The presentation was held at SOPAC headquarters in Suva. Dr. Howorth said that climate change has gained pre-eminence in the debate on development at all levels, national, regional and global. “The ocean is often referred to as the engine room of the global climate,” said Dr Howorth. “It occupies nearly three quarters (75%) of the earth’s surface and stores most of the incoming energy from the Sun. Not only is the Pacific Ocean the largest physical feature on Earth, here in the SOPAC region over 95% of the environment is the Pacific Ocean.” Most of SOPAC’s work is indirectly, if not directly, linked to assisting its island members respond to the climate change challenge, and assisting island communities ensure effective adaptation strategies are in place, and sustainable. This requires understanding the potential impacts of climate change, and understanding requires information that comes from timely ongoing scientific and technical data collection.

“Put simply, this is the very rationale for SOPAC,” said Dr Howorth. Dr Howorth explained that climate change is not discernable on a daily basis, it is about daily weather events and in particular, extreme weather events, that are changed slowly over time, and whose frequency and intensity may be increasing. Climate change brings another dimension to a whole range of environmental, social and economic issues to which small island developing states around the world are vulnerable, and it is key to understanding how the adverse impacts will affect communities in SOPAC’s island members. Information is essential to understanding what has happened in the past, and what is happening today. Will the frequency and intensity of events increase and thereby, so will the social and economic impacts? Is our capacity to cope increasing, or has it in fact diminished or even been lost?

“Once island communities have this information they can design and implement adaptation strategies that are underpinned with a ‘No Regrets’ approach,” said Dr Howorth. Dr Howorth concluded by saying he hoped the future role of the sector will be to ensure effective adaptation strategies are in place, and sustainable.

What are your plans to assist yourself, your family, friends, community and country address the climate change challenge? Dr Russell Howorth, Director of SPC Applied Geoscience and Technology Division (SOPAC), issued the challenge to the more than 40 international youth delegates from the 23rd Ship of World Youth Programme who attended a special presentation by SOPAC scientists on their work within the region on climate change.

The 23rd Ship for World Youth Programme, operated by the Cabinet Office, Government of Japan, involves 144 young people from Japan and a further 144, made up of 12 delegates from each of the partner countries of Australia, Bahrain, Brazil, Chile, Fiji, Federated States of Micronesia, Mexico, Oman, Solomon Islands, Tanzania and Vanuatu.

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“Once island communities have this information they can design and implement adaptation strategies that are underpinned with a ‘No Regrets’ approach,” said Dr Howorth. Dr Howorth concluded by saying he hoped the future role of the sector will be to ensure effective adaptation strategies are in place, and sustainable. The aim of the programme is to build leaders of their countries. While on delegates study and discuss common major theme for discussion is Climate

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I am pleased to present herewith the Annual Report of the Water and Sanitation Sector, which covers progress of the sector in achieving its outcomes and targets in 2009/10, as well as the future challenges and way forward. One of the great strengths of the sector approach, which has been adopted in Samoa, is that it brings together a diverse range of stakeholders, both within and outside Government, to work as team to overcome the challenges and problems that we face in improving the management of water, sanitation and drainage throughout the country. We have seen this approach grow for strength over the last few years.

This report has been prepared to inform the annual review meeting for the sector, which will take place from 22-24 November 2010. This will be the 3rd annual review meeting that has been hosted by the sector. Our objective in these meetings is not only to report to our partners on progress that we have made over the past year, but also to engage in dialogue with all interested stakeholders and partners on the way forward.

We know that we face many challenges in the water and sanitation sector and we need all the assistance we can get to overcome these challenges. Poor water quality continues to be a major risk for the health of the population. We have targeted the roll out of water safety planning for both the Samoa Water Authority and independent community-managed water schemes throughout the country to help identify the main areas for water contamination and to prioritize actions to limit the risks. We are also concerned to work in collaboration with SWA to reduce the unacceptably high levels of water losses in the Apia area water supply systems, which has knock on effects on the quality and quality of services. Improved sanitation has been recognized as a new area of priority and a new Sanitation Policy has been approved setting out a strategy for action. One of the main problems we face is the poor quality construction of septic tanks, particularly in the rural areas. We are very concerned that poor treatment of waste water is beginning to damage the coral reef systems around the country with serious consequences for people’s health, livelihoods and the environment.

We need to find better ways to reach out to local communities who must be our main partners in meeting the objectives of the sector. We need their support in many areas including conservation of water sheds, recognizing the value of clean water, helping to maintain and safeguard water systems, and working to improve sanitation facilities. We have developed constructive partnerships with communities throughout the country and we must use this experience to build similar relationships in other areas.

Lastly we have worked on the introduction of a new Water Services Policy that we believe should improve governance in the delivery of water services to meet the needs of customers. This includes the introduction of a Regulator for Water Services and improved collaboration between IWMA and SWA.

We look forward to hearing your opinions on our performance in the sector and the way forward for the future at the annual review meeting. Thank you for the support of all our partners.
The small Polynesian nation of Tuvalu has been the focus of climate change impacts for many years. The island has the highest population density of any country in the world, and a majority of households struggle to survive on their meager resources. The majority of households in Tuvalu will conserve their limited water resources by using the saline content of seawater. This is because seawater contains minerals that are essential for human health. However, seawater also contains high levels of salt, which can be harmful to human health. This is why it is important to find ways to purify seawater before it can be used for drinking purposes.

The contamination of groundwater from septic tanks, piggery, and other household waste is a major concern for Tuvalu. Water tanks are essential for storing rainwater, but they can become contaminated with waste if they are not properly maintained. Septic tanks, in particular, can contaminate groundwater with harmful bacteria and viruses. This is why it is important to ensure that water tanks are properly cleaned and maintained.

In order to increase water storage capacity and sanitation, the Tuvaluan government has invested in improving sanitation facilities and water storage tanks. This has helped to reduce the number of cases of waterborne diseases and improve the overall health of the population. However, it is important to continue to invest in water and sanitation infrastructure to ensure that the population has access to clean and safe water.

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The protection of watershed areas has become a priority to the sustainability of freshwater resources, in light of the continuing degradation of forest in and around catchment areas. Forests within watershed areas that help regulate and maintain water resources have been largely cut down for agricultural developments and settlements as well affected by natural disasters thus providing corridors for invasive species, exacerbating the loss of biodiversity and the decrease in the quality and quantity of water available for social, economic, development.

The Ministry of Natural Resources and Environment (MNRE) through the Water Resources Division (WRD) conducted its third community consultation for the Vaipouli Catchment at Savaii on Thursday 18th November 2010.

The Ministry have worked closely with “Sustainably Land Management Project (SLM)” for promoting the sustainable management of Vaipouli Watershed through the rehabilitation and sustainable management of the Vaipouli Catchment. The main objective of the consultation is to introduce the Vaipouli Management Plan final draft to the villages which include, Safai, Satoalepai, Fagamalo, Lelepa, Avoa, Vaipouli/Saleia and Manase. The consultation also included the endorsement of the Plan and to get views and opinions of the targeted stakeholders on the Plan.

Some of the issues raised and discussed during the workshop:
- Proper maintenance and monitoring of the community nursery
- Watershed management and reforestation programs remains in community
- Eradication of African snails

(Copies of a full detail report can be obtained from Water Resources Division, the Ministry of Finance in consultation with MNRE may wish to consider the use of strategic environmental assessments in sensitive sectors with major impacts on the environment/ climate change as part of the sector planning guidelines. This is important as choices that are made at the sector planning stage may have significant impacts and by the time detailed projects are prepared it becomes very difficult to consider alternatives.

We would recommend undertaking a Strategic Environmental Assessment (SEA) in the water sanitation sector once detailed investment plans have been prepared in order to check that the approach is considering all environmental and climate change issues. This would be a good learning exercise for MoF and MNRE on the SEA tool.

The environment is becoming an increasingly important issue in view of growing consumption and affluence leading to increasingly negative impacts on the environment. On a small island preservation of a healthy environment will be critical to the future sustainability of our way of life and economy with tourism largely based on the quality of the environment. With the limited landmass of our island environment we cannot afford to make mistakes and we need to ensure that management of a healthy environment is an overriding factor in the planning and design of all development programmes and policies. It is therefore suggested that we should consider developing a sector wide approach for the Environment sector under MNRE. The EU could be approach to consider supporting this sector after the 10th EDF and resources could be made available now in terms of capacity building and technical support to pave the way for a sector policy support programme with budget support modality under the 11th EDF. The EU has identified the environment and management of natural resources as a high priority in the Pacific.

Acknowledgements
We would like to acknowledge the Government of Samoa and EU for making it possible to participate and learn from this Pacific Water Conference and Expo 2010. The next PWCC conference will host by Fiji Water Authority (FWA) in Suva – Fiji, 2011.

Samoa’s Representatives:
1. Mr. Moefaau T Tili maea – General Manager (SWA)
2. Mr. Tagala Taufa – Board of Directors (SWA)
3. Mr. Nicolas Roberts - TA to NAO (MOF)
4. Mr. Sulutumu Sasa Milo - President of Independent Water Scheme Association (IWASA)
5. Mr. Papali M Matala M Matala - Dep Coordinator (MNRE – WSSCU)
6. Ms. Mele Tanielu – Senior Quality Officer (MOH)

Faafetai lava!

Delegation from Samoa & Tuvalu singing during church on Sunday

Mele Tanielu (MOH - Samoa) with participants cruising around after the workshop

Moefaau T Tili maea (SWA MD), Mele Tanielu (MOH) Sulutumu Sasa Milo (President IWASA), Timothy (SWA)
The workshop on Integrated Water Management within the Fuluasou Basin was led by Programme Implementation Assistance (PIA) Team Leader, Mr. Henk Gjesdahl with Malcolm Farley, Unaccounted for Water (UFW) & Demand Management Specialist as Facilitator.

The workshop was intended to wrap up PIA support over the last 5 years including lessons learned and possible application of these lessons using the Fuluasou Basin as a case study. Implementing Agencies (IAs) such as MNRE (Watershed Management), SWA (Rural Water Supply), MOH (Water Safety Planning in Fuluasou), IWDA (Sapataulu Independent Scheme) and FESA (Water usage) were each given the opportunity to present on progress of their respective programmes with the support of the PIA.

The PIA supported the management and implementation of the WaSSP components by providing advice, technical assistance and capacity building support to the main implementing agencies (IAs). These included the Ministry of Natural Resources and Environment (MNRE), Samoa Water Authority (SWA), the Environmental Health Office of the Ministry of Health (MOH), and the Ministry of Women, Community and Social Development (MWCSD).

The WaSSP has been successfully implemented over a five-year period from 2006 - 2010 with the PIA to formally end on 31 October, 2010. Other objectives:

- Identify the interlinkages between the water resource conservation, water supply and water losses.
- Identify the importance of coordination between SWA and MNRE/MOH in integrated water management.
- How to coordinate effective exchange of information and institutional cooperation.
The Pacific Islands Applied Geo-science Commission (SOPAC) is acting as the executing agency for the European Union funded “IWRM National Planning Programme” and Global Environment Facility (GEF) funded project “Implementing Sustainable Water Resources and Wastewater Management in Pacific Island Countries” (GEF Pacific IWRM Project). These projects are assisting Pacific Island Countries to establish and implement Integrated Water Resources Management (IWRM) and Water Use Efficiency (WUE) plans.

A key capacity building component of the Pacific IWRM Programme is the delivery of an accredited Post Graduate Certificate (PGC) Course in IWRM for Pacific Islanders working in the water sector in their own countries or who are directly involved with the Pacific IWRM Programme and have met the course requirements.

The IWRM PGC course was coordinated by International Water Centre (IWC) in Brisbane and delivered through a joint venture with four leading Universities in Australia including the University of Queensland, Griffith University, Monash University and the University of Western Australia over a two year period.

In order to address the knowledge and competency needs of Pacific Island Countries (PICs), the Graduate Certificate Program provides an integrated perspective on water management, focused on four core modules:

1. Project Management Science of Water Capacity Building and Community Development Catchment and Aquatic Ecosystem Health
2. The inception of this course was carried out in conjunction with the 2nd Regional Steering Committee (RSC) Meetings of the Pacific Workshop held in Palau from the 25th to 31st July.

19 participants from the Pacific was selected for this course, and 3 amongst them are from the Water Resources Division. They were Sulimalo A. Penaia (ACEO Water Resources Division) and 3 amongst them are from the Water Resources Division.

The Ministry have worked closely with “International Union Conservation of Nature Project (IUCN)” for promoting the sustainable management of Togitogiga Watershed through the rehabilitation and sustainable management of the Togitogiga Catchment. The main objective of the consultation is to introduce the Togitogiga Management Plan final draft to the villages which includes, Saaga (Stimu), Saleilua, and Poutasi, Falealii. The consultation also included the endorsement of the Plan and to get views and opinions of the targeted stakeholders on the Plan.

During the consultation, there were issues raised by the village community in regards of the cattle farms belonging to the Government still not resolved since issue was raised in the previous consultation. The village community raised their disappointment with the ministry due to the fact that Ministry of Natural Resources & Environment didn’t address their concern in the draft of the Plan.

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During the consultation, there were issues raised by the village community in regards of the cattle farms belonging to the Government still not resolved since issue was raised in the previous consultation. The village community raised their disappointment with the ministry due to the fact that Ministry of Natural Resources & Environment didn’t address their concern in the management plan presented. They also raised complaint in regards of the new water supply which doesn’t work till date. They have planned on installing their own pipe lines and have approached the Independent Water Scheme Association for assistance. The community were also confused of the solid classification as why they named it Fagaloa, Salani etc.

Mr. Sulimalo Amataga Penaia, ACEO of Water Resources Division, spoke on behalf of the Ministry of Natural Resources & Environment in regards of the issues raised by the community.

There is still negotiation and ongoing consultation with Ministry of Agriculture & Forestry regarding the issues on cattle farms around the water catchment. Representative from MAF was suppose to be presenting their views on the issue raised, but unfortunately, they have changed managerial positions, and the village community will be contacted once changes are all sorted out in the ministry (MAF).

In regards with the water problems raised, Sulu responded that this matter should be raised with Samoa Water Authority as Water Resources has nothing to do with the installation of new pipelines and distribution of water in the area.

With soil classification, Sulu also explained to the community why these soil classifications were named after Fagaloa, Salani and so forth. This was due to the names given by the expertise that did these researches on our soils, and that’s why we still used these names as our references.