



**Rinesh Sharma, director of Smart Farms Fiji Foundation, demonstrating hydroponic cultivation @SFFF**

By 2050, climate change could push an additional 32,000 Fijians into poverty and cost the country 6.5% of its GDP every year ([World Bank, 2017](#)). Fiji's agriculture sector is at risk, due to most of its prime land being located in coastal areas affected by rising sea levels, soil erosion and tidal surges. This vulnerability is exacerbated by inadequacies with the current food production systems, a lack of innovation in farming practices. The Smart Farms Fiji Foundation solution introduces hydroponic farming, an innovative, tested method to build agricultural resilience in communities that requires less water than traditional agriculture, allows greater plant diversification, and allows for easy relocation during extreme weather events. This initiative aims to improve food security at the household level, increase awareness of climate-smart farming technologies, and build resilience to climate change at the community level.



**Key achievements**

- 150 households provided with hydroponic equipment and training guidebooks to help build sustainable agricultural practices and continuous production.
- Provided households with follow-up technical support visits including a feedback mechanism to ensure continuous improvements to the initiative.
- 150 people trained in hydroponic techniques and agri-entrepreneurship with 50% female participation.
- Benefited 75 direct beneficiaries and 225 indirect beneficiaries



**Social impact**

- Promoted sustainable farming practices and community-based nutrition education to combat hunger and malnutrition in rural communities
- Enhanced farming skills and capacity, building resilience and sustainable agricultural practices for continuous sustainable production and consumption



### Adaptation benefits

- Hydroponic techniques require less water than traditional agriculture, allowing for greater plant varieties. The portability of hydroponic units enables safe storage during extreme weather events
- Utilizes cost-effective and environmentally friendly materials like coconut husks and river rocks as growing mediums



### Innovation

- Combines traditional agricultural practices with climate-smart farming, integrating next-generation technology with local cultural knowledge
- Equipment built locally in the Fiji Islands, using raw materials and labour while respecting Fijian culture and authenticity



### Replication potential

- Hydroponic systems are scalable, allowing participants to grow more in limited spaces
- Climate-smart training modules equip participants with knowledge and skills for transformative shifts to scaled-up soil or soilless farming
- Potential to further expanded to neighbouring communities through workshops



### Funding snapshot

- UNDP-AFCIA grant: \$60,000 (initial grant)



To learn more, visit [UNDP-AFCIA](#)

To watch their video, click [here](#)

To contact the initiative, visit [Smart Farms Fiji](#)