NATURE-BASED SOLUTIONS FOR A GREEN RECOVERY

Towards Green Economy Recovery: Designing Disaster-resilient and Sustainable Cities
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The same urgency needed to fight COVID-19 is needed to address the climate crisis. This is a global challenge that has worsened existing inequalities and vulnerabilities from within and between nations.

PRESIDENT RODRIGO DUTERTE
in his speech during the 75th UN General Assembly

“Climate emergency remains urgent as ever. It is like the COVID-19 emergency, just in slow motion and much graver.”

DENR SECRETARY ROY CIMATU

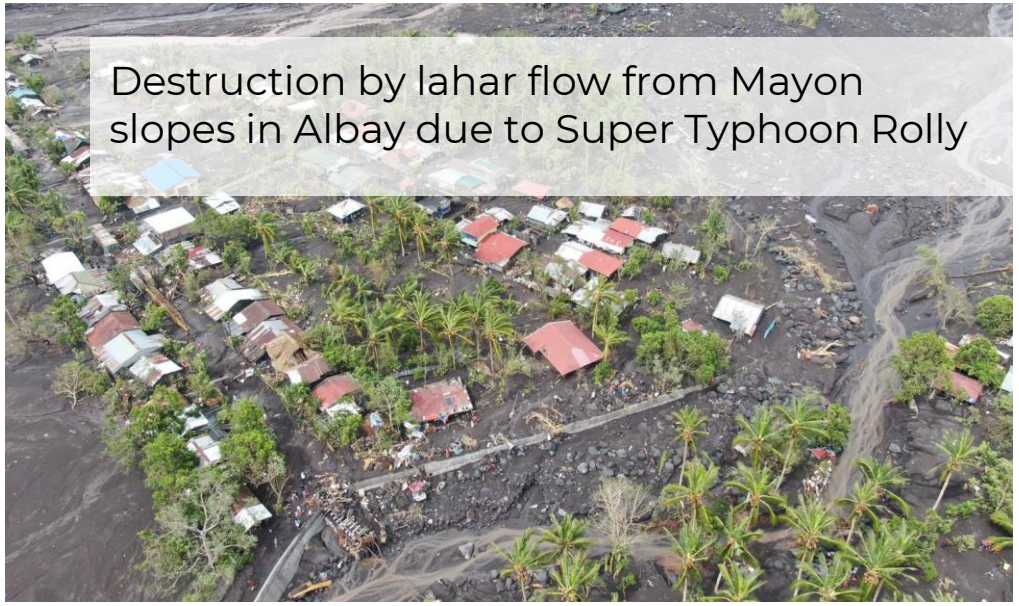
2020 Pre-State of the Nation Address Report of the Cabinet Cluster on CCAM-DRR (July 22, 2020)

“Unlike Covid-19, for which a vaccine will likely be produced soon, there is no quick solution for the climate crisis. We need to act now with the same sense of urgency that we have for the ongoing pandemic.”

DOF SECRETARY CARLOS DOMINGUEZ

4th Ministerial Meeting of the Coalition of Finance Ministers for Climate Action (October 12, 2020)

Flooding in Brgy Maguran, Polangui, Albay due to Super Typhoon Rolly



Destruction by lahar flow from Mayon slopes in Albay due to Super Typhoon Rolly

CHOICE: Delay and Pay or Plan and Prosper

- step up investment in preparedness now
- benefit-to-cost ratios for climate-adaptation investments range from 2:1 to 10:1
- building resilience to climate impacts: $140-300 billion annually by 2030, minimum standards for pandemic preparedness: $3.4 billion per year

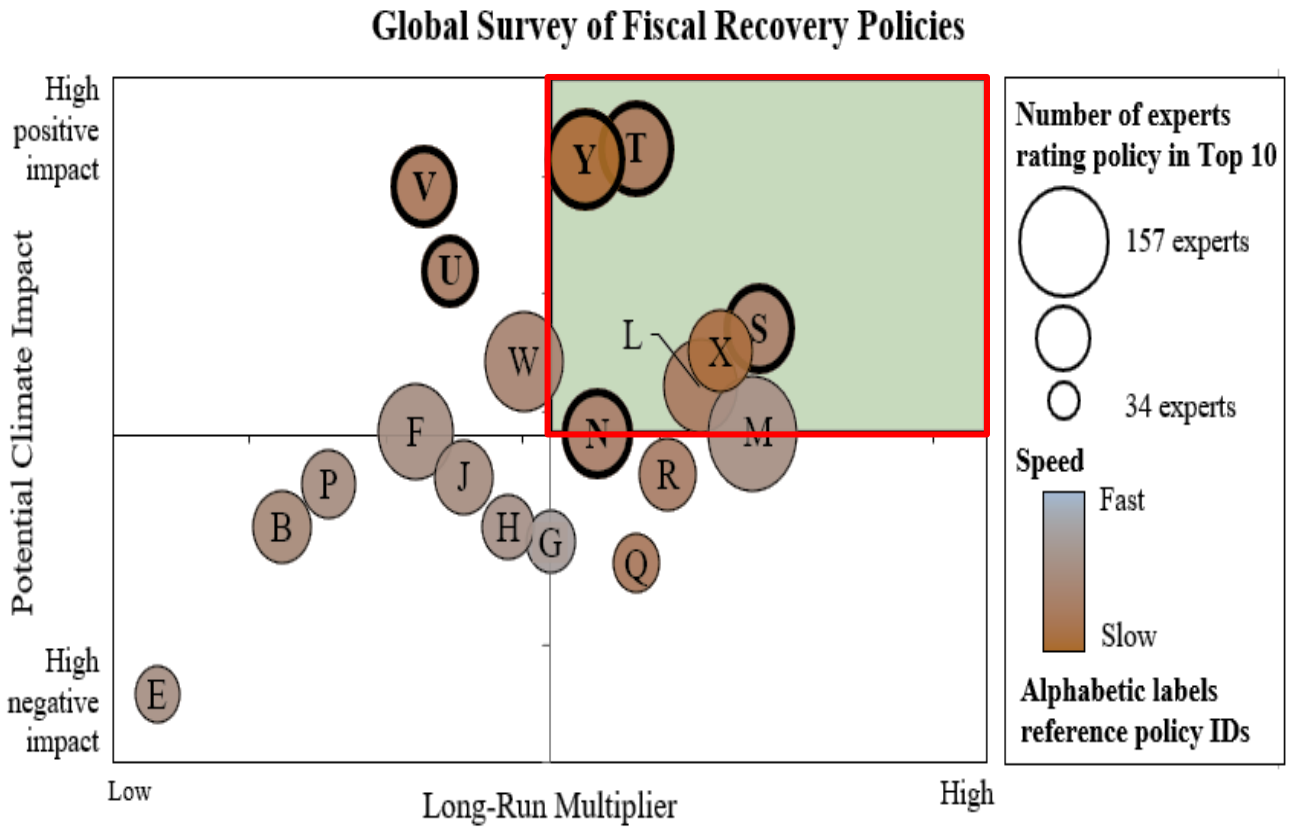
CHOICE: Delay and Pay or Plan and Prosper

- With a 2˚C increase in temperature, damages from climate change could reach $69 trillion by 2100

- Doing nothing could increase the number of people who need international humanitarian aid—currently 108 million—50 percent by 2030

- Total could nearly double, to 200 million people, by 2050

Green Recovery



Results

Survey results suggest a priority set of policies, in the top right-hand quadrant of the figure, that are each perceived to have a high economic multiplier and strong potential to decrease greenhouse gas emissions.

RECOMMENDATIONS

Five policy items well-placed to contribute to achieving economic and climate goals:

1. clean physical infrastructure investment
2. building efficiency spending for renovations and retrofits
3. investment in education and training
4. natural capital investment for ecosystem resilience and regeneration
5. clean Research & Development investment

MEDIUM TERM RECOVERY AND LONG TERM TRANSFORMATION PATHWAY

- longer-term impact on sustainability
- create better systems and structures that can respond to the climate crisis
- support the most vulnerable and promote innovation and clean technologies as the moving force of the economy

MEDIUM TERM RECOVERY AND LONG TERM TRANSFORMATION PATHWAY

- compare policy responses to Covid-19 with the climate change emergency and look for synergistic opportunities

- synergies between emissions reduction and broader well-being objectives, such as reduced air pollution and improved health, increase the incentives for early mitigation action

NATURE-BASED SOLUTIONS

- economic resilience (food and water security)
- reduced physical risks (flood control, coastal protection and ecosystem health)
- reduced carbon emissions (through carbon sequestration and avoided emissions)

39.7 Full-time Equivalent Jobs

created with nature-based solution investments

PRIORITY RESPONSE AND RECOVERY STRATEGIES (IATF)

- Training on health and safety measures for wildlife caretakers and waste collectors/handlers
- Wildlife handling protocols implementation
- Establishment of additional wildlife sanctuaries for rescued wildlife with trained caretakers and proper handling protocols
- Public awareness campaign against encroachment and illegal wildlife trade

PRIORITY RESPONSE AND RECOVERY STRATEGIES (IATF)

- Implement a comprehensive bio-prospecting and biotechnology program to facilitate discovery and development of novel compounds and derivatives for pharmaceutical purposes

- Conduct R&D programs on early detection and rapid response to manage new viruses and other organisms, and its relationship to the environment

PRIORITY RESPONSE AND RECOVERY STRATEGIES (IATF)

- Agroforestry development programs in COVID-19 affected rural communities to support food production and watershed protection

- Biodiversity-friendly and sustainable alternative livelihood programs for local communities to avoid over-extraction of natural resources

PRIORITY RESPONSE AND RECOVERY STRATEGIES (IATF)

- Provide additional budget support for digital technologies or computer applications for forest management (surveying, mapping, and planning), including its knowledge management systems

- [MGB] Upgrading of existing data infrastructure in the NDRRM Operations Center such as GIS, monitoring instruments, forecasting and early warning geolocation technologies, etc.

Low Carbon Development Interventions

Planning of Urban Green Redevelopment/ Regeneration and Sustainable Spaces (Smart Cities)

The “Green, Green, Green” Program aims to make the country's 145 cities more livable and sustainable through the development of public open spaces

Green, Green, Green Program

Public Utility Vehicle Modernization Program

Bus Rapid Transit Projects

Motor Vehicle Inspection System Program

Low Carbon Transport System

LRT-2 East Extension project

LRT-1 Cavite Extension Project

MRT Line 7 project

Low Carbon Transport System

Energy Efficiency Schemes

Low-cost Housing

Support for Retrofits

Low-energy Building

Grid Expansion and Off-grid Rural Electrification

Energy Efficiency Schemes

Solar Lighting

Energy Efficiency Schemes

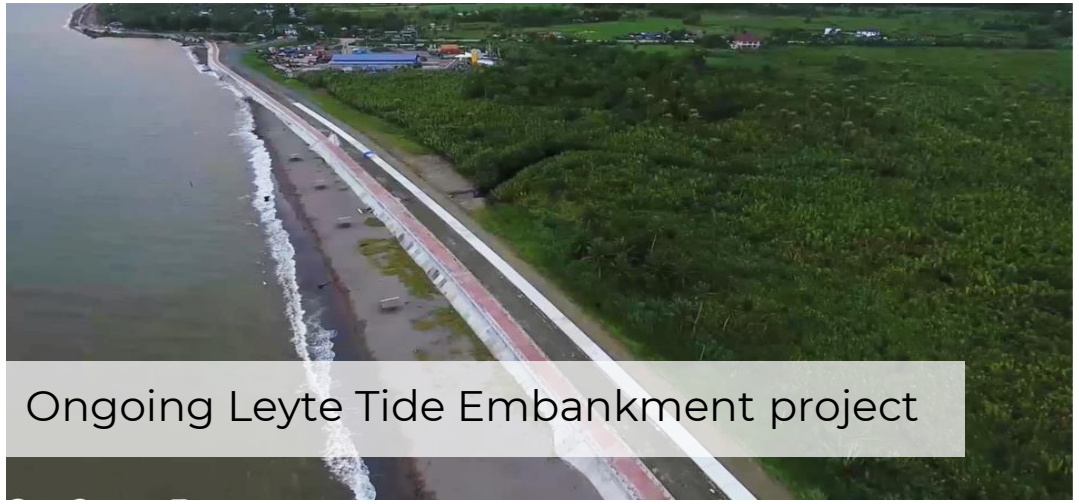
Eco-stove

Biogas

Resilience-Building Recovery Interventions

Ongoing construction of coastal road/seawall/joggers' lane in Legazpi City

Investment in protective infrastructure to strengthen resilience (eg. coastal protection, flood defense)



Ongoing Leyte Tide Embankment project

Rolling out of policy reforms to enhance resilience (e.g. payment for ecosystem service schemes)

Resilience-Building Recovery Interventions

- Reorientation of labor market programs to support resilience-building measures (e.g. water resource conservation, reforestation)
- Transformation of rural food and land-use systems, including shift to a sustainable and resilient production
- Risk-sensitive land-use management

Promoting Circular Economy

- Minimizing resource use by maintaining value in already produced materials and products and recirculating them back into the economy once they become waste

- Creating more sustainable livelihoods while reducing threats to the environment and health

- Action to promote source-to-sea solutions to reduce marine plastic pollution: National Plan of Action on Marine Litter (NPOA-ML)

Strategies of National Plan of Action on Marine Litter (NPOA-ML)

Programmatic Activities

Strategy 1: Establish science- and evidence-based baseline information on marine litter

Strategy 2: Mainstream circular economy (CE) and sustainable consumption and production (SCP) initiatives

Strategy 3: Enhance recovery and recycling coverage and markets

Strategy 4: Prevent leakage from collected or disposed waste

Strategy 5: Reduce sea-based sources of marine litter

Strategy 6: Manage litter that is already existing in the marine/riverine environment

Strategies of National Plan of Action on Marine Litter (NPOA-ML)

Enabling/Support Activities

Strategy 7: Enhance policy support and enforcement for marine litter prevention and management

Strategy 8: Develop and implement a strategic and targeted social marketing and communications campaign using various media

Strategy 9: Enable sufficient and cost-effective financing and other institutional resource requirements for the implementation of the NPOA-ML

Strategy 10: Strengthen LGU capacities and local level implementation of NPOA-ML

Research and Innovation

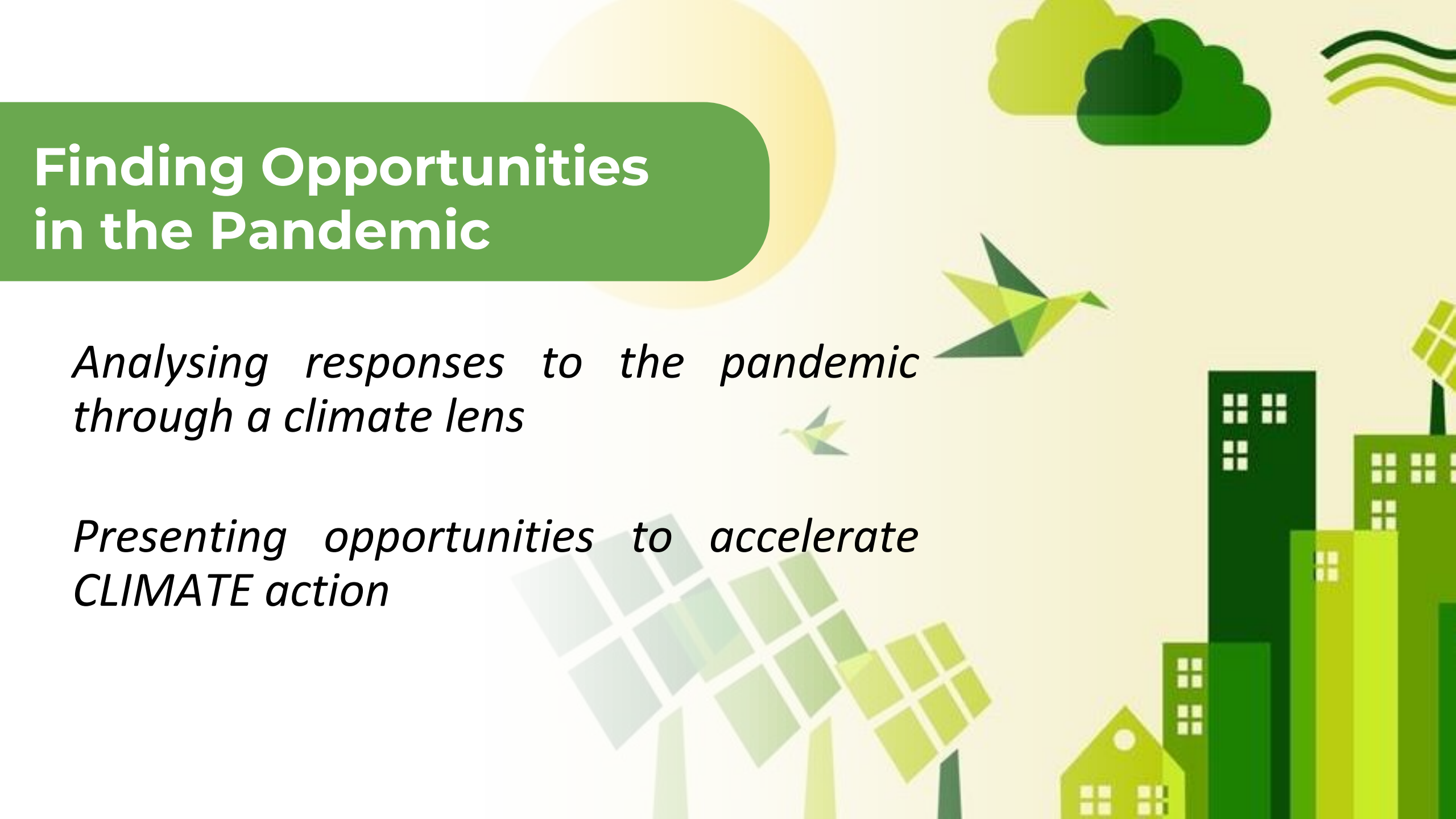
- Research and development (R&D) support can greatly enhance the growth potential of recovery investments.
  - ex. support new energy sources, such as green hydrogen and better batteries

- Pairing technological development and innovation with global cooperation to manage climate risks and improve lives

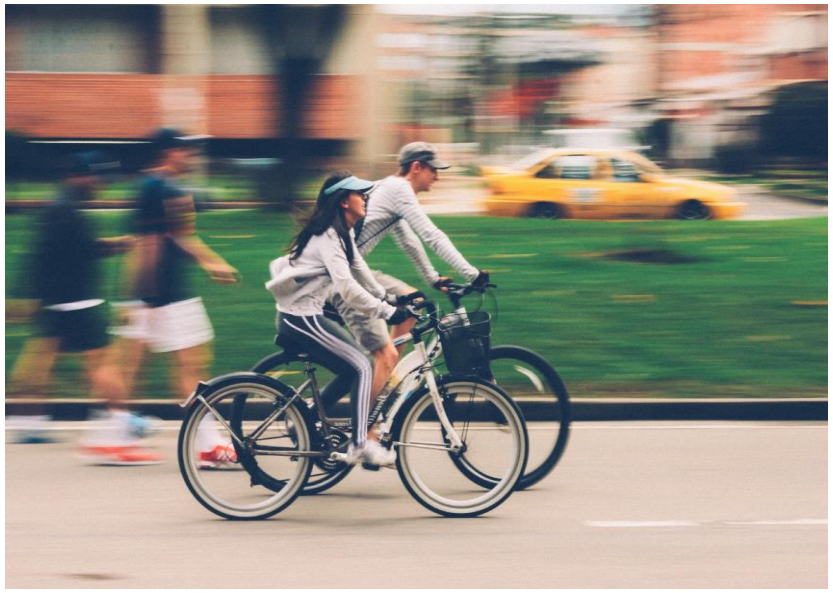
Finding Opportunities in the Pandemic

Analysing responses to the pandemic through a climate lens

Presenting opportunities to accelerate CLIMATE action



Cultural and Behavioral Shift



Plant-rich Diet

Consume more fruits, vegetables, grains, and legumes instead of animal protein and products (beef, chicken, milk) while also being mindful of local food sourcing and nutrition

Reduced Food Waste

Minimize food loss and wastage throughout the food supply chain from harvest to consumption

Composting

Convert biodegradable waste (e.g., food scraps, plant material) into a useful soil fertilizer instead of sending to landfill

Bicycle Infrastructure

Bike to destinations in cities instead of using cars of other motorized transport and building a supportive biking environment

Walkable Cities

Walk to destinations in cities instead of using cars of other motorized transport and building an environment suitable for walking

Ridesharing

Use ridesharing services and/or carpooling to get to destinations rather than personal services

Mass Transit

Choose mass transit options for commuting in cities instead of personal vehicles

Telepresence

Use video conferencing technologies in place of taking commercial flights to business meetings in distant locations

Solar Rooftop

Install small-scale solar systems to provide energy for households

Solar Water

Use solar radiation to pre-heat or heat water for household and building use instead of using fossil fuels

LED Lighting

Replace CFLs, halogen lamps and incandescent lamps with efficient light-emitting diodes (LEDs)

Methane Digester

Use sealed tanks to produce biogas

Tree Intercropping

Deliberately plant trees in the same area as annual crops

Regenerative Agriculture

Adopt at least four of the following six agricultural practices: compost application, cover crops, crop rotation, green manures, no till or reduced tillage, and/or organic production

Nutrient Management

Effectively manage nitrogen fertilizers that are used in agricultural systems

Farmland Irrigation

Improve irrigation systems around the world, using technologies like sprinkler or drip irrigation

Carbon Footprint Reduction Potential of 500 kg to over 1,500 kg per option (per year)

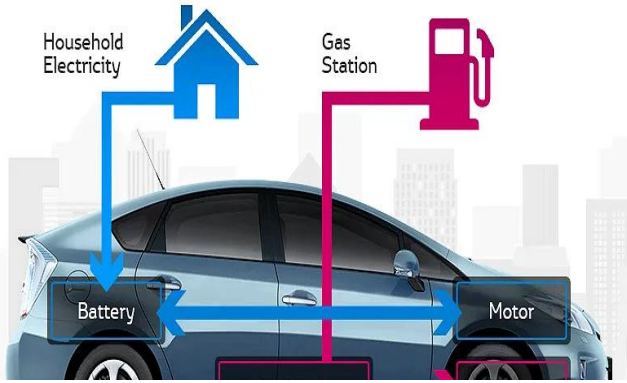
Car-free private travel

Renewable Grid Electricity

Electric cars

Vegetarian Diets

Renewable off-grid Energy



Hybrid Cars

Vehicle Fuel Efficiency Improvement

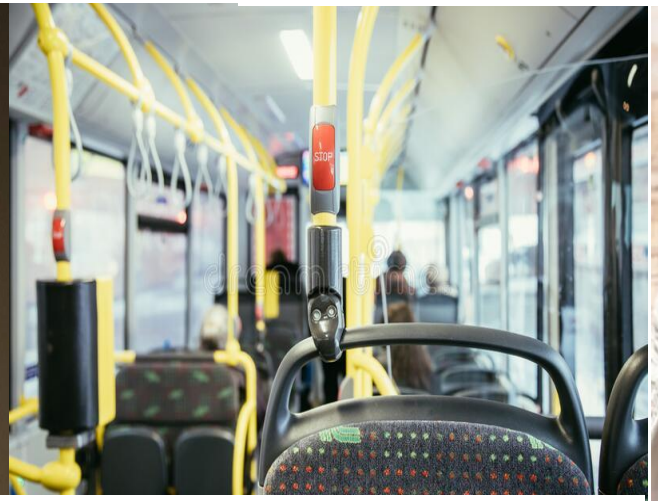
Carbon Footprint Reduction Potential of 250 kg to 500 kg per option (per year)

Ride Sharing

Living closer to workplace

Heat pumps

Smaller Living Spaces



Car-free commuting

Alternative Dairy Products

Low Carbon Protein

Carbon Footprint Reduction Potential of less than 250 kg per option (per year)

Efficiency Improvement of Home Appliance

Telework

Reduction of Food Loss

Efficiency Improvement of Food Production

Saving of Hot Water

Reduction of Flights

The sheer magnitude of change required for a shift towards 1.5-degree lifestyles can only be achieved through a combination of system-wide changes and a groundswell of actions from individuals and households.

Climate crisis has not gone away and our response cannot be put on hold ….

COVID 19 reinforces the urgency of the response


Response
Recovery
Resilience
Towards Transformational Change

Thank You for listening!

Keep Safe.