



DEPARTMENT OF
ECONOMIC AND
SOCIAL AFFAIRS

GLOBAL SUSTAINABLE WATER AND ENERGY SOLUTIONS NETWORK

ANNUAL REPORT

2022



SUSTAINABLE
**WATER &
ENERGY**
SOLUTIONS
NETWORK



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MOVING FORWARD

The UN Department of Economic and Social Affairs (UN DESA) and ITAIPU Binacional joined efforts in 2018, creating a partnership entitled “Sustainable Water and Energy Solutions” that recognized the need to address the interlinkages between water and energy and their contributions to the advancement of other SDGs. The initiative resulted in the creation of the Global Sustainable Water and Energy Solutions Network with a growing number of multi-stakeholders from all regions and constituencies.

The goal of the multi-stakeholder Network is to provide a global platform for all stakeholders to enhance capacities and signal their high-level commitment to the integrated approach to SDG 6 and SDG 7 in support of the SDGs achievement. More specifically, the objectives are to:

- Share best practices, experiences and quality data on the water-energy interlinkages and their contributions to other SDGs.
- Strengthen capacity building with a focus on the planning, designing, implementing and monitoring of policies, regulations, business models and investment to effectively manage the water-energy interlinkages and their implications on other SDGs.
- Mobilise and scale up multi-stakeholder action aimed at stimulating integrated water-energy response addressing cross-sectoral barriers in other development sectors.
- Enhance advocacy, communications and outreach to help countries conduct evidence-based dialogues and facilitate broad-based implementation of SDG 6 and SDG 7.

Stakeholders from all regions are invited to join. This includes UN system organizations and other international organizations, governments and government agencies at national and subnational level, private sector companies, civil society organizations, academia and others. Partners support the activities of the Network on a voluntary basis, and help leverage skills, expertise and other resources that will support and advance its mission.

WATER AND ENERGY IN THE 2030 AGENDA

SDG 6



6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.A By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.B Support and strengthen the participation of local communities in improving water and sanitation management

SDG 7



7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.A By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.B By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support

ADDRESSING CLIMATE CHANGE

In the 2030 Agenda for Sustainable Development, Member States expressed their commitment to protecting the planet from degradation; SDG 13 on climate action aims to “take urgent action to combat climate change and its impacts.” Over the coming decades, the global demand for water and energy will continue to increase significantly, posing profound challenges that need to be addressed in an integrated manner and considering climate change impacts. The interdependency between water and energy significantly impacts climate change mitigation and adaptation.

At the 2022 Climate Change Conference of Parties (COP 27) in Sharm el-Sheikh, Egypt, countries came together to take action toward achieving the world's collective climate goals as agreed under the Paris Agreement and the Convention. After days of intense negotiations, countries decided to establish and operationalize a fund to compensate vulnerable nations for 'loss and damage' from climate-induced disasters.

The Sharm el-Sheikh Implementation Plan calls upon Parties to accelerate the development, deployment and dissemination of technologies, and the adoption of policies, to transition towards low-emission energy systems, including by rapidly scaling up the deployment of clean power generation and energy efficiency measures, including accelerating efforts towards the phase-down of unabated coal power and phase-out of inefficient fossil fuel subsidies, while providing targeted support to the poorest and most vulnerable in line with national circumstances and recognizing the need for support towards a just transition.

The Conference of Parties recognized the critical role of protecting, conserving and restoring water systems and water-related ecosystems in delivering climate adaptation benefits and co-benefits while ensuring social and environmental safeguards. It also recognized that the unprecedented global energy crisis underlines the urgency to rapidly transform energy systems to be more secure, reliable, and resilient, including by accelerating clean and just transitions to renewable energy during this critical decade of action.

MEMBERS



UNDESA

UN DESA
Founding Member



ITAIPU BINACIONAL
Founding Member



United Nations
Framework Convention on
Climate Change

UNFCCC



UN-HABITAT



UN ESCWA



UN ECE



Ministry for the
Ecological Transition
and the Demographic
Challenge, Spain



IRENA



International
Hydropower Association



National Water Agency,
Brazil



World Energy Council



ASAZGUA



Ministry of Foreign
Affairs, Tajikistan



TERI School of
Advanced Studies



SINTEF



IIASA



Canal Isabel II



Solar Energy
Foundation Ethiopia



SOLshare



Stockholm Environment Institute



IAEA



Grameen Shakti



Economic Commission
for Latin America and
the Caribbean



Hydro Empowerment Network



Convention on
Biological Diversity

CBD



Union de Azucareros Latinoamericanos

2022 MILESTONES AND KEY ACTIVITIES

-  CAPACITY BUILDING
-  ADVOCACY AND OUTREACH
-  KNOWLEDGE MANAGEMENT AND SHARING BEST PRACTICES



CAPACITY BUILDING

7

Bioenergy for Sustainable Development: Ethanol and Electricity from Sugarcane

13 March 2022

Sustainable production and use of bioenergy represent considerable opportunities that support the social, economic and environmental dimensions of sustainable development and can contribute to climate change objectives helping to reduce the consumption of fossil fuels. Integrated approaches to bioenergy include innovative systems and strategies that maximize water use efficiency. Nevertheless, there are significant barriers to scaling up and replicating bioenergy good practices. The creation of an enabling environment for sustainable bioenergy production and the improvement of the management of water resources are necessary conditions for the development of bioenergy programmes in many countries that have great potential for biofuel use. This requires multi-stakeholder alliances among the public, private and civil society sectors that would allow feasible responses ensuring responsible consumption and production.

This capacity development event, organized by the Network in cooperation with its member ASAZGUA, brought together multi-stakeholders to discuss and showcase existing initiatives and disseminate information on bioenergy.



BIOENERGY
for sustainable development:
Ethanol and electricity
from sugarcane

Virtual Event
23 March 2022
10:00 – 11:30 am NYT

Register by 22 March
<https://forms.office.com/r/EZPQyJ5rhv>

SUSTAINABLE WATER & ENERGY SOLUTIONS NETWORK
ASAZGUA



| Image Credit: ASAZGUA

2 Towards the First Global Symposium on Water and Energy 29 March 2022

This global event at Expo 2020 Dubai provided a platform for the exchange of knowledge and experiences supporting a more sustainable world, with integrated approaches on SDG 6 (water) and SDG 7 (energy). It also provided an opportunity to announce the first Global Symposium on Sustainable Water and Energy Solutions, organized by the Network and the United Nations Department of Economic and Social Affairs (UNDESA) and hosted by Itaipu Binacional.

This capacity development event, organized by this Network in cooperation with its founding member Itaipu Binacional, brought together multi-stakeholders to discuss and showcase existing initiatives and disseminate information on how integrated approaches play a key role in enabling sustainable water and energy solutions for fighting climate change.



| Image Credit ©UN Photo

3

The Role of the Private Industry in Support of the SDGs on Water, Energy, Biodiversity and Health

10 May 2022

The event highlighted the industry's importance in the implementation of concrete actions directly or indirectly related to biodiversity, health and people within the context of sustainable water and energy solutions. The event supported the objectives and goals proposed in the different relevant international conventions and agreements, such as the United Nations Framework Convention on Climate Change and the Convention on Biological Diversity, as well as the 2030 Agenda for Sustainable Development.

This capacity development event, organized by this Network in cooperation with its member ASAZGUA, brought together multi-stakeholders to discuss and showcase existing initiatives and disseminate information on how the private industry can support social, economic and environmental actions for the sustainable development of nations.

The banner features logos for the Sustainable Water & Energy Solutions Network, the United Nations Department of Economic and Social Affairs, and ASAZGUA. It includes event details: 'HYBRID EVENT' on '10 May 2022' from '14:30 - 16:30 PM (NYT time)'. The title is 'The role of the private industry in support of the SDGs on water, energy, biodiversity and health'. It lists two sessions: 'First session: Industry & Biodiversity' and 'Second session: Sustainable development and health', with a note that interpretation will be provided in English, Spanish, and Portuguese. A registration link is provided: <https://forms.office.com/r/s3xngMf9Bf>. The background features a hummingbird and a woman.



| Image Credit ©UN Photo

4 First Global Symposium on Sustainable Water and Energy Solutions Itaipu Binacional 13-15 June 2022

The first Global Symposium on Sustainable Water and Energy Solutions was convened by the UN DESA in collaboration with members of the Sustainable Water and Energy Solutions Network and hosted by Itaipu Binacional at its headquarters on 13-15 June 2022.

The Global Symposium successfully provided a global platform for all stakeholders to disseminate knowledge, exchange experiences and showcase best practices on integrated approaches. With over 400 participants, including 250 who attended in person, it brought together stakeholders from all over the world, including representatives of governments, international organizations, businesses, civil society, and academia. The Symposium initiated a truly global dialogue on effective policy, and technical and managerial approaches to energy and water, supporting sustainable development.

The event included eight plenary sessions with over 60 expert panelists from countries covering all world regions. The event also included a number of side events during the first two days. The third day was dedicated to visit the Itaipu Hydropower Plant and for field trips in adjacent areas both in Paraguay and Brazil.

The Global Symposium was conducted at this critical time when over 730 million people still lack access to electricity and more than 2 billion suffer from water stress. The interdependency of water and energy is set to intensify in the coming years, with significant implications for both energy and water security. Each resource faces rising demands and constraints in many regions because of the combined impacts of climate change, economic demand and a growing population.



ADVOCACY AND OUTREACH

Meeting of the Members of the Global Network on Sustainable Water and Energy Solutions

9 March 2022

The 2022 meeting of the members of the Global Sustainable Water and Energy Solutions Network was held virtually on 9 March 2022. The meeting was convened by the United Nations Department of Economic and Social Affairs (UN DESA). The objective of the meeting was to inform members about the Network accomplishments during 2021 and to discuss the program of work for 2022 and the tentative workplan for 2023-2026.

Members made commitments related to financial support, organization of capacity development and outreach events, preparation of reports and case studies, and contributions to the expansion of the knowledge platform and website. UNDESA announced that the Natural Resources Forum (NRF), a United Nations Sustainable Development Journal, will publish a Special Issue dedicated to “Sustainable Water and Energy Solutions” and encouraged members to submit articles. Members discussed the organization of the first Global Symposium on Sustainable Water and Energy Solutions, as the main event of the Network in 2022.

Members updated the Network on their activities related to water and energy solutions and emphasized their continued commitment to the mission and vision of the Network.



2

High-Level Political Forum on Sustainable Development, Side Event on “Sustainable Water and Energy Solutions to Achieve Quality Education, Gender Equality and Ecosystem Health through Strategic Partnerships” 12 July 2022

UN DESA and Itaipu Binacional hosted this side event in the margins of the 2022 High-Level Political Forum. The event featured remarks and presentations by the Permanent Missions of Brazil and Paraguay to the UN, as well as UN-system representatives and members and partners of the Sustainable Water and Energy Solutions Network.

At the event, the central role of the water and energy nexus in the achievement of all the SDGs was highlighted, in particular in connection to the SDGs being reviewed at the 2022 HLPF: SDG4 (Quality Education), SDG5 (Gender Equality), SDG14 (Life below water), SDG15 (Life on land) and SDG 17 (Partnerships). Following high-level opening and expert presentations, an interactive discussion also explored opportunities to scale-up action under the umbrella of the Global Sustainable Water and Energy Solutions Network.

The banner features logos for the Department of Economic and Social Affairs, the Sustainable Water & Energy Solutions Network, and the High-Level Political Forum on Sustainable Development. It includes the event title, date (12 July 2022), time (7:30 - 9:00 New York Time), and a virtual format. The program includes a 15-minute opening session with a moderator and two speakers, a 50-minute panel on integrated water and energy solutions with five speakers, a 15-minute discussion, and a 10-minute closing session. A registration link is provided at the bottom right. The background image shows three children holding signs for SDG 4 (Quality Education), the Global Goals, and SDG 15 (Life on Land).

DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS | **SUSTAINABLE WATER & ENERGY SOLUTIONS NETWORK** | **HIGH-LEVEL POLITICAL FORUM ON SUSTAINABLE DEVELOPMENT**

Sustainable Water and Energy Solutions to achieve Quality Education, Gender Equality, and Ecosystem Health through Strategic Partnerships

12 July 2022
7:30 – 9:00 (New York Time) | Virtual

15 min Opening session

Moderator:
Ms. Radia Sedaoui, Chief Energy Section, Sustainable Development Policies Division, ESCWA

Welcoming Remarks:
Mr. Minoru Takada, Team Leader, Division for the Sustainable Development Goals, UN DESA

Opening Remarks:
Mr. Fabián Ybarra, First Secretary and Second Committee Expert, Permanent Mission of Paraguay to the United Nations

50 min Panel: Sharing experiences on integrated water and energy solutions

Ms. Liziane Kadine, Head of the Division of Protected Areas, Itaipu Binacional, Brazil
Mr. Walter Groehn, Division of Protected Areas, Itaipu Binacional, Paraguay
Ms. Jade Anggalao, Energy Access Specialist, HPNET, the Philippines
Mr. David Peral, Sustainability Analyst, Canal de Isabel II
Mr. Luis Fernando Salazar, International Affairs Coordinator, ASAZGUA
Mr. Samson Tsegaye, Solar Energy Foundation

15 min Discussion and Questions

10 min Closing session

Closing Remarks:
Mr. Emerson Kloss, Minister Counsellor, Permanent Mission of Brazil to the United Nations

REGISTER NOW AT:
<https://bit.ly/3bYoc4J>

3

COP27 Side Event “Sustainable Water and Energy Solutions supporting Climate Change and Biodiversity Objectives through Innovation and Clean Technologies”

9 November 2022

This event took place in the margins of COP27 in Sharm el-Sheikh, Egypt. The event offered a unique platform to discuss innovative and integrated technological systems for sustainable water and energy solutions supporting climate change and biodiversity objectives.

The main objectives of this event were (1) to exchange and disseminate knowledge and experiences related to innovative technological systems designed to ensure efficient and effective use of water and energy resources; and (2) to discuss the potential benefits and impacts of these innovative systems on climate change and biodiversity.

This outreach event brought together multi-stakeholders including representatives from public, private, and nonprofit sectors, as well as international organizations, civil society and practitioners involved in the research, development, management and implementation of sustainable water and energy solutions that contribute to global climate change and biodiversity objectives.



KNOWLEDGE MANAGEMENT AND SHARING BEST PRACTICES

Global Knowledge Platform on Sustainable Water and Energy Solutions

The Global Sustainable Water and Energy Solutions Network expanded its Knowledge Management Platform with additional relevant data, reports and case studies, facilitating the exchange of information worldwide and helping disseminate best practices on synergies that can be realized when integrated approaches are used to tackle water and energy services.

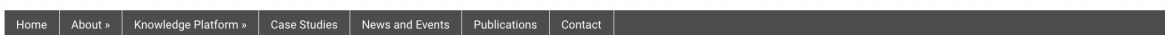


Photo credit: Itaipu Binacional



Photo credit: ITAIPU Binacional

Publications, presentations and Case Studies

Many publications, presentations and case studies prepared by experts and relevant organizations from all regions around the world are featured on the website and Knowledge Platform. The case studies cover different integrated technological systems designed and implemented for more effective management of water and energy resources following an integrated approach. Some case studies provide opportunities to accelerate global climate change objectives and to tackle the critical issues of access and reliability, especially for the effective planning and response to emergency situations and world crises such as pandemics.

MOVING FORWARD

2023

Member's Annual meeting and seminar in Madrid, Spain

Preparatory meeting in Guatemala in support of the second Global Symposium on Sustainable Water and Energy Solutions planned for 2024

Expansion of the scope of the Network activities to incorporate other SDGs

Publication of technical papers in a dedicated issue of the United Nations Sustainable Development Journal (Natural Resource Forum) on Sustainable Water and Energy Solutions

Dedicated events at United Nations world meetings include:

- The UN 2023 Water Conference
- The global UN High-Level Political Forum on Sustainable Development (2023 in-depth review of SDG6 and SDG7)
- The 2023 SDG Summit at the UN General Assembly
- COP28, the 2023 UN global meeting on Climate Change

Capacity development activities at the global, regional and national and subnational levels

SUSTAINABLE WATER & ENERGY SOLUTIONS



For further information, please contact:
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United Nations
<https://sustainabledevelopment.un.org/contact/>
Email: salame1@un.org



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