

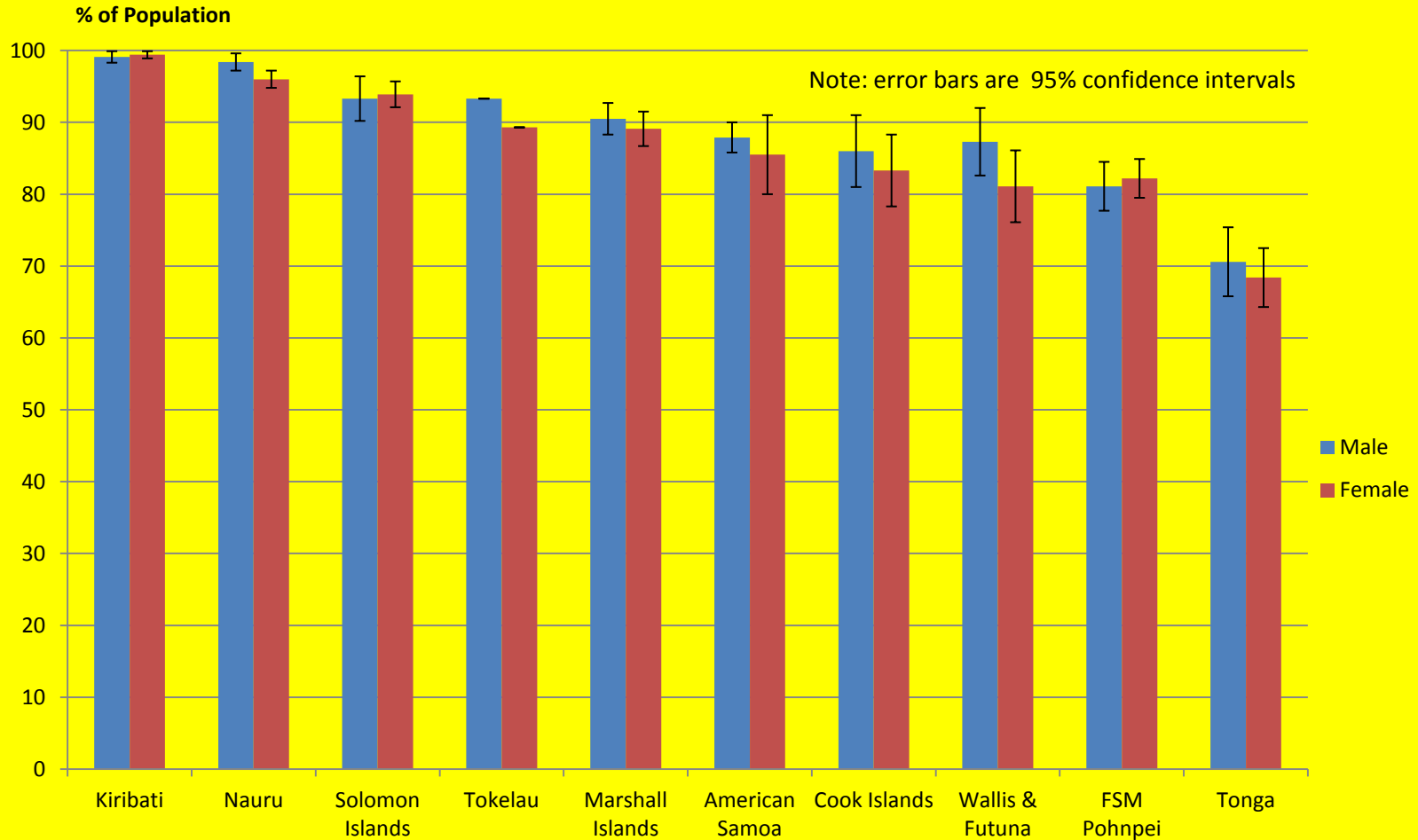


Increasing production of fruits and vegetables in the Pacific Islands

Challenges and Strategies

Current Status of Fruit and Vegetable Consumption

Low Fruit & Vegetable Consumption Age Standardised Population Aged 25-64



Source: PICT NCD risk factor STEPS reports, 2005-2010

Current Status of Fruit and Vegetable Consumption

Supply of Fruits and Vegetables in Tonga

- In 2009, the importation of nuts, fruits, preserved fruits and juice into Tonga amounted to 765.2 tons worth \$2,582,677.
- The domestic supply of fruits in Tongatapu from Talamahu market and roadside markets was 1055 tons in 2010 and 1333 tons in 2011.
- 498 tons of vegetables in 2011
- The 2009 Household Income and Expenditure Survey revealed that only 5.8% of average monthly expenditure is spent on buying fruits compared to 27.8% spent on meat and 23% on root crops and vegetable.



Challenges of getting fruits and vegetables to the plates

- Tradition – diets of Tongans and Samoans did not have vegetables, some fruits though
- Availability – much of what are promoted are cool seasonal fruits and vegetables
 - local production is a problem
- Accessibility – Samoans and Tonga live in towns and farms are on the hinterland.
 - costs
- Not bothered attitude
- Taste
- Lack of understanding – why they should eat

• Preparation

HORTICULTURE IN CRISIS

- Pacific smallholders are expert horticulturists – for food security and commercial horticulture
- But now almost all horticultural industries face ecological, economic and sustainability crisis
 - pests and diseases outbreak and declining soil health and fertility



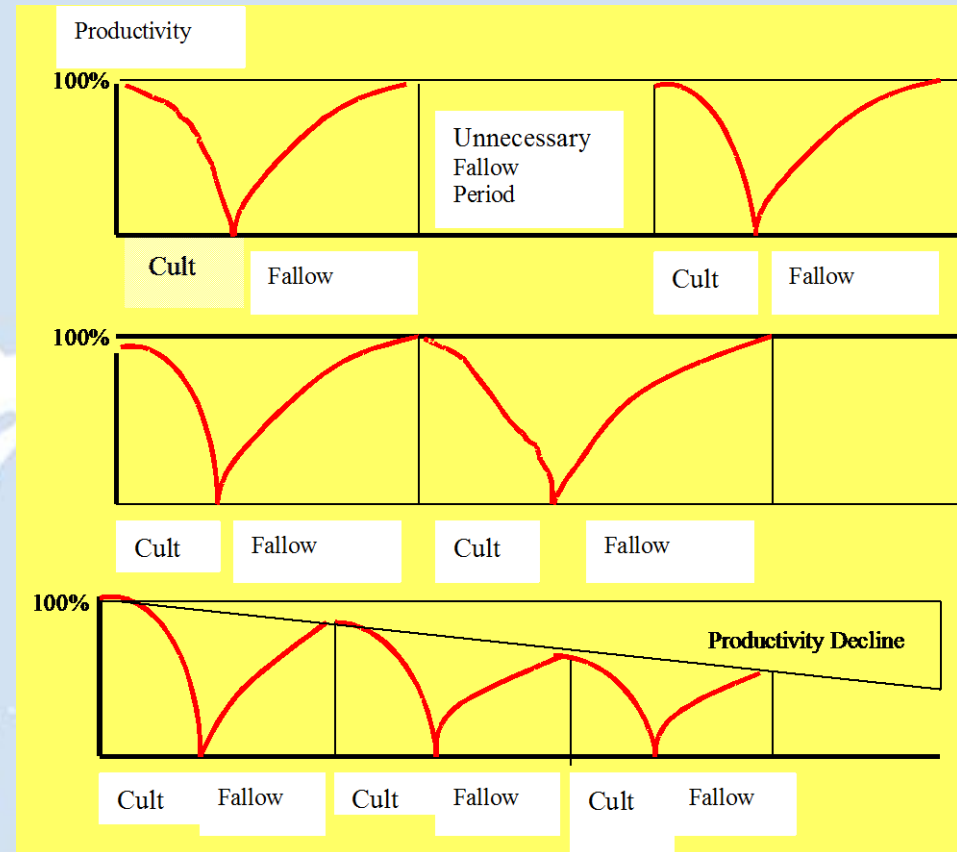
HOSTILE CLIMATE

- Average temperature and rainfall suggest a benign environment but hide temporal and spatial extremes
- Alternating cycle of El Nino and La Nina
- Extreme weather events are (?) more frequent and more severe
- Traditionally Pacific Islanders coped with these extreme weather events by having more resilient reserve crops like swamp taro, *D. nummularia*, and *D. Bulbifera* and *Amorphophalus paeoniifolius*



HUMAN FACTOR

- Shortage of skills and information support systems for horticultural research and development.
- lack of entrepreneurs ready to take up the opportunities offered by commercial Horticulture
- shortage of people with appropriate formal skills and education to offer technical support.
- traditional social system of land tenure and community obligations – shifting cultivation systems
 - traditional horticulturists are not accustomed to managing soil borne pests and diseases and declining soil fertility hence abandon land to fallow.



Conventional Technologies in a new setting

Building on the Past in Moving to the Future

- Traditional technologies may not be sustainable anymore in the new setting but still are basis for developing sustainable innovations.

- ***compost mounds and organic matter gathered into pits***



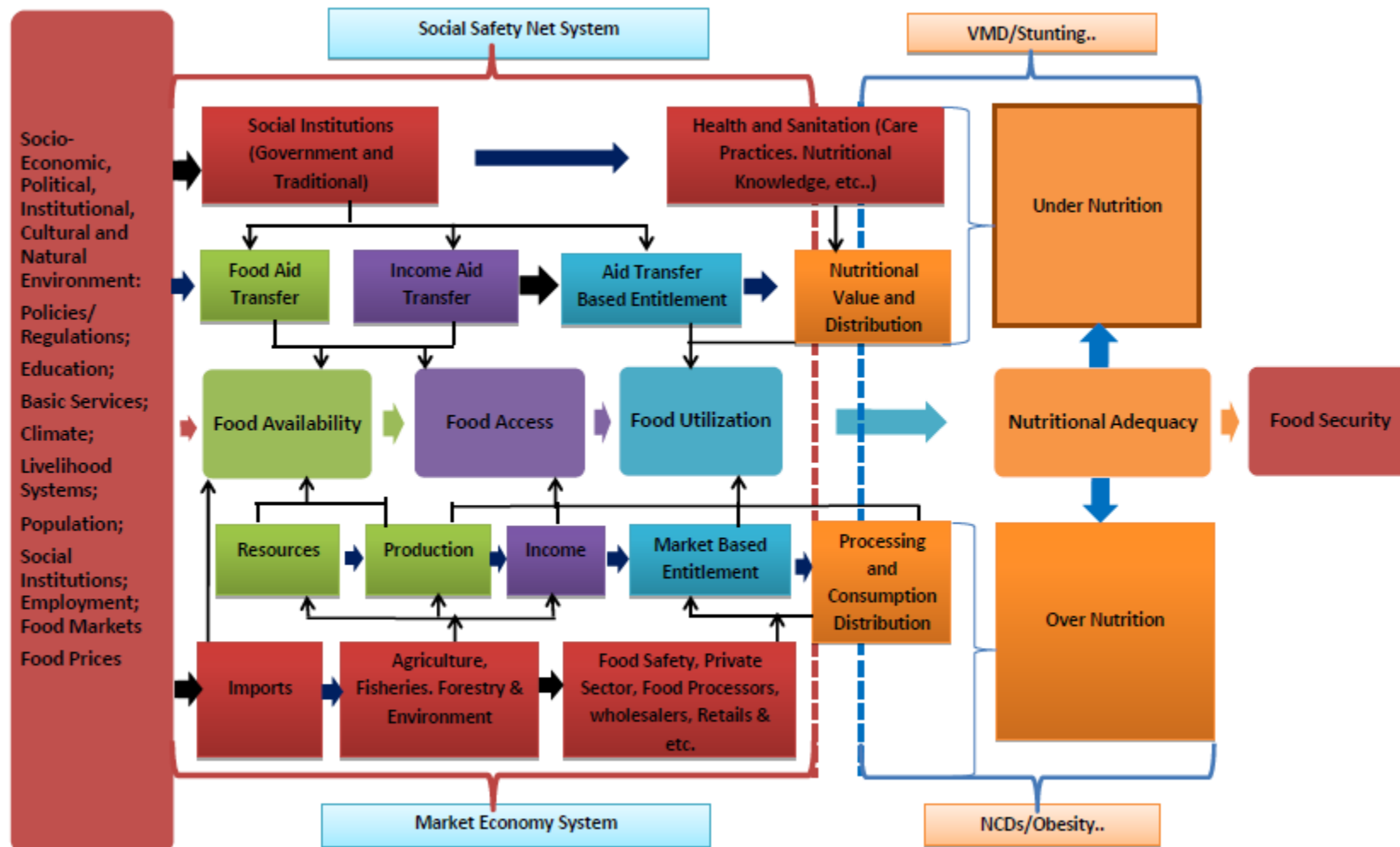
- **traditional hot treatment of yam planting materials**



What SPC is doing?

SPC's new integrated approach to food security and NCD

Food Security/NCD One Pager Concept



What SPC is doing?

To provide more reliably productive crop cultivars that are resistant to locally prevalent pests and diseases and adapted to Pacific climates.

CePaCT – traditionally vegetatively propagated crops supporting the - Go Local

- **Western vegetables**
 - market often too small to interest commercial seed suppliers
 - government research and extension services lack the systems to test, register and disseminate new cultivars



Seed saver in Tonga



What SPC is doing?

With ACIAR

Tomato breeding plot in Sigatoka



Trialling drip irrigation



Protective cropping



Mucuna in soil health



Compost making in Kiribati



Taro breeding in Samoa



PARDI Cocoa in Vanuatu



What SPC is doing?

With USAID



What SPC is doing?

Support urban food production



What SPC is doing?

IACT Supporting Processing, marketing and trade



What SPC is doing?

SPC PHD Nutrition activities

- Developing tools and guidelines to support schools in developing healthy school guidelines which will have a strong emphasis in promoting local F&V intake.



Nutrition in Fiji
September 23 at 11:00am · 🌐

Pawpaws are everywhere! Though sometimes we can take this humble fruit for granted, so while it has all the vitamin A we need many Fijians are vitamin A deficient! Grab one today- your body will thank you

Pawpaw

Weleti | Papitā

Applied on the skin papaw has been used to help relieve bee stings and mosquito bites.

Pawpaw contains the enzyme **carpain and papain** to help with healthy digestion.

Just one 100g slice of pawpaw contains 32% of a women's daily vitamin A needs.

Only 20% of Fijians are eating enough Vitamin A everyday.

Conclusion

- **It is easy to say eat 5 servings of fruits and vegetables a day**
- **This may involve changing ‘hearts and minds’, both among smallholder producers, consumers, and key stakeholders - and will involve an intensive and innovative extension and education effort, a special effort to understand local social and economic constraints, and plenty of time to introduce new knowledge and to change attitudes.**