How to find coherence between the NAPs and SDGs: The Integrative Framework for NAPs and SDGs (NAP-SDG iFrame)



# SUSTAINABLE GEALS



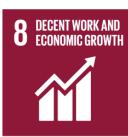


















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## The Sustainable Development Goals

☐ The SDGs represent a benchmark for national development ☐ The SDGs provide a complete/idealized representation of a national development process/system ☐ They help define the boundaries for complete coverage of the development process, and collectively define success/development. ☐ They help define a future, as might be defined through a visioning exercise. That future is defined through essential functions of major components of the national development process ☐ Climate change can be considered at a higher level to the other SDGs, as it influences all the others, directly or indirectly





End poverty in all its forms everywhere



End hunger, achieve food security and improved nutrition and promote sustainable agriculture



Ensure healthy lives and promote well-being for all at all ages



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



Achieve gender equality and empower all women and girls



Ensure availability and sustainable management of water and sanitation for all



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



Reduce inequality within and among countries



Make cities and human settlements inclusive, safe, resilient and sustainable



Take urgent action to combat climate change and its impacts\*



Conserve and sustainably use the oceans, seas and marine resources for sustainable development



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels



# 1) Objectives of the NAP process (decision 5/CP.17) are:

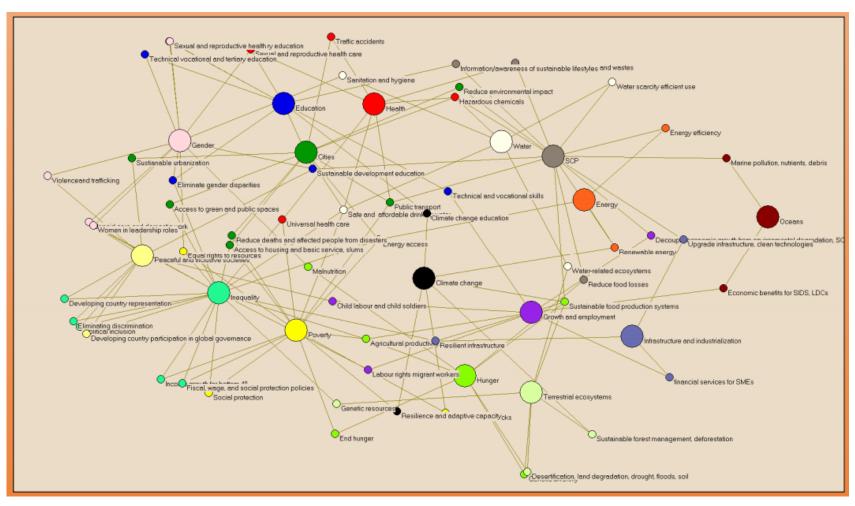
- a) To reduce vulnerability to the impacts of climate change, by building adaptive capacity and resilience;
- b) To facilitate the integration of climate change adaptation, in a coherent manner, into relevant new and existing policies, programmes and activities, in particular development planning processes and strategies, within all relevant sectors and at different levels, as appropriate.

# 2) Global goal on adaptation (Article 7 of the Paris Agreement)

 Enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change, with a view to contributing to sustainable development and ensuring an adequate adaptation response in the context of the global temperature limit of less than 2°C.



# SDGs as a linked system of goals and targets



Source: David Le Blanc, "Towards integration at last? The SDGs as a Network of Targets", Rio+20 Working Paper 4



## Main conclusions: very obvious and yet largely ignored

- ☐ Given this integrated nature of issues, we should say **goodbye to** a silo/single focus approach
- ☐ Climate Change is an issue/driver/factor that affects many of the SDGs directly and all others indirectly
- ☐ There are **specific targets associated with SDG 13** on Climate change, plus newer "targets" based on the Paris Agreement.



# Introducing the SDGs .... National development .... Under climate change

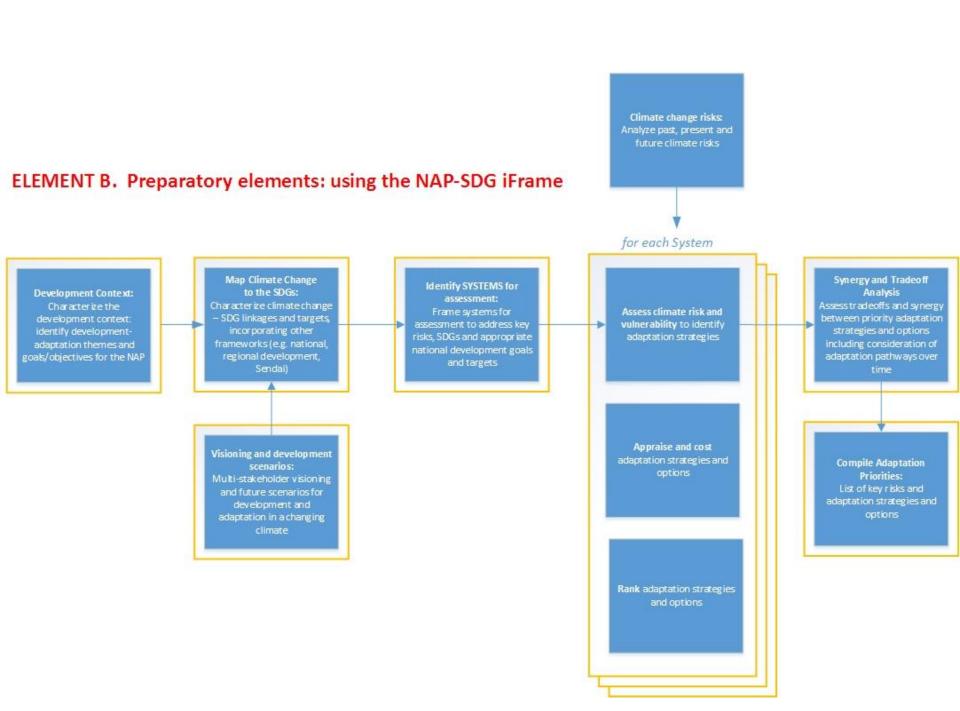
- □ We can identify which of the SDGs are sensitive to climate change (directly), and will come up with 6 to 9 or so SDGs, including the usual suspects of SDG 2 on ending hunger, SDGs on water, ecosystems, health, energy, infrastructure, etc.
- ☐ For these, we can look at the targets and classify them depending on their relationship with climate change adaptation (NAPs) into:
  - High-level/co-objectives (when compared to the global goal on adaptation and the objectives of the NAPs)
  - Specific targets/outcomes/constraints, easily quantifiable
  - Guiding principles (more general targets that are hard to quantify)

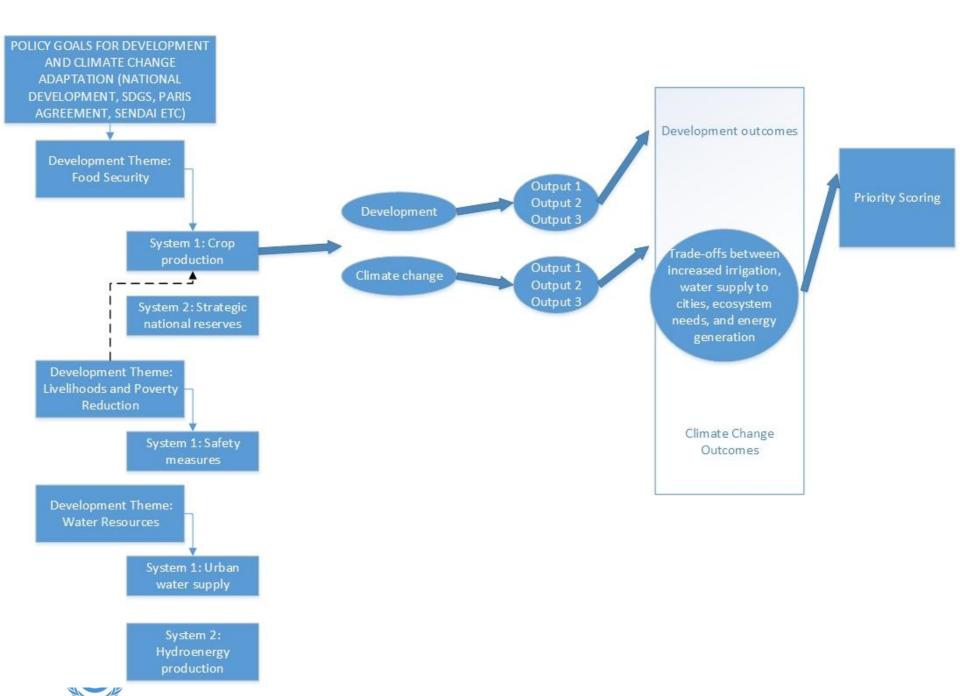


## The steps of the iFrane

- ☐ The NAP-SDG iFrame builds on the second category of specific targets as follows
  - Consider the measurable and specific targets for main development themes (ag and food security, water resources etc)
  - Then add specific national development goals and targets to create a country-specific list of goals and targets
  - Add further targets from other relevant frameworks such as Sendai.
- □ Then we can work with these to further identify relevant systems to assess further, implement adaptation actions, including ensuring to measure development as well as adaptation outputs, results and impact
- ☐ This helps us conduct M&E of both development and adaptation
- ☐ In many cases, there will be a need to assess trade-offs between adaptation options under different systems







#### Conclusion

- □ By following the NAP-SDG iframe, it becomes possible to look at issues as systems.
- ☐ This provides a holistic approach for adaptation planning and implementation, ensuring consideration of all driving factors, key players and stakeholders thereby avoiding silo approaches



# United Nations Framework Convention on Climate Change

#### Contact:

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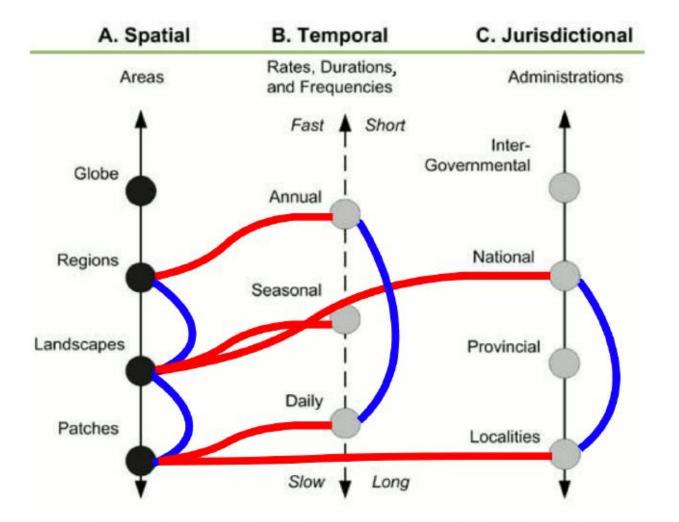
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#### Food System ACTIVITIES Producing food: natural resources, inputs, markets, ... Processing & packaging food: raw materials, standards, storage requirement, ... Distributing & retailing food: transport, marketing, advertising, ... Consuming food: acquisition, preparation, customs, ... Food System OUTCOMES Contributing to: Food Security, i.e. stability over Social Welfare Environmental time for: Welfare Income **Employment** Ecosystem FOOD FOOD · Wealth stocks & flows ACCESS UTILISATION Social capital Ecosystem Nutritional Value Affordability Political capital services Social Value Allocation Human capital Access to · Preference Food Safety natural capital **FOOD** AVAILABILITY Production Distribution Exchange

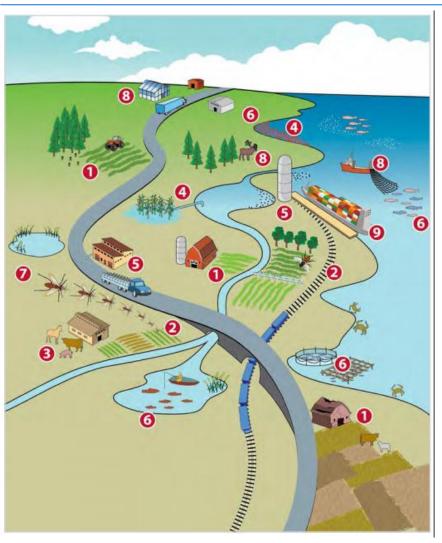
**Fig. 4.** The main Food System Concept diagram (from Ericksen, 2009).





**Fig. 22.** Multiple scales, multiple levels within each scale. Within-scale interactions are shown in blue, and between-scale interactions in read. Derived from Ingram (2009).

## **Case example: Systems for Canada's food production (1/3)**



A summary of potential climate change effects on food production in Canada

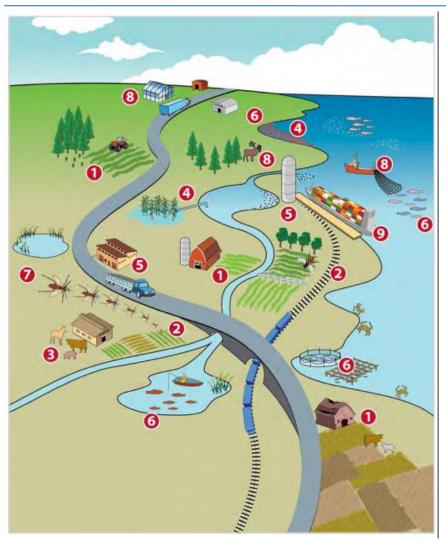
- Crop productivity depends strongly and directly on seasonal weather for heat, light and water. Locations for particular crops will also change.
- 2) Pollinators would face shorter, less harsh winters but may be affected by increased pest and disease activity, different food sources and changes in the timing of flowering.
- 3) Animal production will be affected by changes in crop production, water availability and heating and cooling requirements.
- 4) Changes in water supply and precipitation patterns will affect farm operations (e.g. need for



Campbell, I.D., Durant D.G., Hunter, K.L. and Hyatt, K.D. (2014) Fand Broduction; in Gradian). Water in a Changing Climate: Sector Perspectives on Impacts and Adaptation, (ed.) F.J. Warren and D.S. Lemmen; Government of Canada, Ottawa, ON, p. 99-134 Quality will also be affected (e.g.

increased flushing of contaminants

## Case example: Canada's food production (2/3)

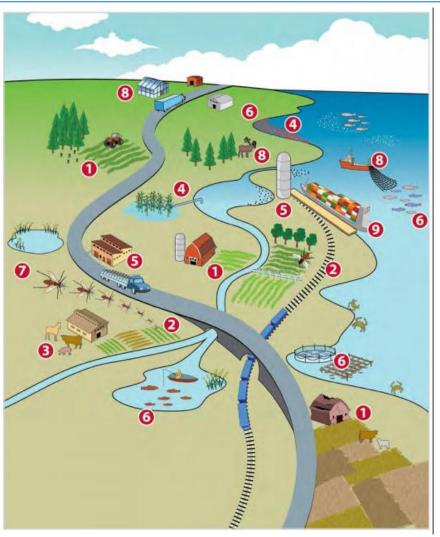


# A summary of potential climate change effects on food production in Canada

- 5. Food processing may be challenged by reduced or variable water availability. Food and feed storage will need to deal with increased heat, and in some places, increased storage capacity may be required to allow for increased frequency and duration of transportation interruptions.
- 6. Fish stocks will respond to changes in water temperatures, water chemistry, food supply, algal blooms, runoff and ocean currents. Reorganizations of lake/ocean ecosystems are likely, with resultant impacts on all types of fisheries.
- 7. Pests, diseases and invasive species could become more virulent and diverse.



## Case example: Canada's food production (3/3)



# A summary of potential climate change effects on food production in Canada

- 8. Northern/remote communities may be able to increase local food production with adaptation (e.g. greenhouses, cold-tolerant field crops and forages).

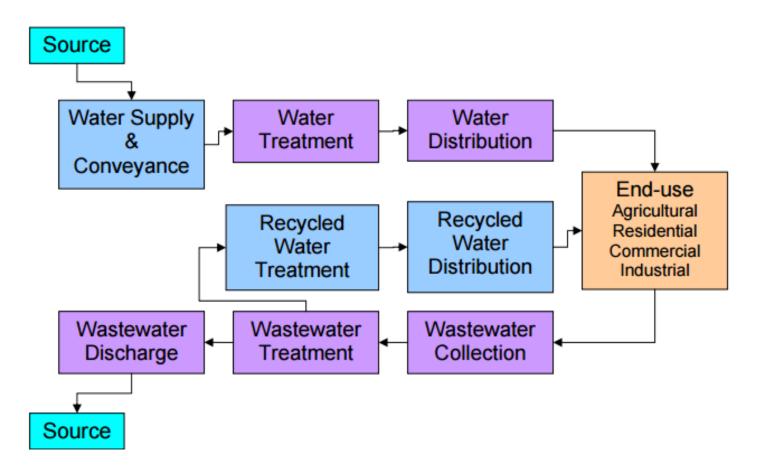
  Access to country foods will be affected as vegetation is directly impacted by changing climate, and species distributions will shift in response to warming. Decreased ocean ice could increase the length of the shipping season, allowing more items to be brought to northern coastal ports.
- 9. International trade will be affected by the change in the global geography of food production with countries shipping new types of goods as well as by the potential opening of the Northwest Passage.



# Another simple example for a water supply system

- A water supply system can be simple representing one source and supplying users in a small city, or in many cases, can be network of sources, often over great distances, with pipelines transporting water from a river, dam or lake into one or several treatment plants, then to various holding tanks for distribution to different parts of a city.
- In some states (e.g. California), the whole system is a connected network





Source: California's Water-Energy Relationship, Final

Staff Report, November 2005

