

Report of the Webinar on “Virtual Water”

Since 1993, the 22nd day of March is celebrated as World Water Day to spread awareness among all to preserve and not to waste water. On this occasion, the Institute of Science Education and Culture, Kolkata has organized a webinar on “Virtual Water” on August 28 2021 through Google Meet platform. Prof. Santanu Das, the Secretary of ISEC welcomed all and briefed on water crisis and importance of fresh water. He also spoke on the necessity of the webinar. Then he invited Prof. Anil Kumar Ghosh, the President of ISEC to inaugurate the programme by delivering the Inaugural Speech. Prof. Ghosh enlightened on water crisis as well as the problem occurring due to this throughout the world. He said water must be conserved to control water crisis as around 200 crore of people around the world are not getting drinking water properly. He said that fashion and garment industry need 93 billion cubic litre of water per year which is 4% of global water consumption and this is really a scary issue for all living beings. He also outlined on the concept of food water, virtual water and also on webinar of the day. He wished success of the webinar. Dr. Swapna Mukherjee, Vice President, ISEC and the Chairperson, ISEC Seminar Committee then delivered the Welcome Address.

After the inaugural session, Prof. Das invited Er. Subrata Halder, Executive Council Member, ISEC and Executive Engineer (Agri-Irrigation) in State Water Investigation Directorate (SWID), Department of Water Resources Investigation & Development (DWRI&D), Government of West Bengal to deliver his speech on “Virtual Water”. Er. Halder first mentioned that water which is the basis of life cannot be created as and when required. Only 2.5% of global water is fresh water. The term, ‘virtual water’, is known to be the embodied water that was coined by the British Scientist, John Anthony Allan in 1993, and he was awarded with Stockholm Water Prize in 2008. The virtual or hidden water means the required water which is included in various food, product, energy and water to recycle. It also makes up majority of water footprint (this concept was coined by Arjen Hoekstra in 2002) in which 92% in agricultural products, 4.4% in industrial products and 3.6% is for domestic water. There are three categories

in water footprint. Those are “Blue water” i.e. surface water and groundwater, “Green water” i.e. freshwater from precipitation and “Grey water” i.e. waste water. As per the global view of National Water footprint, the requirement of blue water, green water and grey water would be 153-260m/year/capita, 500m/year/capita and 150-216m/year/capita respectively. Finally, 1000-1200m/year/capita is required in total. He also showed a statistical chart to make the audience understand regarding total amount of water consumption in making several food products. As example, he said that 2173 litre water is required to produce 1kg husked rice in which 1488 litre is green water, 443 litre is blue water and 242 litre is grey water. He stated that consumers are unaware about water consumption, and for this reason, water stresses increase. He intimated all that Virtual water interconnects all agricultural and trade elements. In global virtual water trade, cereals and oil products take an important role. European countries are importing virtual water, whereas India is exporting around 26000 million virtual water per year since 2006 and ranks 120 among 122 countries as per the Water Quality Index (WQI) of the UN. Water Scarcity means (SW+GW) footprint/ (SW+GW) availability, and India is in severe water scarcity condition as its WQI is more than 2.0 because of huge population growth, export of huge food products rather to import and to store, etc. Sea products and change in diets and habits can improve this strategy. He showed a graph of global virtual in which it is clearly shown that trading green water for blue water can generate meaningful savings. He explained the situation of inter-regional virtual water flow in India. He spoke that western region is exporting virtual water to eastern region, and eastern region to that western region of India to a greater extent and is facing water scarcity. In conclusion, he said that virtual water metaphor can help international trade to maintain water and food scarcity. After that there was a great interactive session between the speaker and the audience. Then programme was ended.

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