

SIWSAP's Annual Progress Report 2017

Outcome	Description of Indicator	Baseline Level	Target Level at end of project	Progress made in 2017 against end of project targets	Results achieved to date (2014-2017)
<p>Outcome 1: Water Sector Climate Change Adaptation Response plans formulated, integrated and mainstreamed in water sector-related and in broader policy and development frameworks</p>	<p>3. Number of Provincial plans with allocated budget informed by vulnerability assessments and Water Sector Climate Change Adaptation Response Plans (aligned with new AMAT Indicators 6 and 13)</p>	<ul style="list-style-type: none"> • No adaptation plans or adaptation guidance exists for the water sector at the National or Provincial levels (including both for water resources and water supply, sanitation and hygiene) • Sporadic and anecdotal data and lessons on adaptation at Provincial level • Lack of downscaled details from national assessments across a wide area 	<p>3.1 At least 6 vulnerability assessments and Water Sector Climate Change Adaptation Response Plans at Pilot Site level developed</p> <p>3.2 At least 6 vulnerability assessments and additional Water Sector Climate Change Adaptation Response Plans at replication sites developed (1 per Province)</p> <p>3.3 At least 6 Provincial Plans informed by vulnerability assessments and Water Sector Climate Change Adaptation Response Plans undertaken in pilot and replica sites, including training of relevant Provincial and National Staff.</p>	<p>In 2017, all Climate Change Vulnerability Assessment (CCVA) and Water Sector - Climate Change Response Plans (WS-CCARP) for the six pilot sites were finalized and printed with contracts signed with contractors to implement the priority projects.</p> <p>During SIWSAP's planning session in mid-February 2017, the project initiated discussions regarding the identification of six replica sites with key partners at national and provincial level with a selection process and criteria defined and shared with the Project Board in February 2017.</p> <p>Consultations with two Provincial Governments on developing dedicated provincial level WS-CCARPs were held in April 2017. Both provincial governments voiced their concerns and were reluctant to establish additional frameworks as already they were confident that existing strategic plans sufficiently encapsulate CCA/water. Due to these genuine concerns raised by two Provincial Governments, and in the spirit of not duplicating efforts of the already owned</p>	<p>All Climate Change Vulnerability Assessments (CCVA) and Water Sector - Climate Change Response Plans (WS-CCARP) for the six pilot sites are finalized, which has resulted in an increased understanding of climate change impacts on water resources, appropriate responses, and built adaptive capacity at local level and increased capacity of national and governmental staff for leading such participatory exercises. Agreement on the priority projects has enabled the finalization of the contracting for civil works implementation, with contracts signed in December 2017 and implementation planned for 1st half of 2018.</p> <p>Preparatory work is currently underway for the identification of replica sites and the establishment of CCVA field teams.</p> <p>In 2018, it is envisaged that National and Provincial (inclusive of potential members in the pilot communities) government will take the lead role in the roll out of such similar process in replica sites. Through the leadership of provincial government officials in applying the CCVA and WS-CCARP process at the replica sites, it also represents a good opportunity and entry point for ensuring integration of water</p>

				provincial assessments and strategies, or establishing parallel plans unnecessarily, further consultations will be carried out in 2018, with all provinces, to map an appropriate way forward to ensure more climate resilient and adaptation focused provincial plans.	sector climate change adaptation in relevant provincial plans.
Outcome 2: Increased reliability and improved quality of water supply in targeted areas	4. Number of sites adopting sustainable water resources management practices that enable continuous availability of a sufficient quantity of safe drinking water, given existing and projected climate change (aligned with new AMAT Indicators 1, 2 and 4)	<ul style="list-style-type: none"> Rural sanitation coverage is at best only 18% of the population. Composting toilets are not well understood, and sanitation is not considered a viable option for rural communities Tuwo: 100% of community have no water >5 times per annum. Gizo: reticulated system operates at 70% supply, with a further 70% leakage rate. Manaoaba: 90% of community has no RW supply >5 times per annum. Taro: 73% of community have no access to a toilet and no alternative safe water supply than existing RW tank system covering only 	<p>4.1 Six sites with increased water storage provides a diversified approach to capturing and storing freshwater safely through island appropriate technologies (100% of communities have regular annual supply)</p> <p>4.2 At least one pilot site where strategic freshwater reserves are rehabilitated and protected</p> <p>4.3 At least four pilot sites with appropriate sanitation technologies (e.g., composting toilets) trialled, to protect groundwater and other sources of water supply, supported through appropriate sanitation mobilisation approaches</p> <p>4.4 More than 3 sites with key groundwater</p>	<p>There was no SIWSAP support for increased expansion of water storage capacity in the pilot sites in 2017, and there were no reports of water shortages received for pilot sites. This may be due in part to the quick fixes and the subsequent desalination and ultrafiltration systems installed in 2017, in five pilot sites (Outcome 3). This was demonstrated by the fact that the desalination system installed in Tuwo became the primary water source during a period when there was volcanic ash fallout contaminating the primary rainwater tank water supply and the entire village and surrounding communities relied upon the desalinated water.</p> <p>The first step towards identifying and characterizing strategic freshwater reserves and groundwater recharge areas was partially completed in 2017. Training on the use of the earth resistivity equipment for MMERE staff from Geology, WRD and SIWSAP PMU was conducted in early July 2017 by an expert from the Secretariat of the Pacific Community (SPC). Hydrogeological field level assessments were completed in five out of six sites (all except Ferafalu), including full resistivity survey</p>	<p>The main focus to date has been on ensuring water supplies with increased reliability and improved water quality in each pilot sites, primarily through providing more comprehensive diversified and integrated water supplies in each pilot site. This has been achieved by expanding existing storage capacity of rainwater harvesting systems by an estimated 390,000 litres (quick fixes), and diversifying water sources by improving existing ones, such as 10 hand dug well constructions/improvements (quick fixes), or upgrading them, such as the case for the desalination and ultrafiltration system installations in five pilot sites in 2017. Through these interventions, a combined estimated >6,500 people (including >2,727 women) people have access to a more climate resilient water supply that is available when needed and consistently of better quality, as there is less reliability on hand dug well water for drinking purposes. To date, the best evidence of increased reliability and quality of water supply in pilot sites has come from Taro, and Tuwo.</p> <p>In Taro, based on anecdotal evidence from the provincial government of Choiseul Province, since the quick-fix installation of water tanks and</p>

		<p>70% of community (empty >5 times per annum.)</p> <ul style="list-style-type: none"> • Santa Catalina: 94% of community have inadequate roofing to capture water, with 79% of tanks empty > 5 times per annum. • Tiggoa: 55% of the community have no water supply >5 times per annum. 	<p>recharge areas, identified, cleaned and/or protected</p> <p>4.5 Comprehensive diversified and integrated water supply systems established in at least six sites, through at least 20 adaptation response projects (Outcome 3)</p>	<p>assessments in two sites (Gizo and Taro) and a hydrological assessment carried out on Ghizo Island. The subsequent use of the equipment in two field surveys demonstrates increased capacity of WRD to provide this surveying service to clients in the future, including SIWSAP for the remaining 4 sites required to be surveyed, as well as to other governmental and non-governmental clients nationwide.</p> <p>Reports have been drafted for Gizo and Taro and provide critical insight into the vulnerability and potential of groundwater in both instances, surface water in the case of Ghizo Island, and have helped to elaborate on potential impacts of climate change on the groundwater reserves. The hydrogeological and hydrogeological surveys completed on Ghizo Island, have confirmed the Leoko catchment and Tirokogu spring and pool as important medium-term water sources for securing water supply to Gizo township under current and future population growth and climate change. The hydrogeological report provides the evidence and basis to justify further investigation of a potential supplementary water source of Gizo township, and in doing so, provides some potential options for a longer term water supply for Gizo township, that is more climate resilient. The hydrogeological survey completed on Taro Island highlights the vulnerability of the freshwater lens to pollution due to the connectivity of surface and groundwater recharge and to climate change, primarily</p>	<p>development of new hand dug wells, the township has not experienced any water shortages and there haven't been any interruptions to provincial government staff working hours unlike before where the government on several occasions had to release staff (work half day) early so they can travel to the nearby source on mainland to access drinking water. In Tuwo, the desalination system installed became the primary water source during a period when there was volcanic ash fallout contaminating the primary rainwater tank water supply, and the entire village and surrounding communities relied upon the desalinated water.</p> <p>These are excellent illustrations of how the project is contributing to not only increased reliability and quality of water supplies at Outcome level, but also to the achievement of key aspects of the project objective, to sustain livelihoods through time savings and related improved workforce productivity in Taro, and through avoiding public health risks, in Tuwo.</p> <p>There has been significant progress in terms of protecting and rehabilitating strategic freshwater reserves and groundwater recharge areas, initially through the characterization of the water resources through hydrological and hydrogeological assessments and building of adaptive capacity of people through awareness raising activities. These activities are most advanced for Gizo and Taro, with full resistivity surveys</p>
	<p>5. Number of sites with active Community Based Early Warning Systems in place. (aligned with new AMAT Indicator & and 8)</p>	<ul style="list-style-type: none"> • Limited coverage of Community Based Early Warning Systems in place in the six pilot sites 	<p>5.1 At least 6 sites with Community based Early Warning 'Systems' (CBEWS) in place</p>		

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<p>Outcome 3: Investments in cost-effective and adaptive water management interventions and technology transfer</p>	<p>6. Number of projects implemented for cost-effective and adaptive water resource management interventions/technologies, based on community driven Water and Adaptation Response Projects with co-financer interventions (aligned with new AMAT Indicators 2 and 4)</p>	<ul style="list-style-type: none"> No current direct access to funding for community projects focusing on adaptation and water risks Development partner and national interventions focused on rural WASH provision do not include adaptation response in project delivery-investments or in climate proofing projects Only 1 publicly owned potable water filter/desalination unit exists for the entire country 	<p>6.1 At least 20 community driven, designed, developed and implemented Water and Adaptation Response Projects (aligned with co-financer interventions)</p> <p>6.2 Appropriate water supply equipment successfully procured and delivered to pilot sites and key disaster stakeholders such as NDMO for enhanced preparation and response to water scarcity</p>	<p>2017 saw the completion of engineering feasibility assessments in all six pilot sites for the priority WS-CCARP projects, from which detailed designs and cost estimates were finalized, validated and launched for tendering. In December 2017, 14 Water Adaptation Response Projects were awarded to contractors. The key cost-effective adaptive water supply interventions arising from the WS-CCARPs to be implemented in pilot sites included new rainwater tanks, reticulated systems and hand dug wells. These adaptive interventions can be seen as “no-regrets” diversification measures under uncertain and likely highly localized rainfall variation due to climate change. An international engineer was recruited from mid-November 2017 to provide critical oversight and quality assurance for infrastructure implementation for the Water Adaptation Response Projects, which will commence in January 2018.</p>	<p>Following the progress in 2017, 14 out of 20+ Water Adaptation Response Projects are now ready to be implemented and are expected to be completed in the first half of 2018. Further expansion and diversification of water supply, and in turn, an even more climate resilient water supply will be achieved through the 14 Water and Adaptation Response Projects, for which contracts were signed in December 2017. Considering additional projects anticipated to be delivered in some pilot sites and replica sites, the project is therefore on track to deliver the 20+ Water Adaptation Response Projects. For Gizo pipeline, and for replica sites, further assessments (CCVA, engineering feasibility), planning, designs and procurement activities are required before the projects can be implemented, expected in the second half of 2018.</p> <p>The desalination and ultrafiltration installations are approximately 80% complete, with water being used widely, with only the installation in Malaita</p>

				<p>Desalination and ultrafiltration water treatment systems were installed in five sites during 2017. Unfortunately, due to an ongoing and unresolved land dispute in Ferafalu pilot site, the installation has not proceeded in this sixth site. The installations in Taro and Gizo were supported by a technician from the manufacturer who trained national and provincial government technical officers in the installation and operation, who then went on to install the systems in Tuwo, Tigoa and Santa Catalina. The same technician also returned to inspect two of the installations, at Tuwo and Tigoa. These desalination systems have complemented the quick fixes greatly improved the quality and reliability of water supplies, especially through reducing the burden and over-reliance on rainwater supplies by providing an alternative water source and also as an emergency backup supply during water shortages caused by low rainfall or other disasters, such as the volcanic ash contamination event experienced in Tuwo pilot site (see Outcome 2).</p>	<p>Province pending. Under the Water Adaptation Response Projects for rural sites, the treated water will also be piped further into the communities to a number of tapstands to ensure accessibility and encourage usage during times of water shortages, either anticipated or real. The wider sector are very interested in the outcome of the piloting of the new desalination equipment, the findings of which will inform future sector wide decisions on the technologies suitability to facilitate longer term CCA options for water in vulnerable locations of the Solomon Islands.</p> <p>There has been less focus so far on developing new climate change resilient water sources, however the hydrogeology assessments (Outcome 2) provide the evidence required for decision making related to further investigation and the development of potential new climate resilience groundwater sources. Budget permitting, SIWSAP may support investigation and development of new groundwater sources in pilot and/or replica sites, which would contribute to achieving the 20+ Water Adaptation Response Projects.</p> <p>In 2018, the focus will be on implementing the 14 Water Adaptation Response Projects in the six pilot sites in a timely and quality fashion and in designing and delivering the remaining 6+ projects in pilot and replica sites, including the implementation of a sustainable contribution to improving the water supply for Gizo township. Another major focus will be the continued performance monitoring of the</p>
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Outcome 4: Improved governance and knowledge management for Climate Change Adaptation in the water sector at the local and national levels	7. Number of fora held where key stakeholders generate and exchange knowledge generation, and develop policies that facilitate climate change mainstreaming in the water sector (aligned with new AMAT Indicators 5)	<ul style="list-style-type: none"> No national forum exists for sharing, discussing, and learning from adaptation and water management programmes 	7.1 A total of 3 National Water and Adaptation Forums held 7.2 One Sanitation and Adaptation Partnership with IWRM participating countries in place	The 2017 National Water Forum, led by Water Resources Division with close support from SIWSAP was successfully hosted in November 2017. The two-day event was well attended by National and Provincial Government and provided a platform for the National Government to share relevant excerpts from the recently finalized National WatSan Policy to support their vision of Climate Change Adaptation in the Water Sector and the importance of taking an Integrated Water Resources Management (IWRM) approach to sustainable water resources management and water supply. Representatives from each pilot site presented to the audience on the impacts of climate change on water in their locations and activities taken to increase resilience of their water resources and water supplies. A four page project briefing paper was developed by the project prior to the event and presented at the event with the aim of raising	To date, two national forums have been hosted by SIWSAP in 2016 and 2017, where local, Provincial and National level stakeholders have generated and exchanged knowledge on CCA in the Water Sector, resulting in increased understanding and awareness of what CCA in the Water Sector means in practical real terms. Importantly, the Provincial level governments who are supporting the pilot sites are more aware of the approach and are prepared to scale it up to the replica sites in 2018. The data being generated by the expanded AHMS hydro network to pilot sites has seen the gathering of critical data for use at all levels, local, Provincial and National, which is already being used for decision making, such as the case for the Gizo pipeline through the turbidity readings being collected, and also the monitoring bores are supporting the
	8. Number of awareness and knowledge materials on climate change risks and vulnerability of water sector, and appropriate adaptation and response measures produced through the SIWSAP project with national partners providing cross-sector adaptation relevant	<ul style="list-style-type: none"> No specific guidelines exist for water resources, supply, and sanitation relative to climate change impacts and how to plan for these Until recently, very little national advocacy for sanitation or 	8.1 One academic/scientific and/or policy publication on the climate change impacts on the water resources of the Solomon Islands 8.2 At least six site specific guidelines and one national guideline produced for climate resilient		

	<p>information (aligned with new AMAT Indicators 5)</p>	<p>understanding of climate change impacts</p> <ul style="list-style-type: none"> Existing hydrological monitoring systems is not adequate for existing climate variability, or for predicted (and often very localized) climate changes 	<p>water supply and sanitation development and management in vulnerable areas of the Solomon Islands</p> <p>8.3 One National Sanitation Campaign with partners designed and implemented to reach more than 20% of national population.</p> <p>8.4 Six Peer-to-Peer Learning Network established across Pilot and Replication Sites (Outcome 2)</p> <p>8.5 One National Diploma on Water and Adaptation with Solomon Islands National University in place</p> <p>8.6 4 sites with hydrological monitoring equipment installed to improve and expand current national hydrological monitoring network</p> <p>8.7 At least two creative and/or audio-visual products are produced utilizing participatory communications approaches to communicate, train,</p>	<p>understanding of what CCA in the Water Sector in the Solomon Islands means in practical/real terms.</p> <p>Aside from the National Water Forum, awareness on CCA and the Water Sector was raised at national and local levels through participation in World Environment Day on 5th June 2017, and through SIWSAP taking a lead role in partnership with key stakeholders in Gizo and Taro to celebrate the first ever World Water Day on 22nd March 2017, with the theme “waste water” in these two provinces.</p> <p>SIWSAP’s Communications and Knowledge Management Strategy was finalized and is currently being implemented with the support of key partners. During 2017, the visibility of SIWSAP work has been increased through the following awareness and knowledge materials on climate change risks and vulnerability of water sector, and appropriate adaptation and response measures being produced and disseminated:</p> <ul style="list-style-type: none"> production of seven short films on what SIWSAP is and key activities implemented development of SIWSAP website poster detailing quick fix interventions at SIWSAP pilot sites fact sheets on Automatic Hydro-Meteorological Stations and Water Filtration Systems 	<p>hydrogeological field assessments.</p> <p>There have been some impressive products and materials developed by SIWSAP’s communications team, most notably the projects dedicated website and mini documentary videos produce on each of the sites and on the project overall.</p> <p>In 2018, there will be a much larger focus on delivering results in this Outcome area, largely driven by the completion of the Water Adaptation Response Projects in pilot sites and scaling up to replica sites and Provincial levels. The lessons learnt and results that arise as a result of this implementation will inform the documentation and knowledge product development to support scaling up and sustainability of the climate change adaptation approach to more sectoral level. Efforts will be made for the 2018 NWF to attract an even wider audience, for maximum dissemination of the CCA Water approach. The communication and visibility aspects of this approach mainstreaming will be supported by a volunteer Communication Specialist who was selected in December 2017 and will join the project in Jan 2018.</p>
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