A Guide to Practical Use of the Electronic “Linked-Open-Data” Climate Change Thesauri

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Vocabulary Access

Electronic machine-readable and linked-open-data (SPARQL) versions of the annotated vocabularies can be accessed through the following permanent links:

- CCCCC: http://poolparty.reegle.info/PoolParty/sparql/CCCCCclimatevocabulary
- SPREP: http://poolparty.reegle.info/PoolParty/sparql/SPREPclimatevocabulary

For Users: Browsing and Visualizing

The Poolparty Wiki

The project published the thesauri through the software platform Poolparty, which offers a frontend for easy access for displaying and navigating the electronic thesauri.

To do so, just choose one of the following wiki links:

- CCCCC: http://poolparty.reegle.info/PoolParty/wiki/CCCCCclimatevocabulary
- SPREP: http://poolparty.reegle.info/PoolParty/wiki/SPREPclimatevocabulary

SKOS Play

“SKOS Play is a free application to render and visualise thesaurus, taxonomies or controlled vocabularies expressed in SKOS. With SKOS Play you can print Knowledge Organization Systems that use the SKOS data model in HTML or PDF documents, and visualize them in graphical representations.” (SKOS Website: http://labs.sparna.fr/skos-play/)

Instructions:
1. Follow the link http://labs.sparna.fr/skos-play/upload?lang=en to SKOS Play and copy above link to the SPARQL endpoint of the vocabulary that you would like to explore in the box. Then hit "Next".
2. Make sure language selection is on "en-English" - then try out any view you like (alphabetical list, etc.). As a first test is recommendable to open the "Visualize" option at the very bottom and to select the first option "tree layout".

3. A window opens with the tree and lets you click through the vocabulary.
For Developers: Programmatic Use

The SPARQL Protocol and RDF Query Language (SPARQL)

Access the SPARQL endpoints through the weblink above. Enter the query you want to try into the edit box and press Run.

SPARQL queries are always in the form: s=subject, p=predicate, o=object --> a triple consist of these three parameters

**Example: General SPARQL query**

```sparql
SELECT * WHERE {
?s ?p ?o
}
```

The query above gives you a list of all objects in the vocabulary. For more specific queries, use SKOS, as described below.

The Simple Knowledge Organization System (SKOS)

The vocabularies are defined using SKOS, the Simple Knowledge Organization System. SKOS defines how the concepts in a vocabulary are being described, as well as specific relationships between them. For reference and more information see “SKOS Simple Knowledge Organization System Reference” [https://www.w3.org/TR/skos-reference/](https://www.w3.org/TR/skos-reference/) Especially chapters 2, 8, 10 are interesting in this context.
Example Queries

Using SKOS, one can look for specific relationships between concepts, respectively for related concepts to a given concept.

**Example: seeAlso**

Give me the list of all concepts which have a seeAlso relation and their objects - meaning a list where you see subject (concept from you vocabulary (=s), type of mapping (=p), to concept from vocabulary it is linked to (=o). Hit "run query" once you have pasted the query to get the list.

```
SELECT * WHERE {
?s <http://www.w3.org/2000/01/rdf-schema#seeAlso> ?o
}
```

“seeAlso” in the example above can be substituted with the following terms to get other relationships between the terms:

```
sameAs, relatedMatch, narrowMatch, exactMatch, broadMatch, closeMatch
```

**Example: top-level concepts and terms / names:**

```
PREFIX terms: <http://purl.org/dc/terms/>
SELECT DISTINCT *
WHERE {
} LIMIT 500 OFFSET 0
```

**Example: all concepts under the top level terms:**

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT ?term ?hasTopConcept
WHERE {
?term skos:hasTopConcept ?hasTopConcept .
} LIMIT 500 OFFSET 0
```

**Example: all "related" relationships**

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT *
WHERE {
} LIMIT 500 OFFSET 0
```

**Example: Exact matches in other vocabularies:**

```
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT *
WHERE {
```
) LIMIT 500 OFFSET 0

**Example: Close matches in other vocabularies:**
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT *
WHERE {
) LIMIT 500 OFFSET 0

**Example: Related matches in other vocabularies:**
PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
SELECT DISTINCT *
WHERE {
) LIMIT 500 OFFSET 0