Fourth Regional Steering Committee Meeting for the GEF Pacific International Waters Ridge to Reef Project entitled:

*Ridge to Reef – Testing the Integration of Water, Land, Forest & Coastal Management to Preserve Ecosystem Services, Store Carbon, Improve Climate Resilience and Sustain Livelihoods in Pacific Island Countries*

Nadi, Fiji 30th to 31st July 2019

**Update on the Post Graduate Certificate Program**
Review of Graduate Certificate in R2R Sustainable Development

2019

Professor Marcus Sheaves
Director Marine Data Technology Hub https://www.mdatatechjcu.com/
Leader SICEM - Science for Integrated Coastal Ecosystem Management

College of Science and Engineering

James Cook University
Successful completion of the Graduate Certificate of R2R Sustainable Development Program

**Graduate Certificate of Ridge to Reef Sustainable Development**

**EV5961 Ecosystem Dynamics R2R**
Ecosystem Dynamics will focus on developing the integrated whole-of-catchment understanding that is integral to Ridge to Reef management. Ecosystem Dynamics relates to interlinked networks of interactions among organisms and between organisms and their environment that facilitate the proper functioning of ecosystems. Thus gaining a clear understanding of Ecosystem Dynamics is pivotal to successful Ridge to Reef management. Ecosystem Dynamics will develop an authoritative understanding of the ecology of the key components of terrestrial and marine ecosystems, including forests, rivers, mangroves, seagrass beds and coral reefs. In addition, it will develop an understanding of the connectivity and interactions between these ecosystems, and the functioning of the key ecosystem-supporting processes. This subject will draw on understanding specific to the Pacific Islands as well as advances in understanding from across the tropical world. Although the unit will be broadly applicable across Pacific Island Countries (PICs), differences in ecosystem dynamics between different PICs, and how the consequences of these differences play out, will be illustrated using examples from particular PICs.

**EV5960 Project Management R2R**
EV5960 Increasingly, governments, NGO’s, companies, and Not-For-Profit (NFP) organisations face changing environments driven by the demand for greater quality, shorter product/programme lifecycles, and faster response to customer/client demands, and to maintain a competitive advantage through continuous innovation to maintain competitive costs at operating levels that provide customer satisfaction. Global companies such as General Electric, Boeing, Samsung, BHP, Thielss, Microsoft, Oracle, Sony, and Qantas have all successfully developed business models to achieve innovation. In today’s global marketplace competitive advantage ensures being faster to market, efficient production capacities, coupled with cost consciousness to remain customer-focused. These companies share a common characteristic; they have embraced project management as a strategic tool.

**EV5963 Ridge to reef tools**
The R2R Tools subject introduces a range of tools used in facilitate understanding of Ecosystem Dynamics, to enable good Governance and to link Ecosystems Dynamics and good Governance into integrated R2R outcomes. R2R tools are used in a broad range of situations such as ecosystem management, marine spatial planning, socio-cultural assessments, climate change adaptation and protected area management and planning. The tools covered in the unit will range from geographic information systems (GIS), through community engagement focused ground-truthing approaches such as Walking The Landscape, to tools for socio-cultural assessments. The unit will also cover the use of tools in combination because the integrated approach of R2R management often requires suites of tools to be used in concert. Different tools will be investigated in the context of their usefulness in particular situations, allowing students to gain an understanding of the tools that are likely to be fit-for-purpose for particular island scenarios.

**EV5962 Governance R2R**
The Governance subject will develop a comprehensive understanding of the key formal and informal features of natural resource governance from the local scale through to national and supranational scales. The unit will commence by developing a conceptual understanding of governance (as distinct from government) and situating this understanding in the context of natural resource management. It will then provide a comprehensive understanding of community-based resource management and common-property resources by using an intensive case study approach. The unit will then consider the operation of national governance, focusing on the interplay of state and non-state actors in the design and implementation of environmental policy. Intensive case-study analysis will again situate this understanding and illuminate the critical role of informal as well as formal institutions of governance. Finally, the unit will consider the emergence of supra-national governance, including the role of international treaties and conventions and the emergence of supra-national institutions designed to attend to the management of ecosystems at large scales. Critical analysis of case studies will again be accompanying this.
Students success in the Graduate Certificate of R2R Sustainable Development Program

- 36 students successfully completed all four subjects
- Students successful despite challenges e.g. i.e. poor internet access.
- More than 28% of students receiving grades of Distinction or High Distinction in each of the subject, aligning with quality university standards.

Figure 1: Student’s grades for all four subjects in the Graduate Certificate of Ridge to Reef Sustainable Development. P = Pass, C = Credit, D = Distinction, HD = High distinction
New Program = The Graduate Diploma of R2R Sustainable Development

• Successful students commence first subject in the Graduate Diploma of R2R Sustainable Development
• All students to complete the first two subjects [EV5965 and EV5964 – then choose either the Management or Team
• The first subject = EV5965 Best Practice Management Tools
• 5 day of intensive face-to-face teaching in Nadi, Fiji (following the graduation).
Thank you