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SDGs from the Perspective of AP Region

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10 Key Global Challenges

- Poverty eradication
- **Pollution**
- Population growth and urbanization
- Food security and sustainable production
- Old and **New diseases**
- **Energy**
- **Disasters**
- **Water and environmental resources**
- **Climate change**
- **Peace and security**



Key Challenges - AP Region

- The Asia-Pacific is urbanizing at unprecedented speed.
- Urban population of 43%
- Asia holds half of the world's cities including 6 of the world's 10 largest cities.
- Half of Asia's population will be living in cities by 2020.
- China alone will have a billion urban people in 15 years from now.
- Unprecedented" urban expansion of some 150,000 people a day over the next two decades.





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Water quantity and quality

- Sharp increase in water use
- Depletion of Groundwater sources
- Food security
- Climate change – extreme events
- Rapid urbanisation – water footprints
- Massive Pollution of Vital Water Resources
- Nitrogen, pesticides, endocrine disruptors
- Biodiversity loss





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Sustainable Development Goals

The logical flow

- 169 proposed targets
- 304 proposed indicators

ENABLERS



Life resources
The absolute needs

Condition number 1 for development

Global issues

*SDGs Logical Flow,
Prof. Kamarulazizi Ibrahim (USM,
Malaysia)*



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What Can We Do?

Climate Change/Global Change
hazard,
on natural

Adaptation to increased
innovation, focus
disasters

Rapid urbanization
Infrastructure
and population growth

Sustainable

Poverty
services,

Access to infrastructure,
rights, and technologies

Sustainability

Innovation

Technology

Inter-connectedness of Global Challenges

- **Water – Energy – Food security**
- **CC and renewable energy**
- **CC and pollution**
- **CC and food security**
- **CC and natural disasters (impact of floods, volcanic eruptions and GHG emissions)**
- **CC and sustainable cities**

Key Areas of Concern SDGs in AP

- Limited knowledge of climate shift of agro-ecological zones
- Misinformed decisions resulting in unsatisfactory project output
- Inadequate resources (human, financial and material)
- Economic crisis and limited donor support
- Conflicting needs of funding agencies and communities
- Lack of communities involvement in regional projects, need to involve the main decision-makers at appropriate levels
- Poor timing of mitigation measures leading to lack of commitment
- Need for sensitivity to work patterns, religious rites and festivals in communities

Adaptive Management Challenge

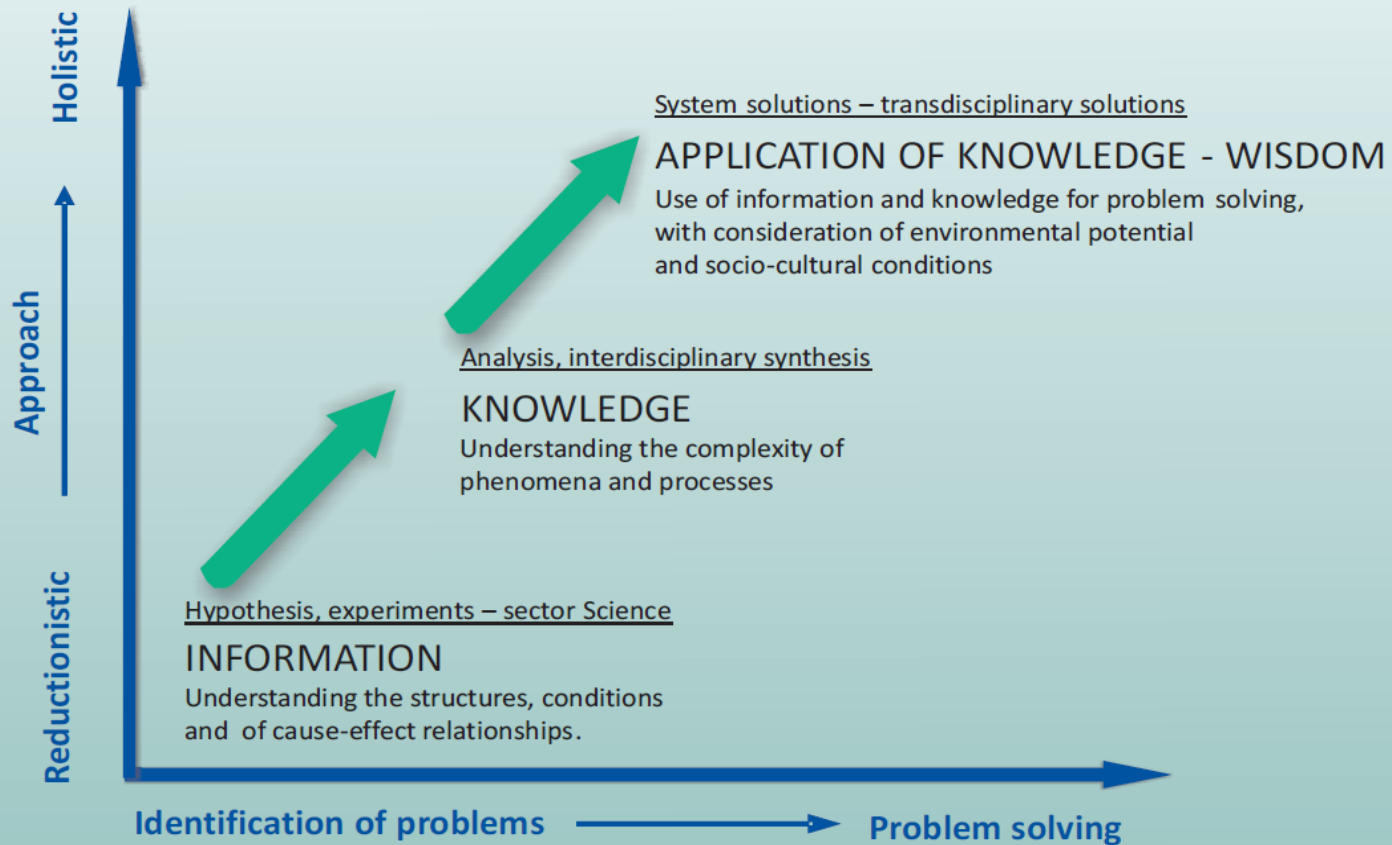
- Take on board shifting agro-climate zones for analysis of extremes, design and implementation of strategies.
- Integrated Flood and Drought vulnerability assessment and mitigation measures using multiple criteria (meteorological, hydrological and agro management principles). For example multiple criteria can have variables such as:
 - Meteorological – rainfall, temperature, wind speed, sunshine etc.
 - Soils - depth, type, available water content
 - Surface water use - percent irrigated area, surface water supplies
 - Ground water – ground water availability/utilization
 - Crop – cropping pattern changes, geo-spatial land use, crop condition, anomalies of crop condition.
 - Socio-economic – population of weaker sections, size class of farm holdings
- Management options to build on the IWRM Spiral Approach or Water-Food-Energy Paradigm



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Information to Wisdom

The methodology of transition from problem identification for sustainable future



[modified after Zalewski 2010]

Conclusions

- **We have 3-4 decades to address and solve the key AP Challenges**
- **The 2030 Agenda needs to be implemented using sound science, technology and innovation**
- **We need to learn from mistakes of the past**
- **Reliable data, rational models and context sensitive policy frameworks are necessary for sustainable development of the region**



Conclusions

Effective actions implement 2030 Agenda

- Full understanding of complexities and inter-actions, and use of inter- and trans-disciplinary approaches
- Cooperation and partnerships at all levels
- A more forward looking approach, aimed at minimising externalities and maximising benefits
- Effective large scale initiatives for ‘new food’, ‘new energy’, and ‘new cities’.
- Global awareness and ‘Educating for SD’

