

# Overview of the ESCAP Methodology for the Integration of the SDGs: SDG 6 at the Core

*Environment and development Division, UNESCAP*

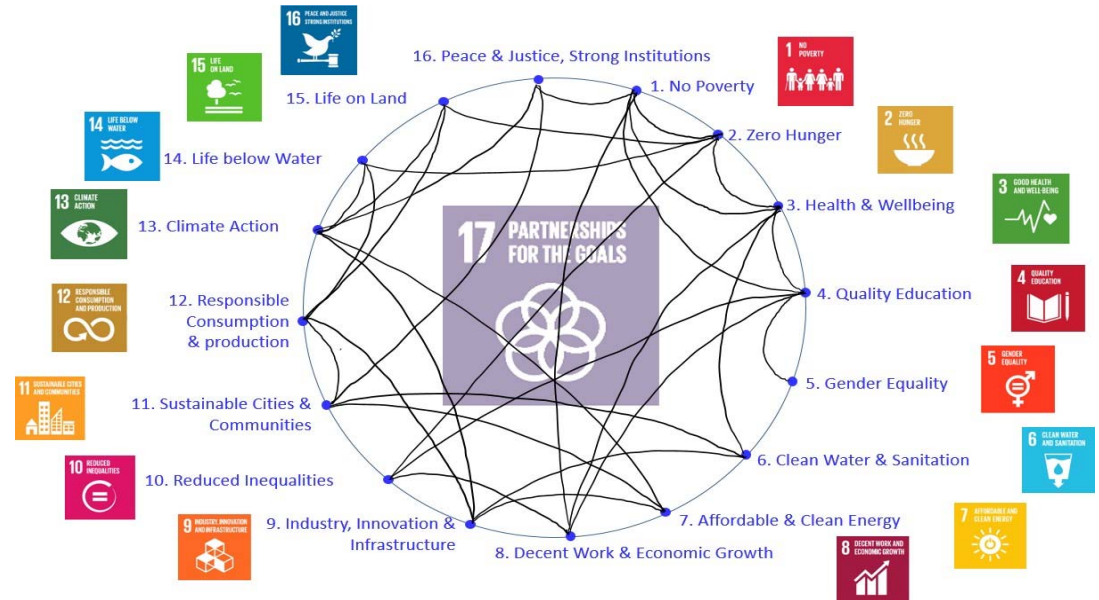


# 2030 Agenda - requires integrated policy approaches

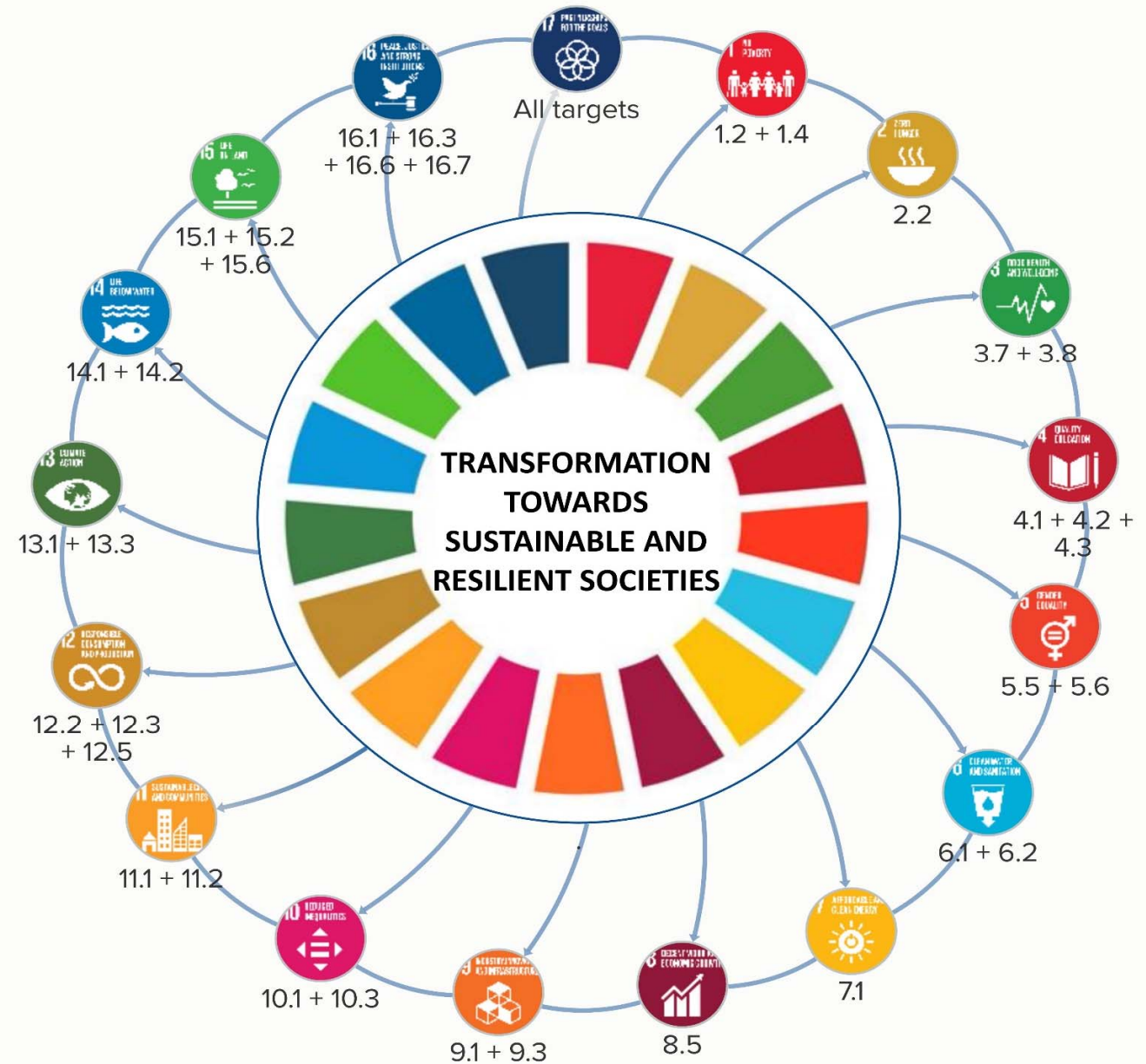
“ The 17 goals represent an indivisible tapestry of thinking and action that applies in every community everywhere in the world. They are universal...and also indivisible. Though they are presented as individual goals, they actually represent a total, completely intertwined lattice of action that is relevant for every human being everywhere. ”

David Nabarro, Under-Secretary General, Special Adviser on 2030 Agenda

## SUSTAINABLE DEVELOPMENT GOALS

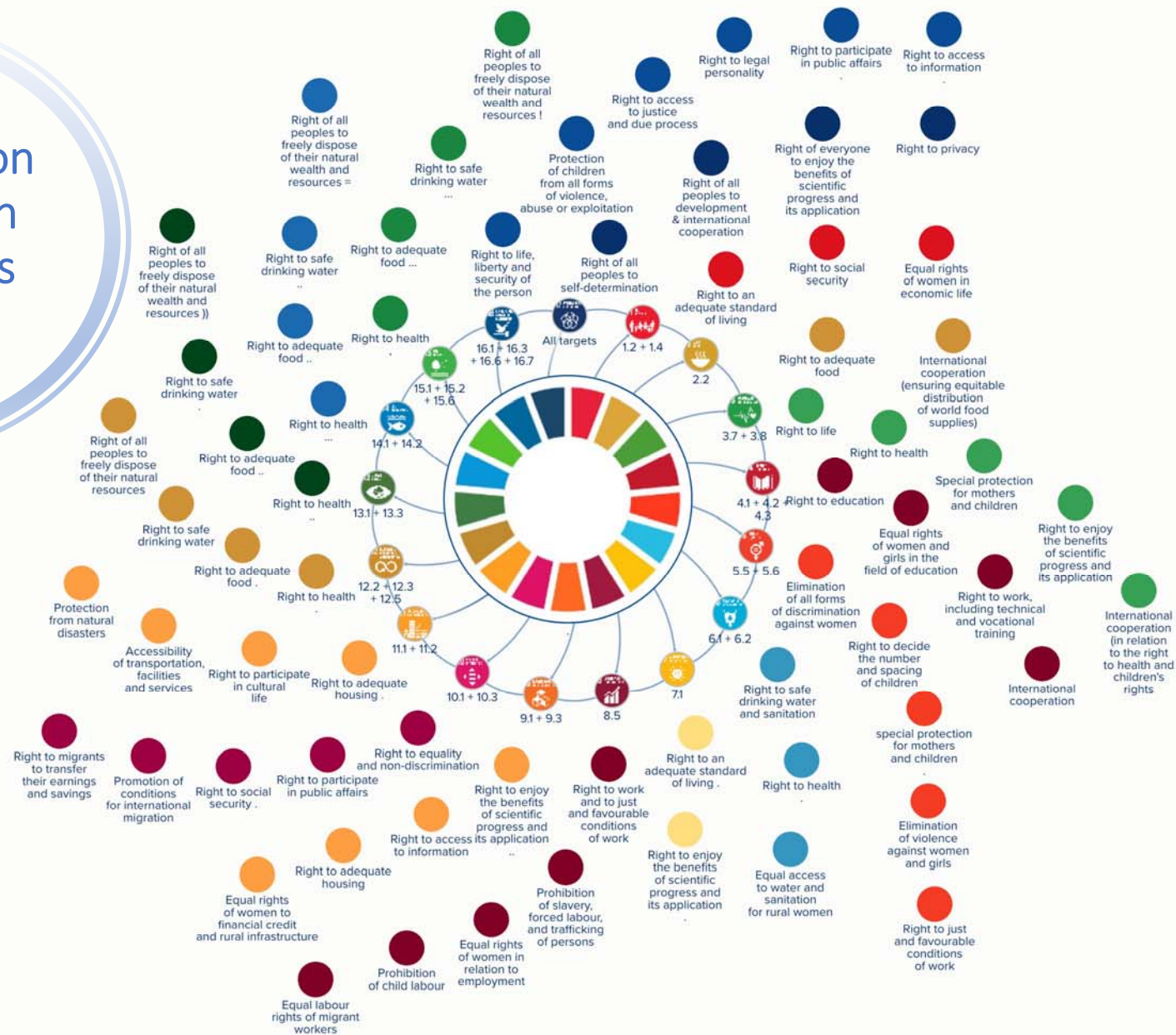


# Transformation towards Sustainable and Resilient Societies





site



# Social accountability



## Protective function

Not just about government - Accountability is mutually established among different groups in society – private sector, academia, civil society

Marginalized, vulnerable groups

Harmful practices

Human rights, rights to development

Non-economic social goods



## Development function

Allocation & use of resources (budgetary & other)

Service delivery > more equitable outcomes

Transparency & trust building

Institutional responsiveness, adaptive capacity

Improved decision making:

- Sustainable decisions (from economic, social and environmental perspectives)
- Balancing/aligning
- Private interests & public good



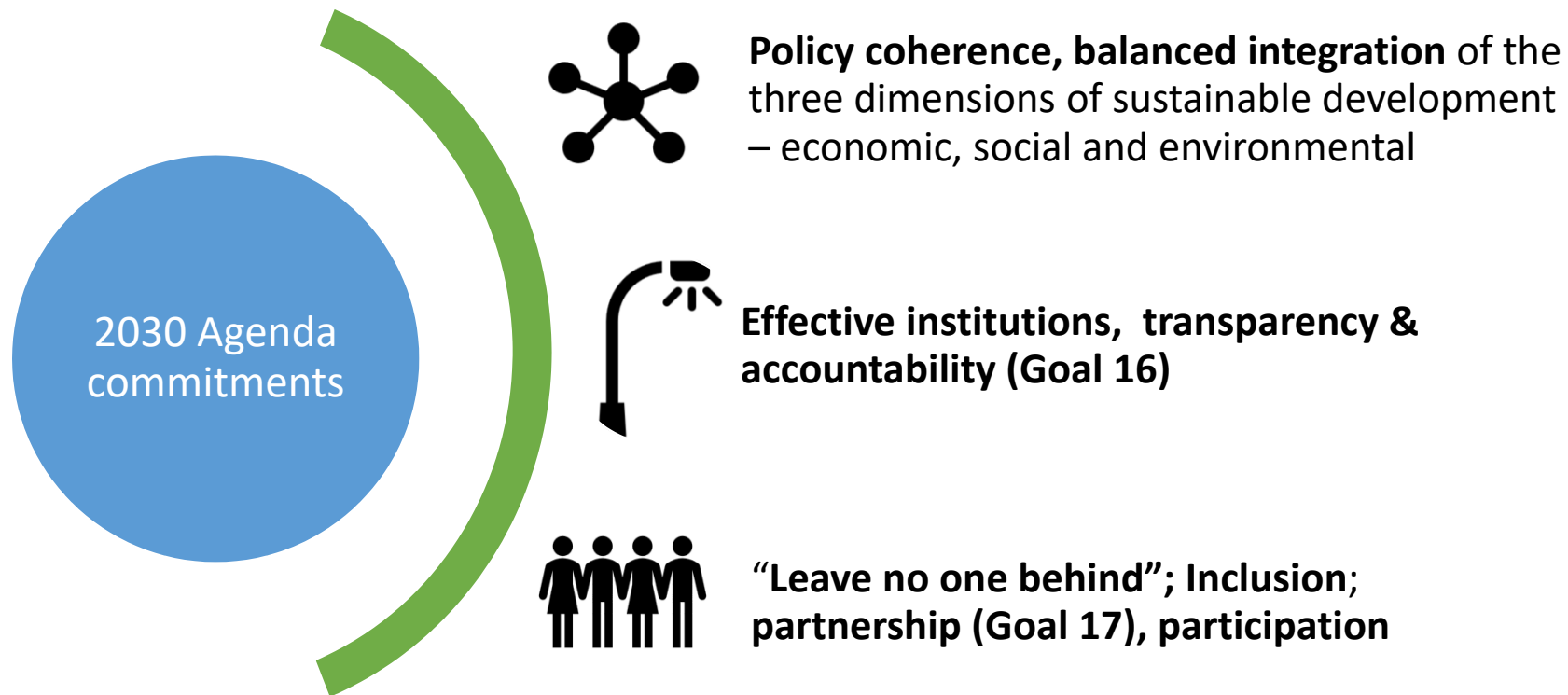
Policy Coherence and  
Integration

Aspiring Together

Working Together

Managing Resources  
Together

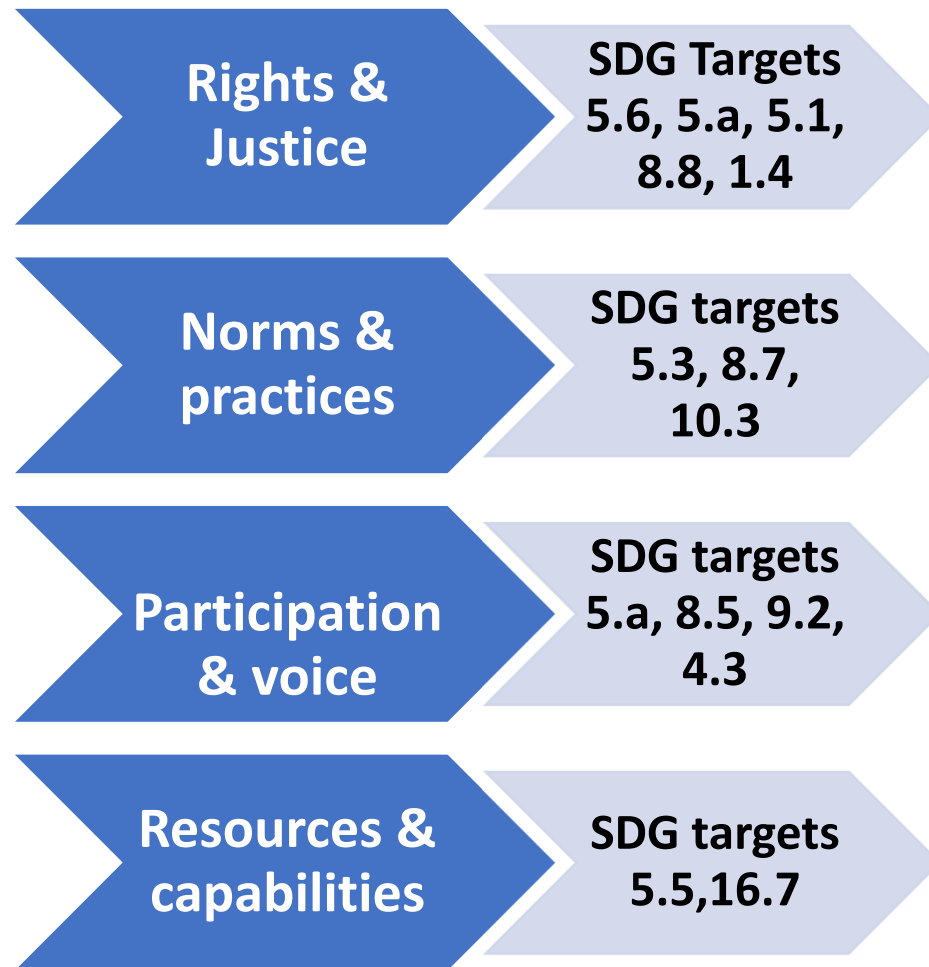
# Engagement of non-government actors in the 2030 Agenda is not “business as usual” ....



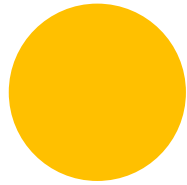
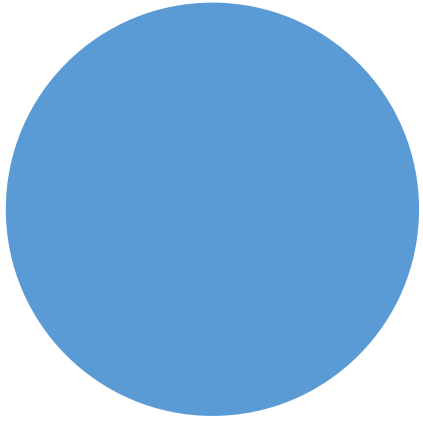
**Four elements of an empowerment and inclusiveness approach – derived from relevant SDG targets\***

Across/within Social, Economic, Political and Environmental “realms”

\* work in progress







At the global level

# Convergence of Global Development Agenda



Adis Ababa Action  
Agenda



Sendai Framework for  
Disaster Risk Reduction



Paris Agreement



2030 Agenda and the  
SDGs

# Three central concepts of the HLPF 2019 theme



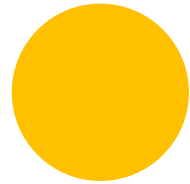
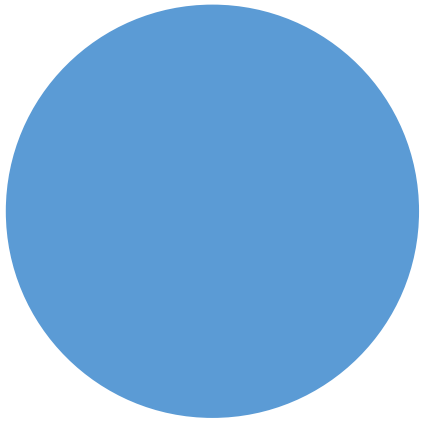
**EMPOWERMENT**



**EQUALITY**



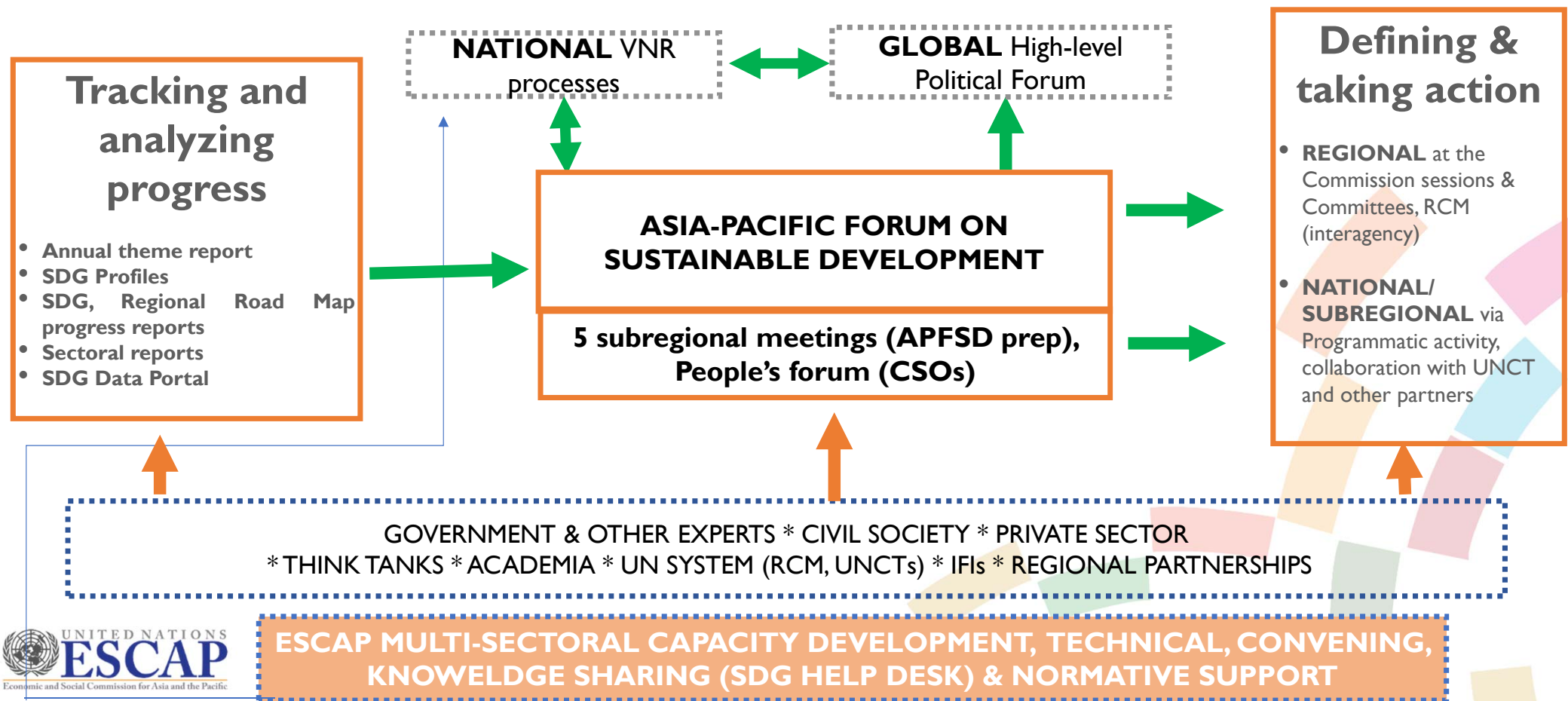
**INCLUSION**



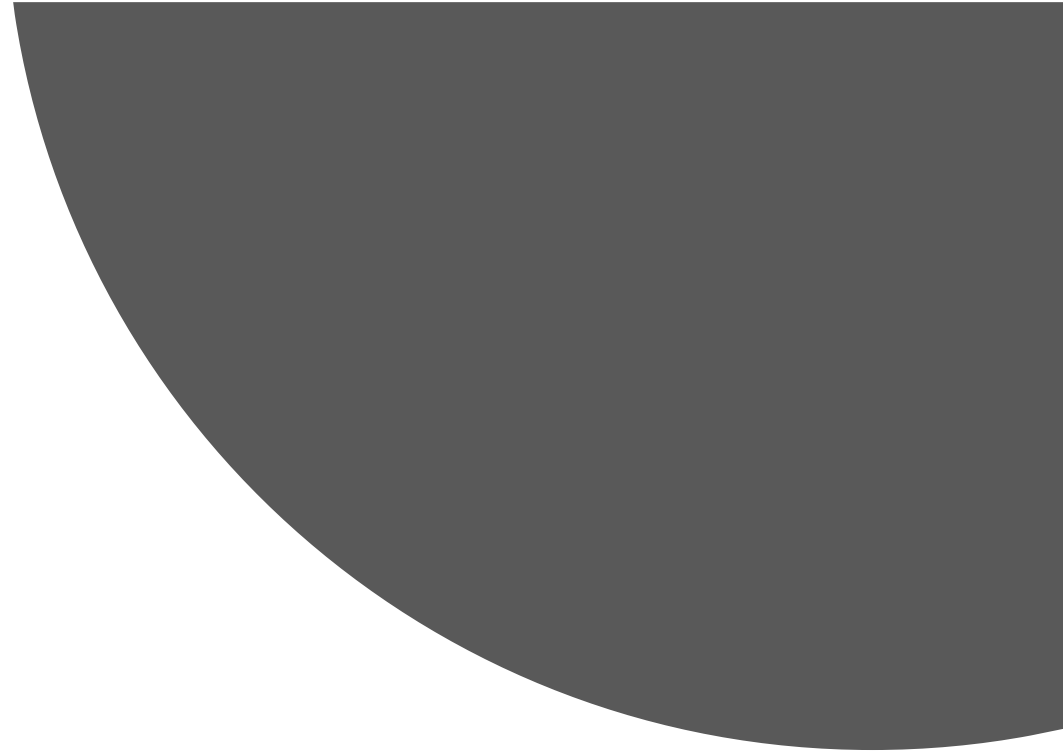
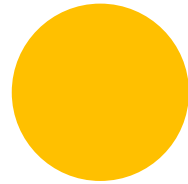
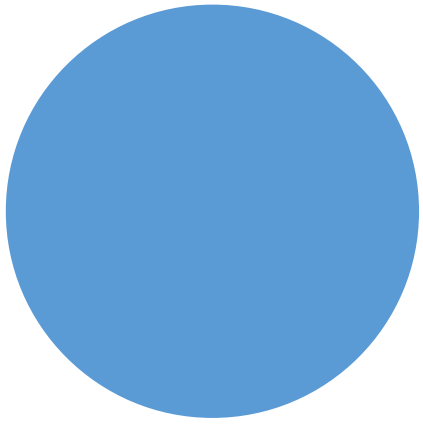
At the regional level



# Asia-Pacific Regional Follow Up and Review







At the national level



What can policy makers do to more effectively implement an integrated development agenda?

1. Reconcile public and private interests – short term private benefits should not outweigh longer term shared societal benefits when making policy decisions.
2. Coordinate policies between different sectors to strengthen co-benefits – policy coordination (and cross-sectoral evaluation of policy impacts) needs to be institutionalized.
3. Evaluate and compare policy options based on multiple economic, social and environmental criteria using system thinking.
4. Analyze the root causes and identify policy solutions to convert trade-offs into synergies between the three dimensions of sustainable development.
5. Engagement of stakeholders throughout the full cycle of policy development and implementation.





## Addressing Trade-Offs -



**Policy Gap**



**Governance Gap**



**Information Gap**



**Valuation Gap**



**Time Gap**

Reduce inertia in the policy-making cycle – rectify the lack of understanding of integrated approaches and tools (e.g. stakeholder engagement, integrated monitoring, etc.)

Strengthen institutional capacity for stakeholder engagement, set policy targets that acknowledge environmental limits, and establish social flows

Strengthen stakeholder involvement, transdisciplinary approaches, and science-policy interface

Internalize social and environmental values in decision-making - market interventions, financial and other incentives

Lengthen stakeholder time horizons through policy and financing interventions

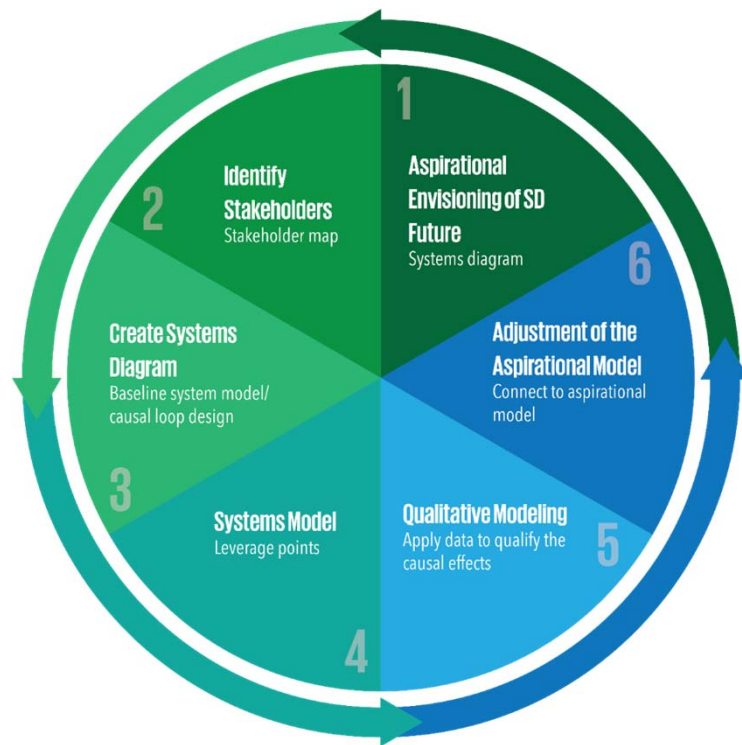
Примеры  
решения  
компромиссов

Источник компромисса/Вопросы	Стратегические мероприятия	Пример
<b>1. Пробел в оценке стоимости</b> Каковы позитивно либо негативно влияющие ценности, которые еще не признаны?	Трансформация социальных и экологических ценностей в часть процесса принятия решений - рыночные интервенции, финансовые и другие стимулы	<ul style="list-style-type: none"> <li>• Реформа налогов/субсидий и переиспользование накоплений/дохода</li> <li>• Глобальные углеродные рынки</li> <li>• ПЭУ</li> </ul>
<b>2. Пробел во времени</b> Каковы временные горизонты заинтересованных сторон в разных измерениях - как они отличаются? Как можно продлить краткосрочные временные горизонты?	Изменение временных горизонтов заинтересованных сторон - политика/финансирование мероприятий	<ul style="list-style-type: none"> <li>• Реформа налогов/субсидий и переиспользование накоплений/дохода</li> <li>• «Зеленая» финансовая отчетность</li> </ul>
<b>3. Пробел в информации</b> Какие типы информации могут повлиять на выборы и предпочтения потребителей? Какие научные неопределенности необходимо решить? Каковы экономические преимущества социальных и экологических инвестиций?	Укрепление интегрированного анализа, взаимодействие науки и политики	<ul style="list-style-type: none"> <li>• Эко-маркировка</li> <li>• «Зеленая» финансовая отчетность</li> </ul>
<b>4. Пробел в управлении</b> Кто такие заинтересованные лица? Кто не включен в процесс участия в принятии решений? Как общие интересы могут помочь извлечь выгоду или связать различия посредством мероприятий? Какие актуальные экологические, социальные и экономические ограничения должны быть определены и осуществлены в политике?	Укрепление обязательств относительно социальной справедливости, экологической защиты, установление политических задач, стандартов и норм поведения, признающих экологические лимиты, создание минимальных норм социальной защиты	<ul style="list-style-type: none"> <li>• Стратегия «зеленого» роста Вьетнама</li> <li>• Инициатива «зеленого» финансирования центробанка - Бангладеш</li> <li>• «Зеленая» финансовая отчетность</li> </ul>
<b>5. Пробел в выработке политик</b> Каковы причины инертности процесса принятия решений?	Укрепление технического и информационного потенциала об интегрированных подходах	<ul style="list-style-type: none"> <li>• Применение системного мышления в принятии решений</li> </ul>

Создание  
синергии в цикле  
государственной  
политики



# Амбициозное видение политического цикла







# How can non-government actors contribute?



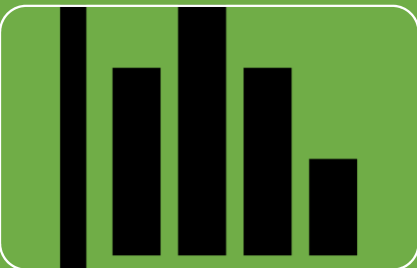
## Planning

- Help develop social, political and scientific consensus on priorities & targets
- Strengthen integration and policy coherence
- Ensuring that the perspectives of the disadvantaged are taken into account



## Delivery/action

- Spread the word - public outreach and awareness
- Shared vision and awareness at national/province/district & community levels
- Partnerships for delivery



## Follow up and review

- Help define data disaggregation needs
- Develop social consensus on progress, priorities and gaps
- Data gaps

# Achieving the SDGs require shifts in implementation strategies

The achievement of SDGs requires fundamental transformations at all levels

Beyond finance, a much more comprehensive means of implementation needs to be mobilized to enable implementation

Meaningful stakeholder engagement will be critical in achieving the SDGs

There is an urgent need for integrated policy approaches



# ESCAP Methodology for Integration of the SDGs into National Planning





## ESCAP Methodology supporting the Implementation of the 2030 Agenda

The ESCAP-developed comprehensive methodology developed will assist policymakers integration 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.





# Interlinkages of SDG 6 with other SDG targets

## Analytical Framework for Integration of Water Related SDGs and targets using systems thinking



# Starting point for Baseline Analysis

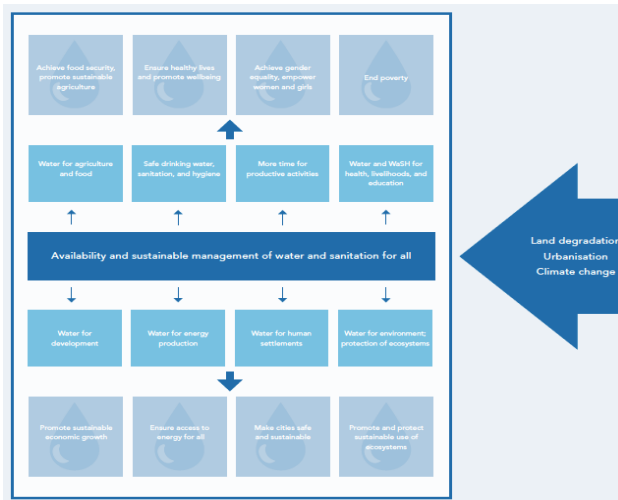


FIGURE 3: SDG GOAL TARGETS THAT EXPLICITLY INTEGRATE WATER

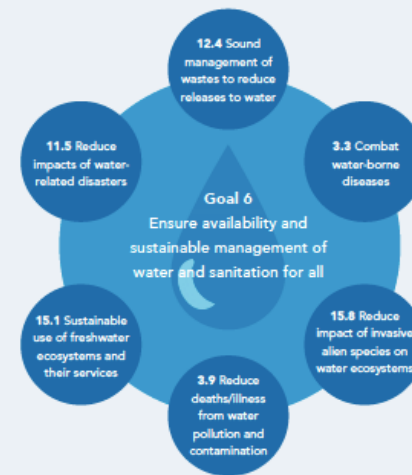
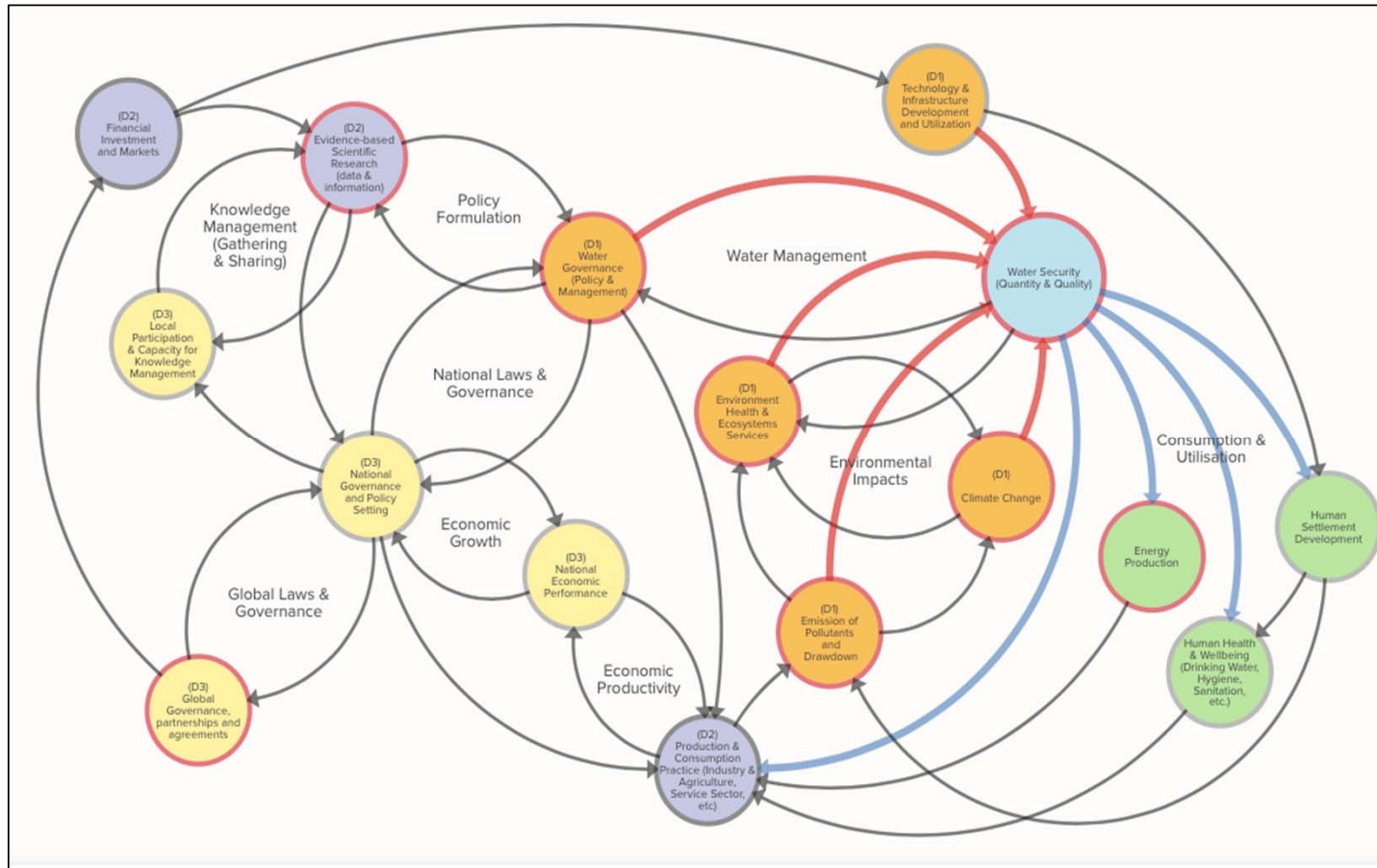


FIGURE 4: INDIRECT LINKS BETWEEN WATER AND OTHER SDGS



## Causal Loop Diagram of Baseline System Model for Water Security (Kumu)





**Systemic relationship between SDG Goal 6 Targets and SDG Goal 9 Targets**

SDG # 6 - Ensure availability and sustainable management of water and sanitation for all	SDG # 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation							
	9.1 <u>Develop</u> quality, reliable, sustainable and resilient <u>infrastructure</u> , including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all	9.2 <u>Promote</u> inclusive and sustainable industrialization and, significantly, raise industry's share of employment and <u>gross domestic product</u> , ...	9.3 <u>Increase the</u> access of small-scale industrial and other enterprises to <u>financial services</u> , including affordable credit, and their integration into value chains and markets	9.4 <u>Upgrade</u> infrastructure and retrofit industries to make them <u>sustainable</u> , with increased resource-use efficiency and greater adoption of <u>clean and environmentally sound technologies and industrial processes</u> , ....	9.5 <u>Enhance</u> scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries.....	9.6 <u>Facilitate</u> sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support ....	9.7 <u>Support domestic</u> technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, <u>inter alia</u> , <u>industrial diversification and value addition to commodities</u>	9.8 <u>Increase access to</u> information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020
6.1 - Achieve universal and equitable access to safe and affordable drinking water for all.	Direct / Parallel relationship The development of quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being can have a significant direct impact on providing universal access to safe and affordable drinking water for all.		Indirect / Parallel relationship Increasing access of small-scale industrial and other enterprises to financial services, including affordable credit, and their integration into value chains and markets can directly support achieving universal and equitable access to safe and affordable drinking water for all.			Direct / Parallel relationship Increased development of interconnected water treatment and delivery infrastructure in both rural and urban areas in less developed countries to ensure safe and clean drinking water will directly benefit from financial, technological and technical support to get started and sustain over time.	Direct / Parallel relationship Support for domestic technology development, research and innovation in developing countries could be focused on achieving universal and equitable access to safe and affordable drinking water for all/ this could have direct impact on this outcome but would need accompanying and conducive policy environment for, inter alia, industrial diversification and value addition to commodities.	Indirect / Parallel relationship Increase access to information and communications technology can indirectly help to achieve universal and equitable access to safe and affordable drinking water for all through linking communities with NGOs, government ministries (and services) and with Business, who can support building infrastructure, building capacity and introducing low cost technology to deliver safe, affordable drinking water to marginalized communities.
6.2 - Achieve access to adequate and equitable sanitation and hygiene and end open defecation, (special attention to the needs of women and girls)	Direct / Parallel relationship If so called "resilient and sustainable" infrastructure development addresses the SDGs and directed at local community sanitation then this will have a direct impact on reduced open defecation and improved sanitation.					Direct / Parallel relationship Sustainable and resilient infrastructure development through enhanced financial, technological and technical support would directly improve access to sanitation and improve hygiene in poor and marginalized communities, if it was directed in this area.		Indirect / Parallel relationship Increase access to information and communications technology can indirectly support increased access to adequate and equitable sanitation and hygiene and end open defecation by linking communities with NGOs, government ministries (and services) and with Business, who can support building infrastructure, building capacity and introducing low cost technology to facilitate improved sanitation and hygiene for marginalized communities and vulnerable groups like women and girls.



# Leading Linking Analysis Questions

For each cell of intersecting targets in the matrix, four questions were asked:

- 1) Is there a cause-and-effect relationship between the two intersecting targets within 3 degrees of separation?
- 2) If there is a causal relationship within this criteria: “Is the relationship a ‘direct’ causal relationship (immediate and direct causal influence) or an ‘indirect’ causal relationship (not direct one-to-one, but must pass through other factors first)?
- 3) What is the directional characteristic of the two related targets? i.e. ‘parallel’ or ‘inverse’
- 4) Is the particular water and sanitation target for each causal relationship being ‘driven’ or influenced by the other target, or the water target is a ‘driver’ or influencer of the other target?

# Assessment of the interlinkages

SDG 6 Targets	Inter-target linkages whereby the SDG 6 Target is the direct 'driver' for change for the other SDG targets  (Identified by Target Number)	Inter-target linkages whereby the SDG 6 Target is being influenced (Response) by the other target.  (Identified by Target Number)
6.3 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	<u>Total Direct 'Driver' linkages deriving from 6.3: (11)</u>  SDG 1: 1.5  SDG 3: 3.3, 3.9  SDG 6: 6.1, 6.6  SDG 11: 11.4,  SDG 13: 13.1  SDG 14: 14.1, 14.3  SDG 15: 15.1, 15.5	<u>Total Direct 'Response' linkages going to 6.3: (44)</u>  SDG 2: 2.4  SDG 4: 4.7  SDG 6: 6.2, 6.4, 6.5, 6.a, 6.b  SDG 7: 7.2  SDG 8: 8.1, 8.2, 8.4, 8.9  SDG 9: 9.1, 9.2, 9.3, 9.4, 9.5, 9.a, 9.b, 9.c  SDG 10: 10.b  SDG 11: 11.1, 11.3, 11.6, 11.7, 11.a  SDG 12: 12.1, 12.2, 12.4, 12.5, 12.6  SDG 13: 13.3  SDG 14: 14.2  SDG 15: 15.9  SDG 16: 16.3, 16.5, 16.6  SDG 17: 17.1, 17.5, 17.7, 17.8, 17.14, 17.16, 17.17
Total of 55 direct links to other SDG targets		
Total No. of indirect links = 31		

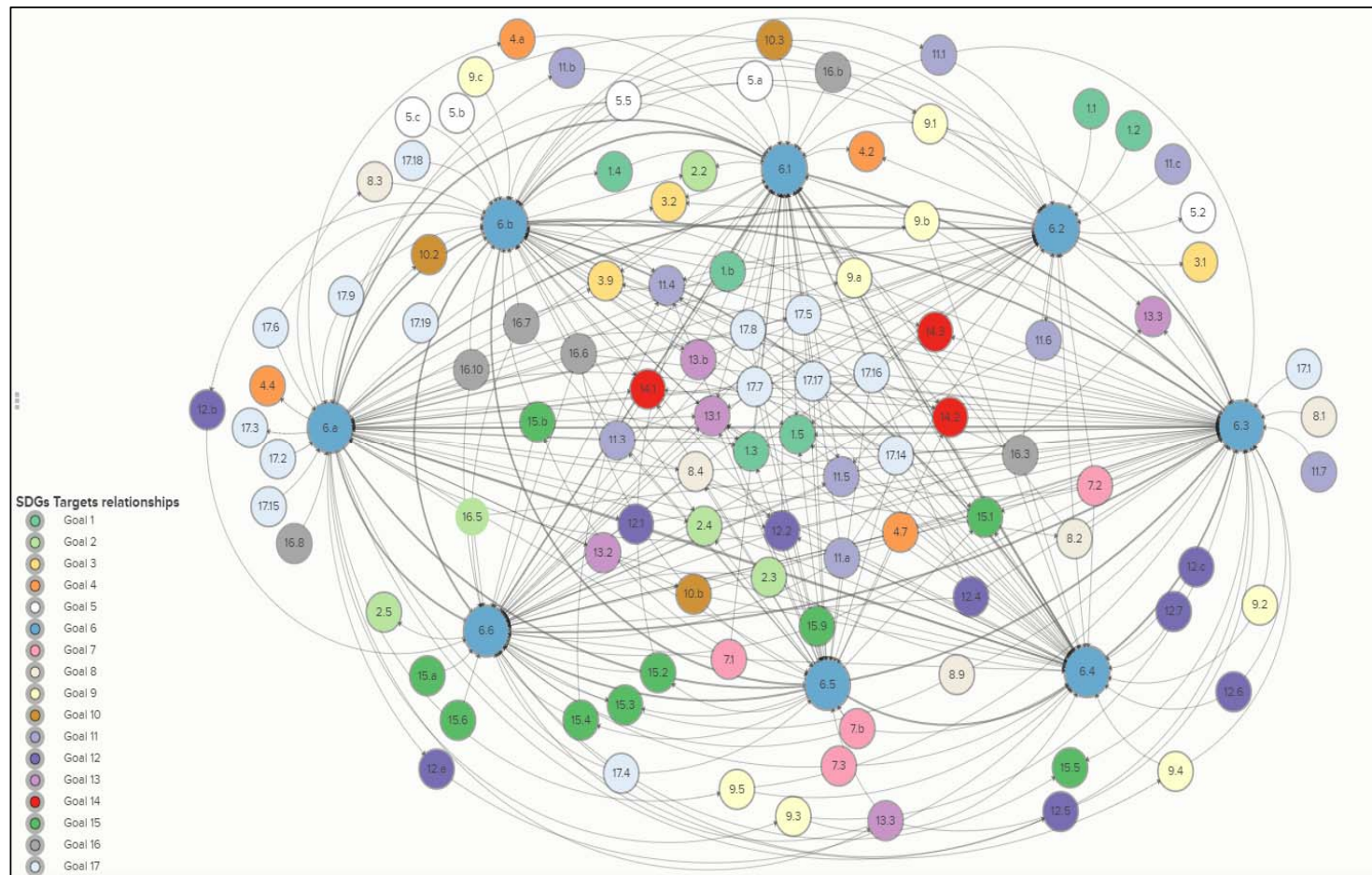
## Most strongly influenced by

SDG 6 (Water & Sanitation);  
SDG 8 (Inclusive and Sustainable Economic Growth);  
SDG 9 (Infrastructure & Industrialization);  
SDG 11 (Cities and Human Settlements);  
SDG 12 (Sustainable Consumption and Production);  
SDG 16 (Peaceful, Inclusive, and Just Societies with Accountable Institutions);  
and  
SDG 17 (Means of Implementation).

## Has the most direct influence on

SDG 3 (Human Health and Wellbeing);  
SDG 6 (Water & Sanitation);  
SDG 14 (Sustainable Use of Oceans, Seas And Marine Resources); and  
SDG 15 (Sustainable Use of Terrestrial Ecosystems)

# Use of Kumu Network Mapping tool to identify the SDG 6 Inter-target Direct Causal Linkages



## 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;

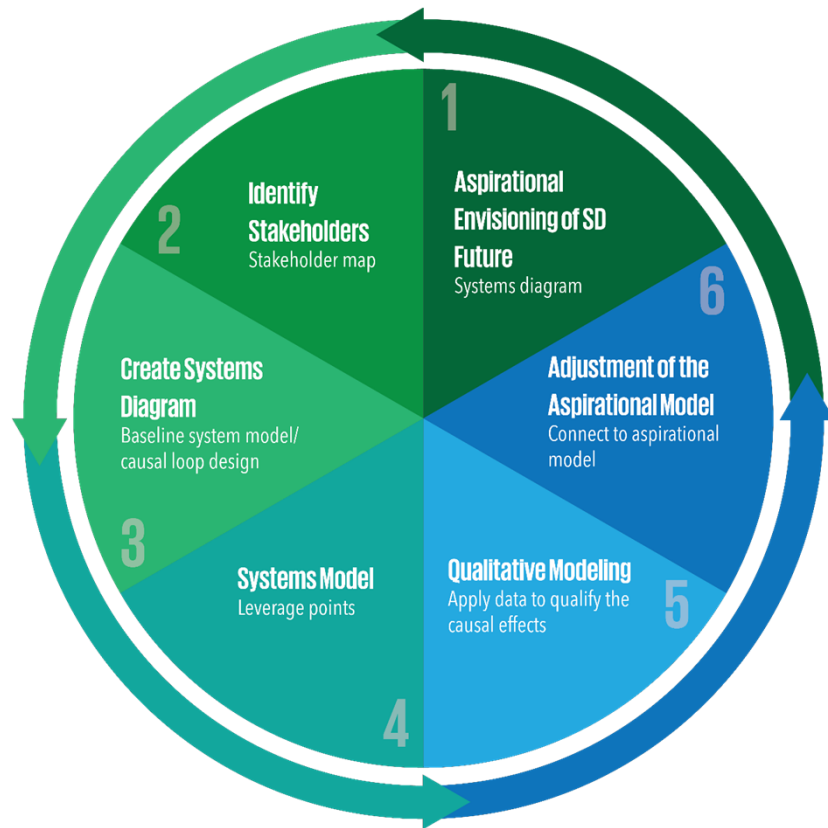
Directly driven/influenced by 27 other targets and is a key driver / influencer of 21 other targets;

Most strongly influenced by SDG5, 16, and 17

Has the most direct influence on SDG1, 6, 11, 12, 13, and 14.

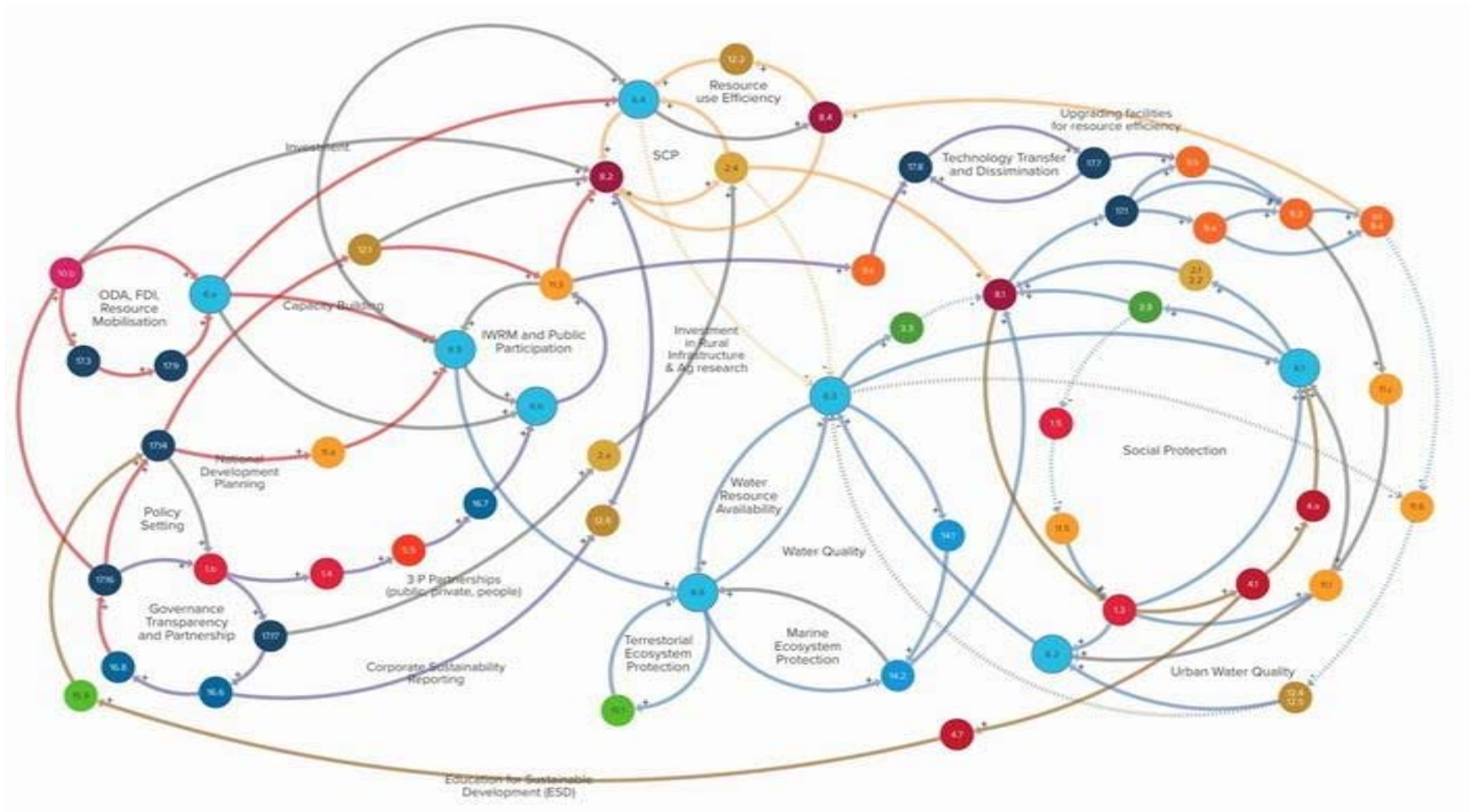


# Aspirational Envisaging PolicyCycle





## Developing causal Loop Diagram based focused on SDG 6 targets

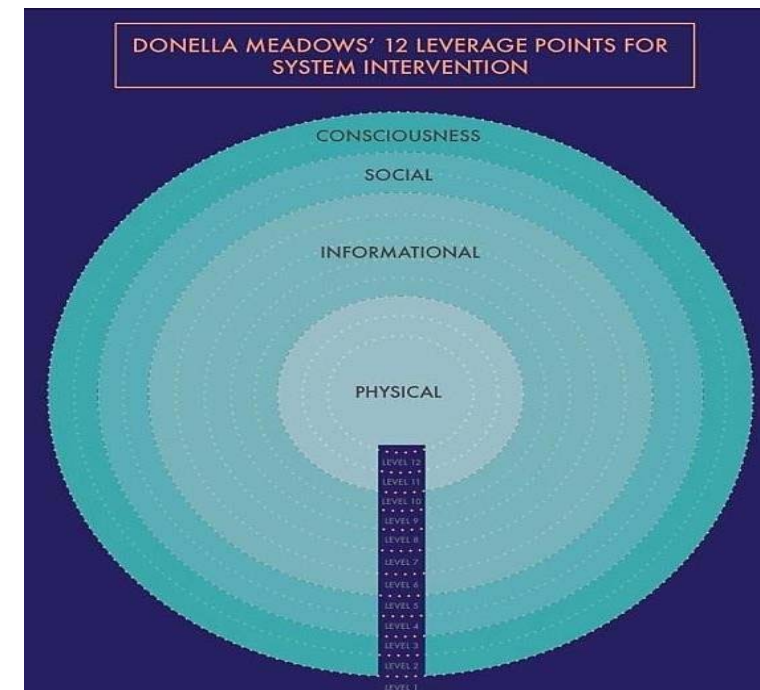
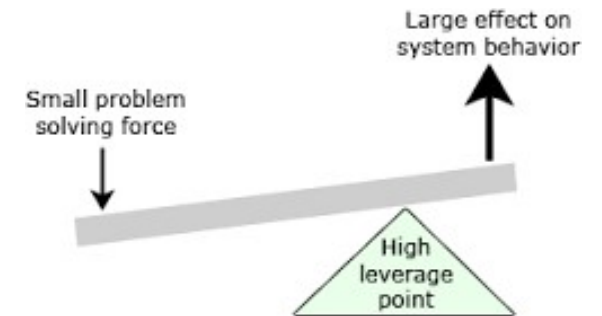


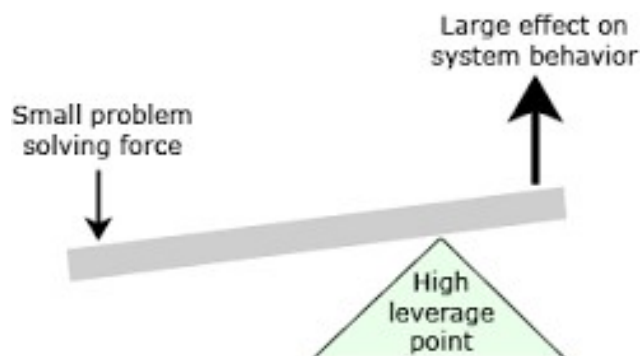




# Leverage Points

- Meadows (2009) stressed that often the
- best results come not from large-scale efforts
- but from small well-focused actions.
- Thus, there can be “low impact” leverage
- points and “high impact” leverage points.
- High impact leverage points resolve
- underlying causes of undesired system behavior.

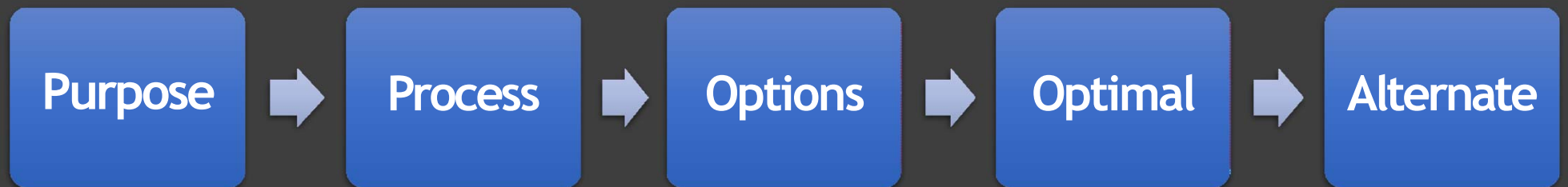




<b>Targets 1.b, 17.16, 17.14, and 6.a</b>	<ul style="list-style-type: none"> <li>•The loops of Governance, transparency, Partnership / ODA, FDI and Resource Mobilization / Policy Setting are really the ultimate high impact leverage in the short to long term</li> </ul>
<b>Target 11.3</b>	<ul style="list-style-type: none"> <li>•IWRM and Public Participation is another really important loop for achieving sustainable water</li> </ul>
<b>Target 6.4</b>	<ul style="list-style-type: none"> <li>•Water use efficiency is also very important and influential target as it is a fulcrum for water quality and eventually sustainable water (TAWR).</li> </ul>
<b>Target 17.1</b>	<ul style="list-style-type: none"> <li>•Crucial leverage point at the country level as this essentially is all about sustainable financing and resource mobilization for keeping the system going into the future, without outside ODA primarily.</li> </ul>
<b>Target 9.1/9.4</b>	<ul style="list-style-type: none"> <li>•Essential leverage points due to the fact that they are about the system infrastructure in urban commercial, domestic-residential, and industrial sectors, and includes water treatment and provisioning infrastructure.</li> </ul>
<b>Target 2.1/2.2</b>	<ul style="list-style-type: none"> <li>•Extremely important for the overall economic development, as achieving these two targets will insure a health and productive population that will be the greatest resource for sustainable development.</li> </ul>
<b>Target 1.3</b>	<ul style="list-style-type: none"> <li>•Social Protection Floors is also super important leverage for the human wellbeing side of the model (access to sustainable sanitation systems and clean drinking water)</li> </ul>
<b>Target 6.3</b>	<ul style="list-style-type: none"> <li>•Ultimately (in this system model at present) is the core target and indicator for the model. It is where everything lead or is effected by when considering GDP (8.1) and human health and wellbeing (2.1/2.2, etc.)</li> </ul>
<b>Target 4.7</b>	<ul style="list-style-type: none"> <li>•Ultimately is the highest impact leverage for long-term human sustainability, though the delay is longest in terms of cause-effect change and impact.</li> </ul>

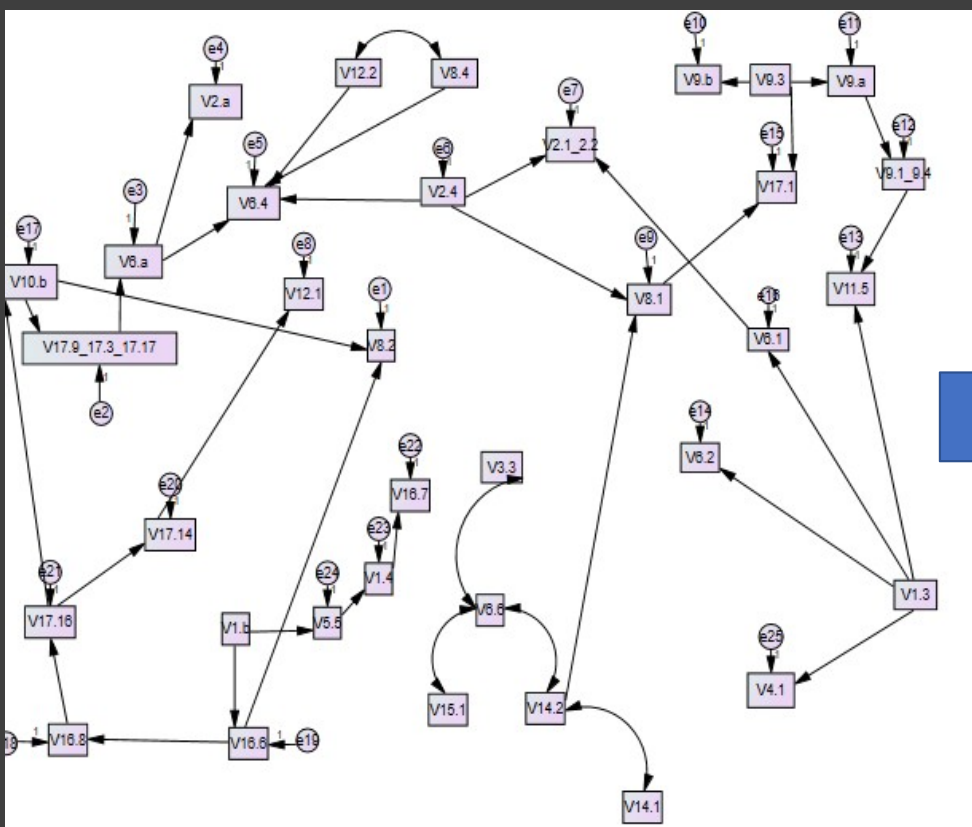
## High Leverage points for SDG 6.3 target

# Quantitative Modelling

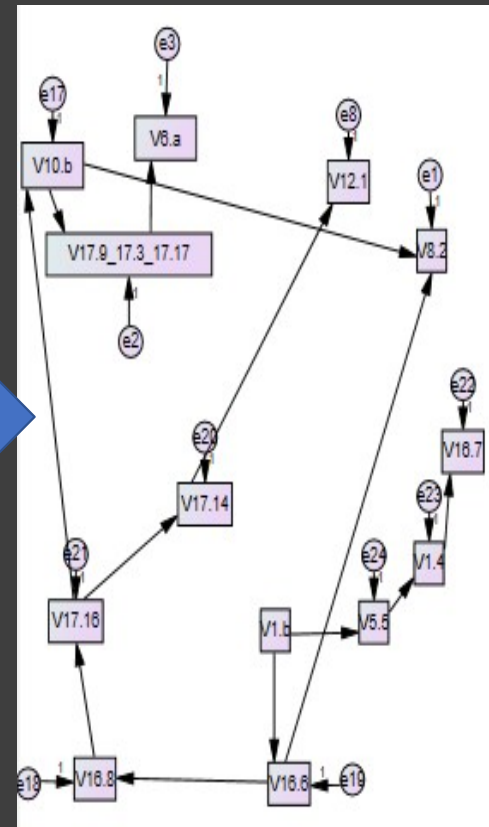




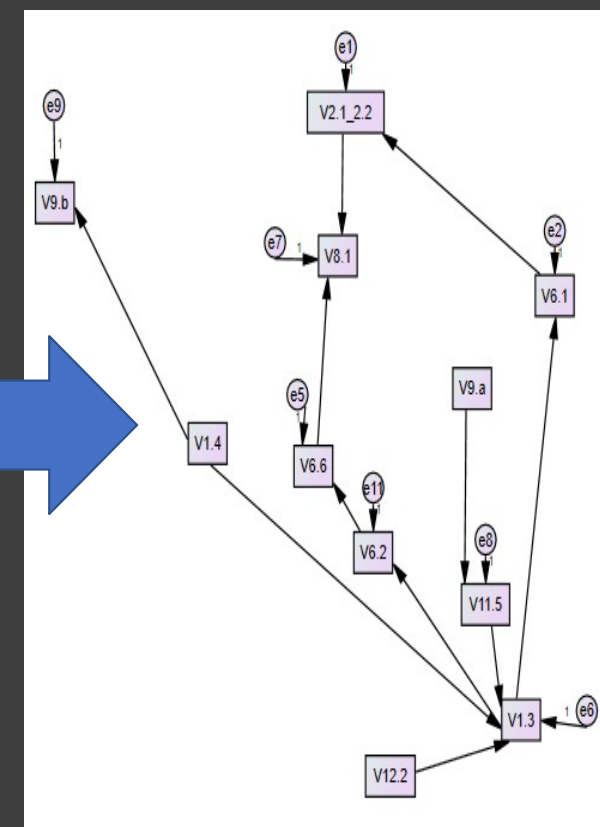
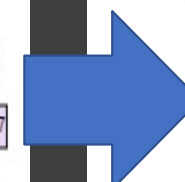
# Quantitative Modelling - SEM results



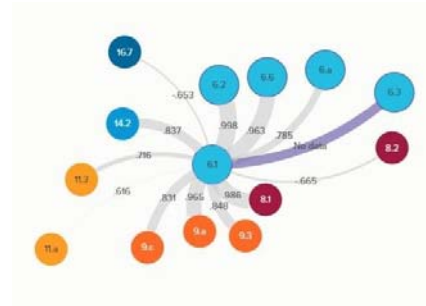
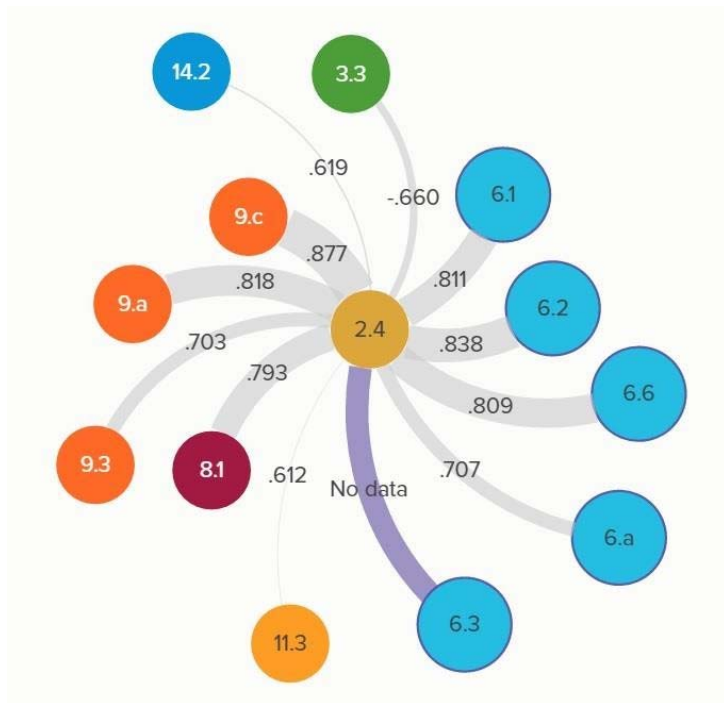
Model 1: Perfect replication of KUMU



Model 4: Governance Transparency & Partnerships

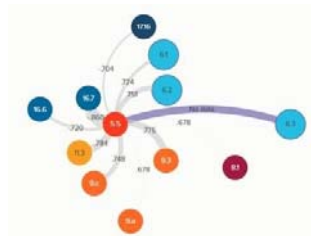
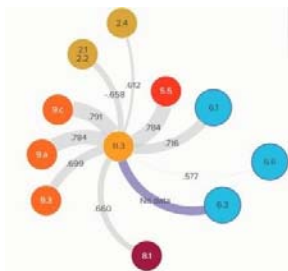
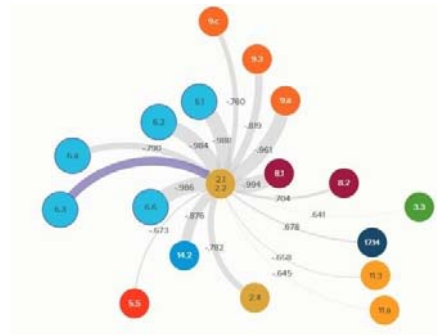


Model 9: FA Original Variables



# Qualitative Modelling

In the absence of ideal data—  
correlational analysis





# Lessons learned from the quantitative modelling

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**Globally Agreed Indicators:** These are linear and were created to measure the progress of individual targets or aspect of these. These do not support sufficiently analysis of inter-linkages. Since the SDGs are viewed as one indivisible whole, additional variables that reflect inter-linkages and integration may need to be identified.

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**Availability of Data:** While a substantive amount of data is available, there are some gaps within the data, which has caused inconclusive results. In order to improve upon our findings new data would need to be produced. (E.g. 6.3 Annual treatment of wastewater flows.)

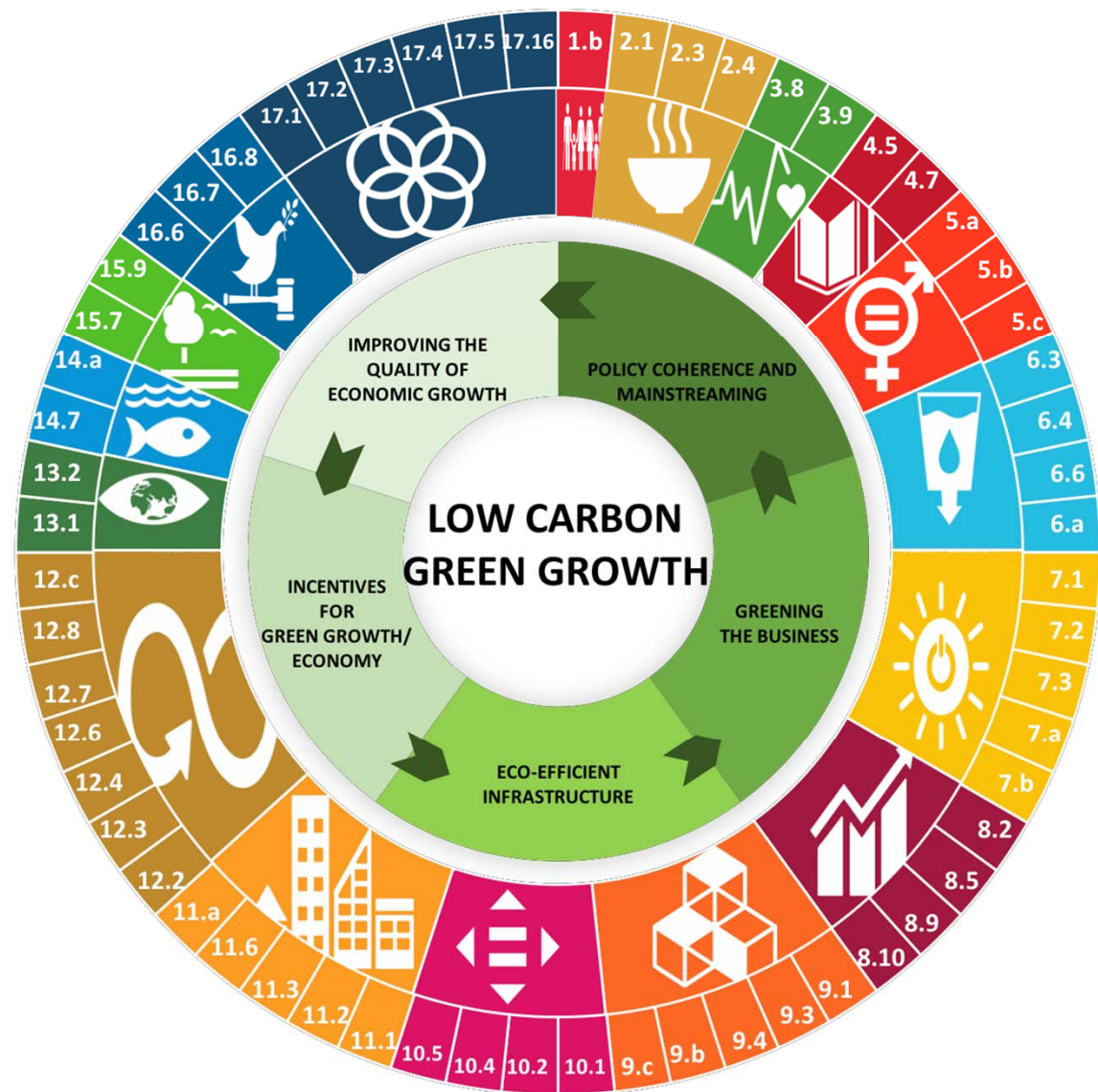
---

**Water Storyline:** Unfortunately, several SDG indicators were not tailored for the water context and therefore, do not fit our storyline. Although secondary indicators (e.g. World Bank) were identified, which fit the storyline, they are not globally-agreed.

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**Systems-Thinking:** The analytical framework is addressing inter-relationships based on causality and can be a valuable tool for policy makers to identify the leverage points for most effective interventions.

# Low Carbon Green Growth- transformation to the New Climate Economy



# The Way Forward

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Integrated SDG planning with transformative stakeholder engagement

Sustainable financing, including for climate resilient development and infrastructure

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Integrated planning to optimize resources; scale up the use of nature-based solutions, including green and blue infrastructure in urban and peri-urban areas

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Circular economy approaches to reduce waste and address pollution issues

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Low carbon green growth/new climate economy for sustainable development

# ESCAP Knowledge Products

## Integrating the Three Dimensions of Sustainable Development: A Framework and Tools

<http://www.unescap.org/sites/default/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://sdghelpdesk.unescap.org/sites/default/files/2018-02/integration%20sdg6.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/resources/low-carbon-green-growth-roadmap-asia-and-pacific>

## E-Learning Course: Low Carbon Green Growth Roadmap

<https://sdghelpdesk.unescap.org/e-learning/Low-Carbon-Green-Growth-Roadmap>

## E-Learning Course: Integration of SDGs into National Planning

<https://sdghelpdesk.unescap.org/e-learning/Integration-SDGs-into-National-Planning-course>





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