

IMF STAFF DISCUSSION NOTE

Is the Glass Half Empty or Half Full? Issues in Managing Water Challenges and Policy Instruments

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INTERNATIONAL MONETARY FUND

Strategy, Policy, and Review Department,
African Department, Fiscal Affairs Department,
Middle East and Central Asia Department

**Is the Glass Half Empty or Half Full?
Issues in Managing Water Challenges and Policy Instruments¹**

Prepared by Kalpana Kochhar, Catherine Pattillo,
Yan Sun, Nujin Suphaphiphat, Andrew Swiston, Robert Tchaidze,
Benedict Clements, Stefania Fabrizio, Valentina Flamini, Laure Redifer, Harald Finger,
and an IMF Staff Team²

Authorized for distribution by Siddharth Tiwari

June 2015

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JEL Classification Numbers: H23, L95, Q25

Keywords: Water, subsidies, externalities, public utilities

Authors' E-mail Addresses: kkochhar@imf.org; cpattillo@imf.org; ysun2@imf.org;
bcllements@imf.org; sfabrizio@imf.org; lredifer@imf.org;
hfinger@imf.org

¹ This paper has benefited from helpful suggestions by Tien Shiao, Paul Reig, and Tianyi Luo of the World Resources Institute, and Julia Bucknall, Richard Damanian, and Diego Juan Rodriguez of the World Bank. Christiana Weekes provided excellent production assistance.

² The IMF team includes Ian Parry, Louis Sears, and Frank Wallace.

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EXECUTIVE SUMMARY

Water challenges are a growing global concern that could hinder countries' economic prospects. Rising water stress, large supply variability, lack of access to safe drinking water and sanitation, and water pollution are already afflicting many parts of the world. Emerging market and developing countries generally face greater challenges because of their larger populations, lower income levels, inadequate infrastructure, and less developed policy and institutional capacity. But advanced countries are not spared either. Looking ahead, water use is expected to continue to rise with population and income growth, but freshwater resources cannot easily be increased. Climate change is likely to exacerbate water demand-supply imbalances.

Building on extensive literature, this paper examines the role of economic policy instruments and institutions in managing water challenges. It provides three key policy-relevant findings, drawing on cross-country analysis and case studies. Notably, some naturally water-deficient countries have been able to overcome water challenges, thanks to sound policies and institutions.

- Getting incentives right, notably by reforming water pricing, can help rationalize water use, promote needed investment, and protect the poor. Water subsidies provided through public utilities are estimated at about \$456 billion or 0.6 percent of global GDP in 2012. They are also inequitable, disproportionately benefiting upper-income groups.
- The most desirable approach to reform water pricing will vary by country, depending on access of the poor to the existing water network and administrative capacity. Effective and autonomous institutions in charge of water management can also provide credibility and synergize popular support for reforms. In developing countries, reforms should strengthen the finances of public water utilities to promote investment and expand access to water and sanitation for the poor. Ensuring adequate maintenance spending is a priority for all countries. Under the right circumstances, establishing markets for water rights can help allocate limited water to highest-valued uses.
- Achieving sound water management requires an integrated and holistic approach going beyond the water sector itself. Water pricing reforms should be complemented by policies that rationalize water use in areas such as agriculture, trade, and energy, while redirecting achieved gains toward protecting the poor. For example, excessive pumping of groundwater can be discouraged by improving regulations and replacing energy subsidies with targeted social assistance.

The IMF can—and should—play a helpful role in ensuring that macroeconomic policies are conducive to sound water management. Since water challenges increasingly affect economic stability and growth, public finances, and poor and vulnerable social groups, they are of immediate importance to the membership. Key roles for the IMF in line with its mandate and expertise would include: (i) assessing the impact of water challenges on growth and macro-stability in collaboration with institutions that specialize in water; (ii) supporting policies to replace perverse subsidies with targeted social assistance under the right circumstances; and (iii) ensuring fiscal sustainability to support water infrastructure investment and financing.