

Sustainable water security towards mutual benefit and win-win cooperation: Comparative analysis of action plans on implementation of the 2030 Agenda for Sustainable Development between the European Union and China

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November 24, 2022

Abstract

Over the past 100 years, socioeconomic development has been ceaselessly putting great pressure on our freshwater resources. It has led to overwhelming and undermining nature's ability to provide key functions and services, i.e. growing water scarcity and deterioration of water-related environment and ecosystems worldwide. The establishment of the 2030 Agenda's Sustainable Development Goal (SDG) 6, therefore not only articulates the augmented concerns on water sustainability issues in the global political agenda, but also highlights that all countries (stakeholders) committed to translating the global goals and targets to national (own) targets and indicators, along with their individual challenges and corresponding opportunities of accounting for mutual benefit and win-win cooperation. The European Union (EU) (developed) and China (developing), as the second and third largest economies respectively, have been addressing sustainable development as an overarching objective for policy-making on the economic, social, and environmental dimensions, and working accordingly in a balanced and integrated manner. They have been joining forces, as equal partners, for better water through the China Europe Water Platform (CEWP) built in 2012, which provides a unique prospective to insight into how the EU and China have been making unremitting efforts for pursuing water sustainability, as well as the characteristics of action plans on SDG 6 implementation between the EU and China. The principal aim of this study is to comprehend (1) the status quo of the EU and China's progress on SDG 6 targets, (2) how the EU and China can take forward implementation in partnership to enable and accelerate progress towards achieving SDG 6, and (3) how the EU and China can go beyond SDG 6 to establish linkages across the 2030 Agenda in the context of water-energy-food nexus. The highlights to fill the aforementioned knowledge gaps can be portrayed as follows: (1) the EU and China could develop a national indicator system together regarding SDG 6 targets, (2) the EU and China could establish a national indicator database together, in accordance with the national indicator system, and (3) the EU and China could conduct a lesson learned workshop together, in terms of equitable, participatory, and transparent SDG 6 policy process.

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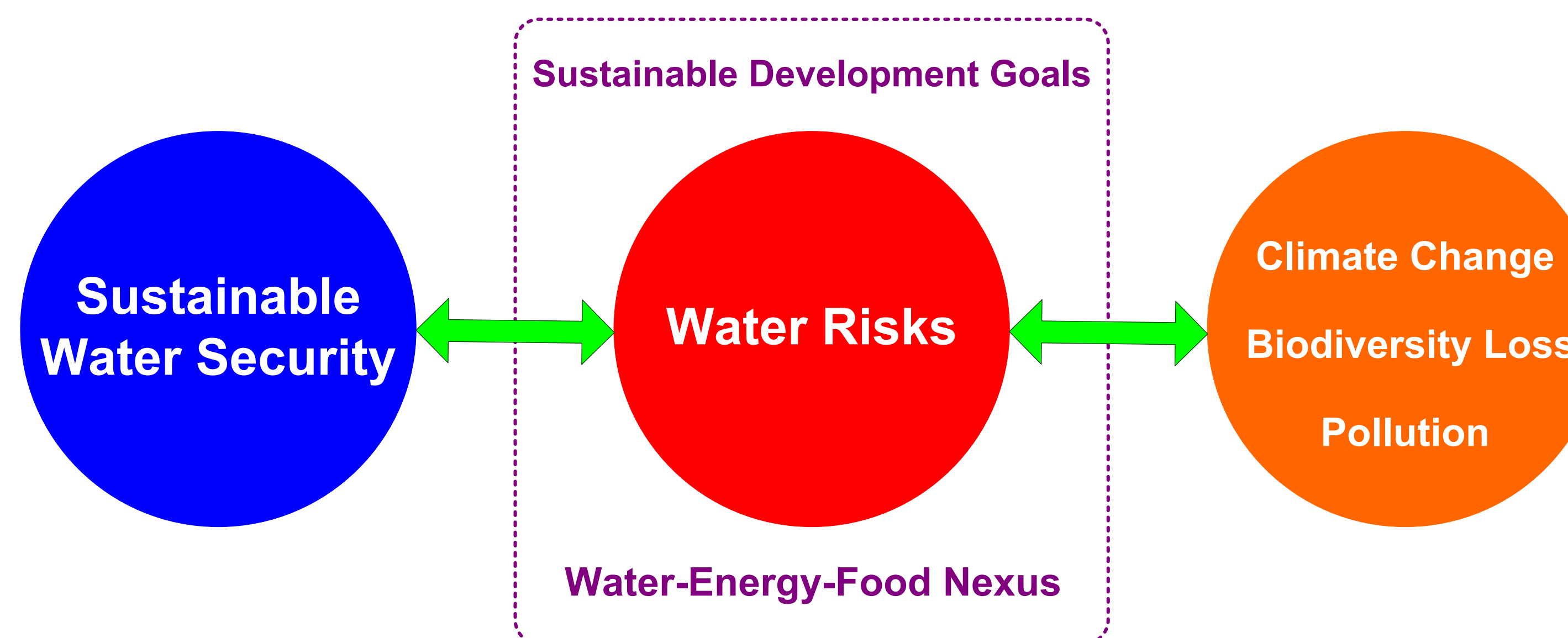
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Background

- Over the past century, the planet's freshwaters have been massively strained by socioeconomic development, driven by the escalating needs for feeding the quadrupling global population, rising living standards, and driving economic prosperity. Growing water scarcity and deterioration of water-related environment and ecosystems worldwide has followed.
- As the global second and third largest economies, the European Union (EU) and China have been addressing sustainable development as an overarching objective for policy-making on the economic, social, and environmental dimensions.
- The China Europe Water Platform (CEWP) provides a unique perspective to explore how the EU and China have been making unremitting efforts side by side for pursuing sustainable water security, in the context of water-energy-food (WEF) nexus.

Challenges & Opportunities



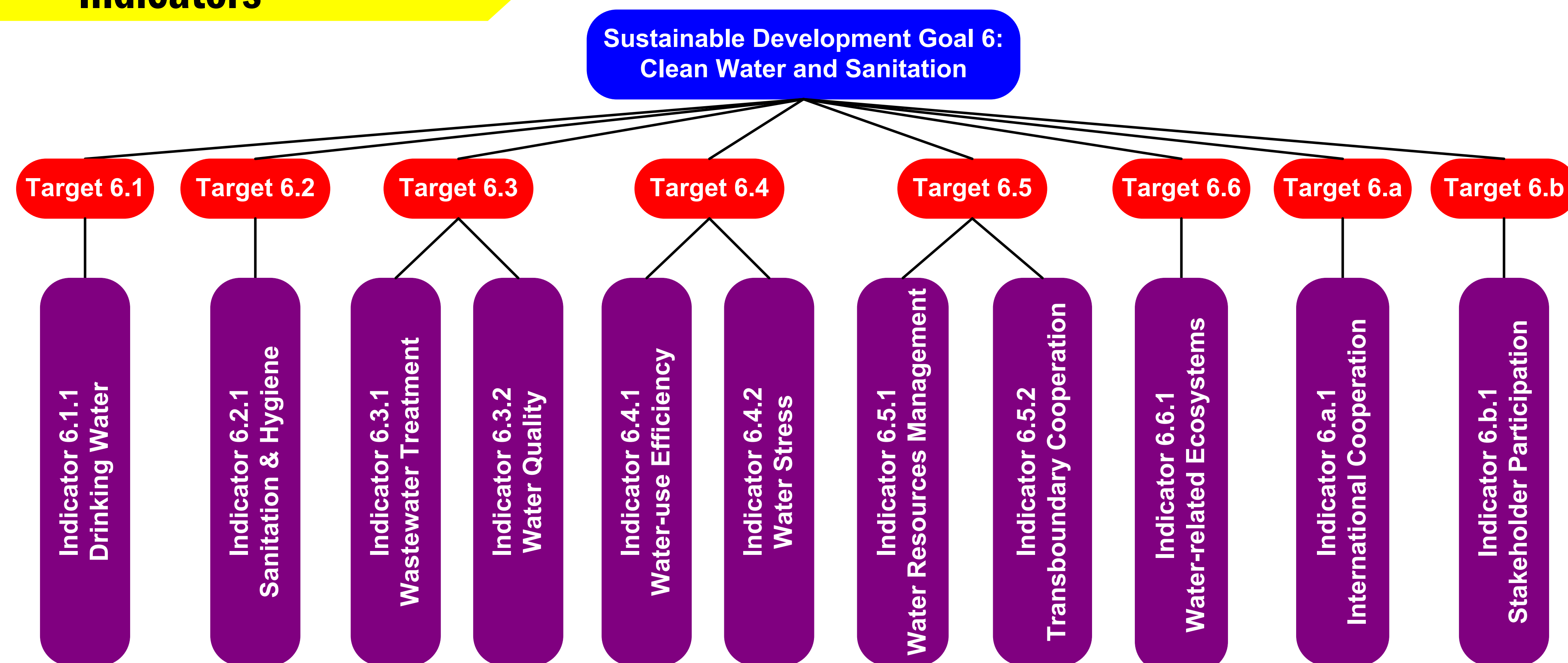
Principal Aim

- Diagnosis of the status quo of the EU and China's progress on SDG 6 targets,
- Recommendations on how the EU and China can foster coordinated policies to enable and accelerate progress towards achieving SDG 6, and
- Recommendations on how the EU and China can go beyond SDG 6 to establish linkages across the 2030 Agenda in the context of WEF nexus.

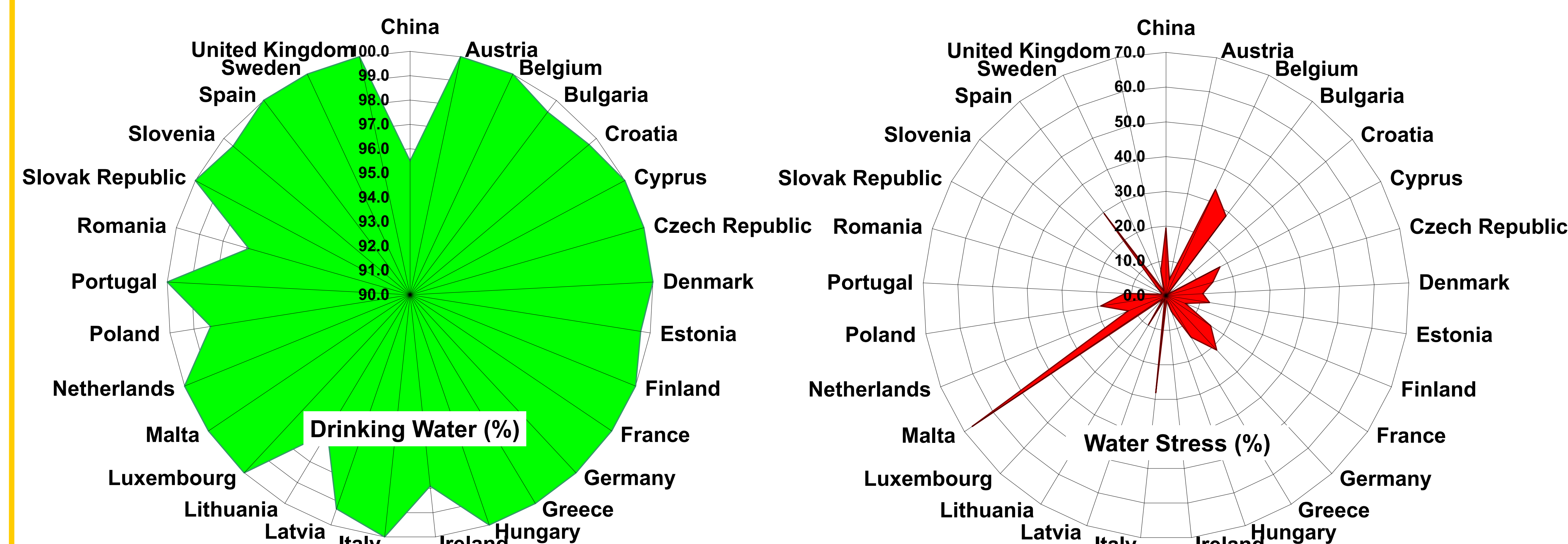
Objectives

- To identify the data availability of the SDG 6 targets' indicators,
- To assess the SDG 6 progress of the EU and China, and
- To reflect on the findings in light of the current policies of the EU and China towards mutual benefit and win-win cooperation.

Indicators



Results



Discussion

China Europe Water Platform

The CEWP, being a regional component of the EU *Water Initiative*, is intended to promote policy dialogue, joint research and business development in the water sector between the EU and China. Therefore, strengthening the partnership through the CEWP shall give both parties an advantage in the process of enabling and accelerating progress towards achieving SDG 6.

- The EU and China to co-develop a national indicator system regarding SDG 6 targets,
- The EU and China to co-establish a national indicator database, in accordance with the national indicator system, and
- The EU and China to conduct a lesson learned workshop together, in terms of equitable, participatory, and transparent SDG 6 policy process.

Water-Energy-Food Nexus

- To untangle the WEF nexus, it is crucial to develop observation types and essential variables, datasets, software platforms, and tools, as well as to identify and model feedbacks among water, energy, and food systems, and correspond with all stakeholders
- By far, most nexus cases still have a clearly water-centric viewpoint, concentrating on the classical water withdrawal aspects of agriculture and coupling these with specific energy sector issues.
- Such water-centrism can be seen to be natural given increasing water scarcity and the critical role that water has for energy and food production, it is likely to be also the single-most challenge for the nexus approach, as its implementation requires engagement of the actors from energy and food sectors as well.

