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Vorkshop

noa Int. Nadi, Fiji



# Status of coastal fisheries resources in the Pacific Island Countries and Territories

### Introduction

Scaling up Transposition à grande community-based échelle de la gestion fisheries management | communautaire des pêche





- Importance of coastal fisheries
- Their status
- Threats
- Gaps in our understanding
- The role of community-based fisheries management
- Conclusion

### Importance of Coastal Fisheries







# Status of Coastal Fisheries: regional picture





- Contribution to economies of Pacific (Gillett and Fong, 2023).
  - Collected data from across the region.
  - Regional per capita supply of coastal fish in 2021 was 13.8kg, declined from 16.1kg in 2007

### • FAO status report, 2018

- Aggregated information from previous reports
- "Despite the importance of data on coastal fisheries, the reality is that in the prioritization of scarce government funding, the ongoing, routine collection of fisheries data has not received much priority"

### Status of Coastal Fisheries: Finfish

#### **Mixed status**

0.3% to 20% of available finfish biomass being caught across the region per annum *(SPC 2008)* 



Solomon Islands. Andrew Smith, 2007





**Solomon Islands 2014-2018:** 16 species, mixed stock status, mostly in good health (spawning potential ratio=0.41), localised depletions from night spear-fishing (*Prince et al., 2020*)

**Fiji 2016-2018:** over half assessed species were depleted (17/29), 14 of which were severely depleted. 12 in relatively good status. (*Prince et al., 2020*)

**Palau 2019:** eight species studied. Two depleted, but four species showed improvements in stock status from 2017-2019. (*Muller-Karanassos et al., 2021*)

**Bora-bora, French Polynesia, 2022**: fishing is responsible for more than 50% of fish mortality in six of the ten studied species. (*Gatouillat et al., 2024*)

**Guam 2023**: two species with depleted stock status out of seven studied, four more showed lower stock statuses (but not fully depleted). (*Ahrens & Nadon, 2023*)

### Status of Coastal Fisheries: Sea Cucumbers

Many national studies show depleted status of sea cucumber stocks



Fiji, Kalo Pakoa, 2012

Exports of beche-de-mer in Melanesia (PNG, Solomons, Fiji, Vanuatu and New Caledonia) have **declined** from peaks of around **2,000 tonnes in the 1990s to less than one fifth of that in 2017** (*Govan 2017*)

Vanuatu 2019-2020: abundant and diverse sea cucumber populations (Ducarme et al., 2023)

**Samoa 2019:** densities of most species have not improved since 2005. *H. atra* and *S. chloronotus* densities are below regional references. *(Shedrawi et al., 2021)* 

**Solomon Islands 2021:** Lord Howe Atoll, most surveyed species are depleted below reference densities (*Shedrawi et al., 2022*)

**Tonga 2019:** population densities not high enough in 2019 to support a fishery (*Shedrawi et al., 2020*)



### Status of Coastal Fisheries: Molluscs

#### Lack information across the Pacific for many molluscs



George Shedrawi, 2021

#### **Giant clams**

Resilience of a giant clam subsistence fishery in Kiribati to climate change

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Climate variability and massive mortalities challenge giant clam conservation and management efforts in French Polynesia atolls

Pacific

Community

Communauté

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Trochus Based on crude estimates, annual production in the region appears to have fallen from 2300 t to 1400 t in 25 years, a drop of about 39% (SPC 2020)

**Octopus** One review shows importance of species and spread of fisheries in the Pacific *(Loganimoce et al., 2023)* but no recent monitoring on stock status have occurred



Lack information across the Pacific for many crustaceans

Some declines reported in status of coconut crabs.



Kiribati, SPC, 2006

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**Lobsters** One recent stock assessment of lobsters in the Fiji (*Tukana et al 2023*), status differs between species.

**Mudcrabs** one SPC Mudcrab report in Pohnpei shows sustainable status of this species (*Halford et al. 2020*)

#### **Coconut crabs**

Loganimoce et al., 2021 refers to undocumented declines in Fiji

Declines in status of resource in Wallis & Futuna, 2017 (Bosserelle et al., 2017)

Absence of larger crabs warns at decline of resource in Niue in 2014 (*Helagi et al., 2015*)

High coconut crab densities where fishing pressure is regarded as low, Cook Islands. (Kora & Munro, 2020)



Threats

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### **Climate change**

# Overfishing

## Filling gaps in understanding







- Harnessing digital tools and approaches to collectively fill the data gap.
- Are there species of shared regional importance we can focus on as 'indicators' of the general effectiveness of coastal fisheries management?
- Rapid assessment techniques





Sustainable well-managed inshore fisheries, underpinned by community-based approaches that provide food security, and long-term economic, social and ecological benefits to our communities A New Song for Coastal Fisheries.

### Conclusion





- Coastal fisheries are immensely important
- Mixed status of fisheries some heavily exploited, some healthy, but it differs from place-to-place and species-to-species.
- Threats to fisheries = threats to livelihoods and food security
- Fisheries monitoring and assessment is essential for effective management, and contributes to regional understanding of the status of fish stocks



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# Thank you

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