

OCEANIA PLANETARY HEALTH FORUM

FORUM REPORT



Nadi, Fiji
5th-6th November
2018



STRENGTHENING PARTNERSHIPS FOR NATURE & HUMAN HEALTH

Oceania Planetary Health Forum

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Acknowledgements

The Oceania Planetary Health Forum was initiated, convened and facilitated by a team comprising health and environment specialists from the International Union for Conservation of Nature IUCN, the University of Sydney, Edith Cowan University and the Pacific Community.

Funding sponsorship was generously provided by the Wellcome Trust and the United Nations Development Program UNDP.

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Forum resources

The essential points from forum presentations, discussions, Talanoas, and individual comments provided are summarized in this report. The full content of all presentations, speaker biographies, related resources and links and ‘forum-in-action’ photographs are available at:

<https://www.iucn.org/regions/oceania/resources/events/oceania-planetary-health-forum/presentations>

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1. Forum overview

Building on the Healthy Islands ideal first advanced in Oceania more than 20 years ago, the inaugural Oceania Planetary Health Forum was held on the 5th and 6th of November 2018 at the Sofitel Resort & Spa, Denarau, Nadi, Fiji. The forum brought together organisational leaders, subject matter experts, practitioners and researchers in both public health and the environment and ecology, from the Oceania region and beyond, intent on reviewing and discussing recent developments in these fields and identify priority actions for the region.

The main objectives of the forum were to:

- develop an Oceania regional research framework for planetary health;
- build on existing foundations and collaborations, to establish an Oceania Planetary Health network;
- document case studies of Oceania planetary health good practice; and
- produce a communiqué for global policy dialogue.

Importantly, the forum provided an opportunity for a representative cross section of people from health and environment sectors to contribute and discuss their experiences and ideas, develop solutions and set the regional discourse for Planetary Health going forward. The forum consisted of a series of thematic health and environment presentations interspersed with panel discussions, and participatory group work discussions (Talanoas) addressing a range of thematic issues. Attendees were encouraged to place hand-written notes of their ideas and observations in collection boxes as the forum progressed. Overall sixty-three people attended the forum. Many more who were invited but unable to attend, were able to follow the Forum proceedings through live updates and contribute their views to members of the forum convening team.

The primary responsibilities for planning, coordinating and facilitating the Forum were shared by the International Union for Conservation of Nature (IUCN), the (South) Pacific Community (SPC), Edith Cowan University and the University of Sydney. Additional partners contributed less directly, and their inputs were invaluable to the overall success of the forum.

The forum conveners acknowledged, and were grateful to, the University of Sydney, Edith Cowan University, Australian Government, United Nations Development Program and the Wellcome Trust for the funding and support that these institutions and organisations contributed to enable the forum to occur.

The essential points from forum presentations, discussions, Talanoas, and individual comments provided are summarized in this report. The full content of all forum presentations, speaker biographies, related resources and links and ‘forum-in-action’ photographs are available at:

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- A communiqué was developed progressively during the Forum and then immediately after the forum concluded. The latest draft is included as Annex C of this report.
- The forum programme is included as Annex D of this report.

- The full list of workshop participants is provided as Annex E of this report.

2. Official opening, plenary session No 1, guest speakers

The first day of the forum was called to attention by Associate Professor and Head of School of Public Health & Primary Care at the Fiji National University, Dr. Donald Wilson. He invited Andrew Foran, Regional Programme Coordinator, IUCN Oceania Regional Office, to provide opening remarks from an IUCN perspective. Mr Foran spoke of the IUCN journey concerning the clear nexus of health and environment issues and some key milestone events that examined these important connections. The IUCN World Parks Congress in 2014 occurred under the banner of Healthy Parks - Healthy people, where improved health and well-being can result from biodiversity conservation and the establishment of protected areas. In 2016, the IUCN World Conservation Congress confirmed the strong parallels between the state of natural systems and public health, as did the World Congress on Public Health in 2017 through its discussions on 'nature as good medicine'. It was noted that while IUCN has had a long-term interest in the health and environment connection, other organisations are also now adopting views aligned with this positive systemic perspective.

Mr Foran then introduced **Professor Anthony Capon, Director - Planetary Health at the University of Sydney** and a leading global academic on this subject. Professor Capon set the scene for the concept of planetary health and the opportunity provided by this forum to progress its aims for the region by strategically bringing together, and strengthening, human health and environment sector perspectives and approaches. Professor Capon made the workshop objectives clear to the attendees and introduced valuable, direct guidance on ways to think about planetary health. He observed that planetary health assisted in changing conventional mindsets by:

- helping people understand that environmental issues are at urgent levels now.
- making environmental issues more personal and less abstract.
- conveying a positive story about the connection of health and environment and approaches to achieve human wellbeing outcomes.

He acknowledged the generous grant from the Wellcome Trust, the in-kind contributions by other partners and specifically acknowledged the important 'connector' role played by Dr Aaron Jenkins through his ability to bring together many health and environment discipline actors and in stimulating momentum for the forum.

Mr Foran then introduced the special guest speaker to the forum, the **Fiji Minister of Health and Medical Services, the Honourable Rosy Akbar**, and called upon her to provide keynote remarks. The Minister acknowledged all partners and stakeholders and particularly Mr Mason Smith, Regional Director, IUCN for his active support for the forum and other regional initiatives and also the support from the World Health Organisation (WHO).

The Minister emphasised that the forum theme concerned strengthened partnerships to collectively address the clear and present consequences on human health by humanities

expanding and ever-degrading footprint. The health, environment, social, cultural and economic impacts experienced across Fiji as a result of Cyclone Winston in 2016 were given as a significant example. She stated that climate change and the Sustainable Development Goals (SDGs) 2015 – 2030, are a primary focus for action.

The Minister reminded the forum of the renewed relevance of the Healthy Islands vision, created by the Ministers of Health for the Pacific Island Countries on Yanuca Island, Fiji in 1995. This unifying vision and brand across many sectors and stakeholders are intended to take the region on a path of resilience, health protection and health promotion and reflect the comprehensive, holistic and integrated approach to health that is a hallmark of the work of WHO Regional Office for the Western Pacific. She noted that the WHO definition of health is a *"state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity."*

In concluding, Minister Akbar proposed that care of the environment and improved health required: a positive agenda and effort at a personal level through relatively simple actions; intra and inter-sectoral mainstreaming and holistic approaches; an emphasis on people rather than disease; targeting young minds, women and families; and, greater pride in championing national health quality.

The second guest speaker, **Ms. Cristelle Pratt, Deputy Secretary General of the Pacific Islands Forum Secretariat (PIFS)**, was introduced by Mr Foran and invited to provide her remarks. Ms Pratt observed that the title of the forum provided clues to the forums challenge in that 'planetary' implied big impacts and persistent development challenges. That the challenge was in understanding the measures which can effectively rectify pressing problems associated with resources, geography and susceptibility to external influences and being seen as a global 'commons'. She acknowledged the Forty-Ninth Pacific Islands Forum held in Nauru, 2018 and its rallying theme of 'Building a Stronger Pacific – Our People, Our Islands, Our Will'. This leadership edict links directly with 'Blue Pacific', the regional flagship narrative endorsed by Pacific leaders in 2017 and reminding and inspiring the region to value its strategic potential and to act together from a position of strength to drive resilience for vast natural resources.

She also noted that there is no shortage of existing and relevant information, evidence, policies, strategies, proposed solutions, experience, projects and initiatives, forums and networks that attempt to align health and environment. Consequently, advancing the planetary health paradigm is not starting from a zero base and has ample opportunity to link to or enhance existing knowledge resources for change and particularly if unified sectoral approaches are implemented.

Ms Pratt spoke specifically about the spectre of climate change. She reflected that climate related disasters continually undermine sustainable development efforts, and that changing climate makes water and food security more fragile. The most recent opinions of the Intergovernmental Panel on Climate Change (IPCC) were referenced, particularly that business as usual was simply not an option. Warnings that failing to do more to address climate change risked "locking in decades of grave violations on human rights, including rights to life, health,

food, housing, and water, as well as the right to a healthy environment”. In closing, Ms Pratt mentioned that initiatives such as the ‘ridge to reef’ approach (or ‘highlands to high seas’) demonstrated practical efforts in coordinated ecosystem management activity that incorporated the human dimensions of health, well-being and livelihoods. As a final point, she noted that key policy actors, including many of those in the forum, would continue to overlap at various regional forums and through allied projects and should capitalise on these opportunities to strengthen the planetary health approach.

The final guest speaker for the opening session **Mr.Kosi Latu, Director General of the Secretariat of the Pacific Regional Environment Program, SPREP** was introduced by Andrew Foran. Mr Latu proceeded to pose strong and illuminating questions to the forum. He stated that it seemed simply foolish to disregard natural assets that we fundamentally rely on, especially when holding strong evidence and awareness of implications. He then remarked that the Pacific is recognised as a Leader in ocean conservation but speculated why the region doesn’t perform well in many cases and why there is a continued disjunct between strong regional intentions and what’s happening on land and sea. He observed that a pressing issue is that there is a broken governance system characterised by conflicting and disconnected policy directions and that far more integrated management approaches accompanied by altered perspectives, must come into effect.

He also recounted the myriad crises issues that beset the region as crises – fishing pressures, sediment and pollutant runoff, logging and mining, heavy fishing pressure, invasive species combined with the trajectory of climate changes. He drew particular attention to the timebomb ‘legacy’ issues of nuclear testing and submerged warships as well as the pervasive issues of plastic pollution. In closing, Mr Latu stated that islands, oceans and health are interconnected and encouraged the forum to think of Oceania as one big ecosystem with remarkable natural values and human capital.

3. Plenary panel No.1

Keynote speaker

Following the opening guest speakers, **Professor Anthony Capon from the University of Sydney** was invited by Dr Aaron Jenkins from Edith Cowan University, to address the forum with an overview on planetary health and how it functions to safeguard the health of current and future generations.

Professor Capon opened by recalling and commending the efforts of the late Dr Sione Tapa (1923-2018), former Minister of Health for Tonga, and for his exemplary leadership in regional health. He then commenced his outline on the context for, and nature of, planetary health, with the key points summarised as:

- Global population trends and increasing resource consumption have led to the current epoch of humanity being referred to in some circles as the ‘Anthropocene’ (the geological period during which human activity has been the dominant influence on climate and the environment).
- By almost any measure, the human population is healthier and better off than ever before yet this achievement has involved exploiting the planet at an unprecedented rate and by compromising global environmental health.
- Building on previous work including the Brundtland Commission, IPCC, Millennium Ecosystem Assessments, One Health, Eco Health and the Convention on Biological Diversity, the concept of planetary health gives greater focus on the ecological foundations on human health rather than purely on the bio-medical aspects.
- Planetary health reclaims the philosophy of Hippocrates as “first, do no harm” and making it again more central in our thinking by applying it not only at the individual health level but also at the broader level of Oceania public health and ecosystem management.
- *Waiora* is the Maori word for well-being and illustrates that indigenous cultures have always had a fundamental understanding of ecological foundations as the determinant for human health, survival, spirit, and well-being. It was noted that Oceania well placed to capitalise on this belief system.
- Put simply, planetary health is defined as the health of human civilisation and the state of the natural systems on which it depends.
- The Commission on Planetary Health has presented evidence clearly connecting environmental changes and ecosystem impairment with direct, indirect, deferred or displaced health effects concerning food and water availability and quality, air pollution, infectious diseases, mental health, population displacement and many others.
- Effectively responding to these issues requires an attitudinal shift toward the concept of the circular economy (an alternative to a traditional linear economy - make, use, dispose) in which we keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each service life. In redefining prosperity and traditional GDP measurement toward indicators of quality of life, health and natural systems.
- Solutions lie within reach but there are conceptual challenges (e.g. applying genuine progress measures); research and information challenges (e.g. trans-disciplinary processes); and, governance challenges (e.g. consideration for the wellbeing of future generations).
- The planetary health model requires a cultural transformation in the things we do - how we feed, move, house, power, care for the world and that the way we manage our values, education, regulations, and economic systems to ensure equity for all.

Panel session

Professor Anthony Capon introduced three expert panellists and invited them to motivate the forum dialogue with short presentations on experiences from their areas of work. Some primer points were suggested: i) What are the positive connections between environmental management and health sectors?, and ii) Where is the policy coherence in planning and financing decisions? forum attendees posed questions to the panel at the conclusion of their presentations.

Dr. Mohd Nassir Hassan, Environmental Health Specialist, World Health Organization:

Western Pacific Region, presented the following key points concerning climate change and health.

- WHO, through its Commission on Health and the Environment, has long drawn attention to, and advocated for, improved global environmental stewardship as a primary means of safeguarding human health and well-being.
- Natural ecosystems are part of the Pacific region's cultural identity. Pacific island countries are among the most vulnerable to climate change and as there are severe threats to fragile ecological balances, this could change the culture of the Pacific.
- The direct and indirect physical effects of climate change combined with social dynamics and conditions (age, gender, health status, public health infrastructure, socio economic status, mobility and conflict) contribute to a full suite of health impacts (illness, malnutrition, diseases, allergies, injuries, poisoning).
- Over the last two decades there has been a consistent regional dialogue on the joint issues of climate change and health, currently culminating in promotional dialogue opportunities at the CBD COP 14 in Egypt.
- Through the Pacific Islands Action Plan on Climate Change and Health, all health systems in Small Island Development States (SIDS) will be resilient to climate variability and change by 2030 and this will be achieved across four strategic lines aligned with planetary health:
 - Empowerment - to amplify the voices of health leaders in SIDS discussion and global UNFCCC negotiations on climate change.
 - Evidence – to gather the evidence to support investment in climate change and health.
 - Implementation – to strengthen the role of the health sector in promoting health co-benefits of climate change mitigation actions.
 - Resources – to expand and diversify the funding streams potentially available to build health resilience to climate change.
- It was noted that there is a vast gap between the minimal financial resources allocated to health care and those allocated to climate change.

Dr Sala Saketa, Senior Epidemiologist-Surveillance, Preparedness & Response Programme, Pacific Community then presented the following key points concerning the regional health surveillance program.

- The Pacific Public Health Surveillance Network (PPHSN) is a voluntary network of countries, areas and organizations, dedicated to the promotion of public health and response in the Pacific, created in 1996 under the joint auspices of the Secretariat of Pacific Communities (SPC) and WHO.
- Its goal is to improve public health surveillance and response in the Pacific islands, in a sustainable way with priority areas being communicable diseases, especially those prone to outbreak and target diseases including: dengue, measles, rubella, influenza, leptospirosis, typhoid fever, cholera, SARS and HIV/STIs.
- The PPHSN implements five core strategies:
 1. Harmonization of health data needs and development of adequate surveillance systems, including operational research.
 2. Development of relevant computer applications.

3. Adaptation of field epidemiology and public health surveillance training programmes to local and regional needs.
 4. Promoting the use of email, opening the network to new partners, new services and other networks.
 5. Publication.
- Region wide statistical information from indicator-based surveillance and event-based surveillance was shown, including dengue, chikungunya and zika virus outbreaks and circulation, as well as influenza, influenza like illnesses and mumps alerts.
 - The International Health Regulations 2005 was singled out as a significant legally binding instrument to “*prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade*”.
 - Going forward, the PPHSN aims to:
 - strengthen spatial epidemiology and integrate vector and environment data with health data.
 - support systems strengthening for animal and environmental health via combined capacity building initiatives eg. data for decision-making DDM, laboratory courses such as IATA certification training.
 - include a One Health or Planetary Health service to the PPHSN.
 - In conclusion Dr Saketa advised that she was challenging herself in her professional role to see what can be done within Pacific Community to transform the health and environment agenda for improved collaboration.

Dr Stacy Jupiter, Director, Melanesia Program, Wildlife Conservation Society, presented the following key points on the topic of ecosystems and health.

- Dr Jupiter acknowledged the late Professor Bill Aalbersberg and his definition of Pacific health as being “the ability to undertake cultural (social) practice”.
- A model was presented illustrating the flows and connections between the state of cultural paradigms, the state of ecosystems, the state of communities and the state of human health and well-being.
- The various dimensions of well-being elements were cross linked with the SDG indicators in order to demonstrate where there were regional gaps in the well-being attributes.

Points raised

In response to questions to the panel from the forum attendees, and through ensuing general dialogue, the following points were noted:

- Within and across organisations, there is a need to bridge sectoral silos that can be entrenched by status quo attitudes, disjunct policy and mandates, and funding sources and their requirements. Examples of enabling factors to reduce siloed situations included:
 - building clear understanding of the terms one-health and planetary health.
 - being able to mainstream planetary health into routine sectoral dialogue, planning and budgeting process, programmatic and institutional setups.
 - co-financing relatively simple arrangements such as research initiatives.
 - capitalising of ‘connector’ opportunities and motivated individuals.

- work on leptisporosis in Fiji is a positive instance of holistic systems thinking and partner collaborations.
- Evidence of improved community outcomes such as water, nutrition, education and livelihoods can be a strong motivator for the uptake of environmental initiatives. Reciprocally, the environment and climate change sectors can exert a powerful influence where health sectors are not attracting the attention they need to deal with important issues.
- In communicating planetary health, case studies with personal stories of health and environment are powerful tools for messaging and eliciting empathy with policy and decision makers. This emotional aspect compliments and strengthens the evidence-based statistics and information. Planetary health also needs to become meaningful, and implemented, with a wider audience – investors, vets, developers, planners, engineers, resource custodians, civil society, finance sector, etc.
- Relevant environmental regulations can often exist and be well drafted but fail due lacking enforceable power within various government sectors.

4. Plenary session No.2 and plenary panel No. 2

Valuing indigenous and local knowledge

Dr Ferdinand Strobel, Health & Development Specialist, United Nations Development Programme introduced the two speakers for this plenary session and invited them to provide presentations on valuing indigenous and local knowledge.

Note that for timing purposes this session was combined with Plenary Panel No. 2 as the plenary speakers were also the panel members.

Dr. Joeli Veitayaki, Associate Professor, Marine Studies, University of the South Pacific made the following key points on indigenous islander perspectives on managing oceans for health based on his experiences with community-based adaptation through the Lomani Gau (NGO) initiative in Fiji.

- The Pacific Islands region has issued numerous formal ‘calls to action’ for more sustainable ocean and coastal fishery management.
- The people of Gau Island aspire to:
 - engage, empower and support local communities and meet people aspirations
 - articulate ‘measurable sustainable development’ and integrate customary and modern practices for innovative sustainable coastal and rural development
 - enhance economic prosperity
 - improve governance
 - properly use and protect natural resources
 - rehabilitate degraded environment resources
 - improve ‘the quality of life for all’ and attain peace, harmony and security.
- From working directly with marine conservation issues for many years, Dr Veitayak has transferred his personal efforts to land based issues as these are having biggest impact on nearshore marine areas.

- Key observations about local community practices included that: people have ownership rights over fishing grounds; there is division of activities at community level; people may suffer banishment (or worse) for not attending to jobs properly or if breaking rules; and, in-depth knowledge of the local environment is present but is on a diminishing trend.
- Even in 'paradise' there is evidence of environmental degradation therefore people must be assisted and re-taught to care for their environment in a more sustainable fashion as their whole lifestyle depends on it, e.g.; fish was once mostly only for the kitchen but is increasingly seen as a quick income source.
- Being trusted as a support provider is a long investment period of positive and honest relationship building before people may fully accept support and act on it. Scientific knowledge can be translated into terms that communities understand and there is no better motivator for change than seeing results and rewards from activities, e.g.; banning destructive fishing and burning; mangrove planting; seaweed and sandalwood farming; better waste management; improved animal husbandry; sustainable sea transport; technical and financial training; and, renewable energy.
- Notably, a Code of Conduct for Sustainable Island Development developed in Gau provides a comprehensive, unambiguous statement about better organising human activities on islands for human and environmental benefit and is an excellent blueprint for application by Gau communities and other communities across the region.

Professor Helen Moewaka Barnes, Research Director, University of Massey presented next with the following key points concerning Maori approaches and perspectives of land and work done via *Ngā Pae o te Māramatanga*, New Zealand's Maori Centre of Research Excellence.

- Maori cultural identity is deeply connected to the land – the concept of *Wairoa* or long water, is used in introductions meaning 'what waters are you from?'
- Valuing indigenous knowledge should acknowledge that deliberate intentions and that indigenous knowledge is generated by science as a process. i.e.; Random or accidental finding of Aotearoa by ancient people is a fallacy, as it was a deliberate discovery. It should also be accepted that indigenous knowledge is empirical knowledge as it is tested over time.
- All of us have a sense of earth as our home and that it is the determinant of our health and well-being and the health of '*fenua*' (land) is the primary goal. Indigenous people express grief and pain when confronted by loss of fenua.
- This is a significant paradigm swing from contemporary notions of 'property' that involves the belief that uses can occur on one person's land without effect on others land.
- Human relationships with fenua need to be fundamentally altered otherwise new problems will continue to be generated. There is a need to question what well-being really is and 'what is the right measure of progress and growth?' i.e.; if the goal is to heal fenua then a goal of 1000 houses on that land is not progress.
- Land and people initiatives being undertaken in three regional areas - Te Hiku o Te Ika, Waitaki and Utakura Omapere - were described and included the following points.
 - How local communities were strategizing the way they wanted to engage with their water catchments.
 - Building leadership, partnerships, sustainable infrastructure and financial independence.
 - Landscape and riparian restoration, fish surveys, pest control, climate change and drinking water (monitoring, microbiology) nutrients and pollutants.

- Intergenerational learning, e.g.; reconnecting young people thru ‘knowledge narratives’ (myths and stories) as they are easier to remember.
- Connections and relationships are essential in fenua projects – working alongside communities who are driven by the issues on their door-steps and supported by external partners.
- There are powerful collective voices across the region and to give emphasis to this statement Prof. Barnes concluded her presentation by singing a Maori song.

Points raised

In response to the prompt questions ‘Indigenous voices we are missing’ and ‘Indigenous imperatives and oceanic planetary health’, questions to the speakers from the forum attendees, and through ensuing general dialogue, the following points were noted:

- The importance of harnessing political will and how to deal with obstruction was raised with a response that finding the right people in organisations to lobby and advocate was critical as was being able to inform and strengthen networks and acting collectively.
- The importance of up-scaling was noted as often it is only possible to make good progress in specific sites when there is an overriding need to convert place-based approaches to the wider region.
- Indigenous voices and cultural norms differ greatly across the region, so the concept of collective oceanic voices was questioned.
- Society overall is shifting to adopt more original approaches to natural resource management and use, and the Pacific is well-placed to take somewhat of a lead due to its strong retention of cultural practices.
- Resources are not simply for personal use, pursuit of short-term interests, and money is a big motivator now.
- Some of the enabling issues and factors to support better care for people, home, land and water where suggested and included the following points.
 - Healing based on getting communities involved, i.e.; in writing their story and relearning and rediscovering personal commitments of home, land, identity, as these can resonate more than science.
 - Young people need to be reintroduced to knowledge and stories built up by people who have been living in the local environments for a long time and understand the concept of ‘*lomani*’ (to care for), as what belongs to us today and for future generations tomorrow.
 - Young people need to be educated in cultural competencies and to resist constant commercial marketing and be able to take over as strong future advocates.
 - Young people need to be allowed to spend real time doing and critically thinking and assessing the world around them.
 - Young people need to be involved in events and welcomed and their voices asked for, (depending on the cultural context).
 - Photos and visual stimuli are an important tool for shifting mindsets, particularly with tribal people.
 - ‘Cultural competence’ can’t really be learned by those who come from outside local communities, so people implementing health and environment projects need to invest time in building trust and relationships at community and personal levels, i.e.; asking permission; being open about agendas; and, not overpromising.

- Be cautious and respectful when it doesn't feel comfortable taking messages to other places but does feel ok with taking some overview material to other places while respecting that they may not know local practices and expectations.
- Encourage and educate people to ask the right questions when developers or resource seekers approach them.
- As people have differing ideas of what constitutes 'consultation', decisions are best made jointly.
- In conclusion it was noted that taking charge as citizens and as individuals will require more activism and passion, which is needed to accompany the passive evidence. Therefore, be louder.

5. Plenary session No 3

Oceania: Through the planetary health lens (including Q&A)

Dr. Mohd Nassir Hassan introduced three expert panellists and invited them to inform the forum dialogue with short presentations on experiences from their areas of work. forum attendees posed questions to the panel at the conclusion of their presentations based on the primer point – 'opportunities and barriers for robust and informed management of the environment as preventative health in Oceania'.

Dr. Angela Merianos, Team Coordinator, WHO Pacific Health Security, Communicable Diseases and Climate Change, Fiji, gave her presentation on threats to health security in the Pacific and made the following key points:

- The WHO World Health Report 2007 stated a position of 'reduced vulnerability of populations to acute threats to health through collective international public health action'
- Based on substantial empirical data, **PICs are at high risk from the following.**
 - Natural disasters (cyclones and their associated impacts (floods, landslides, coastal erosion, salt water inundation), droughts, earthquakes, tsunamis and volcanoes, and acid rain from cyclone effect on volcanic ash (storms and floods are the greatest disaster occurrence in Pacific).
 - Recurring outbreaks, emerging Infectious diseases (EID) threats, neglected tropical diseases (NTDs) and non-communicable diseases (NCD) outbreaks.
 - Outbreaks of climate-sensitive and water-related diseases with climate change.
 - 'Cascading' health social and economic effects.
 - High damage and loss statistics especially if full environmental effects are included in the tallies of disaster costs.
 - The changing profile and complexity of disaster risk preparedness and response needs and impacts, including costs from damages, losses and economic flows.
 - Sudden onset, concurrent and protracted emergencies.
 - Decreasing recovery periods between emergencies that increases vulnerability, decreases resilience and pushes communities into spirals of social and economic disadvantage.
 - Impacts being worst for the marginalised, women, children, elderly, and disabled.

- Current and protracted outbreaks that simply exhaust existing response and management systems.
- There is very high risk associated with the issues listed above if nothing is done.
- Focussing on human health is not enough and requires whole of systems thinking to outweigh competing sectoral agendas and priorities and multiple stakeholders.
- The nationally signed *International Health Regulations IHR 2005* provide a solid platform for appropriate regional response.

Dr Ferdinand Strobel, Health & Development Specialist, United Nations Development Programme, Pacific Office, Fiji, gave his reflections of a remote atoll in the Republic of the Marshall Islands using the analogy of the ‘tale of the broken ship’. He then presented on non-communicable diseases and made the following key points.

- Kwajalein Atoll (3rd largest atoll in the world) consists of numerous atoll islets, few populated, some restricted (long history of military presence) others taboo (landowners) with the main inhabited islet island being Ebeye with a mixed population of 11,000 in 0.26km².
- Despite the Ebeye health facility being one of the best staffed and resourced facilities in the region per capita, Ebeye has disrupted natural, cultural and social circumstances, deep inequalities, rampant health issues, very high health worker frustration, terrible living conditions, extremely poor food sources.
- The population exhibits lots of sorrow - an ecological grief - perhaps mourning the loss of their ecosystems, which in turn nourishes their culture and identity. Mental health and suicide rates are high.
- In 2011 PIC Ministers of Health formally declared an ‘NCD crisis’ with profound development impact through disease burden and tremendous costs.
- There is a (reducing) gap in addressing the underlying determinants, the context, the conditions that shape risk behaviours and enable NCDs to flourish in the first place, even though long-lasting protective interventions are the strategies that have most population impact. In response, PICs are now beginning to shift to whole-of-population approaches in addition to interventions at the individual level.
- Need regulations (top down) + activism + take charge as citizens and individuals (bottom up) + really respond to what we know rather than ignore it.
- Common challenges to the sort of integrated action that is required include:
 - complex and indirect causal links
 - diffuse benefits
 - benefits take time to accrue which doesn’t suit the political economy
 - expertise required across sectors
 - regulatory or coercive approaches are unpopular
 - big industries are capable and well-resourced to actively against regulation
 - breaking institutional and ‘knowledge’ silos.
- The question was posed – ‘are we really challenging the status quo, the idea that we can pursue infinite consumption-based growth on a finite planet?’ and that calls for a fundamental value change if we are serious about being sustainable and recognising our interconnectedness with nature.

Dr. Christopher Golden, Assistant Professor of Nutrition and Planetary Health, Harvard TH Chan, School of Public Health, provided a presentation on nutrition and the importance of seafood in Oceania and made the following key points.

- Planetary health explores the human health impacts of global environmental change, whether focusing on climate change, biodiversity loss, land-use change such as urbanization, fishery collapses, the conversion of forest to fuel and firewood, the conversion of rainforests to agricultural land, etc.
- Planetary health scientists are interested in documenting and characterizing the relationship between these types of ecosystem transformations and human health outcomes, such as nutrition.
- The World Health Organization estimates that one quarter of the entire burden of disease could be avoided through improved ecosystem management. This provides an enormous opportunity to correct certain health ills through interventions directed at improved management of natural systems.
- Animal-source foods, whether domesticated meats or seafood, serve a vital role to provide micronutrients, vitamins, and fatty acids that other types of foods cannot adequately provide. No matter what food is substituted, it will always be nutritionally inferior to fish.
- Catch impacts of the fishing sectors combined with climate change will increasingly drive food security, dietary change and nutrition issues in places like the South Pacific.
- Aquaculture provides some opening as an alternative option however it is not currently oriented to support the nutrition of vulnerable populations in the developing world.
- Improvements in fisheries management helps to reframe environmental conservation as a key strategy in nutritional interventions.
- WHO estimates that 23–25% of Global Disease Burden GBD could be avoided by improved ecosystem management.

Points raised

In response to the prompt question ‘opportunities and barriers for robust and informed management of the environment as preventative health in Oceania’, questions to the speakers from the forum attendees, and through ensuing general dialogue, the following points were noted:

- The ‘industrial food machine’ was seen as being highly compromising to the achievement of health objectives. As the lobbying power of big is huge business (e.g.; Soft drink or tobacco companies), information on positive food system alternatives need to be compelling and require lobbying as a collective regional demand, at the very least. For example, French Pacific territories have lobbied this way, however they faced substantial lobbying competition from the big companies.
- Are the people of Ebeye receiving the help they require to get out of their predicament, as it’s quite a harrowing situation to learn about? Green roofs were suggested as one practical idea to assist on food production on an island that has limited suitable ground, however the population is simply too large for this to be a mainstream solution.
- The issue of inadequate governance and cross-sectoralism was raised a number of times and the question arose as to what sectors have been able to work effectively across silos. Examples provided included: the IHR which requires cross sector forums, making the IHR commitment to implementation a more critical element to be mobilised more fully to

support planetary health (helps the players get to know each other, understand relationships and responsibilities); World Bank produced a country report for Madagascar involving climate health stress test and every relevant sector was involved, and; Water Sanitation and Hygiene WASH was also seen a positive initiative for cross sector action.

- Final comments from the panel were: strive to form working forming relationships before disasters strike; the engagement and diversity of the forum to that point was impressive, and; this forum should mark the commencement a series of regional planetary health forums in future

6. Day 1 review and Day 2 overview

The second day of the forum was called to attention by Mr Andrew Foran who invited Professor Anthony Capon to explain the objectives and processes for Day 2, including confirmation of the themes for the Talanoa sessions agreed on Day 1 by the whole forum group – case study development, national research priorities, the forum communique and establishing networks.

"Talanoa is a traditional word used in Fiji and across the Pacific to reflect a process of inclusive, participatory and transparent dialogue. The purpose of Talanoa is to share stories, build empathy and to make wise decisions for the collective good.

Prof Capon invited rapporteur Mr Tony O’Keeffe to provide a recap of key points from Day 1. Mr O’Keeffe reminded the attendees of the four objectives of the forum and presented a selection of important points made to that point in the forum. He also displayed the comments, observations and ideas that attendees had provided on personal post-it notes and encouraged attendees to continue this valuable input process during Day 2.

Key points

Key points from Day 1 included:

- The forum proposes to help lift our heads from day to day work and think more strategically with wide cross sector attention and input.
- Environmental impact on the planet affects human health - serious consequences from humanities expanding footprint.
- It is foolish to disregard natural assets that we fundamentally rely on, especially with strong evidence and awareness of implications.
- The Planetary Health concept helps in understanding the urgency of issues, makes the issues more personal and creates a positive story about solutions to achieving human wellbeing.
- Climate change considered the most pressing issue as a chief agent of natural disasters, disease outbreaks and cascading health, social and economic effects.
- There is no shortage of existing information, strategies, solutions, experience, forums, networks, policies – so advancing Planetary health paradigm is not starting from a zero base and can piggy back on these or enhance them.
- The Pacific region is recognised as a leader in ocean conservation however this sits at odds with a continued disjunct between strong intentions versus what’s happening on land and sea.
- The poor governance system creates conflicting and disconnected policy directions.
- Issues need to be addressed in a more holistic, integrated, and collaborative, unified way that requires changing mindsets and strength to help lead the shifts.
- Challenges lie in the conceptual, information and governance arenas.
- Indigenous cultures have always had fundamental understanding of ecological foundations as the determinant for human health, survival, spirit, well-being, and Oceania is well placed to capitalise on this base.

- Personal commitments to home, land and identity, can resonate as much or more than science.
- Take charge as citizens and individuals (bottom up) with activism and passion to accompany the passive evidence and regulations (top down).
- Stronger relationships between (and within) health and environment sectors will provide them both with far more leverage for action and results.
- Traditional GDP progress tracking requires a redefinition of prosperity toward quality of life, health and natural systems.
- Planetary health needs to be mainstreamed into routine sectoral dialogue, planning and budgeting process, programmatic and institutional setups.
- Think of Oceania as one big land and ocean ecosystem with remarkable natural values.

7. Keynote speaker

Professor Capon introduced the final keynote speakers for the forum. **Dr Stacy Jupiter, Melanesia Program Director for the Wildlife Conservation Society, Suva, Fiji**, addressed the topic of embedding ecosystem approaches in health in the Pacific Island context by giving a presentation about integrated watershed management for healthy environments and people. **Dr Litiana Kuridrani, Associate Professor, Director of Centre for iTaukei Studies, University of Fiji** then addressed the topic of integrating indigenous knowledge for health planning to meet SDG Goal 3 (good health and well-being) in Fiji. This was followed by a short Q&A session. The key points from their presentations and the questions posed, are provided as follows:

Dr Stacy Jupiter

- The project presented was implemented in Kubulau District and Macuata Province on Vanua Levu, Fiji's second largest island. It included some scientific investigations to understand the main threats of linked catchment to reef systems, as well as design and monitor management interventions in a linked ridge-to-reef context. How over 10 years this has provided the evidence base for taking and applying integrated approaches within catchments.
- Early findings included: Freshwater fish quality is affected by the amount of forest cover and number of tilapia (both exacerbate muddy turbid conditions); intact forest areas were more habitable for fish species, but agricultural and pine forest areas meant streams were much muddier; and, Gobi fry and gudgeons (whitebait) were being lost as a favoured resource.
- Outcomes of studies resulted in a district-level ecosystem-based management plan (a Ridge to Reef project), including rules, governance arrangements and monitoring, aimed at sustainable management of terrestrial, freshwater, estuarine, coastal and marine ecosystems and adjacent coastal waters in order to maintain natural resources, to ensure a reliable supply of clean drinking water and provide economic opportunities for local residents.
- Despite decent progress with people undertaking practical management actions, changing behaviours on land is much harder than in coastal reef areas due to many more competing activities, priorities and tenures on land areas. Ways for getting people motivated to change behaviours were closely considered due to threats such as logging for timber,

bauxite mining and road-building, which are potentially impacting freshwater sources and downstream coral reef communities.

- Improved catchment management was promoted as a win-win for downstream water quality and resources, as well as public health. As one of the biggest public health issues is the incidence and occurrence of waterborne bacterial disease.
- Modified catchments demonstrate exacerbated flooding with accompanying outbreaks of dengue, typhoid and leptospirosis as well as the social, economic and infrastructure disruptions.
- An interdisciplinary team of researchers and practitioners came together through WCS's Health and Ecosystems – Analysis of Linkages program, evidence was built demonstrating the specific links between catchment qualities, soil types in more erodible areas, personal hygiene habits, flooding events, sediment flows, and bacterial growth conditions.
- There is now much better understanding about how each of these pathways operate and compelling scientific justification for the need for integrated management which also supports river and reef health and their fisheries resources.
- The new 'Our Vibrant Reefs' project has three main components: active sub-catchment interventions to improve downstream water quality; monitoring to assess impact on social-ecological system well-being, and; scaling impact through policy review and spatial modelling.
- In conclusion Dr Jupiter advised that the spatial modelling component will use the data to help parameterize models to identify where would be the best places to invest in Fiji. Particularly, given local conditions, to get good return on investment for improvements to public and environmental health outcomes. However, she further cautioned that these types of models are not always user friendly to update and repeat, and assumptions used make decision-makers wary. Therefore, the data collected could indicate rule of thumb principles that could be integrated into a rapid diagnostic tool.

Dr Litiana Kuridrani

- The SDGs of the 2030 Agenda are bold and ambitious and require collaboration, diverse knowledge systems and innovative methods and transformative systemic changes at many levels
- The Healthy Islands vision of the Pacific 1995 envisaged:
 - Children are nurtured in body and mind
 - Environments invite learning and leisure
 - People work and age with dignity
 - Ecological balance is a source of pride
 - The ocean which sustains us is protected.
- Indigenous and Local Knowledge (ILK) brings the following components to SDG 3: traditional resources management; traditional diets/food; traditional governance, tenure, social networks; traditional medicine/practices, and; traditional spirituality.
- ILK incorporates community economics, choices, participation, empowerment and values.
- All of these community elements must involve planning with people and anything to do with development affecting people must endeavour to understand everything about these elements.
- *Solesolevaki* concerns chiefly equilibrium in society – if not balanced, society is 'sick'.
- Findings from the SDG 3 Lab Fiji 23 project included:

- Respondents confirmed the fear of rapid urbanization had created a loss of connection to their *Vanua* (sense of land), leading to unhealthy lifestyles and increased in NCDs which had overtaken infectious diseases.
- No contribution of ILK to SDG planning efforts.
- Rapid decline of ILK which cannot be revived and leads to a loss of i-Taukei identity.
- Technology and Google knowledge had overtaken preference for the use of ILK, particularly amongst the youth, with limited consultation and respect for village elders as the conduits for transmitting ILK.
- Displacement of populations from climate change and the subsequent loss of cultural heritage and ILK which will also have psychosocial effects on the population.
- Tensions between religious values and government policies which may create divisions in society.
- Introduction of undemocratic processes in which communities fear the government and the inability to openly voice concerns.
- ILK has been promoted as dark and undermined by the church and its doctrines.
- Loss of biodiversity will lead to loss of ILK related to herbal medicines and other traditional practices.
- Ministry of Health is not supportive of the use of ILK for improving public health (e.g., traditional midwives are not consulted).
- Government agencies and stakeholders are too fearful of the unknowns and negative attitudes towards ILK related to health is an impediment to moving forward.
- In conclusion, the following points were noted:
 - establishment of a national steering committee
 - establishment of a research centre (National Wellness Centre)
 - revitalisation of the Healthy Islands (HI) Vision by the Ministry of Health
 - SDG 3 Lab Report: Fiji 23
 - establishment of a new NGO consisting of various i-Taukei and other minorities in Fiji
 - ILK can play an important role in ensuring the SDGs are percolated and adopted at the community level. This will be a key issue for the Ministry of Health and other leading health organisations in Fiji such as WHO to address as they move forward in implementing the 2030 Agenda.
 - For Fiji, to integrate ILK into health system planning, it is now or never.

Points raised

In questions from the forum attendees to the speakers following their presentations, the following points were noted:

- ILK is a common study context for all Pacific island countries as all indigenous peoples have their own traditional practices and coping mechanisms. Storylines are extensive (eg; Tonga people on boat missed Tonga and found themselves in Fiji - by tasting seawater they knew where they were).
- The role of ILK and practices around it can generate some challenges for non-indigenous people concerning gender roles, repression of younger voices and punishment of children.
- Shifts from rural and coastal areas to urban areas is a strong trend however people retain traditional approaches as a first thought or action even in urban areas before using modern/western approaches.

- It's a blessing to orally share knowledge. Singing is important.
- The idea of vibrant reefs being connected to peoples' well-being can be built into project questionnaires around resource availability in order to characterise ideas of what well-being means to people. Behavioural responses can be gauged, eg; if fish reduced what would you do? – fish less, move elsewhere, fish harder, move to another job.

8. Thematic Talanoa No.1

Dr Aaron Jenkins Research Fellow-Planetary Health, University of Sydney - School of Public Health, introduced the thematic Talanoa session, the three topics for discussion and guided the division of the forum attendees into three groups. The points recorded from each of the Talanoa's are reported as follows:

1. Collecting good case studies and stories, facilitated by Dr Jenkins

Case study development processes will include:

- Determining the case study's objective and format
- Finding the right case study candidates
- Reaching out to your chosen subject
- Ensuring you're asking the right questions.
- Laying out your case study outline.
- Publishing and promoting your case study.

Potential outputs will include:

- A template framework for word document (500 words)
- Consent forms
- A dedicated website page - hosted compilation
- Publicising calls for case studies
- Case study selection process
- Creating videos from case studies
- A drop box for valuable imagery
- Arranging a themed edition of Lancet Planetary Health
- Tv, radio, social media outlets
- Applying both academic and storytelling styles
- Creating a journal of case studies
- Align case studies to courses and learning.

Case study examples could include:

- Ecosystem change and food systems
- PIDF Island Resilience Initiative - Island Sustainability Boards
- University of the South Pacific - Gau Island demonstration centre
- GROW initiative
- FLMMA case studies

- Live and learn REDD+ -forest protection and Drawa, Fiji forest carbon project
- Griffith University – Tanna Island, Vanuatu, Eco-Adapt ecosystem-based climate adaptation
- Sea level rise, migration - climate
- Community gathering processes
- Kimbe Bay – oil palm
- Australian Council for International Development (ACFID) - sustainable development goals, planetary health and typhoid fever: managing river basins and water-related diseases in Fiji.

2. National research priorities, facilitated by Dr. Margot Parkes

Canada Research Chair in Health, Ecosystems and Society/Associate Professor, University of Northern British Columbia. This Talanoa organised its discussions around three topic areas, eliciting individual comments from the Talanoa members by post-it notes, followed by general discussion.

Public health burden issues

- The nexus between NCDs and planetary health
- Fiji tackling dengue outbreaks, research needed, eg; recycling used tyres
- Northern Australia Aboriginal and Torres Strait Islanders issues – diabetes type II, cardiovascular disease
- NTDs and vector borne diseases, WASH, Air pollution
- Environmental degradation due to pollution in land, water and air
- Increase in vector borne diseases due to climate change
- Health security in terms of transboundary movements
- NCDs, emergencies, infectious diseases, re-emerging infectious diseases, cancers
- TB, HIV
- Relationships / cascading co-morbidities
- Under-nourished people, malnutrition, mental health
- Maternity, early life and end of life care
- Ecological grief
- Social epidemiology of NCDs
- NZ - mental health and well-being, NCDs relating to changing human habitats, re-emerging infectious diseases
- Overweight and obesity issues across Pacific Islands
- Nutrition transition – poor quality food and waste management
- Ability to define public health burdens in terms of economic impact, likelihood of impact (tractability)
- Interconnections – the impact through the One-Health agenda
- Interrelationships between public health burden
- How do we prioritise from a planetary health perspective?
- Connectors among, and pathways between, issues.

Ecosystem management issues

- NZ - Freshwater management – quality, quantity, climate change as an overlay on other environmental change
- Biodiversity – endemic species protection
- Northern Australia – capacity to respond to extreme heat events
- Sustainable development – agriculture, fisheries, forestry, built environment
- Green growth framework in all development
- Reduce carbon footprints in all human activities
- Mainstreaming in all projects, policies, budgets
- Risk assessments consider all unintended consequences (known, unknown - STEEP analysis to assess different external factors and forces)
- Protection of livelihoods, cultural and ecosystem diversity
- Watershed management
- Nature based solutions to extreme weather conditions (community-based)
- Proper waste management, flood management, greening the environment
- Biodiversity conservation management
- Climate adaptation and traditional coping mechanisms
- Solid and liquid waste management – impacts and costs of importing waste
- Watershed degradation – impacts on rivers, coastal zones, water supplies
- Waste management along the food system chain – reduce waste at every level
- Linking food system to environmental changes – impacts on environment of supplying and delivering food
- Watershed interventions, water supply, storage and reticulation issues
- Animal husbandry related issues
- What are the time horizons?
- Connecting and comparing across issues in the region.

Research capacity issues

- National research capacities - early warning systems, integrative indicator frameworks, social sciences/medical/anthropological, environmental health, risks communication/social mobilisation, community engagement, economics, risk managers, ecologists – land/riverine/marine
- Develop environmental health indicators to determine the state of environmental health
- Develop research on improvement of WASH initiatives in remote communities
- Northern Australia - more indigenous researchers
- Environmental management and ecosystem management
- Risk management
- Climate change
- Regional research centre bringing siloes together
- Build human health indicators into ecosystem projects
- Qualitative – social, behavioural, economic costing
- Building capacity for research that is well engaged with policy and community and focussed on action for planetary health
- Diagnostics

- Community-based information gathering
- Delivery of interventions
- Identifying appropriate interventions at priority locations using evidence-based approaches
- Causal links between sanitation and coastal health
- Improving mental and spiritual health through restoration of degraded areas
- Identify and quantify links between ecosystems and health
- Identify and articulate advantages of new partnerships and research to overcome past obstacles
- NZ indigenous and integrative experiences working across knowledge boundaries, study modes – continuing professional development, undergraduate and graduate levels, partnered research
- Behavioural modification towards food choices
- Cultural/ traditional barriers to infectious diseases
- Kava consumption control and CDs and NCDs.

General discussion – key actions needed to strengthen research action

- Pooling and sharing of resources
- Access to and information about donor agencies to support multi-donor approaches – list of agencies Pacific Aid Map
- Common research centre/portal for exchange of ideas, proposals, information, data, research and to create awareness of what has been done and where the gaps lie
- Indicator / operational outcomes – develop strategy (generic and context specific)
- Inclusive (indigenous) collaborative research
- Needs assessment and capacity assessment of agencies and partners
- Qualitative research
- Applied and action-oriented: moving to change as compared to discovery/descriptive research
- Effective activism in the planetary health context.

3. Forum communique facilitated by Dr. Sala Saketa

Development of a concise communique articulating the main issues and advocacy points from the forum was seen to include the following matters:

- Communique needs a formal structure for something that is presented as a ‘declaration’ – what, why and how – the formal output from the forum that asks something of someone.
- Identify the target audiences and language used should be appropriate for different target audience.
- Wording to unambiguous about what is required.
- The concept of planetary health needs to be clearly explained.
- Value and promote indigenous and local knowledge.
- Governance and cross sectoral aspects to be highlighted.
- Communique can also be the basis for allied communication products and tools.

- Communicate needs to be well-resolved and compelling – hitting 4-5 key messages.
- The definitional approach to planetary health needs to be under-pinned by concrete examples.
- The need for transdisciplinary interventions must be highlighted.
- Research to be highlighted to address projected and anticipated potential threats (knowledge gaps).
- Balance environment and health aspects, ie; plastics and marine debris in fish and effect on human health - systems health approach.
- The cross-cutting issues that draws people and sectors together is climate change.
- Introduce Planetary Health for consideration in high level meetings as a position paper and a compelling case for addressing the allied health and environment challenges of the region as planetary health issues (systems approaches), egs; Oceania as one ecosystem, water safety and security, obesity, climate Change, food safety and food security, ecosystem changes such as reef bleaching, sanitation (*these should be areas that there is some evidence and already political buy-in).
- The communique needs to stimulate further resolutions from leaders and Ministers.
- Make the communique appropriately available to Ministers of Environment and Health in the region at their next forums.
- Endeavor to get the communique on to the agendas, or into side events, of current and upcoming CBD COPs.
- Collate a list of relevant events where the communique can be utilised.
- The Forum report should be made available as an annex to the communique.
- Highlight on integration, collaboration cross-sectoral and coming out of silos as case for Planetary Health approach.
- Don't shy away from issues that even where limited evidence is available – highlighting the need for priority research.
- Traditional approach to addressing current public health issues no longer works and new approach needed.
- Highlight governance structures and how objectives can be met.

9. Plenary Panel No.3

Advances in Water, Sanitation and Hygiene WASH: An example of ecosystem approaches to health

Dr Margot Parkes was the facilitator for this session which comprised brief synopsis of five presentations from six expert speakers around the topic of advances in Water, Sanitation and Hygiene WASH as an example of ecosystem approaches to health. The key points from these presentations is provided as follows.

1. Mr Marc Overmars, WASH, UNICEF Pacific provided a regional overview of WASH issues with the following key points noted:

- The forum communique must include references to sanitation – the biggest global health advance in the last 150 yrs. However, poor sanitation remains a large impact on coastal and waterway ecosystems in the Pacific as open defecation is common.
- 30% of Pacific Island peoples have no access to proper sanitation and is lagging behind global averages.
- Improved sanitation is a life-saving intervention - Kiribati has one of the lowest rates of access to improved sanitation and has the highest under-five deaths due to pneumonia and diarrhoea.
- No progress in the Pacific to reduce stunted growth in children with malnutrition being the primary cause (not genetic).
- In simple terms behaviour change such as getting people on to toilets will lead to big advances health, development and learning.
- Constant exposure to faecal bacteria results in poor nutrient absorption (environmental enteric dysfunction).
- Must stop open defecation then get to boiling of water stage then move up the scale of interventions – WASH safety planning, integrated water resources management, island systems management.
- Government, civil society and business must work more collaboratively.

2. Mr. Suliasi Batikawai, Senior Environment Officer/WASH Coordinator, Ministry of Health & Medical Services, Fiji and Mr. Mosese Nariva, Team Leader, National Water Quality

Laboratory, Water Authority of Fiji, presented an example of the cross sectoral and cross stakeholder approach through the WASH program in Fiji, with the following key points noted:

- The WASH ‘cluster’ system approach was formally endorsed by government after Tropical Cyclone Evan in late 2012.
- The main purpose of the WASH Cluster is to ensure better coordination of WASH during disasters and emergencies, bringing together all relevant WASH partners for a more collaborative and efficient support to humanitarian aid.
- The WASH Cluster program aims to:
 - reduce morbidity and mortality cases due to WASH related disease
 - restore normalcy in the lives of affected populations by providing safe access to and ensuring use of water, sanitation and hygiene in emergency situations
 - plan and implement proportionate, appropriate and timely responses in humanitarian crisis situations which will address both the immediate needs of the affected populations as well as planning for future needs and improved disaster resilience.
- Key action areas for the WASH cluster are: water, sanitation, hygiene, vector control, solid waste management.
- Challenges and gaps include: sanitation focus lags behind water focus in post-disaster recovery; cluster system good at national level but less confident at divisional level (where most operations are conducted); information management; strengthening linkages between partners and government departments, and cluster training.

3. Ms. Else Demeulenaere, Associate Director, Center for Island Sustainability, University of Guam provided a presentation of the GROW Initiative (Guam Restoration of Watersheds) with the following key points noted:

- The GROW initiative in the example provided was triggered by a community experiencing smaller fish at villages festivals each year and, led by its mayor, recognising that poor-land use practices in catchment uplands were diminishing the water quality of a local bay, degrading coral reefs which are essential fish habitat.
- Stressors must be reduced, and ecosystems restored to a stable state in order to build island resilience against global climate change and other stressors. When impacts hit the resistance and 'bounce-back' is improved.
- Intervention examples included:
 - Research into the effectiveness of sediment filter socks to test runoff levels – trapping efficiency is very high.
 - Revegetation of bad-lands to return them to healthy savannah landscape.
 - Reseeding using sling-stones (provided a cultural connection by throwing seed-balls) and using drones to drop seed-balls.
 - Watershed adventures and community outreach.
 - University of Guam Conference on Island Sustainability 2019.

4. Dr. Amelia Turagabeci, Head of Department, Epidemiology, School of Public Health, Fiji National University, provided a presentation on the project for Revitalising Informal Settlements and their Environment, RISE, Fiji with the following key points noted:

- The RISE vision is to improve human, environmental, and ecological health in urban informal settlements across the developing world through a new approach to water management. Its objectives are to:
 - develop novel urban design, architecture, and infrastructure models in partnership with local communities to implement water-sensitive revitalisations.
 - measure, analyse, and interpret the impact of the interventions on environmental contamination and ecology.
 - assess the impacts on human health.
 - determine the broader impacts on residents' wellbeing.
 - enable priority setting for the sustainable revitalisation of informal settlements and drive policy and investment decisions.
- Practical implementation of the RISE project involves water sensitive approaches that integrate ecologically and economically sustainable water infrastructure such as constructed wetlands, bio-filtration gardens, stormwater harvesting, and local sanitation systems based on "smart" new septic tanks, into buildings and landscapes.
- RISE also pursues a cluster approach combining environment, WASH and health sectors RISE contributes to the planetary health model by offering solution pathways and scientific evidence.
- RISE aims to reduce 80% the exposure of these communities to faecal contamination globally by: reducing both environmental contamination per se and the likelihood of human contact with it; reducing exposure to contamination in homes, areas for animal husbandry, horticulture, and light industrial work, and; reducing exacerbated situations created by the co-occurrence of activities such as bathing, toileting, waste disposal, and food production.

5. Dr Jacqueline Thomas, Lecturer, University of Sydney provided a presentation on the project for Watershed Interventions for Systems Health (WISH), Fiji with the following key points noted:

- The WISH project focusses on fighting the 3 ‘plagues’ Salmonella enterica serovar Typhi (Typhoid), Genus Leptospira (Leptospirosis) and Dengue virus (Dengue).
- The study design and setting involve three intervention sub-catchments, each with six villages for a total of 18 villages (9 rural, 9 peri-urban).
- The watersheds that these villages sit within provide opportunity for place-based research and action.
- The WISH project overlaps with some other related projects in key catchments.

Points raised

In response to the prompt questions ‘what is an ecosystem intervention in WASH?’, ‘is a shift of emphasis needed for WASH?’, and, ‘is there a vision of WASH for the Pacific?’, the following points made by the speakers were noted.

- There is a need to look at local stressors and at those areas that are still well maintained and to seek out powerful stakeholders, for example; in Guam it was Guam Watershed Authority and previously it was local custodians. Work bottom up rather than top down.
- In reflecting on how to shift emphasis in WASH to broader planetary health aims, it is often that the task is too overwhelming so keep it as simple as possible. Start small with communities that local issues fixed rather than whole of systems (R2R) level Wastewater requires everyone to work together. Learn from things that are already happening.
- Reflecting on things that would enable a region-wide WASH vision to come to pass? It was suggested that the annual event on Pacific Water is a good platform to promote and share practice. SDG Goal 6 supports the WASH vision and drives it. A scheduled meeting in Nadi in 2019 offers an opportunity to set a WASH vision as an important agenda item.
- A vision should include concept of a necessity as an equal value for human life.
- Stunting issues lead to other problems in later life and studies should be done to make the links between contributing factors and outcome. Island communities can challenge by putting a cohesive case forward. Then design strategic targeted interventions – well designed study conducted, results provided, interventions done.
- All of the projects and work being presented at the forum contribute to planetary health goals - they don’t need to be re-tabled as planetary health identified interventions.

10. Thematic Talanoa No.2 including plenary panel No 4

Establishing an active Oceania planetary health network

Mr Andrew Foran introduced **Ms. Kesaia Tabunakawai, Pacific Representative, and WWF** as the facilitator for this session which comprised three expert speakers on the general topic of establishing an active Oceania Planetary Health network. This was followed by the forum moving into three Talanoa discussion groups. The key points from the speaker presentations is provided as follows along with the Talanoa notes.

1. Dr Chris Golden provided a presentation on the Planetary Health Alliance with the following key points noted:

- Planetary Health has been defined as “the health of human civilization and the natural systems on which it depends”. More specifically, it is an emerging interdisciplinary field focused on characterizing and quantifying the human health impacts of human-caused disruptions of Earth's natural systems.
- Planetary health is not new as similar version of the concept have been articulated through the fields of Conservation Medicine, One Health, Eco-Health, Climate Change and Health.
- Planetary health has come to the fore via:
 - a sharp focus on the human health impacts of accelerating environmental change.
 - an emphasis on the scale of humanity’s ecological footprint and the extent to which these global changes are likely to drive a majority of humanity’s global burden of disease in coming years.
 - a sense of urgency to create a new trajectory for human stewardship of Earth’s natural systems driven by these threats.
- Environmental change topics include: water scarcity, biodiversity shifts, changing land use and land change (incl. changing food systems), urbanization, natural disasters, climate change, global pollution, changing biogeochemical flows.
- Human health impacts include: infectious disease, non-communicable diseases, mental health, nutrition, civil strife and displacement.
- The mission of the Planetary Health Alliance is to:
 - create a community of practice (annual meeting and virtual networks).
 - create journal outlets for research/literature (Lancet Planetary Health, GeoHealth, EcoHealth, etc.).
 - support universities in the creation of planetary health course work or programs.
 - create educational resources on planetary health.
 - Out of Eden Learn/Project Zero.
 - Educational resources – university course work, textbook, case study anthology.

2. Dr Sala Saketa provided a presentation on the Pacific Public Health Surveillance Network PPHSN and One Health 2018-2021 and use of the One Health approach in shifting dynamics for Pacific cooperation with the following key points noted:

- PPHSN is strengthening its capacities in enhanced surveillance, developing vector control skills and in preparedness for emergency risks and furthered this work through a One health consultative workshop in Fiji in April 2018. The workshop concluded that:
 - One Health was a complex undertaking but emphasized that activities must be linked to tangible outcomes for human, animal and environmental health.
 - Further support is required to identify opportunities for greater collaboration between human and animal health, including research, and inclusion of environmental and ecological factors.
 - Animal welfare/One Health and improved husbandry were identified as priorities by the animal health sector, while for the human health sector, prevention and control of disease were priorities.
 - Local education institutions need to be empowered to provide One Health research and training.

- Leadership must be appropriate to the Pacific context.
- Vector control to be addressed from environmental perspectives, including through better water management and environmental hygiene, noting the contribution of deforestation and natural and built infrastructure planning.
- Partners (including PC, WHO, DFAT, World Bank, CDC/PIHOA) will work together to support country priorities.
- One Health research priorities include:
 - Development of integrated health information system to improve timing and precision of early warning on infectious disease outbreaks.
 - Development of and pilot-testing of an evidence-based strategy to control vectors, monitor spread of mosquitoes and risk communication and management by linking entomological, epidemiological and intervention data.
 - Innovative and flexible tool/system allowing countries to define their own disease-specific thresholds in consideration of specific country conditions/situations and challenges.
- PPHSN can become a key vehicle for championing Planetary Health.
- Next steps include:
 - Convening an annual back to back meeting of PPHSN, One-Health/Planetary Health forum and IHR to track progress.
 - Proposing the idea of integrating One Health/Planetary Health as an overall service of the PPHSN.
 - Working together with all partners in progressing prioritised action or interventional research.

3. Dr Jonathan Kingsley, Lecturer, Health Promotion, Swinburne University of Technology provided a concise presentation on the past, present & future of the Oceania Eco-Health Chapter, with the following key points noted:

- Success factors for Eco-Health have included, inspiration, purpose and social media.
- What hasn't worked is representation in the Pacific and watered-down purpose leading to burnout.
- In learning from health communication efforts, what activities can be envisaged for next 2 years? - one single/simple message and selecting scale, approach and issue that fits that message in order to take the public on the journey.
- Upstream interventions – actions for healthy public policy.
- Midstream interventions – preventative actions.
- Downstream interventions – curative actions.
- Choices for a focussed topic include:
 - climate change via activism and advocacy.
 - indigenous ecological health knowledge and systems via participatory approaches that lead to advocacy.
 - plastic waste in oceans through advocacy.
 - # equity as an overlay to everything that is progressed.

Talanoa points raised

The thematic Talanoa session that followed the three speakers was based on the prompt questions ‘how do we build on existing foundations and collaborations, to establish an active Oceania Planetary Health network?’ and ‘what events and activities can be envisaged for the next two years?’ Three Talanoa groups were formed for discussions and the points recorded from the collective Talanoa’s are reported as follows.

- There are numerous existing collaborations at different stages of development – it takes time to develop effective relationships.
- Planetary health advocates are struggling to bring things together at this point, but a good time to make a start, including via this forum, and there are many opportunities available.
- Acknowledging the differences in operating scales, a ‘network of (existing) networks’ is a good approach and can take messages forward to relevant forums, symposiums, conferences.
- There is power and leverage and building of common purpose in a network of networks, ie; planetary health incorporates existing R2R.
- Take a step wise approach to the development of a suitable network.
- Why recreate something new when existing suitable forums or networks exist?
- Think about a network as a function rather than being a physical structure.
- Why bother with a fresh conversation room and there is no need to rename existing practice groups but just keep working in their own space and share via webinars.
- Case studies and other practical experiences have taught the need to turn to networks and bodies that exist rather than create something new – the Planetary Health Alliance already harnesses a wide group through an online platform and Oceania specific chat room.
- Use caution in that if an existing network or group has one dominant area of expertise it can overbalance other voices.
- Risk in one agency getting network funding which then turns into funding for that organisations own project support rather than support for the collective network.
- When funding calls go out, bring collaborators/expertise together to help inform the scope of projects in planetary health terms.
- Seek opportunities to look for sustainable funding for time dedicated positions to assist in networks maintenance as voluntary efforts will tend to lapse despite good intention.
- Rotating institutional chairs of a network could share a 0.1 of a person role.
- Example of the African leptospirosis network: has a shared drive for researches, students and others; has a legacy of a repository of resources.
- Example of One Health Aotearoa: has a funded administration role; brings sectors together with funding from the University of Otago; convenes an annual symposium; runs workshops, retreats; provides funding for students.
- Example of the Leiberville Declaration, Africa: mandate for health ministers to meet regularly whereas in the Pacific there are fewer opportunity mechanisms for this, but they could be argued for.
- PAC-NET given as an example of collaboration to support cross engagement.
- Guam conducts an Ecosystem Forum.

- Some form of periodic meetings/forum (ie; every 2 years) is critical to maintain momentum for regional planetary health and in the meanwhile have an exchange mechanism.
- For the range of upcoming forums, planetary health is a relatively attractive topic and targeted events can be galvanising points.
- Standing agenda items can be created for key forums.
- The CBD COP 14 in Egypt is the most immediate opportunity presenting.
- Fiji to host 2019 Asia Pacific parliamentary forum.
- Create a register of key events to identify opportunities.
- A website is needed but ideally it is a dedicated site, not part of an existing site.
- Email groups, WhatsApp, exchange of ideas, keeps discussions going but can require some time and effort in moderation to administer communication traffic.
- Ensure messaging is going out and relies on ‘connector’ people and ‘champions’.
- Moderated website, vs an email list serve is quite simple.
- IUCN is willing to provide ‘light touch’ support for information distribution via its webpage.
- Local values must be front and centre.
- Need to ensure impact on the ground rather than talkfest to manifest action in communities that we are wishing to serve.
- If you’re not in step with Planetary health you’re out of step with the planet.

11. Plenary panel No 5

Building a research framework for planetary health in Oceania

Dr. Jupiter was the facilitator for this session which comprised three speakers on the general topic of building a research framework for planetary health in Oceania. Prompt questions were ‘how do we develop intervention research for Planetary Health in Oceania?’ and ‘what are the critical elements of that will distinguish a research framework for planetary health from other research requirements?’ The key points from the speaker presentations is provided as follows.

1. Professor of Ecology & Evolution, Glenda Wardle, University of Sydney provided a presentation on linking long-term environmental monitoring to Planetary Health, with the following key points noted:

- Having a functional biosphere is fundamental to all SDG’s and ecosystems are our natural capital.
- The project study site is located in the north-east Simpson Desert in Australia, an area which can be considered a ‘Desert Island’.
- The area is remote, isolated, low population and with extreme climates, and was studied for how it affects health.
- Although isolated, the area is subject to a vast array of processes and interactions, threats and drivers.
- Drought, flood and fire cycles create different timescale recovery processes depending on their interactions.

- Rain drives rodent dynamics and flowering which attracts pollinating processes and interactions.
- Post fire vegetation forms like islands of habitat and refuge (greenness) within the big island.
- Consequences of land degradation are experienced well beyond the inland areas of Australia as evidenced by the severe dust storm in 2009 driven by high winds that generated extreme health warnings and outcomes for those suffering asthma and heart and lung disease.
- From this study site, methods and results can be up-scaled to examine issues like climate change
- Ecologists conduct long term monitoring of changes as peaks and troughs and resulting conditions on fauna flora populations - which can occur, and need to be studied, over very long time periods. Ecologists and their studies:
 - quantify ecological responses to drivers of ecosystem change
 - understand complex ecosystem processes
 - provide core ecological data for ecological models
 - create platforms for collaborative studies & multidisciplinary research
 - support evidence-based policy, decision making and management of ecosystems.
- Studies such as the one in this project require champions to keep them going, well-designed and robust methods and good data curation
- Assessing and reporting on the health of ecosystems and then tracking the flow of healthy ecosystems to human health requires:
 - ecosystem monitoring and reporting systems (excellent science)
 - environmental economic accounting systems and environmental health accounting systems (describing healthy ecosystems)
 - planetary health reporting (national well-being).
- Ecologists work in networks of networks
- There is high value in longitudinal /studies to understand ecosystem dynamics however they can extend over years or decades. One potential way to alleviate the time frames ('shortcuts') is to start studies immediately and co-create the study design in numerous places.

2. Professor of Environment Health, Paul Jagels, Fiji National University, provided a presentation on education and capacity building for environmental health, with the following key points noted:

- As a concept and science, environmental health refers to the following:
 - All stressors in our natural and all our anthropogenic environments that will impact negatively our health.
 - Is influenced by our behaviours.
 - Is a discipline / practice that is predominantly a health sector service i.e. EHO as on the ground operatives.
 - Informs the health sector about the risks and impacts from the environmental determinants of health.
 - Advises and supports all sectors in measures to prevent, mitigate and adapt.

- Is a complex service and effective delivery is dependent on transdisciplinary and inter- and intra-sectoral collaboration.
- The Fiji National University has a comprehensive range of education and capacity building options in the environmental health field across undergraduate, postgraduate and professional upskilling. Course work also includes indigenous environmental health perspectives.

3. Dr Aaron Jenkins provided a presentation on case study development that can highlight Oceanic partnerships for nature and human health, with the following key points noted: (# some of the points from this presentation are also documented in the report section on Thematic Talanoa No 1).

- The purpose of case studies is to share examples of good practice case studies rooted in the principles of Planetary Health for policy makers and practitioners.
- One of the actions from the forum is to devise a process to compile and publish case studies from Oceania that capture the Planetary Health ethos.
- The example of the case studies compendium compiled for Pacific Integrated Island Management – Principles, case studies and lessons learned, was given as an example of what could be achieved for planetary health (eg; Takitumu Lagoon, Cook Islands).
- SDGs highlight that human health and environmental sustainability cannot be addressed by individual sectors, and that a “nexus” approach must be sought that integrates goals across sectors and disciplines.
- SDGS must involve cross sector relationships and reinforce collaboration and cooperation rather than competition and planetary health is a plausible framework for achieving SDG implementation. This means seeking interventions supporting policy coherence and considering co-benefits in planning and financing decisions.
- The example of managing small island river basins was given. In small island river basins, anthropogenic alterations of land cover and hydrology cause aquatic biodiversity loss and can facilitate transmission of typhoid fever (similarly for leptospirosis) through processes of increased erosion and flooding.
- Small island river basins involve protection of ecosystem services provided by limited freshwater resources and are a “nexus” point in relationships between multiple SDGs - environmental condition, biodiversity and public health and wellbeing.

12. Final plenary panel and next steps

Andrew Foran facilitated the closing session of the forum and invited the members of the final panel to offer their reflections concerning the following prompt questions:

- Should another forum be convened next year (or 2 years)?
- What will be the target events in the next year for the communicate and thoughts on its draft content?
- Where will the target be for the case studies?
- What will be done to form or strengthen a network?
- What will be done to form a research framework?

Dr Jenkins – case studies:

- A template for case studies will be prepared and placed on relevant sites.
- A call will be made to solicit case studies.
- Contact will be made with all those who already committed to provide case studies.
- Potential outlets for case studies will be found, ie; a themed edition of a journal, IUCN's website hosting offer.
- A defined 'boundary' of Oceania for the purposes of the forum and for ongoing planetary health activity, should be agreed.

Ms Tabunakawai – networks:

- The forum has been able to advance preliminary options on networks at this stage and there is solid food for thought to progress a practicable network/s pathway.
- The 'network of networks' concept was well accepted.
- IUCN and WWF will hold a face to face meeting in Suva, Fiji in November 2018 to further the idea.

Dr Jupiter – research:

- New knowledge products to build evidence base include:
 - Climate change and impacts on PH.
 - Impacts of plastics and micro plastics.
 - How to create circular economy to reduce waste.
 - Issues around ecological grief.
 - Understanding of environmental drivers of disease burden and ill-health.
 - Develop 'research to practice' to understand the interactions among SDGs and support policy coherence.
 - Stronger focus on ILK for systems health.
- How to improve implementation
 - Identifying workable governance models.
 - How to mainstream PH into policy.
 - How to ensure institutions are equipped to respond to cross cutting policy.
 - Establish research centres that support national definitions of wellness.
 - Bring voices from the ground to be involved in framing questions.
 - How to use lessons from capacity building to undertake actions on the ground to inform next iteration of research.
 - How to scale place-based approaches.
 - Finding local champions.
 - Good data curation.
 - Developing genuine and culturally appropriate progress.
 - New research funding becoming available for example; Wellcome Trust.

Dr Saketa with Pierre Horwitz, Professor of Environmental Sciences and Director - Centre for Ecosystem Management, Edith Cowan University - Communique

- The latest draft as at 1600hrs, Tuesday 6/11/18 was presented to elicit general reactions and any noting of any red flags. It was noted that a wide range of people who were not

able to attend the forum had been included in opportunity to review the preliminary draft and to make comments and would continue to be kept in the review process.

- The draft communique was received with appreciation for great preliminary work as an initial impression by the forum. General discussion then ensued with the following observations noted from the floor of the forum:
 - Needs the list of countries represented at Forum.
 - The Healthy Islands vision to be added prominently.
 - The communique needs to hit a simple, 'big messaging' level.
 - Where will the communique land / be carried on messaging front? Any footnote/s need to be inclusive of all relevant meetings/forums upcoming for continuous regional dialogue. It was noted that there is a sequence of key meetings and forums, for example; regional Health Ministers forum in 2019; CBD COP 14 in November 2018 and contact can be made (even informally) with the CBD secretariat and Pacific Island ministers who are in attendance.
 - Is the term 'Communique' too genteel or is it a "call for action"? – perhaps use stronger language in the title or in the body move away from the term communique and can't endorse – a call for action is more within the scope of the meeting.
 - 'call for action' term supported due to urgency considerations.
 - When does a 'call to action' actually happen? (timeframe).
 - Consider the term/title 'outcomes statement' as it is only as a formal record of the forum and beyond this, only have a media statement by the chair of forum.
 - Portray the document as a record of the forum.
 - Ensure all ministries are cited i.e.; all those ministries with responsibilities that address/ have a stake in health and env issues, however, is this ok given that this forum doesn't include transport, welfare, treasury etc?
 - Suggest remove capitalisations where the words 'ministry' are used, but provide some critical examples of ministries by generic reference.
- Communique sign-off considerations:
 - Probably should have some sign off process of communique due to ministry process especially those represented by the statements.
 - A preference offered to compose the communique in a way that respectfully avoids ministerial check processes.
 - A view that the communique is constructed at a point in time by a relevant 'constituency' of forum attendees, so it does not reflect the officially endorsed position of relevant govt agencies and this needs to be made clear.
 - It was acknowledged that ministry staff at forum may be uncomfortable with proposed communique finalisation processes and dilemmas that may pose – perhaps a footnote that government staff abstained from committing formally to the communique.
 - The first paragraph in the draft was problematic as it is not just country representatives at the forum, it also includes other organisations and practitioners.
 - No particular body or government mandated the forum to do the communique or make statements.
 - Countries could be acknowledged more obliquely in the document.
 - WHO has member states, so it also needs to proceed cautiously in terms of communique endorsement as a public product.

- It was noted that forum attendees are not being asked to endorse something but to simply to attend, participate and have a record of their professional comments documented.
- Ministry logos could be removed and only organisation logos.
- Staff from Fijian ministries commented that documents of this nature generally had to receive sign off by Permanent Secretaries and also advised that Fiji is having a general election on 14/11/18.
- Staff from Kiribati commented that if the Ministry of Health and Ministry of Environment are mentioned in the communique, they may have questions as to why they were not at the forum. However, it was considered that there is value in progressing the communique in its current general format in order to capitalise on the forums momentum even though there is a normal process of putting big decisions before cabinet.
- Suggestion to use the term 'sectors' rather than 'government'.
- There were a range of process considerations (more official) required to finalise the document. The forum convenors will move from this point based on consideration of the views expressed and duly noted by the drafting team.
- It was proposed that as Mr Latu would be attending the CBD COP 14 later in the month, all effort should be made to finalise a suitably worded communique so that he can present it at appropriate points and discussions during CBD COP 14 meetings.
- A question was raised about having reportable indices added to, or aligning with, existing indices / indicators (where possible) – are there some existing ones that are useful and applicable.
- The communique should be utilised quickly for the forum gaining and using it push the messages on planetary health. Developing a version of the communique that is more broadly digestible was seen as a useful endeavour.

13. Forum conclusion

Professor Anthony Capon stepped forward to bring the forum to a close. He gave thanks to IUCN, particularly Mr Mason Smith, IUCN Regional Director, and for their support in the detailed arrangements and hosting for the forum, as well as mentioning other key convening individuals and partners.

He thanked Dr Jenkins particularly and acknowledged that the relationships and trust he has built over time were a key factor in helping the sectors come together successfully for the forum.

He gave special thanks to the generous grant made available from the funding organisations Wellcome Trust and UNDP, which were further enhanced through IUCNs in-kind contributions.

He warmly thanked the forum attendees for actively participating and for their good will in the room and in continuing to look forward with positivity in working together across Oceania.

Annexes

A. Individual comments via personal post it notes on Day 1:

| women | men | non-gender identified |
|---|---|---|
| <ul style="list-style-type: none"> • Common understanding and language is key – what does food security mean for a generalist planner in a govt ministry vs a scientist? • Lessons – traditional cultures. • The importance of context for place-based initiatives or programs. • Factoring the voice of indigenous knowledge as part of policy and planning. • “Coalition of the willing and like-minded” – way forward thru organisations if institutions difficult or unwilling to move or change. • “Our commitment to each other” – social contract that outlines the principles and objectives in the context of Locally Managed Marine Areas. • Powerful plenaries • Work in the place you know best and share your ideas. • Indigenous session with Helen and Joeli was excellent and provocative. | <ul style="list-style-type: none"> • Simple single message that captures social, cultural and ecological diversity. • An approach focussed on advocacy and actions. • Incorporating indigenous ecological and health knowledge. • The importance / potentiality of ensuring integration / collaboration is aligned community specific priorities. • What is the major evidence and knowledge gaps? • How can we align scales of decision making around health (household) and environmental resources (community or higher)? • Do we need to reform economies and notions of “growth” to attain balance? | <ul style="list-style-type: none"> • “Ecological grief” – needs more research. • One of the barriers is Big Food. Large corporations have considerable power on the ‘crap’ food entering developing countries. They need to be brought into the conversation. • Many speakers highlighted the need to work across silos. The Pacific leaders in the meeting in Fiji in 2012 approved a new regional organisation that is multi stakeholder and has a mandate to bring into the Pacific the Green Economy. • That organisation is the Pacific Islands Development Forum whose membership includes governments of the Pacific and CSOs and Private sector. The PIDF is required to set up National Sustainable Development Boards in each member country to drive transformative change to the Green Economy. The Boards are multi-stakeholder. These existing platforms are available to assist in work on Planetary Health. |

B. Individual comments via personal post it notes on Day 2:

| women | men | non-gender identified |
|--|---|--|
| <ul style="list-style-type: none"> Island Resilience Initiative is a project with several partners that fits in well with the work on planetary health. It helps Pacific countries in SDG implementation through monitoring through dashboards and a pipeline to projects for PDP (proposals) along six thematic areas – building resilience through communities, energy, environment, equity, food and water. Positioning of the food system within the Planetary Health framework - as a big driver of our changing environment. Session on indigenous health perspectives – excellent speakers. Gave a perspective that is too often missing. In Planetary Health we should look to learn from indigenous practices especially with respect to connection to the land. Barriers to change: Several people have reinforced that knowledge is there, however there has been little change. A session on overcoming barriers would be interesting – session could cover: education programs for community; industry incentives; governance system strengthening; linking economy to environment and health; better rankings and performance markers for looking after the environment. As Mr Kosi Latu said ‘what is going to change?’ Some | <ul style="list-style-type: none"> Could possibly be interesting to have small group discussions that then feed the wider discussions. Policies should be reflected in on the ground activities. How do we attract funding to support Planetary Health projects and initiatives? Especially given the traditional separation of environment funding and health funding. If you want a more effective whole of government approach in any country as in Kiribati, its wiser to invite senior officials as in secretary level and as far as ministers so that it can be pushed as part of the government agenda. After listening to presentations there are quite a lot of ministries that need to be involved like health, fisheries, environment, internal affairs, finance and education. I was not invited to this forum, but I am grateful that being able to attend presents to me the great need for the different sectors in my country to collaborate for the work overall. One of the main reasons why governments do not take time in adopting research or project recommendations by CSO’s, is the failure to link recommendations to economic sustainability. How can Planetary Health promote economic sustainability for Pacific Island Countries? Importance of functional cooperation even at personal level. Support ongoing initiatives so | <ul style="list-style-type: none"> Do we need a new role of ‘planetary health officers’ that have experience in environment, health and traditional knowledge to build capacity at local level? |

| | | |
|---|--|--|
| <p>of the ideas behind Planetary Health are new and involve new partnerships, new approaches, new insights. <u>But</u>, much of what has been discussed is the same good intentions rebadged as Planetary Health! We must differentiate Planetary Health from what has been done before. Identify the specific advantages of new partnerships to overcome past obstacles.</p> | <p>we can easily prove our arguments.</p> <ul style="list-style-type: none"> • I see an important difference between <u>adding</u> Planetary Health to what is already done, is recognising that continuing/expanding existing (and new) integrative, connected, ecologically oriented work to improve health will <u>also</u> contribute to working towards Planetary Health. • We should be clearly able to show national governments how Planetary Health links well with National Development Plans (NDPs) and Green Growth Frameworks. • To Dr Stacy Jupiter – Your project study seems to have a cross sectoral approach – forestry, agriculture, fisheries, health and environment. How are the sectoral ministries responding to your project? What is your plan on engaging these ministries so that they become less silo-oriented? | |
|---|--|--|

C. Forum communiqué

OCEANIA PLANETARY HEALTH FORUM

Nadi, Fiji | 5th-6th November 2018

STRENGTHENING PARTNERSHIPS FOR NATURE & HUMAN HEALTH

A Call to Action: Policy Dialogue on Planetary Health in the Oceania Region

Oceania Context

1. Subject matter experts, practitioners and researchers in health, development and environment, from the Oceania region and beyond, met in Nadi, Fiji from 5-6 November 2018 at the inaugural Oceania Planetary Health Forum.
2. **The forum acknowledged** that the concept 'planetary health' concerns the health of human civilisation and the state of the natural systems on which it depends. It is particularly relevant in understanding, and urgently responding to, health impacts resulting from environmental degradation and climate change. Planetary Health inspires a cultural and equitable transformation in how we feed, move, house, power and care for the world.
3. **The forum recognised:**
 - a. the unique ecosystems, rich natural resources and diverse economies and health standards of the region, comprising Melanesia, Micronesia, Polynesia and Australasia, spanning 100 million km², home for about 40 million people, on some 10,000 large and small islands, with ten times more ocean than land mass, and
 - b. the extraordinary cultural diversity and globally significant number of languages in Oceania and an imperative to ensure the continuity of these diversities in perpetuity.
4. **The forum recalled** the Hippocratic Oath of 'First Do No Harm' and recognised that it is a code of conduct that can be applied not only to individual health but also to the broader Oceania public health and ecosystem management. Additionally it embraces the notion of 'Leaving No One Behind', espoused through the 2030 Sustainable Development Goals (SDGs) in their aspirations of ensuring that the future and existence of small island states of Oceania are addressed in a just and equitable manner.
5. **The forum recalled** that health ministers had foresight and wisdom in the creation of the Healthy Islands vision with its five focus areas addressing human and ecological health. Its relevance to sustainable existence and health of the Oceania region is embodied in the vision, not only for the current but also future generations.
6. **The forum recognised** the Pacific Islands Forum Leaders' Blue Pacific narrative as the core catalyst of collective action in Oceania.
7. **The forum noted** that the health and wellbeing of the people of Oceania, and of future generations, is currently threatened by a range of issues including population growth, urbanization, deforestation and land degradation, overfishing, nutrition transition, dietary shifts, waste and climate change. Significant and persistent health issues in Oceania include high rates of communicable diseases such as mosquito borne viruses, and water borne bacteria, including typhoid and leptospirosis. Together, protracted communicable disease outbreaks along with high rates of (often diet-related) non-communicable diseases – create a high public health burden that can exhaust existing response and management systems. Despite investment over the Millennium Development Goal period (2000-2015), progress has stalled for water and sanitation in Oceania.
8. **The forum noted** a call by Pacific Small Island Developing States (PSIDS) that climate-related loss and damage are impinging on lives and livelihoods. These have cascading health, social and economic effects and need urgent attention. Decreasing recovery periods between extreme weather and environmental events including flooding and drought compound recovery. Together these particularly affect the marginalised, women, children, elderly and the disabled.
9. **The forum noted** the persistence of large scale, complex and uncertain issues at the nexus of environment and health, the emergence of new ones, and the escalation of most of them. Climate change, water and food safety and security, and ocean pollution are chief among them. Microplastics in the ocean was highlighted as a singular example: recent statistics showed that 80% of plastics are land-based in origin, and 40% of that comes from sources external to the Pacific. Nine million tonnes of plastic are produced daily, and it is estimated that by 2050 there will be more plastic than fish (on current projections, also based on fishery declines) in the ocean. Microplastics have been traced throughout the oceanic trophic system, including in humans. This is a waste management, population, behaviour and attitude issue. It has also become a food security and health issue with the incorporation of microplastics into foods and may well be exacerbated by climatic extremes and natural disasters.



10. **The forum was aware** of the social and economic dimensions and challenges of anthropogenic environmental change- inequalities, overconsumption, commercialisation, economic rationalism – and the potential human responses or solutions – sustainability practices, collective resistance and collaboration, and political re-engagement. Change for the better would require a shift from gross domestic product as the measure of prosperity toward green growth ideals that more effectively assimilate economic development with quality of life, health and natural systems.
11. **The forum recognised** that in addressing these types of issues, there is an urgent need to adopt new mindsets and practical approaches that simultaneously safeguard human health and the natural systems that underpin it, one capable of bringing to the forefront inter- and intra-generational equity dimensions, the connectedness of people to their land and water, and calling for integrated approaches to respond to the social, environmental and economic impacts of increasing pressures on the region and its people.
12. **The forum supported this Planetary Health approach**, to unite and strengthen human, animal and environmental health, environmental management, natural resource management, and indigenous local knowledge.
13. **The forum examined** optimal governance arrangements to deal with persistent, emerging and escalating phenomena at the environment and health nexus; current governance arrangements were often seen to be inadequate, disconnected, fragmented, competitive or conspicuously absent. An illustration of the disconnect is the fact that ministries of health and environment meet in isolation of one another. While clear pathways and structures for policy and action are therefore limited, there is opportunity to progressively inform, unify and enhance existing relevant and related networks, initiatives and partnerships to improve commonality of purpose.
14. **The forum recognised** the case for policy development, investment and action where co-benefits between health and environment is most likely, noting that this is consistent with calls for co-ordinated and integrated approaches to deliver the SDGs. Moreover, participants in the forum agreed that the need for integrated approaches capable of delivering co-benefits and synergies is most needed in regions like Oceania precisely due to vulnerability to global-scale stressors (such as climate change) and its attendant injustices (i.e. noting that many of the peoples of Oceania have contributed the least to the problem but are among the most at risk from its consequences).
15. **The forum recognised** the value and diversity of people, land and sea relationships, and the relevance and opportunities presented by place-based approaches, particularly as they apply to Indigenous local knowledge and leadership. Given the diversity of Indigenous cultures, the forum was aware of the importance of having the authority to speak for those people and places. In Oceania the connections and relationships (people-land-water) are tangible and experienced through identity, sense of place, and spirituality. These relationships are in many cases intact, or exist in a state where reconnection is both plausible and desirable. Because of this there is a capacity for Oceania to provide global leadership in Indigenous approaches to environment and health.
16. **The forum recognised** in this both a challenge, and an opportunity, to facilitate the continuation of these traditional relationships and strongly participatory practices, and to gain insight into collective concerns by including the voice of the lived experience as evidence, using this voice (personal connection) to resonate with governments, international agencies and corporates to leverage change.
17. **The forum was equally aware** of the need to create opportunities to facilitate (and share) innovative new and existing solutions, to motivate change and to involve young people, as well as more senior members of societies. Moreover, the forum acknowledged the utmost importance of early life, not only for the foundations of future health, but for instilling the pro-environmental ideologies we depend on for our future.

Actions for policy dialogue on Planetary Health

To deal with persistent, emergent and escalating challenges at the environment and health nexus in the Oceania region, the forum calls for a renewed action orientation for international, intergovernmental and national organisations to:

18. **encourage** existing networks to establish common platforms to facilitate productive dialogue and collaboration between the health and environment sectors and other relevant sectors;
19. **provide** the necessary resources to enable joint decision-making across sectors pertinent to health and environment, like those now being developed for emergency response and preparedness in the face of disease outbreaks and natural disasters, where all relevant government ministries along with appropriate thematic sectors and stakeholders are given a seat at the table and work cooperatively to overcome barriers to success;
20. **establish** the necessary legal and administrative arrangements to enable the health, environment and natural resource management sectors to work and plan together to deal with mutual local and regional concerns and to mainstream Planetary Health into routine sectoral dialogue, planning, fund-seeking and budgeting processes and within programmatic and institutional structures;
21. **strengthen** the Healthy Islands Vision and the Pacific Islands Forum Leaders' Blue Pacific narrative by developing a suite of reportable indices that will draw from, and be aligned with, existing reportable and accountability measures including SDG targets;
22. **recognise** Indigenous leadership and local cultural knowledge as foundational and universally meaningful, and actively seek the engagement of Indigenous leaders in decision-making;
23. **regard** the measures above as an essential response to a complex and uncertain world, where long term research is imperative to understanding interactions between SDGs and must be built into the fabric of learning and decision-making, and where adaptive management strategies must be encouraged and supported; and
24. **develop and widely communicate** applied research evidence, educational resources and case study exemplars that promote awareness to guide and motivate positive attitudes and behaviour and support scaled-up actions.



THE UNIVERSITY OF SYDNEY



Forum Co-Chairs

D. Forum programme

Programme

Oceania Planetary Health Forum

Dates: 4-6 November 2018

Venue: Sofitel, Nadi

Theme: Planetary Health in Oceania – Strengthening Partnerships for Nature and Human Health

Objectives

- Develop an Oceania Regional research framework for planetary health;
- Build on existing foundations and collaborations, to establish an Oceania Planetary Health network;
- Document case studies of Oceania planetary health good practice; and
- Produce a communiqué for global policy dialogue

| Sunday, 4 November 2018 | | | |
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| 2pm | Check in | | |
| 4pm | Participants' Registration | | |
| 6pm-7pm | Cocktail | | |
| <i>Dinner – participants find their own venue</i> | | | |
| Monday, 5 November 2018 | | | |
| 7am | Registration | | |
| 8:45am | Forum Opening | Mr Mason Smith & Dr Anthony Capon | |
| 9am | Keynote 1: Healthy Islands Vision | Minister of Health and Medical Services, Hon. Rosy Akbar | |
| 9:20am | Keynote 2: Environmental change in Oceania | Mr Kosi Latu | |
| 9:40am | Keynote 3 – Regionalism | Ms Cristelle Pratt | |
| 10am | Plenary general discussion | | |
| 10:25am | <i>Group Photo</i> | | |
| 10:30am | <i>Morning tea</i> | | |
| 11:00am | Keynote 4: Planetary Health | Dr Anthony Capon | |
| 11:30am | Plenary Panel #1 | <i>Key question(s):</i> For the SDGs: i. What are the positive connections between environmental management and health sectors? And ii. Where is the policy coherence in planning and financing decisions? | Dr Mohd Nassir – climate change & health – primer Dr Stacy Jupiter – ecosystems and health – primer Dr Sala Saketa – regional surveillance – primer |
| 12:30pm | <i>Lunch</i> | | |
| 1:30pm | Plenary Session: Valuing Indigenous and Local knowledges | Indigenous islander perspectives on managing oceans for health. | Dr Joeli Veitayaki |
| 1:50pm | | Integrating Indigenous knowledge for health planning | Dr Litiana Kuridrani |
| 2:10pm | | Maori approaches & perspectives | Dr Helen Moewakabarnes |
| 2:40pm | Plenary Panel #2 | <i>Key prompts:</i> <ul style="list-style-type: none"> • Indigenous voices we are missing • Indigenous imperatives and Oceanic planetary health | Dr Joeli Veitayaki, Dr Litiana Kuridrani, Dr Helen Moewakabarnes Facilitation: Ferdinand Strobel |
| 3:20pm | <i>Afternoon tea</i> | | |
| 3:50pm | Plenary Session: Oceania: Through the Planetary Health lens | Communicable diseases | Dr Angela Merianos and Dr Aalisha Sahu-Khan |
| 4:05pm | | Non-communicable diseases | Dr Ferdinand Strobel |

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| 4:20pm | | Nutrition | Dr Chris Golden |
| 4:35pm | Plenary Panel Q&A | <i>Key prompt:</i> Opportunities and barriers for robust and informed management of the environment as preventative health in Oceania | Dr Ferdinand Strobel, Dr Aalisha Sahu-Khan, Dr Angela Merianos, Dr Chris Golden Facilitation: Dr Mohd Hassan |
| 5:20pm | Wrap up Day 1 | Summarise | Dr Anthony Capon, Mr Andrew Foran |
| 5:30pm | <i>Close</i> | | |
| 6:30pm | <i>Forum Dinner</i> | | |
| Tuesday, 6 November 2018 | | | |
| Chairperson: Dr Anthony Capon and Mr Andrew Foran Rapporteur: Tony O'Keffe | | | |
| 8:45am | Introduction to Day 2 | Recap Day 1 and Objectives for Day 2 | Mr Andrew Foran and Prof. Tony Capon |
| 9am | Keynote 5 – Embedding ecosystem approaches in health in the Pacific Island context | Dr Stacy Jupiter | |
| 9:45am | <i>Thematic Talanoa (includes morning tea)</i> | | |
| | | 1. Case Study Development 2. National Priorities 3. Communique | 1. Led by Dr Aaron Jenkins 2. Led by Dr Aalisha Sahu-Khan 3. Led by Pierre Horwitz and Dr Sala Saketa |
| 11:00am | <i>Thematic Talanoa</i> | Report back to Plenary | |
| 11:30am | Plenary Panel #3: Advances in WASH as an example of ecosystem approaches to health | Key questions: 1. What is an 'ecosystem intervention in WaSH'? 2. Is a shift of emphasis needed for WaSH? 3. Is there a vision of WaSH for the Pacific? | <ul style="list-style-type: none"> • Mr Marc Overmars – Regional overview - primer • Dr Amelia Turagabeci – RISE - primer • Dr Jacquie Thomas – WISHFiji -primer • Mr Suliasi Batikawai • Mr Mosese Nariva – Fiji WASH cluster- primer • Ms Else Demeulenaere – GROW Initiative - primer Facilitation: Dr Margot Parkes |
| 12:30pm | <i>Lunch</i> | | |
| 1:30pm | Thematic Talanoa – Establishing an active Oceania Planetary Health network. | Key Question(s): 1. How do we build on existing foundations and collaborations, to establish an active Oceania Planetary Health network? 2. What events and activities can be envisaged for the next two years? | <ul style="list-style-type: none"> • Dr Chris Golden – Planetary Health Alliance • Dr Sala Saketa – Pacific Public Health Surveillance Network (PPHSN) and • One Health • Dr Jonathan Kingsley – EcoHealth Facilitation: Ms Kesaia Tabunakawai |

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| 3:00pm | <i>Afternoon tea</i> | | |
| 3:45pm | Plenary Panel – Building a Research Framework for Planetary Health in Oceania | Key Question(s): 1. How do we develop intervention research for Planetary Health in Oceania? 2. What are the critical elements of that will distinguish a research framework for planetary health from other research requirements? | <ul style="list-style-type: none"> • Dr Glenda Wardle – Linking long term environmental monitoring – primer • Dr Donald Wilson - Education and capacity building for environmental health – primer • Dr Aalisha Sahu-Khan – STEP example – primer <p>Facilitation: Dr Stacy Jupiter</p> |
| 4:15pm | Next Steps | Finalizing outcomes: Communique, Case Studies, Network (next Forum), Research Framework | <ul style="list-style-type: none"> • Dr Sala Saketa • Dr Pierre Horwitz • Dr Aaron Jenkins • Ms Kesaia Tabunakawai • Dr Stacy Jupiter |
| 4:45pm | Wrap Up | Closing Remarks | Dr Anthony Capon and Mr Andrew Foran |
| 5:00pm | <i>Closing session</i> | | |

E. Forum attendees list

| Title | Name | Position | Organisation |
|-------|--------------------|---|--|
| Dr. | Aalisha Sahu-Khan | Acting Head of Health Protection | Ministry of Health & Medical Services |
| Dr. | Aaron Jenkins | Research Fellow-Planetary Health | University of Sydney - School of Public Health |
| Prof. | Amanda Devine | Professor of Public Health and Nutrition | Edith Cowan University |
| Dr. | Amelia Turagabeci | Head of Department - Epidemiology, School of Public Health | Fiji National University |
| Mr. | Andrew Foran | Regional Programme Coordinator | International Union for Conservation of Nature |
| Dr. | Angela Merianos | Team Coordinator | Pacific Health Security, Communicable Diseases and Climate Change |
| Dr. | Anna Farmery | Post-Doctoral Research Fellow | University of Wollongong |
| Prof. | Anthony Capon | Director - Planetary Health | University of Sydney - School of Public Health |
| Ms. | Autiko Tela | Assistant Team Leader - RISE Project | Fiji National University |
| Ms. | Carlene Baugh | Principal Strategic Programme Advisor - SPC Executive Office | Secretariat of the Pacific Community |
| Ms. | Caroline Park | Fulbright Anne-Wexler Scholar | University of Melbourne |
| Dr. | Christopher Golden | Assistant Professor of Nutrition and Planetary Health | TH Chan School of Public Health |
| Ms. | Cristelle Pratt | Deputy Secretary General | Pacific Islands Forum Secretariat |
| Mr. | Dip Chand | Chief Health Inspector/National Advisor Environment Health | Ministry of Health Headquarters |
| Dr. | Donald Wilson | Associate Professor/ Head of School of Public Health & Primary Care | Fiji National University/ College of Medicine, Nursing and Health Sciences/ School of Public Health and Primary Care |
| Ms. | Else Demeulenaere | Associate Director, | Center for Island Sustainability |
| Ms. | Emma Newland | Science Adviser | SPC - Ridge to Reef |
| Ms. | Eretii T Timeon | Director of Public Health | Ministry of Health & Medical Services |

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| Dr. | Ferdinand Strobel | Health & Development Specialist | United Nations Development Programme |
| Dr. | Gemma Langridge | Research Leader | Quadran Institute, UK |
| Prof. | Glenda Wardle | Professor of Ecology & Evolution | University of Sydney |
| Prof. | Helen Moewaka Barnes | Research Director | University of Massey |
| Ms. | Hillary Duff | Case Study Writer | Planetary Health Alliance |
| Dr. | Jacob Eurich | Post-doctoral Research Fellow | University of California |
| Prof. | Jacqueline Benschop | Associate Professor, | University of Massey |
| Dr. | Jacqueline Thomas | Lecturer | University of Sydney |
| Assoc Prof. | Jason Prior | Research Director | Institute for Sustainable Futures University of Technology Sydney |
| Prof. | Jeroen Douwes | Professor of Public Health and Nutrition | University of Massey |
| Dr. | Jessica Gephart | Post-Doctoral Fellow | National Socio-Environmental Synthesis Center |
| Dr. | Joanna Russell | Lecturer | University of Wollongong |
| Dr. | Joeli Veitayaki | Associate Professor - Marine Studies | University of the South Pacific |
| Prof. | John Wain | Research Leader | Quadran Institute, UK |
| Dr. | Jonathan Kingsley | Lecturer, Health Promotion | Swinburne University of Technology |
| Ms. | Kaaro Neeti | Permanent Secretary | Ministry of Health & Medical Services, Kiribati |
| Prof. | Katherine Seto | Assistant Professor | University of California, Santa Cruz |
| Ms. | Kesaia Tabunakawai | Representative | WWF Pacific |
| Mr. | Kini Koto | Project Officer | Fiji Locally Managed Marine Areas Network |
| Mr. | Kosi Latu | Director General | SPREP |
| Dr. | Litiana Kuridrani | Associate Professor, Director of Centre for iTaukei Studies | University of Fiji |
| Mr | Marc Overmars | Chief WASH | UNICEF Pacific |

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| Dr. | Margot Parkes | Canada Research Chair in Health, Ecosystems & Society, Associate Professor | University of Northern British Columbia |
| Dr. | Mohd Nasir Hassan | Environmental Health Specialist | WHO: Western Pacific Region Division of Pacific Technical Support (DPS) |
| Mr. | Moses Nariva | Team Leader – National Water Quality Laboratory | Water Authority of Fiji |
| Prof. | Paul Jagals | Professor of Environment Health | Fiji National University |
| Mr. | Penijamini Lomaloma | Deputy Secretary General | Pacific Islands Development Forum |
| Mr. | Peter Kenilorea Jr | Independent representative | Solomon Islands |
| Prof. | Pierre Horwitz | Professor of Environmental Sciences, Director - Centre for Ecosystem Management | Edith Cowan University |
| Self | Rachel Devi | Programme Manager | WISH Fiji |
| Ms. | Rosy Akbar | Hon. Minister | Ministry of Health |
| Mr | Sainimili Bulai | Senior Environment Officer | Department of Environment |
| Dr | Sala Saketa | Senior Epidemiologist-Surveillance, Preparedness & Response Programme, Public Health Community | Secretariat of the Pacific Community |
| Dr. | Stacy Jupiter | Director - Fiji Country Program | Wildlife Conservation Society |
| Mr. | Suliasi Batikawai | Senior Environment Officer/WASH Coordinator | Ministry of Health & Medical Services |
| Mr. | Timoci Naivalulevu | CSO Engagement Officer - Health Project Officer/Australia's Support to Fiji's Health Sector | Ministry of Health & Medical Services |
| Ms. | Vilisi Naivalulevu | Project Officer | GIZ |
| Mr. | Vimal Deo | Emergency Media Team Co-ordinator | Ministry of Health & Medical Services |
| Dr. | Wade Hadwen | Lecturer | Australian Rivers Institute |
| IUCN support team | | | |
| Ms. | Fipe Tuitubou | Programme Support Officer | International Union for Conservation of Nature |

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|-----|------------------------|---------------------------|--|
| Ms. | Merewalesi Williams Ho | Finance Assistant Officer | International Union for Conservation of Nature |
| Mr. | Nawaia Matia | IT Officer | International Union for Conservation of Nature |
| Mr. | Savenaca Kalokalo | Protocol Driver | International Union for Conservation of Nature |
| Ms. | Sereana Narayan | Communications Assistant | International Union for Conservation of Nature |
| Mr. | Tony O'Keeffe | Rapporteur | Consultant |

Abbreviations

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| ACFID | Australian Council for International Development |
| AIDS | Acquired Immune Deficiency Syndrome |
| CBD COP | Convention on Biological Diversity – Conference of the Parties |
| CDs | Communicable Diseases |
| CDC | Centers for Disease Control |
| DDM | Data for Decision Making |
| DFAT | Department of Foreign Affairs and Trade |
| EID | Emerging Infectious diseases |
| FLMMA | Fiji Locally-Managed Marine Area |
| GDP | Gross Domestic Product |
| GIZ | German Agency for International Cooperation |
| GROW | Guam Restoration of Watersheds |
| HI | Healthy Islands |
| HIV | Human Immunodeficiency Virus |
| IATA | International Air Transportation Association |
| IHR | International Health Regulations |
| ILK | Indigenous and Local Knowledge |
| IPCC | Intergovernmental Panel on Climate Change |
| IUCN | International Union for Conservation of Nature |
| NCD | Non-communicable diseases |
| NGO | Non-Government Organization |
| NTDs | Neglected Tropical Diseases |
| PC | Pacific Community |

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| PICs | Pacific Island Countries |
| PIDF | Pacific Island Development Forum |
| PIFS | Pacific Islands Forum Secretariat |
| PIHOA | Pacific Island Health Officers Association |
| PPHSN | Pacific Public Health Surveillance Network |
| R2R | Ridge to Reef |
| REDD+ | Reducing Emissions from Deforestation and Forest Degradation (and foster conservation, sustainable management of forests, and enhancement of forest carbon stocks) |
| RISE | Revitalising Informal Settlements and their Environments |
| SARS | Severe Acute Respiratory Syndrome |
| SDGs | Sustainable Development Goals |
| SIDS | Small Island Development States |
| SPREP | Secretariat of the Pacific Regional Environment Program |
| STEEP | Societal, Technological, Economical, Environmental, and Political |
| STI | Sexually Transmitted Infection |
| TB | Tuberculosis |
| UNDP | United Nations Development Program |
| UNFCCC | United Nations Framework Convention on Climate Change |
| UNICEF | United Nations International Children's Emergency Fund |
| WASH | Water, Sanitation and Hygiene |
| WCS | Wildlife Conservation Society |
| WHO | World Health Organization |
| WISH | Watershed Interventions for Systems Health |
| WWF | Worldwide Fund for Nature |

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