AGENDA 10
STRATEGY TOWARD INTEGRATED FISHERY AND AQUACULTURE DATA COLLECTION FRAMEWORK

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Quick look back of APCAS discussion on this:

- APCAS-23:
  - Recommendation to disaggregate fishers/ fish farmers from agri-farmers in population/ agricultural census
- APCAS-24:
  - Many members reported their collection of fishers/ fish farmers number within WCA-2010 framework
  - Recommendation for FAO to develop a strategy to link census data to improve regular FI/A statistics
- APCAS-25:
  - Overall concept of strategy of improving FI/A statistics by integrating existing data collection systems

Importance of the Region in the World

- Producer of majority of global fish production:
  - 69 % of global fish food and 97 % of sea weeds and algae production
  - 60 % of marine production and 88 % of inland production
  - 56 % of capture production and 89 % of aquaculture production
- Food security:
  - Consume 68 % of global fish food supply
  - Almost exclusive consumption of sea weeds
    - Region represent 57 % of global population
- International trade:
  - 37 % of export; 31 % of import; both in value

Importance of fish in the Region

- For food, fish provide :
  - 24 % of animal proteins and 8 % of total proteins;
  - Bangladesh, Cambodia, Indonesia, Sri Lanka: over 50 % of animal proteins
  - Fiji, Japan, Korea, Lao, Malaysia, Myanmar, Philippines, Viet Nam: over 1/3 of animal proteins
  - This may be substantially under-estimated
- In international trade: :
  - Fish accounts 20-30 % of export and 15-25 % of import of food trade in value
  - Share decreasing, though amount of trade increasing during the last decade
  - Fish and fishery products earns USD 5.1 billion in 2009

Weakness/ difficulty in FI/A statistics

Major points of weakness of FI/A statistics (general):

- Over-emphasis on production/ stock evaluation data
- Over-emphasis on industrialized/ large-scale/ commercial activities
- Less attention on non-food aquatic production (e.g. ornamental, algae for food as well as industrial use, corals)

In this Region, FI/A is common practice for everyone

Reality of small scale FI/A operations:

- A part of many activities engaged, e.g. agriculture (esp. rice-field cultivation), fish restaurants, tourism
- Often non-commercial – subsistence, communal, direct inputs local food vendors/ manufacturers / tourisms
- Often only seasonal and exist everywhere water bodies exist

Proposed solution – FI/A data integration framework

Situation:

- Challenging for statistical monitoring
- Some information available but only partial and not comparable

>> Establish FI/A standard data integration framework

Basic principles - targets:

- ✓ Build upon *existing* data collection systems and activities
- ✓ Focus on *better understandings* on relative roles of *small scale operations*
- ✓ Cover *social, economic, food security* and natural resource use aspects - support tools for fact-based management with ecosystem approach (e.g. Blue Economy)
- ✓ Link with national statistical systems – SNA/ SEEA/ censuses

Proposed solution – FI/A data integration framework (cont.)

Concepts:

- Common conceptual framework – Core data frame
  - Define a full range of data needs as [structural data] and [ratio data]
  - Standardize concepts throughout whole data collection systems (incl. statistical, administrative, managerial, research etc)
  - Identify opportunities and holes in data collection
- Each data collection system, i.e. survey module, to fulfill a part suitable for its own purpose
- Integrate data and get overall picture

Possible survey modules

Census surveys:

- One-time nation-wide snapshot for both structural and ratio data
- Full picture including small scales, subsistent, secondary engagements
- Act as a scale for inter spatial/ inter components imputations

Regular surveys/ fishery management:

- Continuous regular observations of time trend at selected spots
- Detailed information more focused on commercial activities
- Act as a scale for time trend of productivities, economic

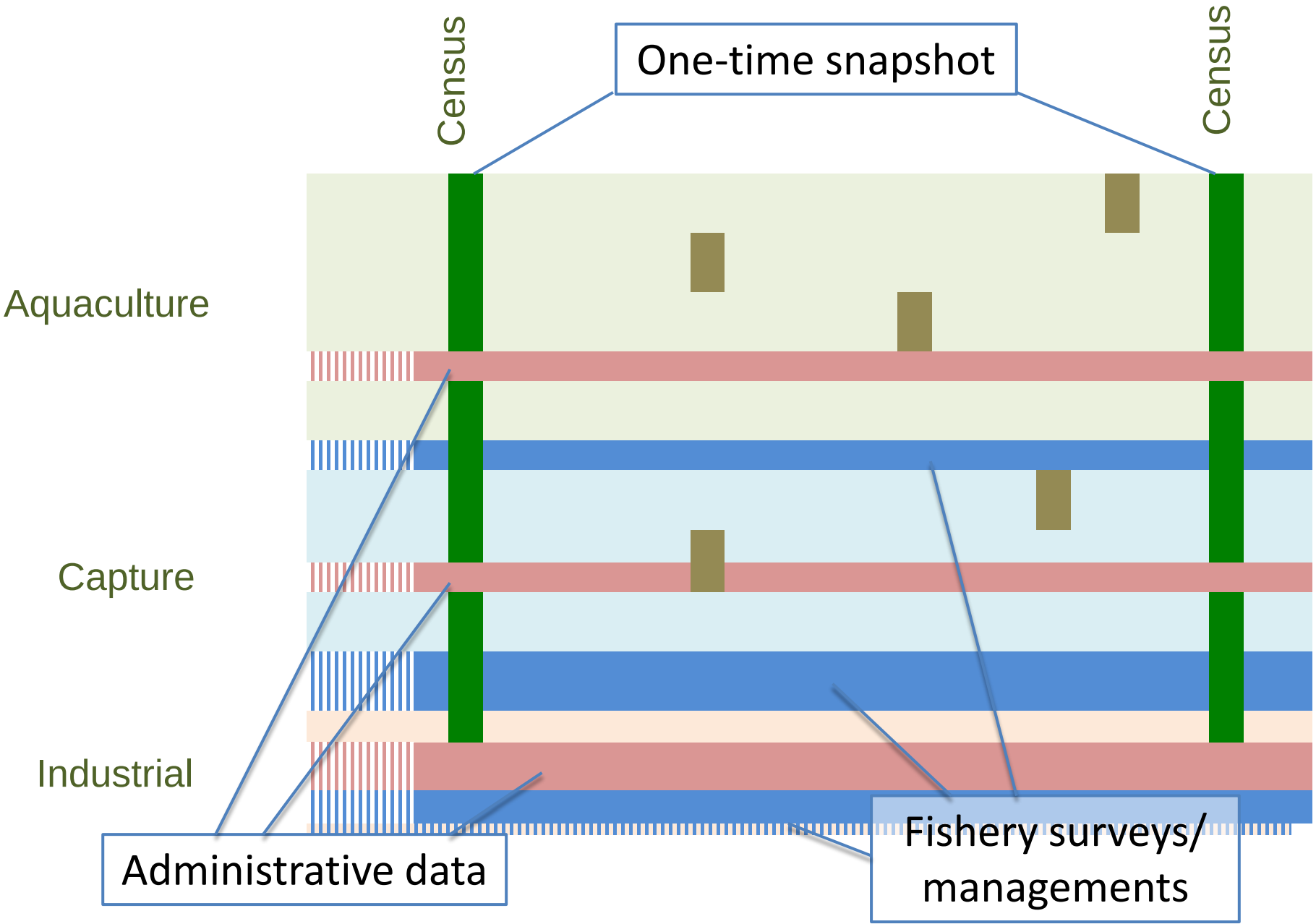
Administrative/ License data:

- Time trend in structural data of controlled components
- Act as a scale for time trend of structural data

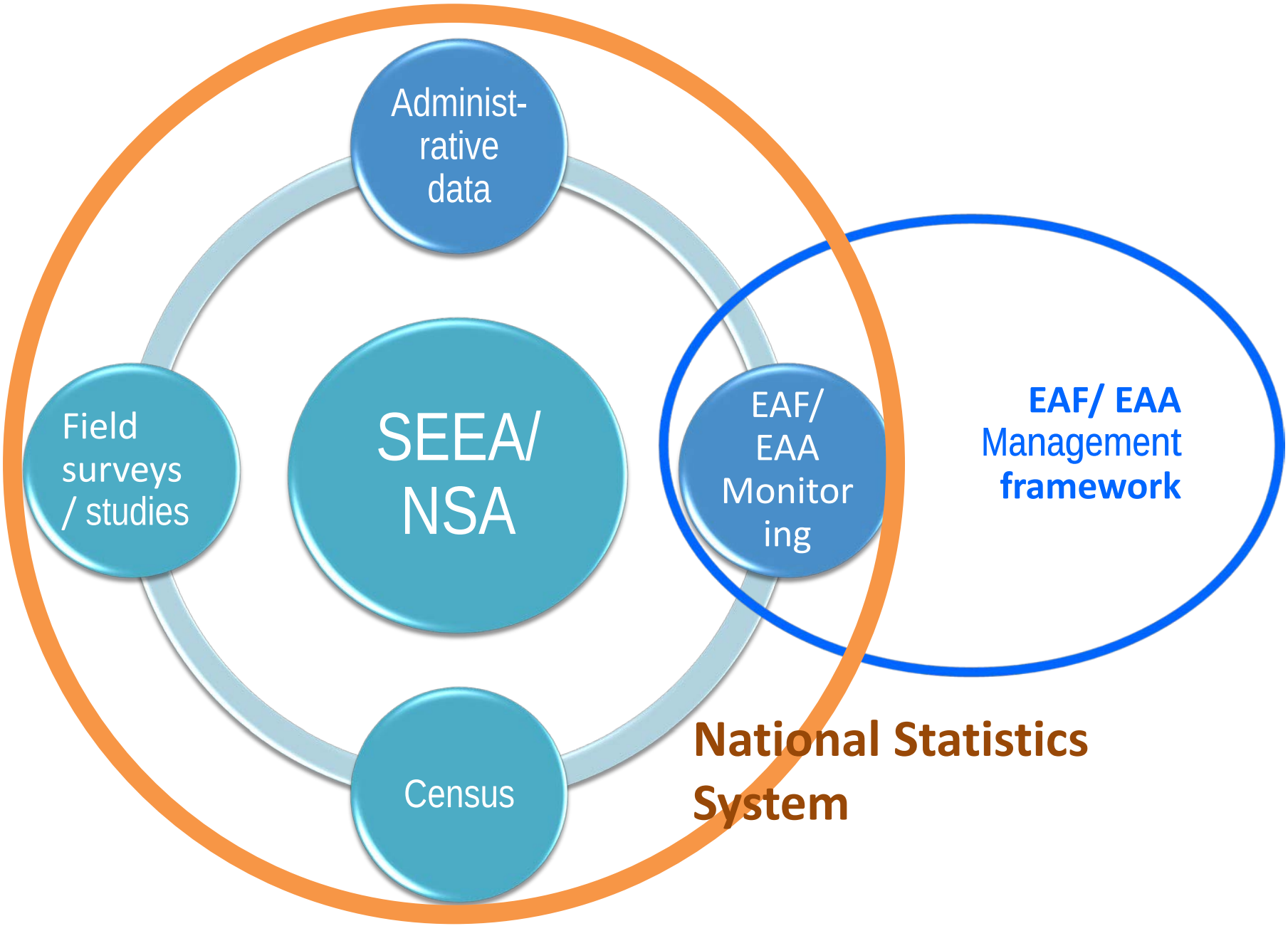
Field surveys/ case studies:

- Ad-hoc spot data for imputation adjustments

Coverage of different surveys



Overall structure:



Core data frame (draft)

Targeted information

- Natural resource (fish and water) management
- Livelihood and Food security
- Cash earning and non-monetary
- Position and relation within a whole community
- Monitoring throughout whole product chain
- Subsidies, taxes

Comparability with other sectors' information

- Pollution, degrading natural environment, diseases, bio-hazards
- Water access, marketing, job opportunities, traded products
- Urbanization, tourisms

What needed for actual implementation?

- Define priority areas to monitor
- Review and stock takings of data collection opportunities in comparison to relevant components of core data frame > Define National central core data frame
- Adjust existing system to enable data link with national central core frame:
  - Enhancement of administrative
  - Direct use/ report of disaggregated raw data
  - Effective use of GIS, satellite imageries, etc

Current status

First draft will be ready soon for review and feedbacks:

- Concept note and proposal for core data frame
- Revision of guidance and questionnaires for census survey modules for aquaculture survey module
- Draft guidance and questionnaires for census survey modules for capture fishery

Activities planned for 2014

- Transforming EAF/EAA indicators related tools in a comparative format with FI/A integrated data framework
- Case studies of utilization of satellite imageries as aquaculture and inland capture structural data

Field experiments: 2014/2015

- Seeking for interested national partner(s)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THANKS FOR
YOUR ATTENTION

Link into Core data frame - principles

When measurements available:

- Whenever measurements available, utilize actual measurement
- When multiple measurements available;

  Ratio data: regular > census > ad-hoc

  Structural data: census > administrative > regular > ad-hoc

For imputation:

- Pro-rata interpolation
- Direct imputation > imputation with productivities * structures
- When multiple information available;

  Administrative / census > ad-hoc