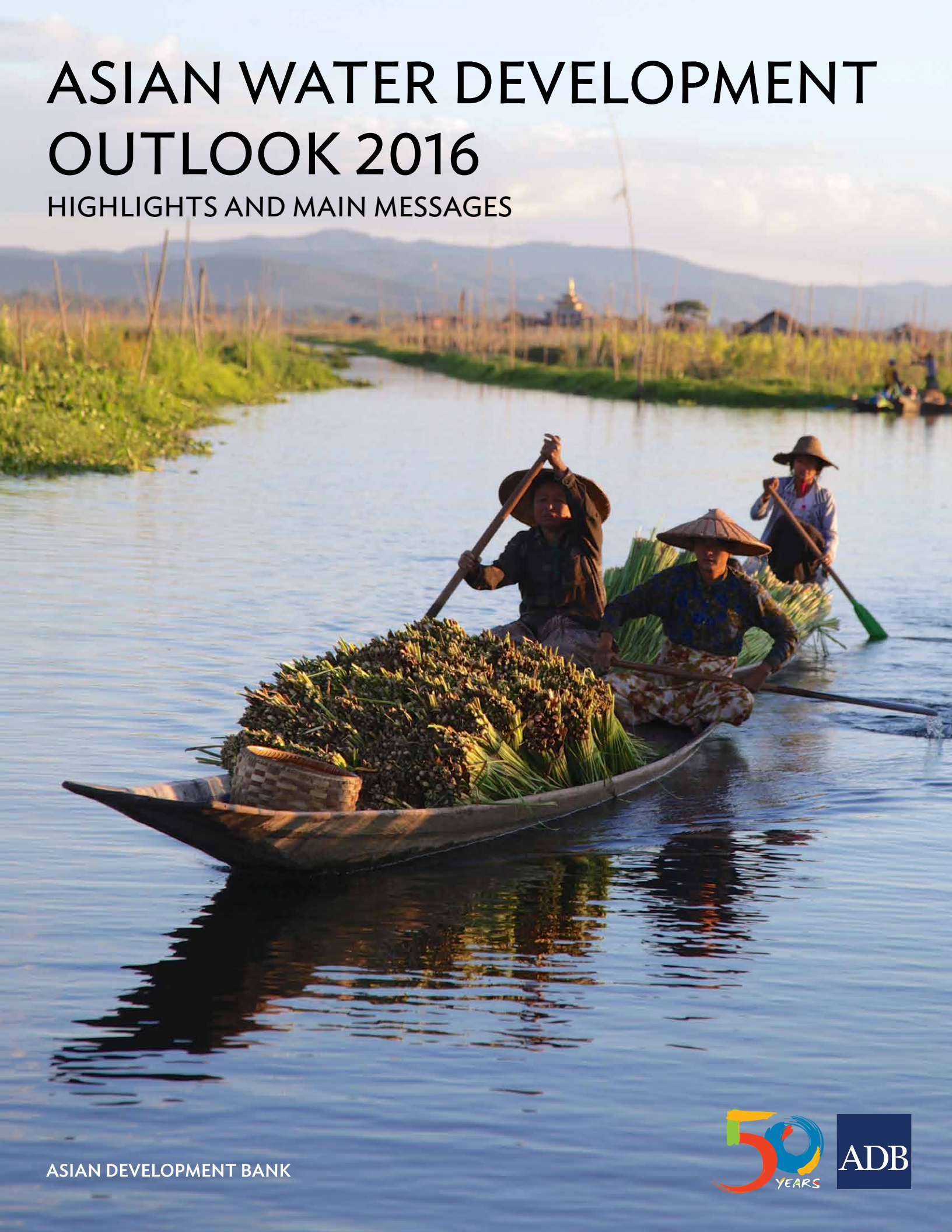
# ASIAN WATER DEVELOPMENT OUTLOOK 2016

## HIGHLIGHTS AND MAIN MESSAGES



ASIAN DEVELOPMENT BANK

50 YEARS

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AWDO 2016 highlights a growing gap between rich and poor in accessing clean water and sanitation in Asian cities.

The new edition of the Asian Water Development Outlook (AWDO 2016),[1] charts progress in water security in Asia and the Pacific over the past 5 years. Overall, the region shows a positive trend in strengthening water security since the previous edition of the report in 2013,[2] when 38 out of 49 countries were assessed as water insecure. In 2016, the number has fallen to 29 countries.

Despite this progress, enormous challenges in water security remain. Asia is home to half of the world's poorest people. Water for agriculture continues to consume 80% of water resources. A staggering 1.7 billion people lack access to basic sanitation. With a predicted population of 5.2 billion by 2050 and 22 megacities by 2030, the region's finite water resources will be under enormous pressure—especially with increasing climate variability. Recent estimates indicate up to 3.4 billion people could be living in water-stressed areas of Asia by 2050.[3]

Water demand is projected to increase by 55% in the region by 2050, due to growing demand from the domestic and industrial sectors. Agriculture will need to produce much more food by that time, 60% more globally and 100% more in developing countries, using diminishing water resources. These challenges are compounded by increasing climate variability and water-related disasters. Poor governance and weak institutional capacity continue to be stubborn obstacles to enhancing water security.

Asia cannot sustain economic growth unless water is brought into the equation. Water insecurity costs the global economy $500 billion annually with a total drag of 1% or more of global gross domestic product (GDP). Meeting the socioeconomic challenges of the region will require going beyond infrastructure-centric solutions to consider the status of water resources and water service provision.

With a dedicated Sustainable Development Goal 6 for access to water and sanitation for all, AWDO 2016 provides a powerful tool to assess the region's gaps in meeting these targets.

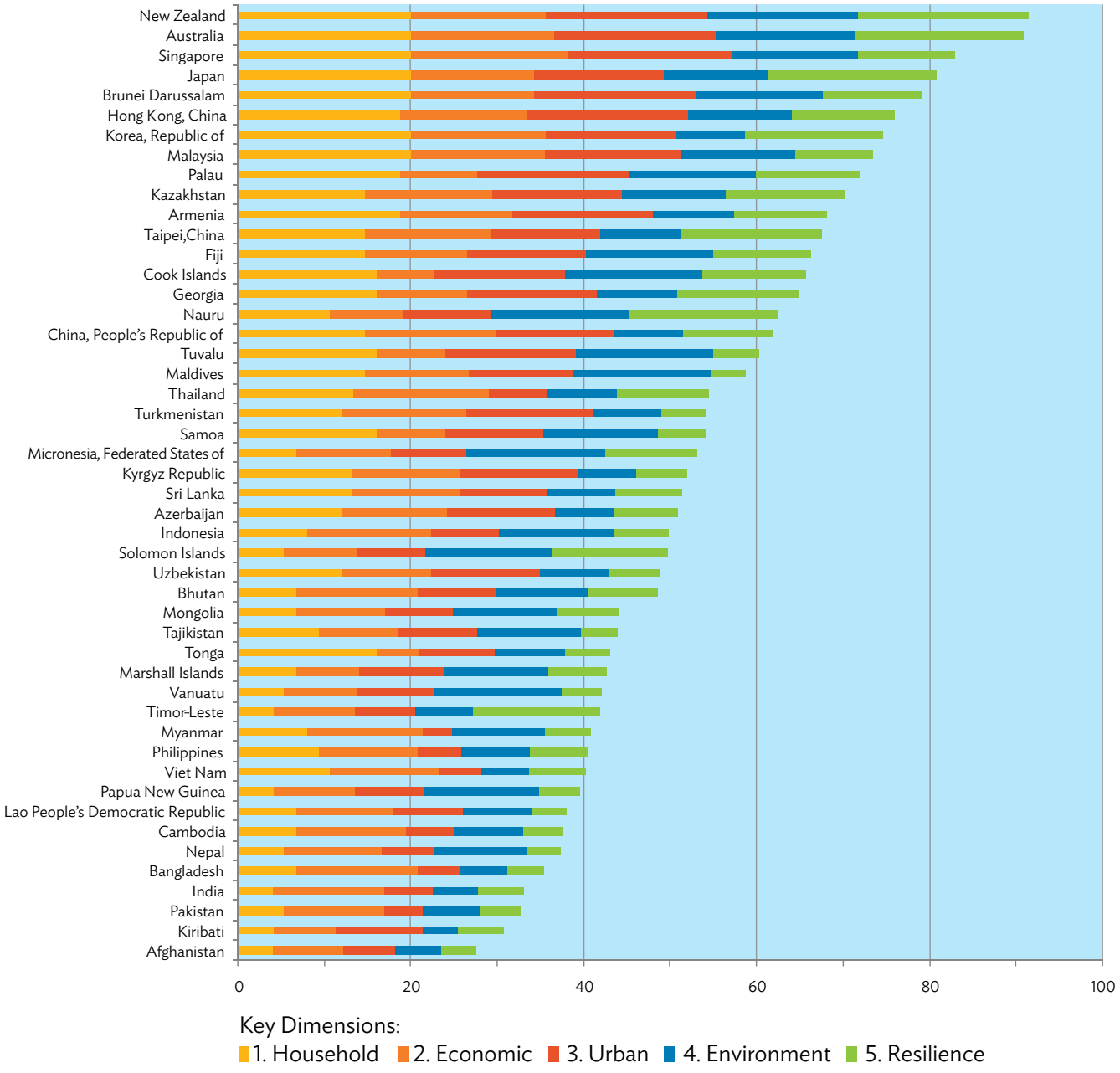
AWDO 2016 uses the latest available data to assess water security in five key dimensions, detailed below and illustrated in the Figure.

1. **Household Access to Piped Potable Water and Improved Sanitation**. Except for the Pacific islands, all regions improved performance between 2013 and 2016. East Asia and Central and West Asia showed the strongest increase. No significant improvement took place in the Pacific. Overall, the region shows a widening gap in household water security between rural and urban areas and between rich and poor.

2. **Economic Water Security.** Across the region there is diversity in the provision of water to meet a country's economic requirements. The highest scoring countries include Singapore, Australia, New Zealand, and Republic of Korea. The lowest scoring group contains many Pacific island countries. Countries that may merit the most focus for strengthening current conditions are concentrated in Central Asia, e.g., Kazakhstan, Kyrgyz Republic, Tajikistan, and Uzbekistan.

1 Asian Development Bank. 2016. *Asian Water Development Outlook 2016: Strengthening Water Security in Asia and the Pacific*. Manila.
2 Asian Development Bank. 2013. *Asian Water Development Outlook 2013: Strengthening Water Security in Asia and the Pacific*. Manila.
3 International Institute for Applied Systems Analysis (IIASA). 2016. *Water Futures and Solutions: Asia 2050*. Vienna.

## National Water Security Index Score




Source: AWDO 2016.

3. **Providing Better Urban Water Services to Build More Livable Cities.** Cities in the region have grown dramatically. However, growth has not always been matched by improvements in basic infrastructure for water, wastewater, and stormwater management. East Asia is doing comparatively well, while South Asia is lagging behind. Bangladesh, Myanmar, Pakistan, the Philippines, and Viet Nam face the most challenges in this key dimension.

4. **Restoring Healthy Rivers and Ecosystems.** Pressures on the health of flowing surface waters are measured through three indicators: (i) river health index; (ii) the degree of change in rivers due to dams, weirs, and direct abstraction; and (iii) environmental governance. Declining river health is most evident in Bangladesh, the lower Yangtze River Basin in the People's Republic of China, Nepal, and northern and southern Viet Nam (Mekong Delta). Governance is an important factor for healthy rivers and ecosystems. Developed countries with good governance like Australia and the Republic of Korea have better river health. However, some lower-income countries, such as Bhutan and Mongolia, also show relatively good river health.

5. **Resilience to Water-related Disasters.** In total, 2,495 water-related disasters struck Asia between 1995 and 2015, killing 332,000 persons and affecting a further 3.7 billion. South Asia has the lowest score for resilience to water-related disasters, notably Bangladesh and India. Several countries increased resilience between 2013 and 2016, including Pakistan and the Philippines.

Agriculture continues to be the largest consumer of water with little consideration of its impact on water for other uses.

## MAIN MESSAGES:

1. Water security and GDP are closely correlated and reinforce the importance of water as a critical input for sustained economic growth.

2. 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.

3. In the face of competing demands and climate variability, water is increasingly an economic good. Its productive use requires an enabling policy framework based on accounting for water—knowing how much is available, who is using how much, and setting targets for resource utilization.

4. 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.

5. 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.

6. 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.

7. Continued efforts are vital to strengthen water security through investments in infrastructure, institutions, and information. Infrastructure alone is not the solution.

8. 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 measureable set of indicators that can be applied across the Asia and Pacific region is needed.

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