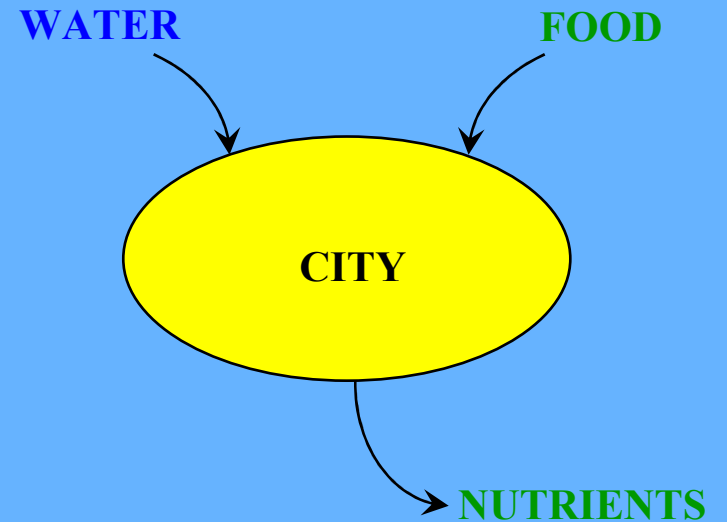
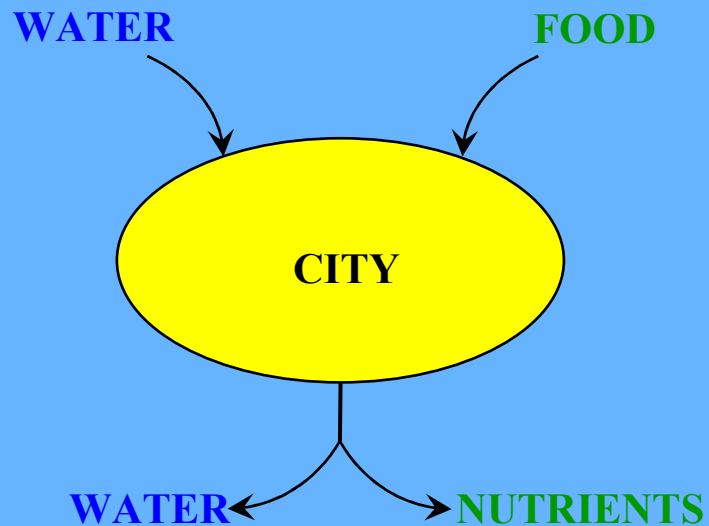


**PLURALISM & CLUMSINESS
IN ENGINEERING FOR SUSTAINABLE
DEVELOPMENT
DO WE NEED THEM?**

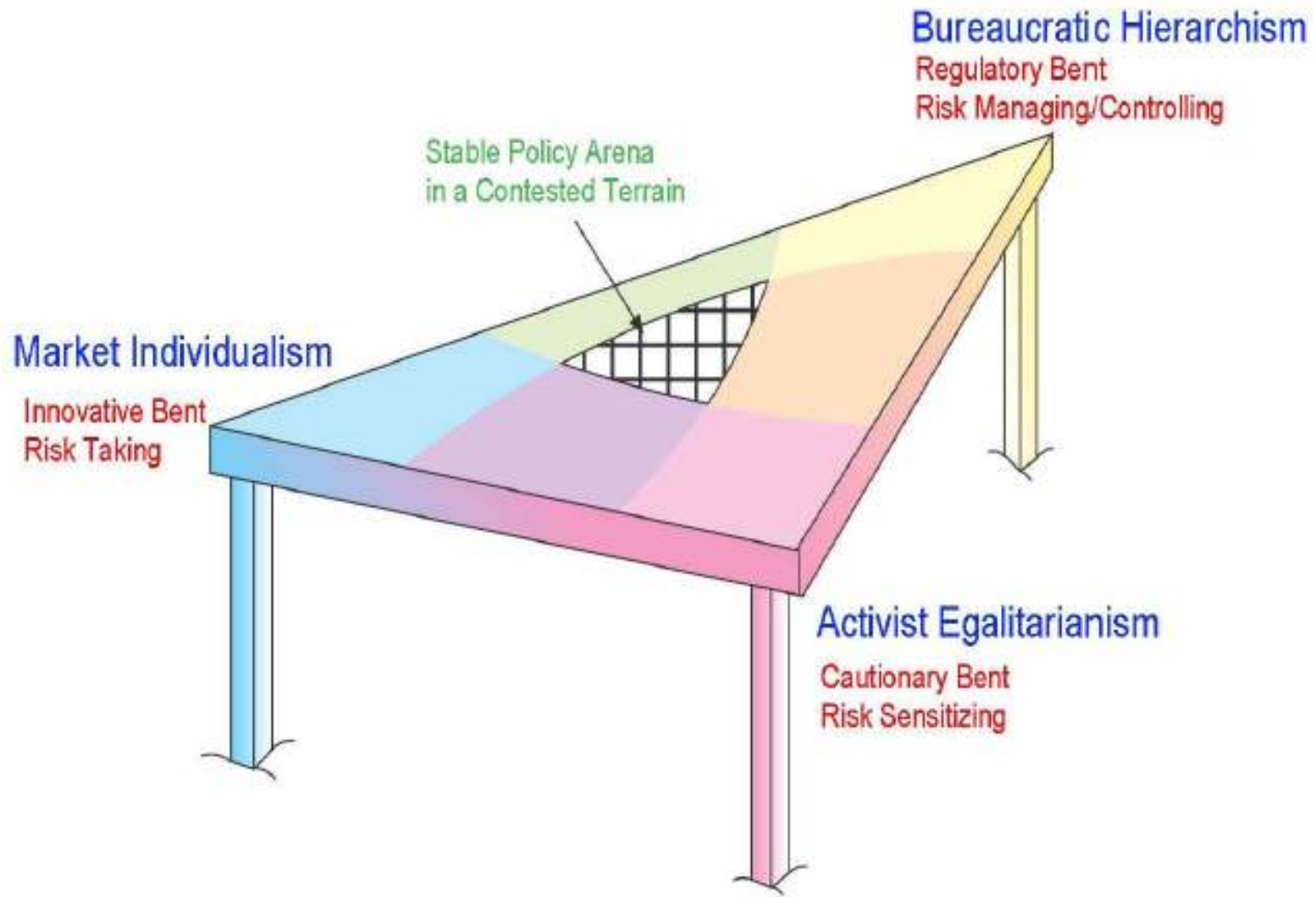
M B Beck

**Warnell School of Forestry
& Natural Resources
University of Georgia
USA
(mbbeck@uga.edu)**

Cities as Forces for Good in the Environment

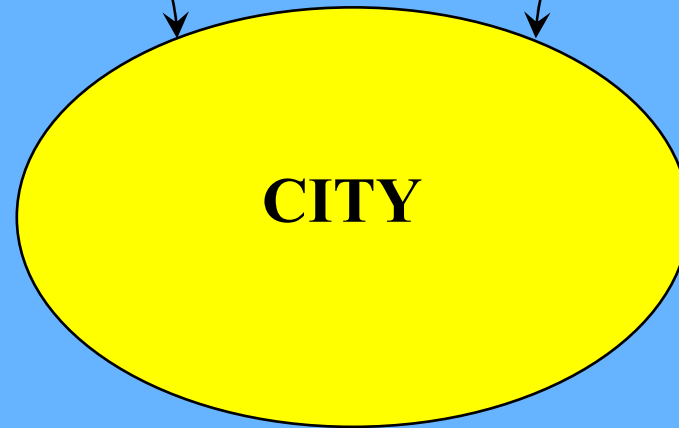


Constructive Engagement of Plural Social Solidarities



WATER

FOOD



CITY

WATER

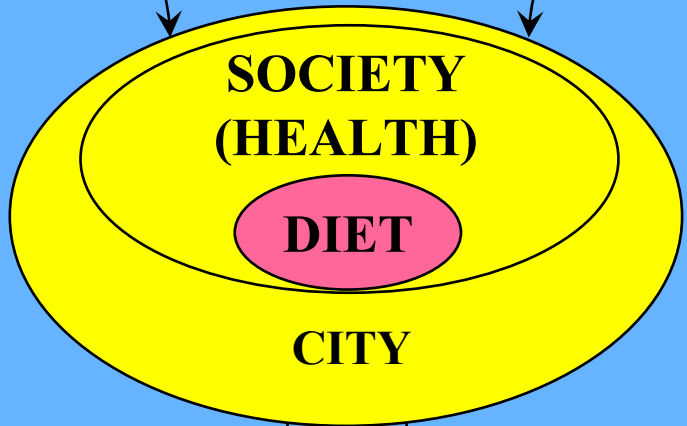
NUTRIENTS

**CURRENT WASTEWATER
INFRASTRUCTURE (GLOBAL NORTH)**

**GLOBAL NUTRIENT &
VIRTUAL WATER TRADE**

WATER

FOOD



WATER

NUTRIENTS

**LESS UNSUSTAINABLE WASTEWATER
INFRASTRUCTURE?**

IWA SUSTAINABILITY AGORA

(Good humored Theater)

**Sustainable Metropolitan Water Infrastructure:
Technological Leap-frogging & Escape from Lock-in**

Bruce Beck: “Author”

Dipak Gyawali: Master of Ceremonies

George Crawford: Private-sector “Voice”

Margaret Pageler: Public-sector “Voice”

Ger Bergkamp: Civil-Society “Voice”

Michael Thompson: Stage Manager and Prompt

IWA SUSTAINABILITY AGORA

**Leap-frogging
and Escape from Technological Lock-in**

**Governance – In Relation to Enabling or
Disabling the Above**

AGORA: SCHEDULE, Part 1

Bruce Beck: Introductory Remarks

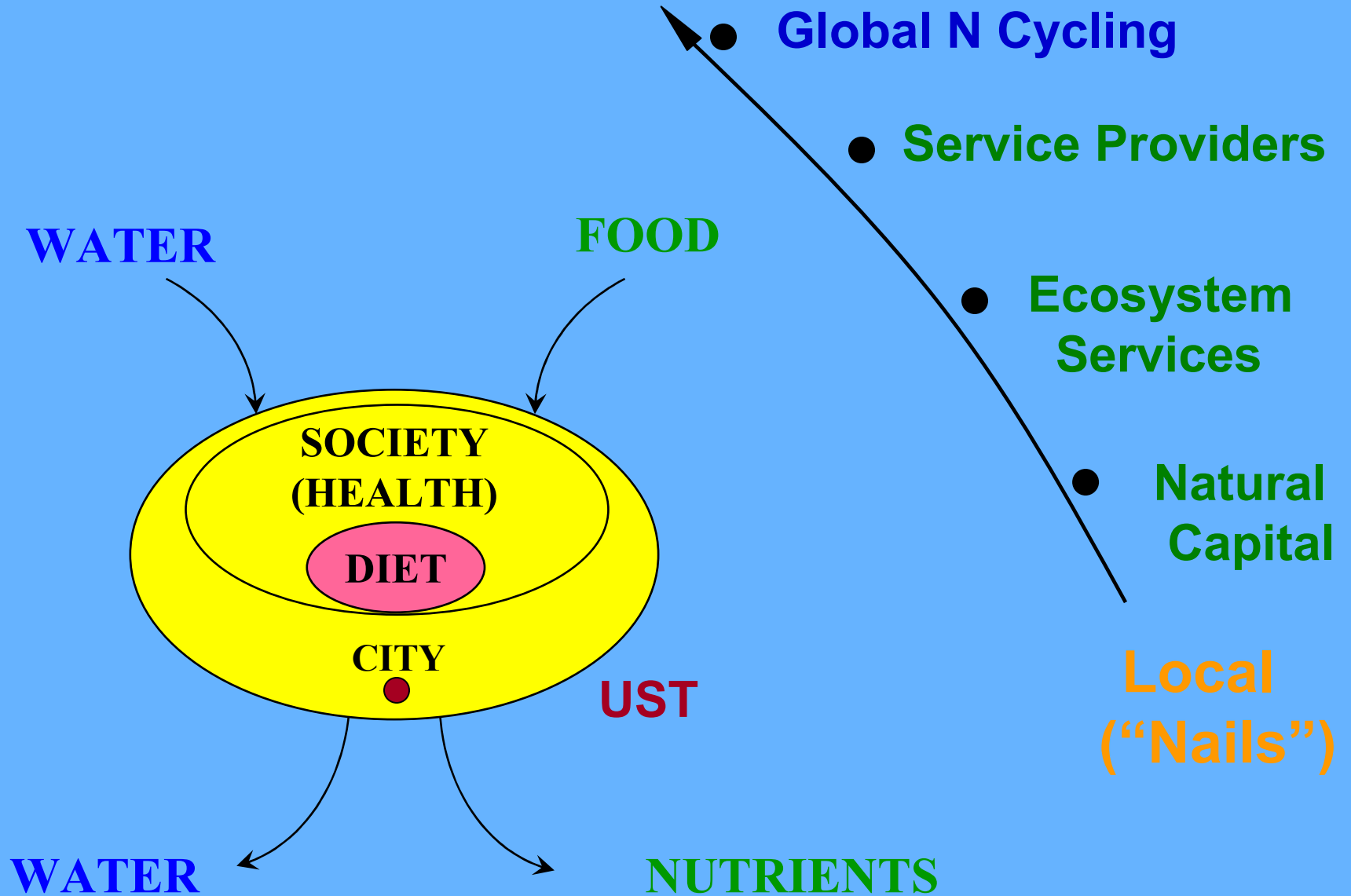
Dipak Gyawali: Rules of Play

**Each “Voice” in Turn: Framing The Problem & Solution
From Each Perspective**

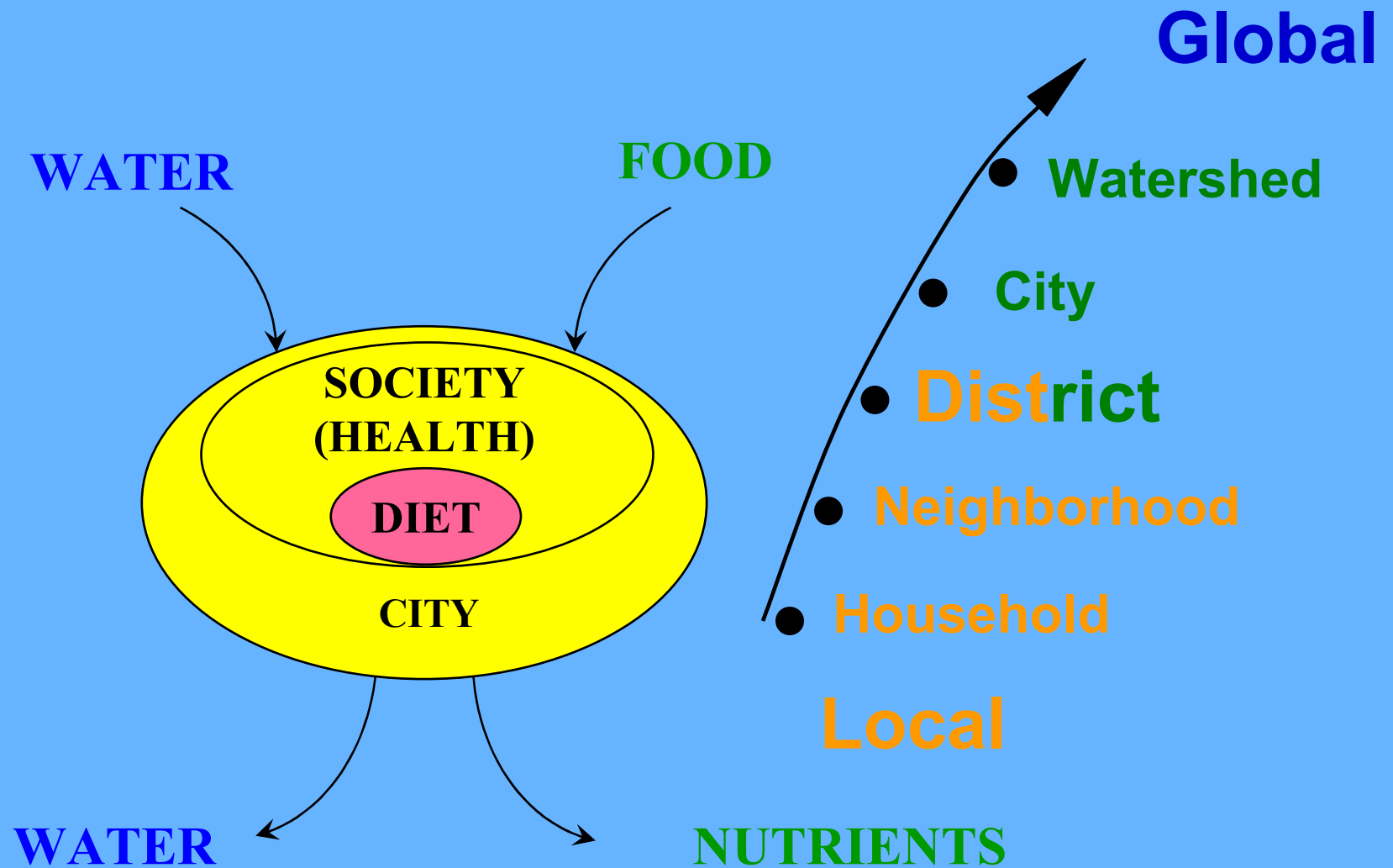
Responses to Each “Voice” from Two Other “Voices”

Orchestrated Debate, Including From Audience

(“Kingdoms”)



ASPIRATIONS & GOVERNANCE



AGORA: SCHEDULE, Part 2

Orchestrated Debate, Including From Audience

Michael Thompson and Dipak Gyawali:

Taking Stock:

Three-cornered Discourses on Water

Three-cornered Discourses on Technology

Elegance and Clumsiness in Institutions and Governance

Orchestrated Debate, Including From Audience

