|
| 2.1           | Marginally Satisfactory   | 132,000.00         | Climate change policy and land use policy not linked to budget and unlikely to be implemented without external aid                                 |
| 2.2           | Satisfactory              | 395,999.63         | 100% expansion of national meteorological network, but 4 ARG still to be installed   |
| 2.3           | Marginally Unsatisfactory | 279,000.00         | Capacities of SNRAS and coordination issues impeded timely realization of GIS training facility, which cascaded down by hampering training efforts |

## Outcome 3

### *Output 3.1, lessons learned and best practices*

A number of communication and knowledge products were produced by the project, including videos, radio programs, brochures, factsheets, case studies and a webpage.

Five 10-minutes video documentaries on automatic weather stations, women and climate change adaptation, integrated community based land use, improved germplasm and bulking and organic farming in the backyard<sup>13</sup>. The videos were uploaded in November 2015 and have been seen 908 times as of September 2<sup>nd</sup>, 2016.

24 monthly 15-minutes radio programs on national public radio were broadcasted during 2015 and brochures in English and Pijin English on climate change, on common pests and diseases for potatoes, taro, cabbage and cassava have been produced. The project has also printed the community based land use plans, existing MAL manuals and copies of the Land Use and Rural Development Policy as well as factsheets of the project.

A project website <https://undp.exposure.co/af-solomon-islands> was also launched, but it just contains a visually attractive but brief description of the project's context and goals. However, it does contain a link to the project's site at UNDP's Climate Change Adaptation portal: <http://adaptation-undp.org/projects/af-solomon-islands>. The site contains background of the project, links to the project's videos and some reports up to 2011. More details are found at the Adaptation Fund's project page, [goo.gl/goo.gl/al258A](http://goo.gl/goo.gl/al258A) that includes limited financial information and the project's performance reports.

Also, four case studies on project results have been prepared by SWoCK with support by an external consultant: community based land use planning, vulnerability assessment, backyard organic farming and women and climate change adaptation. The case studies were prepared by April 2016 and provide a good overview on the accomplishments of the project. However, their only purpose seems to be communication and awareness as they do not contain any rigorous quantitative data that would help e.g. in replication of experiences.

A project's communication strategy was supposed to guide the production of the project's communication and knowledge products, but it could only be completed by 2014, giving it only two years to be implemented

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<sup>13</sup> Available at:

[https://www.youtube.com/watch?v=wayWZ\\_2-Vyo](https://www.youtube.com/watch?v=wayWZ_2-Vyo)  
<https://www.youtube.com/watch?v=QoVZDMeGlls>  
<https://www.youtube.com/watch?v=gV2CTtqshiU>  
<https://www.youtube.com/watch?v=fofOpMe0aGE>  
<https://www.youtube.com/watch?v=grAz2T0g-fs>

### Output 3.2 Training materials

Several manuals have also been printed, including a community based land use planning modules for community training, including a gender training manual, a sea level rise mapping manual (i.e. basics of topography), and a food bank handbook (guidelines). The intended target audience of the manuals are development practitioners, especially extension officials from MAL and other agencies. However, the printed materials need yet to be disseminated and reach their targets before any assessment of their effectiveness could be performed.

### Conclusion: achievement of the intended outcome and outputs

While the project has certainly achieved and exceed the outcome indicator on number of communications products, the intended outcome was to enhanced national capacities to share and communicate *knowledge on adapting to climate change in a systematic manner* at the community and regional level what the project has only marginally achieved. A systematic dissemination of climate change and adaptation knowledge would have entailed systematic collection of quantitative information, including, as originally intended, soil characteristics, yields and other environmental and climatic parameters and the setup of a knowledge sharing platform to access said information that would enable the production of different communication products, from awareness materials to research and policy papers.

Again, the main factor underlying the shortcomings in this outcome, as for the rest of the project, was the initial weaknesses of the project's management structure, compounded by the fact that the project's communication strategy was only completed less than two years before project completion. This fact likely explains that the range of communication and knowledge products does not seem to have any clear target or objectives, e.g. increasing awareness among a specific target group or develop technical skill for another group, or any methodology to evaluate results, e.g. post-course surveys. Therefore, it is difficult to assess the effectiveness of e.g. brochures with technical information on common pests and diseases for farmers. Given the demand for continued technical support by communities interviewed in the course of the terminal evaluation, we can assume that brochures are by far insufficient. Moreover, much of the communication and awareness materials, including the four case studies have yet to be published, at least online on the project's webpage<sup>14</sup>.

However, the project still possesses quantitative information on farm productivity, soil and water quality, and community processes: geographical data such as locations (polygons and points), environmental parameters such as soil parameters, yield, productivity, plant diseases, socio-economic data such as livelihoods, foods, practices among others. This data, which remains dispersed in a number of computers and records and different file formats could still be consolidated and made available online either as part of a report or as a data base.

The indicators outcome 3 are listed, assessed and rated in table 14.

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<sup>14</sup> As of September 2nd 2016

**Table 14. Targets and assessment of outcome 3**

| Indicator (target)  | Status   | Assessment  | Rating (points)                    |
|---|--|---|------------------------------------|
| At least 5 knowledge products per year developed and disseminated   | The total number of communication/ knowledge products exceeds the target   | Knowledge products could have been produced in a more systematic manner   | Satisfactory (5)                   |
| Solomon Islands is able to share its experiences on adaptation to climate change in the agriculture and food security sector with other countries within the country, the Pacific and globally by exchange of site visits, organizing a forum and disseminating information through the social media. | The project has briefly shared its experiences through local and regional media, as well as the internet, and some learning tours have been conducted for government and SNRAS officials | Systematic collection and management of climate, agriculture and environmental information, prerequisite to achieve the outcome not completed. However, some material has been and officials have been trained. | Marginally satisfactory (4)        |
| At least four case studies generated by the project are incorporated and used in SNR training courses to promote and raise knowledge and understanding of young Solomon Islanders on climate change adaptation in the agriculture sector  | Four case studies have been developed,   | The case studies would need to be published and incorporated into teaching modules  | Marginally satisfactory (4)        |
| <b>Total rating outcome 3</b>   |  |   | <b>Marginally satisfactory (4)</b> |

In terms of outputs, the results have been satisfactory in terms of actual production of materials, but not satisfactory in terms of effectiveness of these materials. This can be tracked down to design weaknesses, as the outputs described in the project document either did not specify what would be the expected effect of the materials or the expectations were unrealistic. For instance, it was expected that the project’s short video documentaries would have helped communities in other parts of the country replicate positive experiences, and the project’s brochures should “create awareness” among a variety of groups, including community members and policy makers. If the videos were really to function as a learning tool, they would have needed a longer, more detail step-by-step explanation of different techniques, ideally, one practice per video and a strategy for the dissemination of the videos to communities without internet access or media player devices should have been developed. Instead, the videos merely outline project activities, in a visually attractive manner, for a, so far limited, international audience with internet access.

**Table 14 b. Output rating for outcome 3.**

| Output | Rating                  | Expenditure | Justification for rating   |
|--------|-------------------------|-------------|--|
| 3.1    | Marginally Satisfactory | 313,415.16  | Expected promotional materials released, but will not likely serve their purpose due to vaguely defined impact or not adequate contents or format for the intended impact. |
| 3.2    | Marginally Satisfactory | 66,000.06   | Manuals needed to be more oriented to the needs of extension practitioners and actually be distributed to them   |

### 3.3.3 Achievement of project objective

SWoCK has reached out to 18 isolated wards without access to government services where subsistence agriculture was practiced in a context of declining productivity and increasing threat by climate-driven hazards. In the 18 communities targeted, farmers are now bringing back fallow fields to production, have recovered lost varieties of staple food and, through climate-smart agriculture practices such as contours, mulching and use of compost, they have increased productivity, nutritional value in their diets and even obtained some limited additional income from sales of surpluses. This means that the project's first objective target, *Farming systems introduced in 18 wards, to maintain or increase food production and food security and cope with climate variability and change* has been achieved.

Moreover, the project has decisively contributed to a 100% expansion of the national meteorological network and the capacities of the Solomon Island Weather Services by procuring four automatic weather stations and supporting the acquisition of other two additional, as well as their installation together with so far eight automatic weather gauges which, with project support for trainings and data management equipment, have already started to feed real time data to improve climate services such as the three-month precipitation outlook.

However, the project's ambitious geographical scope and complex, overreaching and interlinked strategy would have imposed great challenges to the project success, even without the initial failure of project management: travel to remote communities is not only costly, challenging and to some extent perilous, but the dispersion of targeted communities along five provinces without basic road network or regular transport services necessarily meant limited attention and services to project beneficiaries. Moreover, the variety of thematic activities handled by the project, from national planning processes to provincial coordination efforts, from installation of weather stations to set-up university training courses, from extension services to farmers to basic research on crop varieties entailed negotiations with an array of government and non-government organizations, and involvement in multiple procurement and recruitment processes.

As discussed above, although in a narrow sense the project's policy target have been at least partially achieved in that two national policies have been crafted or reviewed and that the project has decisively supported setting up four instruments of the national climate change policy (Provincial Climate Change Steering Committees), the policy instruments reviewed or supported by the project remain a statement of intentions rather than an actual government plan, mainstreamed in appropriately funded service delivery functions. Moreover, the adoption of improved farming at community level has been limited and dispersed, and, as confirmed by community respondents, further support would still be needed to sustain and expand the improved practices introduced, as established by the fact that most of the activities included by the communities in their project-supported land use plans involve external financial and technical assistance.

An important shortcoming of the project would be the failure to develop the expected geo-referenced database or environmental/ agricultural/ meteorological knowledge management system that could be used to start a more systematic planning of adaptation at provincial level. Said database could have been enriched if the soil probes and germplasm testing were satisfactorily performed and these data were properly used in land use planning. This and other

shortcomings described in this report can be almost certainly ascribed to the delays and periods of inactivity caused by the initial weakness at leadership level.

In sum in spite of having indeed dramatically increased the country’s meteorological capacities, and having reached out and provided assistance to far flung communities not reached by MAL’s extension services, given the fact that the project has experienced significant shortcomings the terminal evaluation must rate the achievement of objectives as marginally satisfactory.

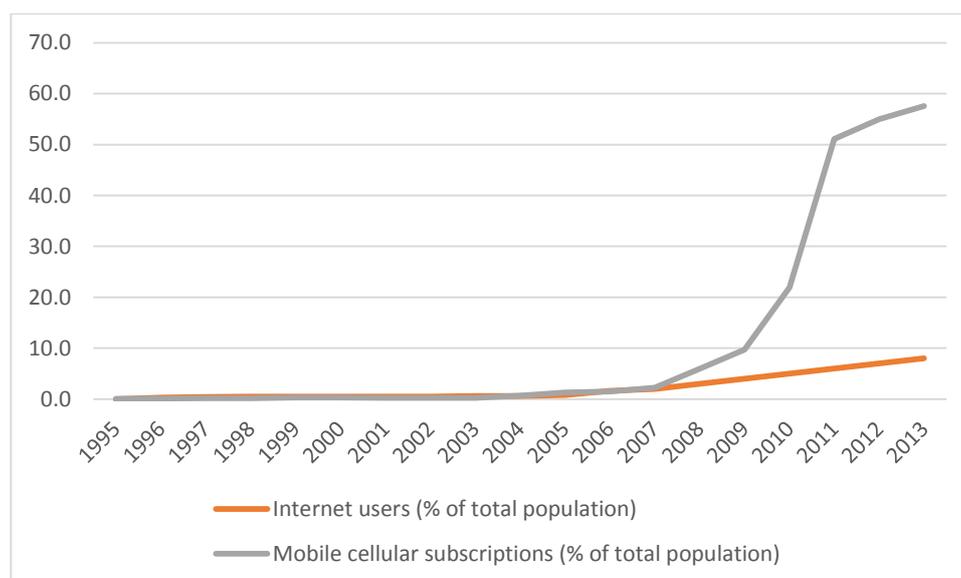
### 3.3.4 Recommendations and lessons learned

Some urgent actions should and could be implemented by the MECDM with UNDP support:

- Provide or facilitate funding for the immediate installation of the pending automatic rain gauges and support SIMS to develop better ways to communicate weather and seasonal forecasts to farmers. While SIMS has been publishing them at their provincial headquarters and in the internet, the possibility of using mobile telephone solutions of this purpose should be explored.

**Figure 11. Internet users and mobile subscriptions in the Solomon Islands**

Sources: (Google, 2016) (World Bank, 2016)



- Follow-up on the finalization and consolidation of the GIS training center and facilitate the expansion and use of GIS technology with to support MECDM’s plan to set up an environmental database. In this regard, integrate, consolidate and publish, including at the project website all the information collected by the project, including case studies and all data on smallholder agriculture and germplasm generated from the project’s target communities, as well as to coordinate with MAL, particularly its Research Division to continue their assessment of crop varieties collected by project
- Follow-up on the finalization and actual use of the integrated farming system training facility at SNRAS and promote not just the conduct of training and courses for students

and farmers, but the development of IFS alternatives that can actually be implemented at community level, using available material and labor resources

In a more general way, future project design should include the following items:

**Minimized transaction costs:** a project's geographical scope should be consistent with its funding and personnel requirements. Ideally a project should focus efforts on a particular geographical or political unit, such as one province or local government, hydrological basin, a continuous agro-climatic region, or an island with several characteristics of interest. Thus, the project would not only reduce travel costs, but would simplify institutional negotiations with government and non-government organizations engaged in the area and would be able to deliver benefits and services to its intended target group in a more efficient way.

**Strengthened logical framework:** projects should focus on correcting one market or government failure such as information asymmetries, e.g. weak weather information services, property rights, e.g. land registration and land use planning, and access to government services, e.g. health or extension or access to markets. Avoiding trying to solve the whole spectrum of development goals at once and concentrating in a reduced number of outputs, as well as rigorously assessing risk and assumptions will increase the likelihood of achieving the intended outcomes and development goals.

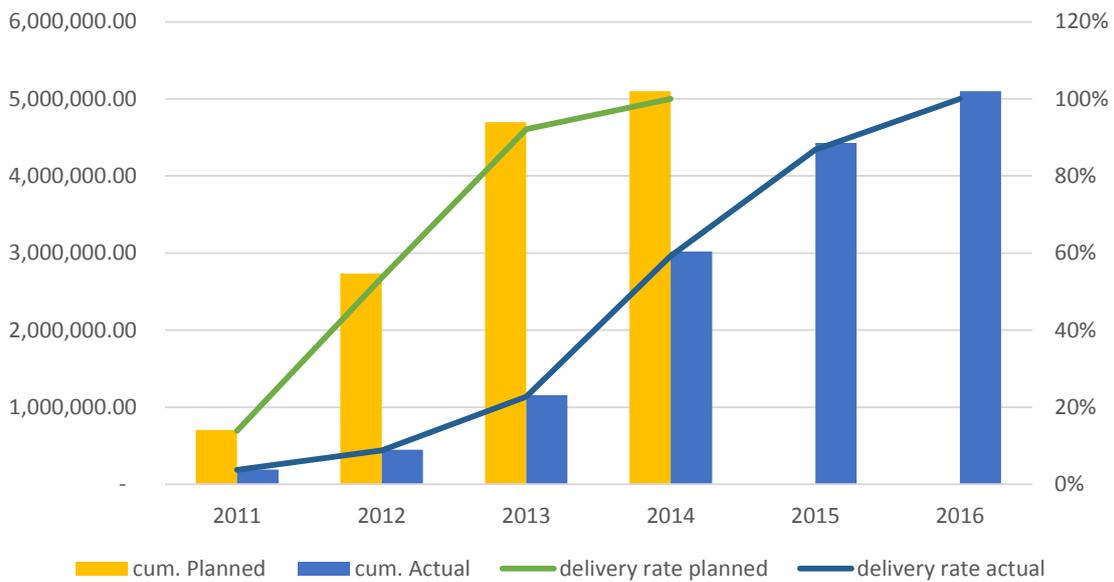
**Policy objectives** should be pursued only if they directly contribute to enabling project activities. For instance, e.g. if the current government legislative framework does not allow or acts as a barrier to the delivery of information or extension services to communities. Moreover, policy support should be closely aligned with the implementing partner's or responsible party's service delivery functions, which must be associated with a budget envelop, to avoid developing policy statements destined to be shelved and forgotten. **Knowledge and awareness.** The project's awareness actions targeting communities have been successful in generating support for adaptation and adoption of improved farming techniques. Thus, more targeted awareness and knowledge products should be produced in detriment of general measures whose effectiveness cannot be evaluated. The terminal evaluation strongly recommends to target knowledge products to political and economic decision makers at the national parliament and line ministries, particularly Planning Ministry and Ministry of Finance. For instance, a targeted awareness measure could be awareness materials for members of parliament to lobby for allocation of additional funds to agricultural extension or production of rigorous knowledge products for political and senior officials of Planning and Finance Ministries, office of the First Minister or President to support the mainstreaming of climate change into the country's expenditure framework. Where the government is not yet providing or unwilling to provide additional funds for services to communities, the project must be able to make a rigorous, science-based argument on the benefits of investing on community service delivery functions. This includes, but is not limited to, making the economic case, e.g. rigorous cost-benefit analysis. While most projects try to accomplish this by producing expert reports prepared by external consultants, an alternative approach is to support, financially and/or technically, governmental and national academic research organizations to generate new knowledge or consolidate and communicate existing research results.

### 3.3.5 Efficiency

Project delivery had reached USD 4,428,443 by the end of 2015 or 87% of the total project budget, which is projected to be expended till the end of 2016. Delivery rate was very slow during the first three years of implementation, ascribed to weak leadership as explained in the previous sections. The remarkable change in delivery rate and substantive accomplishments came about in 2014 after changes prompted by the MTR at project management and national direction.

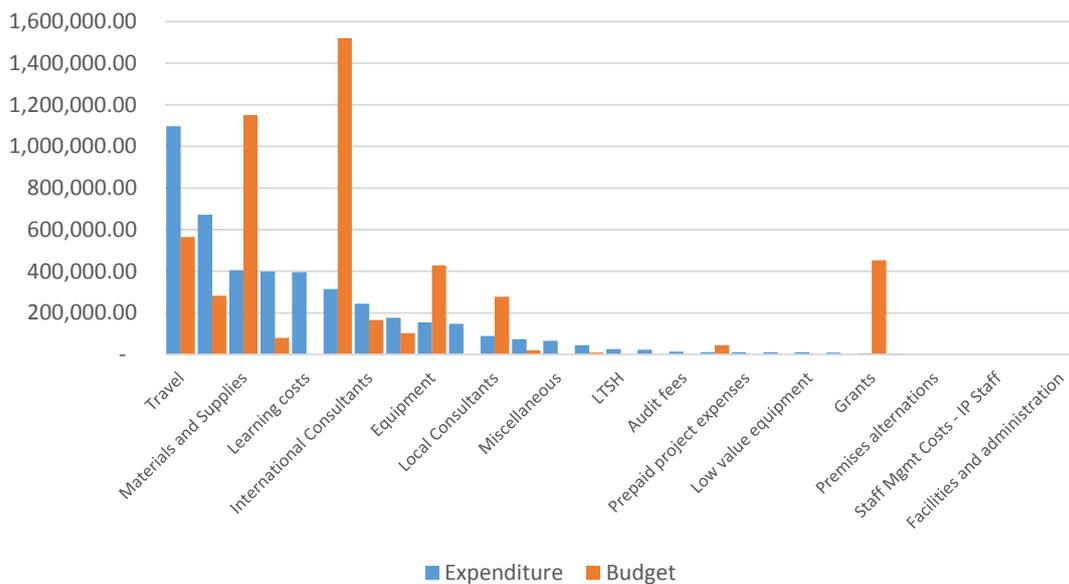
**Figure 12. Planned and actual delivery rates**

Sources: project document, combined delivery report and 2016 budget. Figures for 2016 are still a projection



**Figure 13. Planned and actual expenditure categories**

Sources: project document, combined delivery reports



The greatest category account of the project has been travel, over 200% of the planned amount followed by individual contract services (project staff) ca. 300% the planned amount. Other important divergences between planned budget and actual expenditure include grants, as the potential recipients, KGA and NGASI failed to comply with their part in the memoranda of agreement and contractual services with companies, likely due to differences in accounting expenditure, with most of the expenditure for this category recorded as learning costs. A total of USD 1,515,000 was planned under the category materials and supplies of which almost half was expended, i.e. USD 524,487. However, ca. 40% of this amount, or USD 196,066 were granted to the Ministry of Agriculture and Livestock in 2014 as part of the relief efforts for the flash floods that affected Guadalcanal on that year.

**Table 15. Expenditures (up to 2015) detail**

| <b>Atlas Code</b> | <b>Description</b>                  | <b>Expenditure</b>  |
|-------------------|-------------------------------------|---------------------|
| 71600             | Travel                              | 1,097,035.24        |
| 71400             | Contract Services Individual        | 672,484.96          |
| 72300             | Materials and Supplies              | 404,487.41          |
| 72400             | Communication Equipment             | 399,186.31          |
| 75700             | Learning costs                      | 396,318.06          |
| 72100             | Contractual Services Companies      | 314,763.20          |
| 71200             | International Consultants           | 243,742.40          |
| 74200             | Promotional Materials               | 176,983.53          |
| 72200             | Equipment                           | 155,253.17          |
| 73100             | Rental and maintenance premises     | 148,209.71          |
| 71300             | Local Consultants                   | 89,613.83           |
| 72800             | IT Equipment                        | 74,160.70           |
| 74500             | Miscellaneous                       | 66,073.90           |
| 72500             | Stationary & Supplies               | 44,508.74           |
| 74700             | LTSH                                | 25,759.88           |
| 33001             | Changes in accounting policy        | 23,136.97           |
| 74110             | Audit fees                          | 13,990.49           |
| 73400             | Maintenance and Rental of equipment | 11,634.15           |
| 74600             | Prepaid project expenses            | 11,231.59           |
| 77630             | Dep Exp Owned ITC                   | 10,489.37           |
| 74965             | Low value equipment                 | 10,248.74           |
| 74300             | Contributions                       | 9,066.56            |
| 72600             | Grants                              | 6,023.40            |
| 76100             | Foreign exchange currency           | 4,582.68            |
| 73200             | Premises alternations               | 1,649.68            |
| 73300             | Rental and maintenance IT equipment | 1,107.00            |
| 64300             | Staff Mgmt Costs - IP Staff         | 67.58               |
| 72200             | Hospitality/ Catering               | -                   |
| 75100             | Facilities and administration       | -                   |
|                   | <b>Total</b>                        | <b>4,428,758.99</b> |

The extended geographical scope of the project compounded by the fact that windward (weather coast) communities are very isolated and only to be reached by boat are the primary cause for the amount expended for travel, although international cross visits also played a role. Field missions to communities were planned monthly and were conducted by a team composed of at least a MAL extension staff and the project’s provincial coordinator, and sometimes management or technical PMU staff. Any of such trips, one per province per month, would amount to ca. USD 3,000 broke down as explained in the table below.

**Table 16. Travel cost components**

| Item<br>(units used in number) | Number (days) | Unit cost | Amount   |
|--------------------------------|---------------|-----------|----------|
| 2 DSA MAL officer              | 20            | 350       | 7,000    |
| Terminal fee                   | 1             | 100       | 100      |
| Boat hire                      | 14            | 400       | 5,600    |
| Fuel (gallons)                 | 45            | 70        | 3,150    |
| Catering                       | 4             | 500       | 2,000    |
| Venue                          | 4             | 100       | 400      |
| TOTAL (SBD)                    |               |           | 11,250   |
| TOTAL (USD) <sup>15</sup>      |               |           | 1,422.25 |

Conduct of field missions depended completely on boat rental availability and weather conditions, not necessary aligned with the annual work plans. However, physical and social realities were better taken into account in the post-MTR implementation period. The project had initially acquired a land vehicle, which would have been useful only for travel within the capital city, but was lost in an accident during the first year of implementation. Moreover, the project design assumed that transportation means would be provided by the implementing partner and the responsible agencies, which proved to be false. Extension services of MAL and MECDM were and are almost completely depending on SWoCK and other ODA projects for operations. Logistic and associated costs were compounded by the precarious conditions in which sea travel was undertaken. Only late in the project implementation did the project acquire medical kits, communication equipment and lifejackets for the safety of the staff, as per a recommendation of the MTR. Provision of adequate sea transport, i.e. a single engine boat for field operations was unanimously identified by the project’s government partner as one important factor for success in the conduct of field operations. However, it must be noted that some government agencies’ capacity constraints involve incomplete or neglected inventories (Ernst & Young, 2014), which would pose such assets at risk.

The project management unit identified and facilitated synergies with other on-going projects, coordinating field visits and sharing results, such as the aforementioned cooperation with the Pacific Adaptation to Climate Change Project, the Pacific Agriculture Policy Project, and the project *Coping with Climate Change in the Pacific Region: Securing the Future of Luru Now* in the province of Choiseul.

<sup>15</sup> The exchange rate from dollars of the United States of America (USD) to dollars of the Solomon Islands (SBD) used in this report is of 7.91 SBD to 1 USD (World Bank, 2016).

### 3.3.6 Conclusion (Efficiency)

The project's initial implementation challenges and delays in the activity sequence caused severe shortcomings in delivery and were the single main factor behind the limitations in achieving its targets pointed down in section effectiveness. As discussed above, managing a project of the complexity and geographical scope such as SWoCK demand extraordinary management skills that are not always available in small island states. The fact that almost a quarter (23%) of the total budget was expended in travel, mostly domestic travel and that management expenditures almost double their budget (183%) are evidence of the costs imposed by the project scope.

In spite of the extraordinary recovery of the delivery rate after 2014, one cannot ignore the fact that the project was almost two years behind schedule, that one output, the food processing component was never delivered, although equipment worth USD\$70,000 had been procured, and the fact that the project over expended in travel and management cost. Therefore, the efficiency of the project is rated as marginally satisfactory.

### 3.3.7 Recommendations (Efficiency)

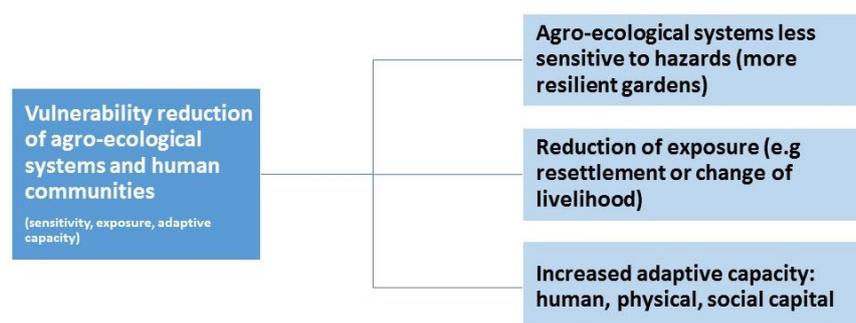
Logistical and administrative considerations must be better integrated in project work plans and budget, namely, the feasibility, including climatic factors, availability of means and costs involved in transport and travel, as well as the administrative path, times and costs in securing approval and conduct procurement processes.

A more efficient project alternative would have minimized transaction costs by concentrating pilot interventions in one particular area, e.g. a province and by acquiring appropriate transportation and safety equipment to facilitate operations, while developing capacities of the extension services and mother organizations to improve their accountability and inventory capacities.

### 3.4 Impact

Successful adaptation projects should decrease the vulnerability of their target systems by decreasing sensitivity and exposure, or increasing resilience and adaptive capacity (figure 14).

**Figure 14 Elements of impact**



SWoCK aimed to increase resilience by decreasing sensitivity of smallholder agriculture to changes in temperature and precipitation patterns while increasing adaptive capacity by strengthening government support to communities through policy mainstreaming, technical assistance and information products. While the project did not change the exposure of beneficiary household it did contribute to decreasing sensitivity, by broadening the crop base and increase adaptive capacity by increasing yields and consequently nutritional values and income. This section discusses impacts observed at farm level in terms of adaptive capacity.

Farmers from all three climate zones interviewed during the terminal evaluation mission report positive changes in productivity having e.g. put back abandoned plots under production and increase yields. Moreover, fishing and farming households from small islands report improvements in nutrition by expanding their crop base and the addition of chicken meat, while the latter was mostly used as income generating activity<sup>16</sup>. Smallholders gardening in coastal and highland communities of weather and leeward coasts rate very positively the recovery of lost varieties of staple crops, particularly sweet potato, taro, yam and bananas. All three changes, improved yield, improved nutrition and wider crop base are direct cause of project activities, i.e. demonstrations, trainings, materials and tools in the communities, most implemented since the midterm review, that resulted in the adoption of mulching, composting, and contour farming.

<sup>16</sup> Small Island communities living on artificial island on shallow coastal lagoons take most of their protein from fish.

**Table 17. Impacts reported by project beneficiaries interviewed by the TE**

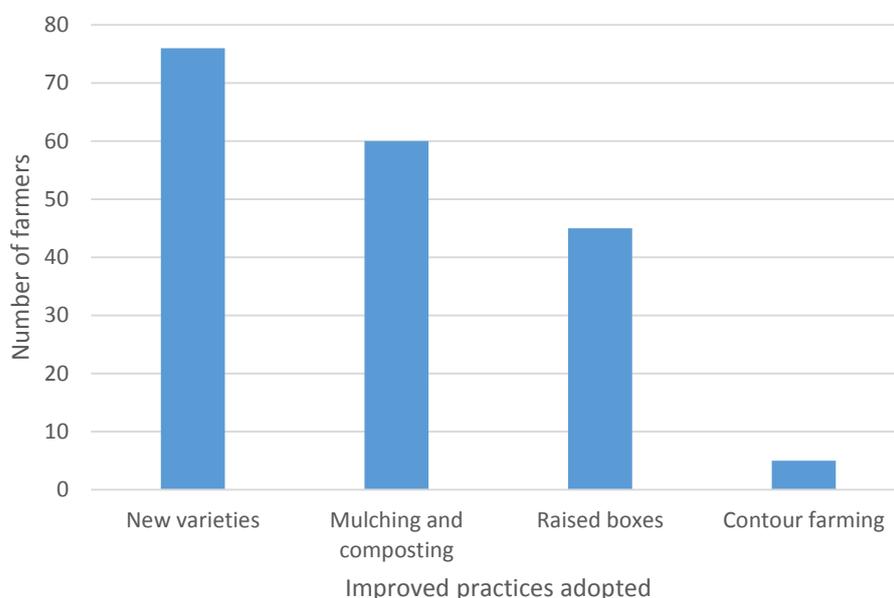
| Zone              | Landscape | Project impacts  |
|-------------------|-----------|--|
| Weather coast     | Coastal   | <ul style="list-style-type: none"> <li>Improved yield of tuber crops and leafy vegetables, bringing back lost crops (yam and pana), improving health and food nutrition, as well as limited income generation</li> <li>Lead farmers and community members adopted the new gardening techniques such as mulching, composting, crop rotation, without burning, resulting in improving soil nutrients and structure, increasing yield, crop diversification, improving family diet and nutrition, as well as some additional earnings</li> <li>Broader understanding of climate change</li> </ul> |
| Artificial island | Coastal   | <ul style="list-style-type: none"> <li>Setting up of gardening boxes and nurseries, poultry houses and chicks resulting in increased production of vegetables and meat, as well as additional income</li> <li>Encouraged institutionalization and good governance</li> </ul>   |
| Leeward coast     | Coastal   | <ul style="list-style-type: none"> <li>Unity and encouragement of community participation, as well as some knowledge and skills to build resilience to the effects of climate change risks</li> <li>Lead farmers have adopted improved agricultural methods: mulching and composting, as well as raised boxes, and some also contour farming. Productivity has increased and new land has been brought under production</li> <li>It will take some times to actually see any significant results<br/>Provision of agricultural tools</li> </ul>  |
| Leeward coast     | Highland  | <ul style="list-style-type: none"> <li>Reintroduction of banana, yam and pana to the community and discouraged slash and burn agriculture</li> <li>Soil improvement techniques and provision of agricultural tools helped to improve soils and the growth of crops planted</li> </ul>  |

There is a direct and strong relationship between direct project support -> adoption of practices -> increased yields. However, only lead farmers identified by the project, as well as up to five additional households per community have adopted these practices. The proportion of lead farmers to the total ward population for the 7 communities interviewed ranges from 11 to 75% with a mean value of 30%.

The rate of adoption of improved practices is inversely proportional to additional costs, basically increased labor, as most materials were provided by the project. While a quantification of the costs is not possible at this moment for lack of data on man-hours invested, we can order

activities in terms of increasing labor costs: new staple varieties, mulching and composting, raised boxes, and contour farming.

**Figure 15. Adoption of measures in order of increasing labor costs**



**Table 18. Lead farmer households as a proportion of the total ward household**

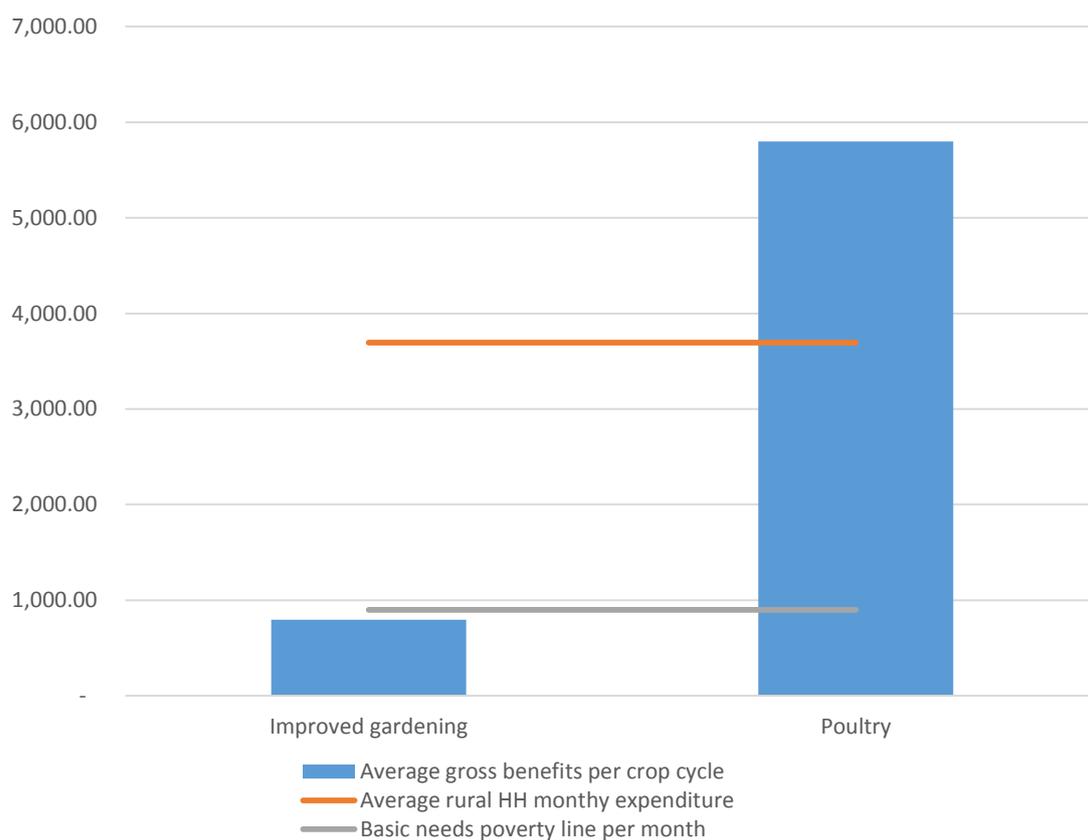
| Community          | % project households |
|--------------------|----------------------|
| Lilisiana, ward 1  | 11%                  |
| Daolusu, ward 30   | 33%                  |
| Radeaekoa, ward 30 | 13%                  |
| Parego, ward 19    | 13%                  |
| Wanehata, ward 17  | 75%                  |
| K'manga, ward 8    | 47%                  |
| Tirotonna, ward 6  | 32%                  |

As mentioned in section [Effectiveness/Outcome 1](#), some farmers have been able to sell some surplus generating additional income, ranging between SBD 259 to 1,735 per crop cycle and reaching in average SBD 5,800 per chicken batch (average batch of 25 birds). Access to market and support for poultry activity were the main factors positively influencing income generation. This gross benefit does not account for the increase in labor costs but neither it accounts for household **savings in food expenditure, which for rural households in the Solomon Islands**

**amounts to over half of household total expenditure** (SINSO, 2015), as households sold only surplus and consumed most or even all of the additional production. Considering the average rural household expenditure of SBD 3,965 per month (SINSO, 2015) and the household basic needs poverty line of SBD 900 per month (SINSO; UNDP, 2008), **the gross benefit per crop cycle/ batch reported represent between 22 to 157% for of the average monthly household expenditure and between 89 to 644% of the monthly basic needs poverty line!**

*Table 19, Figure16. Gross benefits derived from partial sale of additional production compared to average rural household expenditure and basic need poverty line. All figures SBD*

| Activity           | Average gross benefits per crop cycle | % of mean rural HH monthly expenditure | % of BNPL |
|--------------------|---------------------------------------|--|-----------|
| Improved gardening | 796.81                                | 22%                                    | 89%       |
| Poultry            | 5,798.33                              | 157%                                   | 644%      |



### 3.4.1 Conclusions (Impact)

The results shown above demonstrate that direct investments in smallholder agriculture do pay off, by rapidly and significantly contributing to poverty reduction. Beneficiary households have increased their income through revenues and savings in magnitudes equal or surpassing the average rural household expenditure and the national poverty line. This does not mean, however, that there are not important caveats and sustainability risks that need to be considered.

The adoption has been indeed limited to those families directly supported by the project. While a wider adoption by other households could be expected in the face of the apparent success of the improved practices, this has not yet taken place. Farmers themselves consider the continuous assistance by the government, or external projects, as necessary condition to expand and consolidate benefits. This is intuitively contradictory: if the measures are proven successful, what keeps other community members, who have also participated in trainings and project activities from implementing them? Therefore, there must be other community dynamics in play, perhaps related to power structures and social connections or risk aversion that have not been captured by the questionnaires and methods used by the terminal evaluation.

While the impact at farm level has been significant, the benefits generated are just a minimal fraction of the USD 2,169,793.4617 expended under outcome 1. This seems to confirm that the geographical and thematic scope of the project greatly increased the transaction costs involved in the delivery of its services, severely limiting the impact of the project. Moreover, the project has not significantly contributed to strengthen the extension services of the Ministry of Agriculture and Livestock either by providing means to deliver services more efficiently or by providing policy support by strengthening the weight given to extension services to smallholders in the national fiscal strategy. Nonetheless, the project did significantly strengthen the capacities of the Solomon Island Weather Services, which has the potential to increase yields and avoid losses and damages in combination with appropriate transmission channels and strengthened extension services to advise farmers on solutions for the forecasted weather conditions.

### 3.4.2 Recommendations (Impact)

Increasing adaptive capacity entails improvements and gains in physical, human, social or environmental capital stocks at household level. A proven path to increase household capital stocks is to invest in smallholder agriculture. As seen in this project, increases in productivity and provision of necessary tools do improve household income through revenue and savings, even in the absence of steady market access.

Policy support must focus on eliminating financial, technological or institutional barriers for the effective delivery of government services to communities. In this case, a wider impact could have been achieved by making the case for strengthened extension and meteorological services in government strategy and expenditure.

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<sup>17</sup> Up to December 2015

## 3.5 Sustainability

This section discusses the different risks affecting sustainability divided in the categories financial, institutional, socio-economic risks.

### 3.5.1 Financial risks

At national level, government budgets are just barely enough to sustain basic recurrent costs of human resources and minimal asset maintenance. Operations, including critical extension and research work by the Ministry of Agriculture and Livestock are still highly dependent on ODA projects. The same situation prevails at the Ministry of Environment, Climate Change, Disaster Management and Meteorology, the Meteorological Services and the Climate Change Division. The project experience shows the degree to which critical service delivery functions of the government, namely agricultural extension services and weather services are constrained by budget cuts. Although there is no indication that the current level of support for the agricultural and environmental sectors by multilateral and bilateral partners will diminish in the near future and that climate change will still be a high priority for multilateral and bilateral development partners, it is unlikely that delivery of services to communities targeted by the project will continue after the end of the project.

However, neither there are reasons to believe that farmers that have been implementing improved practices resulting in higher yields are likely to stop using them as long as the increase in productivity pays off the higher labor costs.

Also, the newly installed AWS and ARGs have a lifespan of several decades and, because enough precautions have been taken at their installation in terms of the awareness of communities at the locations and the choice of secure places (e.g. next to churches, schools or local government buildings) it is not likely that the stations would be vandalized or subjected to theft. Moreover, officials at management and technical levels of SIMS and the Ministry of Agriculture and Livestock manifested confidence in being able to make the case, argue and achieve increases in their budget ceilings for their next annual plan.

### 3.5.2 Socio-economic risks

Development pressures, e.g. industrial agriculture, forestry, mining, housing, tourism etc. will increase opportunity costs of traditional land management and smallholder agriculture. In fact, the government's development strategy involves actively promoting titling of land under customary management to contribute to economic development (MECM, 2008). This will generate incentives to put land parcels to more productive uses, from the point of view of the land owner, such as commercial agriculture, logging, mining or housing. In fact, in some project sites, farmers already show strong preference for the cultivation of cash crops, such as cocoa and coconut (Tanisapa & Carlos, 2015), what may explain the neglect experienced by some community food banks and germplasm collections.

Without strong institutional mechanism to account for environmental and social externalities, i.e. pollution, land degradation and marginalization of segments of farming villages in favor of

more connected and with access to better information, may undermine the objectives of sustainable agriculture for food security set in the project. As discussed in section [Effectiveness/ Outcome 2](#) the current Agriculture and Livestock Policy favors export crops much in the line of the Midterm Expenditure Framework.

Moreover, it is not very likely that policies such as the project supported National Rural Development and Land Use Policy would be able to counteract this trend without proper political support translated in an adequate budget allocation for the development and enforcement of the instruments necessary for its implementation.

Nonetheless, both communities and officials from the Ministry of Agriculture and Livestock manifest their confidence in the survival of a smallholder, sustainable agriculture, which, if supported with extension and financial services, as well as access to markets would still contribute to the national economy while avoiding social and environmental externalities. This is too reflected in the National Development Strategy and the Agriculture and Livestock Policy, albeit secondary to expansion of commercial agriculture in the latter.

### 3.5.3 Institutional risks

Know-how and technology to deliver agricultural and meteorological services to communities are indeed present in the Solomon Islands. As discussed several times in this report, the main constraint is not technological, but financial.

However, we can consider here on a factor that has been identified in the project document as a driver of environmental degradation in general and as a factor that may overwhelm agricultural productivity: population growth. Population growth has been recognized by the communities as being a function of educational level and as a factor putting pressure of the natural resources on which they depend: even if improved soil management can bring about significant increases in productivity, they could be overwhelmed by population growth. Rapid population growth, particularly in artificial islands may increase with improving livelihood conditions in the absence of improved education, awareness and means on family planning, Moreover, communities inhabitants such islands would need to expand their current reclaimed islands, with consequent consequences for coastal habitats and fisheries. Nationwide, population growth and fertility are declining, a process that, in the view of the communities interviewed for this evaluation report, is directly linked to education. In fact, communities see education as the tool to access off-farm jobs and the best opportunity they see to raise above poverty levels and exposure to climate hazards.

**Table 20. Trends and drivers of population growth, according to interviewed community representatives**

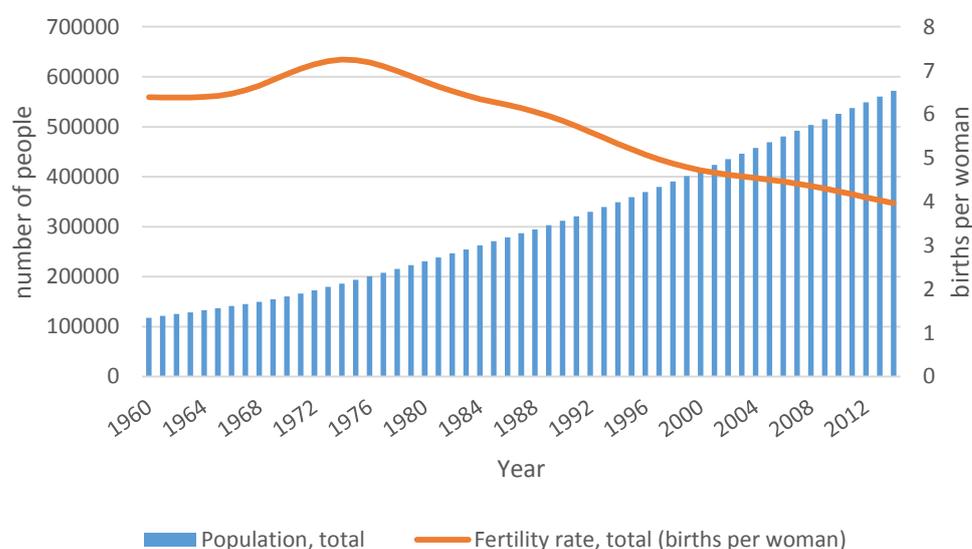
| <b>Name</b> | <b>Population trend</b>  | <b>Drivers population changes</b>                      |
|-------------|--------------------------|--|
| Lilisiana   | rapid growth             | Lack of family planning                                |
| Daolusu     | rapid growth             | open marriage, young marriage, lack of family planning |
| Radeaekoa   | rapid growth             | open marriage, young marriage, lack of family planning |
| Parego      | Increased at a slow rate | Family planning and awareness                          |
| Wanehata    | Increased at a slow rate | Family planning and awareness                          |
| K'manga     | Increased at a slow rate | Family planning and awareness                          |
| Tirotonna   | Increased at a slow rate | Family planning and awareness                          |

**Table 21. Community SWOT analysis (extract)**

| Community | Strengths   | Weaknesses  | Threats   | Opportunities  |
|-----------|---|---|---|--|
| Parengo   | <ul style="list-style-type: none"> <li>• Access to land and sea resources</li> <li>• Access to health services</li> </ul>   | <ul style="list-style-type: none"> <li>• No community development plan, and individualistic trends</li> <li>• Inconsistent shipping services</li> <li>• Lack of proper roads</li> </ul> | <ul style="list-style-type: none"> <li>• Excessive precipitation and drought periods</li> <li>• Declining forest cover due to shifting agriculture and logging</li> </ul>   | <ul style="list-style-type: none"> <li>• Education of young people</li> <li>• Support by projects like SWoCK</li> </ul>  |
| Wanehata  | <ul style="list-style-type: none"> <li>• Access to land and sea resources</li> </ul>  | <ul style="list-style-type: none"> <li>• Inconsistent shipping services</li> </ul>  | <ul style="list-style-type: none"> <li>• Excessive precipitation and drought periods</li> <li>• Logging leading to loss of forest cover</li> </ul>  | <ul style="list-style-type: none"> <li>• Education of young people</li> <li>• Land reclamation program</li> </ul>  |
| Lilisiana | <ul style="list-style-type: none"> <li>• Access to sea resources</li> <li>• Fishing knowledge and skills</li> </ul>   | <ul style="list-style-type: none"> <li>• Poor turnout of students</li> <li>• Lack of land for agriculture and housing</li> </ul>  | <ul style="list-style-type: none"> <li>• Land shortage and disputes</li> </ul>  | <ul style="list-style-type: none"> <li>• ND</li> </ul>   |
| Radeaokoa | <ul style="list-style-type: none"> <li>• Fishing and money making knowledge and skills</li> </ul>   | <ul style="list-style-type: none"> <li>• Rapid increase of population</li> <li>• Lack of proper water supply,</li> <li>• Land shortage</li> </ul>                                       | <ul style="list-style-type: none"> <li>• Salt intrusion, sea level rise</li> <li>• Insecure access to firewood and soil</li> <li>• Declining fish catches</li> <li>• Poor crop yields</li> </ul>                                | <ul style="list-style-type: none"> <li>• Education of young people</li> <li>• Access to project assistance</li> </ul>  |
| K'manga   | <ul style="list-style-type: none"> <li>• Secure access to land</li> <li>• Sea resources and traditional management of reef fishery</li> <li>• Qualified and skillful human resources</li> <li>• Reliable shipping services</li> </ul> | <ul style="list-style-type: none"> <li>• Low crop yields</li> </ul>   | <ul style="list-style-type: none"> <li>• Increasing population</li> <li>• Depleting forest and timber resources</li> <li>• Polluted fresh water</li> <li>• Eroding coastlines due to sea level rise and strong winds</li> </ul> | <ul style="list-style-type: none"> <li>• Education of its young people</li> <li>• Use of timber and fish for more economic developments</li> <li>• Access to assistance through projects like SWoCK</li> </ul> |

**Figure 17. Population growth and fertility in the Solomon Islands**

Source: (World Bank, 2016)



### 3.5.4 Environmental risks

Climate change impacts, i.e. heavy rains, changes in growing season and sea level rise are not likely to occur at a faster rate than implementation of adaptation measures, provided predictable and continuous support by government and development partners, which, as discussed above is moderately likely. However, that does not mean that smallholder agriculture is not still very much vulnerable to climate hazards: heavy rain can easily destroy improved gardens and thus nullify in one go many years of effort and investment.

Moreover, what projects like SWoCK ultimately do is to maintain and/or even increase exposure to climate hazards by promoting smallholder agriculture, very sensitive to changes in climate variables. While, in the midterm, the most efficient path out of poverty and thus increased adaptive capacity, in the long term, increasing the proportion of off-farm jobs through economic growth and education and the provision of extension, financial services (loans), market access and risk transfer services will effectively reduce both exposure and sensitivity.

### 3.5.6 Conclusions on sustainability

Financial constraints are pervasive in rural areas and delivery of government functions. In rural areas poverty is prevalent, characterized by limited income brought about by inadequate or absent of access to transport infrastructure and markets, compounded by vulnerability to climate hazards and degradation of natural resources as a consequence of shifting agriculture, driven by population growth, and, increasingly, commercial logging operations.

At the same time, smallholder agriculture, which occupies 85% of the total population of the Solomon Islands ranks only marginally in the government priorities associated with actual public funding, mostly limited to recurrent costs of the involved state agencies. Thus, government delivery of services to rural areas, such as extension and information, e.g. weather services are still highly dependent on external financial help through projects funded by bilateral and multilateral donors.

However, sustainability of the two main impacts brought about by SWoCK is yet moderately likely:

- Current increases in productivity and confidence in the results of the project's supported improved practices may lead to the consolidation and even expansion of climate-smart agriculture in the communities targeted by the project without further support.
- Automatic weather stations and automatic rain gauges are not likely to be destroyed or stop functioning for the next decade, allowing SIMS to continue efforts to deliver improved climate services and products, while confidently making the case for adequate public funding.

UNDP and the MECDM should continue efforts in the following directions:

- Mainstream environmental and social externalities into national economic growth priorities, to ensure that growth and development do not degrade vital ecosystem services and hence increase vulnerability
- Redouble efforts, in partnership with the appropriate national and subnational government and non-government organizations, including development partners to increase gender sensitivity and sexual education, as well as increase access to primary and secondary education for community children. A combination of better understanding of the consequences of population growth and further opportunities offered by improved education will certainly contribute to ease population pressure on critical resources, particularly on land productivity.

## 4. Overall conclusions, and summary of recommendations and lessons learned

SWoCK project was intended by its primary stakeholders, MECDM, MAL and UNDP as the vehicle for the implementation of most of the components of the National Adaptation Plan of Action of 2008. Solomon Island's NAPA included many important actions, including the need to mainstream national policies and programs and to increase the resilience of the country's main livelihood, smallholder agriculture that were not given enough support by a government facing great financial constraints compounded by a strong focus on macroeconomic growth drivers.

Yet, the expectations put in this project in 2011 have not been fully realized at its closure, in 2016. Two main factors underlie most of the shortcomings experienced by the project: design failures and implementation backlogs

The project design stacked together many interrelated, yet distinct outcomes, including provision of extension services to communities, strengthening national capacities for the generation, management and communication of climate information, mainstreaming climate change and strengthening provincial development planning processes, implementation of income generating activities at community level and creation of an effective knowledge management system that would enable stakeholders to communicate results and make the case for climate change funding from national and international sources. Thus, the resulting logical framework was characterized by an intricate and complex sequence of activities and outputs. Compounding this complex construct was the fact that the project design did not adequately review the assumptions it made in terms of timeframe for recruitment and procurement processes and, critically, on the financial, technical and logistical capacities of key stakeholders. Moreover, the comprehensive geographical scope of the project, which included 18 remote wards dispersed in five of the nine provinces of the country and across three distinct climatic zones impose significant transaction costs to the project in the form of travel and shipping costs, delays and coordination and negotiations with a multitude of partners.

Not surprisingly, it proved extremely difficult to find the right team to drive such ambitious, and complex undertaking: with a population of less than 600,000 and a net enrolment rate in secondary school of just 42.2% (World Bank, 2016) the pool of qualified professionals is reduced and contested. The first two project managements did not see their contract renewed and most of the PMU staff was not in place till 2013, two years after project inception. Moreover, the turnout ratio of management, compounded by changes and weaknesses in the leadership of the three main partners caused significant periods of inactivity. Only after the midterm review process was an effective team in place, supported by adequate commitment by the implementing partner and the implementing entity. However, this all meant that by early 2014, short of two years to complete the project timeframe, the project had yet to execute more than half of its budget.

In spite of all the challenges, the last two years of project implementation saw the conduct of activities and delivery of outputs at an accelerated rate, accomplishing much of the deliverables of the project document. However, even efficient and effective management and implementation could not surmount the project's design shortcomings.

Thus, early coordination and capacity constraints hampered the early setup of a GIS laboratory, and automatic weather stations, which were supposed to provide the tools and information

needed for the vulnerability assessments and land use plans, which should then be part of the mainstreaming drive at national and provincial level. Moreover, the same design inconsistencies and coordination challenges caused the food processing component, intended as emergency preparedness and potential income generating activity for communities to failed to deliver any concrete results, in spite of the investment made. Moreover, the challenging logistics of field visits to the remote project villages meant not only spaced and short follow-up on project activities at community level, which caused much frustration among the project's primary beneficiaries.

Against all this challenges, the project did manage to accomplish the implementation of improved climate-smart agricultural practices in all 18 targeted wards. In all of said wards, 10 to 20 lead farmers and their households managed to recover lost staple crop varieties and successfully bulked them in household or community "food banks". Moreover, practices such as mulching, composting and contour farming recovered abandoned fields and raised productivity and yields, as well as income: some households have obtained gross benefits by selling agricultural surplus amounting to more than the average monthly household income, not counting the savings in food purchases and the increased nutritional value.

At the same time, almost all automatic stations were installed and starting delivering real time data that has duplicated the capacities of the Solomon Islands Weather Services and has enable it to deliver better climate products, namely a three-month precipitation forecast.

This two main achievements of the project are moderately likely to be sustained, as farmers will continue to implement their newly acquired skills and the weather stations and capacities installed at SIMS are not likely to fail within one decade. However, risks stemming from climate hazards and environmental externalities of economic growth, as well as the underfunding of government agencies do threaten the sustainability of the project's community and weather services achievements respectively.

In terms of policy mainstreaming and knowledge management, the project did not significantly contribute to strengthen mainstreaming of climate change risks into the policy framework or the national capacities to generate and communicate climate information for planning, policy and international communication. Paradoxically, most of the deliverables in terms of number of policies reviewed and communication products launched were achieved, underlining again the misalignment between project outputs and intended outcomes: the project succeeded in supporting the review of the National Agricultural and Livestock Policy and supporting the implementation of the National Climate Change Policy and the development of a National Land Use Planning and Rural Development Policy. However, the main focus of the new Agricultural Policy is export crops, with adaptation to climate change and smallholder agriculture relegated to a second rank, and in agreement with the economic growth focus of the national development strategy and expenditure framework. The funding of the climate change and land use planning policies will depend on external funding for their implementation.

In sum, the project has, against all odds and with limited efficiency, managed to achieve significant impacts by improving life of hundreds of households across the country and providing the national weather services with important tools to deliver its functions.

In order to consolidate some of the benefits delivered by the project, some immediate actions by the main stakeholders, MECDM, MAL and UNDP are recommended:

- Provide or facilitate funding for the immediate installation of the pending automatic rain gauges and support SIMS to develop better ways to communicate weather and seasonal forecasts to farmers.
- Follow-up on the finalization and consolidation of the GIS training center and facilitate the expansion and use of GIS technology with to support MECDM's plan to set up an environmental database. In this regard, integrate, consolidate and publish, including at the project website all the information collected by the project, including case studies and all data on smallholder agriculture and germplasm generated from the project's target communities, as well as to coordinate with MAL, particularly its Research Division to continue their assessment of crop varieties collected by project
- Follow-up on the finalization and actual use of the integrated farming system training facility at SNRAS and promote not just the conduct of training and courses for students and farmers, but the development of IFS alternatives that can actually be implemented at community level, using available material and labor resources

Based on the assessment of this project's achievements and shortcomings, the terminal evaluation proposes the following lessons learned:

- Reduce transaction costs by concentrating in a particular geographical and political unit, such as one province or local government unit that includes one or several connected basins, a continuous agro-climatic region, an island with several characteristics of interest.
- Strengthen logical framework by focusing in correcting one particular government failure or environmental or social externalities and base the theory of change in a rigorous assessment of risk and assumptions.
- Align policy objectives with the governments service delivery functions as expressed in its agencies work and corporate plans to ensure linkage to public expenditure envelopes, and support policy mainstreaming goals with science-based arguments and cost-benefit analysis.
- Target awareness and communication strategies to achieve concrete objectives, e.g. making the economic case for smallholder agriculture in national agricultural planning to achieve increase funding for extension services.

Finally, the terminal evaluation makes some concrete recommendations on the implementation of projects for the UNDP and implementing partners:

- Recruit project managers and technical advisor nationally and internationally in contexts with limited pool of qualified professionals.
- Promote more engagement of UNDP and national procurement and administration specialists in project design to develop realistic sequence of activities, workplans and deliverables.

- Engage in a more active coaching national stakeholders at all phases of the project, from design to implementation and all levels of implementation, especially administration support.
- Implementing partners should assume their leadership role and responsibility in the delivery of outputs by responsible partners and not delegate said responsibility on the UNDP.

## Annex 1. Terms of Reference

**PROJECT NAME:** Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security - Strongem Waka lo Community fo Kaikai (SWoCK)

**DUTY STATION:** Home-based with travel to Honiara and pilot sites.

**DURATION OF THE CONTRACT:**

- Duration: 8 weeks
- Contract period: June 8<sup>th</sup> June to August 02<sup>nd</sup> 2016
- 35 working days

**OBJECTIVES:**

The project was designed to strengthen the ability of communities in Solomon Islands to make informed decisions about and manage likely climate change driven pressures on food production and management system through three outcomes: 1) promote and pilot community adaptation activities enhancing food security and livelihood resilience in pilot communities in at least three selected regions, 2) strengthen institutions and adjusted national and sub-national policies related to governing agriculture in the context of a range of climate change future, and 3) foster the generation and spread of relevant knowledge for assisting decision-making at the community and policy-formulation level

The evaluation team is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, UNDP Country Office, project team, UNDP-AF Technical Adviser based in the region and key stakeholders. The evaluation team is expected to conduct field missions to Isabel (Kmagha, Tirotonna and Gozoruru site), Malaita (Daolusu and Radeaekoa community) and Choiseul Province (Tarakukure, Voza and Sasamunga community). Interviews will be held with the following organizations and individuals at a minimum:

1. UNDP staff who have project responsibilities;
2. National Executing agency and key implementing partners
3. The Chair of Project Board
4. The National Programme Director (NPD)
5. Project stakeholders; including academia, local government and community-based organizations (CBOs)

The evaluation team will evaluate all relevant sources of information, such as the project document, project reports – including Annual Project Progress Reports, Result Tracker in PPR, project budget revisions, progress reports, project files, national strategic and legal documents, and any other materials that the Project team considers useful for this evidence-based evaluation. A list of documents that the project team and UNDP Country Office will provide to the team for review is included in Annex 2 of this Terms of Reference. The TE will be conducted according to the guidance, rules and procedures reflected in the ‘UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects’ (2012), henceforth referred to as ‘TE Guidance’.<sup>18</sup>

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

## BACKGROUND OF SWOCK PROJECT

In accordance with UNDP and AF M&E policies and procedures, all regular UNDP supported AF financed projects are required to undergo a terminal evaluation upon completion of implementation. This terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the “Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change on Agriculture and Food Security - Strongem Waka lo Community fo Kaikai (SWoCK)” project.

The Solomon Islands National Adaptation Programme of Action (NAPA) identified agriculture as one of the most vulnerable sectors requiring urgent attention. The project addresses the NAPA priority and will contribute to enhancing the resilience of the agriculture sector to maintain and improve food security in the country. In particular, the project will lead to the following key results (outcomes):

- 1) Promote and pilot community-adaptation activities enhancing food security and livelihood resilience in pilot communities in at least 3 selected regions;
- 2) Strengthen institutions and adjusted national and sub-national policies related to governing agriculture in the context of a range of climate change futures; and
- 3) Foster the generation and spread of relevant knowledge for assisting decision-making at the community and policy-formulation level.

The essentials of the project to be evaluated are as follows:

|                             |   |   |                                       |   |
|-----------------------------|---|---|---------------------------------------|---|
| Project Title:              | Strongem Waka lo Community fo Kaikai (SWoCK) / Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security   |   |                                       |   |
| UNDP Project ID:            | 00078069  | Project financing                                   | at endorsement<br>(Million US\$)      | at TE (Million US\$)                                |
| ATLAS Project ID:           | 00061585  | AF financing:                                       | 5,100,000                             |   |
| Country:                    | Solomon Islands   | IA/EA own:  | N/A                                   |   |
| Region:                     | Asia-Pacific  | Government:   | N/A                                   |   |
| Focal Area:                 | Climate Change<br>Adaptation  | Other:  | N/A                                   |   |
|                             |   | Total co-financing:                                 | N/A                                   |   |
| Executing Agency:           | Ministry of Environment,<br>Climate Change, Disaster<br>Management and<br>Meteorology (MECDM)   | Total Project Cost<br>in cash:                      | 5,100,000                             |   |
| Other Partners<br>involved: | Ministry of Agriculture and<br>Livestock (MAL)<br>School of Natural<br>Resources, Solomon<br>Islands College of Higher<br>Education (SNR-SICHE)<br>Provincial Governments<br>Kastom Gaden, Nut<br>Growers Association of<br>Solomon Islands | Date project began (date of Inception<br>Workshop): |                                       | 30 June 2011  |
|                             |   |   | Planned closing date:<br>30 June 2015 | Revised closing date:<br>30 <sup>th</sup> June 2016 |

## **OBJECTIVE, EXPECTED OUTCOMES AND OUTPUTS**

As a Least Developed Country, Solomon Islands is one of the most vulnerable countries to the predicted impacts of climate change. The process of formulating the Solomon Islands National Adaptation Program of Action (NAPA) in 2009 identified agriculture as one of the most vulnerable sectors requiring urgent attention. The project entitled “Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security” (or locally known as “Strongem Waka lo Community fo Kaikai (SWoCK)”) was designed to address the NAPA priority related to food security and climate change adaptation in the agriculture sector

The objective of the project is to strengthen ability of communities in Solomon Islands to make informed decisions about and manage likely climate change driven pressures on food production and management systems. In particular, the project will lead to the following key results (outcomes); 1) Promote and pilot community-adaptation activities enhancing food security and livelihood resilience in pilot communities in at least 3 selected regions; 2) Strengthen institutions and adjusted national and sub-national policies related to governing agriculture in the context of a range of climate change futures; and 3) Foster the generation and spread of relevant knowledge for assisting decision-making at the community and policy-formulation level. Progress towards achieving these outcomes is measured using the indicators in Annex 1.

## **RESOURCES REQUIRED**

Consultants to provide own laptop, own work space, stationaries and transportation (Honiara meetings)

## **SUPERVISION/REPORTING**

The Evaluation Support Expert is expected to work under the direct supervision of the SWoCK Project Manager, UNDP Pacific-Solomon Islands Office Programme staff, the Regional Technical Advisor and National Project Director.

## **DUTIES AND RESPONSIBILITIES**

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The evaluators are expected to conduct a field mission to Isabel, Malaita and Choiseul Province, including the following project sites; Kmagha, Tirotonna, Gozoruru in Isabel; Lilisiana, Daolusu, Radeaekoa in Malaita, and Tarokukure, Voza and Sasamunga in Choiseul Province. Interviews should be held with the following organizations and individuals at a minimum:

- UNDP staff who have project responsibilities;
- National Executing agency and key implementing partners
- The Chair of Project Board
- The National Programme Director (NPD)
- Project stakeholders; including academia, local government and non-government.

The evaluation team will review all relevant sources of information, such as the project document, project reports – including Annual PPRs, Project Budget Revisions, Midterm Review Report, Progress Reports, Adaptation Fund tracking tools, project files, national strategic and legal documents (LoAs, Micro Grants, MoU), and any other materials that the evaluation team considers useful for this evidence-based assessment (see Annex B). The project team will provide these documents to the selected evaluation team.

## **EVALUATION CRITERIA & RATINGS:**

An overall approach and method for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluation should include a mixed methodology of document review, interviews, and observations from project site visits, at minimum, and the evaluators should make an effort to triangulate information. The evaluators are expected to frame the evaluation effort using the criteria of **relevance, effectiveness, efficiency, sustainability, and impact**, as defined and explained in the [UNDP Guidance for Conducting Terminal Evaluation of UNDP-supported, GEF-financed Projects](#). A set of questions covering each of these criteria have been drafted and are included with this TOR (see Annex C) The evaluation team is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. Ratings must be provided on the following performance criteria:

- Monitoring and Evaluation design at entry
- Monitoring and Evaluation Plan Implementation
- Overall quality of M&E
- Relevance
- Effectiveness
- Efficiency
- Overall Project Outcome Rating
- Quality of UNDP Implementation – Implementing Agency (IA)
- Quality of Execution - Executing Agency (EA)
- Overall quality of Implementation / Execution
- Sustainability of Financial resources
- Socio-political Sustainability
- Institutional framework and governance sustainability
- Environmental sustainability
- Overall likelihood of sustainability

The completed evaluation ratings table must be included in the evaluation executive summary. The evaluation ratings table and obligatory rating scales are included in Annex D. A full recommended report outline can be found in the TE Guidance

## **PROJECT FINANCE AND CO-FINANCE:**

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the Required Co-financing Table (as found in the TE Guidance, page 30), which will be included in the terminal evaluation report.

## **MAINSTREAMING:**

UNDP supported AF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project has successfully mainstreamed other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender. The evaluation will examine this project's contribution to the United Nations Development Assistance Framework (UNDAF).

## **IMPACT:**

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in building climate resilience, and/or b) verifiable reductions in the vulnerability of communities to food security risks [a useful tool for gauging progress to impact is the 2009 Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: [ROtI Handbook 2009](#)].

## **CONCLUSIONS, RECOMMENDATIONS & LESSONS:**

The evaluation report must include a chapter providing a set of **conclusions, recommendations and lessons**. Conclusions should build on findings and be based in evidence. Recommendations should be prioritized, specific, relevant, and targeted, with suggested implementers of the recommendations. Lessons should have wider applicability to other initiatives across the region, the area of intervention, and for the future.

## **IMPLEMENTATION ARRANGEMENTS:**

The principal responsibility for managing this evaluation resides with UNDP Pacific Solomon Islands. UNDP Pacific Solomon Islands will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. The Project Management Unit will render support where necessary to the Evaluation team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

**E**

## **VALUATION TIMEFRAME:**

The total duration of the evaluation will be 35 working days over a time period of 8 weeks, according to the following plan:

- *Preparation: 24<sup>th</sup> June 2016*
- *Evaluation Mission : 1<sup>st</sup> – 17<sup>th</sup> July : (inclusive of weekend) , expected completion date: 17<sup>th</sup> July 2016*
- *Draft Evaluation Report:*
- *Final Report: before 02<sup>nd</sup> August 2016*

**DELIVERABLES:**

The evaluation team is expected to deliver the following:

- **1.Inception Report:** Evaluators provides clarifications on timing and method, Evaluator submits to UNDP Pacific Solomon Islands no later than a week before the evaluation mission

| International  | National          |
|--|-------------------|
| Evaluator provides clarifications on timing and method | Background report |

- **Presentation of Initial Findings:** Evaluator submits to project management and UNDP Pacific Solomon Islands at the end of evaluation mission

| International      | National                          |
|--------------------|-----------------------------------|
| Preliminary Report | Consultation Field Mission Report |

- **Draft Final Report:** Full report (per template provided in TE Guidance) with annexes, Evaluators submits to CO within 3 weeks of the evaluation mission, reviewed by RTA, PCU, AF OFPs

| International   | National                        |
|---|---------------------------------|
| Synthesis draft report, (per annexed template) with annexes | Stakeholder Consultation Report |

- **Final Report:** Revised report, Evaluator submits to UNDP Pacific Solomon Islands office within 1 week of receiving UNDP comments on draft

| International  | National       |
|----------------|----------------|
| Revised report | Revised report |

\*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail' (see Annex H), detailing how all received comments have (and have not) been addressed in the final evaluation report.

**PAYMENT MODALITIES AND SPECIFICATIONS:**

|   | Deliverables   | Target Dates Revised (refer to contract) |
|---|--|--|
| 1 | 10%- at submission and approval of inception report<br>•   |  |
| 2 | 10%- Presentation of Initial Findings: Evaluator submits to project management and MECDM/MAL ,UNDP CO at the end of evaluation mission |  |
| 3 | 30%- Following submission and approval of the 1 <sup>st</sup> draft terminal evaluation report by MECDM,MAL,UNDP CO/RTA                |  |
| 4 | 50%- Following submission and approval (MECDM,MAL, UNDP CO/ RTA) of the final terminal evaluation report                               |  |

## COMPETENCIES

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### Corporate Competencies:

- Demonstrates integrity by modelling the UN's values and ethical standards;
- Promotes the vision, mission and strategic goals of UN/UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;

### Functional Competencies:

- Ability to lead strategic planning, results-based management and reporting;
- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback;
- Consistently approaches work with energy and a positive, constructive attitude;
- Demonstrates good oral and written communication skills;
- Demonstrates ability to manage complexities and work under pressure, as well as conflict resolution skills.
- Capability to work effectively under deadline pressure and to take on a range of responsibilities;
- Ability to work in a team, good decision-making skills, communication and writing skills.

The evaluation team will be held to the highest ethical standards and are required to sign a Code of Conduct upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guideline for Evaluations' (see Annex E).

## REQUIRED SKILLS AND EXPERIENCE

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The evaluation team will be composed of *1 international and 1 national evaluator*. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities. The Terminal Evaluation Team will have the following key responsibilities:

### International Consultant (Team Leader)

The International Consultant shall be responsible for completing and delegating tasks as appropriate for the Terminal Evaluation to the National Counterpart. He/she will ensure the timely submission of the first draft and the final version of the Terminal Evaluation Report with incorporated comments from UNDP and others.

### National Consultant (Team member)

The National Consultant will, jointly with, and under the supervision of the International Consultant, support the evaluation. He/she will be responsible to review documents, translate necessary documents and interpret interviews, meetings and other relevant events for the International Consultant. He/she will work as a liaison for stakeholders of the project and ensures all stakeholders of the project are aware of the purposes and methods of the evaluation and ensures all meetings and interviews take place in a timely and effective manner.

Provide logistical support for the evaluation mission as per travel schedule.

The consultants must satisfy the following qualifications:

**International Consultant**

**Education (10%):**

- A minimum Master degree in fields related to climate change adaptation, agriculture, sustainable land use

**Competencies (30%):**

- Demonstrable analytical skills;
- Competence in Adaptive Management, as applied to conservation or natural resource management;
- Excellent English communication skills;
- Project evaluation/review experiences within United Nations system will be considered an asset;
- Knowledge of UNDP and AF;
- Technical knowledge in agriculture, landuse and climate change.
- Excellent report writing skills
- Good knowledge of Solomon Pidgin is an asset.

**Experience (30%)**

- The evaluators should be an expert with at least 7 years of experience fields related to land use and agriculture;
- The evaluators should have 7 years of experience in implementing or evaluating projects or rural development activities in the Pacific region;
- The evaluator should have some experience in implementing or evaluating climate change adaptation related projects;
- Experience applying SMART indicators and reconstructing or validating baseline scenarios;
- Previous experience with results-based monitoring and evaluation methodologies;
- Experience with evaluating similar AF/GEF financed projects is an advantage.

**Financial (30%)**

## Annex 2. Evaluation Matrix

| Evaluative Criteria Questions   | Indicators  | Sources   | Methodology   |
|---|---|---|---|
| Relevance: How does the project relate to the main objectives of the AF, and to the environment and development priorities at the local, regional and national levels?            |   |   |   |
| To what extent is the project suited to local and national development priorities and policies?   | Explicit expression/ support of formal/ informal policy targets in project objectives/ targets  | National and provincial policies and policy instruments<br>Interviews with national, provincial and community officials and representatives | Policy analysis/ review<br><br>Focus group discussions/ case studies/ individual interviews |
| To what extent are the objectives and design of the project supporting regional environment and development priorities?   | Explicit expression/ support of UNFCCC policy targets in project objectives/ targets  | UNFCCC and Adaptation Fund policies and guidelines  | Policy analysis/ review   |
| Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?   |   |   |   |
| Has the project been effective in achieving the expected outcomes and objectives?   | Targets of the project's indicator framework  | Quantitative information provided by the project<br>Qualitative understanding of effects at field level                                     | Data analysis/ cross check visits<br>FDG and individual interviews                          |
| To what extent has the project increased institutional capacity (at national/ provincial and community level) to help build the resilience of communities in the Solomon Islands? | Inclusion of project targets, especially climate change risks into government and non-government agency procedure<br>Capacity self-assessment | Sector policies<br><br>National/ provincial/ community officials/ representatives   | Policy analysis/ review<br><br>Focus group discussions/ case studies/ individual interviews |
| What were the climatic risks involved and to what extent were they managed?   | Extent of accuracy of climate/ non-climate risks identified in the project design   | Peer reviewed/ grey literature<br><br>Stakeholders/ experts/ officials  | Literature review<br><br>Individual interviews  |

| Evaluative Criteria Questions   | Indicators  | Sources   | Methodology                                   |
|---|---|---|---|
| <b>Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?</b>  |   |   |   |
| Is there monitoring and evaluation for climate resilience?  | Extent of implementation of climate proof policies and community land use plans   | Community/ government budgets<br>National/ provincial officials/ community representatives                                  | Data analysis<br>FGD/ individual interviews   |
| <b>Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?</b>  |   |   |   |
| How cost-effective were project interventions?<br>To what extent was project support provided in an efficient way?  | Delivery rate<br>Benefit-cost ratio   | Financial reports<br>Financial information  | Data analysis                                 |
| How efficient were partnership arrangements for the project and why?  | Extension of inclusion of all relevant stakeholders in project governance   | Project document<br>Midterm review<br>Project management unit team/ UNDP team/ national, provincial officials               | Document review<br>FGD/ individual interviews |
| Was project support provided in an efficient way?   | Extent to which implementing and executing agency provided adequate support and resources for project implementation                  | Project reports<br>Midterm review<br>Project management unit team/ UNDP team/ national, provincial officials                | Document review<br>FGD/ individual interviews |
| <b>Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?</b>        |   |   |   |
| What risk will affect/influence the project's outcomes and in what ways?  | Strengths, weaknesses, threats and opportunities across financial, socio-economic, institutional and environmental dimensions         | Project reports<br>Peer-reviewed literature<br>Grey literature<br>Stakeholders/ experts                                     | Document review<br>FDG/ individual interviews |
| <b>Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?</b> |   |   |   |
| To what extent has the project contributed to improvements in building climate resilience, and/or reductions in the vulnerability?                                    | Measure of risks: dependence of climate sensitive activities, likelihood of climate related impacts, self-assessment of vulnerability | Project reports<br>Peer-reviewed literature<br>Grey literature<br>Community representatives/ national/ provincial officials | Document review<br>FDG/ individual interviews |

## Annex 3: evaluation consultant code of conduct agreement form

### **Evaluators:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

**Evaluation Consultant Agreement Form**

**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** José Antonio Cabo Buján

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed in Kathmandu, Nepal on 22/06/2016

Signature:



**Evaluation Consultant Agreement Form**

**Agreement to abide by the Code of Conduct for Evaluation in the UN System**

**Name of Consultant:** Titus Sura

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed in Honiara, Solomon Islands on /06/2016

Signature:



## Annex 4 References

- ACIAR. (2010). *Aibika, Factsheet 3, produced for the feasibility study on increasing the consumption of nutritionally-rich leafy vegetables by indigenous communities in Samoa, Solomon Is, and Northern Australia*. Canberra, Australia: Australian Government, Australian Center for International Agricultural Research.
- Adaptation Fund. (2012). *Evaluation Framework*. Washington DC, USA: Adaptation Fund.
- Adaptation Fund. (2016, August 22). *Adaptation Fund Projects and Programmes*. Retrieved from Enhancing resilience of communities in the Solomon Islands to the adverse effects of climate change in agriculture and food security: <https://www.adaptation-fund.org/project/enhancing-resilience-of-communities-in-solomon-islands-to-the-adverse-effects-of-climate-change-in-agriculture-and-food-security/>
- ADB. (2011). *Community-Based Climate Vulnerability Assessment and Adaptation Planning. A Cook Islands Pilot Project*. Manila, Philippines: ADB.
- ADB. (2012). *Country Partnership Strategy Solomon Islands 2012-2016*. Manila, Philippines: ADB.
- AUSAid. (2013). *Delivery Strategy Solomon Islands Economic and Public Sector Governance Program (SIGOV) 2013-14 to 2017-18*. Canberra, Australia: Australian Government.
- Ernst & Young. (2014). *HACT Micro-Assessment of Capacity Development and Financial Management: Ministry of Agriculture and Livestock*. Honiara: UNDP.
- Firidede, R. (2015). *Langalanga Backyard Garden Report*. Honiara, Solomon Islands: SWoCK.
- French, R. (2010). *Leafy Greens and Vegetables in Solomon Islands*. Devonport: Rotary Club.
- GEF. (2009). *The ROTI Handbook: Towards Enhancing the Impact of Environmental Projects*. Washington: The GEF.
- Google. (2016, June 22). *Internet users in the Solomon Islands as percentage of the total population*. Retrieved from Data from Google and the World Bank: [www.google.com](http://www.google.com)
- Iese, V., Holland, E., Maeke, J., Wairu, M., & Naidu, S. (2015). *Farming Adaptations to the Impacts of Climate Change and Extreme Events in Pacific Island Countries: case study of Bellona Atoll, Solomon Islands*. Suva, Fiji: IGI Global.
- Lamba, L., & Damutalau, J. (2013). *Lau Lagoon Farming Systems Baseline Survey Report*. Honiara, Solomon Islands: SWoCK.
- Mataki, M., Solo, G., Donohoe, P., Alele, D., & Sikajajaka, L. (2013). *Choiseul Province Climate Change Vulnerability and Adaptation Assessment Report*. Suva, Fiji: Secretariat of the Pacific Community .
- MECDM. (2011). *Project Inception Report: Enhancing Resilience of Communities in the Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security*. Honiara, Solomon Islands: MECDM.
- MECDM. (2011). *Solomon Islands National Climate Change Policy: 2012 - 2017*. Honiara, Solomon Islands: MECDM.

- MECM. (2008). *National Adaptation Program of Action*. Honiara, Solomon Islands: Government of the Solomon Islands.
- Ministry of Finance and Treasure. (2013). *Medium Term Fiscal Strategy: 2013-2018*. Honiara, Solomon Islands: MoF.
- MNRE; MAF. (2014). *Climate Services to Agriculture through the Climate Early Warning System*. Apia, Samoa: UNDP.
- Odon, F. (2016). *Report on Germplasm Nursery Establishment and Maintenance at Garanga Field Experimental Station*. Honiara, Solomon Islands: SWoCK.
- Odon, F. (2016). *Report on SWoCK Farmer Exchange Program Preparation Mission in Isabel Province 2016*. Honiara, Solomon Islands: SWoCK Project.
- PAPP. (2015). *Solomon Islands Agriculture & Livestock Sector Policy 2015-2019 Summary*. Fiji: SPC.
- PAPP. (2015). *Solomon Islands Agriculture and Livestock Sector Policy 2015-2019*. Fiji: SPC.
- PMU. (2016, June 24). Map of SWoCK Project Sites.
- PMU, S. (2016). *Project Completion Report*. Honiara, Solomon Islands: SWoCK PMU.
- Prior, J., Saelea, J., Fidali, K., & Sefa, S. I. (2015). *Solomon Islands Rural Land Use Policy 2015-2020*. Honiara, Solomon Islands: UNDP.
- Qwanafia, M. B. (2013). *Bulking Site at Avuavu and Haisere in South Guadalcanal*. Honiara, Solomon Islands: SWoCK.
- Reisinger, A., Kitching, R., Chiew, F., Hughes, L., Newton, P., Schuster, S., . . . P.Whetton. (2014). *Australasia*. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, United Kingdom: Cambridge University Press.
- Saunana, M. (2013). *2013 South Makira Baseline Report. Farming System Baseline Report*. Honiara, Solomon Islands: SWoCK.
- Saunana, M. (2016). *Sasamunga community women's saving club report, Choiseul*. Honiara, Solomon Islands: SWoCK.
- SIBC. (2015, November 1). *Solomon Islands Broadcasting Corporation*. Retrieved from Agriculture Launched Policy Bank in Honiara : <http://www.sibconline.com.sb/agriculture-launched-policy-bank-in-honiara/>
- SIG. (2015). *National Rural and Land Use Policy 2015-2020*. Honiara, Solomon Islands: SIG.
- SINSO. (2015). *Solomon Islands 2012/13 Household Income and Expenditure Survey. National Analytical Report*. Honiara, Solomon Islands: Solomon Islands Statistical Office.
- SINSO; UNDP. (2008). *Solomon Islands, Analysis of the 2005/06 Household and Expenditure Survey*. Honiara, Solomon Islands: Solomon Islands Statistical Office.
- SWoCK PMU. (2012). *Project Performance Report 2011-2012*. Honiara, Solomon Islands: SWoCK.

- SWoCK PMU. (2015). *Project Performance Report (2014-2015)*. Honiara, Solomon Islands: UNDP.
- SWoCK PMU. (n.d.). *Plant Genetic Resources for Food and Agriculture in the Solomon Islands: A desktop review*. Honiara, Solomon Islands: SWoCK.
- SWoCK-PMU. (2013). *Project Performance Report 2012-2013*. Honiara, Solomon Islands: SWoCK.
- SWoCK-PMU. (2015). *Status Report on Solomon Islands Plant Genetic Resources for Food and Agriculture (PGRFA)*. Honiara, Solomon Islands: SWoCK.
- SWoCK-PMU. (Undated). *Food Security and Climate Change Adverse Effects on Solomon Islands Communities Survey*. Honiara, Solomon Islands: SWoCK.
- SWoCK-PMU. (Undated). *Veramogo Community, Talise Ward*. Honiara, Solomon Islands: SWoCK.
- Tanisapa, M., & Carlos, S. (2015). *Mission report during the handover of CBLI action plan and collecting sample at the four targeted communities in Makira*. Honiara, Solomon Islands: SWoCK.
- Tohaimae, S. (2015). *Implementation of the Community Based Land Use Plan of Action in Isabel Province*. Honiara, Solomon Islands: SWoCK.
- Tohaime, S., & Odon, F. (2015). *Food Bank Establishment and Expansion at 2 SWoCK targeted communities in Isabel Province*. Honiara, Solomon Islands: SWoCK.
- Tooler, N. B., & Leghuau, E. (2013). *Sea Level Rise Survey, Isabel Province*. Honiara, Solomon Islands: SWoCK.
- Tugunau, J., & Fülöp, B. (2014). *Mid Evaluation Report: Enhancing Resilience of Communities in Solomon Islands to the Adverse Effects of Climate Change in Agriculture and Food Security*. Honiara, Solomon Islands: UNDP.
- UNDP. (2009). *Project Proposal: Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security*. Honiara, Solomon Islands: UNDP.
- UNDP. (2011). *National Implementation by the Government of UNDP Supported Projects: Guidelines and Procedures*. New York, USA: UNDP.
- UNDP. (2012). *Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects*. New York, USA: UNDP.
- UNEG. (2008). *Ethical Guidelines for Evaluations*. New York: UNEG.
- Wasi, F. D. (2016). *Final Choiseul Mission Detailed Report: 17th April-8th May, 2016*. Honiara, Solomon Islands: SWoCK Project.
- World Bank. (2016, August 22). *World Bank Data*. Retrieved from Official exchange rate (LCU per US\$, period average), 2015:  
<http://data.worldbank.org/indicator/PA.NUS.FCRF?end=2015&locations=SB&start=2015>

World Bank. (2016, September 3). *World Bank Data*. Retrieved from Mobile cellular subscriptions (per 100 people):  
<http://data.worldbank.org/indicator/IT.CEL.SETS.P2?locations=SB>

World Bank. (2016, September 03). *World Bank Data*. Retrieved from Population, total and Fertility rate, total (births per woman) for the Solomon Islands:  
<http://data.worldbank.org/>

World Bank. (2016, September 3). *World Bank Data*. Retrieved from Net enrolment rate, secondary, both sexes (%):  
<http://data.worldbank.org/indicator/SE.SEC.NENR?locations=SB>

Zoti, C. (2015). *Avuavu, Haisere and Kuma Communities, Guadalcanal Island*. Hoinara, Solomon Islands: SWoCK.

## Annex 5. List of persons interviewed

Government officials, UNDP staff, non-government organization staff interviewed in Honiara.

| <b>Name of persons consulted</b> | <b>Title/Responsibility</b>                       | <b>Organization</b>                      |
|----------------------------------|---|--|
| Mrs. Asuza Kubota,               | UN's Joint Representative for the Solomon Islands | UNDP Sub-Office, Solomon Islands         |
| Kristina Fidali                  | Project Manager                                   | SWoCK PMU                                |
| Lynelle Popot                    | UNDP Analyst                                      | UNDP                                     |
| Jimi Saelea                      | Permanent Secretary                               | Ministry of Agriculture and Livestock    |
| Jimmy Walton                     | Principal Land Use Planning officer               | Land use Planning unit- MAL              |
| Douglas Yee                      | Director Climate Change                           | Climate Change Division                  |
| Dr. Melchior Mataki              | Permanent Secretary                               | MECDM                                    |
| Barnabas                         | Meteorology Officer                               | Solomon Islands Meteorological Services  |
| Lottie Yates                     | Disaster Officer                                  | National Disaster Management Office      |
| John Tatalo                      | Agriculture                                       | SNRAS-SINU                               |
| Clement Hadosaea                 | Director  | Kastom Gaden Association (not available) |
| Richard Pauku                    | Director  | NGASI (not available)                    |
|                                  |   |  |

List of officials and lead farmers interviewed during the field mission in the provincial headquarters and project sites

| <b>Name of persons consulted</b> | <b>Title/Responsibility</b> | <b>Organization</b>                    |
|----------------------------------|-----------------------------|--|
| Peter Ramohia                    | Premier                     | Auki, Malaita province (not available) |
| John Faleka                      | CFO- Agriculture            | Auki, Malaita province                 |
| Christopher Walekwaifi           | Chairman                    | Lilisiana project site                 |
| Francis Fiote'e                  | Lead farmer                 | Lilisiana project site                 |
| Harry Bulu                       | Lead farmer                 | Lilisiana project site                 |
| Tony Siosi                       | Lead farmer                 | Lilisiana project site                 |
| Rebecca Fiote'e                  | Farmer                      | Lilisiana project site                 |
| Clement Ramo                     | Chairman                    | Daolusu project site                   |
| Simon Peter                      | Lead farmer                 | Daolusu project site                   |
| Willy Pelise                     | Lead farmer                 | Daolusu project site                   |
| Maebiru Alatau                   | Lead farmer                 | Daolusu project site                   |
| Jeffrey Teve                     | Lead Farmer                 | Daolusu project site                   |
| Russell Gwaoa                    | Chairman                    | Radeaekoa project site                 |
| Clodetha Basi                    | Lead farmer                 | Radeaekoa project site                 |
| Dominic Molaiburi                | Lead farmer                 | Radeaekoa project site                 |
| Michael Maesala                  | Lead farmer                 | Radeaekoa project site                 |
| Charles Fuatofea                 | Lead farmer                 | Radeaekoa project site                 |
| Stanley Siapu                    | Premier                     | Makira province (not available)        |
| Selwyn Meplu                     | PFO- Agriculture            | Makira province                        |
| Matthew Weawa                    | Chairman                    | Wanehata project site                  |
| Timothy Makana                   | Lead farmer                 | Wanehata project site                  |
| Henrietha Rawa                   | Lead farmer                 | Wanehata project site                  |
| Angella Mae                      | Lead farmer                 | Wanehata project site                  |
| Edmond Muri                      | Lead farmer                 | Wanehata project site                  |
| Thomas Hagamuri                  | Chairman                    | Parego project site                    |
| Jimson Haga                      | Lead farmer                 | Parego project site                    |
| Alfred Muri                      | Lead farmer                 | Parego project site                    |
| Regina Riki                      | Lead farmer                 | Parego project site                    |
| Poly Pinihaga                    | Lead farmer                 | Parego project site                    |
| Mr.&Mrs Franklyn Wasi            | Farmer                      | Marunga(non-project site)              |
| Presley Habu                     | Premier                     | Isabel province (not available)        |
| Jeffrey E'eniara                 | CFO-Agriculture             | Isabel province                        |
| Noel Standby                     | Chairman                    | Tirotonna project site                 |
| Mevalyn Authegna                 | Lead farmer                 | Tirotonna project site                 |
| Oscar Teimana                    | Lead farmer                 | Tirotonna project site                 |
| Fredrick Jenny                   | Chairman                    | K'manga project site                   |
| Dennis Teomae                    | Lead farmer                 | K'manga project site                   |
| Cathy Tana                       | Lead farmer                 | K'manga project site                   |
| David Mai                        | Lead farmer                 | K'manga project site                   |
| Rex Niumanata                    | Assistant Research officer  | Garanga reseach field station          |

## Annex 6. Description of field visits

According to the international and national evaluator's terms of reference the field mission selected and interviews to be conducted in the 3 agro-ecological regions identified in the project document. The sites selected were Wanehata, Parego project sites and Marunga non-project site in Makira province representing the windward side, K'manga, Tiroto'na and Garanga in Isabel province representing the leeward side and Lilisiana, Radeaekoa, Daolusu and Sikifa'alu non-project site in Malaita province representing the low lying /atolls. The field mission took 17 days including travelling time, starting from Saturday 2<sup>nd</sup> July to Saturday 16<sup>th</sup> July to cover all the project sites.

The national evaluator Mr. Titus Sura, from Honiara travelled by plane and arrived in Auki Friday 1<sup>st</sup> July to carry out the first field mission on the 3 project sites in Malaita (Lilisiana, Radeaekoa, Daolusu) and 1 non-project site (Sikifa'alu), and paid 3 nights' accommodation at Auki motel conveniently located right at the center of Auki township.

### **Saturday 2<sup>nd</sup> July, Auki Agriculture Extension office, Malaita province**

Auki is Malaita province's capital town, hosting the provinces main sea port, Auki central market, hospital, slightly fast growing commercial and business center, the center of the province's political head, administration, police and correctional services. It has a population of over 3,000 people with different ethnic backgrounds but still the majority are from Malaita province itself. About 10:00 am, accompanied by Malaita SWoCK PPC, Mr. Robert Firidede, the national evaluator arrived at the Provincial Agriculture Extension office to make the first interview with Mr. John Faleka the Chief field officer-head of the Agriculture Extension Services in Malaita province. He was interviewed using the interview questionnaire format that was specifically prepared for Government officials during the TE field mission. The interview took more than 45 minutes. The Chief field officer acknowledged the work of the SWoCK project in trying to address the climate change vulnerable project sites of Malaita, knowing these sites faced the reality of Climate change issues and food security, the high population pressure on land, and sea level rising the matter is of first priority to the province and national government to address head on. Now that SWoCK project life ends, his hope is for the national government to sustain the project and it must be prepared to address these issues with adequate budget allocations with a relocation policy in place .The interview ended at 11:10 am.

### **Saturday 2<sup>nd</sup> July, Lilisiana project site, Malaita province**

Lilisiana project site is approximately 15 minutes' walk from Auki Township. Lilisiana is a low lying coastal village, very vulnerable to sea level rise, in ward1, Aoke-Langalanga constituency. By Solomon Islands population size, it has a relatively big population, more than 1000 people living in 96 households, Youths-600+, Adults-400+ disable-14, on average 8 people per household.

Interviews with lead farmers started at 1:00 o'clock in the afternoon and ended at around 3:00 pm, 10 family's representatives attended and participated in focus group discussions. The chairman of Lilisiana project site opened the meeting with a word of welcome followed by a short prayer, then a brief introduction to the TE field mission by Malaita PPC. The national evaluator progressed with the interview using the interview questionnaire format specifically structured for the lead farmers. Lead farmers were very cooperative, positive and openly share their project understanding, the benefits and many issues and challenges they face during the

life of the project. After the interview session, refreshment was served and a short visit to take pictures and see the backyard gardens in the community was organized immediately after.

#### **Sunday 3<sup>rd</sup> July, Radeakoa pilot site, Langalanga lagoon, Malaita province**

The national evaluator arrived at 11:30 am, just after Sunday community church service, it was raining since morning and not very appropriate time to hold meetings. Radeakoa village is about 30 minutes travel by 40 horse power outboard motor/boat from Auki township, also a coastal low lying village situated right in the heart of Langalanga lagoon, inside ward 30, Aoke-Langalanga constituency.

The community has 102 households with a total population of approximately 437 (Youths-101+, Adults-115+ disable-3), average number of people per household is 6.

Interviews with lead farmers started late at 2:00 o'clock because of the rain and ended at around 3:00 pm. In spite of the rain, 13 family's representatives attended and participated in focus group discussions. Selected lead farmers were interviewed based on the interview questionnaires specifically structured for the terminal evaluation field mission. After the interview session, lunch was provided and as it was raining it was not convenient to visit all the backyard gardens, nursery and poultry as planned. However, the national evaluator managed to visit and took some pictures.

#### **Sunday 3<sup>rd</sup> July, Daolusu project site, Langalanga Lagoon, Malaita province**

The national evaluator arrived at Daolusu community around 3:30 pm, and 9 lead farmers attended and interviewed, and the meeting ended around 5:30 pm. Daolusu village is also situated inside Langalanga lagoon, ward 30, of the Aoke-Langalanga constituency. It is also one of the most vulnerable villages to climate change sea level rise as it is coastal and behind mangrove type environment. The community has 40 households with a total population of over 328 people (Infants – 25 Youths-200, Adults-100+ disable-3) and average of 5 people per household.

The interview meeting started with words of welcome and opening prayer from the Chairman of Daolusu project site followed by introductory remarks from Malaita PPC. After the formalities, the national evaluator progressed with the interview based on the interview questionnaire format prepared for the TE field mission. The evaluator made a short visit around the community's backyard gardens and took some pictures after that a light refreshment was served and the team left for the next site.

#### **Sunday 3<sup>rd</sup> July, Sikifa'alu non-project site, Langalanga Lagoon, Malaita province**

Sikifa'alu is low lying and coastal village, inside Langalanga lagoon, ward 30, Aoke-Langalanga constituency. It has 70-80 households; with a total population of 500 plus people and the average number of people per household is 6.

It was already dark nearly 7:00 pm when the national evaluator arrived at Sikifa'alu village, it's a non-project site between Radeakoa and Daolusu. It was very late and 7 people (5 female and 2 male) attended the interview meeting session. The interview meeting started around 7:30 pm with Malaita PPC introducing the terminal evaluation field mission and the national evaluator progressed straight into the interview. By contrast Sikifa'alu village is bigger community than Daolusu and Radeakoa and more developed than Daolusu. This community also faces similar

issues faced by other project sites inside the lagoon, but to some extent Sikifa'alu community has more land area for agriculture and other economic development expansions. When asked about accessing projects, one of the interviewees said for a longtime this community has difficulties accessing projects, and has not received any project assistance from the government, or assistance from donors and non-governmental organizations.

Monday 4<sup>th</sup> July the national evaluator took a flight and returned to Honiara waiting for the next flight, Thursday 7<sup>th</sup> July for the Makira field mission.

Upon arrival in the morning of Thursday 7<sup>th</sup> July ( Solomon Islands independence day), the national evaluator travelled to Wanehata village the same day, leaving Kirakira township around 11:30 am driven by 40 horsepower outboard motor engine/boat and arrived at Wanehata round 5:30 pm, travelling time of approximately 6 hours. The national evaluator, Makira PPC and canoe driver receive one night accommodation at Wanehata rest house which is owned by a local caretaker dresser working for the Wanehata community clinic.

#### **Friday 8<sup>th</sup> July, Wanehata project site, Makira province**

Wanehata is a coastal village, situated in the windward side of Makira province, normally called "weather coast" side of the island well known for high seas, propelled by strong south trade winds, periodic cyclones and high rainfall. The village is located on relatively narrow strip of flat land along the coast 50 to 100 meters wide in land and immediately after that slight to steep slopes between 15-45 degrees slope, undulating nature, it is where most of the food gardens can be located. It is inside ward 17 of East Makira constituency. It has 24 households with a total population of around 300 people (Infants- 10 Youths-40+, Adults-244+ disable-6) and an average of 6 people per household.

The meeting expected high attendance rate however, only 6 families attended and represented in focus group discussions as others especially men left the village to work in a logging company just nearby.

The interview meeting started at 9:00 am, with an opening prayer and welcome remarks by the community chairman, followed by Makira PPC's introduction to the meeting. The national evaluator took the interview sessions with five lead farmers until the interview ended at around 10:30, when a light refreshment was served, after that 45 minutes of field visit to the farmers field plots and gardens.

The national evaluator and accompanying PPC and driver left Wanehata village around 12:00 pm and arrived at next project site, Parego village at 5:00 pm, 5 hours journey. The trio- got 2 nights' accommodation at the Parego SSEC rest house with very kind hospitality from the lead farmers.

#### **Saturday 9<sup>th</sup> July, Parego Project site, Makira province**

Parego village is situated in ward 19 of East Makira constituency. It has 75 households with a total population of over 400, Infants- 50 Youths-145+, Adults-200+ disable-5 and an average of 5 per household.

On Saturday morning at 9:00 am, interview meeting was held inside the community Kindergarten classroom attended by 7 lead farmers. The meeting started with the chairman's welcome and opening prayer followed by the PPC's introduction to the terminal evaluation field mission. The national evaluator, commenced with interviewing 5 lead farmers. The interview ended at 10:30 am with light refreshment to conclude the day. After that, the national evaluator took an hour and half to visit the farmer's plots, backyard gardens, hillside gardens, food banks and banana collection, also observing the various soil management and fertility improvement techniques such as mulching, composting, crop rotation, contour farming, and the types of crops cultivated.

At around 1:00 pm the national evaluator travelled to Marunga village, a non-project site to interview and collected some information from the community for comparative analysis.

#### **Saturday 9<sup>th</sup> July, Marunga non-project site, Makira province**

It took less than 25 minutes to travel by the 40 horsepower OBM/Boat to Marunga village. Marunga community is slightly bigger than Wanehata and Parego, also in ward 19 of East Makira constituency. It has 120 households and population of over 500 with average of 5 people per household. It was busy day for the community and only 4 people (3 male and 1 female) from one and extended family members attended. The interview started at 2:00 and ended at 3:00 pm, and as usual the family's welcome and short opening prayer followed by the Makira PPC introduction of the terminal evaluation of the SWoCK project, then after the national evaluator progressed with the interviews, followed by a short visit to the garden sites where the community make food gardens and cash crop cultivation.

The national evaluator returned back to Parego for the night, and left the next morning of Sunday 10<sup>th</sup> July for KiraKira.

#### **Monday 11<sup>th</sup> July, interview Principal Field officer Agriculture Extension, Makira and Ulawa province**

Kirakira is the capital town of Makira province, is less developed without a sea port, small market for agriculture produce and fish, hospital, very small commercial and business activities, and is the main center of the province's political head, administration, and policing services. It has a population of over 1,000 people with different ethnic backgrounds but the majority from Makira and Ulawa province itself.

Around 9:00 am, the national evaluator interviewed the Principal Field officer-Agriculture Extension, Mr. Selwyn Meplu inside the Kirakira Agriculture Extension office. The principal field officer acknowledged and so grateful with the assistance the SWoCK project has provided and benefited the 3 project sites, and also in supporting the Makira agriculture extension services in achieving its programs. He is concerned about the continuity and sustainability of the assistance especially to farmers now that the SWoCK project life ends. He acknowledged UNDP, and the work of all stakeholders in implementing this project. The interview ended at 9:45 am.

The national evaluator returned to Honiara in the 11:45 am Solomon airline scheduled flight.

#### **Wednesday 13<sup>th</sup> July, Chief Field Officer of Agriculture Extension Services- Buala Isabel province**

Buala is the capital town of Isabel province situated on the Marige/Kokota constituency, hosting the provinces main sea port, Buala central market, hospital, slow growing commercial and business center, the center of the province's political head, administration and policing services. The Chief Field officer of Isabel province agriculture extension services, Jeffrey E'eniara was in Honiara to attend a workshop organized by the Ministry of Agriculture and Livestock and was interviewed at the Iron Bottom Sound hotel. He acknowledged and so grateful with the SWoCK project's assistance for the beneficiaries ing its and also the support the agriculture extension services received from the project in also carrying out its extension work and achieving some its programs in the province. The interview started at 5:00 pm and ended at 5:55 pm.

#### **Thursday 14<sup>th</sup> July- K'manga project site, Isabel province**

Isabel PPC transported the national evaluator by boat from Fera air strip to K'manga village, 6:30 pm arrival time and accommodated in one of the community's rest house.

K'manga village is situated on the leeward side, normally dry, with less rainfall, in ward 8 of Maringe/Kokota constituency, Isabel province. It comprises of 49 households, average of 6 people per household and total population of 358 people.

Interview meeting started at 9:00 am with 6 lead farmers attending, representing 6 households. The chairman of K'manga project site gave his welcome remarks with an opening prayer, and followed by Isabel PPC introduction of the terminal evaluation field mission. It took the national evaluator more than one hour to complete the interviews, and 50 minutes to visit the lead farmers plots and food gardens.

The national evaluator travelled back to Buala town and prepared for the steep walk up to the next project site of Tiroto'ona. The walk started around 6:00 pm from Buala and it took almost 2 hours to reach the community of Tiroto'ona.

#### **Friday 15<sup>th</sup> July, Tiroto'ona project site, Isabel province**

Tiroto'ona village is situated in the highlands, difficult undulating terrain, between 30-60 degrees slopes is where most food gardening takes place. In spite of the difficult terrain, the community has a church building, a school and community hall made from permanent materials, 3 rest houses for visitors and small canteens selling basic food and other household items, with hardworking people . In terms of political boundaries Tiroto'ona is in ward 6, Maringe/Kokota constituency of Isabel province. It comprises of 56 households, average of 8 people per household with a population of over 387 people.

At Tiroto'ona, the interview meeting started at 8:30 am attended by 6 lead farmers representing 6 households. The chairman started the meeting with a word of welcome and opening prayer, followed by Isabel PPC's introduction to the TE field mission. The national evaluator took one hour interviewing lead farmers and also over an hour to visit project plots and food gardens. Light refreshment was provided at mid-day and the field mission team returned to Buala.

#### **Friday 15<sup>th</sup> July, Garanga/Hozoruru research field station**

Garanga field research station is located west of Buala town, only 15 minutes' drive by truck, is one of the ministry of agriculture and livestock field research stations normally conducting crop

field trials, germplasm collections, bulking and demonstrations. In Buala, the national evaluator interviewed the Assistant Research officer in-charge of Garanga field research station, Mr. Rex Niumanata in the Agriculture Extension office, followed by a site visit to see the research nursery provided by the project with the new sweet potato and taro germplasm collection, Giant taro food bank, and banana collections supported by the project. It took 2 hours to complete the interview and the visit.

**Saturday 16<sup>th</sup> July, Automatic Weather Station, Fera Island**

The national evaluator visited the automatic weather station installed under the project on Fera Island just next to the airport. The facility is secure with proper fencing and surrounding area brushed and cleaned.

The mission to Isabel province is the final leg of the field mission scheduled under the national and international evaluator's terms of reference for the SWoCK project.

## Annex 7 Gallery



Automatic weather station, Fera, Isabel



Backyard garden in K'manga



Banana food bank



Dalousu pilot site



Screenhouse, Hozoruru research station, Isabel



Vegetable garden in Lilisiana



Food bank, Tirotona



Contour farming, Wahanata

All photos by Titus Sura

# Annex 8. Adaptation Fund's Result Tracker

| Adaptation Fund Strategic Results Framework   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|---|--|---|---|---|----------------|---|---|---|---------------------------|---|---|---|--------------|---|--|
| Project ID  |  | 00078069  |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Implementing Entity   |  | UNDP  |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Type of Implementing  |  | MIE   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Country   |  | Solomon Islands   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Region  |  | Asia-Pacific  |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Sector  |  | Agriculture   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Impact: Increased resiliency of the community, national and regional levels of climate variability and change | Core Indicator 1: No. of beneficiaries   | Baseline Information  |   |   |                | Performance (mid-term)  |   |   |                           | Performance (completion)  |   |   |              |   |  |
|   |  | Total indirect beneficiaries  | Direct beneficiaries supported by the project | Indirect beneficiaries supported by the project | Total          | Total indirect beneficiaries  | Direct beneficiaries supported by the project | Indirect beneficiaries supported by the project | Total                     | Total indirect beneficiaries  | Direct beneficiaries supported by the project | Indirect beneficiaries supported by the project | Total        |   |  |
|   |  | 0   | 0   | 0   | 0              | 20,000  | 335   | 9,160   | 5,173                     | 1,551.9   | 3,623   | 49.00%  | 3.623        |   |  |
| % of female beneficiaries   | 0.00%  | 0.00%   | 0.00%   | 0.00%   | 40.00%         | 10.00%  | 10.00%  | 10.00%  | % of female beneficiaries | 49.00%  | 49.00%  | % of youth beneficiaries                        |              |   |  |
| % of youth beneficiaries  | 0%   | 0.00%   | 0.00%   | 0.00%   | 30%            | 5.00%   | 10.00%  | 10.00%  | % of youth beneficiaries  |   |   |   |              |   |  |
| Outcome 2.2: Reduced exposure to climate-related hazards and threats  | Indicator 2.1: Relevant threat and hazard information generated and disseminated to stakeholders in a timely basis | Baseline Information  |   |   |                | Performance (mid-term)  |   |   |                           | Performance (completion)  |   |   |              |   |  |
|   |  | Number of stakeholders  | Hazards information generated and             | Overall effectiveness                           | Total          | Number of stakeholders  | Hazards information generated and             | Overall effectiveness                           | Total                     | Number of stakeholders  | Hazards information generated and             | Overall effectiveness                           | Total        |   |  |
|   |  | 0.00%   | 2   | Drought   | 1: ineffective | 5.00%   | 6   | Drought   | 1: ineffective            | 49.00%  | 2,000   | 980   | Drought      | 2: partially effective  |  |
| Output 2.1: Risk and vulnerability assessments conducted and updated  | Indicator 2.1: No. of projects/programmes that conduct and update risk and vulnerability assessments               | No. of projects/programmes that conduct and update risk and vulnerability | Sector  | Scale   | Status         | No. of projects/programmes that conduct and update risk and vulnerability | Sector  | Scale   | Status                    | No. of projects/programmes that conduct and update risk and vulnerability | Sector  | Scale   | Status       | No. of projects/programmes that conduct and update risk and vulnerability |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
| Output 2.2: Targeted population groups covered by adequate risk reduction systems                             | Core Indicator 2.2: No. of Early Warning Systems   | No. of adopted Early Warning  | Category targeted                             | Hazard  | Drought        | No. of adopted Early Warning  | Category targeted                             | Hazard  | Drought                   | No. of adopted Early Warning  | Category targeted                             | Hazard  | Drought      | No. of adopted Early Warning  |  |
|   |  | 0   | Risk knowledge                                |   | National       | 0   | Risk knowledge                                | Geographical                                    | National                  | 9   | 1   | Risk knowledge                                  | Geographical | Local   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |
|   |  |   |   |   |                |   |   |   |                           |   |   |   |              |   |  |

|   |   | Baseline Information              |   |  |  | Performance Mid-term              |   |                                      |  | Performance Completion                 |   |   |  |               |
|---|---|-----------------------------------|---|--|--|-----------------------------------|---|--------------------------------------|--|--|---|---|--|---------------|
|   |   | Number of staff targeted          | Capacity level  | Sector                                 | Capacity level                             | Number of staff targeted          | Capacity level  | Sector                               | Capacity level                             | Number of staff targeted               | Capacity level  | Sector                                  | Capacity level                             |               |
| Outcome 2.2: Strengthened institutional capacity  | Indicator 2.2: Capacity of staff to respond to, and mitigate impacts of, ...  | Total: 2000                       | 2: Low capacity   | Multi-sector                           | 2000                                       | 2: Low capacity                   | Multi-sector  | 2000                                 | 2: Low capacity                            | Multi-sector                           | 2000  | 2: Low capacity                         |  |               |
| Output 2.1: Strengthened capacity of national and sub-national centres  | Indicator 2.1.1: No. of staff trained to respond to, and mitigate impacts of, ...   | Total staff trained: 335          | 37.60%  | Public                                 | Total staff trained: 335                   | 37.60%                            | Public  | Total staff trained: 335             | 37.60%                                     | Public                                 | Total staff trained: 335  | 37.60%                                  | Public                                     |               |
|   | Indicator 2.1.2: No. of targeted institutions with ...  | Type: Public                      | Scale: National   | Sector: Multi-sector                   | Type: Public                               | Scale: National                   | Sector: Multi-sector  | Type: Public                         | Scale: National                            | Sector: Multi-sector                   | Type: Public  | Scale: National                         | Sector: Multi-sector                       |               |
| Outcome 3.1: Strengthened population groups and adaptation  | Indicator 3.1: Increase in application of appropriate ...   | Percentage targeted: 0.00%        | Agriculture   | Percentage targeted: 20                | Agriculture                                | Percentage targeted: 0.08858944   | Agriculture   | Percentage targeted: 1.551           | Agriculture                                | Percentage targeted: 49.00%            | Agriculture   | Percentage targeted: 3: Partially aware |  |               |
| Output 3.1: Targeted population groups participating in adaptation  | Indicator 3.1.1: Percentage of population predicted to be aware of ...  | No. of beneficiaries targeted: 0  | 0.00%   | Level of awareness: 2: Partially aware | No. of beneficiaries targeted: 335         | 30.00%                            | Level of awareness: 3: Partially aware                            | No. of beneficiaries targeted: 1,551 | 49.00%                                     | Level of awareness: 3: Partially aware | No. of beneficiaries targeted: 4,900                              | 49.00%                                  | Level of awareness: 3: Partially aware     |               |
| Outcome 4.1: Increased responsiveness   | Indicator 4.1: Increased responsiveness   | Baseline Information              |   |  |  | Performance Mid-term              |   |                                      |  | Target Performance Completion          |   |   |  |               |
| Output 4.1: Vulnerable development services strengthened in response to climate change impacts  | Indicator 4.1.1: No. of types of development services strengthened in response to climate variability and change                      | /programme                        | Geographical scale  | Response level                         | /programme                                 | Geographical scale                | Response level  | /programme                           | Geographical scale                         | Response level                         | /programme  | Geographical scale                      | Response level                             |               |
|   |   | Sector                            | Targeted  | Changes in asset                       | Sector                                     | Targeted                          | Changes in asset  | Sector                               | Targeted                                   | Changes in asset                       | Sector  | Targeted                                | Changes in asset                           |               |
|   |   | Agriculture                       |   |  | Agriculture                                |                                   |   | Agriculture                          |  |  | Agriculture   |   |  |               |
|   |   | Multi-sector                      |   |  | Multi-sector                               |                                   |   | Multi-sector                         |  |  | Multi-sector  |   |  |               |
|   |   |                                   |   |  |  |                                   |   |                                      |  |  |   |   |  |               |
| Output 4.2: Increased resilience of ecosystem services and natural resource assets  | Indicator 4.2: Ecosystem services and natural resource assets maintained/improved under climate change and variability-induced stress | Baseline Information              |   |  |  | Performance Mid-term              |   |                                      |  | Target Performance Completion          |   |   |  |               |
| Output 4.2: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability | Indicator 4.2.1: Natural Assets protected/rehabilitated   | Natural asset or ecosystem (type) | Total number of natural assets/ecosystems protected/rehabilitated | Unit                                   | Effectiveness of protection/rehabilitation | Natural asset or ecosystem (type) | Total number of natural assets/ecosystems protected/rehabilitated | Unit                                 | Effectiveness of protection/rehabilitation | Natural asset or ecosystem (type)      | Total number of natural assets/ecosystems protected/rehabilitated | Unit                                    | Effectiveness of protection/rehabilitation |               |
|   |   |                                   |   |  |  |                                   |   |                                      |  | Mangroves                              | 1   | Partially effective                     | 2.77 Hectares                              |               |
|   |   |                                   |   |  |  |                                   |   |                                      |  |  |   |   |  |               |
|   |   |                                   |   |  |  |                                   |   |                                      |  |  | Forests   | 1                                       | Partially effective                        | 4.87 Hectares |
|   |   |                                   |   |  |  |                                   |   |                                      |  |  |   |   |  |               |
|   |   |                                   |   |  |  |                                   |   |                                      |  |  |   |   |  |               |

|  |  | Baseline information                                    |   |   |   | Performance (mid-term)                                  |                               |   |                               | Performance (completion)                      |                                |   |                     |
|--|--|---|---|---|---|---|-------------------------------|---|-------------------------------|---|--------------------------------|---|---------------------|
| <b>Outcome 6:</b><br>Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas                        | Indicator 6.1: Increase in households and communities having more secure access to                   | targeted households                                     | % of female headed households                           | Improvement level                             |   | No. of targeted households                              | % of female headed households | Improvement level                                       |                               | targeted households                           | % of female headed households  | Improvement level                             |                     |
|  |  |   |   |   |   |   |                               |   |                               | 310   | 20.00%                         | 4: High improvement                           |                     |
|  | Indicator 6.2: Increase in targeted population's sustained climate-resilient alternative livelihoods | targeted households                                     | % of female headed households                           | % increase in income level vis-à-vis baseline | Alternate Source  | No. of targeted households                              | % of female headed households | % increase in income level vis-à-vis baseline           | Alternate Source              | targeted households                           | % of female headed households  | % increase in income level vis-à-vis baseline | Alternate Source    |
|  |  |   |   |   |   |   |                               |   |                               | 310   | 20.00%                         | Above 50%                                     | Agriculture         |
|  |  | targeted households                                     | % of female headed households                           | % increase in income level vis-à-vis baseline | Alternate Source  | No. of targeted households                              | % of female headed households | % increase in income level vis-à-vis baseline           | Alternate Source              | targeted households                           | % of female headed households  | % increase in income level vis-à-vis baseline | Alternate Source    |
|  |  | targeted households                                     | % of female headed households                           | % increase in income level vis-à-vis baseline | Alternate Source  | No. of targeted households                              | % of female headed households | % increase in income level vis-à-vis baseline           | Alternate Source              | targeted households                           | % of female headed households  | % increase in income level vis-à-vis baseline | Alternate Source    |
| targeted households  | % of female headed households  | % increase in income level vis-à-vis baseline           | Alternate Source  | No. of targeted households                    | % of female headed households                           | % increase in income level vis-à-vis baseline           | Alternate Source              | targeted households                                     | % of female headed households | % increase in income level vis-à-vis baseline | Alternate Source               |   |                     |
| <b>Output 6:</b> Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability | Indicator 6.1.1: No. and type of adaptation assets created or strengthened                           | Number of Assets  | Type of Assets  | Sector  | Adaptation strategy                                     | Number of Assets  | Type of Assets                | Sector  | Adaptation strategy           | Number of Assets                              | Type of Assets                 | Sector  | Adaptation strategy |
|  |  |   |   |   |   |   |                               |   |                               | 1551  | Human capital                  | Agriculture                                   | Erosion control     |
|  | <b>Core Indicator 6.1.2:</b><br>Increased income, or avoided decrease in income                      | Number of households                                    | Income source   | Income level (USD)                            | Number of households                                    | Income source   | Income level (USD)            | Number of households                                    | Income source                 | Income level (USD)                            | Number of households           | Income source                                 | Income level (USD)  |
|  |  | 310   | Agriculture   | 505   | 616.1   | 310   | Agriculture                   | Agriculture   |                               |   |                                |   |                     |
|  |  | Number of households (total number in the project area) | Income source   | Income level (USD)                            | Number of households (total number in the project area) | Income source   | Income level (USD)            | Number of households (total number in the project area) | Income source                 | Income level (USD)                            |                                |   |                     |
|  |  | Number of households (total number in the project area) | Income source   | Income level (USD)                            | Number of households (total number in the project area) | Income source   | Income level (USD)            | Number of households (total number in the project area) | Income source                 | Income level (USD)                            |                                |   |                     |
| Number of households (total number in the project area)  | Income source  | Income level (USD)                                      | Number of households (total number in the project area) | Income source                                 | Income level (USD)                                      | Number of households (total number in the project area) | Income source                 | Income level (USD)                                      |                               |   |                                |   |                     |
|  |  |   |   |   |   |   |                               |   |                               |   |                                |   |                     |
| <b>Outcome 7:</b><br>Improved policies and regulations that promote and enforce resilience measures  | Indicator 7: Climate change priorities are integrated into national development strategy             | Baseline information                                    |   |   |   | Performance (mid-term)                                  |                               |   |                               | Performance (completion)                      |                                |   |                     |
|  |  | Integration level                                       |   |   |   | Integration level                                       |                               |   |                               | Integration level                             |                                |   |                     |
|  |  | 2: Most not integrated                                  |   |   |   | 3: Some   |                               |   |                               |   |                                |   |                     |
| <b>Output 7:</b> Improved integration of climate-resilience strategies into country development plans  | Indicator 7.1: No. of policies introduced or adjusted to address climate change risks                | No. of Policies introduced                              | Sector  | Scale   | Type  | No. of Policies introduced                              | Sector                        | Scale   | Type                          | No. of Policies introduced                    | Sector                         | Scale   | Type                |
|  |  | 0   | Multi-sector  | National                                      |   | 1   | Agriculture                   | National  |                               | 2   | Multi-sector                   | National                                      |                     |
|  | Indicator 7.2: No. of targeted development   | No. of  | Regulation  |   | Effectiveness   | No. of  | Regulation                    |   | Effectiveness                 | No. of  | Regulation                     |   | Effectiveness       |
|  |  |   |   |   |   |   |                               |   |                               | 0   | forced/No elements implemented |   | 1: ineffective      |

## Annex 9. UNDP-GEF TE Report Audit Trail

**To the comments received in July August 2016 from the Terminal Evaluation of the project titled, Enhancing resilience of communities in Solomon Islands to the adverse effects of climate change in agriculture and food security (UNDP-AF Project ID-*PIMS #4451*)**

| Author | # | Date     | Comment location  | Comment/Feedback on the draft TE report   | TE Team's response and actions taken  |
|--------|---|----------|---|---|---|
| PJ     | 1 | 05/08/16 | Contents table  | For consideration, should we put "Project Strategy", "Project Implementation", "Results", "Impacts", "Sustainability" under an additional heading, namely "3. Findings" for clearer direction?  | Change effected   |
| YT     | 2 | 22/08/16 | Evaluation rating table   | Rating on the land use plan related target is "satisfactory" and the justification for this rating is that the completion of LUPs is considered a necessary step in the mainstreaming of climate risk. However, the evaluators themselves acknowledge that the sustainability of LUPs is unlikely. In my opinion, building necessary conditions for sustaining LUPs should be an integral part of the project, and if the project did not address it, the rating should reflect it accordingly. | The problem arises because the effectiveness rating is based on achievement of the indicator of the prodoc, i.e. # of land use plans, which has been accomplished, thus it must be rated as satisfactory, yet it's sustainability is rated as unlikely. That the institutional sustainability overall rating is "moderately likely" accounts for the fact that awareness and technology have been introduced in the communities, and that there is moderately likelihood of further support to communities through ODA projects |
| YT     | 3 | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | Incomplete sentence on page 12 on climatic zones.   | Sentence incorporated in previous §   |
| YT     | 4 | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | This sentence [ <i>Solomon Islands is a small island state belonging to the least developed country group. This means, meager low income per capita, low human development...</i> ] is problematic. Being an LDC does not always mean fulfilling all of these. Granted that many LDCs have issues with these. But they don't constitute criteria for being an LDC. If these are development issues the Solomon Islands is facing, just say so.  | Agreed  |

| Author | #  | Date     | Comment location  | Comment/Feedback on the draft TE report   | TE Team's response and actions taken  |
|--------|----|----------|---|---|---|
| YT     | 5  | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | Correction of exchange rate   | Exchange rate used for this report is the 2015 exchange rate reported by the World Bank: 7.91 SBD to 1 USD  |
| YT     | 6  | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | Why italicized?: <i>unsustainable land use practices and climate change, which will reduce the capacity of this system to feed the country agricultural productivity, and will place significant cost burdens on the government</i> (UNDP, 2009).                               | Italicized because it was a direct quote of the project document. Italicization avoided with suggested correction.  |
| YT     | 7  | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | Several questions on § on land ownership (page 14), particularly on impacts of traditional land ownership   | The TE report merely describes the opportunities and potential negative impacts of formal land ownership vs. traditional land management as discussed in government policies, such as the land use policy supported by the project. The § has been modified for clarity |
| YT     | 8  | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | It's odd to say "a high percentage of rural population engaged in agriculture" and show the number relative to the total population. Can we simply say that 85% of the total population is engaged in the agri sector and the proportion is likely to be higher in rural areas? | Indeed. § modified  |
| YT     | 9  | 22/08/16 | 2. Project description/ Society, agriculture, food security and climate change in the Solomon Islands | Is population growth an environmental driver?   | No. § corrected   |
| YT     | 10 | 22/08/16 | 3. Findings/Project strategy/ Conclusions   | In addition to the breakdown of outcome-level expenditures, we need a graph presenting the expenditure per Outcome.   | Graph added   |
| YT     | 11 | 22/08/16 | 3. Findings/Project strategy/ Conclusions   | Please adjust the axis setting so that bars are not suppressed  | The idea was to keep the y axis fixed to give the reader an idea of the budgetary difference among outcomes. However, y axis scale has been adjusted.   |
| LH     | 12 | 10/08/16 | 3. Findings/Project strategy/ Conclusions   | V&A assessments not premised exclusively on meteorological data. V&A includes non-climatic assessments (e.g biophysical, socio-economic factors). Can we use another example instead to show interdependence?   | Indeed, but the project strategy, being evaluated here, assumed the availability of sufficient meteorological data to establish potential impacts of climate change.  |

| Author | #  | Date     | Comment location   | Comment/Feedback on the draft TE report   | TE Team's response and actions taken  |
|--------|----|----------|--|---|---|
| YT     | 13 | 22/08/16 | 3. Findings/Project strategy/ Conclusions  | "allocation of human resources by the implementing partners... to UNDP"? What does it actually mean?  | That given the complexity of the project design, more human resources should have been allocated for its implementation. However, this resources are not available in the Solomon Island context, especially given the staff limitations of government agencies. § has been modified for clarity. |
| LH     | 14 | 10/08/16 | 3. Findings/Project implementation/ Project level monitoring and evaluation systems/ Conclusions | PCOs? Suggest to delete and replace with "SPO" (Senior Project Officer)   | PCO referred to the Project Coordination Officer. Denomination of communication officer changed to CO and SPOs included both in sentence and abbreviations list.  |
| LH     | 15 | 10/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement           | Please also note virtual meetings through email exchanges also occur between PMU and PB members when issues arise and decisions need to be made | Indeed. However, lack of engagement by PB was reported in the MTR and acknowledged by the management response. Post-MTR PB more actively engaged.   |
| YT     | 16 | 22/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement           | Like what? [ <i>multilateral organizations, bilateral organizations and international NGOs</i> ]  | Examples added  |
| LH     | 17 | 10/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement           | May be use of the Word "wrong" may be too strong...can we use "inadequate assessment"? instead  | Agreed. Sentence changed  |

| Author | #  | Date     | Comment location   | Comment/Feedback on the draft TE report  | TE Team's response and actions taken   |
|--------|----|----------|--|--|--|
| LH     | 18 | 10/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement/Coordination issues | The underlying issue to me is a project design issue. Communities are not ready for high-tech food processing enterprise as described in the pro doc. PMU raised questions about inability to sustain supply of cassava for processing from farmers in contact communities, market access, transportation etc. Communities prefer fresh food than processed food. Food processing was clearly not MAL Research's priority due to lack of human capacity. Coordination may be an issues, but its not the key issue for the project. There were many consultation meetings between PMU, MAL and SNRAS (2014 onwards), including opportunities to collaborate with FAO to utilize the equipment for training; that did not materialize because MAL Research has no capacity to lead this activity. Beacause of the strong inter-link between the activities of SNRAS and MAL Research in food processing, SNRAS activities never eventuate because MAL Research activities never took off. SNRAS could not develop training materials as the technology was not fully established and tested. | Very good point. It has been incorporated in both strategy, partner engagement analysis and results. |
| YT     | 19 | 22/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement/ Recommendations    | Break up the sentence <i>Projects in countries that due to limited population...</i> It contains an important message here, but hard to read because the sentence is too long  | Agreed. Sentence changed   |
| YT     | 20 | 22/08/16 | 3. Findings/Project implementation/ Management arrangements and stakeholder engagement/ Recommendations    | Break up the sentence <i>A coaching, customer and solution-oriented approach...</i> It contains an important message here, but hard to read because the sentence is too long   | Agreed. Sentence changed   |
| YT     | 21 | 22/08/16 | 3. Findings/Results/ Relevance   | This sentence <i>SWoCk responds to challenges...is</i> incomplete. Moreover, this whole paragraph is one sentence!   | Indeed. Corrected  |
| YT     | 22 | 22/08/16 | 3. Findings/Results/ Effectiveness/Outcome 1   | Please elaborate (on issues of the vulnerability assessments)  | Table added to illustrate content and methodological differences                                     |

| Author | #  | Date     | Comment location                            | Comment/Feedback on the draft TE report   | TE Team's response and actions taken   |
|--------|----|----------|---|---|--|
| YT     | 23 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | Can you substantiate this? Did farmers interviewed actually say this?   | No it was based on the expert opinion of the national consultant, former official of the Ministry of Agriculture. The assessment of the team is that contour farming adoption is a function of the slope of the plot and the increased costs. However, \$ has been expanded  |
| YT     | 24 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | Can you substantiate this with data?  | No, only gross benefits are reported without costs estimation, so that no proper financial analysis can be given at this point. However, a table with stated gross benefits from different activities has been added.  |
| YT     | 25 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | Assess what?  | Assess yields, clerical error corrected  |
| YT     | 26 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | Full form   | Community-based land use plans   |
| YT     | 27 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | Has the Terminal Evaluation looked at how these trainings have translated into higher level results such as improved capacity, enhanced adaptive capacity, etc?<br><br>The way this section is currently written is simply reporting Project activities and inputs. | No, the section reports results in the sense of the outcome and following the indicators of the project. As reported under monitoring assessment, the project indicators for capacity development only measure outputs (# of trainees) not results. Therefore, the TE assess the results of the capacity development activities based on the adoption of techniques and self-perception of trainees. |
| YT     | 28 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | For both indicators, I would like to see more evidence to support the rating of Satisfactory. Based on the description of the status, none of these measures have been adopted by farmers. Can we still say that the achievement is satisfactory?                   | Tables indicating level of adoption, and community perception of project benefits added  |

| Author | #  | Date     | Comment location                            | Comment/Feedback on the draft TE report  | TE Team's response and actions taken  |
|--------|----|----------|---|--|---|
| YT     | 29 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 1 | For LUP, I understand the plan has been developed. But isn't it likely that the plan will be abandoned as soon as the Project comes to an end?   | Indeed. That's why their financial sustainability is rated as unlikely in the corresponding section. But the outcome indicator refers to number of CBLUP. The project design assumed that those plans would be actually serve as guidelines for the communities. This assumption is also critically reviewed by the TE in the corresponding section |
| YT     | 30 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 2 | Please describe what they are intended to do and why the establishment of PCCSC important for the country.   | Explanation added   |
| YT     | 31 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 2 | Verify: Were they really replaced? Or 6 AWS are addition to the five manual stations?  | No, wrong formulation. The 6 stations are additional to 5 pre-existing manual station AND substitute the five manual weather station featured in the project document. § corrected  |
| YT     | 32 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 2 | Does this mean that SWoCK paid for only 4 stations?  | Yes   |
| YT     | 33 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 2 | Please elaborate what kind of support has been provided through the Project. Did SWoCK just buy the equipment? Were staff in the Ministry able to make use of the monitoring device immediately after the device was procured? Or were there trainings associated with the purchase? | Explanation added   |
| YT     | 34 | 22/08/16 | 3. Findings/Results/Effectiveness/Outcome 2 | Please describe what they are intended to do and why the establishment of PCCSC important for the country  | As the report states, the PCCS are mandated instruments of the Climate Change Policy enacted in 2009 that are expected to serve as a inter-sectoral platform for coordination of adaptation actions at provincial level. Emphasis added for clarity.  |

| Author | #  | Date     | Comment location                                | Comment/Feedback on the draft TE report   | TE Team's response and actions taken   |
|--------|----|----------|---|---|--|
| YT     | 35 | 22/08/16 | 3. Findings/Results/<br>Effectiveness/Outcome 2 | Please elaborate what kind of support has been provided through the Project. Did SWoCK just buy the equipment? Were staff in the Ministry able to make use of the monitoring device immediately after the device was procured? Or were there trainings associated with the purchase?  | Indeed. Section expanded   |
| YT     | 36 | 22/08/16 | 3. Findings/Results/<br>Effectiveness/Outcome 2 | I would think that the Project was unable to support the developmetn of the implementation mechanism a major caveat of the Project. What's the point of changing a policy when the likelihood of implementation is uncertain?<br><br>Has there been sufficient analysis in this regard before the TE came up with the rating of Satisfactory? | The non-commitment of government budget and the vagueness of the policy statement is a common thread to all donor-driven strategies and policies. Indeed, the rating of satisfactory is undeserved for this component.<br><br>The section has been overhauled to give a better understanding of the policy context   |
| YT     | 37 | 22/08/16 | 3. Findings/Results/<br>Effectiveness/Outcome 2 | Please indicate whether the development of NRLUP was supported by SWoCK in the box below. At the moment, it's difficult to understand why this textbox needs to be included in the Terminal Evaluation of the SWoCK Project.  | The section on outcome 2 opens with the sentence: "The project supported the development of the National Rural Development and Land Use Policy...". However, the section has been restructured for clarity and the box eliminated.   |
| YT     | 38 | 22/08/16 | 3. Findings/Results/<br>Effectiveness/Outcome 2 | Has the TE looked beyond the provision of trainings? For example, have there been attempts to investigate the extent to which how much these trainings have contributed to enhanced capacity, knowledge, skills?  | Yes it has. The section has been expanded to better reflect this. However, a fundamental problem is that the indicator, as pointed out in the corresponding section is not an outcome indicator, and the project did not provide any tool to measure the development of capacity. The TE bases the assessment on the self-assessment of the trainees and the production of the services. |
| YT     | 39 | 22/08/16 | 3. Findings/Results/<br>Effectiveness/Outcome 2 | Even if SWoCK has something to do with the development of the NRLUP, it's not clear how the formulation of the NRLUP contributes to the achievement of the Project objective and Outcomes.  | Indeed, at the most it serves for awareness  |

| Author | #  | Date     | Comment location                             | Comment/Feedback on the draft TE report  | TE Team's response and actions taken  |
|--------|----|----------|--|--|---|
| YT     | 40 | 22/08/16 | 3. Findings/Results/ Effectiveness/Outcome 2 | Furthermore, the information provided there is confusing/contradictory. It says that the land policy (NRLUP?) adopts an participatory village land use planning process at the center of land use planning. To facilitate this, capacities of Government agencies, especially the Ministry of Agriculture, need to be high.<br><br>But in reality, the capacities are low.   | Another common characteristic of donor-driven policies: weak assessment of actual capacities (or even interest) and policy statements only to guide further donor funds   |
| YT     | 41 | 22/08/16 | 3. Findings/Results/ Effectiveness/Outcome 3 | Please list five of them, not just one.  | Certainly   |
| YT     | 42 | 22/08/16 | 3. Findings/Results/ Effectiveness/Objective | If this is the reason why the Project has an S rating, the significant of it needs to be elaborated more. It is the first time this is mentioned in the report that many communities are beyond the reach of MAL. If this is the case, I can understand that the Project might have had a huge impact on community, but it also indicates that the Project was not properly designed. One could argue that a project should not be implemented in places where there's no public service outreach to support sustainability/replication of the Project activities. | Agreed. The objective and impact ratings have been reviewed. I agree that the fundamental flaw of the project came with its design. I would disagree with not implementing projects outside places where the government has capacity to deliver services but then logistics and transaction cost should be factored in. The section's recommendations reflect this now. |
| YT     | 43 | 22/08/16 | 3. Findings/Results/ Efficiency              | What's included in the "Others" category. This is over \$800,000 and warrants some description   | Cost categories rearranged to avoid "others"  |
| PJ     | 44 | 05/08/16 | 3. Findings/Results/ Efficiency              | Should this be 7,000?  | Indeed. We copied the table from a mission report, without properly checking it. Thank you for spotting the error. Figure and total corrected   |
| YT     | 45 | 22/08/16 | 3. Findings/ Impact                          | What do you mean by "increasing sensitivity" of agriculture.<br><br>In general, the higher the sensitivity, the more farmers are affected by climate stimuli.  | Indeed. Clerical error. Sentence corrected  |

| Author | #  | Date     | Comment location            | Comment/Feedback on the draft TE report   | TE Team's response and actions taken  |
|--------|----|----------|-----------------------------|---|---|
| YT     | 46 | 22/08/16 | 3. Findings/ Impact         | We also need results at the Fund Impact level:<br>Increased resiliency at the community, national, and regional levels to climate variability and change<br><br>Please look at the results tracker.   | The result tracker is part of the project performance report, and should be completed by the project. Yet, it had not yet completed by July 2016. However, the evaluation team has now completed and attached the results tracker |
| YT     | 47 | 22/08/16 | 3. Findings/ Impact         | Also the assessment of the progress against AF impact indicators needs to be in line with the Results Tracker. For example, for Indicator 1, the information required is the total number of targeted stakeholders and of which, % of female targeted; types of hazard information generated; effectiveness.  | Results tracker attached  |
| YT     | 48 | 22/08/16 | 3. Findings/ Impact         | Similar comment as one provided earlier. What does the provision of trainings mean? It does not automatically lead to a built capacity.   | The project outcome indicator refers only to training. See comments above. Either way, this table has been eliminated from the terminal evaluation report. See comment above.   |
| YT     | 49 | 22/08/16 | 3. Findings/ Impact         | On what basis is this assessment made? In the previous sections of the report, I don't think I read assessments with regard to technical capacities of national universities  | The terminal evaluation report does mention capacity development at the, (one and only) National University. See section Results/Effectiveness/Outcome 3 Table erased.  |
| YT     | 50 | 22/08/16 | 3. Findings/ Sustainability | The little that's described in this section as well as the rest of this report and the rating on sustainability in the "Evaluation Rating" table are inconsistent. I read, throughout the report, that what was done in SWoCK was largely positive, but it's highly unlikely to be sustained once the Project comes to an end. (Let's face it. The Government doesn't even have enough money to install the rain gauge stations that the Project procured)<br><br>But the overall sustainability rating is Moderately Likely.<br><br>On what basis is this rating given? Please substantiate. | Section expanded.   |

