

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

[Vocabulary Access](#)

[For Users: Browsing and Visualizing](#)

[The Poolparty Wiki](#)

[SKOS Play](#)

[For Developers: Programmatic Use](#)

[The SPARQL Protocol and RDF Query Language \(SPARQL\)](#)

[The Simple Knowledge Organization System \(SKOS\)](#)

[Example Queries](#)

Vocabulary Access

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

- CCCC: <http://poolparty.reegle.info/PoolParty/sparql/CCCCclimatevocabulary>
- 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:

- CCCC: <http://poolparty.reegle.info/PoolParty/wiki/CCCCclimatevocabulary>
- 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".

Wo sind die SKOS Daten die Sie verarbeiten wollen ?

In one of the provided examples EUROVOC Thesaurus (26 lang. + mapping to INSPIRE) ▾

Auf einem lokalem Ordner auf meinem Computer Wählen
(Supported extensions : .rdf, .ttl, .n3, .trig, .zip, .tar.gz. Other extensions will be interpreted as RDF/XML)

On the web, in a file or a SPARQL endpoint /sparql/CCCCclimatevocabulary
*(URL of a valid SKOS file or SPARQL endpoint. For files, same file extensions are supported, and also *.html and *.xhtml to retrieve HTML or SPARQL endpoints, service must be compatible with SPARQL 1.1, especially regarding property paths and VALUES.)*

Advanced options

Infer on subclasses and subproperties
(Only for uploaded data, or data retrieved from a URL.) Activate this option so that SKOS Play recognizes subclasses and subproperties of the SKOS model. The uploaded file must contain explicit rdfs:subClassOf or rdfs:subPropertyOf assertions for this to work. Look at [this file](#) for an example.

Handle SKOS-XL properties
If the data contains skosxl:prefLabel, skosxl:altLabel or skosxl:hiddenLabel, use this option to have SKOS Play understand them. Uncheck it to speed up data loading time.

Transform an OWL ontology to SKOS
Use this option if you are uploading an OWL ontology, and you want it to be converted to SKOS to be processed by SKOS Play. If you don't know what an OWL ontology is, ignore this option.



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".

Data processed successfully, 114 concepts were found.

Warning
No translations (on prefLabel) were found. Language correspondence tables are disabled.

Wie möchten Sie Ihre SKOS Daten aufbereiten ?

Wählen Sie ein Concept Scheme http://eurovoc.europa.org/CCCCclimatevocabulary

Wählen Sie eine Sprache en-English **select en-English**

Print:

Display type

- Concept list
(Alle Labels mit allen Concepts, geordnet nach preferred Label in der gewählten Sprache, mit allen Attributen (Index, Definitionen, Synonyme und narrower Concepts))
- Language correspondence table
(Translation table from the labels of the source language selected above to the target language selected below)
- Alphabetischer Index
(Liste mit der preferred und alternate Label in der gewählten Sprache)
- Alphabetischer Index, erweitert
(Alphabetischer Index mit Attributen zu jedem Eintrag: (Relation, Broaden, Narrower, Related, alle Notizen))
- Hierarchischer tree alphabetischer Index mit Attributen zu jedem Eintrag: (Relation, Broaden, Related, alle Notizen) *(Schafft eine Baum Visualisierung der Concepts mit deren preferred Label in der gewählten Sprache)*
- complete edition multilingual
(creates a document including the alphabetical index, followed by a hierarchical tree. The tree is clickable and direct to entries in the alphabetical index)
- Smetee a document including the alphabetical index with translations, followed by a hierarchical tree, and translation tables in other languages. The tree and tables are clickable and direct to entries in the alphabetical index)
- Permutated index *(creates a KOJIC permuted index based on the labels in the selected language)*
- KOJIC index *(creates a Key/Word in Context' index based on the words of the labels in the selected language)*
- Mappings (Broken down by target thesaurus)
*(List mappings to other thesauri, and generates one table per target thesauri)
⚠ To print the labels of mapped concepts, SKOS Play will fetch their data by following the referenced URIs. This might take a very long time and result in a timeout. You are encouraged to **download and install** the application locally to use this feature.*
- Mappings (listed alphabetically)
*(List mappings to other thesauri, in a single table ordered alphabetically, with an extra column indicating target thesauri)
⚠ To print the labels of mapped concepts, SKOS Play will fetch their data by following the referenced URIs. This might take a very long time and result in a timeout. You are encouraged to **download and install** the application locally to use this feature.*

Output format

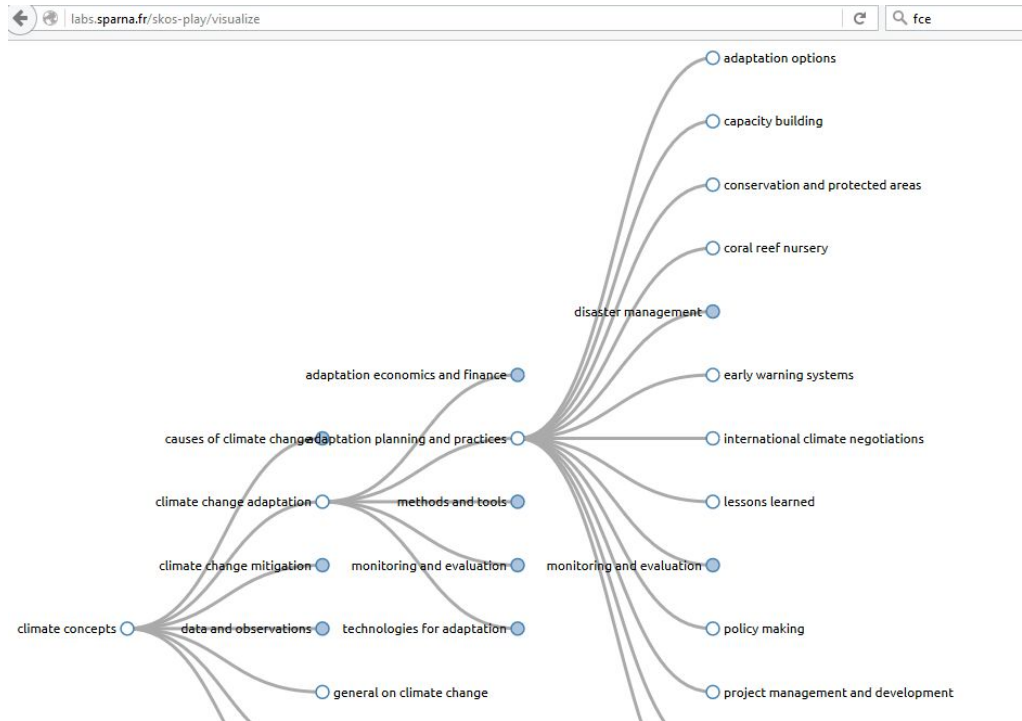
- HTML
- PDF *(Stuert eine PDF)*

Zurück **Generieren !**

Visualize **open "visualize" and select the 1st option tree view**

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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

```
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/> 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 your 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 {
?Concept terms:title ?title .
} 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 {
?Concept skos:related ?related .
} LIMIT 500 OFFSET 0
```

Example: Exact matches in other vocabularies:

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

```
?Concept skos:exactMatch ?exactMatch .  
} LIMIT 500 OFFSET 0
```

Example: Close matches in other vocabularies:

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

Example: Related matches in other vocabularies:

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