



UNITED NATIONS  
UNIVERSITY

**UNU-IAS**

Institute for the Advanced Study  
of Sustainability

## Water for Life Award

The United Nations presents the 'Water for Life' UN-Water Best Practices Award annually in two categories to recognise and promote efforts towards fulfilling international water-related commitments and achieve internationally-agreed targets such as MDGs and Agenda 21. This year, Category 1 'Best water management practices' was awarded to the International Water Management Institute (IWMI)-Tata Water Policy Programme (ITP) in India. The category 2 'Best participatory, communication, awareness-raising and education practices' was awarded to the NEWater Programme in Singapore. In 2013, the city of Kumamoto received the award in category 1, the first of its kind in Japan.



Water for Life Award:  
<http://www.un.org/waterforlifedecade/waterforlifeaward.html>

## World Water Development Report



World Water Development Report:  
<http://www.unwater.org/publications/publications-detail/en/c/218614/>

The 2014 *World Water Development Report* (WWDR), a UN-Water flagship report, was produced and coordinated by the World Water Assessment Programme hosted and led by UNESCO. A triennial report from 2003 to 2012, the WWDR became an annual edition this year, in response to the international community's interest in a concise, evidence-based and yearly publication with a specific thematic focus and recommendations. The report revealed that roughly 770 million people remain without access to an improved source of water and 2 billion people have no access to safe water. Furthermore, 1.3 billion people worldwide still lack access to electricity. The report stresses the interdependence between water and energy as well as the imperative of coordinating political governance and ensuring that water and energy prices reflect real costs and environmental impacts.

## Asia Pacific Regional Symposium: The Water and Energy Nexus in Asia

UNU-IAS, the University of Tokyo Integrated Research System for Sustainability Science and the Ministry of Environment in Japan organised a symposium on the water and energy nexus in Asia. Experts from Asian countries such as China, Japan, Nepal and Thailand participated and discussed policies and technologies that could promote better integrated management of water and energy which are essential for sustainable development. Over 90 people including researchers and students or members of the private sector and NGOs attended the symposium. Through the keynote speeches and panel discussion, the symposium highlighted important challenges such as developing hydropower as a stable form of energy, efficient waste water treatment and utilization of waste as an energy source and incorporating water and energy access for everyone into SDGs and the post-2015 development agenda.



United Nations University  
Institute for the Advanced Study of Sustainability  
**UNU-IAS**

53-70, Jingumae 5-chome  
Shibuya-ku, Tokyo 150-8925  
03-5467-1212 [geoc@unu.edu](mailto:geoc@unu.edu)

## Newsletter 2

**UNU-IAS GEOC**

Global Environment Outreach Centre (GEOC), a joint programme between the Ministry of the Environment of Japan and UNU, contributes to improving communications and outreach between stakeholders through establishing partnership in order to realize a sustainable society.

sustainability by a wide range of actors, including international organizations, national governments, universities, private companies, and NGOs. In addition, GEOC provides opportunities for those involved to interact with one another, and organizes symposiums and exhibitions targeting the general public.

Among others, in close collaboration with the UNU-IAS and its predecessor, the UNU-ISP, GEOC has prepared internationally relevant themes for its Japanese audience by extending cooperation to various international conferences and workshops, in an effort to play a part in UNU's outreach activities. In recent years, taking advantage of international key milestones, such as the Tenth Meeting of the Conference of the Parties to the Convention on Biological Diversity (CBD/COP10) held in Nagoya in 2010 and the UN Conference on Sustainable Development or the "Rio+20" in Rio de Janeiro in 2012, GEOC has organized events to promote partnership or network building among parties with emphasis on NGOs and activities to raise awareness, thereby playing a key role in encouraging an extensive range of actors to take part in addressing global issues.

When we turn our eyes to the future endeavors of the international community, Millennium Development Goals (MDGs), whose deadline for achievement is in 2015, will be summarized while at the same time, discussions on Sustainable Development Goals (SDGs), on which high expectations are placed as a new international development goal, will be held. Furthermore, a number of conferences and discussions are scheduled for this year into next

year, which will provide an opportunity to look into ways to build a sustainable society down the road. These include the UNESCO World Conference on Education for Sustainable Development (ESD) to be held in Japan in November 2014, and the Third UN World Conference on Disaster Risk Reduction slated for March 2015. We will transmit information both inside and outside Japan in an even more proactive manner to stimulate domestic stakeholders' interest in individual subjects and discussions in the international community, and at the same time gather data and the voices of parties concerned and the society and communicate them to the world, thereby contributing to the global community.

We very much look forward to working with ministries and agencies concerned, research and educational institutions, private companies, as well as NGOs and the citizens in a bid to promote our activities further. We are therefore asking for your continued support, advice, and guidance in this regard. Thank you.



**Kazuhiko Takemoto**  
Director, UNU-IAS

Dr. Takemoto was appointed as Director of UNU-IAS in January 2014. Since 2010, he has worked with the UNU Institute of Advanced Studies as a Senior Fellow and Programme Director. Prior to joining UNU, he developed

policies on international environmental cooperation and global environment, in particular, climate change and bio-diversity as Vice-Minister for Global Environment Affairs. He holds a PhD from the University of Tokyo and a Master of International Public Policy degree from the School of Advanced International Studies (SAIS), Johns Hopkins University.



# Official Celebration of World Water Day 2014

The United Nations proclaimed 22 March as World Water Day. To commemorate World Water Day 2014, UN-Water, in close collaboration with UNU and United Nations Industrial Development Organization (UNIDO), organised the official celebration on 20 and 21 March 2014 in Tokyo. This year’s theme was the ‘Water and Energy Nexus’. Water and energy are fundamentally interlinked; while most forms of energy production are reliant on water, water services also require energy generation. On the first day of the event, the symposium on the water–energy nexus in Asia and the journalist workshop were organised. In the morning on the second day, the Water for Life Award and World Water Development Report were presented. Keynote speeches, a high-level policy panel by representatives of national governments and international organizations and the expert panel were conducted in the afternoon. Two-day discussions from a variety of perspectives and expertise suggested ways to address the challenges related to water and energy issues.

## Keynote Speeches

His Imperial Highness the Crown Prince gave an address and expressed his hope that the 21<sup>st</sup> century will become the one to resolve water problems worldwide. Akihiro Ohta, Minister of Land, Infrastructure, Transport and Tourism of Japan and Hiroataka Ishihara, Parliamentary Vice-Minister for Foreign Affairs of Japan then delivered keynote speeches on Japan’s policy, technology and international contributions in the water and energy fields.



Mr. Ohta mentioned Japan’s efforts and ingenuity to mitigate the damage from repeated floods and droughts in the past. The nation has not developed technology to control rivers but to reconcile them and coexist with nature. Mr. Ohta proudly introduced Japan’s technology such as dams, hydropower and tap water, the latter of which is accessible to over 97% of the population. He also referred to the influence of global climate change on Japan, where disasters are becoming more localised, concentrated and intense. To strengthen disaster prevention and mitigation measures, Japan has utilised advanced technologies such as ICT-based monitoring and prediction and upgrading dams to improve the water supply control function of existing dams. Mr. Ohta expressed his hope that Japan will assist the world in solving water-related problems by leveraging its technology.

Mr. Ishihara explained Japan’s international contribution as a top donor country in the fields of water and energy. Japan has contributed to improving people’s lives and the socioeconomic development in developing countries, resulting in the achievement of the Millennium Development Goals (MDGs). Mr. Ishihara emphasised that Japan will continue contributing to the international debate on water and energy issues by actively participating in international efforts such as ‘Sanitation and Water for All’ and ‘Sustainable Energy for All’ as well as imparting its knowledge, experiences and technology to the world.

## High-Level Policy Panel: Water-Energy Nexus within the Post-2015 Development Agenda and SDGs

### Panellists

- Albert Butare** Former Minister of State for Infrastructure of Rwanda; CEO, Africa Energy Services Group Ltd.
- Michel Jarraud** Chair, UN-Water & Secretary-General, World Meteorological Organization
- Hans d’Orville** Assistant Director-General for Strategic Planning, UNESCO
- Nizomiddin Zohidov** Deputy Minister of Foreign Affairs, Government of Tajikistan
- Toshiyuki Adachi** Vice Minister for Engineering Affairs, Ministry of Land, Infrastructure, Transport and Tourism of Japan
- Zafar Adeel** Director, UNU Institute for Water, Environment and Health (*Moderator*)

The high-level policy panel examined how the water-energy nexus can be incorporated into the future development agenda, particularly focusing on three main topics: 1) Why should water and energy be treated together on the policy level?; 2) How do we address the challenges of water and energy issues and incorporate them into the Sustainable Development Goals (SDGs)?; 3) What kind of implementation mechanisms can be developed at both national and international levels?

**Albert Butare** The water and energy issue is very important yet difficult to address. Because the water and energy sectors have handled problems and challenges separately, there is a need to remove the barrier

between the two sectors. In Rwanda, the target of access to drinking water in the MDGs has already been met. However, people who live within 500 metres from the water tap, but do not yet have it in their own home, are considered to have access to fresh water. Such people often experience difficulty in accessing water after dark. Therefore, we should re-examine the definition of ‘access to water’ in devising the future development agenda.

**Michel Jarraud** We are at a critical juncture for making the right decisions for the post-2015 framework. The duty of the United Nations is to support the decision-making process of member states. Incorporating water and energy issues into sustainable development is key to addressing the challenges faced by human beings today, such as poverty eradication, health issues, food security and energy supplies. Since the water issues are cross-cutting and involve various components, it is important to have a holistic vision and co-operation across disciplines and countries. We will continue addressing water issues particularly in the following areas: enhanced sustainable water resources management and water governance, water-related disaster preparedness and improved re-use and treatment of waste water, which is not mentioned in the MDGs. Last but not least, we aim to further improve unfinished tasks to achieve the MDG regarding access to safe drinking water and hygiene.

**Hans d’Orville** To address water and energy issues, we must learn from history and also be introspective about setting future goals. With support from the Japanese government, UNESCO has promoted Education for Sustainable Development. This encourages people to address global challenges as their own issues, reflecting and considering the impact of their own behaviour and learning the value and behaviour required for a sustainable future. Advancement of science is also essential to address water and energy issues, because technology and innovation can lead to solving the problems. Therefore, in addition to promoting education, particularly by introducing curricula emphasising issues such as environment, values and culture, it would be strongly expected that governments set a budget target for research and development to enhance the contribution of science and technology to nexus issues.

**Nizomiddin Zohidov** Water issues are becoming more critical and crucial from the perspective of climate change and sustainable development. Tajikistan has always been an advocate of the UN water agenda and initiated the adoption of several UN General Assembly water-related resolutions. Because of the absence of other energy resources, Tajikistan has consistently developed hydropower projects which contributed to reducing the electricity deficit, thus ensuring energy security and raising the living standard of citizens. Development of hydropower aligns well with both the global policy to promote renewable energy, a key component of green economy, as well as the basic principle of sustainable development. Water resource management should be expanded on the basis of the principle of mutual benefit and co-development on local, regional, national and global levels. This principle will be instrumental in eradicating poverty and solving global inequity.

**Toshiyuki Adachi** One of the most important issues we should address today is the eradication of poverty. In order to address it, water and energy issues should be adequately positioned in the post-MDGs and SDGs. Since the 1960s, Japan has experienced a steep rise in demand for water and electricity because of the industrial development and population growth in urban areas. Therefore, Japan has ensured management that is supported by introducing legislation that supports the integrated development of water and energy. Consequently, it has achieved its economic revitalization and growth which was supported by regulations and laws. Moreover, Japan has developed technologies for large-scale dam construction and river improvement and shared such technologies with other countries,

particularly across Asia. Japan will continue to concentrate on building a sustainable society, leveraging its accumulated experiences and technologies and acknowledging harmony with nature and response to climate change.

Speakers agreed that it is important to build cooperative relationships among countries for water management policies and to consider subsidies and adequate pricing to further promote the private sector’s participation in the water and energy fields. As a major coordinator in the multilateral approach, the session also emphasised that the UN should facilitate the construction of cooperative relationships and serve as a forum for providing and sharing knowledge and innovative ideas. Recognising the eradication of poverty in all areas including education, food, water and energy remains imperative. The session concluded by reaffirming the importance of promoting technology as well as research and development, the reinforcement of partnerships and cooperation, efforts for bridging the gap between science and the decision-making process and implementing policies that engage the private sector.

## Expert Panel

### Panellists

- Nandha Govender** General Manager, Eskom, South Africa Public Electricity Utility
- Christian Jersale** Representative Director and President, Veolia Water Japan
- Philippe Joubert** Senior Advisor and Managing Director, World Business Council for Sustainable Development
- Josefina Maestu** Coordinator and Director, UN-Water Decade Programme on Advocacy and Communication
- Kotaro Takemura** Secretary General, Japan Water Forum
- Richard Taylor** Executive Director, International Hydropower Association
- Reza Ardakanian** Director, UNU Institute for Integrated Management of Material Fluxes and of Resources (*Moderator*)

In the Expert Panel, the panellists discussed three main topics: 1) Water for profit versus water for development; 2) Partnerships for implementing the water–energy nexus; 3) Mitigation of risks in the water–energy nexus in urban and rural settings. This panel continued discussions of the first day’s symposium and two previous conferences, the World Water Week in Stockholm in September 2013 and the UN Water Annual International Zaragoza Conference in January 2014.

**Christian Jarsare** There is no major contradiction between water for profit and water for development. Each country and community has different priorities regarding water issues, such as a stable supply of safe drinking water, optimization of costs, maintenance and modernization of the water infrastructure and improving the quality of the water service. Private companies can contribute to providing solutions by supplying safe drinking water and building an economically sustainable system. For example, in Nagpur, India, Veolia Water provides water to impoverished people living in slums who previously had no access to drinking water. In Bangladesh, the company conducts a joint venture with Grameen Bank to provide inexpensive drinking water, by using the local human and technological resources. As Veolia Water’s practices show, the private sector can contribute to optimizing costs and provide innovative ideas and solutions. Therefore, it is essential to reinforce the existing partnerships and provide incentives for the private sector to become involved.

**Nandha Govender** Because South Africa has no easily accessible water, it is confronting the dilemma of how to prioritise, allocate and license the limited available water. Allocation of water requires consideration of different levels and criteria. For example, on the global level, MDGs and SDGs are the main criteria. On the country level, how to provide affordable and reliable electricity is the main concern. In addition, we must look at ways of protecting ecosystems and biodiversity on the catchment level, while on the local level, we must evaluate sufficiency targets and resource quality. The difficulty of water allocation is hindering the private sector’s access to water. However, the private sector’s involvement is essential to ensure sustainable water and energy, because it could provide innovation, skills, technology, expertise and funding and investment.

**Josefina Maestu** To improve access, efficiency and sustainability of water and energy, the functional implementation mechanism is as important as technological development. Since challenges in the water and energy issue are too great for one organization or agency to handle alone, partnerships among multi-stakeholders are imperative. However, many barriers to establishing good partnerships exist. First, the water and energy ministries are working separately, resulting in institutional lock-ins. Second, investment for new technology is difficult because the cost spent for the existing technology must first be amortised. Moreover, the government and private sector often lack a long-term vision that is essential to undertake the nexus issues. To further develop partnerships between the water and energy sectors, the asymmetry of the two sectors, such as their economic scale, institutional settings and the information or data they are referring to, must be considered.

**Kotaro Takemura** Shingen Takeda, a famous Japanese warlord in the 16<sup>th</sup> century, exercised powerful water governance to resolve the conflicts among three villages in his territory. He equally allocated the water to villages by utilizing technology to build distribution channels. This anecdote is one of the earliest examples of utilizing social technology and it has influenced the Japanese people regarding their ways of sharing water and considering that water is public in nature. Today, to inclusively address water issues in urban and rural areas, Japan’s river-related laws ensure equally shared water resources, both upstream and downstream, or in urban and rural areas. Thus, the historical and policy background explains why Japan rarely has conflicts over water resources.

**Philippe Joubert** The link between water and energy will continue to increase. Today, there is a need for abundant electricity storage, and water is the only technology capable of storing electricity effectively. Climate change has increased the importance of the water and energy nexus. To mitigate the risk of water and energy issues, many measures must be taken: utilizing technology effectively, using water more efficiently in accordance with different purposes, exercising effective water governance, developing laws and regulations and promoting research and development.

**Richard Taylor** Expectations are increasing for storing water for many purposes such as hydropower, disaster prevention, irrigation and ecological services. However, water storage involves many challenges. First, it is difficult finding a suitable business model. Second, all risks involved in investment are presented up front. Furthermore, a number of stakeholders are engaged in hydropower. To address these challenges, a multi-stakeholder group formulated the Hydropower Sustainability Assessment Protocol, which assesses and guides the plans, construction and performance of hydropower. The protocol enabled the hydropower sector to employ a more informed and predictable decision-making process.

Through the discussion, some suggestions were provided to address the challenges of the water and energy nexus. First, the private sector should be involved, because water for profit and water for development can coexist. Second, partnerships are essential in the water and energy fields, although many challenges remain before building a good partnership. Finally, there is a need for adequate water governance, assessment protocol and technology to mitigate risks.

