**[Updated 29 september 2023]**

Prepared by CLAs and Co-chairs for the TCA assessment

This document provides guidance to create a corpus of evidence related to transformative changes for sustainability and equity in peer-reviewed literature. This global corpus will serve as a common knowledge base developed by TSU using a standardized and robust method for both the evaluation as a whole and for the different chapters.

**Academic literature search**

**Documenting transformative change (TC)** (fundamental, systemic, systems-wide, radical, *sensu* definition of Chapter 1 addressing power, agency, scale, views and values, actions and innovations, structures and institutions)

Search criteria:

* Abstracts, title, keywords
* Abstracts in English, Spanish, Portuguese, French
* Full papers and reports (exclude conference proceedings, books and book chapters, editorials)

**R1**. We will search for scientific articles written in English, Spanish, French and Portuguese. Documents will be retrieved from scientific literature databases, and based on suggestions by the expert group. A temporal limits is established.

In this review, we acknowledge the existence of similar, albeit discrete, bodies of literature on transformations, including transitional approaches, transformative adaptation, sustainability pathways, and socio-ecological transformation (O´Brien and Sygna 2013, Patterson et al. 2017), and therefore expect that examples of transformative changes may fit into one or more of these bodies of literature.

* Search terms:

**1st LEVEL**

[transforma\* OR transition\* OR {(shift OR change) AND (fundamental OR deep OR radical)}] AND [soci\* OR politic\* OR govern\* OR economic\* OR cultural OR system\* OR technolog\* OR inner OR personal]

**[About Transformative change] Transformative change synonyms**

*("transformative change" or "deliberate transformation\*" or "transformative turn\*" or “transition\*” or “social-ecological change\*” or “deep change” or “fundamental alteration” or “profound change” or “profound transformation” or “radical transformation” or “transformational change” or “complete change” or “complete transformation” or “drastic change” or “in-depth transformation” or “progressive change” or “radical alteration” or “radical change” or “revolutionary change” or “significant modification” or “total transformation” or “transition” or “pathway” or “power” or “agency” or “scal\*” or “lever\*” or “context” or “process” or “regime” or “shift” or “views” or “value\*” or “structure\*” or “institution\*”or “deliberate” OR “structural” OR “fundamental” OR “system\*” OR “deep” OR “radical” OR “profound” OR “drastic” OR “widespread” OR “politic\*” OR “economic\*” OR “structur\*” OR “complete” OR “progressive” OR “revolutionary” OR “substanti\*” OR “significan\*”) AND (“transformati\*” OR “alteration” OR “change” OR “turn” OR “action” “transition” OR “shift”)*

**2nd LEVEL:**

**AND (nature synonyms)** [use dictionary suggested by Aidin]

*("sustainab\*" or "environ\*" or "resilien\*" or "conserv\*" or "biodivers\*" or “ecosystem\*” or “nature\*” OR “planet\*” OR “Earth” OR “biosphere or “ecological” or “socio-ecological” or “restoration”)*

**3th LEVEL:**

**AND (conceptual framework , Chapter 1)**

We have 6 searches to run within the corpus papers arrived at through level 1+2:

1. [root OR underlying OR indirect] AND [driver\* OR cause\*]
2. equity OR inequity OR just\* OR unjust\* OR inequality OR equality OR Fair\* OR unfair\*
3. scal\* OR impact\* OR leapfrog\* OR transfer\* {we then will ask TSU to search this category to tell us how many are talking about time, temporal, etc ways of framing scale}
4. inclusi\* OR particip\* OR engagement\* OR democratic\* OR coproduct\* OR transdisc\* OR multiactor OR multi-actor OR integrat\*
5. evaluat\* OR reflex\* OR reflect\* OR monitor\* OR adapt\* OR learn\*
6. responsib\* OR accountab\* OR rights OR steward\* or reciproc\* OR interdependen\* OR [relation\* OR plural OR divers\* OR sustainability-aligned OR care AND value\* OR ethic\*]

With the sets that are returned on each of the above, can the data TSU also categorise into empirical papers and conceptual papers?

It is also likely we will need to refine the search strings based on what is returned from each. This is our best attempt at a first round.

**AND (visions, Chapter 2)** [Ch 2 Key terms, [https://www.ipbes.net/glossary-tag/vision](https://www.ipbes.net/glossary-definitions?search_api_fulltext=action&field_deliverable=), Oxford Dictionary]

*(“vision” or “future” or “visionar\*”or “scenarios” or “imagination” or “imager\*” or “creativity” or “desire” or “wish\*” or “visioning” or “process” or “participatory process\*” or “deliberate process\*” or “polic\*” or “target” or “view\*” or ”value” or “cosmovision” or “cosmocentric” or “dream\*” or “fiction” or “hope” or “mission” or “objective” or “story” or “worldview\*” or “aspiration\*” or “action” or “plan\*” or “strateg\*” or “intention” or “model\*” or “solution\*” or “innovation\*” or “perspective” or “platform” or “collective action” or “cooperation” or “consultation”or “coalition\*”* or *“response” or “movement” or “effort” or “initiative” or “activity” or “reaction” or “performance” or “operation” or “effect\*” or “task” or “project” or “influence” o “moment” or “discourse” or “motivation” or “iteration” or “roadmap” or “agenda” or “project” or “programm” or “government” or “technique” or “inspiration” or “culture” or “universe\*” or “reality” or “fantasy” or “perception” or “visualization” or “approach” or “image” or “arquetype” or “existence” or “cosmolog\*” or “co-production” or “knowledge” or “dialogue” or “transmission” or “conceptual\*” or “ceremon\*” or “relationships” or “respect” or “reciprocity” or “responsibilities” or “solidarity” or “harmony” or “self-determination” or “communit\*” or “spiritual\*” or “languague” or “territory” or “opportunit\*” or “sight” or “foresight” or “idea” or “appearance”)*

**AND (cluster of theories, Chapter 3)**

*CLUSTER 1 TECHNOLOGY SOLUTIONS:*

*Technolog\* OR Science\* OR science-society OR science-technology OR Solution*

*CLUSTER 2 SCIENCE-SOCIETY CO-CREATION*

*co-creat\* OR solution\* OR knowledge\* OR sistem\* OR t-lab\* OR educat\* OR socio-technic\**

*CLUSTER 3 SYSTEMS APPROACHES*

*System\* OR pathways OR connect\* OR Agroecolog\* OR Institutional OR Institutions OR Government\* OR*

*CLUSTER 4 INNER TRANSFORMATIONS*

*inner OR Personal OR Religio\* OR Love OR Lov\* OR Feelings OR Stewardship OR Care OR Beliefs OR Belie\* OR Awareness OR Self-Awareness OR*

*CLUSTER 5 EMPOWERMENT APPROACHES*

*Worldviews OR Grassroot\* OR Community-based OR Indigenous OR Leadership OR Critical Science OR Econfeminism OR Political Ecology OR Power OR Agency OR Environment\**

*CLUSTER 6 STRUCTURAL APPROACHES*

*Economi\* Or Political Economy OR institution\* OR institutions OR govern\* OR econom\* OR governance OR governm\* OR globalization OR states OR colonial OR coloniali\* OR labour OR organization\**

**AND (challenges, Chapter 4)**

***AND (Chapter 4 inputs)***

*(challenge\* OR barrier\* OR obstacle\* OR hinder\* OR hindrance\* OR block\* OR prevent\* OR deter\* OR inertia\* OR path dependence\* OR path dependency\* OR stasis\* OR lock-in\* OR trap\* OR habits\* OR habitual\* OR status quo\* OR power\* OR "limiting factor\*") AND*

*Keyword searches for challenge 2:*

(*economic inequality or Wealth concentration or Socioeconomic inequality or financialization or uneven development or Financialization or Structural adjustment or Sovereign Debt or inequality or Policy effectiveness)*

*Keyword searches for challenge 5*

## *( "clean technolog\*" OR "clean innovation\*" OR "sustainable innovation" OR "sustainable technological innovation\*" )*

*( "limited access" OR "limited availability" OR "lack of access" OR "unavailability" )*

**AND (options, Chapter 5)**

**Expected output**: a list of papers that relate broadly to visions **AND** transformative change **AND** nature **AND** people 1,237,718 hits ([WoS link](https://www.webofscience.com/wos/alldb/summary/9cc620dd-dfc6-4414-acc0-983d4a56314c-a1bdf5a4/relevance/1))

**R2. Screen for papers with concrete examples (e.g., case-studies, “example\*”)**

* In abstracts, title, keywords
* Search criteria: (“case stud\*” or “case” or “study area\*” or “example\*” or “evaluation” or “concrete” or “empirical”, or “practical” OR “initiative\*”)
* Output: two corpus:
  + **Corpus A**: academic articles with specific examples of [efforts towards sustainability] 296,551 hits ([WoS link](https://www.webofscience.com/wos/alldb/summary/f6d3094a-0cc2-4662-9b05-0a671c71c86a-a1be094a/relevance/1))
  + **Corpus B**: academic articles that relate to transformative change, nature and people but do not provide information from a specific case (e.g., general recommendations, overviews). about 940,000 hits (i.e. R1 - R2A)

**→ extract country names from R2.A**

**R3. Extract examples with visions and transformative changes [from the papers that contain case-studies – Corpus A]**

* Based on corpus A
* In full text
* Look only in Results, Discussion and Conclusion
* Give us paragraphs
* **[full text]- from the papers/book chapters that contain case-studies look only in results and discussion and conclusion for search term [“vision” and related terms] - give us paragraphs**

**References**

O’Brien, K., and L. Synga (2013) Responding to climate change: the three spheres of transformation. In Proceedings of Transformation in a Changing Climate, 19-21 June 2013, Oslo, Norway. University of Oslo, Oslo, Norway.

Patterson, J., Schulz, K., Vervoort, J., van der Hel, S., Widerberg, O., Adler, C., Hurlbert, M., Anderton, K., Sethi, M., & Barau, A. (2017) Exploring the governance and politics of transformations towards sustainability. Environmental Innovation and Societal Transitions, 24, 1-16.

These are the languages of the papers in WoS. They are essentially exclusively english.

