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17.181 / 17.182 Sustainable Development: Theory and Policy
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Sustainable Development: Theory & Policy

Week 8

From Sustainability Problems to
Solution Strategies

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Contents

1. Contextualization
2. Introducing GSSD
3. From Problems to Solutions
4. The Transformation Problem



1. Contextualization

- **Globalization & World-wide eConnectivity**
- **Increased Knowledge Intensity**
- **New Technologies for Knowledge Networking**
- **Dow Jones Indices of Corporate Sustainability**
- **Sustainability Measures for Decision**
- **Persistent Gaps Local-Global Gaps**



The Argument

Convergence of global trends is transforming traditional knowledge practices, creating new research modes & accelerating 'new knowledge'.

Such transformations may reduce bias in international research and knowledge-gaps worldwide.

But research designs must reflect fundamentals of diversity, complexity, globalization & localization.



8.2 Introducing the Global System for Sustainable Development (GSSD)

- **Knowledge of Sustainability**
- **Knowledge for Sustainability**

Global knowledge meta-networking

Structured knowledge on sustainability

System for using “state-of-the-art” knowledge management

Decision support collaborative platform

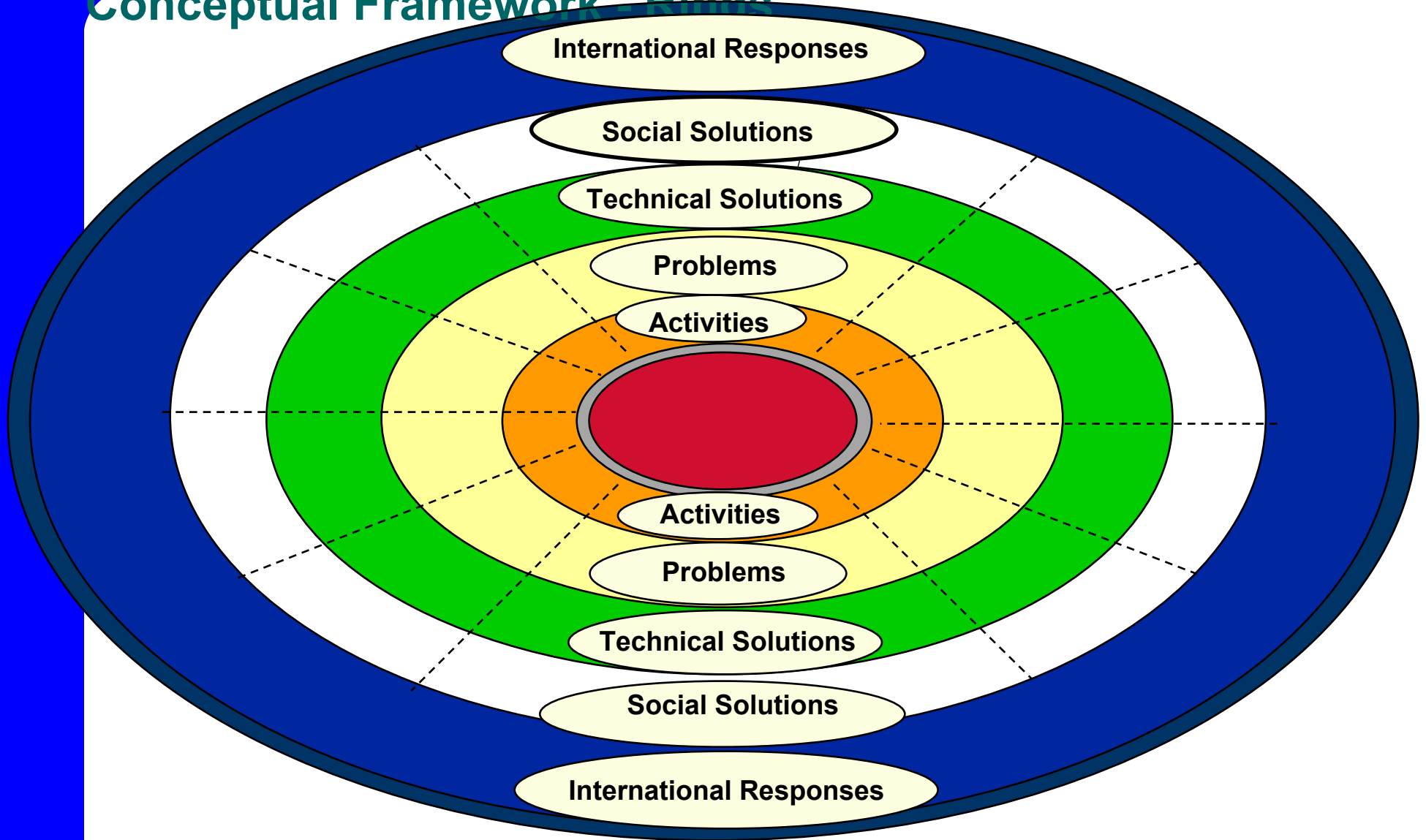


Knowledge About What?

- **Human activities & conditions**
- **Sustainability problems**
- **Scientific & technological solutions**
- **Economic, political & social solutions**
- **International actions & responses**

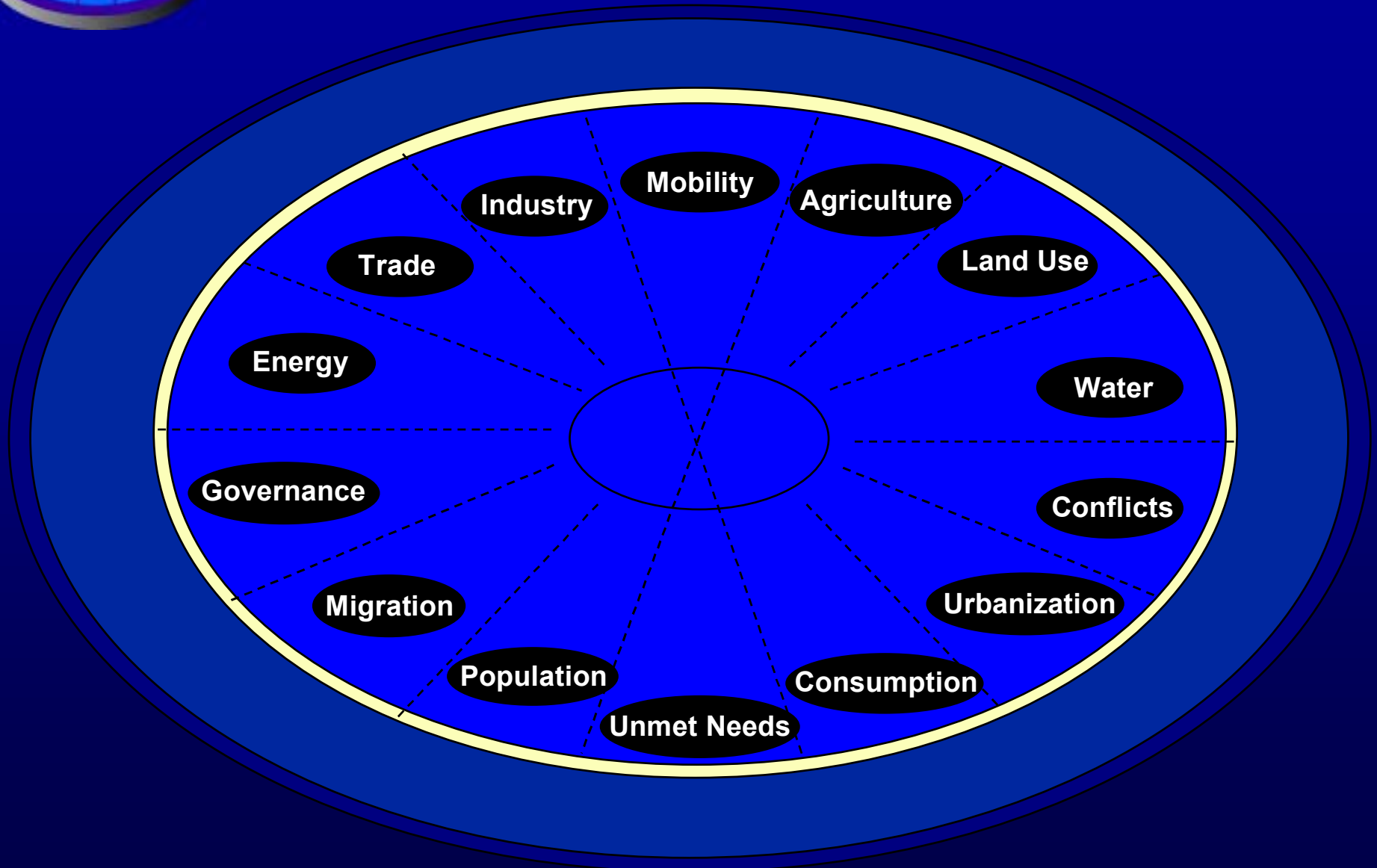


Conceptual Framework - Rings



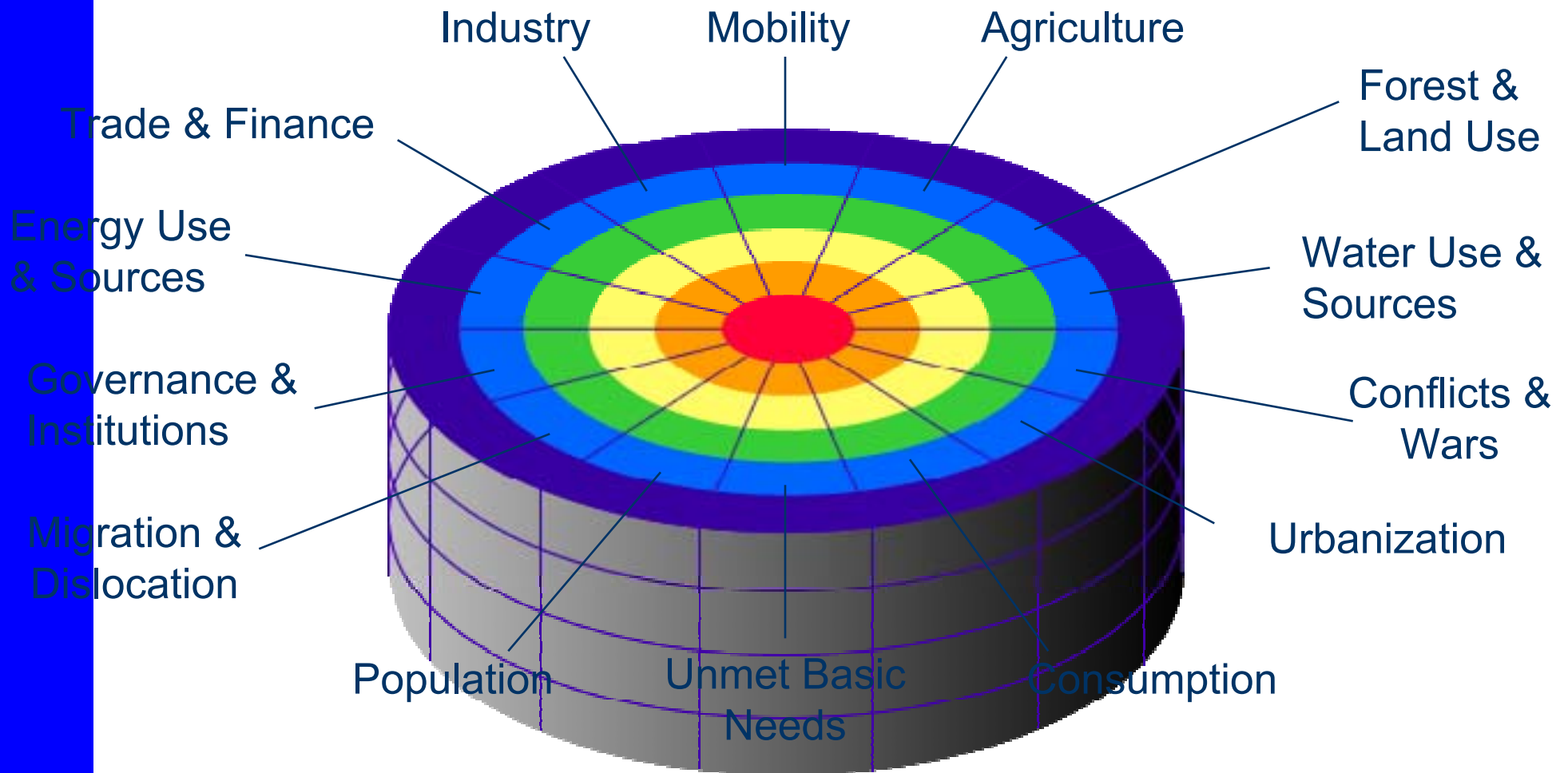


Conceptual Framework - Slices

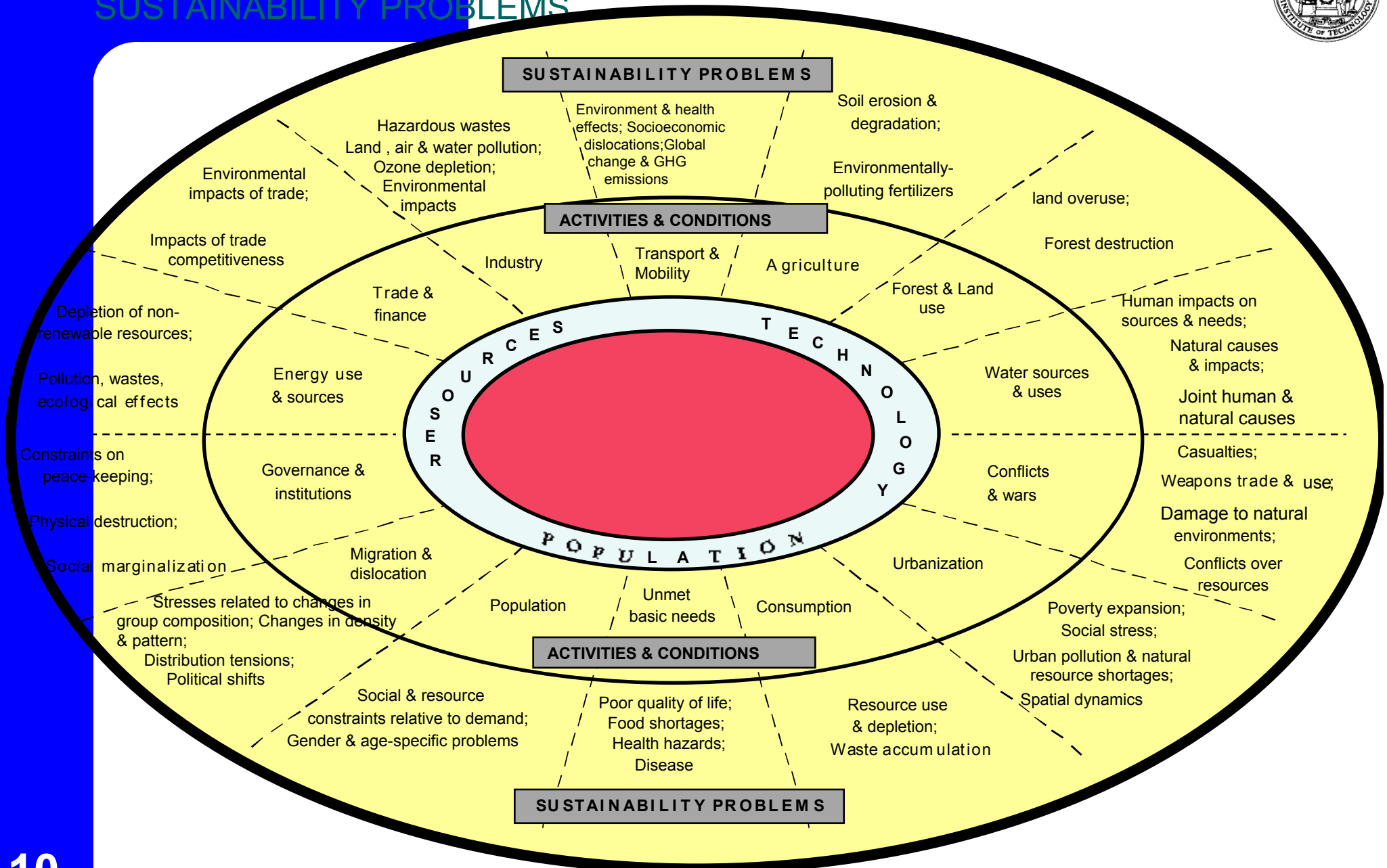




Conceptual Framework



FROM ACTIVITIES & CONDITIONS TO SUSTAINABILITY PROBLEMS

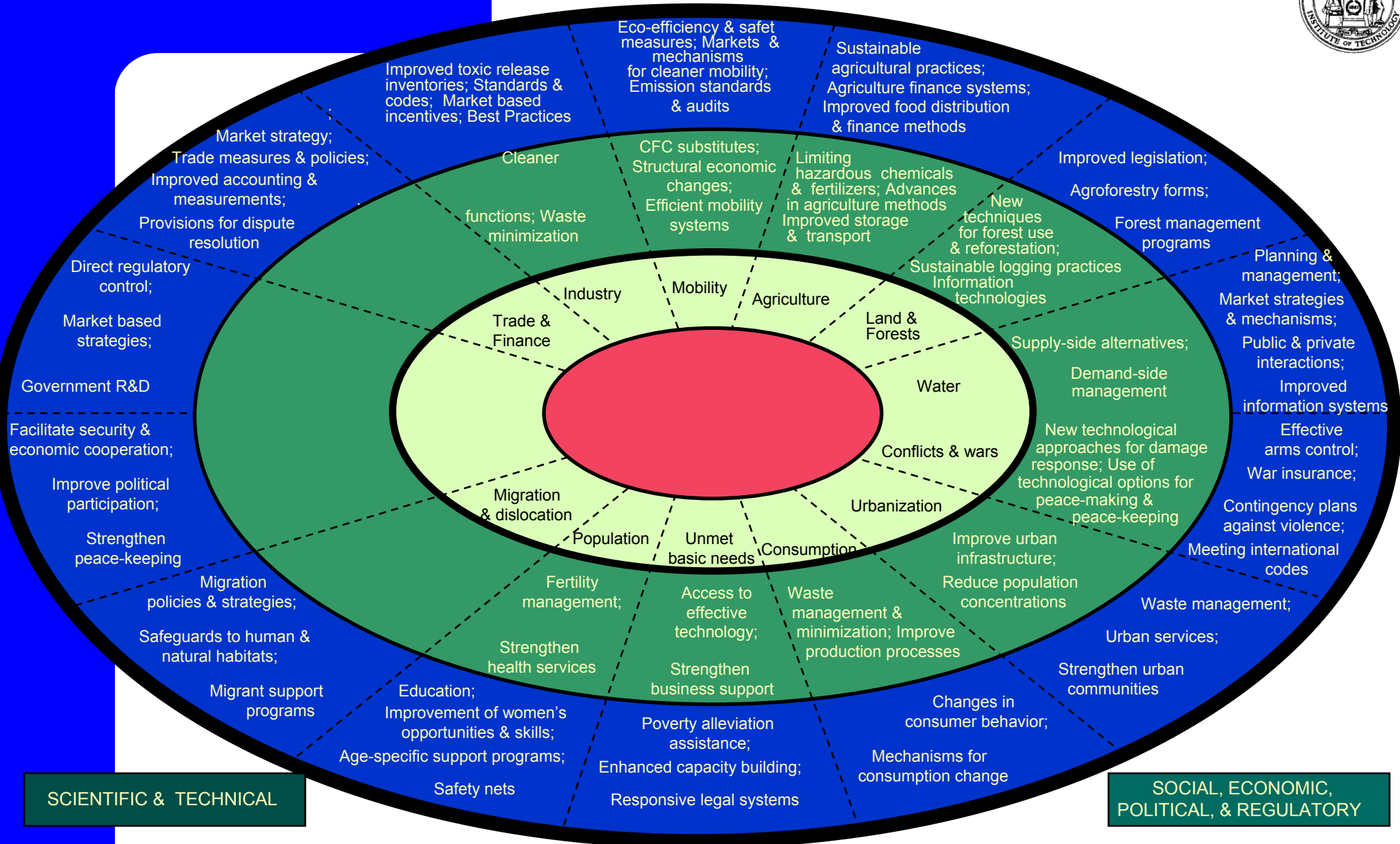




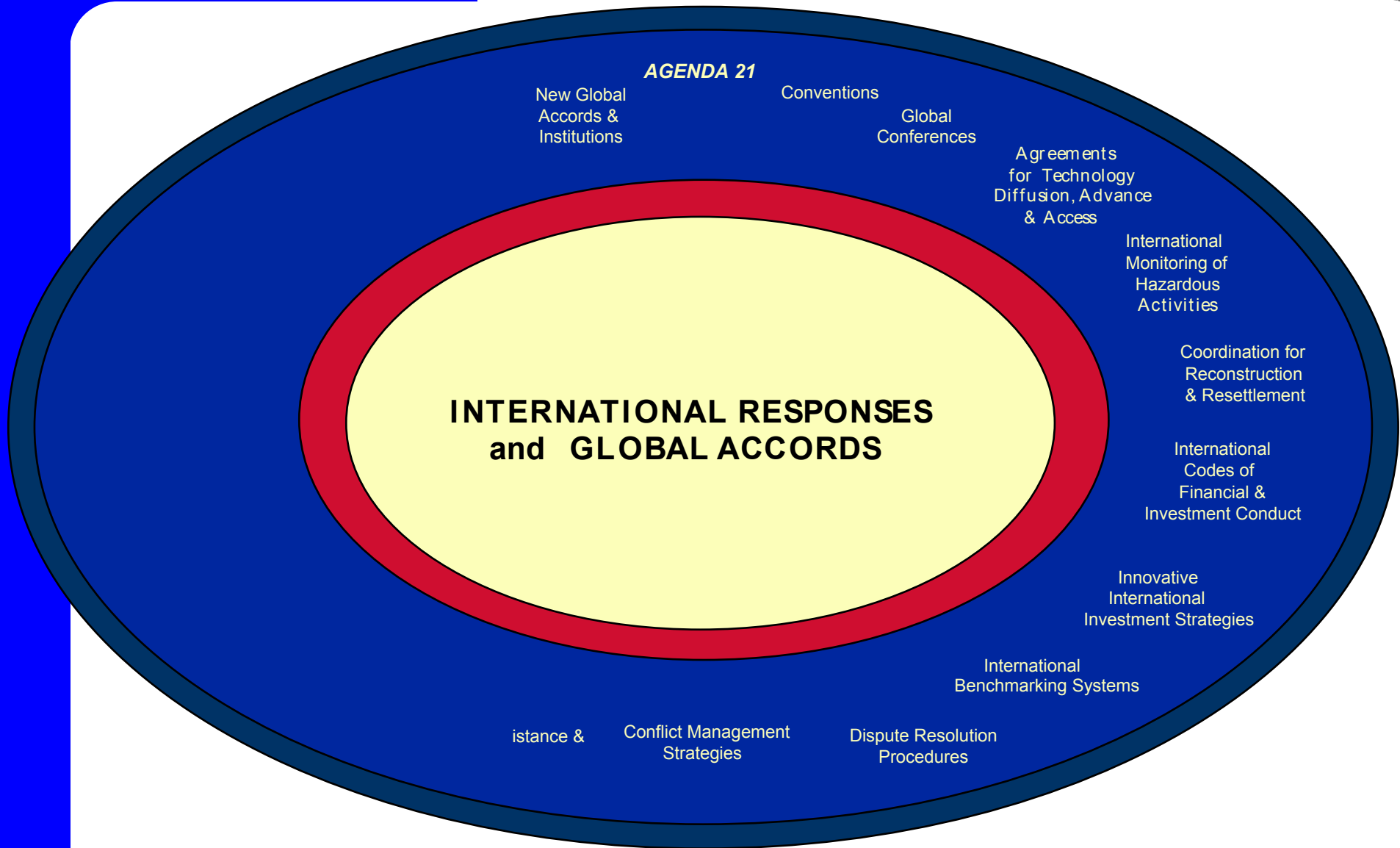
8.3 From Problems to Solutions

Nested System

TYPES of SOLUTION STRATEGIES



GLOBAL SUSTAINABILITY STRATEGIES





Methodological & Strategic Issues

Concept & Theories
Indicators & Measures
Models & Case Studies
Agreements & Organizations
Policy, Strategy & Responses



8.4 The Transformation Problem

Assets vs. Liabilities

Sustainability or Sustainable ‘Growth’

Paths, Options, Trajectories



Valuing all assets: human, capital, natural, environmental

1. The problem is how to deploy national assets and manage national liabilities toward sustainability
2. This involves financial and non-financial assets all forms of resources (human, natural, & economic) can be used to serve national goals
3. Diversity: in empirical manifestation regarding transformation problem
4. Sustainability as a generic problem for industrial and developing countries