

Sea levels are rising

The threat of rising sea levels over the next century is an ever-present danger, according to a review recently published in leading scientific journal *Nature Geoscience*.

Ice cores taken from Antarctica indicate that during periods of rapid ice melt, sea levels have risen as much as 2 inches per year, more than tens times the current rates of sea-level rise measured by the Seaframe station down on the Uliga dock.

"This is sobering news," says Sea Grant coastal processes extension agent, Murray Ford. "Since 1993 sea level has risen in the RMI on average about 4 mm per year, or roughly 1 inch every 6 years. Future acceleration in sea level rise will have serious implications for how the RMI manages its coastal resources."

While the study suggests these rates from the geological past occur under unique climatic conditions, a recent review of sea level studies by University of Hawaii Professor of Geology Chip Fletcher recommends planning for 1 meter of sea level by the end of the 21st century. He attributes this to the presently adopted sea level scenarios failing to fully



Murray Ford, right; heavy erosion on a lagoon side beach at Arno, Arno.



Marshall Islands has many climate options

With rising sea levels and predicted acceleration over the coming decades, is all hope lost for the RMI? Not according to Sea Grant coastal expert Murray Ford.

"While there isn't a lot of good news out there on the climate change front, there is plenty we can do here on the ground before packing our bags and heading off to the USA."

According to the recently published report on Coastal Adaptation released by USAid, "The challenges we all must face in adapting to climate variability and change present

themselves with increasing urgency. No-where will these challenges be greater than in the developing world where often weak institutions and governance systems struggle to deal with mounting pressures from population growth, inadequate infrastructure, and diminishing or already depleted natural resources."

So what can be done to adapt to climate change and sea-level rise in a country where the highest point is a single bridge? According to the USAid report, there are many strategies that could be applied to the RMI. The

report suggests following a set procedure to establish goals and objectives so the effectiveness of solutions can be measured.

While the report outlines many possible solutions, Ford suggests selecting the most suitable to address the objectives and goals. His picks: "Things like better building standards to plan for sea level rise, coastal planting to reduce erosion, setbacks to keep development away from sensitive areas... the list goes on. Many of these adaptation strategies can be implemented quickly and many require little funding to get moving."

include the effects of glacial melt in Greenland and Antarctica. Fletcher believes "it is desirable to have an estimate of SLR this century to properly design mitigation and adaptation strategies."

The *Nature Geoscience* review also indicates that the tropical western Pacific has born the brunt of rising sea levels since 1992, compared to other areas. According to Murray Ford, "Sea level rise

varies through time and around the world, but the consensus is that sea level is rising and it appears more than likely to accelerate this century. While there is room for action at a global

scale, it is important to know the problems are going to affect the RMI on a local scale. We need to narrow our focus in order to plan and adapt to what is going to happen here in the RMI."



Foreign Minister John Silk, President Litokwa Tomeing and Japan Charge Kazuyuki Ohdaira (all seated) with departing JOCV staff and RMI officials.

Japan volunteers head for home

After two years of dedicated volunteer work on Majuro, six Japan International Cooperation Agency (JICA) recently headed back to Japan.

Saying their sayonaras to Majuro were Ai Matsumiya, who worked at EPA, Yoshihiro Shimosaki, a teacher at Majuro Middle School, Noaki Nishimura, a teacher at MIHS, Nobuaki Yamada, a teacher at Woja Elementary School, Taichi Watanabe, who taught at Rita Elementary School, and Sayuri Ito, a teacher at Delap Elementary.

The group, Japan Charge d'Affaires Dr. Ohdaira and other officials paid a courtesy visit to President Litokwa Tomeing and lunched at the Won Hai Shien Restaurant before departing last month.

Present from the RMI side were the President, Minister John Silk, Fred Pedro,

and Yolanda Lodge-Ned. Ohdaira, Second Secretary Koji Matsuda, Economic Advisor Tomoaki (Motti) Miyamoto, JICA Director Kazuo Senga, and Coordinator Takuyuki Murakami were present from the Japan side.

The volunteers briefed the group with their work here on Majuro.

Matsumiya, who worked at EPA in the field of environmental issues for two years, shared a good coral story and mentioned that she wrote an educational book with help from her colleagues about corals and distributed them to each school on Majuro and the outer islands as well. Tomeing expressed his appreciation to the JICA program, and praised and thanked the six outgoing volunteers for their dedicated service on Majuro.