

# PACE-NET Plus Bremen Conference and Think Tanks

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## Marrying traditional knowledge and decision support tools for crop resilience in Pacific Island Countries

**PACE-NET PLUS**



PACIFIC-EUROPE NETWORK FOR SCIENCE, TECHNOLOGY AND INNOVATION

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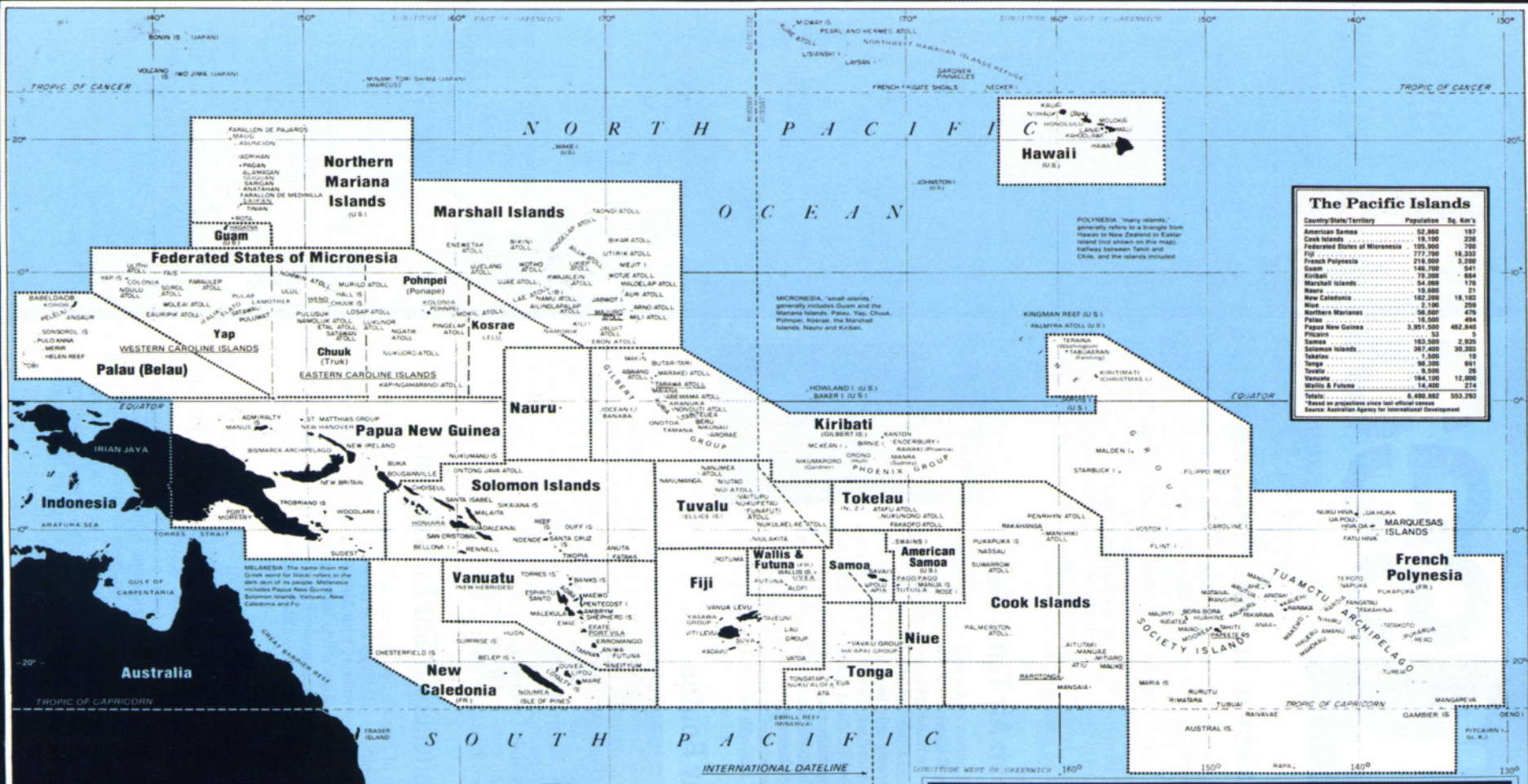


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1. Our Realities and Challenges – “If you could smell what the Rock is Cooking!!”
2. Opportunities – Think outside the Rocks and rocks



# Pacific Islands Context – The Rocks



**The Pacific Islands**

Country/State/Territory	Population	Sq. Km's
American Samoa	52,860	197
Cook Islands	18,160	238
Federated States of Micronesia	105,900	700
Fiji	777,100	18,332
French Polynesia	275,000	3,200
Guam	148,700	541
Kiribati	78,300	824
Marshall Islands	54,000	176
Nauru	10,000	21
New Caledonia	182,200	18,103
Niue	2,100	259
Northern Marianas	58,000	476
Pitcairn	50,000	494
Papua New Guinea	3,901,000	462,480
Samoa	183,200	2,826
Solomon Islands	387,400	30,380
Tahiti	1,300	15
Tonga	98,200	691
Tuvalu	8,500	26
Vanuatu	184,100	12,000
Wallis & Futuna	14,400	274
Total	8,488,882	553,290

\*Based on projections since last official census.  
Source: Australian Agency for International Development

# Background Information (PICTs)

- All developing countries
- Total Land Area (Islands) – 553,959 km<sup>2</sup> (PNG 80%)
- Ocean (LOS) – 20 million km<sup>2</sup>
- Total Population – Still counting
- High exposure to environmental, socio-economic heats
- Geo-political challenges
- Territories (French and English)
- 3 sub-regional (Melanesia, Polynesia, Micronesia)
- National, Regional, International interests



# Climate change (one of the many rocks)

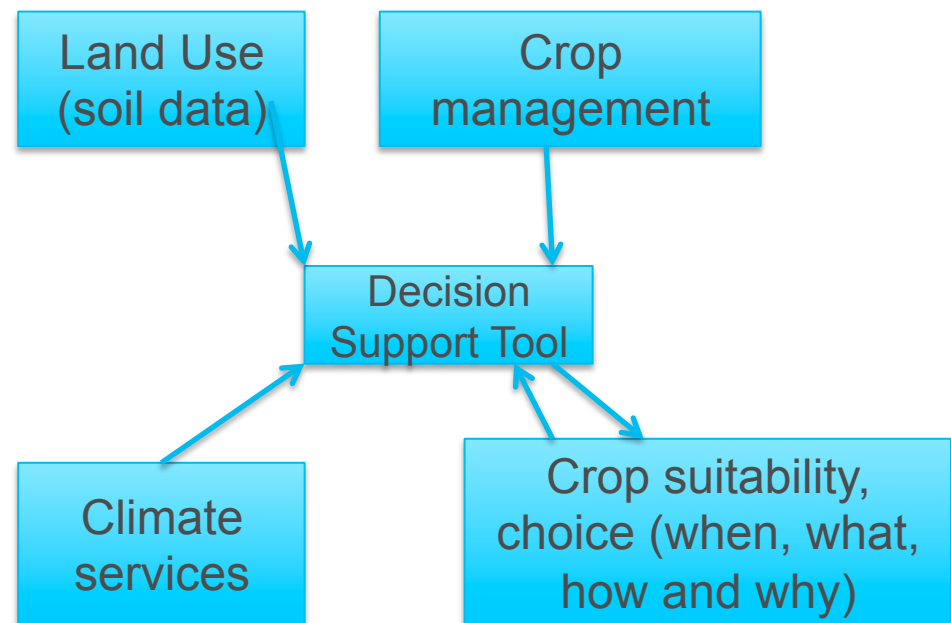
- Temperature is increasing (0.1-1°C since 1910)
- Rainfall no clear trend (but 70% rainfed)
- Sea level rise (0.6 – 2mm/yr since 1950) But level not even
- Extreme events increase in occurrence, intensity, frequency and variable distribution
- Reduction of crop growth (yield) (TK and CSM)
- Change in land use, cropping systems (TK and CSM)
- Seasonal shift (miscalculations)
- Food insecurity and loss of livelihoods (rural and urban)
- Always in a mode of recovery



# The Opportunities – Think outside the rocks

- Solution focused approach
- Identify and use the various tools – Traditional knowledge, modern science, financial mechanisms, human capacities
- Taro Leaf Blight story – marrying TK and Modern Scientific Tools
- Proposed tool – Decision Support Tool

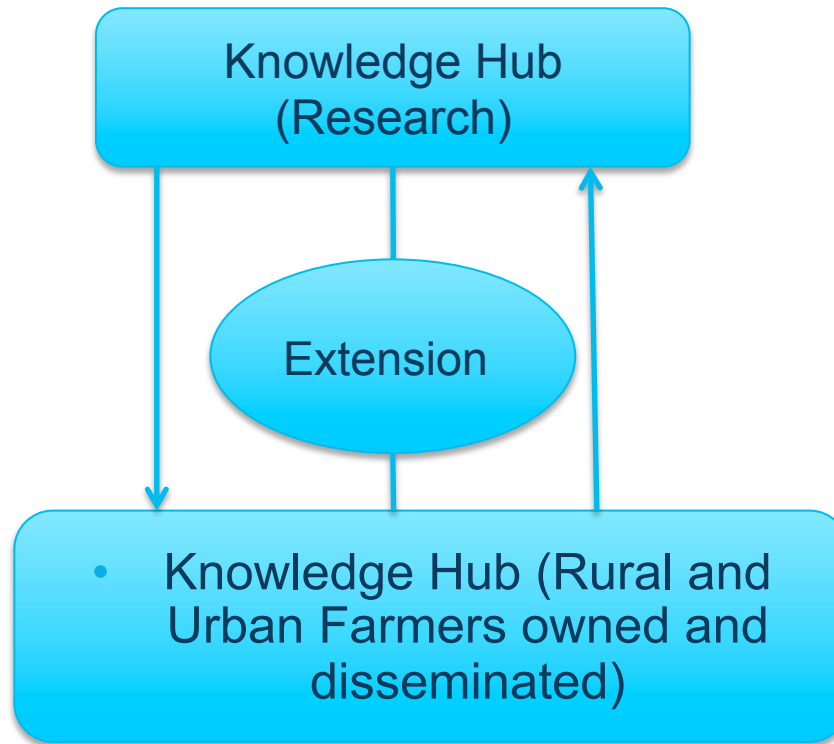
- App for decision making (Engagement)



## Research Prioritization

- **Spearhead approach** – pool resources, share responsibilities, respond or proactive, avoid duplications (sharing of lessons learnt and best practices, durable partnerships, trans-disciplinary)
- **Bush fire approach** – involvement of strategic groups, training of researchers, resourcing and drivers, sustainability
- **How could the information from research reach implementing partners/stakeholders?**

## EU Knowledge Centres – lessons learnt







## Research gaps

- **Impact analysis of community food security projects (how various food security projects at the community or national level affect the livelihood of people, are they effective, efficient, sustainable or not?)**
- **Understanding change in Land Use patterns and practices (all systems) of food production**
- **Domestication of wild crops/trees/ferns, animals that are more resilience for food security**
- **Validation, Calibration and Development of Crop models to assess impacts of Climate change and extreme events on food crops and maximize crop management options for adaptations**
- **The need to link vulnerability assessments to effective implementation (cost benefit analysis, opportunity costs)**
- **What is the real cost of food security? Fueling food security. Cost of access, availability, stability, utilization and health and safety.**
- **Are the Food Security interventions addressing the specific needs of PICs priorities or the one who “knows how to ask” gets rewarded/recognized? - national priorities (NAPA, Development Strategies etc)**
- **Assessment of National Food Security Policies (inc. legislations)**



## Final words

- Rocks and rocks existed more than 3000 years ago and they still are
- We need holistic smart approaches to act on rocks (Engagement, Marriage, Honeymoon, Children) Effective, Efficient, Sustainability
- Now is the best time to ACT
- “Challenges made men and women, men and women made nations”



# Project partners

