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**Solomon Islands Water Sector Adaption Project  
(SIWSAP)  
Quarterly Report**

Country: **SOLOMON ISLANDS**

Period Covered: **March – June 2017**

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### Section 1: Summary of Overall Project Progress and challenges.

SIWSAP has made marked progress this quarter with the following key achievements: successful installation and operation of the Automatic Hydro Meteorology Stations (AHMS) in Gizo and Taro, deployment of desalination equipment and materials to Gizo and Taro, engagement of two local construction companies to build the basements of the desalination equipment and storage tanks, pre-installation awareness on the AHMS across five pilot sites, completion of pumping test and AHMS monitoring bore across five pilot sites, completion of all designs and BoQs for all sites, successful engagement of a hydrogeologist, well deepening in Taro by the Youth With A Mission (YWAM), completion of training for recipient of the Micro- Grant Agreement in Gizo on UNDP requirement for acquittal of funds, production of seven short films on SIWSAPs work across all sites; draft press releases for AHMS and Water Filtration Systems; production of four new fact sheets about the project, participation in the World Environment Day, production of five new posters on the impact of quick fixes on access to water and livelihoods, release of two photo essays on UNDP Exposure to coincide with World Water Day and International Biodiversity Day, use of social media sites such as Facebook, Twitter and Flickr to feature SIWSAP's work, and the successful recruitment of SIWSAP's Chief Technical Advisor.

Key challenges/issues encountered during the reporting period consisted of: dispute over proposed land for the installation of desalination and AHMS in Ferafalu, disagreement by a landowner in Ferafalu on price list used by the project to compensate for clearing of fruit trees; delays in the recruitment of the long term Civil Engineer to oversee the design and implementation of civil works in the six pilot sites, delays in the recruitment of a Project Specialist to support the PMU, and delays in the deployment of materials to Gizo and Taro due to challenges encountered in the issuance of contract for boat charter.

Overall, the project was able to deliver **USD552,455** during the second quarter based on the atlas Combined Delivery Report.

*Outcome 1: Formulating, integrating, and mainstreaming water sector-climate change adaptation response plans in the water-related sectors as well as broader policy and development frameworks.*

- Completion of feasibility assessments across the six pilot sites by the Civil Engineer (IC). Draft designs and Bill of Quantity (BOQ) have also been completed for all sites. A committee consisting of technical personnel from the Ministry of Mines, Energy and Rural Electrification (MMERE), Ministry of Environment, Climate Change, and Disaster Management (MECDM), Ministry of Infrastructure and Development (MID), RWASH, EU RWASH Project, CRISP, and Solomon Waters will meet in early July 2017 to review the draft designs and BOQs and ensure they adhere to government policies and standards. Once this process is completed, all proposed civil works will be outsourced through the Invitation to Bid (ITB) process.



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- A hydrogeologist (Mr Shaun Kies) commenced with the Project Management Unit (PMU) in early May 2017, for a total of four (4) months. This person is responsible for the hydrogeological survey and assessment across the six pilot sites in close collaboration and partnership with key government partners (both national and provincial). Gizo has been identified as a priority site in the roll out of assessments.
- Attempts to recruit a Project Specialist (local) to support the PMU facilitate the identification of replica sites in early June 2017 was not successful. The project expects to fill this position in July 2017. A key deliverable of this person is to assist in the preparation and publication of a request for “Expression of Interest” and to convene a panel to review, assess and select the 6 replica sites.
- Ferafalu, Gizo and Taro held their Water Committee meetings during this reporting period. A key agenda highlighted in all three meetings relate to the on site preparations for the arrival and installations of the desalination/filtration units and the Automatic Hydro Meteorological Stations (AHMS). These meetings were also useful in updating committee members on what has been carried out in the first quarter and proposed plans for the second and third quarter of 2017.
- A draft Public Environment Report was produced by the Civil Engineer on proposed development on water sector adaptation across the six pilot sites. This report outlined the locations, proposed projects with explanation of each site; the likely impacts to the environment; while also providing mitigation options and plans. A key conclusion of this report is that proposed developments are not prescribed development, noting the insignificant impact on the environment and marine life. It also highlighted that all proposed activities will be constructed in a control manner to mitigate the likely impact to the surrounding environment.
- *Overall expenditure for this output amounts to USD46,367*

***Outcome 2: Increasing the reliability and improving the quality of water supply in targeted areas.***



- With technical support from the Solomon Islands Meteorological Service, SIWSAP has engaged in pre-installation awareness sessions for different stakeholders in Ferafalu, Santa Catalina, Tuwo, Taro and Gizo including SIWSAP Committees, school teachers and provincial government colleagues. The awareness did not reach Tigoa due to airline challenges (will be done during the installation). Turnout to these awareness sessions have been positive and feedback from the different stakeholders have also been very positive. Such awareness was crucial in ensuring that communities/townships better understand the benefits of such equipment and take necessary measures to care for them. As mentioned in earlier reports, the AHMS will contribute towards early warning systems in targeted communities.
- A joint team from the government (MECDM, MMERE and provincial government), NIWA and SIWSAP has completed the installation of the AHMS in Gizo from 19<sup>th</sup> - 23<sup>rd</sup> June 2017. The Automatic Weather Station (AWS) installed at Jah Mountain within Gizo township will monitor weather parameters such as wind speed and direction, temperature, solar radiation, atmospheric pressure and rainfall. The hydro-metric station was installed at the Leoko water source and this will monitor water level, pH and turbidity. This unit is located approximately 6 km from Gizo township. Both units are now in full operation and real time data for the AWS can be accessed via the online NIWA interface; <neon.niwa.com.nz> while the former through neon. Installation of the AHMS have also been successfully completed in Taro, Choiseul Province. On the job training for technical staff of the government by two NIWA technicians was provided during the installation work in both pilot sites. It is envisaged that government officers will take the lead in undertaking installation work in the remaining sites with supervision from an experienced NIWA personnel. Proposed schedule for remaining pilot sites as shown below:

**Proposed Schedule for the Automatic Hydro-Meteorological Stations**

Pilot Site	Proposed Dates
Santa Catalina, Makira/Ulawa Province	19 <sup>th</sup> – 22 <sup>th</sup> July, 2017
Tigoa, Rennell and Bellona	24 <sup>th</sup> – 27 <sup>th</sup> July, 2017
Tuwo, Temotu Province	1 <sup>st</sup> – 5 <sup>th</sup> August 2017
Ferafalu, Malaita Province	7 <sup>th</sup> – 10 <sup>th</sup> August 2017



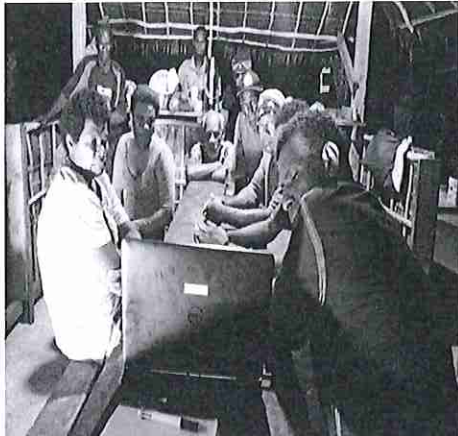


Photo 1: Awareness on AHMS in Tuwo with Water Committee

Photo 2: Installation of AHMS in Gizo by SIMS staff

Photo 3: End product after installation in Gizo

- As part of the process to ensure the recipient of the Micro-Grant Agreement in Gizo, Ecological Solutions Solomon Islands (ESSI), is aware of UNDP's processes and requirements particularly the acquittal of funds, the UNDP Solomon Islands Office Finance Associate together with the SIWSAP Finance Assistant and Provincial Officer for Gizo conducted the relevant training for ESSI's Administration Officer and Accountant. This training was pertinent in ensuring all UNDP acquittal requirements are adhered to.
- The winners of the poster competition in Gizo during the World Water Day were finally announced during the Solid Waste Management Fun Day organized on May 24<sup>th</sup>, 2017. This created much excitement amongst school children who were present at the venue. Prizes were given to 1st, 2nd, 3rd places from Grades 1 – 6, Primary Division and Forms 1, 2 and 5, Secondary Division. There were also overall prizes for Primary Division and Secondary Division. Feedback from teachers at the school highlighted that such activity contributed immensely in building children's creativity and providing them with the opportunity to undertake their own research on given topics and finding solutions. Through this process, students developed passion for water and are more aware on the importance of conserving it. The plan is for the 12 winning posters to be used to create a SIWSAP Calendar for Gizo pilot site for 2018, a product that local residences can relate to due to their involvement.



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- The Water Resources Division (WRD) and SIWSAP finally received the Earth Resistivity Equipment. This equipment measures the ground's electrical properties by injecting current into the soil and measuring the voltage between certain electrodes. By calculating the resistivity, a ground model of the sub-surface can be generated. The availability of this equipment means that the project can now commence with ground water assessments in all pilot sites to assist with the identification of any new safe freshwater source. These assessments are particularly important in low lying atolls such as Ferafalu, Tuwo, Taro and Santa Catalina as the hydrogeology of raised atolls often results in safe clean water been stored underground as well as a high propensity for mixing of fresh and saline water in cases of excessive extraction. With the availability of this equipment, the project through support from key government partners (WRD and Geology) can identify potential sources that can be sustainably developed to help build resilience into targeted communities supply options. Training on the use of this equipment for WRD and Geology Division staff will be undertaken by the Geoscience Division of the Secretariat to the Pacific Community from 3-6 July 2017.
- *Total amount expended during this quarter was USD335,028.*

***Outcome 3: Investing in cost-effective and adaptive water management interventions and technology transfer.***

- Completion of pumping tests and AWS monitoring bore for Taro, Gizo and Ferafalu by the Water Resources Division, Geological Survey Division and SIWSAP. For Taro, it was concluded that the identified well for the brackish solar equipment will need improvement to raise its efficiency so it can meet the "feed pump" specification. For Gizo, the bore hole at the main hospital is sufficient to be used for the brackish equipment and its conductivity is within the unit's operating range. For Ferafalu, the proposed hand dug well proved to be inefficient due to its built; concrete lining with no screens. As such, the recharge for the well comes from the bottom end of the culvert. Further investigations was recommended for this well prior to the installation of the equipment. Photos below depicts the drilling process of a monitoring well in Ferafalu. *Photos by Freda Kofana, Provincial Officer for Malaita Province.*



Photo 4: Drilling of new monitoring well using the hand auger

Photo 5: Measuring depth of water level at new well

Photo 6: Installation of pipes into the well

- The service of Youth With A Mission (YWAM) Solomon Islands was sourced in June 2017 with the following objectives: i) deepen the proposed hand-dug well (1 metre) for the installation of the desalination equipment to improve area of well for supplying sustainable flow-rate to the submersible pump; and ii) determine sustainable yield of deepened hand-dug well. A pump test of the proposed hand dug well to supply the desalination unit by technical Officers of the Water Resources and Geology Divisions of MMERE in May 2017 revealed that the water level cut off switch would be triggered too frequently, potentially causing burnout of the submersible pump. Therefore a deepening of the existing hand-dug well so a greater surface area of groundwater can be accessed is essential prior to the installation of the equipment. Recommendation: while the existing hand dug well can be used as a source for the desalination unit in the interim, an infiltration gallery be explored in the long term as flow from the proposed well cannot cater for the demand of the desalination unit.





Photo 7: Preparation for well deepening in Taro. Photo 8: Well deepening using simple technology Photo 9: Removal of gravel/sand/mud from the well.

- Due to the size of consignment for the installation of the desalination units in Taro and Gizo, the PMU was unsuccessful in attempts to utilise normal shipping services. As such, the project resorted to chartering a boat through a competitive process which was not only costly but time consuming. Provincial governments' support in the off-loading and transportation of materials from the boat to storage has been highly commendable in both Taro and Gizo. Proposed installation schedule for the desalination/filtration units as follows:





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**Proposed Schedule for the Desalination/Water filtration Units**

Pilot Site	Proposed Dates
Gizo, Wester Province	July 2 – 5 <sup>th</sup> , 2017
Taro, Choiseul Province	July 6 – 10 <sup>th</sup> , 2017
Tigoa, Rennel Bellona	July 11- 15 <sup>th</sup> , 2017
Santa Catalina, Makira/Ulawa Province	July 19 – 26 <sup>th</sup> , 2017
Tuwo, Temotu Province	July 29 <sup>th</sup> – 5 <sup>th</sup> August 2017

- The PMU with support from Procurement Colleagues have finalised contracts for two local construction companies in Taro and Gizo to carry out the construction of basements for water tanks, desalination equipment and fencing of the premises containing the desalination equipment. Given the scope of work, a decision was made to outsource rather than utilizing the limited resources (human) by the national and provincial government.
- Request for Quotations has been issued to various hardware suppliers in Honiara for the procurement of materials/tools (for the desalination/filtration units) and boat charter for the remaining sites (Ferafalu, Santa Catalina, Tuwo and Tigoa). Once finalized, the PMU will proceed with the deployment of materials and mobilization of technicians to complete the required work in the respective sites.
- Draft Memorandum Of Understandings (MOUs) were presented and consultations carried out with Community elders, Water Committees and land owners of Ferafalu, Tuwo and Santa Catalina. These MOUs outlined in detail who is responsible for what in the implementation of the next phase of civil works. Drawing from lessons learned in the construction of quick fix activities, the PMU felt it was necessary to put such arrangement in place so as not to create any misunderstanding or ill feelings amongst community members. These MOUs also highlight specific sites allocated by communities for the installation of communal infrastructures. As an outcome of this process, amendments were done to the draft MOUs for re-tabling with village leaders, Water Committees and landowners for their further consideration/endorsement.



- Overall expenditure for this quarter under this output was USD101,062

**Outcome 4: Improving governance and knowledge management for climate change adaptation in the water sector at the local and national levels.**

- First drafts of seven short films (7-8mins) about SIWSAP pilot sites and SIWSAP as a project have been produced and are in final draft forms. The final product is currently pending feedback from stakeholders and action on the feedback by the audio visual consultant – Torn Parachute. Post production, filming on each of the six pilot sites and editing/production took place in Quarter 2 and distribution plans are being finalized for quarter 3.
- Press Releases for Hydro Meteorology Stations and Water Filtration Systems have been drafted and should be released in the third quarter. Construction work on both activities are still ongoing in pilot sites and scheduled to be completed towards the end of quarter three.
- Quarter 2, 2017 Newsletter is in drafted form and proposed for release in early or late July. This will be SIWSAP's eighth newsletter covering project implementation activities, events and interviews.
- Four new fact sheets were produced during this quarter. One general Fast Facts information sheet under the UNDP Banner about SIWSAP and another under SIWSAP banner. Both general fact sheets is an updated version of a previously produced brochure about the project. Fact sheets on Automatic Hydro-Meteorological Stations and Water Filtration Systems have also been produced. The Automatic Hydro-Met Fact Sheets was distributed in Taro. The Fact Sheets were generated from awareness sessions SIWSAP and the Solomon Islands Meteorological Service conducted in SIWSAP pilot sites. The fact sheets were produced in collaboration with the Water Resources Division and SIWSAP colleagues.
- Five new posters have been produced. One poster details quick fix interventions at SIWSAP pilot sites and the other four are talking head posters of people interviewed in SIWSAP pilot sites on how climate change has impacted their access to water and their livelihoods. The posters have been printed for each site for display during any awareness event in the provinces or in Honiara. More will be printed to share with government and other partners. CCVA Vulnerable and Resilient Villages and Townships have been re printed.
- SIWSAP participated in this year's World Environment Day hosted and led by the Ministry of Environment, Climate Change and Meteorology Services. SIWSAP posters were displayed. There was a great public interest, including from Honiara based school students, in SIWSAP's implementation in the pilot sites and SIWSAP materials (100 x brochures, 100 x fact sheets and 60 x CCVA reports) were distributed.
- SIWSAP's website construction has been completed and is online. The website is the online gateway to the project and its work in the Solomon Islands. Due to back to back travelling on mission over recent months, the website has not been updated regularly. This is a priority for the new quarter and assistance is being sought from an IC to help speed up the content upload for the website. The URL for SIWSAP's website is [www.siwsap.org.sb](http://www.siwsap.org.sb).



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- SIWSAP PMU (TO CCE) assisted SIWSAP offices and provincial government colleagues in Taro and Gizo with promotional materials (caps and T shirts) and a handout on simple ways to reuse waste water keeping with the 2017 World Water Day theme "Water and Waste Water".
  - SIWSAP engaged GEF Communications Specialist Andrea Egan to produce the project's communication and knowledge management strategy. The strategy has been finalized. An in-house training on the strategy was conducted for SIWSAP's staff, including Provincial Officers. The training covered a range of communication products and tools including creating photo stories and essays.
  - In collaboration with the UNDP GEF Communications Specialist, SIWSAP released two photo essays on UNDP Exposure to coincide with World Water Day and International Biodiversity Day. An additional three other photo essays have been planned to be released throughout the course of this year.
  - SIWSAP is on social media sites such as Facebook, Twitter and Flickr. The social media sites are being populated and will be linked to the project's website. In addition, the project has shared SIWSAP photographs with UNDP GEF Communications Specialist Andrea Egan to be uploaded to the UNDP Climate Adaptation Flickr site.
  - SIWSAP is collaborating with the Climate Change Division, Environmental Health Division and Water Resources Division to produce IEC materials relating to climate change impacts on water and related impacts on health (sanitation and hygiene) practices. Unfortunately, due to work commitments, only the Climate Change Division and SIWSAP TO CCE were able to meet in the first planning meeting. (Meeting brief/minutes attached). An IEC workshop is being proposed and tentatively scheduled to be held in late July or early August this year.
- *Total delivery under this output is USD24,942*

#### Outcome 5: Project Management

- SIWSAP's Procurement Plan for the remaining 6 months of 2017 in the process of being finalised.
- SIWSAP welcomed its new Chief Technical Advisor, Mr Robin Ward, who commenced with the PMU on Monday 19<sup>th</sup> June 2017. Courtesy calls have been arranged for him to be formally meet key government partners.
- The successful candidate for the UNV Communication Specialist declined the offer in May 2017. The PMU is pursuing the option of recruiting to this post through the Volunteering Services Abroad (New Zealand) and the Australian Volunteer International (Australia). Both agencies have been approached and necessary documents have been submitted.





- Attempts to recruit a Project Specialist to assist the PMU still not successful. Another round of recruitment has been facilitated by Procurement colleagues.
- *Delivery under this output is USD45,056*

**Section 2: Project progress tracking sheet**

The project implementation schedule as per project document is lagging behind schedule, due mainly to delays in kick starting the project by 6 months.

**Section 3A: Project Issues**

Issue	Potential impact on the project, how dealt with and the result.
Earth Resistivity Equipment malfunctioned	<p>During a field test of the Earth Resistivity Equipment by an expert of the Geoscience Division of SPC during the training of WRD/Geology staff, it was discovered that the equipment was malfunctioned. Procurement colleagues had been notified and are in the process of negotiating with the supplier for a replacement using the existing warrantee.</p> <p>Delays in getting this equipment will affect the deliverables of the Hydrogeologist who is dependent on this equipment to carry out the various ground water assessment in the six pilot sites.</p> <p>Slippages in the Hydrogeologist's deliverables will adversely impact on the roll out of sanitation and new hand dug well development in some of the pilot sites, particularly the three communities.</p>



<p>Lack of a Chief Technical Advisor</p>	<p>The SIWSAP CTA joined the PMU on 17<sup>th</sup> June 2017. Case resolved and closed.</p>
<p>The Ferafalu Community Water Committee (CWC) has received information from a credible source that the landowning group of the landing site proposed to offload materials for the second phase of civil works will claim funds for the off-loading of materials on their land.</p>	<p>If not managed with care, this will contribute to further delay the implementation of activities in this pilot sites.</p> <p>A decision was reached by the Ferafalu CWC with the Provincial Officer concerned and PMU that although the equipment are quite heavy (desalination units), to avoid such dispute and claims for landing, the boat will anchor at Laualo passage and community members will assist with the off-loading using Out Board Motor engines. SIWSAP to assist with fuel.</p>
<p>Office Space. The PMU has run out of office space to house its full staff capacity and store project resources/assets.</p>	<p>While the PMU to some extent had tackle the issue of office space by removing the partitioning, storage of project assets/materials is still an issue. The lack of safe storage for project assets may comprise the safe keeping of project assets (esp. hard ware materials).</p> <p>The PMU will further discuss with RSD (UNDP) and WRD on how to tackle this issue.</p>
<p>Limited pool of qualified and experience Civil Engineers within the field of CCA/WASH has contributed to ongoing delays in recruiting a full time local civil engineer to assist the project with specific activities under outcome 2 and 3 of the project.</p>	<p>Without a Civil Engineer, the project would be handicapped in terms of providing construction management/oversight/monitoring to the next phase of WASH infrastructure investments under the project. PMU has requested for a reclassification of the post to ensure a much attractive salary package is offered so this can attract suitable candidates. The option of a UNV Civil Engineer have also been pursued as a fall back plan.</p> <p>The PMU have been granted approval by the Project Board to advertise the civil engineer's post international under the Fixed Term Appointment modality due to ongoing challenges of sourcing local applicants. Advertisement for this post will close in early July.</p>



<p>Bad weather conditions interrupted normal shipping schedules to Rennell causing delays in the deployment of AHMS to Tigoa.</p>	<p>Mission team consisting of NIWA technician together with government partners failed to carry out the installation of the AHMS in Tigoa. This has contributed to push back proposed schedules to this site and the remaining sites.</p> <p>PMU to work closely with SIMS in closely monitoring weather situations in the scheduling of future missions.</p>
<p>Land dispute over proposed land (customary owned) for the installation of the AHMS and the desalination equipment on Ferafalu.</p>	<p>Has the potential to delay or prevent the project from piloting some activities in this community, particularly Early Warning Systems.</p> <p>The community has been informed that based on the RWASH Policy, unless this matter is resolved by the community, the government and PMU will not proceed with the installation of the AHMS and the desalination equipment. That the elders of the community and the CWC are responsible to sort this out.</p> <p>The Community elders together with the CWC are working with parties involved to resolve this matter. In the meantime, the PMU has temporarily suspended the installation of the respective units in this community</p>
<p>Disagreement by a landowner in Ferafalu on price list used by the project to compensate for clearing of fruit trees for the installation of AHMS and desalination equipment.</p> <p>According to the said landowner, the project has underpaid him by SBD800.</p>	<p>Potential to disrupt activities related to the installation of the AHMS and desalination equipment.</p> <p>SIWSAP have provided proof to the person concerned that prices used were extracted from the latest price list provided by the Ministry of Agriculture and Livestock.</p> <p>Since the concerned landowner is still insisting that the project must compensate him for another SB800 on top of what he has already been paid, the PMU will discuss this matter with the RSD on proposed way forward.</p>





**3A: Project Risks Matrix**

**Existing risks/threats identified PRIOR to this quarter**

Risk	Level	Mitigation measures	Responsibility
Weather impedes travel to Provinces, in some cases for months. Health and safety concerns with outer islands and drought weather/boat rides. Extreme natural events.	Medium	Avoiding travel during times of the year when the weather is known to be changeable and rough seas. Procurement of safety kits for boat travel containing lifejackets, satellite phones, and other emergency equipment.	PMU, MMERE, EHD, MECDM, Provincial Governments
Lack of site access, reduction of pollutants, or inability to protect water sources.	High	The Integrated Water Resources Management (IWRM) process in formulating climate change adaptation plans will undertake consultative and transparent processes, including with landowners. The co-benefits from IWRM through partnerships will be emphasized with landowners.	Community Water Committee in Ferafalu, Community Elders, Chiefs, PMU and key government partners, UNDP



**Section 4: Additional information**

*SIWSAP's Second Quarterly Newsletter for 2017 (prepared by the SIWSAP Technical Communication and Community Engagement Officer, Ms Ruth Ramoifula) will soon be finalized for distribution.*

