Moving Towards Market Based and Incentive Based Approaches for Tuna Management in the Western and Central Pacific – The case of the Parties to the Nauru Agreement (PNA).

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Purse Seine Fishing

• **Problem**: Purse seine overfishing

• PP and LL catch (yellowfin and bigeye) are constant but PS bycatch is increasing

• PS Vessel no. increase from <200 (1995) to almost 300 (2013).
PNA Background

- Parties to the Nauru Agreement – 8 tuna-rich PICs (1982)
- >50% of the World tuna supply
- PNA response (Market and Incentive Based Approaches)
- Supported by the FFA and WCPFC
Research Questions

1) Why and how PNA has shifted towards incentive based and market based mechanisms; and

2) how this shift has affected the level of cooperation and enhanced fisheries regionalism in the Pacific?
New Institutional Economics (NIEs) Framework

Why?
- Economics, Political Science, Sociology and anthropology for collective action (Paavola, 2007)

NIEs recognizes:
- Political aspirations, values, and motivations of agents.

NIEs complements:
- Regulatory framework, Command and Control and Ecosystem Approach
Data Collection

- Qualitative Analysis - Literature Review, Interviews and Observations

- Meetings Attended (Dec 2013 to March 2014)
  - 10th Regular meeting of the WCPFC
  - 3rd meeting of VDS and Scientific committee
  - 33rd meeting of the PNA
  - 19th Meeting of the Parties to the Palau Agmt.
  - 19th Meeting of the Parties to the FSM Agmt.
PNA response to PS Vessel Increase

• 1992 Federated State of Micronesia Arrangement (FSMA) – Domestic Investment and preferential arrangement

• 1994 Palau Agreement – set limit to 205 PS vessels (Input based Approach)
• By 2000 FSMA and Palau Agreement Failed to reduce PS fishing effort

WHY FAILED? = Lack of Incentive, transparency, acceptance, lack of opportunities offered by DWFNs, lack of domestic infrastructure
Emergence of Vessel Day Scheme

• 2007 Vessel Day Scheme (VDS) was adopted to replace 205 vessel number under the Palau Agreement (Output based).
• Implemented from mid 2012
• Market and Incentive Mechanism
• Restrict fishing effort through Limited Days (PAEs)
• Purpose – To create competition for vessels – Increase benchmark Price, Eliminate inefficient vessels
• Long Term Objective – Improve fishing efficiency
Emergence of PNA MSC Certification

• 2011 PNA was granted MSC certification

• Market and incentive based and Output based approach.

• 2013 Chain of Custody and Eco-Label
  - PS Non-FAD/Free School
  - Target – Skipjack
**Conceptual Framework**

**OUTCOME:** Effective OR Ineffective fisheries regionalism and Cooperation for Sustainability

- **Regionalism – RFMOs (WCPFC, FFA, SPC, PNA)**
  - 1970s-1980s
  - Late 2000s

- **Regulatory Regime Based Approach** (Fisheries instruments – LOSC, UNFSA, FAO Compliance Agreements, etc)

- **NIEs – Market and Incentive Based Approaches** (VDS, MSC and ecolabelling)

- Complex dynamic political interest

- Complex market driven principles
Empirical Findings

Implications of VDS
• Parties acknowledged the economic benefits gained from VDS.
• Integration of tuna regimes – for consistency

Implications of MSC
• Parties are encouraged to support and participate in MSC.
Factors influencing Tuna Regimes

• Regional Internal Pressures:
  - VDS Price, Power Struggle/ Relationship, Domestic development aspirations, Local political interest.

• International External Pressures:
  - Market, Foreign debts, EU and US, Non-MSC Certification bodies

• Regional Obligation and Private and NGOs
WHAT NEXT?

• Analyse the effectiveness of VDS and MSC using game theoretical approach.

• To what extend these tuna regimes influences cooperation level and fisheries regionalism in the Pacific.