Towards a coding system for Water Jurisdiction Areas

CWP ad-hoc Task Group on “Reference harmonization” (TG-RH2)

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Context

• ToR of the CWP ad-hoc Task Group on “Reference harmonization for capture fisheries and aquaculture statistics” (TG-RH2)

• Better characterizing of national jurisdiction areas (NJAs) by opposition to Areas Beyond National Jurisdiction (ABNJ)
  • To refine statistics reporting
  • To improve information management (e.g., Stocks & fisheries)

• Enforcing and combining existing international standards
  • UNCLOS terminology, already reflected in CWP website
  • Standards for country & territories:
    • ISO3, widely used by UN (e.g., UN Geospatial) and regional organizations
    • M49 – for statistical use, promoted by UNSD

• In general lack of material officially stamped by UN
  • National jurisdiction areas are by nature geographic areas, subject of changes, claims and conflicts = highly sensitive information
  • No recommendations / guidelines from UN Geospatial
  • Only one relevant source – Marine Regions – maintained by VLIZ
UNCLOS Terminology for water areas

• Alignment with existing UNCLOS (1982) terms and definitions, when possible, already promoted in CWP website
  • National jurisdiction areas
    • Internal waters and archipelagic waters (IW)
    • Territorial Sea (TS)
    • Contiguous Zone (CZ)
    • Exclusive Economic Zone (EEZ)

• Areas beyond national jurisdiction
  • International waters / High seas (from Convention of High seas, 1958),
  • More recently referred as:
    • water column beyond the EEZs (UNCLOS, 1982)
    • Areas Beyond National Jurisdiction - ABNJ
Avoid confusion between National jurisdiction areas and EEZs, and in general avoid to use the ‘EEZ’ naming “shortcut”

- First explanation: **EEZs don’t encompass Territorial seas**
- Not all National jurisdiction areas include EEZs (because not claimed by country)
- EEZs and candidate EEZs boundaries are subject to changes, claims & conflicts
  - Conflicts between countries
  - Sovereignty claims by countries over water areas adjacent to territories
  - Requests to claim extension of EEZ over continental shelf beyond 200 nm

To avoid confusion, the recommended practice is to use the *adhoc* term **National Jurisdiction Areas** (NJA) to characterize water areas that are not ABNJ
Standards for countries and territories

• Two international standards widely used
  • ISO 3 – still used for geographic areas by UN Geospatial
  • M49 – used essentially for statistics

• M49 is implemented by FAO as a statistical standard, but less by RFMOs more faced with administrative data
  • ISO3 semantic is easily human interpretable (M49 is not); which makes it a good coding system for building coding systems and semantic identifiers
  • ISO3 is extended in some regional context when used for country-derived concepts: eg fishing fleet, flag
  • Some feedback that M49 doesn’t bring added value compared to ISO3. Need more feedback from RFMOs

• Both are used for countries/nations but also territories
Material available for water jurisdiction areas

• No recommendations/guidelines from UN Geospatial

• Only one source available to characterize water jurisdiction areas:
  • [Marine Regions](#) – maintained by [VLIZ](#)
  • Includes an *adhoc* implicit (numeric) *coding system* (MRGID) for all water areas defined in Marine Regions (IW, TS, CZ, EEZ)

• **Pros:**
  • Maintained in time
  • Well-documented; with references official texts (bilateral agreements, claims, etc)
  • Open to collaboration: ongoing exchanges with FAO/NFIS to consolidate the database (eg. Adding M49 coding system in addition to ISO3)

• **Cons:**
  • Not designed in support of UNCLOS, but designed for *biodiversity research*
  • Not using the official definition of EEZs → Ongoing interaction with FAO/NFIS towards introducing the concept of NJAs
  • Not aligned on UN countries & territories
In summary – what we have

• UNCLOS water area definitions:
  • “NJAs”: IW, TS, CZ, EEZ
  • ABNJ
• 2 candidate systems for referring to countries (sovereign) and/or territories: ISO3, M49
• For the time-being, use of Marine Regions database to get the full list of geographic entities that combine water areas and countries/territories
1. **Use UNCLOS terms & definitions, except ‘EEZ’** highly sensitive that requires a different coding (TO BE DEFINED) for the space between Territorial seas and outer limit of NJAs

2. **Use ISO 3 instead of M49**, for its human interpretability, and being the international standard used by UN Geospatial for countries/territories geographic areas, while considering a mapping with M49 where needed

3. **Consider using alternate sources other than Marine Regions** to avoid any issue related to misalignment with UN countries & territories, and UN principle of neutrality. Includes:
   - Cross-check MarineRegions with inventory of UN official sources (tedious, but required)
   - Seek for recommendations / guidelines from UN Geospatial, to extend on guidelines received for land-based countries & territories information
   - Evaluate possibility (as CWP Secretariat, or FAO/NFIS) to participate to [UN-GGIM](https://un-ggim.org) (United Nations Committee of Experts on Global Geospatial Information Management) working groups, such as the [Working Group on Marine Geospatial Information](https://un-ggim.org/working-groups/working-group-on-marine-geospatial-information)
A/ To define the classification system

- Classification system already defined as Water Jurisdiction Areas (WJA)
- Encompasses all waters including
  - National Jurisdiction Areas (NJA)
  - Areas Beyond National Jurisdiction (ABNJ)
- Namespace proposal to use for the coding system: wja
B/ Need to distinguish 2 levels of codings

- **Level 1: NJA (with association to country/territory, but no breakdown) vs. ABNJ**
  - Name proposals:
    - Water Jurisdiction area (default name = same name as the classification system)
    - Maritime Jurisdiction area
    - Maritime Zone

- **Level 2: National Jurisdiction Area (including breakdown)**
  - Name proposal: National Jurisdiction Area
  - Breakdown
    - TS: Territorial Seas
    - CZ: Contiguous zone
    - EEZ: Exclusive Economic Zone
    - IW: Internal Waters (currently including Archipelagic Waters)
    - AW: Archipelagic Waters
    - ECS Extended Continental Shelf

  New breakdown (AW, ECS) require additional inventory work, as not available as base material in MarineRegions
C/ Need to address the issue of country/territory mapping

• **ISO3 vs. M49**
  - ISO3 has better coverage for geographic areas. Recommended for semantic coding
  - Linkage with ISO possible by adding attribute giving the ISO 2 registry URN/URL
  - Mapping with M49 available whenever possible

• **Practical approach: always use the finest geographic resolution. When a territory is available (with ISO3 code), refer to it instead of sovereign**
  Eg. French Antilles Guadeloupe / Martinique, instead of France
  - Sovereignty is part of ISO entities as long a proper reference to ISO registry is done.
  - Practical use of coding system is focused on territories
Requirements

D/ Implement a draft coding system & related datasets

- Based on MarineRegions entities (mainly at this stage)

- Enriched whenever possible to:
  - distinguish between Internal Waters (IW) and Archipelagical Waters (AW)
  - include Extended Continental Shelf (ECS) areas relying on additional sources eg. [http://maps.continentalshelf.org/](http://maps.continentalshelf.org/)

- Draft datasets to prepare
  - Codelist (level 1 as a priority; and then level 2)
  - Associated geospatial dataset

- Derived products (eg. Intersections with other datasets, eg. FAO areas)
D/ Implement a draft coding system & related datasets

- Examples - using alternative namespaces

Level 1 (WJA - default)
- `cwp:wja:wja:TTO`
- `cwp:wja:wja:GLP`

Level 1 (NJA)
- `cwp:wja:nja:TTO`
- `cwp:wja:nja:GLP`

Level 1 (MJA)
- `cwp:wja:mja:TTO`
- `cwp:wja:mja:GLP`

Level 2 (WJA - default)
- `cwp:wja:wja:TTO.EEZ`
- `cwp:wja:wja:TTO.TS`
- `cwp:wja:wja:TTO.CZ`

Level 2 (NJA)
- `cwp:wja:nja:TTO.EEZ`
- `cwp:wja:nja:TTO.TS`
- `cwp:wja:nja:TTO.CZ`

Level 2 (MJA)
- `cwp:wja:mja:TTO.EEZ`
- `cwp:wja:mja:TTO.TS`
- `cwp:wja:mja:TTO.CZ`
Requirements

D/ Implement a draft coding system & related datasets

- Examples – case of NJAs covering various oceans / FAO major areas
  ➔ Limits of the coding system, needs to define derived products (intersections)

Level 1 (WJA – default)

cwp:wja:wja:CAN
Requirements

D/ Implement a draft coding system & related datasets

- Examples – ABNJ coverage
  Possibility to derive a finer coding system based on intersects with FAO areas

Level 1
- cwp:wja:abnj:27
- cwp:wja:abnj:21

Level 2
- cwp:wja:abnj:31.6
- cwp:wja:abnj:41.2
D/ Implement a draft coding system & related datasets

- Question whether to associate the Extended Continental Shelf (ECS) to ABNJ or NJA?
  - Spatially: ECS overlaps ABNJ
  - Jurisdictionally: a mix of a ABNJ and NJA (limited rights given to nation requesting the ECS)

Use of \textit{abnj} namespace? \texttt{cwp:wja:abnj:MEX.ECS}

or

Use of \textit{wja/nja/mja} namespace? \texttt{cwp:wja:wja:MEX.ECS}

or

Use of custom \textit{ecs} namespace? \texttt{cwp:wja:ecs:MEX}
E/ Enroll into existing UN initiatives / working groups

• To participate to UN-GGIM (United Nations Committee of Experts on Global Geospatial Information Management) working groups, such as the Working Group on Marine Geospatial Information

• Get informed on initiatives regarding UNCLOS areas as geospatial information

• Inform the community of marine geospatial information experts about CWP exercises regarding Water jurisdiction areas, and collect feedback
Thank you • Merci
Благодарю • ¡Muchas gracias!
謝謝 • شكرا

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