

### JOB DESCRIPTION

Job Title: Soil Scientist

**Division/Programme:** Land Resources Division, Sustainable Agriculture Program

Location: Suva, Fiji

**Reporting to:** Programme Leader, Sustainable Agriculture Program

Number of Direct Reports: 0

Purpose of Role: This position is responsible to provide scientific/technical advice to the

Pacific Island Countries and Territories IPICTs) on soil health and soil management for both atoll and volcanic farming systems. The position holder will also work closely with the Sustainable Agriculture Programme and the Research and Development Advisor and other LRD Pillars in ensuring

soil health activities are integrated across programmes.

Date: May 2023

### **Organizational Context and Organization Chart**

The Pacific Community (SPC) is the principal scientific and technical organisation supporting development in the Pacific region. It is an international organization established by treaty (the Canberra Agreement) in 1947 and is owned and governed by its 27 members including Pacific Island countries and territories. Its major focus over the last 70 years has been towards providing the Pacific islands region with essential scientific and technical advice and services. The Pacific Community's (SPC's) Vision, under the SPC Strategic Plan 2022-2031, emphasizes the need for peace, harmony, and prosperity, where all our people and communities live safe, free, healthy sustainable and productive lives.

Agriculture plays a vital role in the lives of the Pacific people. However, the sector faces challenges including vulnerability to climate change, declining soil health, poor access to quality seeds of suitable varieties and poor knowledge on sustainable farming systems. Soil knowledge is a constraint to support sustainable intensification of agriculture and resilience to future challenges. Current traditional farming systems in the Pacific Island Countries and Territories (PICTs) have become intensified and resulted in the depletion of the soil nutrient capital. Farmers face challenge to reliably ascertain which nutrients (or other factors such as diseases) are limiting production let alone recommend optimal nutrient inputs. Unsustainable farming practices further impacts productivity of farming systems. Addressing these challenges require effective partnerships and targeted training programmes to strengthen capacities of stakeholders and farmers in countries.

The position of Soil Scientist will be responsible to provide scientific and technical advice to SPC and member countries and territories on sustainable soil management across the Pacific working with various stakeholders across the Pacific.



# **Key Result Areas (KRAs):**

The position of Soil Scientist encompasses the following major functions or Key Result Areas within the SPC Land Resources Division (LRD):

**KRA 1. Coordination and Partnerships:** serve as focal point and coordinator for the SPC soil health research activities in countries and integration across LRD Pillars.

**KRA 2. Scientific and Technical Advice:** execute timely provision of scientific and technical support/advice, formulation of research strategies and activities to address soil health and crop nutrition issues in countries.

**KRA 3:** Capacity building of stakeholders: assess, identify, develop and execute training needs to support successful implementation of soil/crop improvement research activities in countries.

**KRA 4. Monitoring and reporting:** ensure research results are adopted/scaled through appropriate adoption pathways such as participatory research, advocacy, awareness and other relevant learning routes and information and knowledge platforms.

The performance requirements of the Key Result Areas are broadly described below

#### Jobholder is accountable for Jobholder is successful when KRA#1 Coordination and Partnerships (25%) Establish the governance and operational Improve governance on soil management across the pacific. structure Pacific Soil Partnership (PSP) and Identification and collation of research needs provide support for ongoing engagement and dialogue amongst members. related to soil health, soil nutrition, farming agronomic practices systems and and Provide strategic advice to LRD and the PICTs on formulation of research activities and sustainable soil management strategies for the PICTs. proposals. Diagnostic and development of guidelines on Assessment of specific research priorities and soil management models for different farming barriers to sustainable soil management in systems and in atolls. countries and formulate most appropriate Cultivate, maintain and strengthen strong research strategies and activities. Identify and mobilize partners to support operational / programmatic linkages internally and with external stakeholders and development implementation of soil improvement in the partners. region.

### KRA#2. Scientific and Technical Advice (30%)

- Lead the planning, design, establishment, maintenance, analysis and monitoring of research experiments and trials in PICTs.
- Provide scientific and technical support on the development of specific protocols for different soil types.
- Provide technical advice on the responses of crops to soil management practices such as fertilization, crop rotation, compost, organic, cover crops, and waste control.
- Provide technical support on the biological, chemical and physical properties of soil types and their spatial and variability across different landscapes.
- Provide technical advice on crop suitability for different soil types and farming systems

- Soil health research protocols developed for different soil types and landscapes.
- Development of guidelines and models for compost production for small scale producers and farming systems (including agroforestry systems).
- Soil health technologies tested for different farming systems.
- Diagnosis of soil nutrient requirements for crops are documented and promoted to stakeholders.
- Appropriate farming systems and practices promoted in countries.

### KRA#3. Capacity building of stakeholders (25%)

- Assess, identify and develop priority training programmes related to soil health management in countries.
- Execute training needs to support successful implementation of soil/crop improvement in countries.
- Provide trainings in crop production, agronomy and integrate soil science knowledge into aspects of land management practices.
- Actively coach, mentor and develop capacity of internal personnel and stakeholders on soil management.

- Targeted trainings provided to stakeholders and practitioners in target countries.
- Technical guidelines for soil management developed and techniques promoted and adopted by target countries.
- Soil Dr programme developed and mainstreamed into national extension systems.
- Learning events organised to promote research results and soil health technologies.

### KRA#4. Monitoring and reporting (20%)

- Monitor, evaluate and report on the performance of soil health research activities and contribute to scientific research papers and non-scientific reports to support programming internally and externally.
- Support ongoing soil information management to support sustainable soil management and farming systems in the pacific region.
- Liaising with key stakeholder and building relationships/networks to support scaling of research results.
- Other duties as required from time to time.

- Soil health research findings translated and disseminated to extension services and a wide range of stakeholders.
- Pacific Soil Portal hosting arrangements and ongoing development maintained.
- Soil health technologies promoted across the Pacific.
- Position papers and peer reviewed papers developed, published and promoted.
- Successful implementation of soil health research activities in target countries and timely preparation of technical reports.

The above performance requirements are provided as a guide only. The precise performance measures for this job will need further discussion between the jobholder and supervisor as part of the performance development process.

### **Most Challenging Duties Typically Undertaken (Complexity):**

- Limited research capacity of human resources and high staff turnover in some of the countries can affect project implementation especially with projects requiring technical research skills.
- Managing collaborations and liaising with stakeholders and main project partners

Working in a complex remote areas and field environment.

# **Functional Relationships & Relationship Skills:**

Key internal and/or external contacts	Nature of the contact most typical	
<ul> <li>External</li> <li>Key external contacts are:         <ul> <li>PICT Governments and other national stakeholders</li> <li>Relevant donors and development partners</li> <li>Research institutions and universities including ACIAR, CSIRO, Land Care, etc.</li> <li>NGOs and Target Communities</li> <li>CROP agencies and other regional bodies and associations</li> </ul> </li> </ul>	<ul> <li>Project implementation, reporting and monitoring</li> <li>Collaboration, partnerships and joint implementation on activities</li> <li>Technical advice</li> <li>Stakeholder engagement and advise</li> <li>Facilitation and extension</li> </ul>	
Internal  Key internal contacts are:      LRD Directorate      LRD Pillars      Technical Advisers      LRD and SPC staff	<ul> <li>Project implementation, reporting and monitoring</li> <li>Integrated approach to implementation of LRD business plan requiring closer working relationship with the other LRD programs.</li> <li>Contribute to the delivery of the Division's business plan.</li> </ul>	

# **Level of Delegation:**

Routine Expenditure Budget: EUR100,000

Budget Sign off Authority without requiring approval from direct supervisor: 0

# **Personal Specification:**

# Qualifications

Essential:	Desirable:
A master's degree in soil science or agronomy	PhD in Soil Science

# **Knowledge/Experience**

Essential:	Desirable:	
At least 10 years of experience in a similar role	Demonstrated understanding of emerging issues	
Has working knowledge of the agriculture soils in the Pacific	concerning Pacific soil problems and agricultural production constraints	
<ul> <li>Knowledge of field plot design, experimental procedure and analysis and interpretation of research results</li> </ul>	<ul> <li>Knowledge of soil survey operations, procedures and the techniques of collecting and analyzing data.</li> </ul>	
Be able to identify and diagnose field-plant-soil causal problems and appropriate symptoms	<ul> <li>Innovative approaches to productive soil adaptation for climate change, and resilience building for food and nutrition security.</li> </ul>	

•	Demonstrated ability to work ability to work flexibly and adaptively in a complex environment
	with multiple stakeholders.

### **Key Skills/Attributes/Job Specific Competencies**

The following levels would typically be expected for the 100% fully effective level:

Expert level	<ul> <li>Coordinating and Negotiations</li> <li>Analytical and problem solver</li> <li>Report writing, planning and organizing</li> </ul>
Advanced level	<ul> <li>Report writing, planning and organizing</li> <li>Research and analysis with in-depth knowledge in the agriculture sector</li> <li>Interpersonal skills</li> <li>Attention to detail and ability to meet deadlines without supervision</li> <li>Communication and responsiveness to needs of stakeholders</li> <li>Advocacy with demonstrated initiative and ability to think laterally to identify innovative solutions</li> </ul>
Workingknowledge	<ul> <li>Using data analysis software and information management systems</li> <li>SPC SP, LRD Business Plan</li> <li>Country agricultural policies and plans and national strategic action plans</li> </ul>
Awareness	<ul> <li>SPC policies and procedures</li> <li>LRD Office Procedures</li> <li>Country protocols and procedures</li> </ul>

### **Key Behaviours**

All employees are measured against the following **Key Behaviours** as part of Performance Development:

- Change and Innovation
- Interpersonal Skills
- Teamwork
- · Promotion of Equity and Equality
- Judgement
- · Building Individual Capacity

#### **Personal Attributes**

- High level of professional integrity and ethics
- · Friendly demeanor
- Demonstrated high level commitment to customer service

### **Change to Job Description:**

From time to time it may be necessary to consider changes in the job description in response to the changing nature of the work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by SPC. This Job Description may also be reviewed as part of the preparation for performance planning for the annual performance cycle.