Research & Development & Commercialization & Innovation (R&D&C&I)

Fact Sheet

BACKGROUND

R&D&C&I is an important driver to catalyze economic growth, enhance competitiveness and improve wellbeing of the people. It provides the means to move up the value chain to produce higher value-added products and services. It also enables improvement in processes that can contribute to increase in output, productivity and efficiency, and reduction in cost. Technological advancements are now taking place at a very rapid pace, and most recently spurred by the Fourth Industrial Revolution (IR 4.0). It is critical for Fiji to improve its preparedness to adopt and apply these technologies so as not to miss out on the socioeconomic opportunities that arise from it as well as to remain relevant and competitive.

CURRENT STATUS

R&D&C&I activities in Fiji are currently undertaken mainly by universities. The are several initiatives within the government to promote R&D which reside at several ministries in particular the Ministry of Trade, Cooperatives, SMEs and Communication, Ministry of Agriculture and Ministry of Education.

Private sector investment on R&D is limited mainly to the large enterprises. To better understand the status of R&D in Fiji, it will be important to better coordinate R&D efforts and improve data gathering particularly with respect to gross expenditure on R&D, number of R&D personnel and number of patent applications which will provide an indication of the R&D capacity and outcomes in the country.

CHALLENGES

1. *Absence of an overarching governance and institutional mechanism to promote R&D&C&I.*

2. *Lack of R&D&I capacity and capability*:
   There is a need to attract and train more personnel in this field and need for open policy to attract expertise from abroad.

3. *Limited funding for R&D&I*
   Need to increase funding options.

4. *Lack of awareness and appreciation on the benefits of R&D&I.*

FUTURE POLICIES AND STRATEGIES

- **Strengthen the Policy and Strategy Framework for R&D&CI**
  - ✓ Formulate the National Policy on Science, Technology and Innovation encompassing, among others the ecosystem for R&D&C&I, priority areas for R&D, capability and capacity building, and funding modalities.

- **Strengthen the Governance and Institutional Structure for R&D&C&I**
  - ✓ Identify an appropriate Ministry to lead and undertake the function of promoting and coordinating science and technology (S&T) and public sector R&D&C&I across sectors.
  - ✓ Introduce a formal platform based on the Triple Helix Model to strengthen collaboration between academia, government and industry to spur R&D&C&I and achieve optimal outcomes.
  - ✓ Introduce a promotive regulatory framework to support and nurture R&D&C&I including a regulatory sandbox environment to test new ideas and innovation.

- ✓ Improve the database on R&D&C&I activities in the public and private sectors.

➢ **Focus R&D&C&I in strategic areas consistent with national development priorities**

- ✓ Identify, adopt and apply appropriate advanced technologies and innovation in particular IR4.0 technologies including Artificial Intelligence to:
  - o Catalyze productivity and output, increase value addition and enhance efficiency in agriculture, manufacturing, construction and services sectors.
  - o Address the impact of climate change, and manage and conserve natural resources.
  - o Improve quality and efficiency of infrastructure and public sector delivery including in healthcare and education.
- ✓ Develop specific National R&D&C&I roadmap to accelerate adoption and application of technologies related to IR4.0 and in particular AI.

➢ **Strengthen R&D&C&I capability and capacity**

- ✓ Increase emphasis on science, technology, engineering and mathematics (STEM) education starting from primary to tertiary.
- ✓ Increase the supply of R&D personnel by introducing and promoting related courses at the tertiary level.
- ✓ Design a clear career path for S&T personnel with attractive compensation package.
- ✓ Attract R&D talent from abroad by providing easy entry, flexible work permits, and possibility of permanent residence.
- ✓ Create centres of excellence on priority areas of R&D&I in local universities and equip them with appropriate R&D infrastructure.
- ✓ Establish S&T park with appropriate infrastructure facilities including office space, meeting and conference rooms, well-equipped laboratories and testing facilities, incubation centres and other facilities for the use of universities, research institutions and private sector.
- ✓ Attract and incentivize renowned research universities and research institutions to establish regional research centres in Fiji.
- ✓ Establish knowledge and R&D alliances with global R&D hubs and renowned research universities and research institutions.
- ✓ Create awareness and educating the private sector in particular the MSMEs on the benefits and economic returns from R&D&C&I.

➢ **Expand funding options for R&D**

- ✓ Increase public sector R&D funding for basic and applied R&D in areas that are consistent with national priorities. Applied R&D funding will be targeted at meeting the demand of industry and enterprises.
- ✓ Expand RISE or create new schemes to act as an effective intermediary between academia/research institutions and industry/enterprises for market driven research.
- ✓ Incentivise private sector funding of R&D through appropriate measures including tax exemptions.
- ✓ Explore the possibility of establishing a technology acquisition fund to procure critical technology from abroad.
- ✓ Explore alternative financing mechanisms including attracting foreign funding, venture capital, angel funding and crowd sourcing.