04. Resilient infrastructure for sustainable development,

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SOUTH PACIFIC

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ENGINEERING LEADERSHIP IN THE SOUTH PACIFIC

WORLD FEDERATION OF ENGINEERING ORGANIZATIONS
WFEO SYMPOSIUM, 07 MARCH 2018

CELEBRATING 50 YEARS OF ENGINEERING LEADERSHIP

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UNESCO FONTENOY BUILDING, 7 PLACE DE FONTENOY, PARIS

SUSTAINABLE INFRASTRUCTURE DEVELOPMENT AND NATURAL DISASTER MITIGATION IN FIJI

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In this context, the term ***"Infrastructure"*** means the basic underlying framework or fundamental facilities and systems, both physical (utilities) and organizational (governance) needed for the function of an economy.

The South Pacific and the Small Island Developing States (SIDS) are low in human population, widely spread out and geographically remote from the rest of the world. In the global context, normally it is easily forgotten and left out.

Nonetheless, the impact of Climate Change and frequent natural disasters such as tropical cyclones and floods have a serious financial and social setbacks on the SIDS fragile economy. Therefore, building ***"Sustainable Infrastructure and Resilience to Natural Disasters"*** is in the best interest of the national governments, the general public and the development partners, who need some level of protection of their publicly funded investment.

This brief report presents some of the recent past, current and forward works of the engineering leadership. In particular the report addresses how relevant ***UN Sustainable Development Goals (SDG's)*** are being actioned in the worlds hope to transformation.

The engineering leadership recognizes, embraces and accepts the direct relevance to the engineering profession of the ***8 of the 17 SDG's*** in the above context: SDG4 Education (Engineering), SDG6 Water and Sanitation (Public Health Engineering), SDG7 Energy (Green/Infrastructure), SDG9 Infrastructure Industrialization (Global Outlook), SDG11 Cities (100 Resilient Cities), SDG13 Climate Change (Impact & Adaptation), SDG16 Strong Institutions (Good Governance) and SDG17 Partnerships (appropriate and relevant including PPP).

The work of the engineering leadership reflects all the above SDG's.

Over the years the engineering leadership has identified the key partners in order to progress the relevant SDG's. It has built a strong relationship, visibility and identity with the national governments, academia, infrastructure owners and asset managers, national disaster management office, private sector; particularly the business community and the development partners.

In the more recent years various industry trainings and awareness have been provided.

The engineering leadership is proud to have ***initiated and engaged on "pro bono" basis with the Government of Fiji immediately after February 2016 TC Winston in Fiji whereby it provided complex technical assistance.***

Immediately after the Cyclone, some private sector engineers voluntarily undertook damage assessment including cost estimates of in excess of 2,000 school and public buildings throughout the country. Well documented reports covering each of the more than 2,000 buildings were presented to the Government of Fiji.

This is a really unique and very successful story. The quality of the work produced by the engineers convinced ***the Hon; Prime Minster to publicly announce "Adopt a School"*** Programme. Some development partners and business corporates took advantage of the Programme.

The excellent outcomes from the above led to the engineering leadership entering into preliminary discussion and negotiation with the local office of the Asian Development Bank to consider implementing in its rapid assessment process a ***"Panel of Approved Engineers"*** .

These engineers would be called at a short notice to commercially undertake damage assessment and assist with the recovery process without ***unnecessary delays and frustrations.***

Similarly, interest has been shown by the ***US Embassy's (Fiji Office) Political and Economic Chief,*** who has just written to the South Pacific Engineers Association seeking a meeting to engage in school building damage assessment post TC Winston.

It is apparent the landscape in infrastructure development is rapidly changing. ***Private sector engagement is nothing but a necessity.*** It has been seen throughout the world engineers are in the forefront of driving the necessary changes in regulations and standards in infrastructure development, all in the interest of ***"Future Proofing" and Sustainability but soundly economical.***

The engineering leadership partnered and assisted an international consultant win the contract for ***" USAID Climate Ready" Project. The Project "Pacific Islands – Building Resilience to Climate Change"*** is a 5 year project which commenced in 2017.

"Climate Ready will work with Pacific Island governments and regional stakeholders to: 1) draft and implement policies to achieve national adaptation goals; 2) access and utilize international sources of climate financing and; 3) improve systems and expertise to better manage and monitor adaptation projects.

The outcome of Climate Ready will help countries develop in accordance their national adaptation strategies". Source: USAID Climate Ready.

In the region engineering leadership is driving the quality and benchmarking of engineering offerings at tertiary institutions. In April of 2016, the regional university, The University of the South Pacific obtained its ***Washington Accord*** equivalence accreditation for its Bachelor of Engineering, Electrical and Mechanical programmes.

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Following the release of the ***"Global Infrastructure Outlook"*** (Outlook), a research and publication of Oxford Economics and Global Infrastructure Hub (GIHub), a G20 Initiative, in the third quarter of 2017, the South Pacific Engineers Association (SPEA) have taken quick steps to understand the key messages in the Outlook. The following excerpt is from the Outlook.

"Global Infrastructure Outlook (Outlook) is a detailed review and analytical tool that enables governments, businesses and infrastructure organizations to comprehensively analyze and predict infrastructure investment requirements across the globe over the next 25 years.

Globally the need for infrastructure investment is forecast to reach $94 trillion by the year 2040, and a further $3.5 trillion will be required to meet the United Nations Sustainable Development Goals for electricity and water". Although I would include the development partners as well.

"The findings are compelling. Quantifying country-level needs is a powerful and positive step. These insights will help governments identify and respond to infrastructure needs, and guide opportunities for private sector investors.

With the right information, policy leadership and supportive financing environments the investment gaps highlighted in the report can be successfully addressed"

The SPEA is now the event organizer of the international symposium ***"Sustainable Infrastructure, Successful Economy"*** – the Modern Day Challenges, details (WIP), www.speaconf.com

At the inaugural ***"Meeting of the Parties"*** which took place in the Boardroom of the Reserve Bank of Fiji (RBF) and was attended by:

the Governor of the RBF, Ministry of Economy, Ministry of Infrastructure and Transport, Infrastructure owners and regulators, National Disaster Management Office, universities, banking and insurance industry, the World Bank, the Asian Development Bank, the UN, EU, JICA, DFAT, GIH and Pacific Region Infrastructure Facility (PRIF) Sydney and other development partners and the private sector, the Meeting of the Parties endorsed the initiative of the engineering leadership and agreed this unique and first in the region international symposium be given support.

At the end of the Meeting, a “Core Group” to support the delivery of the Symposium was formed. It was agreed the Symposium would cover the following key areas of infrastructure development training:

Financing, Insurance, Planning, Management and Maintenance, Public Private Partnership, Global Outlook (Readiness), Capacity Building, Future Proofing, Technical Standards and Contracts (ADR), Lessons Learnt and Good Governance/Anti-Bribery Management Systems Standard, ISO 37001.

The professional engineering society is bound by its Constitution where it is required to advance science and the profession of engineering.

The engineering leadership has been truly active in various fronts, whilst adding a lot of value.

With hardly any resources the work of the engineering leadership is to be admired.

Regardless of the many day to day challenges, it is in the interest of the engineering leadership to continue to support all the key partners.

However, the potential to do much more and to better progress the UN SDG's in the interest of the national government, the development partners, WFEO and other partners if the following were given a thought and consideration:

1. Fully understanding the role and importance of a competent engineer in an economy and the impact on a GDP in the absence of one.
2. Recognizing the work of the engineering leadership by exploring, embracing and understanding and opening the door to regular dialogue.

3. Willingness to learn and better understand uncommon, yet important challenges in the region eg developing competent technical skills at all layers including meeting supply and the demand factoring in the skillset loss to the international communities.

4. Building a long lasting relationship.

5. In partnership identify priority areas of need.

6. Encourage and assist write “Concept Notes” to meet the expectations of the development partners in particular.

7. Provide support, including financial support to the local Secretariat.

Finally, it is to be recognized, all costs including travel to attend WFEO and other international meetings including the annual meetings over the last 10 years or so have been at the expense of the Writer.

This is not a long term sustainable or workable model.

Should the lack of support from interested parties and beneficiaries continue, the international interest from the engineering leadership in the region is likely to come to an end.

“Quality Engineering is the Cornerstone of a Successful Economy”