

# **Fourth Karachi International Water Conference Water Energy Food Nexus – Agenda for the 21st Century**

**Session 1 Opening Plenary: Water Energy Food Nexus – Agenda for the 21st Century**

## **The Purpose of the Conference in the Context of the WEF Nexus**

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The Fourth Karachi International Water Conference aims to bring together the thought leaders, actors and players of the water sector that are working on Water-Energy-Food Nexus. The “original” Nexus concept (Hoff, 2011) looked at the security of water supply, food and energy from a water perspective and water is placed in the center of the Nexus.

### **DIAGRAM**

The centrality of water in the Water Energy Food Nexus as a tool for analysis and the paradigm for action is obvious. Major global, regional and national organizations and their representatives, researchers, professionals, decision-makers, business innovators, practitioners, experts, women’s groups, youth groups and leaders on WEF Nexus will exchange ideas, foster new thinking, develop innovative solutions and work on the water agenda for the 21st century.

By the end of the conference we expect to see the emergence of an agenda for research, policy and action on WEF nexus and connections developed between developed and developing countries. The Water-Energy-Food nexus will be explored through various lens of valuing water, water governance, water infrastructure and investment, and social inclusion (gender and youth). Delivering water, energy and food for all in a sustainable and equitable way is one of the major challenges faced by our societies. The Conference will explore these themes and provide the knowledge needed to understand how interactions between water, energy and food are shaped by environmental, economic, social and political changes and how the synergies and trade-offs among them can be better planned and managed.

## **SUMMARY of Program Schedule**

There are 14 sessions spread across 2 days. On day 1, this opening plenary sets the scene and explores global thinking on the WEF Nexus and the views of one of Pakistan's biggest champion of water – the President of Pakistan himself. Session 2A Valuing Water – Harnessing Energy and Food Production focuses on understanding and localizing the WEF Nexus. Session 2B Leaving No One behind – Café of the Unheard will provide a platform for the audience to directly engage with the experts present in the conference. Session 3A Water Governance and security – Saving Urban Water from Urban Decay will explore governance and politics of urban water and identify the way forward for the city of Karachi. Session 3B The Indus and Murray Darling – A shared experience of reform seeks to identify Australian sustainability initiatives of relevance for Pakistan's consideration. Session 4A Water Infrastructure and Investments – Who gives a Dam explores the place of large and small water infrastructure in the context of WEF Nexus. Session 4B Does the Nexus actually work? Women's perspective will ascertain if the WEF Nexus resonates with Pakistani women.

Moving to day 2, we will begin with Session 5 Fireside Chat on Valuing Water, with free flowing conversation with three defenders of water – all for different reasons. Session 6A Water Governance and Security – Food Production and Agriculture Development will explore food security solutions for Pakistan. Session 6B Nexus Approaches for Water Policy and Strategy will assess whether WEF Nexus is reflected in our policy discourse. Session 7A Water Infrastructure and Investment – A Bespoke Model for Water Financing will identify water financing instruments and financing models for water, especially for Pakistan in the 21st century. Session 7B Leaving No One Behind – Young People Calling for Climate Change Emergency will highlight the viewpoints and efforts of youth.

The conference closing session will feature talks by representatives of two big international players in Pakistan, an overview of the Panjwani-Hisaar Water Institute and the conference declaration.

## **PICTURES OF PRE-CONFERENCE WOMEN and YOUTH Sessions**

There have already been several pre conference events held across Pakistan - 3 women's colloquiums events and a youth jamboree. The discussions and learning

from these events are being mainstreamed in the sessions. We have ensured that we have no manels within our sessions!

The OECD Environmental Outlook for 2050 projects that global demand for energy and will increase by 80% and for water 55%. In addition FAO estimates a 60% increase in food demand over the same period.

Agriculture accounts for 70% of total global freshwater withdrawals, making it the largest user of water. Water is used for agricultural production, forestry and fishery, along the entire agri-food supply chain, and it is used to produce or transport energy in different forms (FAO 2011a). At the same time, the food production and supply chain consumes about 30 percent of total energy consumed globally (FAO 2011b). Energy is required to produce, transport and distribute food as well as to extract, pump, lift, collect, transport and treat water. Cities, industry and other users, too, claim increasingly more water, energy and land resources.

Population growth, economic development and climate change will accelerate competition for food, water and energy. Humanity is currently using nature 1.75 times faster than our planet's ecosystems can regenerate. The costs of this global ecological overspending are stupendous. How can we use resources of the planet to allow 9 billion people to live well within the limits of the planet? The last century was about growth and essentially putting carbon into the atmosphere, the result of that is the climate emergency we are facing. The direct impact of climate change is on the water cycle and we have observed increased incidents of massive storms, floods, droughts and sea rise across different climatic zones.

Urbanization and population growth exert pressure on the system. Closer to home, while Pakistan does not have street population in our cities as we see on the streets of Calcutta or Dhaka, we do have high levels of malnutrition and child stunting. USAID reports approximately 60% of the Pakistani population is facing food insecurity and Pakistan Demographic Health Survey (PDHS) 2017-2018 indicated, 38% of all children under five are stunted.

Women and girls, and the way they are impacted by access to water, food and environmental entitlements constitute a large part of the picture, and most importantly a large part of the solution. With the Sustainable Development Goals,

and the Paris Agreement we have some good frameworks in place. Achieving the SDGs is directly related to the sustainable use of land, food, water and energy resources. We can look at the WEF Nexus as the central pillar of agenda 2030.

Many of you may say WEF Nexus, what? Why should we give up economic growth? But the children of the world know and they are boycotting schools. The Fridays for Future movement led by Greta Thunberg has shaken up adults of the world. Let us hear what she has to say....

## **VIDEO**

In the wake of these movements we are now discussing what no one would have dared to say just a few months before. The Guardian recently listed the 20 fossil fuel companies whose relentless exploitation of the world's oil, gas and coal reserves can be directly linked to more than one-third of all greenhouse gas emissions in the modern era, ARAMCO topping the list. It has been revealed by Forbes that the 120 plus richest individuals in the world spend only 3.76 percent of their net worth to charity. There is now a value being put on the quantum of investments needed to counter the climate impact on water, and commitments from these 120 plus individuals can make a difference in alleviating the impacts of climate change safeguarding water.

Pakistan has embarked on ambitious tree planting and recharging campaigns, but the correct focus on water as the key to managing the threats to life and the recognition of the 'water' economy as the driver of Pakistan's economy is yet to be adopted by the government. A new generation of water experts is needed to effectively unlock the WEF synergies and inter-linkages. The Panjwani-Hisaar Water Institute (PHWI) is designed to meet this challenge and be Pakistan's leading water institute for the 21st century. A collaborate venture by Hisaar Foundation, Panjwani Charitable Foundation and NED University of Engineering and Technology, this cutting-edge institute is placed inside the NED University, a university created 100 years ago to support the barrages and canals coming up in Sindh a century ago. PHWI will integrate engineering, social sciences and economic streams and produce water professionals and specialists trained to handle the whole range of water sectors and generate employment throughout the water value chain – a value change embedded deeply within Pakistan water economy. You will hear more about the PHWI in the closing plenary.

Hisaar Foundation is a Foundation of ideas. With its Think Tank on the Rational Use of Water, the Universities for Water Network, Citizen's Water Policy, a global conference every two years and a range of other policy research on the one hand and water partnerships, Women and Water Networks, water saving guidelines, media engagements, campaigns and demonstration of sustainable water, energy and food programs on the other, Hisaar Foundation needs all the support for establishing and implementing the water agenda in the 21<sup>st</sup> century. You will be able to see details on our website and on the HF stall outside, and during various sessions.

Dear friends, we are trying to go paperless as much as we can. So this time we have given out much less on paper. All the presentations will be uploaded on the conference website after each session. All presenters, if you have not submitted your presentations as yet, please bring them to your session on data sticks.

Enjoy the conference.