Food and Agriculture Organization of the United Nations

5th Pacific Soil Partnership Meeting

12-13 April 2022

# National updates on soil: Samoa

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GLOBAL SOIL PARTNERSHIP

# Main activities implemented under Pillar 1

- Ongoing promotion of Magic Bean (*Mucuna pruriens*) as a cover crop during shortened fallow periods due to lack of available land
- Ongoing promotion of NFTs in root and tree crop productions
- 300 acres of coastal land (4 villages in Upolu & 2 villages in Savaii) intercropped with food and fruit trees using dynamic agroforestry technology with coconut as the focal tree crop (WB funded project)
- Use of locally available chicken manure as a fertilizer option to chemical NPK fertilizers in tunnel house vegetable productions (~180 installed on both Upolu and Savaii islands) (SCATAP)
- Need to engage in the 4 per 1000 initiative and recarbonization of global soils – how?
- No sustainable soil management policy for Samoa yet – need assistance to develop one based on scientific evidences
- Others implemented by DAFT USP Samoa Campus

# Main activities implemented under Pillar 2

- Very little investment in sustainable soil management
- Adequate coverage of soil science in secondary and tertiary education institutions' curricula (agricultural science subject in secondary schools, soil science courses in DAFT USP Samoa Campus and NUS)
- Very little communication & awareness materials
- Weak extension services in sustainable soil management for farmers

# Main activities implemented under Pillar 3

- Low priority on targeted soil research & development activities
- ACIAR SMCN/2016/111 - Soil management in Pacific Islands: investigating nutrient cycling and development of the Soils Portal – MAF → SROS
- By-product s from biogas disgestor (UNDP) & homebiogas system (IPFSA) trialed as organic fertilizers for vegetable production – *research in progress*
- Weak research (SROS)-extension (MAF) linkage in sustainable soil management activities
- MAF a member of GRA on GHG emissions from agricultural activities (crop and livestock productions) – still exploring potential partnerships
- Collaboration between MAF and MNRE on quantification of GHG emissions from agricultural activities (landuses, etc.)
- Monitoring of soil environment (contamination levels) from herbicide use on commercial taro farms – SROS
- DAFT USP Samoa Campus soil research tailored to undergraduate and postgraduate soil research topics
- Lack of formally trained local soil scientists – support from expatriate soil scientists at DAFT USP Samoa Campus but collaboration is very weak.

# Main activities implemented under Pillar 4

- Large quantity of soil chemical, physical & biological data collected by DAFT USP Samoa Campus, MAF, MNRE and SROS – need to assess quality & applicability for sustainable soil management
- Need training on how to use the Pacific Soil Portal
- Need assistance to re-engage in GLOSIS; MNRE holds all digital land & soil maps for Samoa Government

# Main activities implemented under Pillar 5

- Laboratories with soil analysis capabilities – SROS & DAFT USP Samoa Campus; soil analysis limited to soil fertility evaluations
- Need to strengthen collaboration between MAF, SROS & DAFT USP Samoa Campus on fertilizer recommendations based on soil testing
- SROS laboratories are IANZ accredited for food analysis only
- SROS involved in GLOSALAN & ASPAC Inter-laboratory Proficiency program – need support with this
- Training needs for MAF Extension Officers on basic soil science to effectively disseminate fertilizer recommendations & other sustainable soil management practices to farmers based of soil analysis results – explore a focused (informal) training with DAFT USP Samoa Campus for SROS Research and MAF Extension staff

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