



# **SDGs and Indicators for Agricultural Water**

**International Workshop  
GOING BEYOND AGRICULTURAL WATER PRODUCTIVITY**

**8-9 December 2014, World Bank Group**

**Seleshi Bekele Awulachew**

**Water Energy and Capacity Development Branch  
Division for Sustainable Development, UN -DESA**

# From “MDGs” to “Sustainable Development Goals”

- **Big change:** universal goals that will apply to every nation (not just developing countries)
- **Cover the MDGs plus additional economic, social, and environment issues:** the full sustainable development agenda
- **Will be finalized in 2015** and run from 2016 to 2030

Sat 19 July 9:23 am

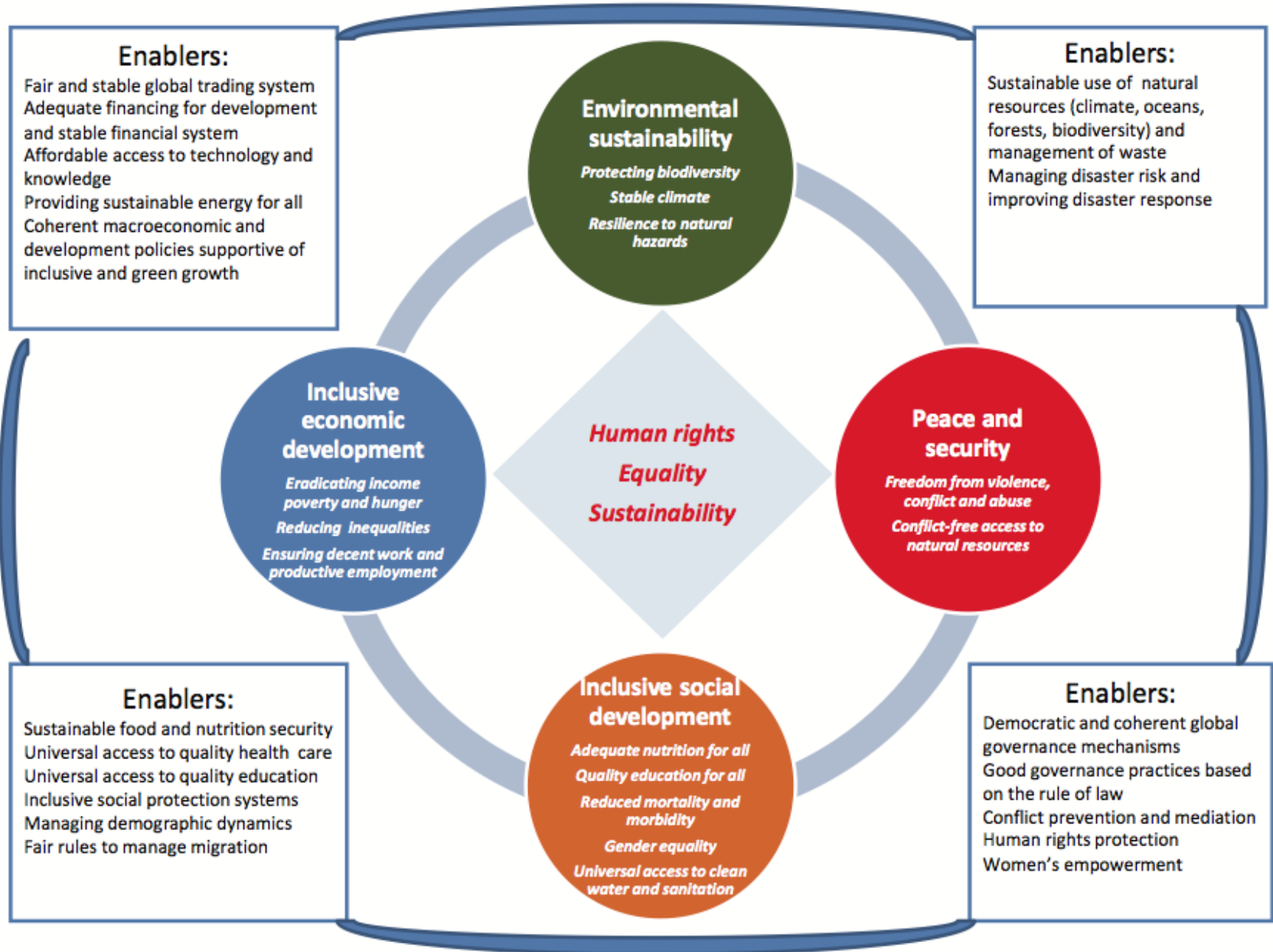
## INTRODUCTION TO THE PROPOSAL OF THE OPEN WORKING GROUP FOR SUSTAINABLE DEVELOPMENT GOALS

1. The Rio+ outcome document, *The future we want*, inter alia, set out a mandate to establish an Open Working Group to develop a set of sustainable development goals for consideration and appropriate action by the General Assembly at its 68<sup>th</sup> session. It also provided the basis for their conceptualization. The Rio outcome gave the mandate that the SDGs should be coherent with and integrated into the UN development agenda beyond 2015.
2. Poverty eradication is the greatest global challenge facing the world today and an indispensable requirement for sustainable development. The Rio+20 outcome reiterated the commitment to freeing humanity from poverty and hunger as a matter of urgency.
3. Poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production and protecting and managing the natural resource base of economic and social development are the overarching objectives of and essential requirements for sustainable development.
4. People are at the centre of sustainable development and, in this regard, Rio+20 promised to strive for a world that is just, equitable and inclusive, and committed to work together to promote sustained and inclusive economic growth, social development and environmental protection and thereby to benefit all, in particular the children of the world, youth and future generations of the world without distinction of any kind such as age, sex, disability, culture, race, ethnicity, origin, migratory status, religion, economic or other status.
5. The OWG also reaffirmed all the principles of the Rio Declaration on Environment and Development, including, inter alia, the principle of common but differentiated responsibilities, as set out in principle 7 thereof.
6. It also reaffirmed the commitment to fully implement the Rio Declaration, Agenda 21, the Programme for the Further Implementation of Agenda 21, the Plan of Implementation of the World Summit on Sustainable Development (Johannesburg Plan of Implementation) and the Johannesburg Declaration on Sustainable Development, the Programme of Action for the Sustainable Development of Small Island Developing States (Barbados Programme of Action) and the Mauritius Strategy for the Further Implementation of the Programme of Action for the Sustainable Development of Small Island Developing States. It also reaffirmed the commitment to the full implementation of the Programme of Action for the Least Developed Countries for the Decade 2011-2020 (Istanbul Programme

1

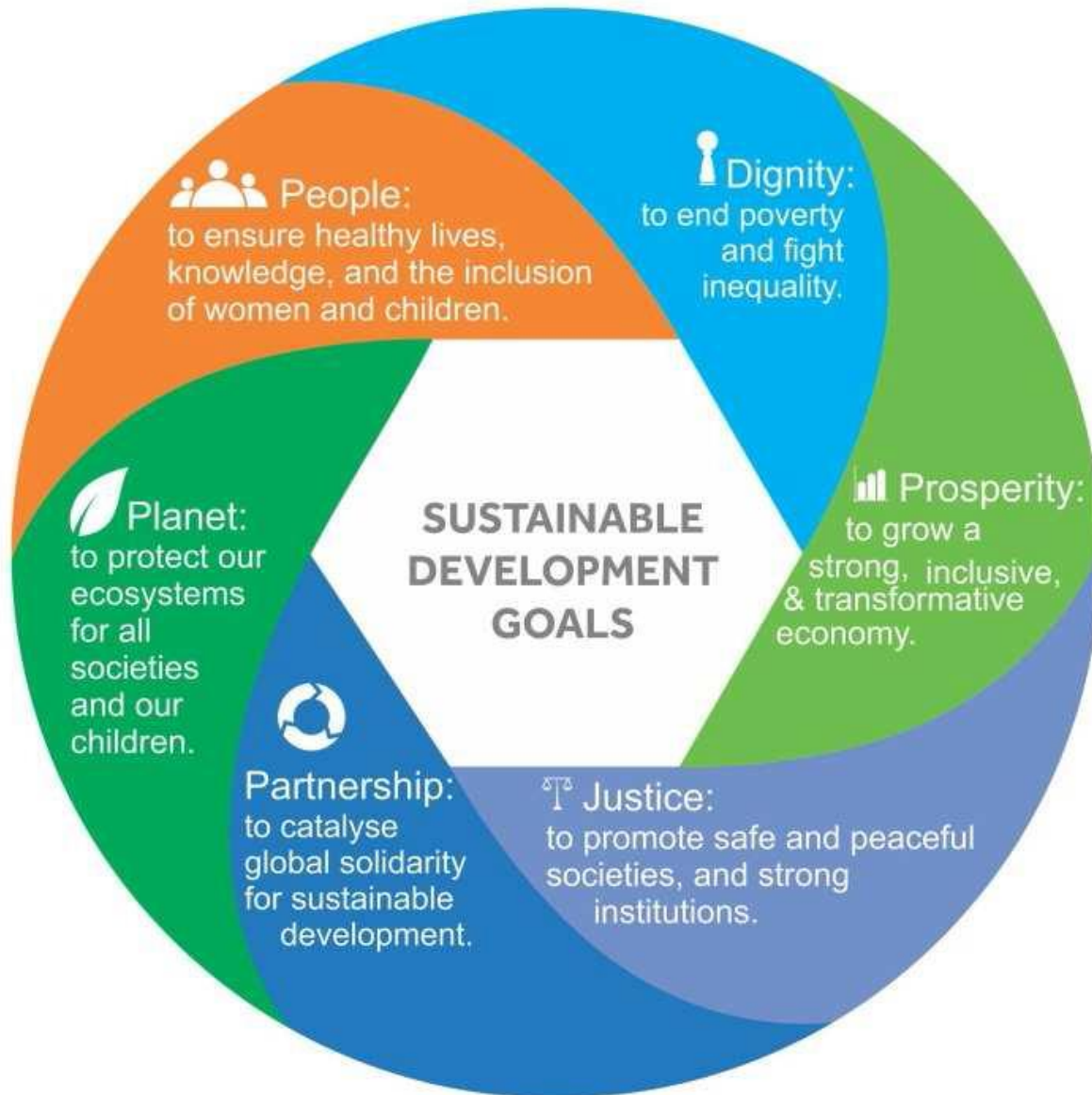
*Outcome document of the  
Open Working Group, July 2014*

# A Framework for Sustainable Development



# The SG Report

## Six essential elements for delivering on the SDGs



# The Sustainable Development: OWG

**17 Goals & 169 Targets → Rio+20 Outcome, Poverty, Environment, Growth, People Center SD Agenda**

Goal 1. End poverty in all its forms everywhere

2. End hunger, achieve food security and improved nutrition and promote **sustainable agriculture**

3. Ensure healthy lives and promote well-being for all at all ages

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

5. Achieve gender equality and empower all women and girls

**6. Ensure availability and sustainable management of water and sanitation for all**

7. Ensure access to affordable, reliable, sustainable and modern energy for all

8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

10. Reduce inequality within and among countries

11. Make cities and human settlements inclusive, safe, resilient and sustainable

12. Ensure sustainable consumption and production patterns

13. Take urgent action to combat climate change and its impacts

14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

17. Strengthen the means of implementation and revitalize the global partnership for SD

**Action Oriented, Global Nature, Universally Applicable**

## Target goal 6: Ensure availability and sustainable management of W&S 4 ALL

- |     |  |
|-----|--|
| 6.1 | by 2030, achieve universal and equitable access to safe and affordable <b>drinking water</b> for all   |
| 6.2 | by 2030, achieve access to adequate and equitable <b>sanitation and hygiene</b> for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations  |
| 6.3 | by 2030, <b>improve water quality</b> by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and increasing recycling and safe reuse by x% globally                                 |
| 6.4 | by 2030, substantially <b>increase water-use efficiency</b> across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity                                    |
| 6.5 | by 2030 implement <b>integrated water resources management</b> at all levels, including through <b>transboundary cooperation</b> as appropriate  |
| 6.6 | by 2020 protect and <b>restore water-related ecosystems</b> , including mountains, forests, wetlands, rivers, aquifers and lakes   |
| 6.a | by 2030, expand <b>international cooperation and capacity-building support to developing countries</b> in water and sanitation related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies |
| 6.b | support and strengthen the <b>participation</b> of local communities for improving water and sanitation management   |





## Targets G 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- |     |  |
|-----|--|
| 2.3 | by 2030 double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets, and opportunities for value addition and non-farm employment |
| 2.4 | by 2030 ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters, and that progressively improve land and soil quality                          |

Water Productivity is also intersection of Goal 2 and Goal 6!

# G6 Linkage to the Other Goals: Stated

**3.3 end water-borne diseases**

**3.9 reduce the number of deaths and illnesses from water pollution and contamination**

**15.8 Significantly reduce the impact of invasive alien species on land and water ecosystems**

**Goal 6:  
Ensure availability and sustainable management of water and sanitation for all**

**11.5 significantly reduce deaths and losses related to water disaster**

**15.1 ensure sustainable use of terrestrial and inland freshwater ecosystems and their services**

**12.4 Sound Management of Waste to reduce release in to water**



# G6 to Other Goals & Nexus

- Poverty Goal 1 → **AWM 1 / α Poverty**
  - Food security, nutrition and agriculture Goal 2
  - Education Goal 4 → **WS Access α Girls Education**
  - Gender women and girls Goal 5
  - Energy Goal 7 → **E = f(water)**
  - Resilient Infrastructure Goal 8
  - DRR, Climate Resilience .... Etc
- } → **Res = f(WRM)**

## Nexus → Integration!!

- Water-poverty-wealth creation
- Water-food-energy nexus
- Water-peace-security-cooperation-transboundary governance
- Water-climate change-vulnerability-resilience-adaptation

# Goals → Targets → Indicators → Data → M&R

## ■ Indicators

- Ch 40 of Agenda 21 calls on countries and the international community to develop indicators of sustainable development.
- They are needed to increase focus on SD and assist decision-makers at all levels to adopt sound national SD
- They help better decisions and more effective actions by simplifying, clarifying and making aggregated information available to policy makers.

# Indicators

- They can help incorporate physical and social science knowledge into decision-making
- Help measure and calibrate progress toward sustainable development goals
- Provide an early warning to prevent economic, social and environmental setbacks
- They are also useful tools to communicate ideas, thoughts and values
- etc

# Indicators, Examples

Theme	Sub-theme	Core indicator	Other indicator
Poverty	Income poverty	Proportion of population living below national poverty line	Proportion of population below \$1 a day
	Income inequality	Ratio of share in national income of highest to lowest quintile	
	Sanitation	Proportion of population using an improved sanitation facility	
	Drinking water .....	Proportion of population using an improved water source	
Land	Agriculture	Arable and permanent cropland area	Fertilizer use efficiency
			Use of agricultural pesticides
			Area under organic farming

# Indicators for Agricultural Water Use

- The indicator water abstraction estimates agricultural contribution to total freshwater abstraction
- **Main Indicators Examples**
  - Annual freshwater withdrawals, % for agriculture
  - Water abstraction for irrigation
  - Water productivity: GDP/water use

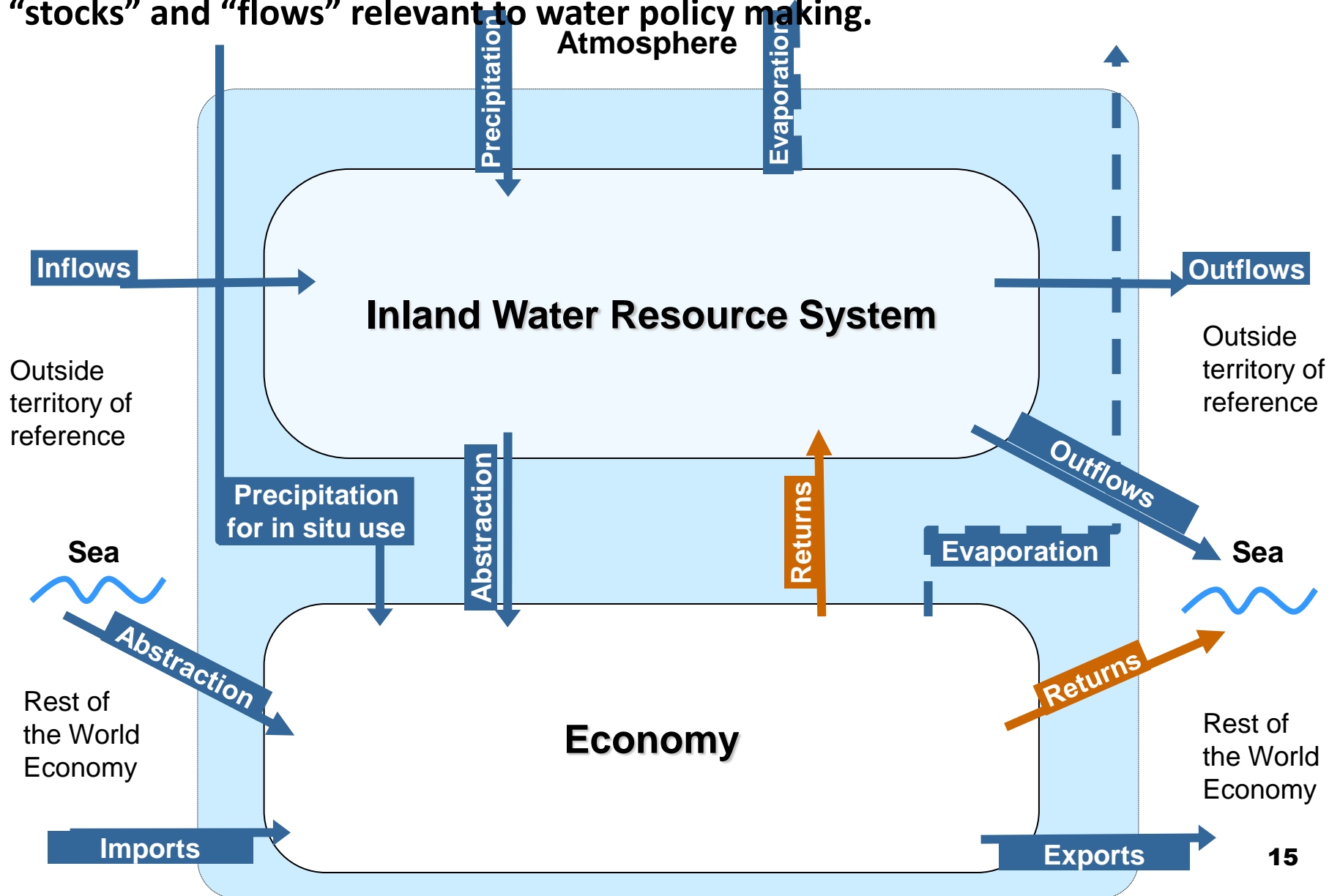
CSD, The World Bank Group; SEEA, FAO, IWMI, ...

# Supporting Indicators

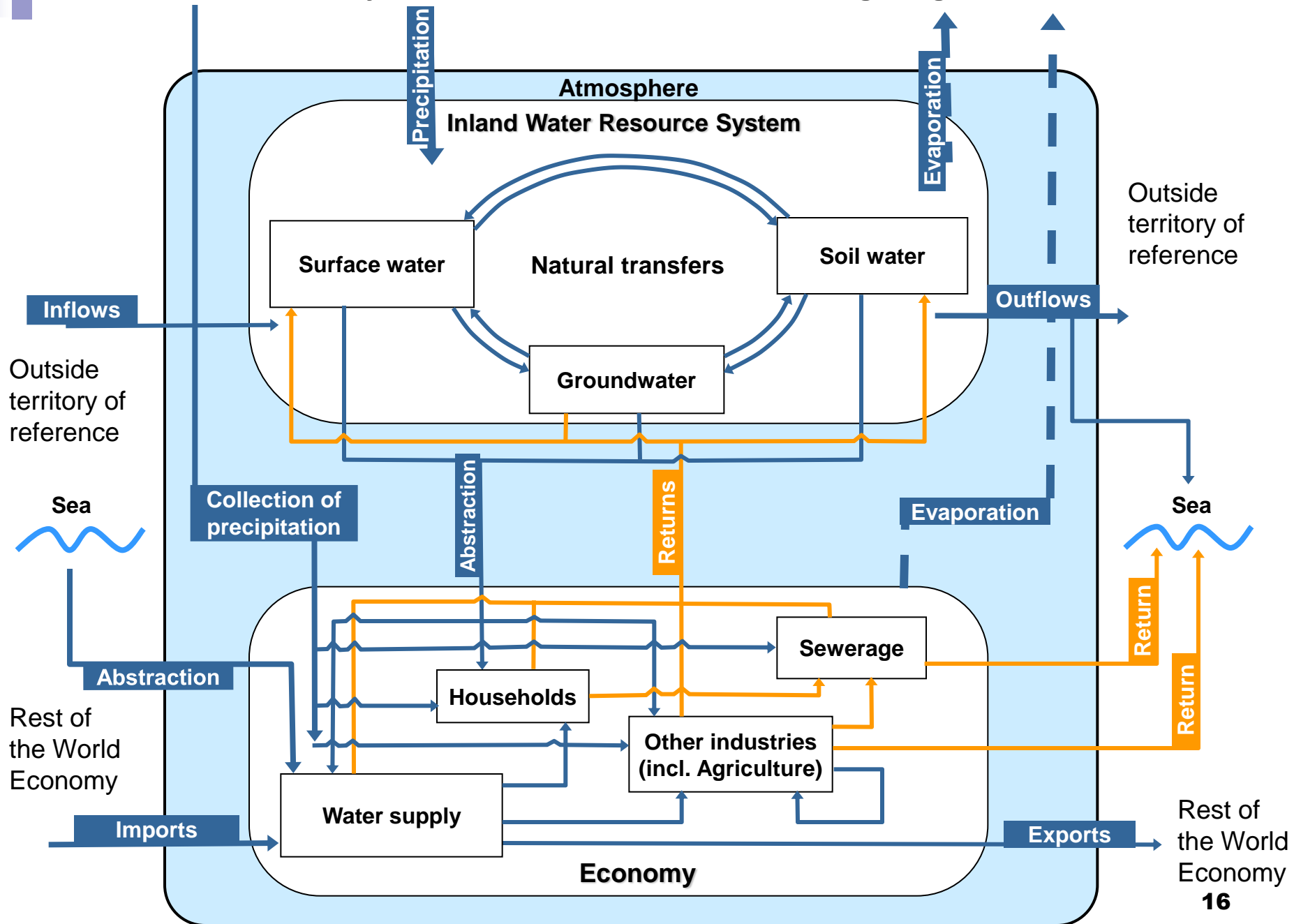
- Irrigation
  - Irrigable area
  - Irrigated area
  - Irrigated crop areas
  - Share of irrigated area in total agriculture
  - Share of irrigated crop area in total area with that crop
  - Share of holdings using surface, sprinkler or drip irrigation systems
- AWM can also provide broader definition



**SEEA-Water: based on a stock-flow model comprising two main subsystems: the inland water resource system and the economy, concentrates on measuring the “stocks” and “flows” relevant to water policy making.**



The details of each subsystem are shown in the following diagram



# Moving Forward

- SDGs are **Universal, Broad Range** and Require **Integration**
- New **Indicators** are Required- old ones are limited, fit for purpose indicators are needed, ...
- **New Data** Required – scope, increased disaggregation, new focus, use of technology, visibility, prominence
- **Necessary**: data for effective policy, address national priorities, strengthen statistical capacity
- **Lesson**: MDG, CSD, SEEA, Multiple Efforts → coordination
- **Research and new knowledge**
  - How would existing knowledge be used in setting indicators for SDGs?
  - What are the knowledge gaps in unpacking new targets, indicators and data?



Thank You

[awulachew@un.org](mailto:awulachew@un.org)