

# Harnessing Climate and SDG Synergies

CO-CONVENED BY



DEPARTMENT OF  
**ECONOMIC AND  
SOCIAL AFFAIRS**



**United Nations**  
Framework Convention on  
Climate Change

**First Global Report on Climate and SDG Synergies | 12 June 2023**

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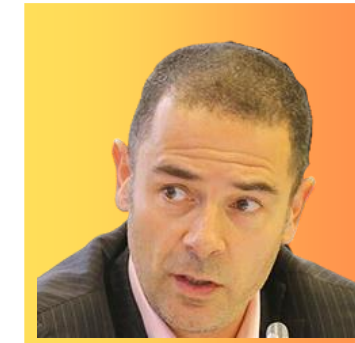
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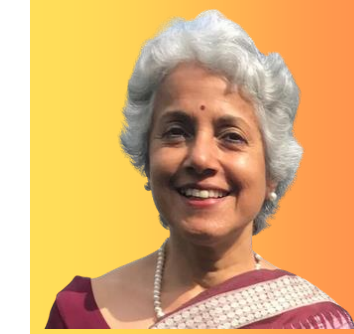
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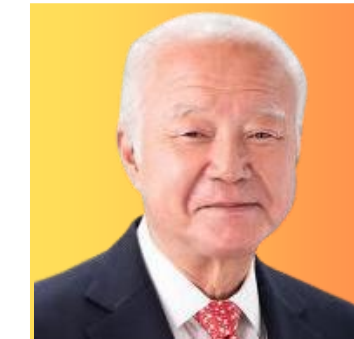
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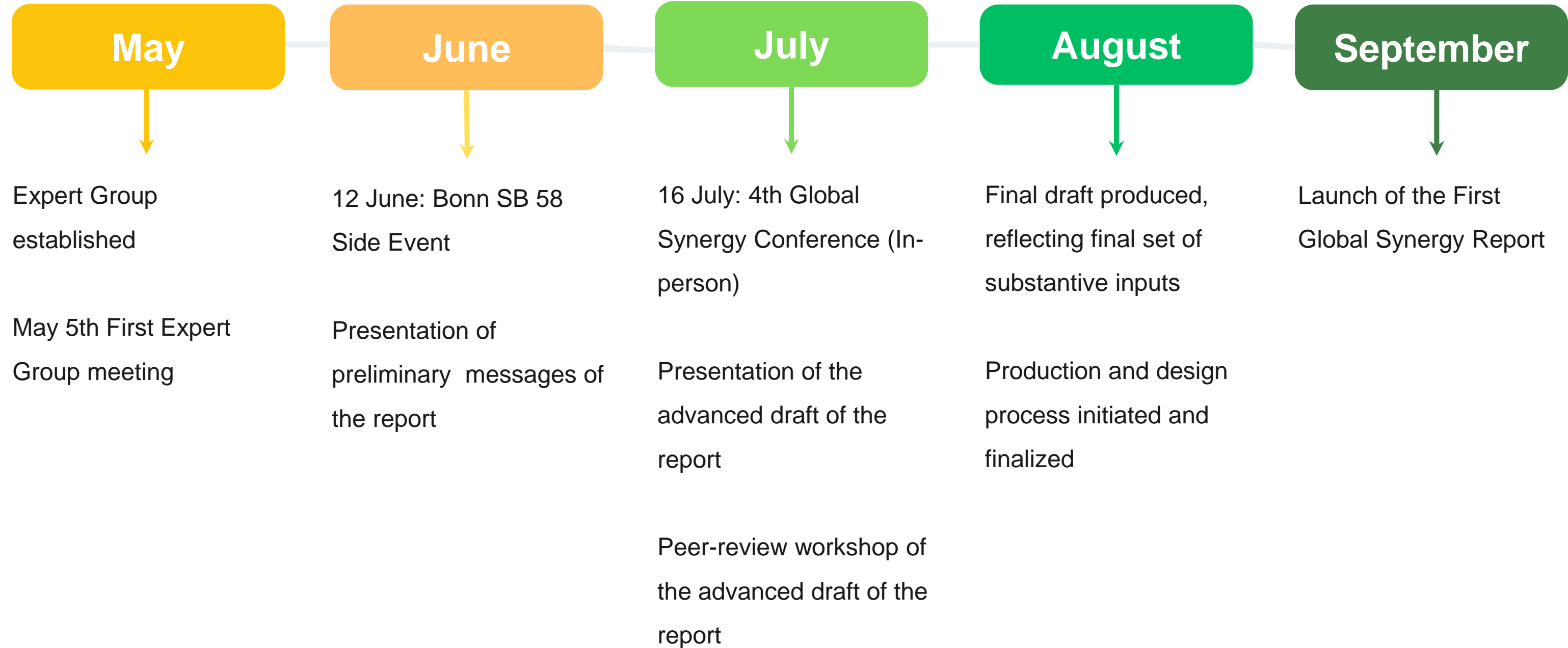


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# EXPERT GROUP – TIMELINE and NEXT STEPS



# Scope of the Report

- **Background** – building on the global Climate and SDGs synergies conferences and particularly on recommendations of 3rd global conference which gave a set of specific recommendations
- **Climate and SDG Synergies** – science, policies, reporting mechanisms
  - Science – extensive literature review
  - Synergies in Practice - policies, measures, enabling instrument
  - Reporting mechanisms – NDCs, VNRs, etc.
  - Lessons learned from best practices
- **Increasing the ambition**
  - Robust analytical framework as tool for policy makers to advance synergies.
  - Recommendations for strengthening reporting frameworks
- **Conclusions and recommendations**
  - Recommendations for accelerated action designed to advance synergies and focused on answering 2 questions:
    - Why is synergistic action not happening at the necessary level?
    - How should we make it happen?
  - Making this report the foundation for a deeper and more rigorous analysis for preparation of report for major summits in 2024- including Summit for the Future

# Why is the Report Needed

## The problems and the challenges that the report will address:

- Much talk about the importance of synergies and the need to enhance the co-benefits and to avoid the trade-off but very little action on the ground - How can this problem be addressed?
- Increasing recognition that synergies can result in win-win situations, but evidence is dispersed, scattered and often not easily accessible – Should a platform that gathers this evidence be created?
- The absence of tools for a) identifying and enhancing synergies, and b) for policy makers to enable and promote synergies – Would an analytical framework that is easy to use by policy makers be a good solution?
- How can finance be reformed to advance this agenda – and can the current debate on the need for reform of the global finance architecture make this a critical component of that debate?
- The adequacy or inadequacy of reporting mechanisms - if synergies are so essential for the success of the implementation of the Paris Agreement and Agenda 2030 – why are they not made a reporting pre-requisite?
- How can the topics of just transitions, leaving no one behind and equality be given higher attention in this and other debates?



# Building on outcomes of 3<sup>rd</sup> Global Synergies Conference



<https://www.un.org/en/climate-sdgs-conference-2022>

IISD website:

<https://enb.iisd.org/climate-sdgs-conference-2022>

IGES website:

<https://www.iges.or.jp/en/projects/climate-sdgs-conference>

# Key Recommendations from Third Global Conference Tokyo

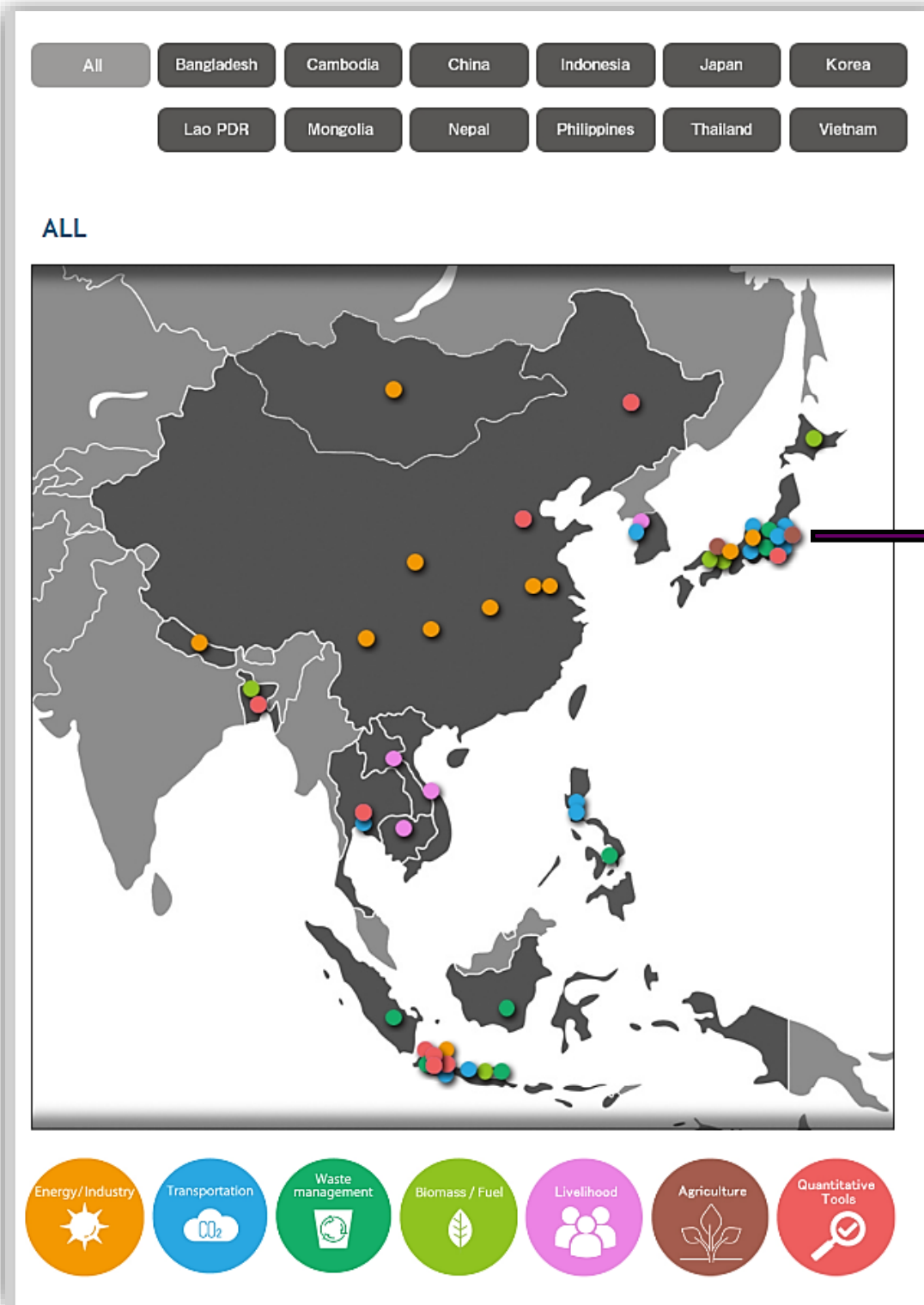
**Participants highlighted the need to do the following to advance synergies:**

- Strengthening the evidence base for synergistic action
- Enhancing integrated planning
- Importance of scaling up capacity building and sharing of good practices
- Developing and promoting partnerships for transformation
- Convening multi-stakeholder dialogues at all levels
- Informing key intergovernmental processes on climate and the SDGs.



# Asian Co-benefits Partnership Good Practice Map

More and more countries in Asia are introducing projects that mitigate climate change while achieving other sustainable development benefits. The co-benefits map provides users with important information on co-benefits in key sectors in Asia. The map covers 49 cases from 12 Asian countries as of June 2023.



**Toyama City, Japan** close X



Toyama set up a Compact City Development Group in 2002 and has been promoting its compact city policies since then. By integrating the three dimensions of sustainable development, Toyama aims to create value in the environmental realm as well as social and economic realms.

This unique approach suggests the potential of local transport policies to go beyond emission reductions to achieve other economic and social co-benefits.

[Compact City and Public Transport in Toyama City, Japan](#)

**Xiangtan, China** close X



Xiangtan, located in central Hunan Province, is a resource-intensive industrial city and an important base for both the provincial and national economy; meanwhile, its heavy reliance on industries has caused Xiangtan to experience severe air and water pollution. To achieve its 'blue sky and clean water' action plan, Xiangtan policymakers need to be increasingly cognizant of multi-pollutant trade-offs and synergies in Xiangtan.

[The Case of Xiangtan, China.pdf](#)

**Vietnam** close X



Thousands of households in Dong Hoi, Viet Nam are raising pigs without appropriate manure treatment facilities such as biogas digesters. In addition, large gaps have been identified in the knowledge of digester end-users, particularly regarding the use of bio-slurry as an organic fertilizer. This case illustrates how actively engaging women in a biogas pilot project can help remedy these problems, mitigate climate and empowering women.

[New Roles for Women in Biogas Supply Chain](#)

**Compact City and Public Transport in Toyama City, Japan**

**Background**

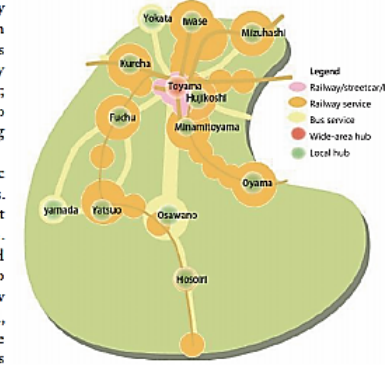
Toyama is located on the Sea of Japan in the Chūbu region. As of 2015, the city had a population of 418,957 and a total area of 1,241.85 square kilometers. In the early 2000s, the city's decreasing population and aging society led to a heavy dependence on automobiles and a corresponding decline in public transport. The combined impact of these changes resulted in a hollowing out of the city centre. This, in turn, raised the administrative and operational costs of managing the transport system and increased GHG emissions (Mori, 2013). For example, automobile dependency measured in terms of the number of trips grew to 72.2% in 1999 from 52.5% in 1983 (Awashima, 2009).

**The Co-benefits of Transport Planning in Toyama**

Toyama set up a Compact City Development Group in 2002 to address many of the above issues. To make the city more compact, the group employed a polycentric approach that linked multiple interconnected small cities and facilities (Fujimoto, 2008) (Figure 1). The compact city strategy consisted of three pillars: 1) revitalising public transport; 2) encouraging the relocation of residents and business to zones along public transport corridors, and 3) re-energising the city centre (Runzo-Inada, n.d.).

Toyama has also gradually strengthened its public transport network with the use of existing railway lines. This started with the launching of a Light Rail Transit (LRT) line in the northern part of the city in 2006. The LRT covers 7.6 kilometers with 13 stations, and has an average travel time of 25 minutes from origin to destination. To improve the LRT's infrastructure, five new stations were added, low carriage floors were introduced, and the stations were made wheelchair accessible. More frequent trains and longer hours also improved the LRT's operations. In addition, a preferential fare for elderly was introduced. In consequence, the ridership of the new LRT more than doubled on weekdays and grew by 3.5 times on weekends. The number of elderly passengers increased sharply after the opening of the LRT (Toyama City, 2014).

A key element in making the city more compact was the conversion of a local railway (JR Toyama Port Line) into the aforementioned LRT system based on a public-private partnership (PPP). In this case, the public sector constructed the infrastructure and the private sector managed the operations. Other changes to the city's infrastructure also helped make the city more compact. For instance, a connection linking the lines in the north and



**Figure 1. The organisation of a compact city and its public transport system**  
Source: Mori, 2013

centre of Toyama was improved with the renovation of infrastructure for the recent launch of the Hokuriku Bullet Train (Figure 2).

The next step in the city's public transport reforms was the extension of the tram line into a loop line, an undertaking meant to revitalise the city centre by improving mobility. This extension involved the addition of a new loop-line section that connected the two existing tram stations. The loop line opened on December 23,

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**ACP** ASIAN Co-benefits Partnership  
URL <http://www.cobenefit.org/>

Compact City and Public Transport in Toyama City, Japan 1



# Climate and SDG synergies: What the literature says

A preliminary review of over 100 relevant scholarly and grey literature revealed:

- **Most of the climate measures are government led**
  - Responsibility on government to ensure that policies bring about intended outcomes
- **Discussions of SDGs more prominent for studies on Global South.**
- **Co-benefits of climate actions are often not clustered under SDGs, despite clear associations**
- **Most co-benefits not quantified and/or monetized**
  - **Health most quantified co-benefit and SDG in both the regions, as**
    - health is a priority sector for most (if not all) countries
    - several methodologies present to quantify health co-benefits

# Climate and SDG synergies: what stands between

## Knowledge

- Insufficient knowledge of SDG and climate interactions
- Unavailability of methodologies and tools map nature and magnitude of interactions
- Challenge in reconciling climate actions and certain SDGs

## Economic

- Limited national budgeting on addressing synergies
- Lack of enabling financial instruments
- Lack of clarity on the benefits and costs of co-benefits and trade-offs

## Political

- Political cycles that cause changes in political priorities
- Lack of political motivation towards climate policies
- Lack of transparency in responsibility for implementation
- Lack of collaboration between governments and other actors

# Evidence of synergies-Climate change and SDGs

SDG	Climate action and synergy	Case study
1. No poverty	Implementing urban poverty reduction programmes that integrate climate resilience and low-carbon development can improve the living conditions and livelihoods of the urban poor, while also reducing emissions and enhancing adaptive capacity.	In Ahmedabad, India, the Slum Networking Project has provided basic services such as water supply, sanitation, drainage, solid waste management, street lighting, and paved roads to over 100,000 slum dwellers, while also promoting low-carbon solutions such as biogas plants, solar panels, and rooftop gardens.
2. Zero hunger	Promoting urban agriculture and food systems that are climate-smart and sustainable can increase food security and nutrition, while also reducing emissions and enhancing adaptation.	In Rosario, Argentina, the Urban Agriculture Programme has supported over 2,000 urban farmers to produce organic food in vacant lots, rooftops, and public spaces, while also providing training, technical assistance, and marketing support.
3. Good health and well-being	Improving urban air quality and health through low-emission transport and energy policies can reduce greenhouse gas emissions and associated health risks, while also enhancing mobility and well-being.	In Bogotá, Colombia, the TransMilenio Bus Rapid Transit system has reduced travel times, costs, accidents, and emissions by providing high-capacity buses that run on dedicated lanes along with cycling and pedestrian infrastructure.
4. Quality education	Enhancing climate change education and awareness in urban settings can foster behavioural change and empower individuals and communities to take action for mitigation and adaptation.	In New York City, USA, the Climate Change Education Project has integrated climate change into the curriculum of over 600 public schools, reaching over 1.1 million students with learning activities such as school gardens, green roofs, and energy audits.
5. Gender equality	Mainstreaming gender equality and women's empowerment into urban climate policies and actions can ensure that women's needs, roles and capacities are recognized and addressed, while also enhancing their participation and leadership in decision-making.	In Quito, the Gender Inclusive Cities Programme has supported women's groups to conduct safety audits, raise awareness, and advocate for gender-responsive urban planning and climate action



## Some examples of best practices

Country	Climate policy/programme	Co-benefits	Focus SDG
New Zealand	Active travel intervention- 'ACTIVE' (Activating Communities to Improve Vitality and Equality)	<ul style="list-style-type: none"> <li>Annual benefits for health in the intervention cities were estimated at 34.4 disability-adjusted life years (DALYs)</li> <li>2 lives saved due to reductions in cardiac disease, diabetes, cancer, and respiratory disease.</li> </ul>	3
USA, Turkey, Germany, India, China, and Brazil	LEED certification of buildings	<ul style="list-style-type: none"> <li>Saved \$7.5B in energy costs</li> <li>Averted 33MT of CO<sub>2</sub>, 51 kt of SO<sub>2</sub>, 38 kt of NO<sub>x</sub>, and 10 kt of PM<sub>2.5</sub> from entering the atmosphere, amounting to \$5.8B (lower limit = \$2.3B, upper limit = \$9.1B) in climate and health co-benefits from 2000 to 2016.</li> </ul>	3, 7, 11
UK	'Boilers on Prescription' project	<ul style="list-style-type: none"> <li>60% reduction in the number of GP appointments needed by patients taking part in the scheme along</li> <li>Accident and Emergency attendance being reduced by 30%.</li> <li>Investing £1 in keeping homes warm is estimated to save the NHS £0.42 pence in direct health costs.</li> </ul>	3, 8, 11
Casamance Natural Subregion	Access to clean cooking solutions	<ul style="list-style-type: none"> <li>SDG 5 represented 60–97% of the total economic benefits.</li> <li>GHG emissions reduction per person were approximately 0.5 ton of CO<sub>2</sub>-eq</li> <li>Health co-benefits (SDG 3) represented &lt;1% of the total economic benefits.</li> <li>Annual economic benefits were 316.03 euros and 159.31 euros in Senegal, 334.84 euros and 144.50 euros in the Gambia and 192.58 euros and 96.55 euros in Guinea Bissau, respectively.</li> </ul>	3, 5, 7

# Towards a framework for advancing synergistic action

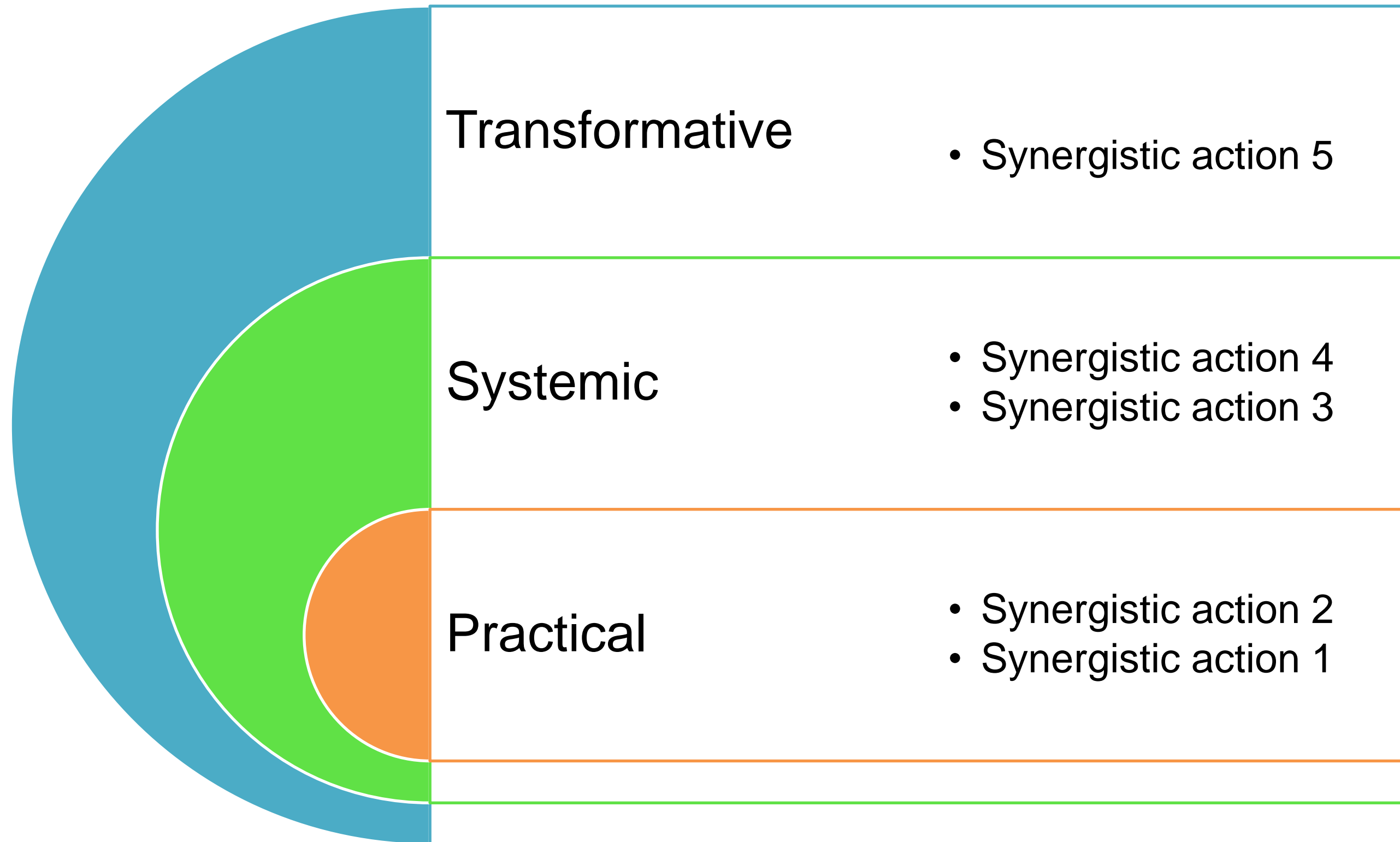
More than a set of tools or methods for identifying synergies

A guide or roadmap; a structured approach to understanding and organizing complex information, making informed decisions, monitoring action, and communicating outcomes

## Key characteristics:

### A long-term vision: working towards a common purpose

- All sustainable development efforts have to be integrated with efforts to ensure a safe and just climate system
- We need to move beyond a reliance on incremental improvements to pursuing transformational change in the economic, political and socio-cultural systems and institutional structures creating and perpetuating the unsustainable and inequitable trends we see today





## A set of principles

- Open science
- Policy coherence
- Inclusive, equitable partnerships
- Just transitions

## Critical fields of action

- Integrated policy and coordinated action
- Capacity development
- Data and monitoring
- Reporting
- Education and awareness

# Definition of co-benefits

- The term 'co-benefit' was first used in 1990 to refer to the "unintended positive side effect" (i.e., ancillary benefits) of a policy (Miyatsuka and Zusman 2010).
- According to the IPCC AR4 report, co-benefits are defined as unintended consequences of actions taken solely to reduce CO2 emissions (IPCC 2007).
- Co-benefits are also known as multiple benefits, co-impacts, multiple impacts etc.
- For this report, we define co-benefits as the intended positive developmental benefits in addition to their primary desired objective which is direct reductions of GHG and impacts of climate change.
- In particular, co-benefits results from synergistic action between SDGs and climate action and it includes both environmental and socioeconomic benefits and hence seen as a win-win strategy aimed at addressing both climate and developmental goals.

# Definition of synergy and trade offs

- Synergies refer to the combined or cooperative effects that occur when two or more actions interact in a way that produces a result greater than the sum of their individual contributions.
- A synergistic approach to designing and implementing policies related to climate change and SDGs serves to tackle these challenges simultaneously rather than separately, with a combined effect that increases the overall impact of those policies.
- Synergistic action across policy sectors or domains of practice increases efficiency in each sector/domain, while minimising risks, thereby enhancing system functionality optimality
- Trade offs refer to as the negative effects of climate change policies/measures.
- Precisely, it refers to the negative interaction between climate change policies/measures with sustainable development.
- Responses to climate change can be planned to maximize synergies and limit trade-offs with sustainable development