

SUSTAINABLE MANAGEMENT OF WATER AND GREENING THE ECONOMY

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Trends in water demand in the region are not sustainable

- **Slide 2** comes from a presentation by the Planetary Boundaries team (Noone) [The Environmental Outlook Baseline projections; output from the IMAGE suite of models (PBL)]
- Water stress is already severe in several basins in UNECE Europe. Approximately 20 to 50 percent of the mean annual river flow in different basins needs to be allocated to freshwater-dependent ecosystems to maintain them in fair condition. This is unlikely to be possible in many developing countries in Asia and North Africa, in parts of Australia, North America, **and UNECE Europe**, where current total direct water withdrawals (primarily for irrigation) already tap into the estimated environmental water requirements.
- **Slide 3** shows that several EECCA countries are already under severe water stress. The Water Exploitation Index (WEI) compares water demand and available water resources. Stress is considered severe when WEI is above 40%. In Central Asia, agriculture represents up to 94% of freshwater use (see slide 4 ; probably superfluous).
- Slide 5 presents OECD projections on water demand for the next Outlook. The slide shows that competition for water is expected to become fiercer. By 2050, some users may get less water than is currently allocated to them.

Addressing water scarcity requires a combination of several policies; pricing plays a central role (slide 6, animated)

- Governments need to continue fostering water efficiency gains.
- Pricing (and the diffusion of innovation) signals the scarcity of the resource, can curb the demand for water, and provides revenues to finance water services.
- Water efficiency gains will not be enough. Allocation becomes critical in the face of growing demand and resource constraints. Governments will have to allocate water where it creates most value. This can trigger further efficiency gains and curb demand for water. Pricing is essential to discourage low value uses of water (for instance, inefficient irrigation).
- Closing the significant financing gap between the funding that is currently available and the investment that is needed will require significant efforts by governments around the world. One of the most under-used opportunities for reducing the funding gap comes from improving the efficiency of the water and sanitation sector, which is notoriously inefficient and has a huge potential to reduce. Beyond this, we know that the sector can essentially rely on three basic sources of revenue - the 3Ts (i.e. taxes, tariffs and transfers).

A recap of policies for sustainable management of water and greening the economy (slide 7, animated)

- Stimulate water efficiency gains, through economic instruments (OECD has unique experience on water pricing) and the diffusion of innovation.
- Allocate water where it adds most value; this may trigger reallocation between water users (e.g. between farmers and cities), a difficult policy challenge, in particular in Central Asia where irrigated agriculture will compete with growing needs for cities and energy (hydropower generates a high share of energy in Central Asia). Harmful water-related subsidies (under-pricing of water) should be phased out in a green growth context: there is a risk that they send wrong incentives.
- Invest in water quality. Quality issues generate scarcity and add to water treatment costs. The OECD/EAP Task Force can help (see our guidebook on *Surface Water Quality Standards*, which builds on country experience like Moldova).
- Invest in water storage. Reliability of the resource is essential for green growth. However, water storage technologies and infrastructures can disturb ecosystem balances. Soft infrastructures (groundwater recharge, wet lands, flood plains) and small-scale dams are part of the answer.
- Invest in water supply and sanitation, as unsafe water and lack of sanitation generates huge health costs and lost opportunities to the economy. The OECD/EAP Task Force has supported a number of EECCA countries, through national policy dialogues (see our report *Ten Years of Water Sector Reform in EECCA*), and more needs to be done on this. Here again, the private sector can help, in particular to enhance the efficiency of water utilities.
- International cooperation has a major role to play:
 - Allocation and quality issues usually have a transboundary dimension in the region (Danube, Dniester, Kura, Chu-Talas river basins). UNECE can facilitate policy dialogue on these issues, and the OECD/EAP Task Force can contribute economic analysis to advance the dialogues.
 - Regional cooperation can help spread best practices and efficient technologies. This is where Environment for Europe, as a regional process, adds value.