## SEEA Flow Accounts for Fisheries: Experiences from the Seychelles

22nd London Group Meeting in Oslo, Norway 28-30 September 2016 Session D, Item 15 Julie L. Hass, Ph.D.

#### 3 Topics for discussion:

- Inconsistencies between FAO Fish statistics, Trade statistics for fish and National Accounts /BoP
- Physical Supply and Use Tables of SEEA-AFF vs.
   SEEA-CF 2012 PSUT. Why is a new format proposed?
- Need for defining fishing and fishing related activities

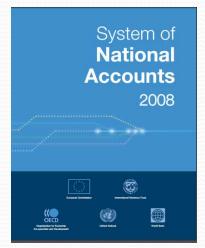
   for economies where fishing is important (for example, SIDS small island developing states)

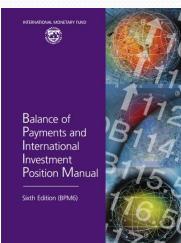




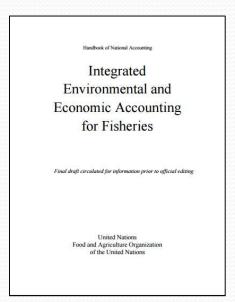


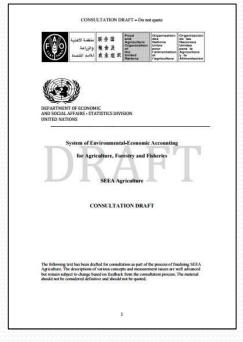
#### Relevant manuals...



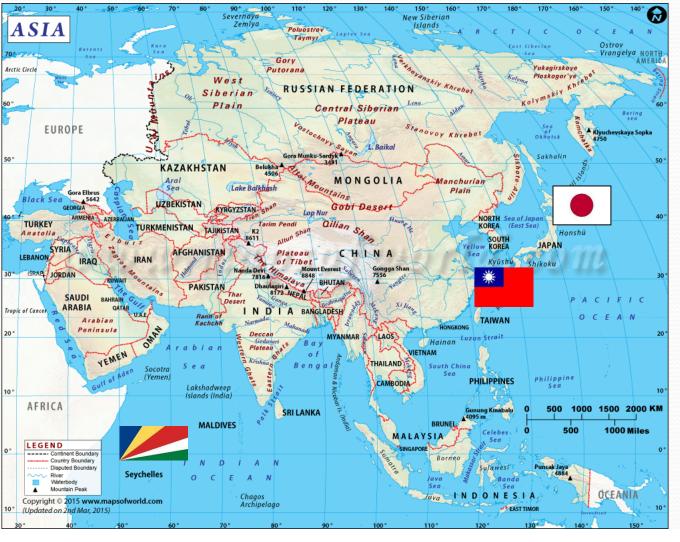








#### Example from the Seychelles...



- Fishing Vessels:
- Ownership: Taiwan R.O.C.
- Registration /Flag: Seychelles
- Landings in Japan

### How are these activities recorded? In the internatinal trade statistics...

- Trade statistics record according to vessel registration (also called 'flag')
- Trade Statistics for Japan... Imports from Seychelles
- Trade Statistics for Seychelles... Since the fish were landed from the vessel directly to Japan, customs in Seychelles was not involved – so there is no corresponding export from Seychelles to Japan.



### How are these activities recorded? In FAO's fish statistics...

• For FAO reporting:

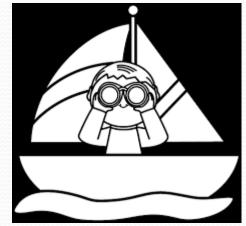
 Similar to the trade statistics... landings are recorded according to flag of fishing vessel – so imports to Japan from Seychelles with no mirror export from Seychelles

to Japan.



### How are these activities recorded? In the national accounts...

 Seychelles has the responsibility to monitor all vessel activities for vessels registered (flagged) in the Seychelles.



- The economic activities of the fishing vessels are to be recorded to the country where they are considered «resident» which typically is country of ownership.
- In this case... Taiwan.



#### To summarize...

- There are imports to Japan from Seychelles
- There are NO exports to Japan from Seychelles
- There is no economic activity recorded for the vessels in the Seychelles so no economic activity that would be connected to the imports to Japan from the Seychelles.
- The economic activity for the fishing vessels is recorded in the national accounts for Taiwan but there are no exports from Taiwan related to this activity.

#### Other challenges...

- Fish caught in Seychelles EEZ should be considered 'national production' (SNA) but if a foreign-flagged fishing vessel catches the fish and lands them in the Seychelles, customs and trade statistics consider them as 'imports' from the country of the vessel's flag.
- Transshipments occur when a catch is transferred from one ship to another. Can be fish caught in Seychelles EEZ so national production. But there is a transfer of cargo, without going through customs Cargo ship may not be the same ownership or flag of the fishing vessel.

# Need to make some clear recommendations for countries to follow?

# Topic 2. SEEA-CF PSUTs vs. SEEA-AFF SUTs

#### SEEA-CF: Physical Supply and Use Table

#### - extended to include the environment)



of natural inputs ment inputs Total supply **Products** Output **Imports** of products Residuals Residuals Residuals Residuals Total supply generated by generated from scrapof residuals industry by final ping and household demolition of produced consumption

Use table					
Natural inputs	Extraction of natural inputs				Total use of natural inputs
Products	Intermediate consumption	Household final consumption	Gross capital formation	Exports	Total use of products

assets

Residuals Collec-Accumula-Residual Total use of tion and tion of waste flows direct residuals treatment in controlled to environof waste landfill sites ment and other residuals

https://unstats.un.org/unsd/e nvaccounting/seeaRev/SEEA CF Final en.pdf

Note: Dark grey cells are null by definition. Blank cells may contain relevant flows, which are explained in detail in chapter III.

#### SEEA-AFF SUT (Supply)

SUPPLY TABLE		Output								Imports			
22/07/07/07/07		Capture fisheries		Aquaculture		ė	Other catch				1	Total const.	
		Gross catch	Discarded.	Nominal catch	Harvest	Harvest loss	Nominal		Total Output	Food use	Non-food use	Total imports	Total supply
Fish and other aquatic	products												
Fish	Freshwater fish Diadromous fish Demersal fish Tunas, bonitos, billfishes Other pelagic fish Marine fish, other												
Crustaceans													
Molluscs	Cephalopods Other molluscs excl cephalopods												
Aquatic animals, other	Marine mammals Reptiles Other aquatic animals Pearls, sponges and corals												
Aquatic plants, algae	Algae Macro plants								9				

#### SEEA-AFF SUT (Use)

USE TABLE		Intermediat	e consumption	Household final consumption			Changes in inventories		Exports			
		Feed	Other uses	Food consumption	of which: Food waste	Other uses	Post- harvest/catch losses	Other changes	Food use		Total Exports	Total use
Fish and other aq	uatic products											
Fish	Freshwater fish Diadromous fish Demersal fish Tunas, bonitos, billfishes Other pelagic fish Marine fish, other											
Crustaceans	marine ion, other											
Malluscs	Cephalopods Other molluscs excl cephalopods											
Aquatic animals,		1										
other	Marine mammals Reptiles											
	Other aquatic animals											
	Pearls, sponges and corals											
Aquatic plants,	2.50576											
algae	Algae Macro plants											

#### SEEA-CF PSUTs vs SEEA-AFF SUTs

- Differences...
- AFF SUTs do not explicitly include the environment
- Discarded catch is recorded by species (which is not possible) and included in «supply» table
- By catch is not really a product in SNA terms so why is it included in the supply table?
- Statistics are stronger on supply than on use but when trying to develop 'use' – most 'waste' was used for fish meal
- Hard to identify the roles of industries (fishing, fish processing) and households with the AFF SUT.

## Why not use the SEEA-CF PSUT in SEEA-AFF?

#### Activity Accounts for Fish

#### **Need Activity Accounts for Fishing**

- Countries where fishing is a substantial activity in the country, it is important the fishing activities and the fishing-related activities are identified in separate accounts (like tourism satelite accounts).
- SEEA-AFF (2015 draft) by design only proposes very limited activity accounts for fishing.
- The IEEA-F (2004 also known as SEEA-F) makes more extensive recommendations but these are outdated due to revisions to ISIC and other product and activity classifications.

#### Consider updating IEEA-2004?

- Need to include recommendations on...
- Fishing and related activities from ISIC
- Taxes, subsidies, license fees, tradeable permits
- Resource management and environmental protection expenditures (by CEPA and CREMA)

 The OECD advocates establishing comprehensive satellite accounts – which og beyond fishing...



Need updated guidelines for countries to follow for establishing activity accounts for fishing!

## Thank you for your attention!



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