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BETTER POLICIES FOR BETTER LIVES

Putting water at the centre of the global agenda

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Too little attention has been paid to water challenges, yet they are among the most significant threats facing humankind today. We have better evidence on the scale and nature of the problem than ever before, but we have not succeeded in building and sustaining the political momentum needed to deliver on our commitments as far as water is concerned. Water must not be reduced to only a local issue. In this essay, I explain why this is the case, and why a robust global water architecture needs to be put in place now. I offer some ideas on the important features of such a water architecture going forward. The OECD is committed to playing its part, alongside others, in this vital endeavour.

Water is one of today's – and tomorrow's – most pressing global challenges

Water is global by the mere scale of the problem. The inadequate way in which water is managed poses serious risks to human wellbeing and sustainable development. This is painfully obvious for the 1.8 billion people who still lack access to a safe and sustainable supply of fresh drinking water, and for the half of the world's population which continues to live with polluted water.[i] The water problem is not confined to the developing world though – recent work by the OECD and the Global Water Partnership estimates that globally, water-related risks cost more than USD 500 billion every year[ii].

Water is global because local crises can quickly become global ones. Drought in key agricultural regions can affect food markets and prices globally.[iii] The potential for such events to trigger social unrest and contribute to increased migration is clear.

Our dependence on water means that it also has an important security dimension. Tensions around the Tabqa dam in Syria, for example, or trans-boundary water management in Central Asia, underscore the importance of water diplomacy as an integral part of foreign policy today.

Freshwater is a renewable resource, but its current distribution is far from uniform. Only 0.75% of the total amount of water is fresh and readily available for use.[iv] Known groundwater

resources represent over 90% of the world's readily available freshwater resources, not counting water stored as ice. Yet the rate of groundwater depletion more than doubled between 1960 and 2000.[v]

The overall availability and distribution of freshwater is changing dramatically. Climate change will intensify the hydrological cycle, change regional weather patterns and melt mountain glaciers that currently provide steady water supplies to downstream communities in many countries. Heat waves will become more frequent and longer in duration and extreme precipitation events will increase.[vi]

Water scarcity is predicted to hit more regions of the world. The OECD's Environmental Outlook projects that around 3.9 billion people – over 40% of the world's population – are likely to be living in river basins under severe water stress by 2050.[vii]

Too much water is also a problem for many. From 1995 to 2015, flooding accounted for 47% of all weather-related disasters, affecting 2.3 billion people, the vast majority of whom live in Asia.[viii] In the last 20 years, 157 000 people have died as a result of floods[ix]. The poor are most affected by water-related risks and disasters: 89% of the deaths due to storms occurred in low-income countries, even though only 26% of the storms occurred in these countries[x]. Again though, the impact of flooding is not limited only to developing countries. Globally, the annual impact of floods is estimated at USD 120 billion per year from property damage alone; with almost half of that economic risk in North America, given the value of the assets at risk.[xi]

Water quality matters just as much as water quantity. We continue to use our water bodies as open sewers: 2 million tons of sewage, industrial and agricultural waste is discharged into the world's waterways every year.[xii] Freshwater biodiversity declined by 81% between 1970 and 2012 due to pollution, over-exploitation and alteration of water bodies.[xiii] Wetlands, which deliver a wide range of ecosystem services including water purification, have declined by 64% globally since 1900.[xiv] Most freshwater pollution ends up in the oceans and more than 400 hypoxic dead zones covering 245 000 square kilometres – equivalent to the surface of the UK – have been identified.[xv]

Access to water supply and sanitation remains the most daunting challenge. 2.6 billion people have gained access to an "improved" drinking-water source since 1990.[xvi] In 2015, 91% of the world's population had access to such a drinking-water source, compared with 76% in 1990. But these improvements are not sufficient. How can we accept that, in the twenty-first Century, at least 1.8 billion people globally consume water that is contaminated with faeces? Or that 2.4 billion people do not have access to an improved sanitation facility, while 946 million people – around one in eight – still practice open defecation[xvii]?

The consequences of underinvestment in water and sanitation on human health – and on livelihoods – are clear. Contaminated drinking-water is estimated to cause half a million diarrhoeal deaths each year. More than half of the world's hospital beds are occupied with people suffering from illnesses linked with contaminated water.[xviii]

Water also impacts on education, often to the detriment of women and girls. Where proper sanitation is lacking in schools, young girls are deterred from attending classes, stunting their education and opportunities. An estimated 500 million women and girls lack adequate facilities for menstrual hygiene management. Is this because water is predominantly managed by pale – and often greying – males?

In developed and developing countries alike, the failure to identify and implement solutions to the water challenges I have just identified is hurting our economies. Globally, the economic losses associated with inadequate water supply and sanitation, have been estimated at US$260 billion annually.[xix] The economic impact of water challenges is particularly pronounced in the least developed countries, where the estimated losses from the lack of access to improved water sources and basic sanitation amount to 1.5% of GDP.

Our agriculture sectors are often severely affected by water challenges. Roughly 80% of cultivated land across the globe is exclusively rain-fed, accounting for 60% of the world's crop production, which will be increasingly vulnerable to climate variation. The remaining 40% of production relies on irrigation, and is projected to face growing water competition and less reliable freshwater supply. G20 agriculture ministers recently acknowledged the need for the sector to increase its water use efficiency, and to reduce its impact on water quality.

The International Energy Agency projects that freshwater withdrawals for energy production are expected to increase by 20% through 2035, putting further pressure on the availability of water for other uses – even if some of this water is returned to rivers and lakes. Water services are also major users of energy: in 2014, the global water sector consumed 4% of total global electricity consumption; and the water sector's electricity consumption is projected to rise by almost 90% by 2040.[xx]

The international community has dropped the ball on water

Today, we are better equipped to understand water resources and risks, and their impact on sustainable growth and well-being. We have a much stronger evidence base, and we should be able to make the case for concerted global action on these challenges. But we have not succeeded – yet.

Part of the problem is that the facts and figures are well known, but only to the water community. The solutions to many of the challenges I describe, however, lie well beyond the water sector.

I believe there is hope. Eighteen months ago, the adoption of a dedicated Sustainable Development Goal (SDG) on water by the United Nations was a major success. It is an explicit acknowledgement that water is a core issue for sustainable development worldwide. This was not an easy win though – despite the wealth of evidence at our fingertips, considerable time and effort went into securing this Goal.

This development illustrates the remarkable change in the position of water on the global policy agenda. Only fifteen years ago, policymakers either confined water challenges to the question of access to basic services, or focused primarily on developing countries. A narrow focus on individual sectors – environment, health, agriculture, energy, for example – tends to neglect the importance of water as a driver for sustainable growth and development. Ministers of the Economy never thought about water. When I campaigned for my job as Secretary-General of the OECD back in 2005, I met a lot of scepticism when I argued that, together with health and migration, water should be a top priority for the OECD. Fortunately, much of this scepticism has now evaporated.

Despite these changing headwinds, the international system is still not geared up to deliver on the water challenge, and unless action is taken now, our collective ambitions, goals, and targets will remain confined to paper.

I believe that today's global architecture for tackling water challenges falls short of what is needed. This conclusion is based on three seemingly obvious, yet crucial, observations which I shall develop further.

First, the attention that we collectively pay to water is episodic and unstable. I was surprised to see, that only three months after water featured as one of seventeen SDGs (as well as being embedded in others), it failed to appear in the Paris Agreement on Climate Change.

As a former Minister of Finance, I know all too well that lack of finance is often a consequence of an issue failing to get the attention it needs on the political agenda. This is certainly the case for water. The world failed to meet the Millennium Development Goal on sanitation by a wide margin, at least in part for lack of resources. In the United States, the American Society of Civil Engineers (ASCE) Infrastructure Report Card assigns grade D or worse to all water infrastructures – levees, dams, wastewater, drinking water, and inland waterways – reflecting inadequate funding and deferred maintenance. It is estimated that America averages 850 water main breaks per day[xxi].

Second, we observe that the international water community has no fixed focal point to enable the development of a shared vision, and to support its implementation.

Water pops up on the global policy agenda from time to time, usually as a supporting partner on other issues, such as health, adaptation to climate change or food security. But how should we co-ordinate to make sure that action on water in one area – for example, water for sustainable cities – does not work against others – such as the link between water and food security? Where can we develop and sustain a cohesive vision for water?

How do we provide a setting that is conducive to collective action on what is one of the most important global public goods we have? We all gain when access to water and sanitation improves in South Africa; when flood risks are reduced in Thailand; when groundwater resources are sustainably managed in India; or when water allocation regimes in California operate effectively.

The water community is fragmented and diverse. It coalesces regularly around specific interests in meetings such as those in Amsterdam, Budapest, Daegu, Dushanbe, Singapore, Stockholm, and Tel Aviv. We also have the World Water Forum, which takes place every three years. But there is no cohesive engine behind these conversations, ensuring that words translate into actions.

Today, we have a "global water architecture" that is loosely connected at best. This encompasses, for example, 32 UN agencies, which fall under the UN-Water label; the World Bank and other development finance institutions; the OECD; and communities such as the International Water Resources Association and the International Water Association. None of these organisations can support the kind of effort required in their current form.

The UN General Assembly recently noted that Goals 6 (and 12) are the least-well covered by the UN Economic and Social Council and the General Assembly.[xxii] This confirms the assessment made in November 2015 by the then-UN Secretary General's Advisory Board on Water and Sanitation (UNSGAB), in which I was privileged to participate[xxiii]. At an operational level, UN agencies, funds and programmes tend to approach water from their own, often very different, perspectives. UN-Water is governed by senior officials from member entities, bringing with them the mandates and priorities of their respective governance structures. It is not equipped to reconcile conflicting mandates from member states, or to streamline or prioritise resources.

My third observation relates to the way we work to produce and share knowledge on water issues – or rather our failure to do this properly. Today, we are not organised to deliver the water-related policy guidance or knowledge to realise our ambitions for sustainable development.

There is no equivalent for water to the Intergovernmental Panel on Climate Change (IPCC), or the recently created Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), as regards climate change and biodiversity and ecosystems, respectively.

Knowledge of the state of water remains fragmented and patchy. No global network tracks water quality. We know too little about groundwater availability, and the interactions between surface and groundwater in most parts of the world. Climate change will fundamentally affect water availability and water-related risks, but in ways that are still deeply uncertain at the local and regional scales.

Prominent academics[xxiv] have called for a decade of solutions-focussed research to address these challenges, co-produced by scientists and stakeholders. The climate assessments produced by the Inter-governmental Panel on Climate Change (IPCC) meet this need in part. They collect, review and weigh the evidence to provide valuable insights into the pace, scale and consequences of climate change, including for the hydrological cycle, extreme weather, and water resources. Impacts are assessed on a regional basis and it may become possible to provide more granular projections from the large-scale climate models in the future. A significant scenario-building and modelling effort, such as the one undertaken for energy

systems, is needed, but with a central focus on the political, social and institutional dimensions of how we manage and use water, not just the technological options.

The world urgently needs a new global architecture for water

With a new Secretary-General at the helm of the United Nations, it is timely to consider whether we can put in place a more effective and inclusive global water architecture. I applaud the initiative of the UN General Assembly to discuss improving the integration and co-ordination of UN efforts on water related goals and targets. It is both timely and important.

But, for reasons explained above, it is fair to say that today even the UN is not equipped for the task – at least, not *yet*. There must be no illusion as to how difficult any effective reform will be. Different options will be promoted by different countries, and the search for a consensus that is not just the lowest common denominator will not be easy. I hope that my observations and suggestions are taken in the open, constructive, yet questioning spirit in which they are intended and as a contribution to an ongoing discussion.

Member states will have to decide what the most appropriate response is – whether a dedicated platform is required to host the discussion and co-ordination of the different stakeholders, and what this might look like. As a keen observer of these discussions, I believe that, whatever the organisational structure adopted by member states to govern water globally, the solution should be one that I summarise as "**SCALE**":

- **S**ustained and strengthened focus on water on the global agenda;
- **C**oordinated efforts across geographical areas and levels of government;
- **A**ligned with other policy agendas;
- **L**egitimate, through the engagement of all stakeholders;
- **E**vidence-based, contributing to the knowledge and science needed to support decision making at different scales.

First, any effective response must be sustained and stable over time. There is a serious mismatch between the ambitious 2030 vision for freshwater and sanitation management, and the fragmented international political and administrative structures that contribute to its implementation. Any new institutional arrangements need to have adequate expertise and capacity to support strategic political leadership and the effective promotion and articulation of priorities across multiple policy domains and scales. For cost reasons, we need to build as far as possible on existing institutions and capabilities, while recognising that in their current configuration they are inadequate.

Second, any approach to water must also be coherent across geographical scales. Central governments will play a key role in helping to deliver the 2030 agenda, but there are limits to what they can achieve on their own. Cities and regions play a crucial part in securing access

and managing water risks on the ground and must be key players in policy development and implementation. Trans-boundary water treaties and related country obligations add yet another dimension. In each continent, treaties and macro-regional organisations are trying to federate countries and inspire convergent policies. It is a little-known fact that some 295 water treaties have been signed since 1948. Any effective architecture must reflect these "nested" levels of governance and avoid the temptation to impose top-down solutions.

Alignment with responses to other global challenges, such as adaptation to climate change and ensuring food and energy security, will also be a crucial feature of the solution. Water is a pivotal element of the Sendai framework for disaster risk reduction. We know that sustainable water management depends on initiatives taken outside the jurisdictions in charge of water: municipalities and property developers build cities, which will need secure access to water and sanitation as well as protection from water risks; farmers and ministries of agriculture embark on policies and investment programmes that can affect water availability and quality for communities downstream; climate policies affect the energy mix, and contribute to additional demands on water. A sustainable water future requires that decisions made in these and related fora are water-wise.

Action on water must engage the full range of stakeholders, ensuring shared responsibility across public, private and non-profit sectors. We need to move away from mere consultation, and towards co-production of knowledge and participatory decision making, taking into account a broader set of interests. This includes the interests of local and regional authorities, business, donor agencies, NGOs, future generations, but also newcomers or emerging players such as corporates, property developers and long term institutional investors. The future global water architecture needs a platform where the different levels of government and the wide range of stakeholders can share knowledge, expertise and perspectives, and can help catalyse effective and co-ordinated action. This is a requisite for its legitimacy, particularly in the context of high uncertainty about future water availability and demand.

Finally, an effective response to water challenges must also be evidence-based and supported by state-of the art science-policy assessments of both the challenges but also our potential response options, building on existing processes and mechanisms wherever possible.

The OECD will continue to play its part, working hand-in-hand with others

The OECD has been working on water for several decades, building on its distinctive strengths in data, economics and policy analysis. As an economic organisation, we make the economic case for investment in water security and sustainable growth. As a multi-sector organisation, we instinctively approach water issues horizontally, taking into account climate change, energy security, urban development, or agricultural concerns. As a forum where countries – not just OECD members – meet to share good practice and develop new approaches to policy challenges, we contribute to the policy guidance required by a range of jurisdictions.

At the OECD, we have worked on three main pillars to support better water polices for better lives. We have approached this in a multidisciplinary fashion, bringing together the expertise and networks of no less than five directorates working on environment, public governance and territorial development, trade and agriculture, development co-operation, and financial affairs.

First, we have developed standards that provide the common denominators to our member countries and beyond in terms of how to design and implement water policies. The most recent one is the Recommendation of the OECD Council on Water, which provides updated and comprehensive policy guidance for managing water quality, quantity, disaster, governance and finance. All OECD Members have adhered to the Recommendation, and non-OECD countries are also encouraged to join. Our aim is to inspire better policies to manage water and water-related risks. Another example takes the form of the OECD Principles on Water Governance, which have been endorsed by 140+ stakeholders so far, and are being used as a tool for dialogue to guide institutional reforms and practices in different countries.

Second, we have developed policy forums where communities gather, share experience, and inspire reforms in member countries and beyond. A first example is the OECD's Water Governance Initiative, which we created in 2013 because we believed “governance” was not only about “governments”. Other examples include the OECD Network of Economic Regulators and the OECD High-Level Risk Forum, where issues of economic regulation and disasters feature prominently. Even more recently, the Roundtable on Financing Water was set up to bring together the finance and water communities and explore ways to mobilise finance for investment in water security and sustainable growth.

Third, the National Policy Dialogues we have supported in Brazil, Jordan, Korea, Mexico, Netherlands, Tunisia, and countries in Eastern Europe, the Caucasus and Central Asia have proven instrumental in accompanying reform agendas with economic analysis, international benchmarking, and tailored policy recommendations. National policies and lessons learned can then be exchanged regionally as neighbouring countries develop and progress together. They also feed back into our work on policy instruments, governance and policy reforms.

In conclusion, I should reiterate that our capacity to deliver on the water agenda at both global and local scales will be decisive for human wellbeing to 2030 and beyond. I would encourage member states to reach a consensus on a "good enough" global water architecture, which avoids the twin pitfalls of either over-ambition or a lowest common denominator response. We need an institutional architecture with "SCALE", and moreover one that can adapt, learn and improve over time. Count on the OECD to help achieve this endeavour.

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