Importance of Evidence-based Policy Making for Water Security and Sustainable Management

7 June 22, 2nd Dushanbe Water Process

Ellie Dahae Park

United Nations Educational, Scientific and Cultural Organization
International Centre for Water Security and Sustainable Management

CONTENTS

International Centre for Water Security and Sustainable Management

- Mission : Support Water Security Strategies for Sustainable Development against Climate Change
- Vision : Equal and Safe Water Use and Better Quality of Human Life

Objectives	
	Integrated and Problem- Solving Research
	Case & Field-Oriented Education and Training
	Global Network and Cooperation Platform

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Evidence

Is categorized as either 'hard' or 'soft', implying objective versus subjective forms.

"We don't always know what information is available, and even if we do, we can't always access it. If we can access it, we cannot always make use of it, perhaps because it is in the wrong language of the wrong format, or otherwise not suited to our needs"(Parker, 2000)

DEFINITIONS

- Data : Structured records of transactions, a description of an event without the context or purpose of the event.
- Information : Data that makes a different.
- Knowledge : A fluid mix of framed experiences, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information.

Evidence-based Decision Making and Policy

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Policymaker's Evidence

1. Colloquial
2. Anything that seems reasonable
3. Policy relevant
4. Timely
5. Clear Message

VS.

Researcher's Evidence

1. Scientific(context free)
2. Proven empirically
3. Theoretically driven
4. As long as it takes
5. Caveats and qualifications

- What Evidence is USEFUL?

Quality

Accuracy

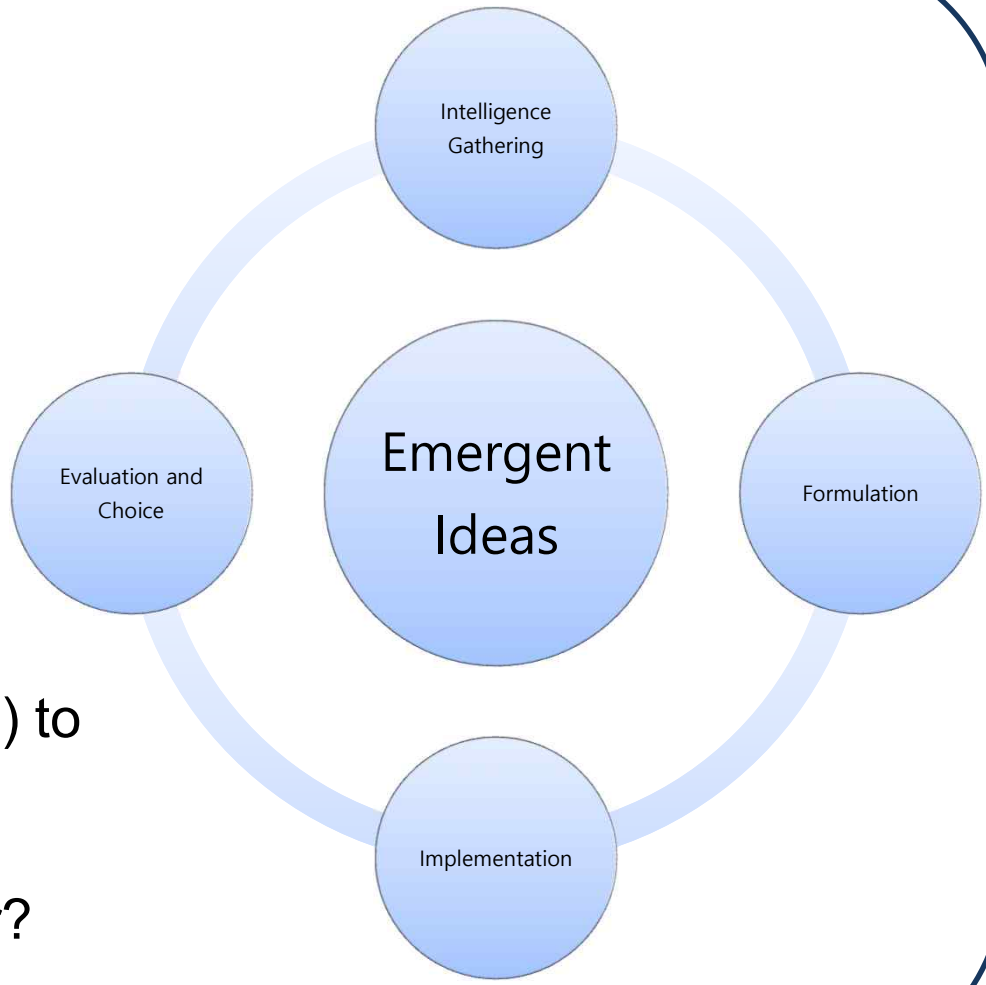
Objectivity

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Evidence-Based Decision Making(EBDM)

- Decision Making is an ambiguous relationship between commitment and action – an artificial construct- and that commitment does not necessarily come before action.
- Decision-making may be improved by drawing from relevant evidence
- Scholars and Practitioners advocate evidence-based decision making(EBDM) to support public policy
- How decisions are made in water sector?



Source : adapted form Nutt(2011)

United Nations Educational, Scientific and Cultural Organization

International Centre for Water Security and Sustainable Management

Evidence-based Policy

- An approach to policy that helps people make well informed decisions about policies, programmes and projects *by putting the best available evidence* from research at the heart of policy development and implementation

- EBP is a set of methods which informs the processes by which policies are formulated, rather than aiming to affect the eventual goals of the policy. It advocates a more rational, rigorous and systematic approach, and moves beyond traditional notions of research to adopt a broader understanding

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Why do we need Evidence?

- Understand the policy environment and how it's changing

- Appraise the likely effects of policy changes so we can choose between different policy options and subsequently assess their impacts

- Demonstrate the links between strategic direction, intended outcomes and policy objectives, to show that there are clear lines of argument and evidence between what we are aiming for and what we are doing right now.

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Good Evidence for Policy

Credibility

relies on a strong and clear line of argument methods; analytical rigor throughout the processes of data collection and analysis; and on clear presentation of the conclusions

Relevance

evidence is timely, topical, and has policy implications. The type of evidence one refers to matters greatly according to the audience it is being presented to and the likely impact it can create.

Practicalities

relates to the extent to which the evidence is accessible to policymakers; whether policymakers have access to it in a useful form and therefore the ease with which it can be translated into policy.

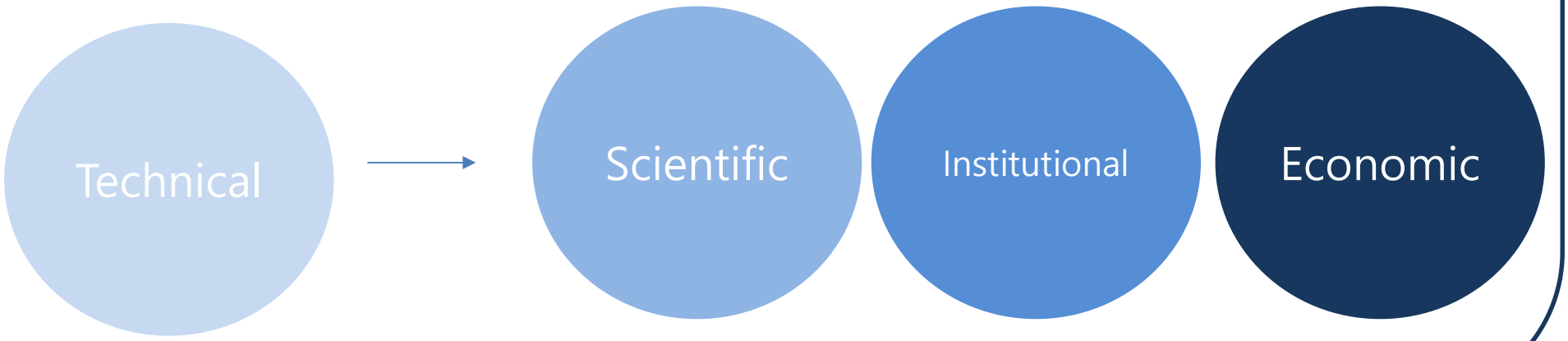
"Evidence-based government means integrating experience, expertise and judgement etc. with the best available external evidence from systematic research(Davies, P.T,. 2000)"

United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Thinking Fast

- Through Listing recent extreme events to declare new weather reality risks based on heuristic availability biases, has replaced data driven policy and the statistical rigour of thinking slow problem solving(Kahneman 2011)



United Nations Educational, Scientific and Cultural Organization

i-WSSM International Centre for Water Security and Sustainable Management

Why make gov/practice more evidence-based?

- Effectiveness
  Ensure we do more good than harm
- Efficiency
  Use scarce public resources to maximum effect
- Service Orientation
  Meet citizen's needs/expectations
- Accountability
  Transparency of what is done and why

United Nations Educational, Scientific and Cultural Organization

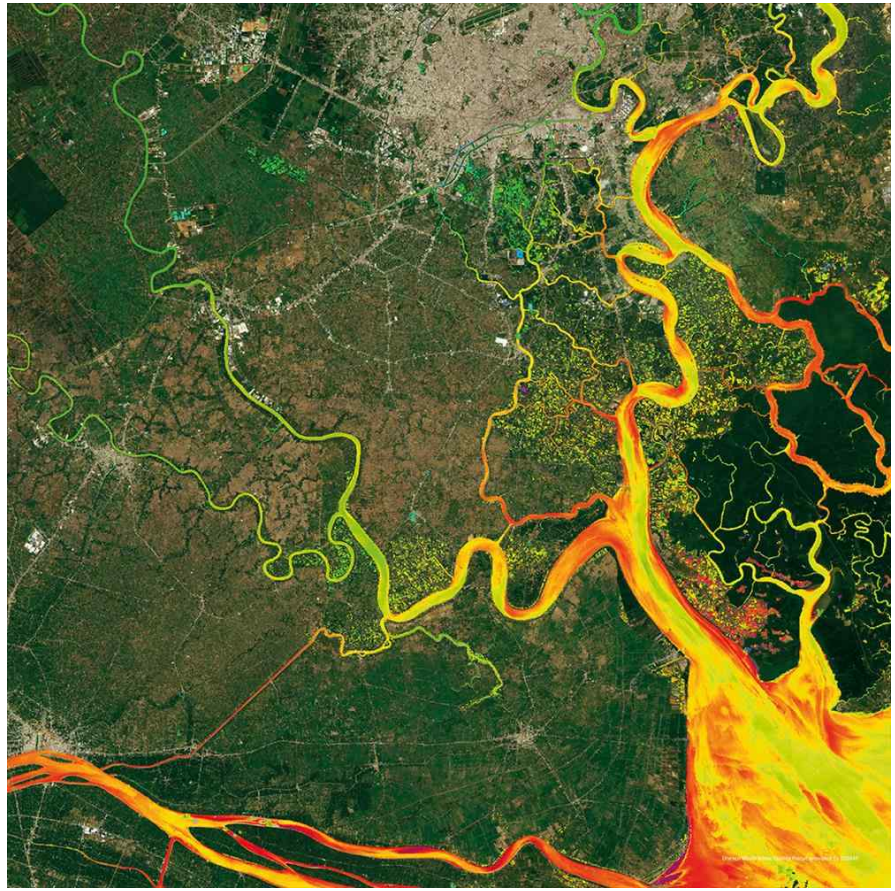
i-WSSM International Centre for Water Security and Sustainable Management

UNESCO IHP's Evidence-based Cases

- UNESCO World Water Quality Portal – A pioneering tool for freshwater quality monitoring using satellite-based Earth Observation

- UNESCO IHP International Initiative on Water Quality, IIWQ

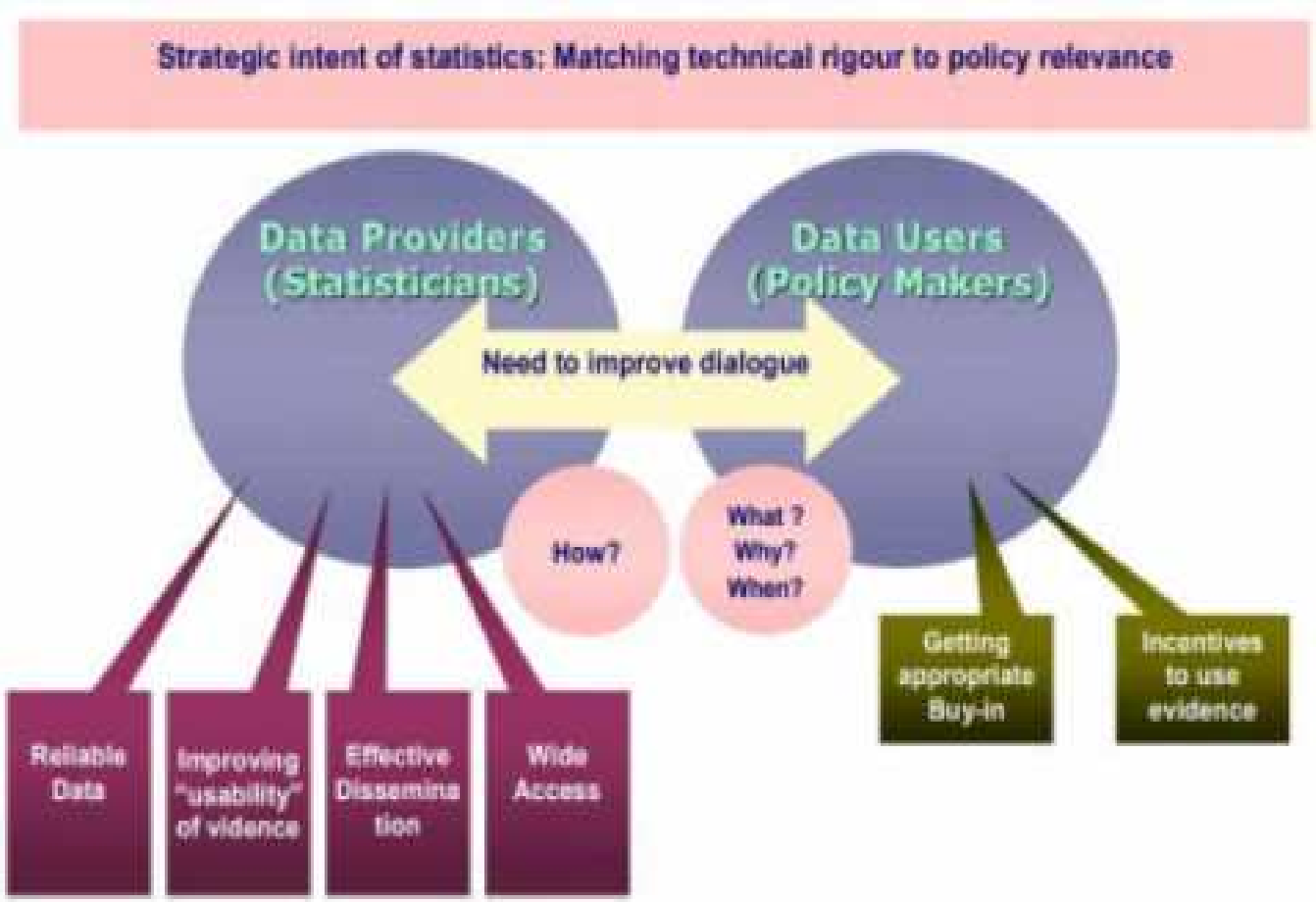
- Mapping protentional water quality health hazards during floods to alert communities



United Nations Educational, Scientific and Cultural Organization
i-WSSM International Centre for Water Security and Sustainable Management

Korea's Evidence-based Policy

- Evidence/Science-Driven Policy Making Process



THANK YOU!

Ellie Dahae Park
Senior Programme Specialist
International Centre for Water Security and Sustainable Development (i-WSSM)
ellie007@unesco-iwssm.org

Reference

Amjad, U. Q., Dalcanale, F., Kayser, G., Bentley, P., & Bartram, J. (2018). Evidence-based decision-making on water quality in domestic water supply in Malawi, Ecuador, and Brazil. *Water Policy*, *20*(3), 530–545. https://doi.org/10.2166/wp.2017.184

Choi, I.-C., Shin, H.-J., Nguyen, T., & Tenhunen, J. (2017). Water Policy Reforms in South Korea: A Historical Review and Ongoing Challenges for Sustainable Water Governance and Management. *Water*, *9*(9), 717. https://doi.org/10.3390/w9090717

City of Markham, & Muir, R. J. (2018). Evidence Based Policy Gaps in Water Resources: Thinking Fast and Slow on Floods and Flow. *Journal of Water Management Modeling*. https://doi.org/10.14796/JWMM.C449

EO-based and other innovative water quality monitoring tools | Showcase. (n.d.). Retrieved May 30, 2022, from https://www.worldwaterweek.org/event/8390-eo-based-and-other-innovative-water-quality-monitoring-tools

Monitoring water quality using EO: UNESCO World Water Quality Portal | Showcase. (n.d.). Retrieved May 30, 2022, from https://www.worldwaterweek.org/event/8101-monitoring-water-quality-using-eo-unesco-world-water-quality-portal

OECD. (2018). OECD Water Governance Indicator Framework. In OECD, *Implementing the OECD Principles on Water Governance* (pp. 49–105). OECD. https://doi.org/10.1787/9789264292659-5-en

UNESCO (United Nations Education, Scientific, Cultural Organization). 2014. "UNESCO Priority Gender Equality Action Plan: 2014-2021." Programme and meeting document, 37 C/4-C/5 Compl.0. UNESCO, Paris.

Unilever, Sunlight, OXFAM, Next Drop, and Water Aid. (2015). Water for Women.

WHO, UNICEF. (2018). Drinking Water, Sanitation and Hygiene in Schools: Global baseline report 2018. WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene.