

Global Workshop on Conjunctive Management of Surface Water and
Groundwater: National to Transboundary Level
GENEVA, 16 - 17 October 2023



Efficiency of Groundwater Activities within a Conjunctive Approach

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Water

What do economists tell us on the need for GW management?



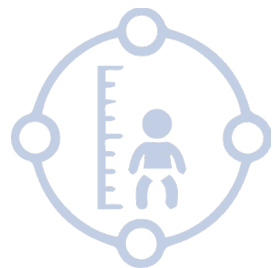
Groundwater is nature's insurance



Buffers economic growth losses by up to a **1/3** in the event of drought,

and protects cities against day-zero-type events

Can mitigate **1/2** of the losses in agricultural yield caused by droughts



Protects against malnutrition and stunting: without groundwater access, dry shocks can increase the chances of stunting by up to

20% among children under the age of 5

But Depletion, Degradation, and Competition threaten its sustainability



Up to **92%**

of **transboundary aquifers** in the Middle East and South Asia show signs of groundwater depletion



In South Asia, groundwater provided an **agricultural revenue advantage** of between

10% and **20%**

but this **benefit is declining** as the resource is depleted



Without groundwater, the **surface water contributions** to irrigation can decrease by up to

20%

impacting ~51,000 square kilometers of irrigated areas



Two different sets of aquifer management

- Aquifers within the river basin (Stampriet Aquifer within Orange- Senqu River Basin, EU-WFD...)
- Extent of the aquifer system / river basin do not coincide (NWSA-SASS, Guarani, NSAS...)

SMAB-BASM is a challenging example

OMVS and OMVG learning to work
jointly on the secretariat

