

 UN WATER
Integrated Monitoring Initiative for SDG 6

Disaggregation of SDG indicator 6.4.2 (water stress) by river basin

Monitoring of SDG 6.4 Indicators for the Countries of the Near East and North Africa
Cairo, Egypt 13 - 14 December 2023

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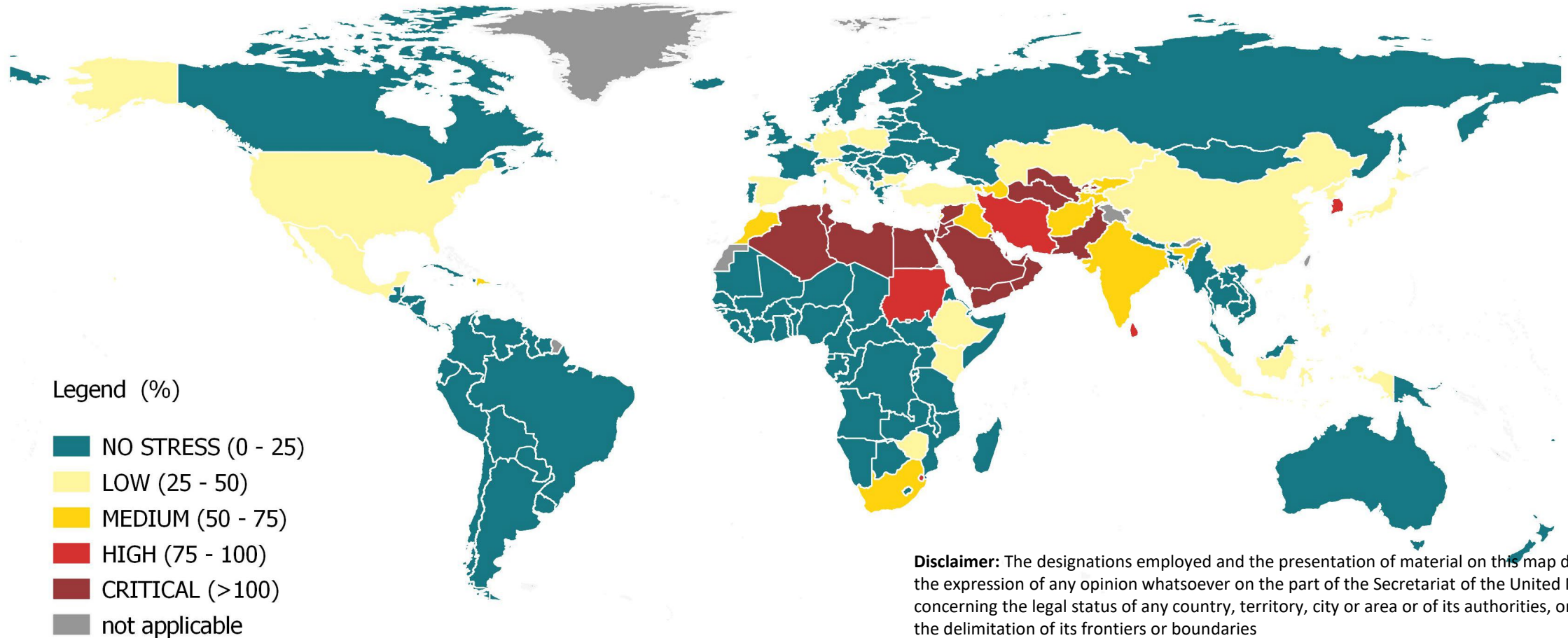
SDG 6.4.2. Water Stress: definition and purpose

Definition: The ratio between total freshwater withdrawn by all major sectors and total renewable freshwater resources, after having taken into account environmental water requirements.

- The purpose of this indicator is to show the degree to which water resources are being exploited to meet the country's water demand.
- It measures a country's pressure on its water resources and therefore the challenge on the sustainability of its water use



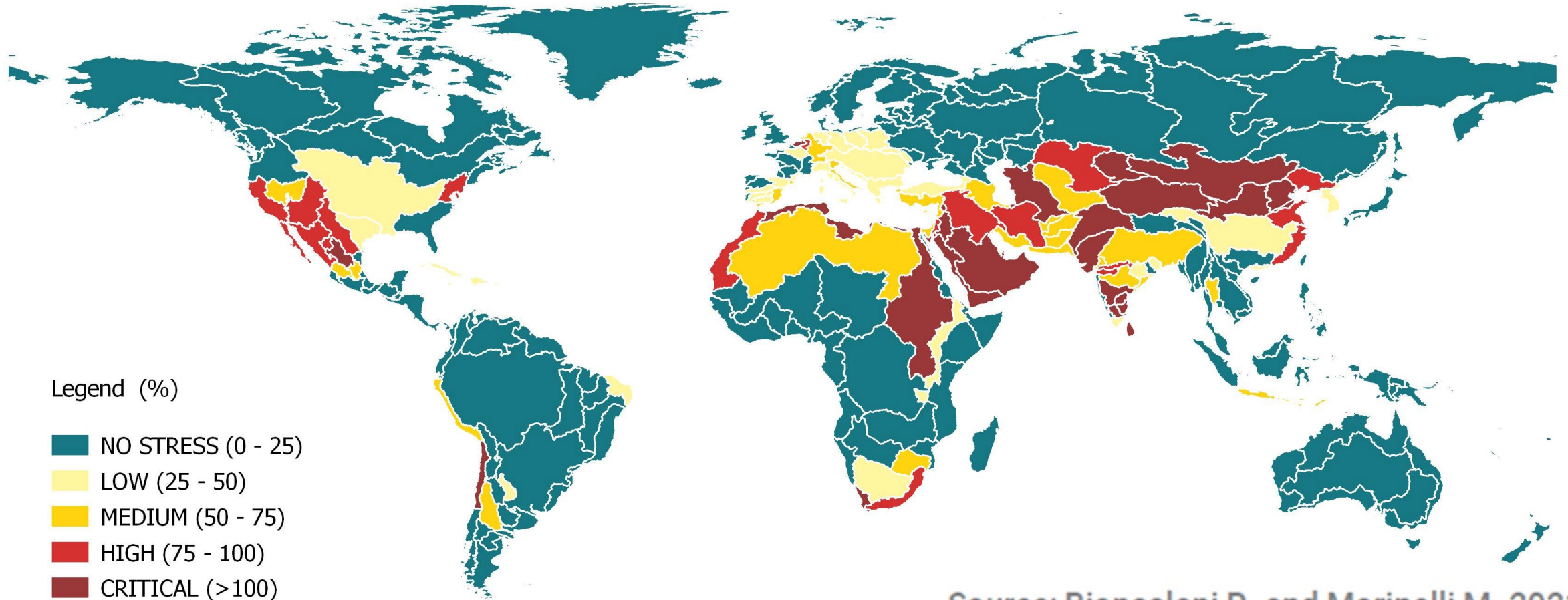
SDG 6.4.2 by country (AQUASTAT year 2018)



the Statistical Commission of the United Nations has stated that “...improving data disaggregation is fundamental for the full implementation of the indicator framework and to fully reflect the principles of the 2030 Sustainable Development Agenda to ensure that no one is left behind, and stressed that efforts should be made to strengthen national capacities in that area and to develop the necessary statistical standards and tools...”



SDG 6.4.2 by Major river basin (year 2018)



Source: Biancalani R. and Marinelli M. 2021.

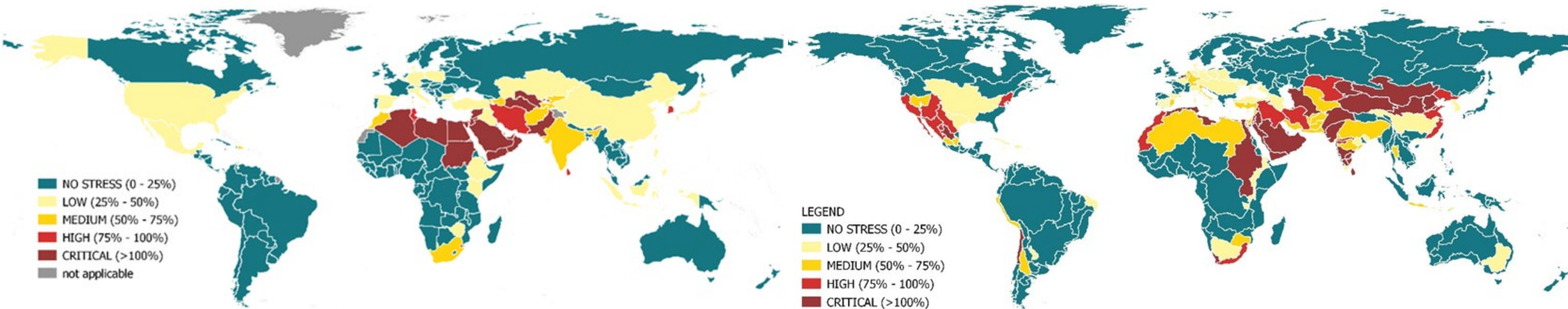
Disclaimer: The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries

Available for download on AQUAMAPS

<https://data.apps.fao.org/aquamaps/?share=f-6979202f-91ea-4ec3-9fb8-769932139faf>

Comparison of the results

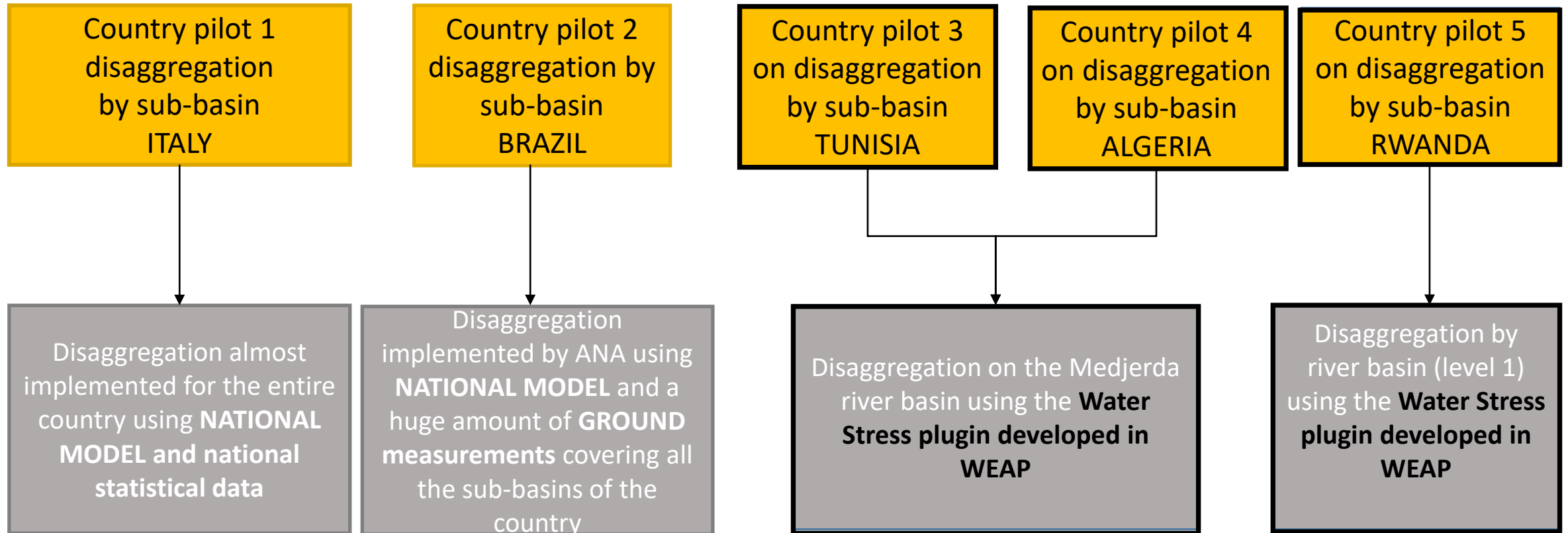
Overall, the result of WS by major basin shows the existence of a **water stress belt** running across the globe approximately between 10 and 45 degrees north, with a few other areas above and below it.



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The disaggregation by river basin shows that countries that may appear on the safe side can include much more stressed basins, in whole or in part, such as Peru and Chile, but also Mexico, the United States and China, which is not so evident from the map of the indicator at country level.

Disaggregation of SDG 6.4.2 at sub-basin level





Disaggregation of SDG 6.4.2 by basin/sub basin

Conclusions

Disaggregation is an opportunity to:

- Investigate the level of water stress in **future scenarios** (e.g. more population, more irrigation, higher temperatures, less precipitations, etc.)
- Adapt the **national water policies** in agreement with the results of the analysis of the level of water stress

Way forward

- Reference Protocol to implement the disaggregation of SDG 6.4.2 by basin
- Investigate the disaggregation of SDG 6.4.2 on a seasonal basis (temporal disaggregation)



Disaggregation of SDG 6.4.2 by basin Resources

CAPACITY DEVELOPMENT

Training package in French and English, including all the data and materials used during the course available for download:

- https://storage.googleapis.com/fao-aquastat.appspot.com/SDG642/WEAP_SDG642_EN.zip
- https://storage.googleapis.com/fao-aquastat.appspot.com/SDG642/WEAP_SDG642_FR.zip

NEW TOOL: WATER STRESS PLUGIN

Tool available for download in French and English

- <https://storage.googleapis.com/fao-aquastat.appspot.com/SDG642/Water%20Stress.WEAPPlugin>
- <https://storage.googleapis.com/fao-aquastat.appspot.com/SDG642/Stress%20Hydrique.WEAPPlugin>

PUBLICATION

- Assessing SDG indicator 6.4.2 'level of water stress' at major basins level
 - <https://ucl.scienceopen.com/hosted-document?doi=10.14324/111.444/ucloe.000026>