

## **GimBMUN 2026**

Gimnazija Bežigrad, Ljubljana

(United Nations Disaster Risk Reduction) – **Study Guide**Written by Tara Borojević and Parnian Rohani

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#### INTRODUCTION

Roughly half the world's population (over 2–3 billion people) experiences water shortages at least part of the year<sup>1</sup>. Drought-prone regions, already vulnerable, face intensifying shortages: for example, droughts have driven 1.4-2.2 billion people into water stress, and raised crop-failure risks in parts of Africa and Asia<sup>2</sup>. Population growth, expanding agriculture, pollution and climate change (more frequent hot, dry spells) all exacerbate this crisis<sup>3</sup>. Water scarcity undermines food security, health, and development. In 2023 2.2 billion lacked safe drinking water, and droughts displaced 1.4 million people<sup>4</sup>. The UN Office for Disaster Risk Reduction (UNDRR) addresses water-related risks by coordinating DRR efforts worldwide<sup>5</sup>.

#### Introduction of the chairs

#### Tara Borojević

## Dear Delegates,

my name is Tara Borojević, and I am a second-year IB student at Gimnazija Bežigrad. This year I have the honour of serving as the co-chair of the United Nations Disaster Risk Reduction Committee. I would firstly like to welcome you all to this MUN session. I encourage you to find your voice, be confident in expressing your beliefs, and represent your country with pride.

This study guide should provide you with the information to prepare your resolutions for the conference. However, I encourage you to conduct further research on the topic to gain a better understanding.

If you have any inquiries please do not hesitate to contact me via email at <a href="mailto:tara.borojevic@dijaki.gimb.org">tara.borojevic@dijaki.gimb.org</a>. I look forward to working with all of you and hearing your perspectives!

## Parnian Rohani

Hello delegates, my name is Parnian Rohani, and I will be your chair for UNDRR GimMUN 2026. I am a third-year student in the DP program, and I'm originally from Iran. Since this is a beginner committee, I would like to remind you all that it's okay to be inexperienced and nervous for your first conference; however, we promise to be very patient and to remind you of the rules whenever you would like. We are also available for any questions to help alleviate your stress and reduce that overwhelming feeling (you can contact me at parnian.rohani@gimb.org for any questions that may arise). With that said, I'm looking

<sup>&</sup>lt;sup>1</sup> The United Nations World Water Development Report 2023: partnerships and cooperation for water

<sup>&</sup>lt;sup>2</sup> UNCCD Drought in numbers report (2022)

<sup>&</sup>lt;sup>3</sup> <u>IPCC report: chapter 4 - water</u>

<sup>&</sup>lt;sup>4</sup> 2023 Global Report on Internal Displacement

<sup>&</sup>lt;sup>5</sup> UNDRR Strategic Framework 2022-2025

forward to yet another fantastic conference filled with new experiences, fruitful discussions, and plenty of networking. I sincerely hope we have made a non-biased and helpful study guide that will make you feel more prepared for the conference at hand. See you all soon!

#### Introduction to the committee

The united nations office for disaster risk reduction (UNDRR) is the UN's lead entity for reducing disaster risk globally<sup>6</sup>. UNDRR is responsible for implementing the Sendai framework (2015–2030) on disaster risk reduction<sup>7</sup>. UNDRR's role is to bring partners together and coordinate activities to build safer, more resilient communities worldwide<sup>8</sup>. It assists Member states to assess and reduce risks from natural hazards, integrates disaster risk reduction into development, and monitors progress on Sendai targets<sup>9</sup>. UNDRR works with governments, UN agencies, NGOs (non-governmental organisations) and communities to prevent new and reduce existing disaster risk<sup>10</sup>. For example, UNDRR publishes the Global assessment report and special reports on hazards (including drought) to create better policies<sup>11</sup>.

This committee will focus on water-related challenges under UNDRR's mandate: discussing how droughts can be prevented pr mitigated by sustainable water management in line with global disaster risk reduction efforts. It will foster collaboration and solution-oriented work, we look forward to the thoughtful contributions of all participating member states.

## Introduction to the topic

Water scarcity arises when freshwater supplies cannot meet demand for drinking, agriculture, industry, or the environment<sup>12</sup>. It is often caused by natural dry conditions (climate) combined with overuse and degradation of water resources<sup>13</sup>. Droughts (prolonged dry periods) are a key trigger of physical water scarcity in affected regions<sup>14</sup>. Today, water scarcity is a growing global emergency<sup>15</sup>. UNESCO reports that between 2–3 billion people suffer water shortages each year<sup>16</sup>, nearly half the world's population faces

<sup>&</sup>lt;sup>6</sup> UNDRR's about page

<sup>&</sup>lt;sup>7</sup> UN International Strategy for Disaster Reduction

<sup>&</sup>lt;sup>8</sup> UNDRR's our work page

<sup>&</sup>lt;sup>9</sup> Understanding disaster risk: foundational concepts and principles

<sup>&</sup>lt;sup>10</sup> UNDRR's Partners & stakeholders page

<sup>&</sup>lt;sup>11</sup> Our World at Risk: Transforming Governance for a Resilient Future

<sup>12</sup> UN article on water scarcity

<sup>13</sup> https://www.worldbank.org/en/topic/water/brief/water-scarcity

<sup>&</sup>lt;sup>14</sup> https://education.nationalgeographic.org/resource/drought/

<sup>15</sup> https://www.unicef.org/wash/water-scarcity

<sup>16</sup> https://www.unesco.org/reports/wwdr/2023/en

severe water stress part of the year<sup>17</sup>. Many countries in Africa, Asia, the Middle East and even parts of Europe and North America now experience recurring water deficits<sup>18</sup>. Climate change is amplifying the problem: warming temperatures reduce rain and snowfall and consequently less snow melts, making droughts more frequent and severe<sup>19</sup>. At the same time, rising populations and demand (agriculture and industry) outpace supply<sup>15</sup>.

Water scarcity has dire consequences<sup>15</sup>. Lack of water endangers food production<sup>20</sup>, causes conflicts over resources<sup>21</sup>, drives migration<sup>22</sup>, and undermines health (through unsafe drinking water)<sup>23</sup>. UN agencies estimate 884 million people lacked safe drinking water in 2010<sup>24</sup>, and agriculture losses from droughts cost billions<sup>25</sup>. Water crises can destabilize nations<sup>26</sup>: the 2015–16 Ethiopian drought affected 10 million people<sup>27</sup>, and Syria's civil conflict was aggravated by years of water shortage<sup>28</sup>. Therefore, preventing scarcity—through better management, technology, and cooperation is crucial<sup>29</sup>. Sustainable solutions include efficient irrigation, reuse and recycling (greywater), rainwater harvesting, drought-resistant crops, integrated watershed management, desalination, and sound governance (e.g. regulation, pricing)<sup>30</sup>.

<sup>&</sup>lt;sup>17</sup> https://www.wri.org/insights/highest-water-stressed-countries

<sup>18</sup> https://www.fao.org/3/cb1447en/cb1447en.pdf

<sup>19</sup> https://www.ipcc.ch/report/ar6/wg2/

<sup>&</sup>lt;sup>20</sup> https://www.fao.org/3/i5600e/i5600e.pdf

<sup>&</sup>lt;sup>21</sup> https://www.worldbank.org/en/topic/water/brief/water-and-conflict

<sup>&</sup>lt;sup>22</sup> https://unesdoc.unesco.org/ark:/48223/pf0000261593

<sup>&</sup>lt;sup>23</sup> https://www.who.int/news-room/fact-sheets/detail/drinking-water

<sup>&</sup>lt;sup>24</sup> https://washdata.org/sites/default/files/documents/reports/2018-01/JMP-2017-report-final.pdf

<sup>&</sup>lt;sup>25</sup> https://www.fao.org/3/cb1447en/cb1447en.pdf

<sup>&</sup>lt;sup>26</sup> USA Global Water Security paper

<sup>&</sup>lt;sup>27</sup> https://reliefweb.int/sites/reliefweb.int/files/resources/ethiopia hrd 2016.pdf

<sup>&</sup>lt;sup>28</sup> https://www.unep.org/resources/report/water-and-security-making-link

<sup>&</sup>lt;sup>29</sup> https://sdgs.un.org/goals/goal6

<sup>30</sup> https://unesdoc.unesco.org/ark:/48223/pf0000375724

# PREVENTING WATER SCARCITY IN DROUGHT-PRONE REGIONS: SUSTAINABLE SOLUTIONS FOR FRESHWATER CONSERVATION AND MANAGEMENT

## History of the topic

International recognition of water issues dates back decades<sup>31</sup>. In 1977 the UN hosted the first World water conference (Mar del Plata), declaring access to water a human right and a top priority<sup>32</sup>. The 1992 Rio earth summit highlighted freshwater management as key to sustainable development<sup>33</sup>. UN agencies and treaties have since addressed water scarcity: for example, the 1997 UN Convention on the Non-navigational uses of international watercourses, which promotes basin cooperation<sup>34</sup>. In 2000, access to safe drinking water became a Millennium development goal target (MDG 7c)<sup>35</sup>. The UN proclaimed 2005–2015 the International decade "Water for life" to encourage action<sup>36</sup>. In 2010, the UN General assembly explicitly recognized the human right to safe water and sanitation<sup>37</sup>.

More recently, the Sustainable development Goals (2015) include Goal 6: "Ensure availability and sustainable management of water and sanitation for all<sup>38</sup>." In support, the UN declared 2018–2028 the "Water Action Decade" to avert a global water crisis<sup>39</sup>. In parallel, disaster risk frameworks have emphasized water: the Hyogo Framework (2005–2015) stressed reducing disasters (including drought)<sup>40</sup>, and its successor the Sendai Framework (2015–2030) calls for resilience to natural hazards – implicitly covering drought risk<sup>41</sup>. The UN Convention to Combat Desertification (UNCCD, 1994) also connects land degradation and water scarcity<sup>42</sup>. More recently, UN Water (the UN's interagency group on water)<sup>43</sup> and individual agencies (UNICEF, FAO, World Bank) regularly report on global water stress, helping shape policy<sup>44</sup>.

At the regional level, water scarcity has been framed as a security and humanitarian issue<sup>45</sup>. For example, the repeated droughts in the Sahel during the 1970s and 1980s and in

https://www.un.org/millenniumgoals/environ.shtml#:~:text=worldwide%20by%202014.-,Target%207.,five% 20years%20ahead%20of%20schedule

<sup>31</sup> https://www.unwater.org/about-unwater/

<sup>32</sup> https://digitallibrary.un.org/record/620060

<sup>&</sup>lt;sup>33</sup> https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf

<sup>34</sup> https://legal.un.org/ilc/texts/instruments/english/conventions/8\_3\_1997.pdf

<sup>35</sup> 

<sup>36</sup> https://undocs.org/A/RES/58/217

<sup>&</sup>lt;sup>37</sup> https://undocs.org/A/RES/64/292

<sup>38</sup> https://sdgs.un.org/goals/goal6

<sup>&</sup>lt;sup>39</sup> https://undocs.org/A/RES/71/222

<sup>40</sup> https://www.unisdr.org/we/coordinate/hfa

<sup>&</sup>lt;sup>41</sup> https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030

<sup>42</sup> https://www.unccd.int/convention/about-convention

<sup>43</sup> https://www.unwater.org/publications/

<sup>&</sup>lt;sup>44</sup> https://www.worldbank.org/en/topic/water/publication/high-and-dry-climate-change-water-and-theeconomy

<sup>45</sup> https://www.unwater.org/water-facts/water-scarcity/

East Africa during the 1990s and 2000s caused famine, mass displacement, and conflict over resources. Governments, together with UN agencies, responded by establishing early-warning systems for drought and famine, such as the Famine early warning systems network (FEWS NET). These networks aim to provide forecasts and alerts to mitigate the humanitarian impact of water shortages, though they still struggle with limited reach in remote rural areas.

Another regional response has been the creation of international river treaties and water-sharing agreements. For example, the Nile waters agreements between upstream and downstream states or the Indus Waters Treaty between India and Pakistan, aim to regulate shared river use. These agreements can reduce tensions and secure long-term access, but they are also sources of political friction when upstream demand grows or climate change reduces river flow.

Water scarcity has therefore shifted from being treated purely as a technical management challenge to being understood as part of climate adaptation, regional cooperation, and disaster risk reduction. Regional organisations, such as the African Union and the European Union, now integrate water security into their climate resilience policies. However, enforcement of agreements and equitable sharing often remain weak, and unequal access to water can worsen instability in fragile states.

#### Current situation

Water stress is already high worldwide. As of 2020, an estimated 2.4 billion people lived in water-stressed countries, including 800 million in countries experiencing extremely high stress<sup>46</sup>. By 2022, roughly 2.2 billion people still lacked safely managed drinking water, and about half the global population experienced severe water shortages, at least part of that year<sup>47</sup> Droughts have affected over 1.4 billion people globally from 2002 through 2021<sup>48</sup>. The impact is especially severe in some regions: for instance, Central and Southern Asia face very high water stress (over 75% of supply withdrawn), and Northern Africa has critical water stress above 100%<sup>49</sup> In Africa, WMO reports that about 250 million people already live with high water stress, and up to 700 million could be displaced by 2030 due to

 $\underline{06/\#:} \text{~:text=renewable} \% 20 \text{freshwater} \% 20 \text{resources, stressed} \% 20 \text{countries}$ 

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 $\frac{\text{https://sdgs.un.org/goals/goal6\#:}\sim:\text{text=None\%20of\%20the\%20SDG\%206,of\%20the\%20world\%E2\%80\%99}{\text{s\%20population}}$ 

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 $\frac{\text{https://sdgs.un.org/goals/goal6\#:}\sim:\text{text=None\%20of\%20the\%20SDG\%206,of\%20the\%20world\%E2\%80\%99}{\text{s\%20population}}$ 

<sup>46</sup> https://unstats.un.org/sdgs/report/2023/goal-

<sup>49</sup> https://unstats.un.org/sdgs/report/2023/goal-06/#:~:text=renewable%20freshwater%20resources,stressed%20countries

drought-driven water shortages<sup>50</sup>. These trends show that many areas are already experiencing critical water scarcity, underlining the urgency of solutions.

As a solution to the problem a few methods are used. One method is desalination, by which salt is removed from seawater to produce freshwater. It is used by Israel, Spain, Jordan and covers about 70% of Cyprus's drinking water needs. Israel has launched a scheme to pump desalinated water into the sea of Galilee, which aims to restore ecological balance and secure freshwater supplies amid drought.<sup>51</sup> Desalination is crucial in air and coastal regions. However because of its high energy use, it produces a lot of greenhouse gas emissions. Brine, which is a byproduct of desalination, harms marine ecosystems where it's deposited.<sup>52</sup> Another example is wastewater treatment and reuse, where sewage and and industrial water are treated, so that they can be reused for agriculture, industry or even drinking. A country which reuses its water is Singapore with NEWater, which supplys around 40% of the nation's demand. This method significantly boost water availability but it requires expensive interest structure and often faces public scepticism over the idea.<sup>53</sup> Rainwater harvesting happens when rainfall is collected and stored for later use. In India rainwater harvesting system can capture around 10 million liters per day which are used to recharge aqualifiers and supply schools. The technique is simple, yet effective in areas with seasonal rainfall. However it is limited in dry regions and requires carefull maintenance of storage systems.<sup>54</sup> England has historically low reservoir levels because of a lack of rainwater and is currently considering hosepipe bans, which would save 3%-7% of daily water use.<sup>55</sup>

## **Block positions**

Africa: Many African nations emphasize that climate change is worsening droughts and water scarcity. A WMO report notes that roughly 250 million Africans now face high water stress and up to 700 million people could be displaced by scarcity by 2030<sup>56</sup>. Solutions often centre on climate finance, drought early warning systems and investment in irrigation

https://wmo.int/news/media-centre/state-of-climate-africa-highlights-water-stress-and-hazards#:~:text=The%20State%20of%20the%20Climate,managed%20water%20resources%20by%202030 https://nypost.com/2025/09/04/world-news/israel-to-pump-desalinated-mediterranean-water-into-thesea-of-galilee/

<sup>&</sup>lt;sup>52</sup> https://www.straitstimes.com/world/europe/cyprus-steps-up-desalination-as-worsening-droughts-parch-the-island

<sup>&</sup>lt;sup>53</sup> https://www.pub.gov.sg/Public/WaterLoop/OurWaterStory/NEWater

<sup>54</sup> https://climatecosmos.com/sustainability/9-ways-local-communities-are-tackling-water-scarcity/

<sup>&</sup>lt;sup>55</sup> https://www.theguardian.com/environment/2025/jul/12/england-reservoirs-lowest-level-for-decade-hosepipe-bans

<sup>&</sup>lt;sup>56</sup> https://wmo.int/news/media-centre/state-of-climate-africa-highlights-water-stress-and-hazards#:~:text=The%20State%20of%20the%20Climate,managed%20water%20resources%20by%202030

and storage. Technology transfer and funding are often requested to build resilience in agriculture and water supply<sup>57</sup>.

Asia: Countries in South and Central Asia report extremely high water stress (central Asia >75%)<sup>58</sup>. Key issues include transboundary river management (Indus, Mekong, Amu Darya) and balancing water for agriculture with rapid population growth<sup>59</sup>. The Asian development bank promotes large scale irrigation upgrades, wastewater reuse and conservation projects as priorities. International cooperation and aid are needed to improve water governance and ensure equitable access.

Europe: Water scarcity is no longer limited to arid regions. The European Commission reports that 38% of EU inhabitants were affected by water scarcity in 2019<sup>60</sup> and aims to ensure everyone has access to sufficient, good-quality water<sup>61</sup> The EU advocates integrated policies (like the EU Water Framework Directive) to protect water bodies and promote efficiency. Europe increasingly invests in efficiency measures. deselination in coastal areas, and cross-border river basin agreements. Policymakers also frame water scarcity as part of the EU's broader climate and SDG commitments, calling for stronger global follow-through.

North america: The United States and Mexico are experiencing recurrent droughts, particularly in the Colorado and Rio Grande basins, where overuse and climate change have reduced flows. In response, policies have been adopted that include state-level water conservation laws, investments in desalination (California, Texas), aquifer restoration, and stormwater capture. The North american development bank has established a \$400 million Water resilience fund to support cross-border projects such as canal modernization, water recycling, and desalination plants. Canada, while less drought-prone, prioritizes watershed protection, sustainable groundwater use, and indigenous-led water management.

South America: South America is experiencing severe droughts in the Amazon and La Plata basins, threatening ecosystems, hydropower, and food security. Brazil uses integrated river basin management and drought contingency plans, while Chile has experimented with water markets, although these have been criticized for favoring industry over rural communities [18]. Regional strategies emphasize climate-smart agriculture, reservoir

<sup>&</sup>lt;sup>57</sup> https://www.unep.org/news-and-stories/story/water-scarcity-africa-climate-change

<sup>58</sup> https://unstats.un.org/sdgs/report/2023/goal-

<sup>06/#:~:</sup>text=renewable%20freshwater%20resources,stressed%20countries

<sup>59</sup> https://www.adb.org/sectors/water/main

<sup>60</sup> https://environment.ec.europa.eu/topics/water/water-scarcity-and-droughts\_en#:~:text=In%20the%20EU

<sup>61</sup> https://environment.ec.europa.eu/topics/water/water-scarcity-and-droughts\_en#:~:text=Objectives 2

capacity expansion, and rural rainwater harvesting. Governments are increasingly positioning water policy as essential for climate change adaptation and energy security.

Oceania: Australia has pioneered drought adaptation with the Murray-Darling basin plan, which combines water allocation, strict metering, and trading schemes to balance agricultural, ecological, and community needs. While this model is internationally recognized, critics point to problems with enforcement and equity. In the Pacific Islands, freshwater scarcity is exacerbated by climate change, saltwater intrusion, and extreme droughts. Policies focus on rainwater harvesting, small-scale desalination, and regional cooperation. However, these countries emphasize that international financial and technical support is crucial, as small island states face unique vulnerabilities.

#### PAST UN ACTIONS AND RESOLUTION

The United Nations has taken a leadership role in coordinating global water policy, through initiatives like UN-Water, which produces regular assessments of global water stress levels. It utilises a series of resolutions, initiatives and strategies aimed to promote sustainable conservation and management of freshwater. In 2010, the UN General assembly recognised the human right to safe and clean drinking water and sanitation as essential. This laid the foundation for further action and policies focused on water accessibility and sustainability<sup>62</sup>. To achieve these goals, the UN launched the International decade for action - water for sustainable development<sup>6364</sup>. In 2023, the General assembly called on UN bodies to mainstream drought resilience into their programmes when supporting countries prone to drought or water scarcity<sup>65</sup>. The UN water policy report, "Addressing water Scarcity," provides guidance on sustainable groundwater management, including assessing the "sustainability" of planned groundwater extraction and promoting water recycling and reuse<sup>6667</sup>. In addition, the UN Decade on Ecosystem restoration focuses on restoring degraded ecosystems, which play an important role in maintaining the water cycle and increasing water availability. Through ecosystem rehabilitation, the UN aims to improve the quality and quantity of water. This benefits both human populations and biodiversity<sup>68</sup>.

<sup>62</sup> https://www.unwater.org/news/10th-anniversary-unga-resolution-human-rights-water-and-sanitation

<sup>63</sup> https://sdgs.un.org/topics/water-and-sanitation

<sup>64</sup> https://www.un.org/sustainabledevelopment/water-action-decade

<sup>65</sup> https://docs.un.org/en/A/RES/78/154

<sup>66</sup> https://www.unwater.org/sites/default/files/app/uploads/2017/05/waterscarcity.pdf

<sup>67</sup> https://www.unwater.org/publications/coping-water-scarcity

<sup>68</sup> https://en.wikipedia.org/wiki/UN\_Decade\_on\_Ecosystem\_Restoration

#### SUMMARY AND ADDITIONAL RESEARCH

## Summary

Water scarcity in drought-prone regions is a multi-faceted problem requiring integrated solutions<sup>69</sup>. Key themes include: improving water-use efficiency (in agriculture and cities), expanding alternative supplies (rainwater, reuse, desalination), protecting watersheds and groundwater, and enhancing governance (pricing, data, cooperation). Regional collaboration (transboundary river management, shared technology) is crucial, especially as climate change alters water flows<sup>70</sup>. Disaster risk reduction strategies, such as early warning for drought and resilient infrastructure—should be linked with long-term water planning. Given the diverse country positions, compromise will be needed between calls for financial/technical support (from poorer, water-stressed nations) and innovation/management contributions (from wealthier or technology-rich states)<sup>71</sup>.

Additional research could include: case studies of successful projects (e.g. Cape Town's drought response, Israeli water reuse model), detailed country reports (UN Water Country Briefs), and analyses of water–climate interactions (IPCC WGII, UNDRR reports). Delegates should also study legal instruments and international funding mechanisms related to water and climate.

## Useful links and further reading

- 1. UNDRR: official site with reports (e.g. Global Assessment Report) on disasters and drought. www.undrr.org
- 2. UN-Water: gateway to UN bodies' water data and reports (including SDG 6 progress). https://www.unwater.org/
- 3. UNESCO World Water Assessment Programme: Global Water Development Reports and data. <a href="http://www.unesco.org/water/wwap/">http://www.unesco.org/water/wwap/</a>
- 4. WHO/UNICEF Joint Monitoring Programme: statistics on water and sanitation access. <a href="https://washdata.org/">https://washdata.org/</a>
- 5. World Bank Water Global Practice: country studies and project examples. https://www.worldbank.org/en/topic/water
- 6. FAO AQUASTAT: country profiles on water resources and usage. https://www.fao.org/aquastat/en/

<sup>69</sup> https://www.unwater.org/water-facts/scarcity/

<sup>&</sup>lt;sup>70</sup> https://unece.org/water

<sup>&</sup>lt;sup>71</sup> https://www.unwater.org/publications/un-water-policy-brief-climate-change-and-water

- 7. Intergovernmental Panel on Climate Change (IPCC) reports: especially WGII chapters on water and climate impacts. <a href="https://www.ipcc.ch">https://www.ipcc.ch</a>
- 8. Water Integrity Network: for issues of governance and corruption in water. <a href="https://www.waterintegritynetwork.net/">https://www.waterintegritynetwork.net/</a>

## Key terms and guiding questions

## Key terms:

- Drought: A natural hazard defined as a prolonged period of deficient rainfall, causing water shortages. Drought differs from other water scarcity in that it is a temporary climate event, but its impacts can be long-lasting.
- Water Scarcity: When water demand exceeds supply in a region. Can be physical (not enough water) or economic (lack of infrastructure to access water). Often measured as per-capita availability (below 1,000 m³/year = scarcity).
- Water Stress: The ratio of water withdrawals to renewable resources. High stress (e.g. above 40%) indicates unsustainable usage.
- Desalination: The process of removing salt from seawater to produce drinking water. Widely used in Gulf countries and increasingly elsewhere, but energy-intensive.
- Rainwater Harvesting: Collecting and storing rain (e.g. from roofs) for later use. Useful in arid regions to supplement supply.
- Water Recycling/Reuse: Treating wastewater to make it suitable for reuse
  (agriculture, industrial or even potable use). Reduces demand for freshwater.
- Integrated Water Resources Management (IWRM): A holistic approach to coordinate development and management of water, land and related resources across sectors and jurisdictions.
- Groundwater Over-extraction: Pumping aquifers faster than they recharge, leading to falling water tables and land subsidence.

### **Guiding Questions:**

- 1. Risk Reduction: How can drought early warning and disaster resilience measures be integrated into national water policies?
- 2. Technology & Finance: What role should advanced technologies (desalination, recycling, irrigation efficiency) play, and how to fund them?
- 3. Equity & Access: How can solutions ensure equitable water access for vulnerable communities (rural poor, women, indigenous groups)?
- 4. International Cooperation: What mechanisms can improve cross-border water management, especially for shared basins?

5.	Sustainability: How to balance immediate relief (emergency water aid) with long-term sustainability (ecosystem protection, demand management)?

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