

SUMMARY

Four Steps Toward Improving Regional Water Security



A Cambodian farmer at an ADB-supported community well in Banteay Meanchey province.

The solutions in Asia and the Pacific: explore groundwater abstraction options, build efficient water infrastructure, develop better data, and improve water management, particularly for agriculture.

Overview

The race is on.

The population and economies of the Asia and Pacific region are growing fast. But so too is the region's thirst for water. Meeting increasing and competing demands on limited water for food, energy, ecosystem and industry have become one of the greatest issues facing the region in the coming decades.

The scale of this challenge is outlined in the new edition of the *Asian Water Development Outlook* (AWDO 2016), which provides a snapshot of water security based on a framework measuring five key dimensions—household, economic, urban, environmental, and resilience to water-related disasters—in 48 countries.

Key Findings

The **good news** is that the AWDO 2016 report notes a positive trend in the number of countries attaining water security, with the number of water insecure countries dropping from 38 out of 49 in 2013, to 29 out of 48 in 2016.

The **bad news** is that 29 countries are **already** water insecure, and that growing water demand from the region's domestic and industrial sectors is projected to increase by 55% by 2050. Over the same period, due to population and economic growth, developing countries will require 100% more food—including more water-intensive, meat-based products—despite the lack of new fresh surface water sources.

In graphic terms: **If current trends persist, water demand in the Asia and Pacific region will exceed available amounts by 2050, at which point an estimated 3.4 billion people will be living in water-stressed areas.**

All of this will affect the region's bottom line. A key message running through the report is that Asia cannot sustain its economic growth unless water is brought into the equation. Water insecurity is already costing the global economy \$500 billion annually, with a total drag of 1% or more of global gross domestic product (GDP).

The AWDO report lays out the following main messages:

- Water security and GDP are closely correlated and reinforce the importance of water as a critical input for sustained economic growth.
- There is a widening gap between rural and urban areas, and between rich and poor in urban areas, with respect to access to water supply and sanitation. Policies and interventions need to improve targeting of actions for inclusive development and to achieve Sustainable Development Goal 6.
- In the face of competing demands and climate variability, water is increasingly an economic good. Its productive use requires an enabling policy framework and accounting for water—knowing how much is available, who is using how much, and setting targets for resource utilization.
- Increasing water demand cannot be met by simply developing new water sources. It requires better water management and more productive use of existing resources in agriculture and urban water services.
- Groundwater abstraction is the hidden resource that must be monitored and managed sustainably. This will require considerations beyond the water sector, given that power subsidies are a key contributor to groundwater overuse
- Development interventions need to consider impacts on the overall water resource base, which is also essential to better understand trade-offs among users. Agriculture continues to be the major consumer of water with limited consideration of its impact on water for domestic use, industry, and the environment.
- Continued efforts are vital to strengthen water security through investments in infrastructure, institutions, and information. Infrastructure alone is not the solution.

- Data constraints remain in describing water security, particularly for cities, where data sets require expansion and more rigorous collection. For river health, a more comprehensive and measurable set of indicators that can be applied across the Asia and Pacific region is needed.

Overarching is the need to also monitor groundwater resources and actually start managing these more sustainably. This will require more thought beyond the water sector, given that power subsidies also contribute to groundwater overuse.

Conclusion

Even if the region is able to increase water productivity, there are major challenges ahead. With an increasing population, expected spatial and temporal changes in water availability due to climate change, and the need to restore aquatic ecosystems, the Asia and Pacific region is facing a huge task.

The interdependence of the factors that determine water security mean that increases in water security will be achieved by governments that "break the traditional sector silos" to find ways and means to manage the linkages, synergies, and trade-offs among the dimensions. This is the process known as integrated water resources management (IWRM) adopted by world leaders in Johannesburg in 2002 at the World Summit on Sustainable Development, which was reaffirmed at the United Nations Conference on Sustainable Development Rio+20 Summit in 2012 and is now included in the Sustainable Development Goals.

Resources

ADB. 2016. [Asian Water Development Outlook 2016.](#)



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With over 20 years experience in the planning, design and implementation of water resources projects in Asia, Yasmin leads ADB knowledge work on water security and irrigation - aiming to drive latest technologies and innovations to improve water resources management. She has also been an ADB project officer for technical assistance, loan processing and administration of diverse water resources projects in Asia. She is a chartered civil engineer with specialization in irrigation engineering.



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