International Environment Forum - Mark Griffin, P.E - NGO member (volunteer)

Please accept the below as virtual additions to the Stakeholder Meeting of 24 October, 2022

1. Measure: Include social sciences in evidenced-based dialog with increased stakeholder participation.

   Problem-a: The discussions in the "Data" and "Capacity Development" Stakeholders breakout meetings were aimed at natural sciences and quantitative data only, but no mention of social sciences and the application of qualitative data or mixed-methods.

   Problem-b: There was a call for "evidence-based dialog", but that is incomplete without social science, including Qualitative Data Analysis, such as interviews, focus groups, etc., that by nature are inclusive of stakeholders. Moreover, beyond participation for qualitative data, participants should also "own" the data and be part of the resulting decision-making.

2. Measure: International sister-city municipality exchange programs as practical internships; Cultural and Technological exchanges of teams from WASH systems; include operations, laboratory; and water rate charges (capital and operational financing)

   Problem: The "Capacity Development" breakout asked for increased internships, but these typically go to persons that already have the agency to obtain the internships. Mutual empathy and technological experience in developed and undeveloped WASH contexts create awareness and participation.

3. Measure: Create a programme called "Men Carrying Water" as a statement of equality, and as a catalyst for change for gender and for water systems.

   Problem: There is little if any literature on why men do not carry water and is instead a job only for women and girls. Carrying water is not only a physical burden that displaces schedules for other purposes such as education for girls – from schools or from their mothers. Women suffer from gender and other violence on their journey to fetch water, and there is risk of parasites contracted at the source water site. Manually transporting water reduces the quantities available for hygiene, regardless of quality with regard to drinking.

4. Measure: Apply a supplemental WASH progress indicator that measures from 1977 to present.

   Measure-a: A Water-Related Mortality Rate (WRMR) measures a reduction in absolute deaths in the modern intervention era, and gives a stronger indication of progress when converted to a global per capita MR. It decouples water deaths from population increases in the "hockey stick" curve of the Great Acceleration. It gives hope and trust that if we have the political will, then we can implement change.

Measure-b: This reframing can extend to the future to include water-related disasters from storms, floods & drought, potentially to diseases like malaria, and migrating refugees from climate. It measures "low hanging fruit" progress since 1977 and is applicable to acute future challenges without reframing.

Problem-a: It is unacceptable for a single person not to have access to WASH. However, WASH access, the current indicator, does not directly measure the effectiveness of providing safe water and sanitation. Additionally, the Goals from one decade or program cannot be universally mixed. Also, if "leaving no one behind" occurs with WASH access, how will we explain water-related deaths that still occur?

Problem-b: WASH takes a HABITAT perspective where consumers are in homes, schools or businesses. Climate migration produces homeless refugees, as does water-related disasters.

5. Measure-a: Give a special regard to small stakeholder agriculture; Address large-scale agriculture as economic development, and small stakeholder agriculture as social and economic development.

   Measure-b: Develop a set of agricultural indicators that measure whether a specific system adds resilience or adds stresses to the environment. Include measurement of increases or decreases in adaptation capability, and include energy use of unit volume of food. Include nutritional quality of food produced, including nutritional value to cost comparisons. Include this in the overall footprint in the WEFE nexus.

   Measure-c: Answer the following research hypothesis: "Small-scale farming typically promotes sustainability and climate adaptation, while large-scale commercialized agriculture adds stress and less ~~socio-economic~~ adaptability to the environment."
   socio-ecological

   Problem-a: Agriculture seems hidden, embedded in Discussion Theme Two. It states agriculture as economic development only. Small stakeholder and subsistence agriculture are socially more than economic development. While they are both related to agriculture, water, energy, and ecosystems, the two types have entirely separate contexts. They have differen~~ce~~ approaches and goals, and have different contributions to environmental stresses and adaptive capabilities. Their energy uses are also greatly dissimilar.

   Problem-b: A plenary speaker stated that 70% of water is for Agriculture, and 22% for industry. This leaves only 8% for WASH and other uses, and agriculture and industry are expected to increase, logically reducing WASH application. It was also stated that the Global Compact companies are paying more attention to water use and the protection of water sheds. This can be interpreted not as an altruistic transformation, but self-serving Business-As-Usual in view of the projections. More than physical realties, these harm trust and participation.