UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

ESCAP's Methodology for Integration of the SDGs into National Planning and Application to SDG 6 (Water and Sanitation)

ADB/ESCAP/UNEP Knowledge Sharing Workshop on Strengthening the Environment Dimensions of the SDGs in Asia and the Pacific
21-22 February 2018, MR A, UNCC

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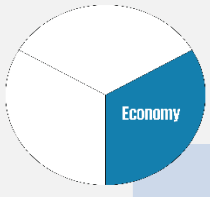
The Evolution of the Integrated Approach



1970: The Limits to Growth (Club of Rome)

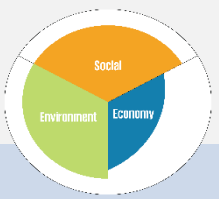
- The Limits to Growth spoke on whether high rates of economic growth were desirable or possible. "Earth had a limited supply of physical resources and that exceeding the limits of exploitation could end in catastrophe." (Meadows, 1972)

1972: UN Conference on Human Environment, Stockholm

- The Conference yielded the legitimization and definition of Sustainable Development as a concept. "To defend and improve the human environment for present and future generations." (Declaration of the United Nations Conference on the Human Environment, 1972)

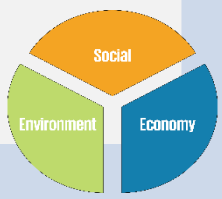
1987: Brundtland Report (World Commission on Environment and Development)

- The Report spoke about redistributing resources towards poorer nations to encourage their economic growth to enable all human beings to achieve their basic needs. It established three fundamental components: economic, environment, and social dimensions to yield the "Triple Bottom Line." It also recognized the inherent tension between economic growth and environmental protection.



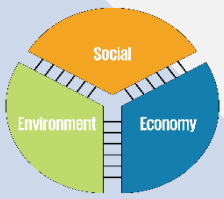
1992: Rio Earth Summit 1992

- The Rio Summit yielded two key outputs: the Rio Declaration and Agenda 21, both of which developed environmental themes to benefit social good, namely: quality of life, efficient use of natural resources, protection of global commons, management of human settlements, and lastly, sustainable economic growth.



2000: Millennium Summit 2000

- The Summit produced the Millennium Development Goals (MDGs) which would serve as internationally-agreed targets using 1990 as a baseline, and progressing towards 2015. "The livelihoods and wellbeing of the world's poor are now conceptualized in terms of access to opportunity and absence of insecurity and vulnerability." (Adger et. al., 2007) The MDGs were a political expression of the principle of equilibrium between the three dimensions, but progress was pursued individually, in silo-like fashion.

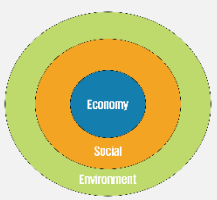


2002: Johannesburg Conference 2002

- The Conference was known as the Implementation Summit of the MDGs. "We are moving the concept of sustainable development towards a more productive exploration of the relationship between economic development and environment quality." (Asefa, 2005)

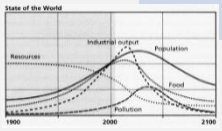
2012: Rio+20 (United Nations Conference on Sustainable Development 2012)

- The Conference produced the outcome document: "The Future We Want", which took stock of the progress towards MDGs and launched progress to develop a set of SDGs, which, built upon the MDGs, would converge with the post-2015 Development Agenda. It is an indication of further mainstreaming and recognition of the importance of all three dimensions of sustainable development.



2015: Sustainable Development Summit

- From the Summit, the 2030 Agenda for Sustainable Development was legitimized with the Sustainable Development Goals (SDGs), active between 2016 to 2030, representing "an indivisible tapestry of thinking and action that applies in every community everywhere in the world. They are universal...and also indivisible. Though they are presented as individual goals. They actually represent a total, completely intertwined latticed of action that is relevant for every human being, everywhere." (Making the Goals Happen, 2016)



A Focus on Water Resources

THE ASIA-PACIFIC REGION HOSTS

2/3

OF THE WORLD'S POPULATION

490 MILLION

UNDERNOURISHED PEOPLE

EQUIVALENT TO

58 LONDONS

70% OF GLOBAL FRESHWATER WITHDRAWALS ARE USED FOR FOOD PRODUCTION IN ASIA-PACIFIC

ASIA-PACIFIC IS THE WORLD'S BIGGEST PRODUCER OF

ASIA-PACIFIC HAS THE LOWEST WATER ENDOWMENT PER CAPITA IN THE WORLD

ABOUT 40% OF THE LAND IN THE REGION IS USED FOR AGRICULTURE

AND ANOTHER 30% IS FORESTED

A Focus on Water Resources

NEXUS

NEXUS OF ENERGY FOOD & WATER

EXACERBATED OVER EXTRACTION OF WATER

70% to 90% OF WASTEWATER ARE DISCHARGED UNTREATED INTO FRESH WATER BODIES

POSITIVE TRENDS IN THE REGION

ACCESS TO **SAFE DRINKING WATER** GREW

FROM 74% IN 1990 TO 94% IN 2015

&

ACCESS TO **BASIC SANITAION** GREW

FROM 44% IN 1990 TO 65% IN 2015

BUT

277 **MILLION** PEOPLE

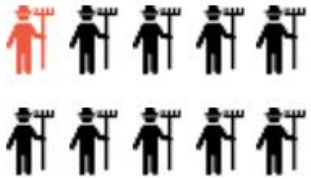
LACK ACCESS TO **SAFE DRINKING WATER**

&

1.7 **BILLION** PEOPLE

LACK ACCESS TO **IMPROVED SANITATION**

LACKS ACCESS TO CLEAN DRINKING WATER

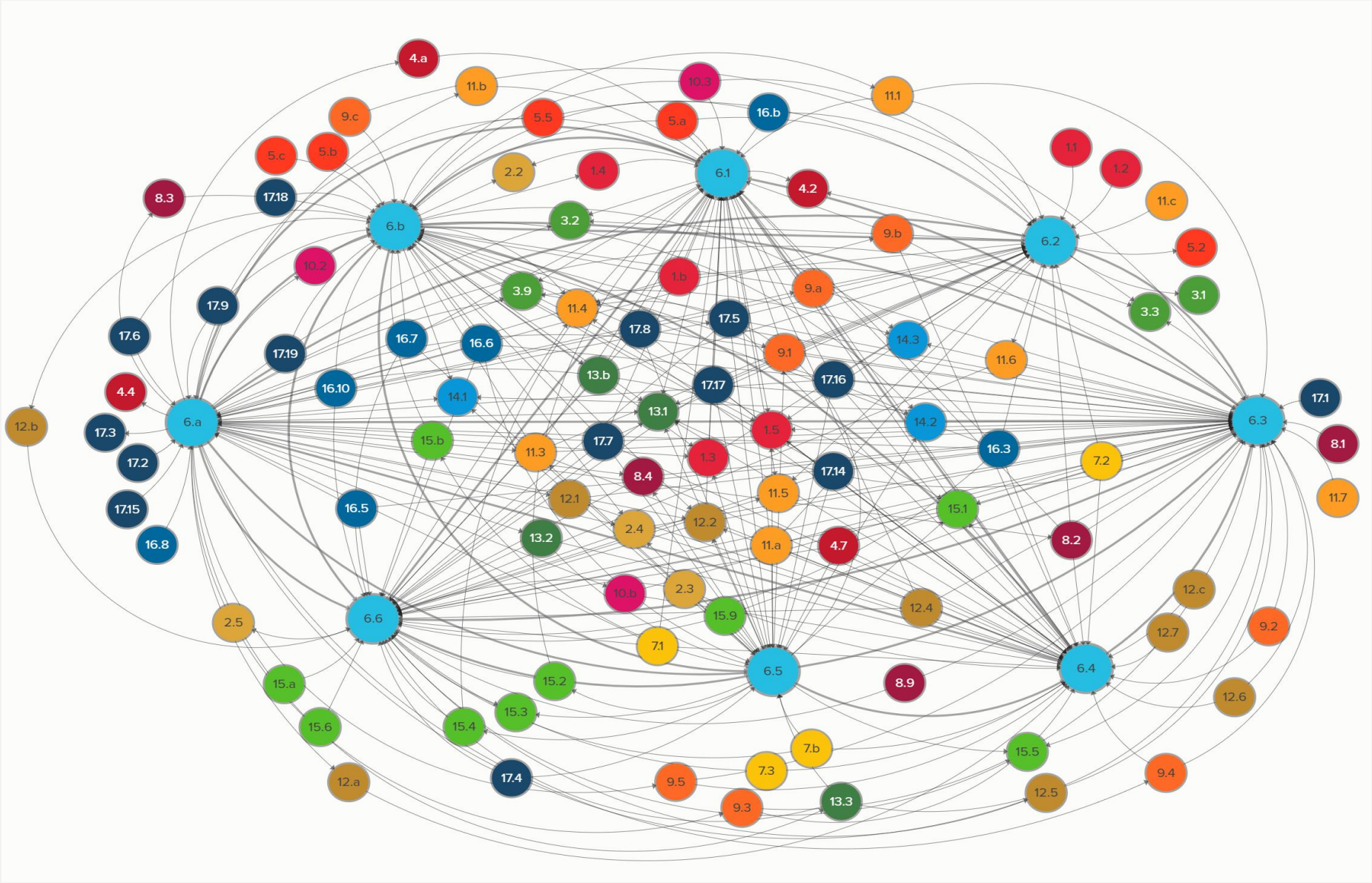


SOUTH-WEST AND SOUTH ASIA LAGGING BEHIND

Interlinkages within SDG 6 (Water & Sanitation for All)

ESCAP Methodology

ESCAP Methodology supporting the Implementation of the 2030 Agenda



SDG 6 Interlinkages with other SDGs

Target 6.b – Support and strengthen the participation of local communities in improving water and sanitation management.

Fourth most inter-linked target;

Direct causal inter-linkages with 48 other targets from 14 SDGS;

Indirectly linked with another 28 targets;

Directly driven/influenced by 27 other targets and is a key driver / influencer of 21 other targets;

Most strongly influenced by SDG 5, 16, and 17

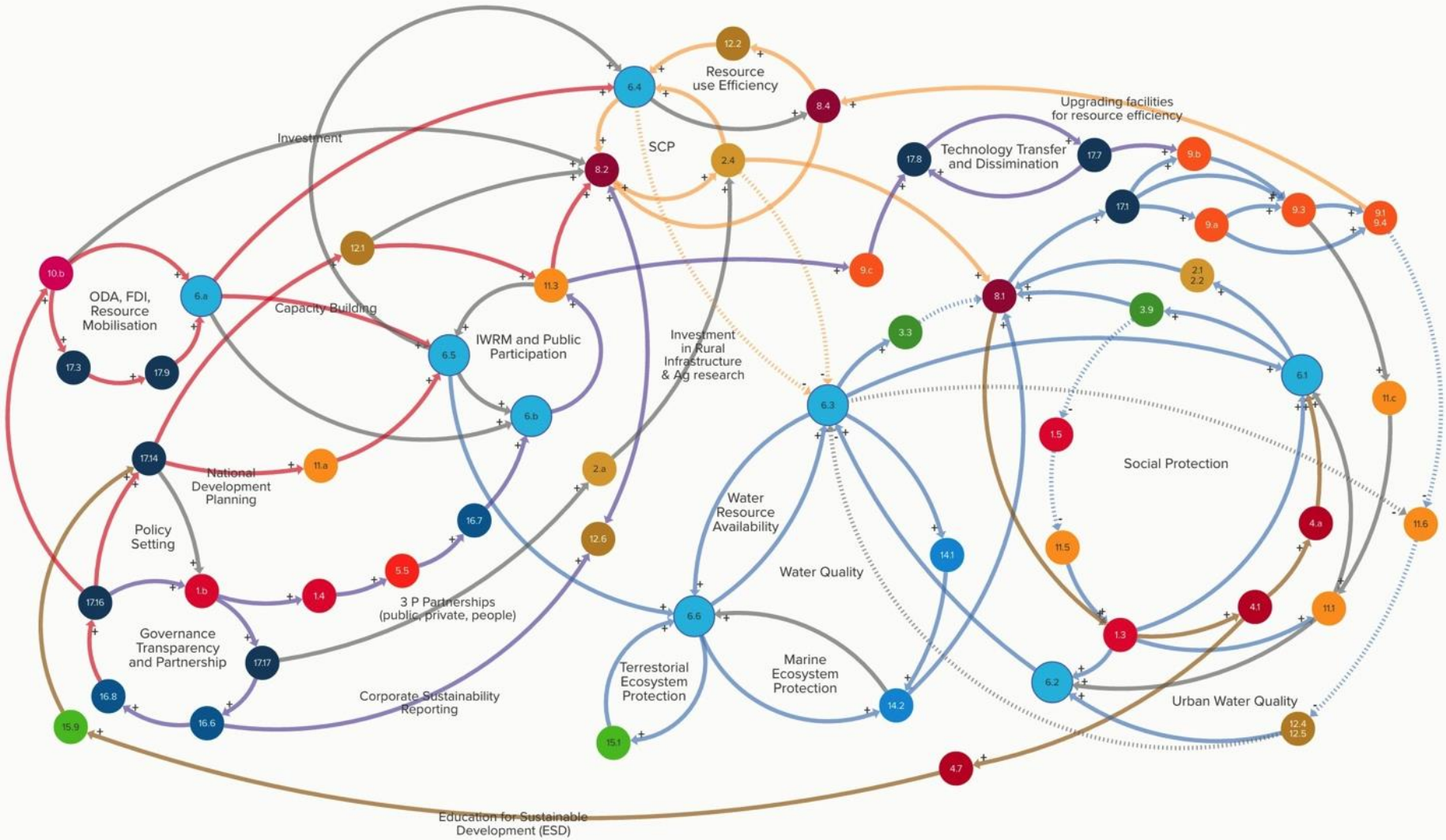
Has the most direct influence on SDG 1, 6, 11, 12, 13, and 14.

Systems Thinking Approach for Integration

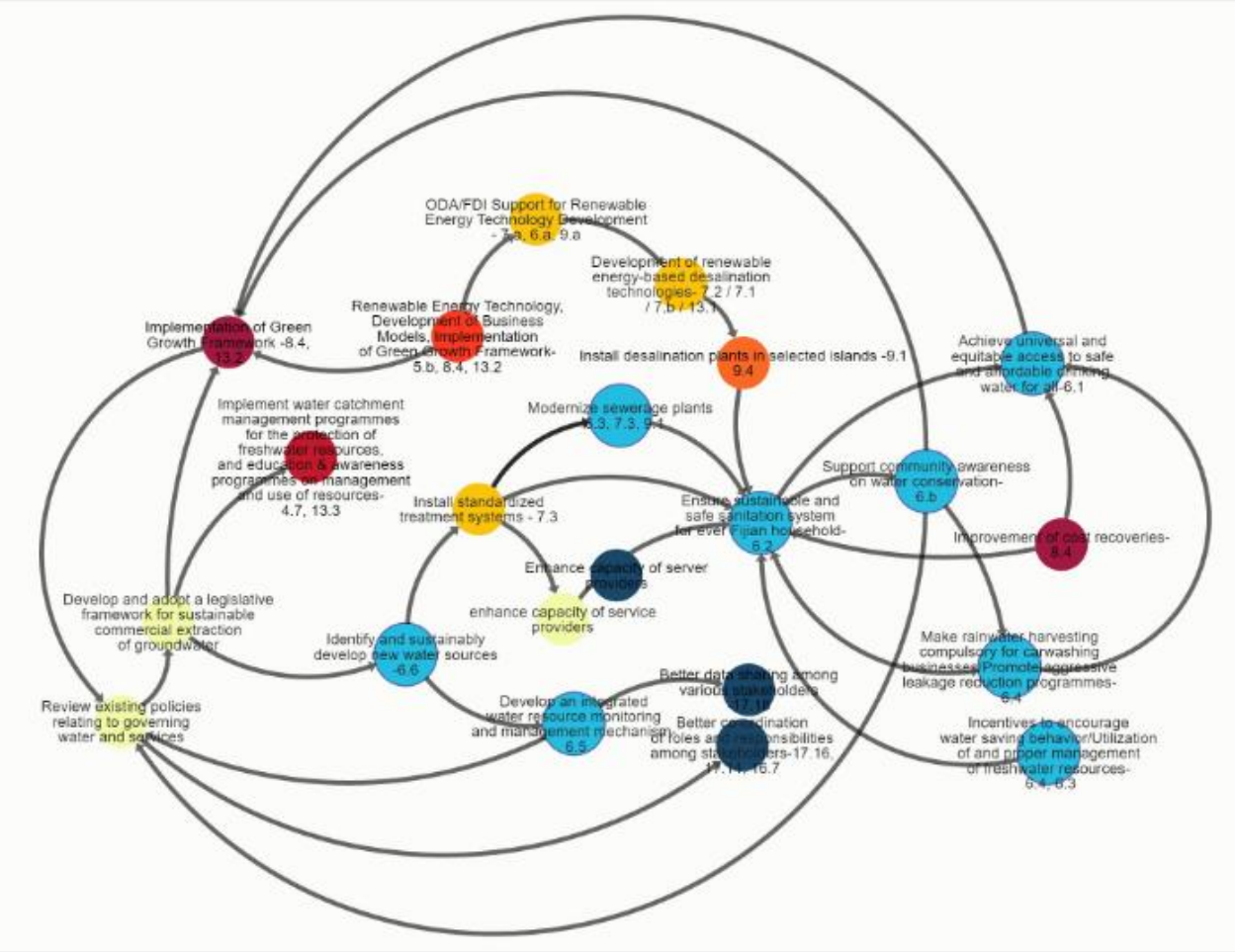
System Dynamics	Strategic Intervention
System is stagnant or stalled	• Look for constraints
Vicious cycles	• Identify “brakes” • Examine intervention points to return process to virtuous cycle
Reinforce virtuous feedback cycles	
Find the strongest feedback structure operating then review the implications and generic leverage points.	
Examine each link and consider the consequences of strengthening it or weakening it	

Systems Thinking Aspirational Envisaging Cycle

Developing Causal Loop Diagram



SDG 6 Pilot Application : Fiji



Sub-Region: The Pacific

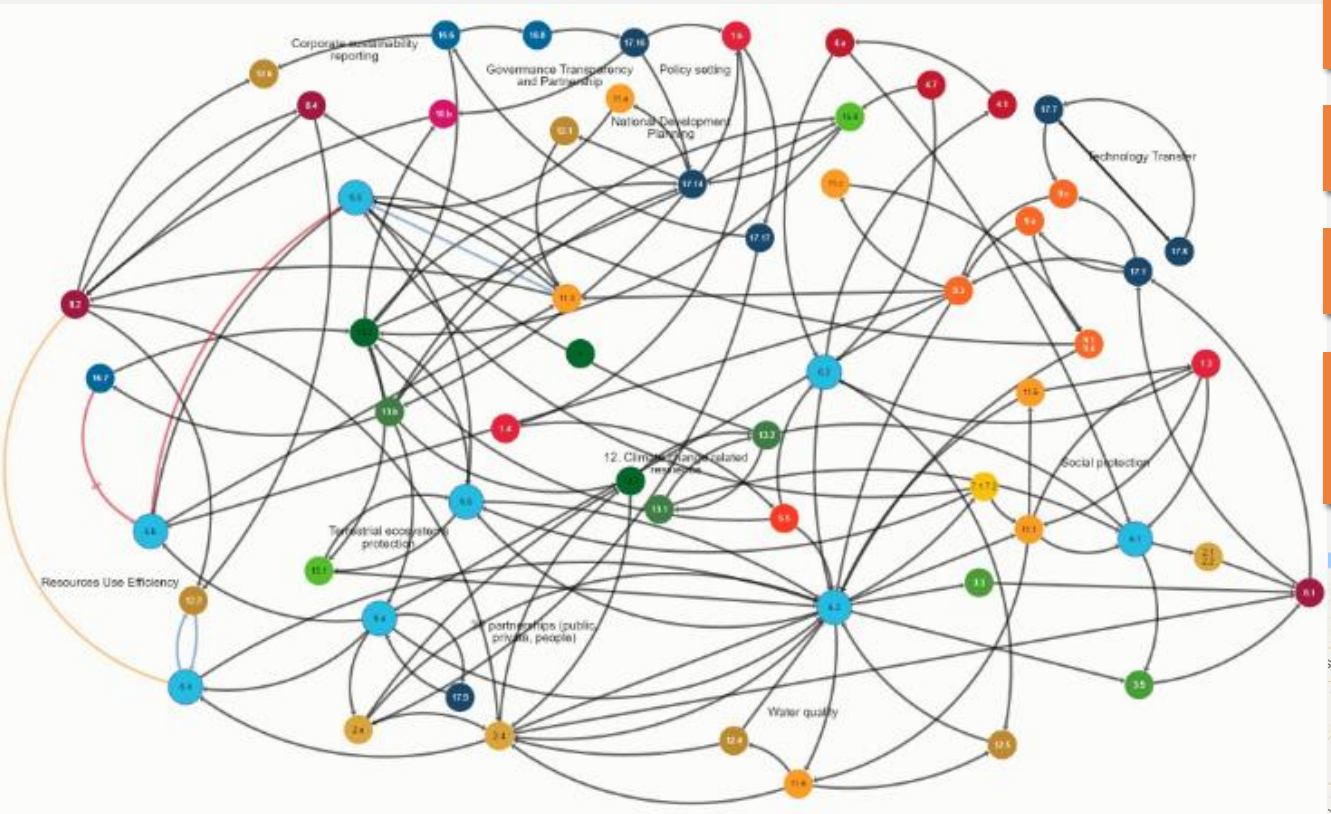
Development Level: Developing, SIDS

2014 HDI: 0.727 **Rank:** 90

2016 WB Income: Upper-Middle

Development Concerns: Climate, Energy, Water resources, Sanitation, Economic Growth

SDG 6 Pilot Application: Tajikistan



Sub-Region: Central Asia

Development Level: Developing, LLDC

2014 HDI: 0.624 **Rank: 124**

2016 WB Income: Lower-Middle

Development Concerns: Water security, Sanitation, Climate, Energy, Peace, Economic Growth

SDG 6 Pilot Application : Sri Lanka

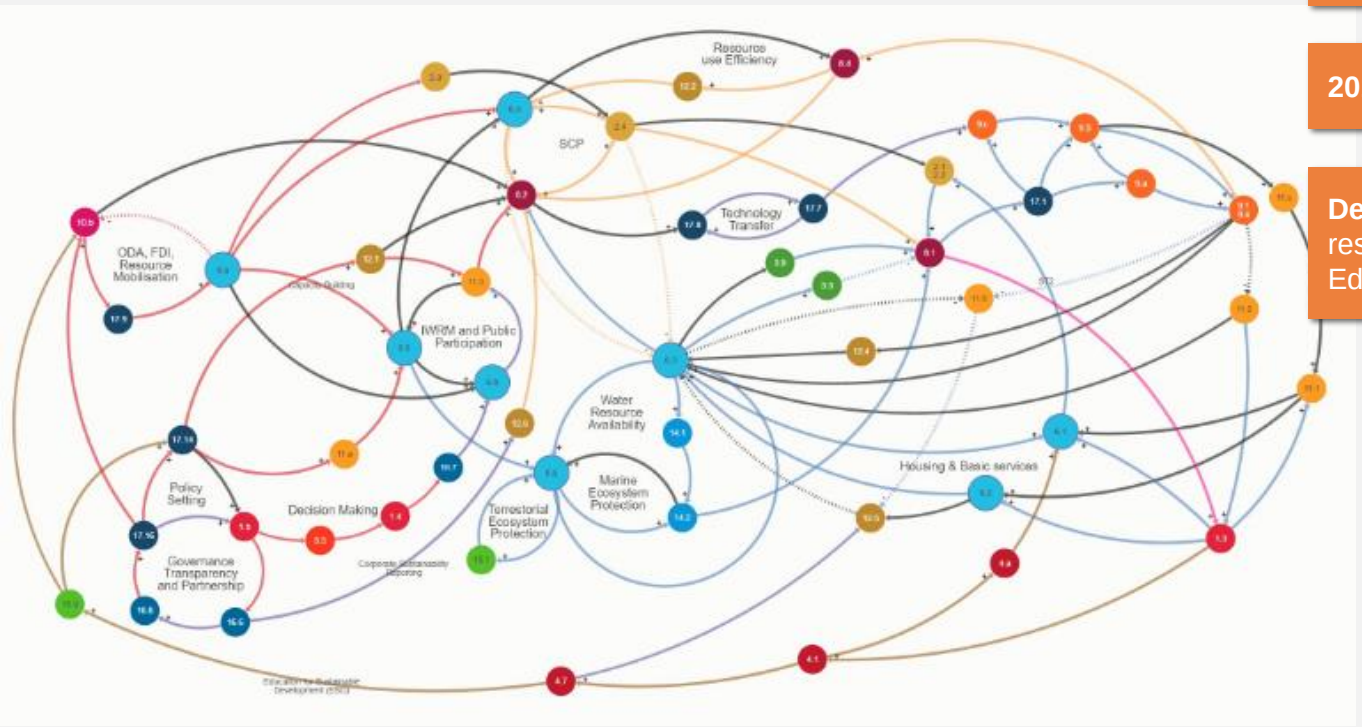
Sub-Region: South-West Asia

Development Level: Developing

2014 HDI: 0.757 **Rank: 73**

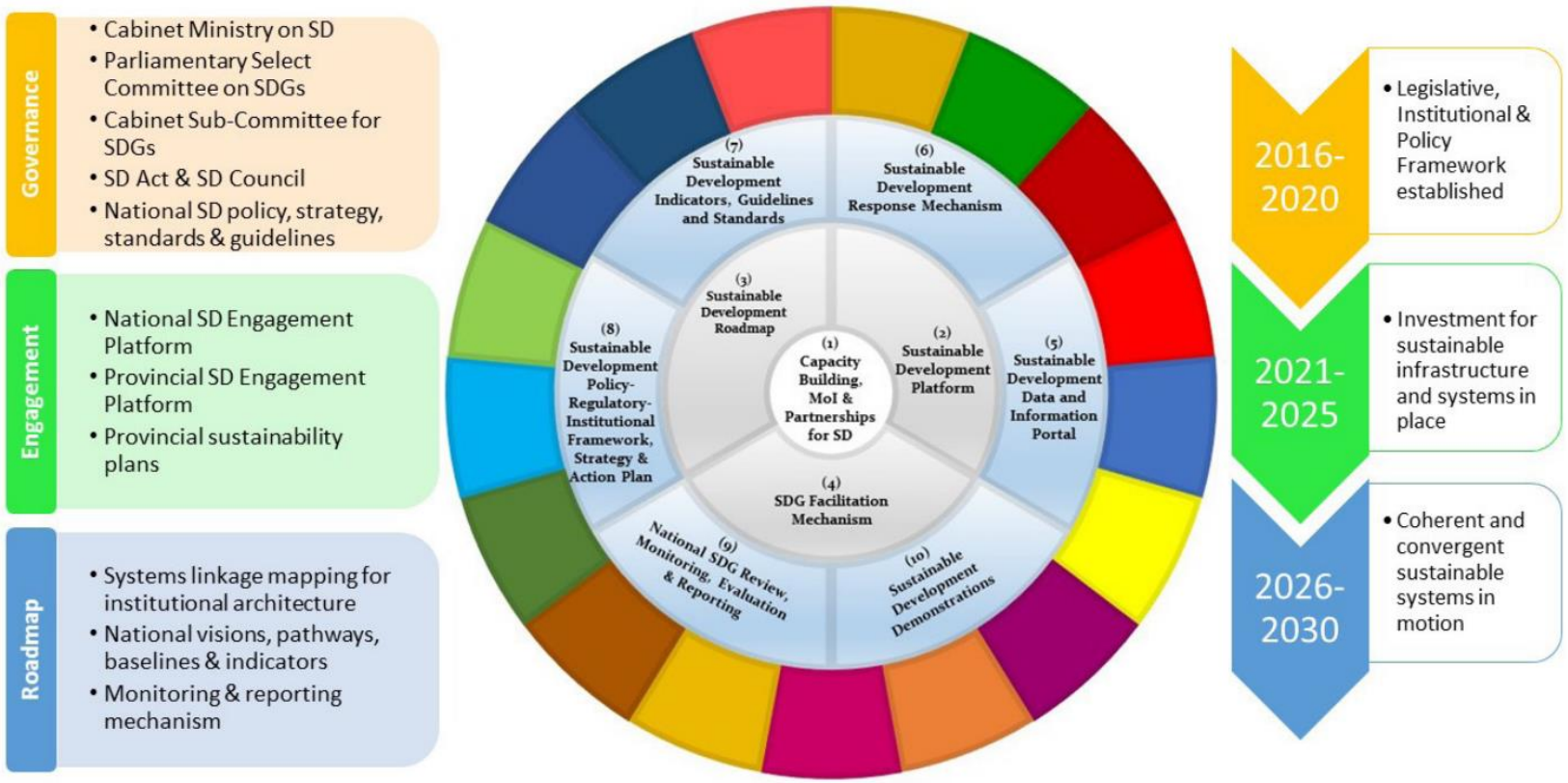
2016 WB Income: Lower-Middle

Development Concerns: Water resources, Sanitation, Gender, Education, Energy



Sri Lanka's Next Steps: Integration of SDGs into National Planning

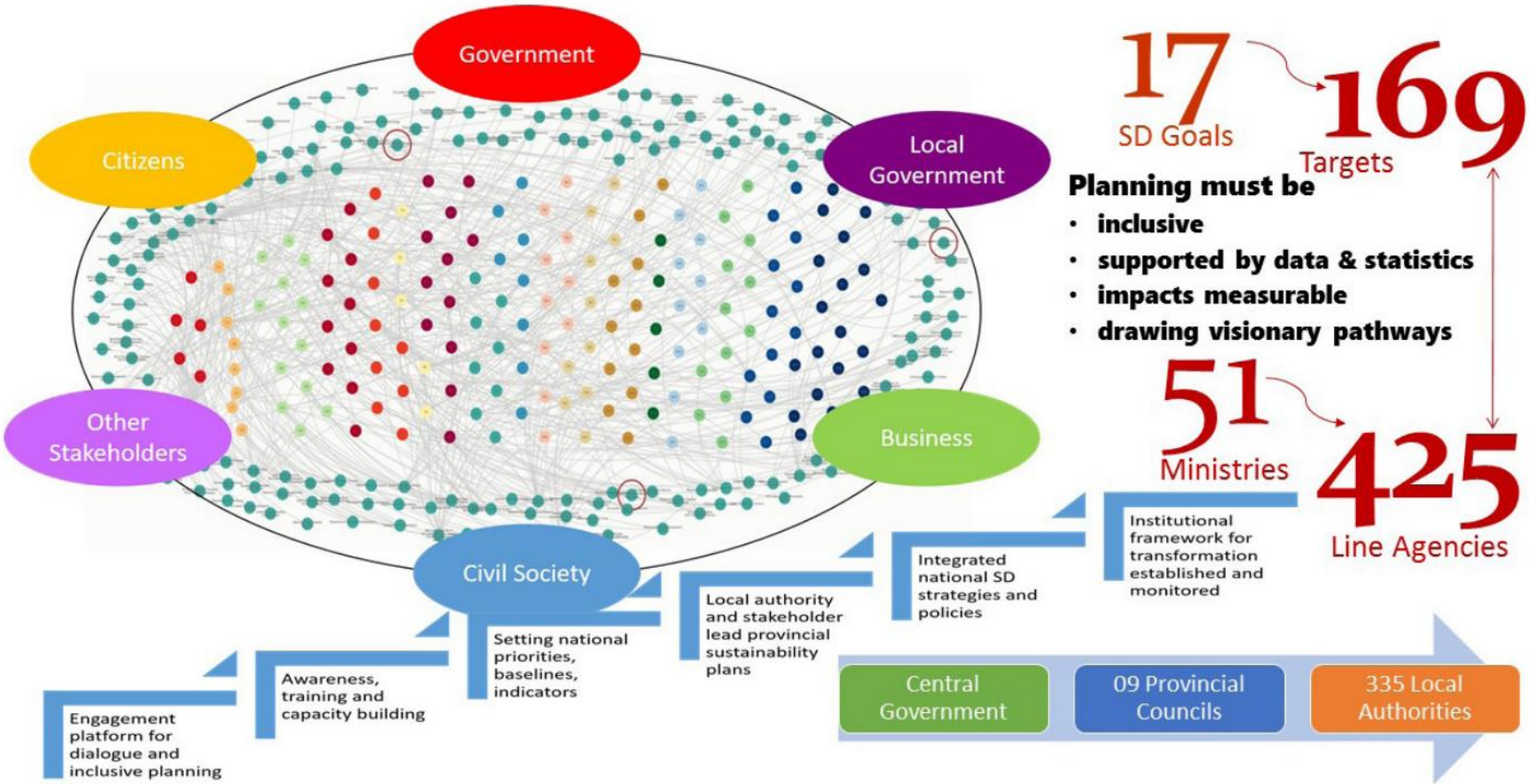
Figure 9. A model of the planning process for inclusive transformation in Sri Lanka



Source: Uchita de Zoysa, Sustainable Development Advisor, Ministry of Sustainable Development and Wildlife, 2016.

Sri Lanka's Next Steps: Integration of SDGs into National Planning

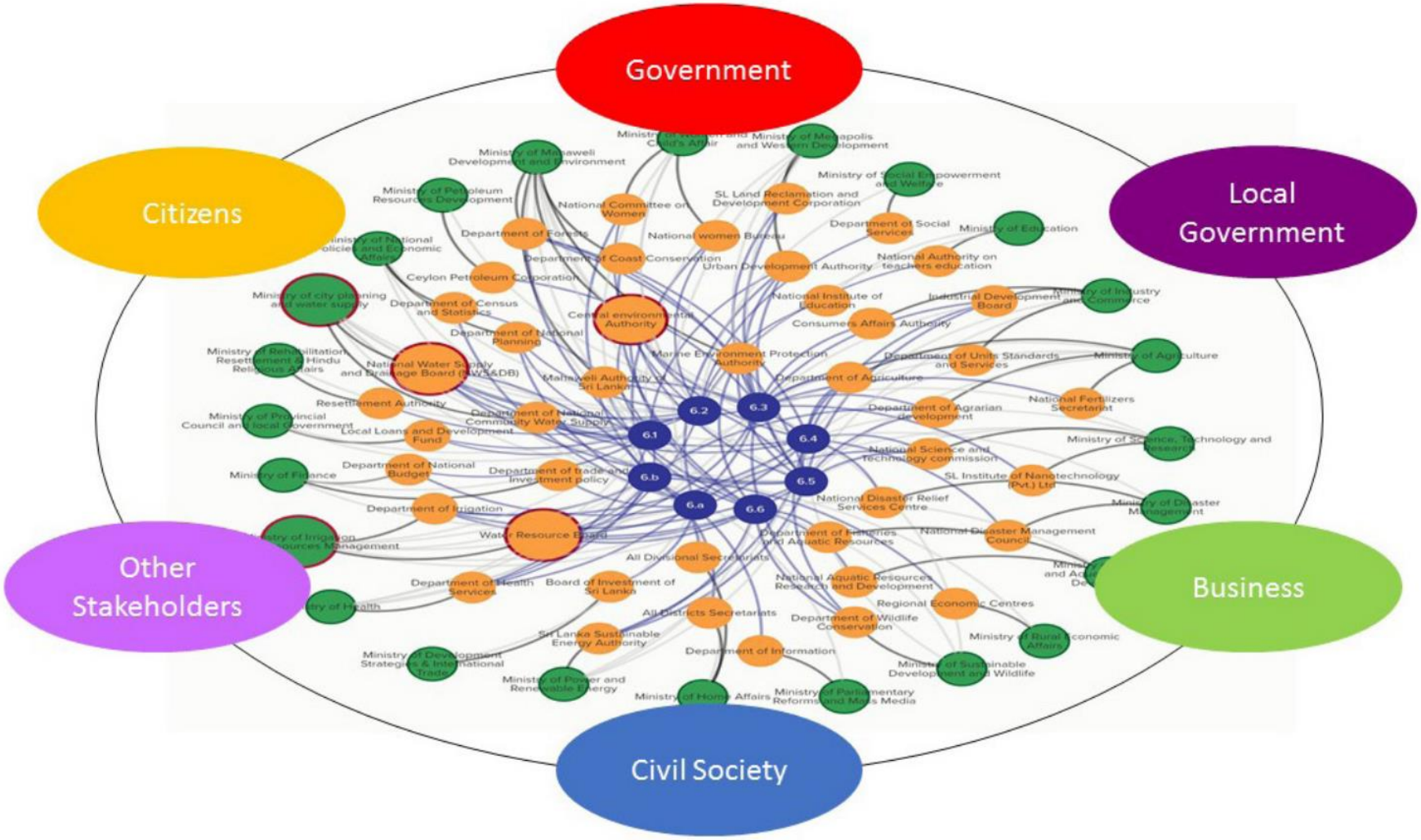
Figure 10. Mapping of institutional convergences in Sri Lanka using the systems thinking approach



Source: Uchita de Zoysa, Sustainable Development Advisor, Ministry of Sustainable Development and Wildlife, 2016.

Sri Lanka's Next Steps: Integration of SDGs into National Planning

Figure 11. Systems mapping of agencies and stakeholder engagement



Anchored by the SDG Indicators

Goal 6. Ensure availability and sustainable management of water and sanitation for all	
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using safely managed sanitation services, including a hand-washing facility with soap and water
6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	6.3.1 Proportion of wastewater safely treated
	6.3.2 Proportion of bodies of water with good ambient water quality
6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity	6.4.1 Change in water-use efficiency over time
	6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources
6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate	6.5.1 Degree of integrated water resources management implementation (0-100)
	6.5.2 Proportion of transboundary basin area with an operational arrangement for water cooperation
6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes	6.6.1 Change in the extent of water-related ecosystems over time
6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies	6.a.1 Amount of water- and sanitation-related official development assistance that is part of a government-coordinated spending plan
6.b Support and strengthen the participation of local communities in improving water and sanitation management	6.b.1 Proportion of local administrative units with established and operational policies and procedures for participation of local communities in water and sanitation management

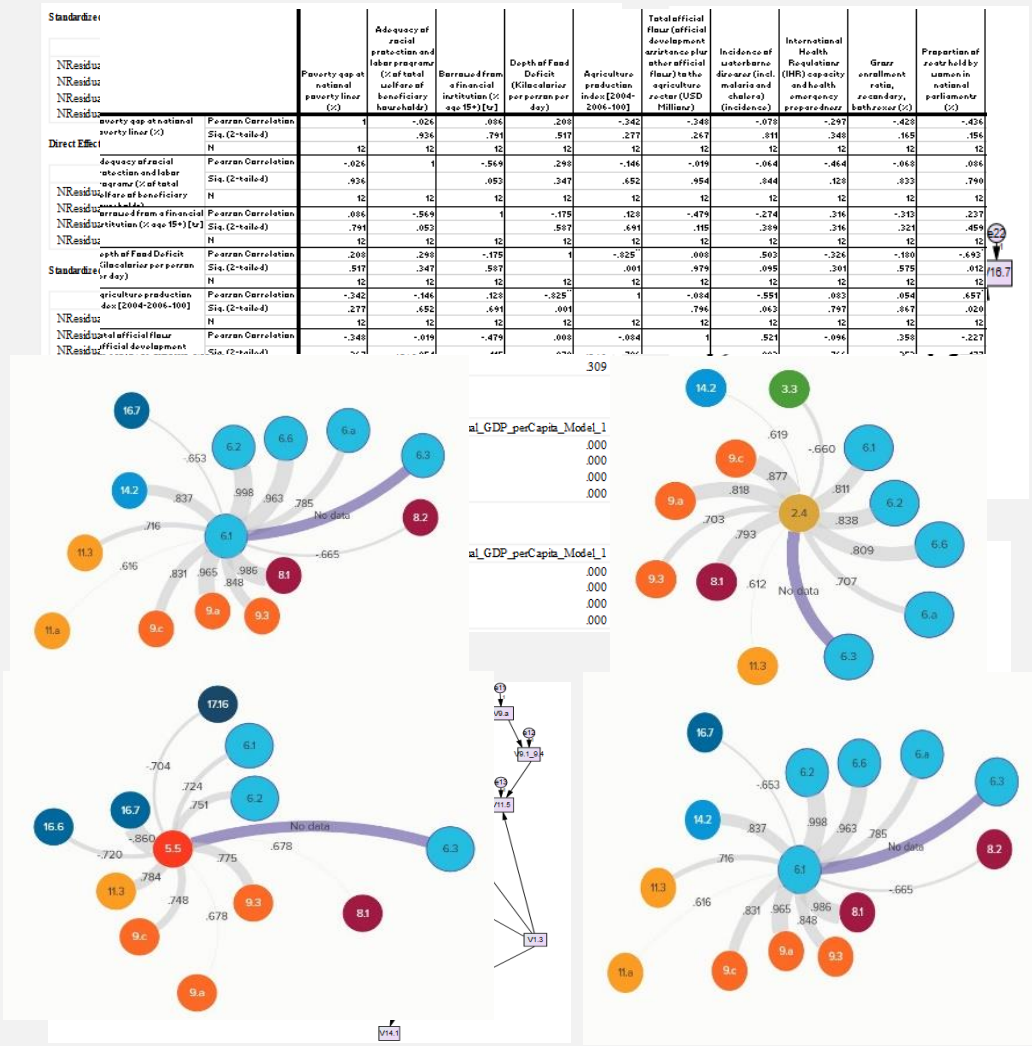
The Next Step: Quantitative Modeling

Structural Equation Modeling

- Software: IBM AMOS
- <10% Data Missingness
- Output: Quantified indirect/direct effects
- Overall: Concrete analysis of system dynamics

Correlational Analyses

- Software: IBM SPSS/ MS Excel
- >10% Data Missingness
- Output: Non-directional strength of relation
- Overall: Good indicator of system-fit



Results from ESCAP Methodology & Conclusion

- Law and Governance
- Data Gathering and Sharing
- Strong Links to the Environment and Pollution
- Human and Institutional Capacity Building
- Mobilisation of Financial Resource
- Transboundary cooperation will be essential in delivering on water mandates

Understanding interdependence key to implementing the SDGs

Integrated management and system thinking can

- Prioritise sustainable development goal implementation
- Attract investments
- Identify "high-impact" leverage points
- Ensure cohesive monitoring and review mechanisms

All water-related sectors must harmonise

ESCAP Methodology supporting the Implementation of the 2030 Agenda

The ESCAP-developed comprehensive methodology developed assists policymakers with integration of the SDGs into national planning:

• Reviewing existing institutional architecture and mandates to determine their relationship with the 17 SDGs;

• Assessing the impacts of policies and identifying effective policy interventions (leverage points) for impactful investment and use of scarce resources; and

• Stakeholder mapping and engagement in collectively developing the aspirational qualitative vision for societal change.

ESCAP Knowledge Products

Integrating the Three Dimensions of Sustainable Development: A Framework and Tools
https://sustdev.unescap.org/Files/Integrating%20the%20three%20dimensions%20of%20sustainable%20development%20A%20framework.pdf

Analytical Framework for Integration of Water and Sanitation SDGs and Targets Using Systems Thinking Approach
https://sustdev.unescap.org/Files/resource/be091e7a9604024298e074d880312c16.pdf

Integrated Approaches for Sustainable Development Goals Planning: The Case of Goal 6 on Water and Sanitation
http://www.unescap.org/publications/integrated-approaches-sustainable-development-goals-planning-case-goal-6-water-and

Low Carbon Green Growth Roadmap for Asia and the Pacific
http://www.unescap.org/sites/default/files/Full-report.pdf

E-Learning Course: Low Carbon Green Growth Roadmap
https://sustdev.unescap.org/thematicarea/detail?id=5

E-Learning Course: Integration of SDG Into National Planning