

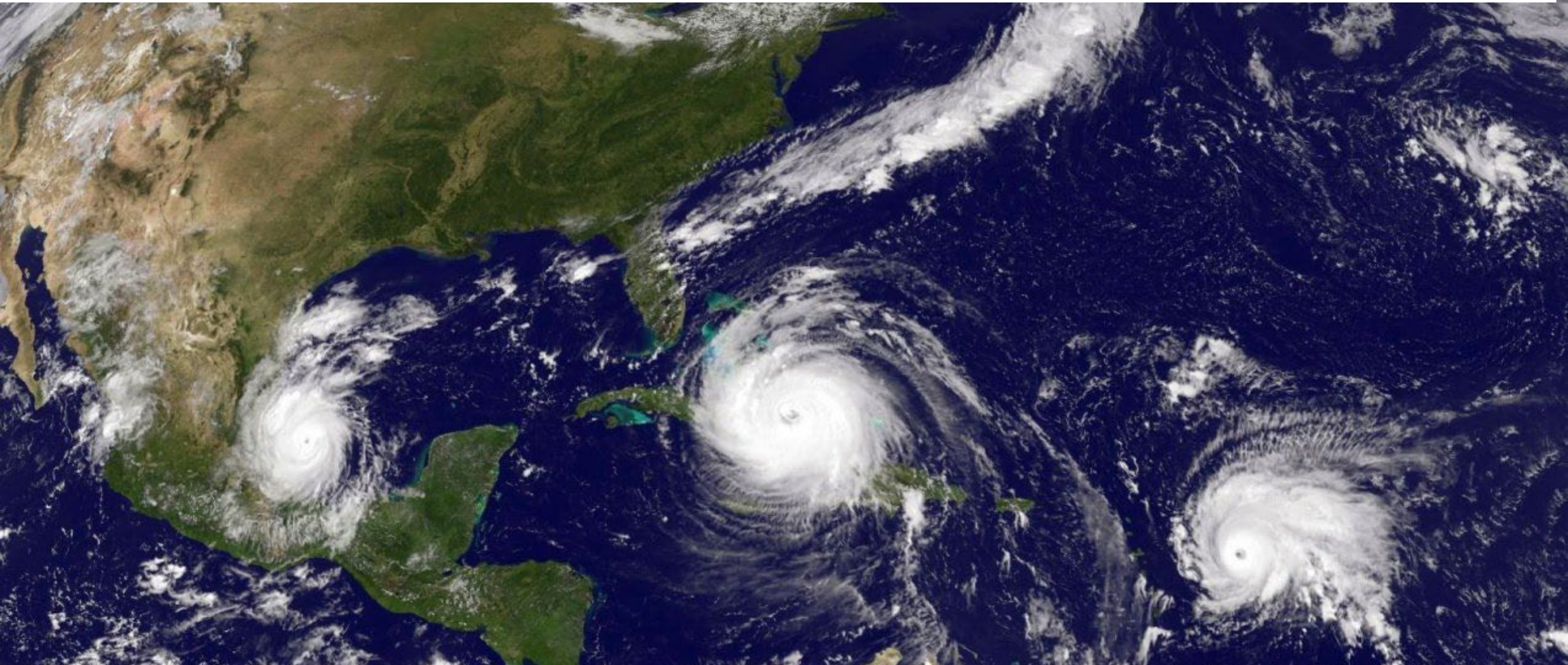
# Disaster risk management during the COVID-19 crisis and recovery

A wide, empty city street with a person walking in the distance, surrounded by modern buildings and trees. The street is marked with white dashed lines and has a central median. The buildings are modern and multi-story, with some featuring balconies. The sky is overcast, and the overall atmosphere is quiet and desolate.

Stephane Hallegatte  
The World Bank

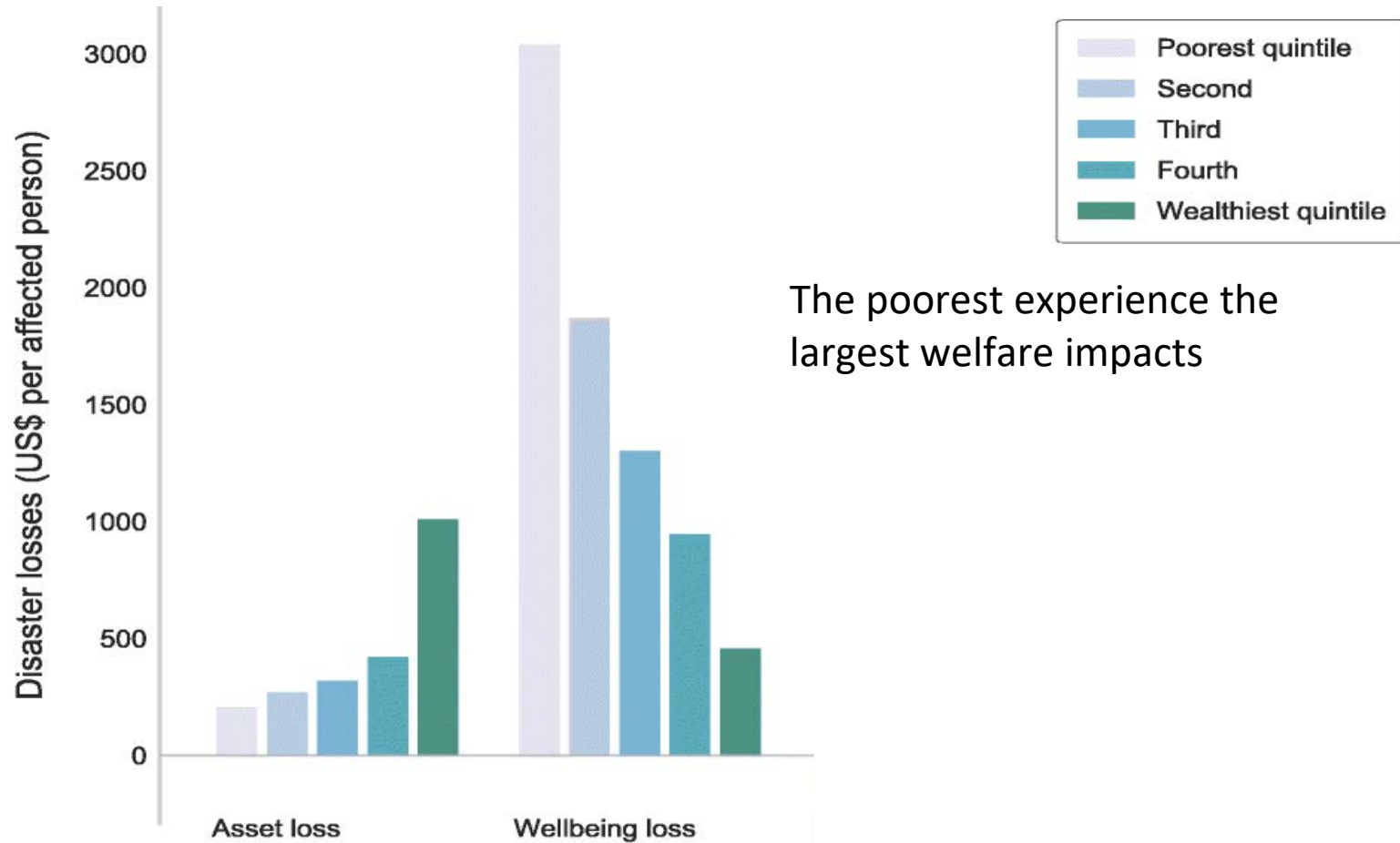


# COVID-19 and other disasters: similarities and differences





# A similarity: Poor people lose little in absolute value, but their wellbeing is the most affected



The poorest experience the largest welfare impacts



Impacts from lockdowns are also very heterogenous, and even more complex to assess

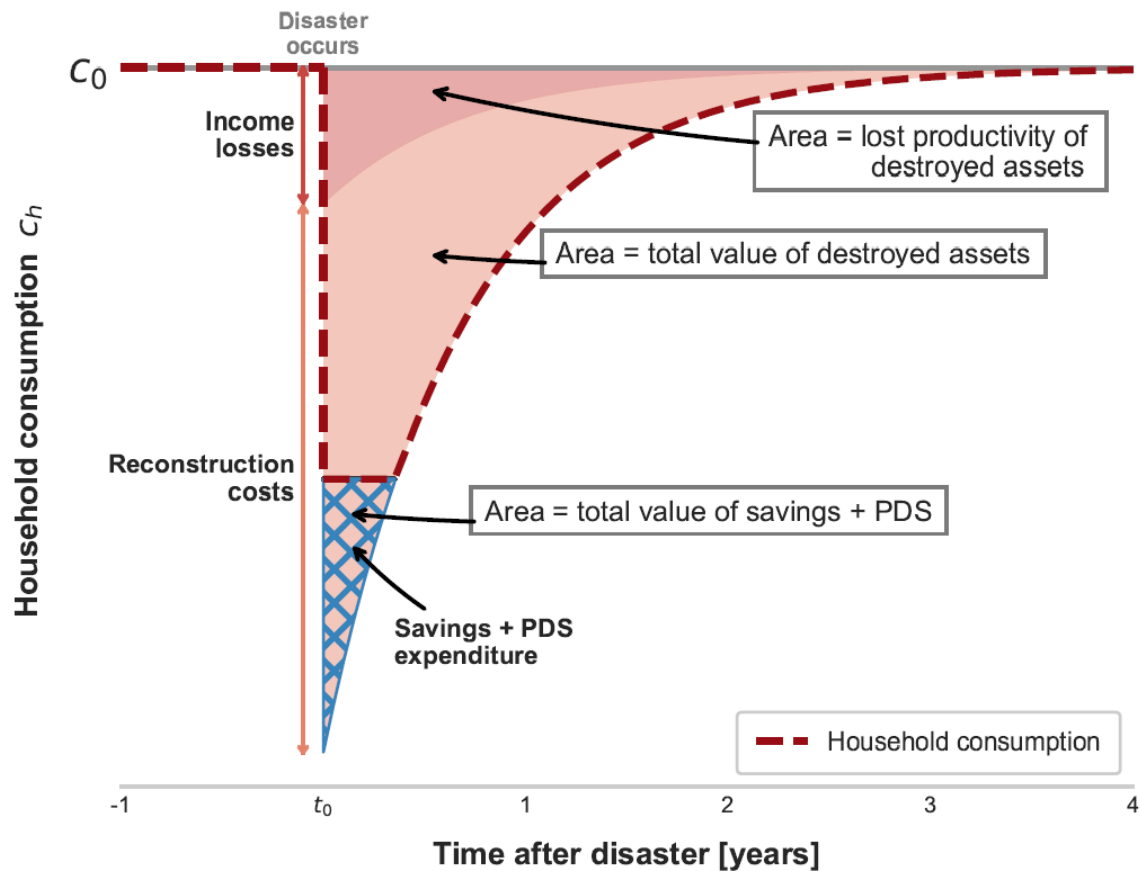
**Another similarity: Beyond the direct effect, propagation through supply chains plays a key role**



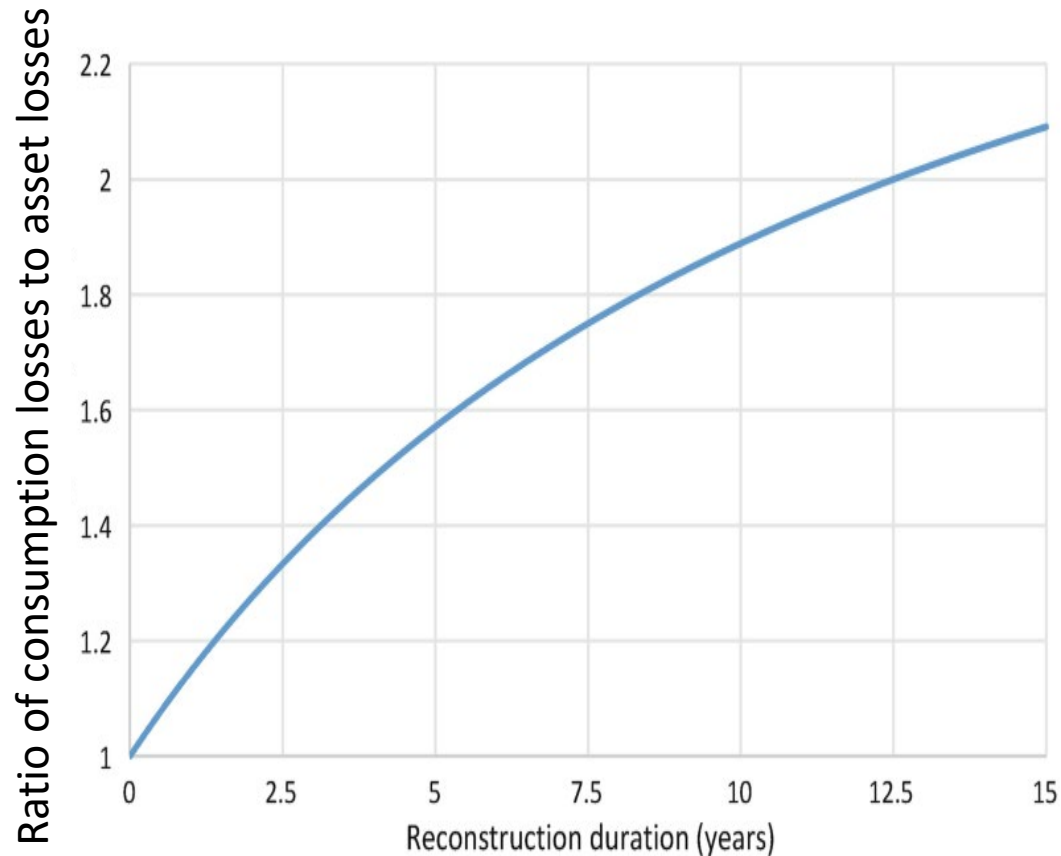


# A difference: for many “traditional” disasters, consumption impacts are more than GDP impacts

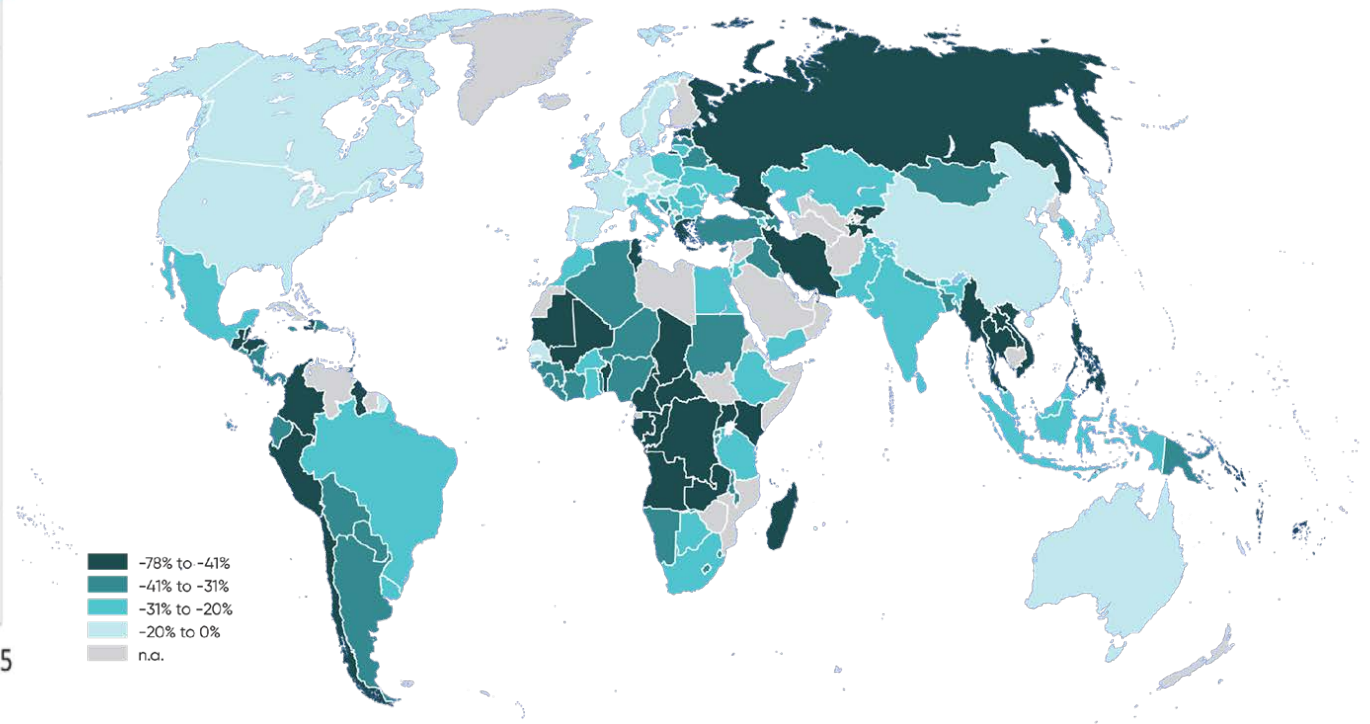
*After most disasters, most of the drop in consumption comes from the need to pay for repair and replacement of lost assets*



# For traditional disasters: fast reconstruction can reduce wellbeing losses; for COVID, strict and short lockdowns preferable



Source: Hallegatte and Vogt-Schilb, 2019, Advances in Spatial and Economic Modeling of Disaster Impacts



A stronger, quicker, and more inclusive reconstruction everywhere would reduce global well-being losses due to disasters by **31%**.



# COVID-19 is more similar to a drought, where both water-use restriction and water scarcity affect people

## COVID-19: Government Stringency Index

This is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.

Our World  
in Data

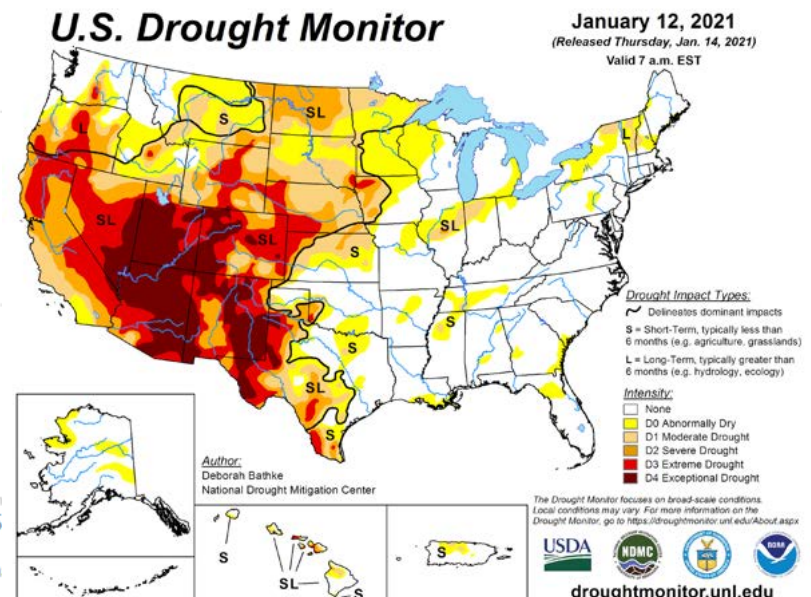
+ Add country



Source: Hale, Webster, Petherick, Phillips, and Kira (2020). Oxford COVID-19 Government Response Tracker - Last updated 18 January, 16:01 (London time)

OurWorldInData.org/coron

Note: This index simply records the number and strictness of government policies, and should not be interpreted as 'scoring' the appropriateness or effectiveness of a country's response.





# What does COVID-19 mean for current vulnerability?





**MORE IN-TENSE EVENTS**

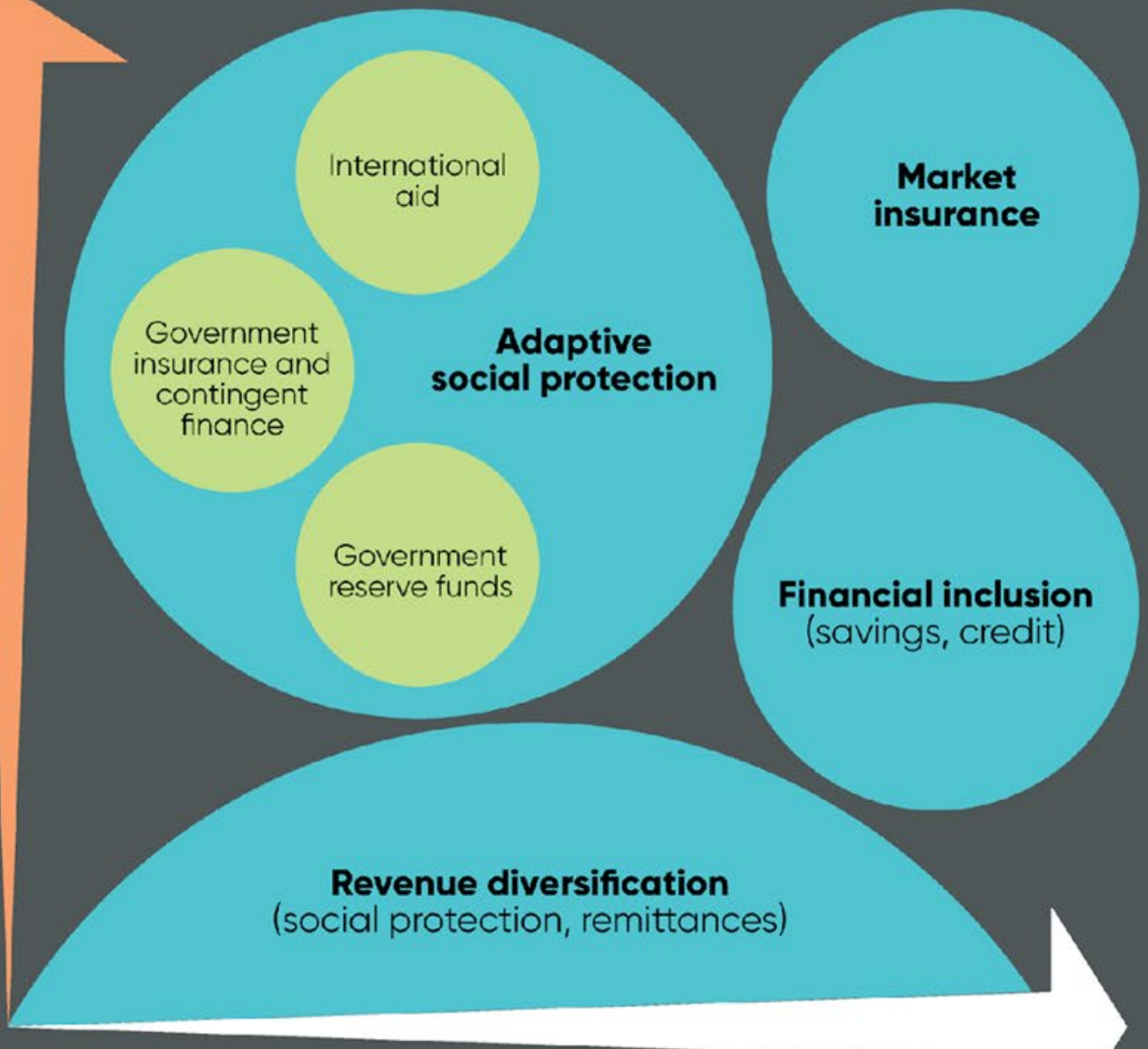


**SMALLER EVENTS**

**POORER HOUSEHOLDS**



**RICHER HOUSEHOLDS**



International aid

**Market insurance**

Government insurance and contingent finance

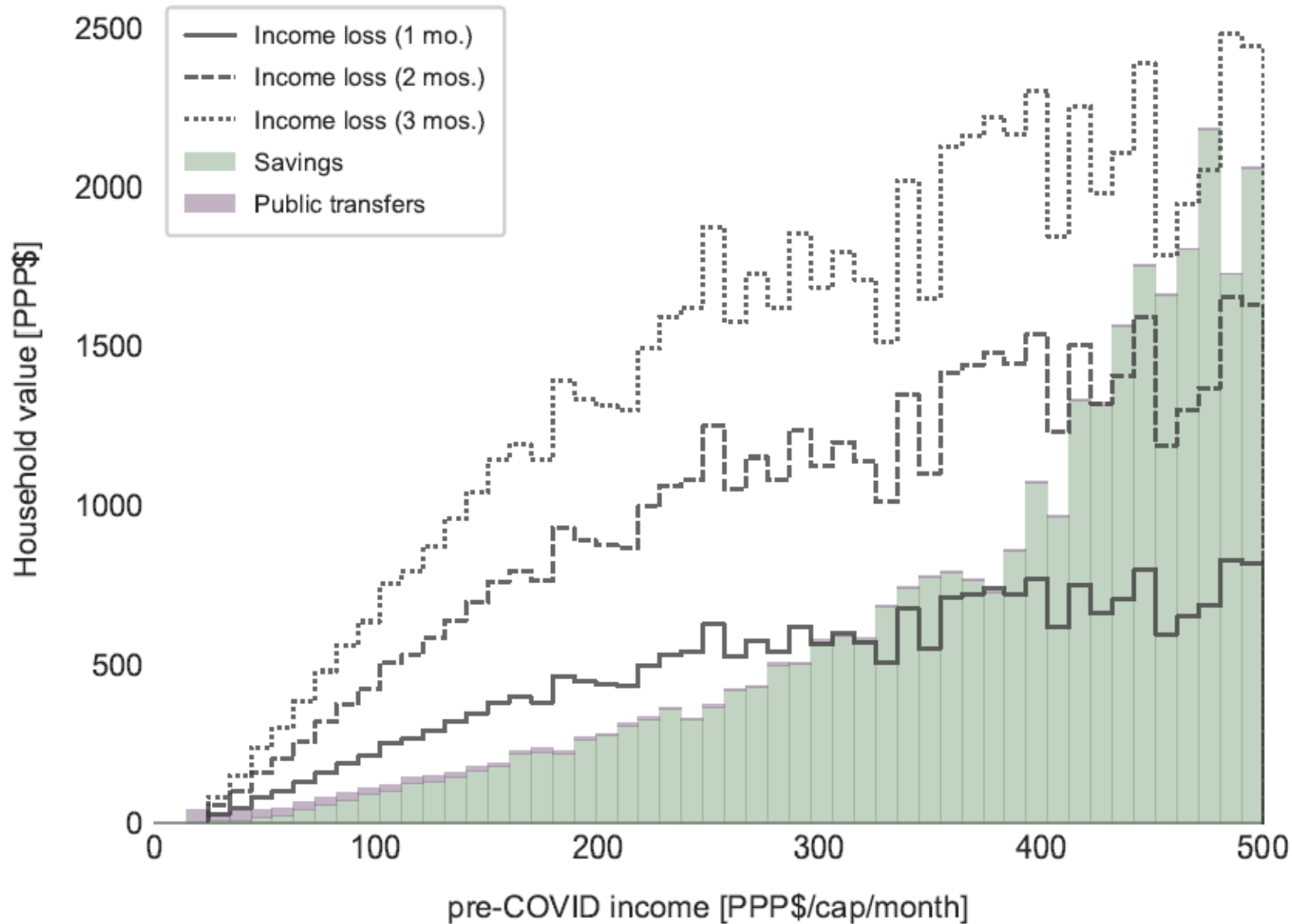
**Adaptive social protection**

Government reserve funds

**Financial inclusion**  
(savings, credit)

**Revenue diversification**  
(social protection, remittances)





## Precautionary savings cannot protect people from consumption poverty

Half of the households (51 million individuals) would exhaust precautionary savings within the first month of the crisis if they tried to maintain pre-COVID consumption levels.

Within 3 months, 63 million individuals will have entirely depleted their savings.



A lush green forest scene with tall, slender trees and dense ferns in the foreground. The lighting is soft and natural, suggesting a misty or overcast day. The text is centered in the middle of the image.

What is the right response in the  
post-COVID recovery?

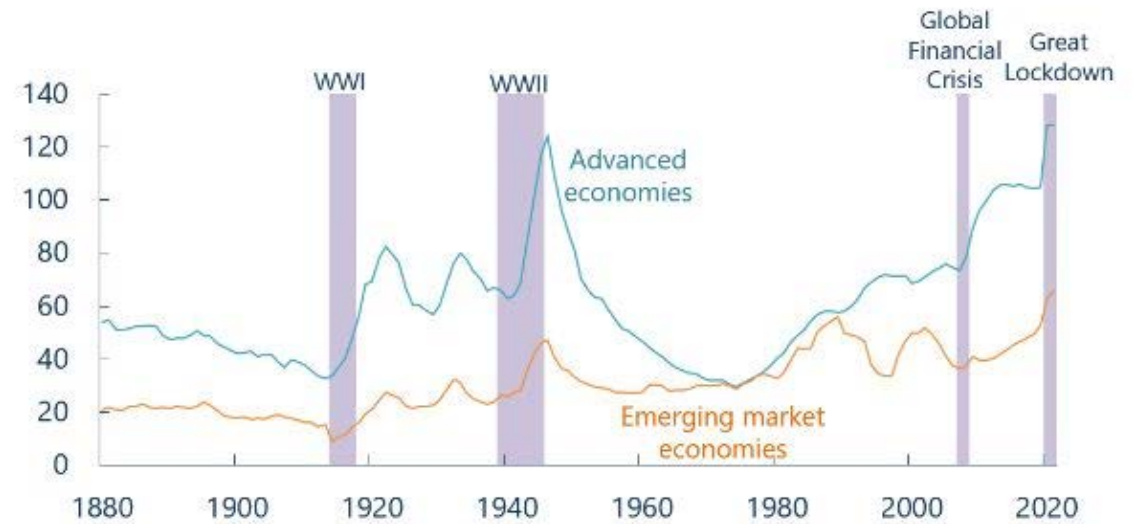


**FIGURE 0.3** Nowcast of the Global Poverty Rate at the US\$1.90-a-Day Poverty Line, 2015–21



## Record debt

Global public debt is expected to exceed the post-World War II peak.  
(global public debt, percent of GDP)

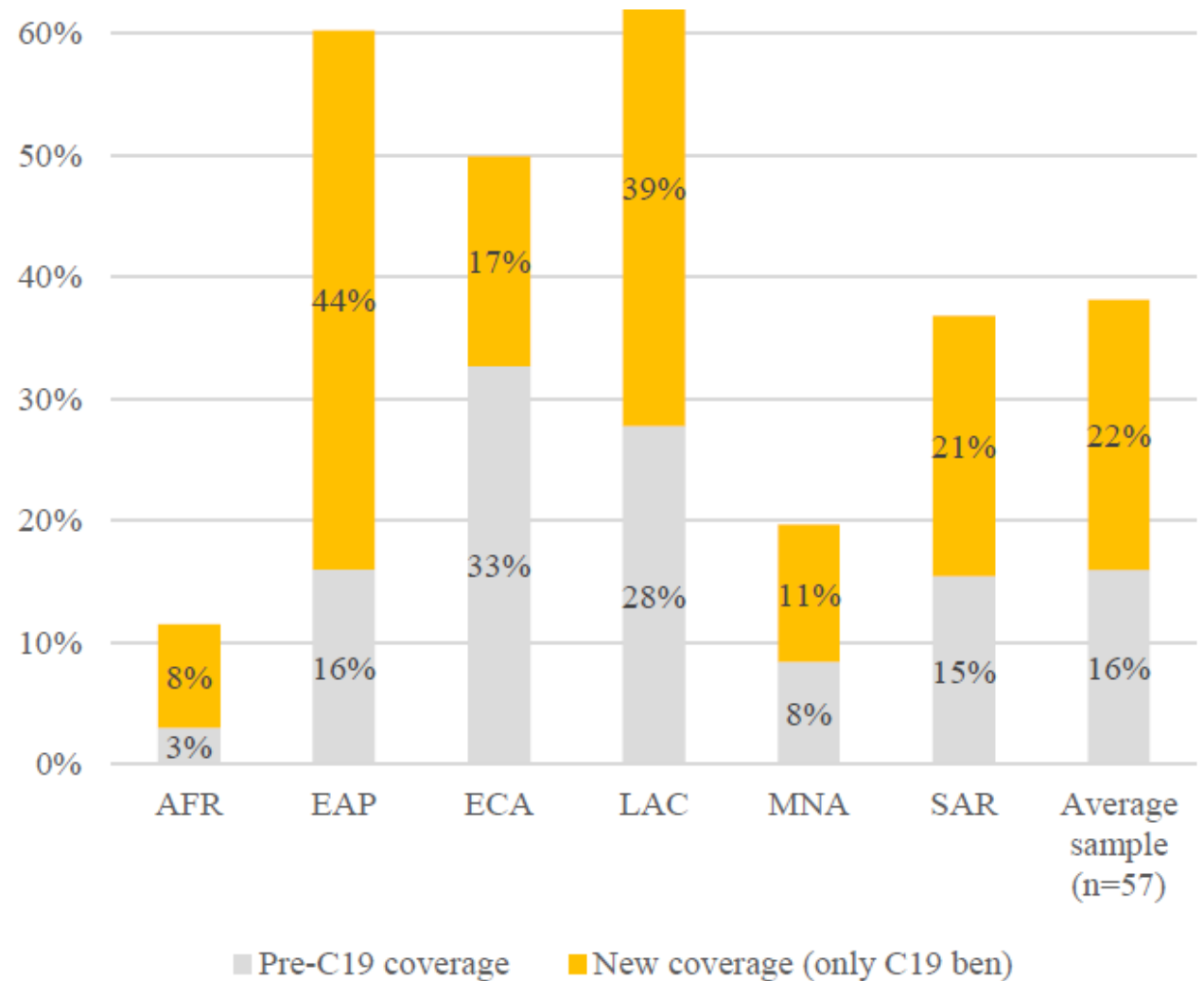


Sources: Historical Public Debt Database; IMF, *World Economic Outlook*; Maddison Database Project; and IMF staff calculations.

# Build on the social protection scale up and make the new systems permanent

Short-term response to COVID-19 economic impacts have led to a **massive increase in the coverage of social protection** across the world.

The strengthening of social protection scalability, if maintained over time, can help make countries **more resilient to future impacts of climate change**.



Source: Gentilini et al. (2020)



# Use recovery spending to capture all sorts of benefits: more growth, more inclusiveness, less pollution, more resilience, etc.

Short- term growth

Long- term growth

Resilience

Decarbonization



**WORLD BANK GROUP**  
Climate Change

## Proposed Sustainability Checklist for Assessing Economic Recovery Interventions April 2020

### SHORT TERM CONSIDERATIONS (6-18 MONTHS)

#### IMPACT ON EMPLOYMENT

- Does the intervention create new jobs over the short term? If yes, how many?
- Do these new jobs make use of skills that already exist in the local population?
- Do these new jobs require similar skills to those of jobs lost in this crisis?
- Are the employment opportunities inclusive, gender-balanced, and available to underemployed and vulnerable populations?

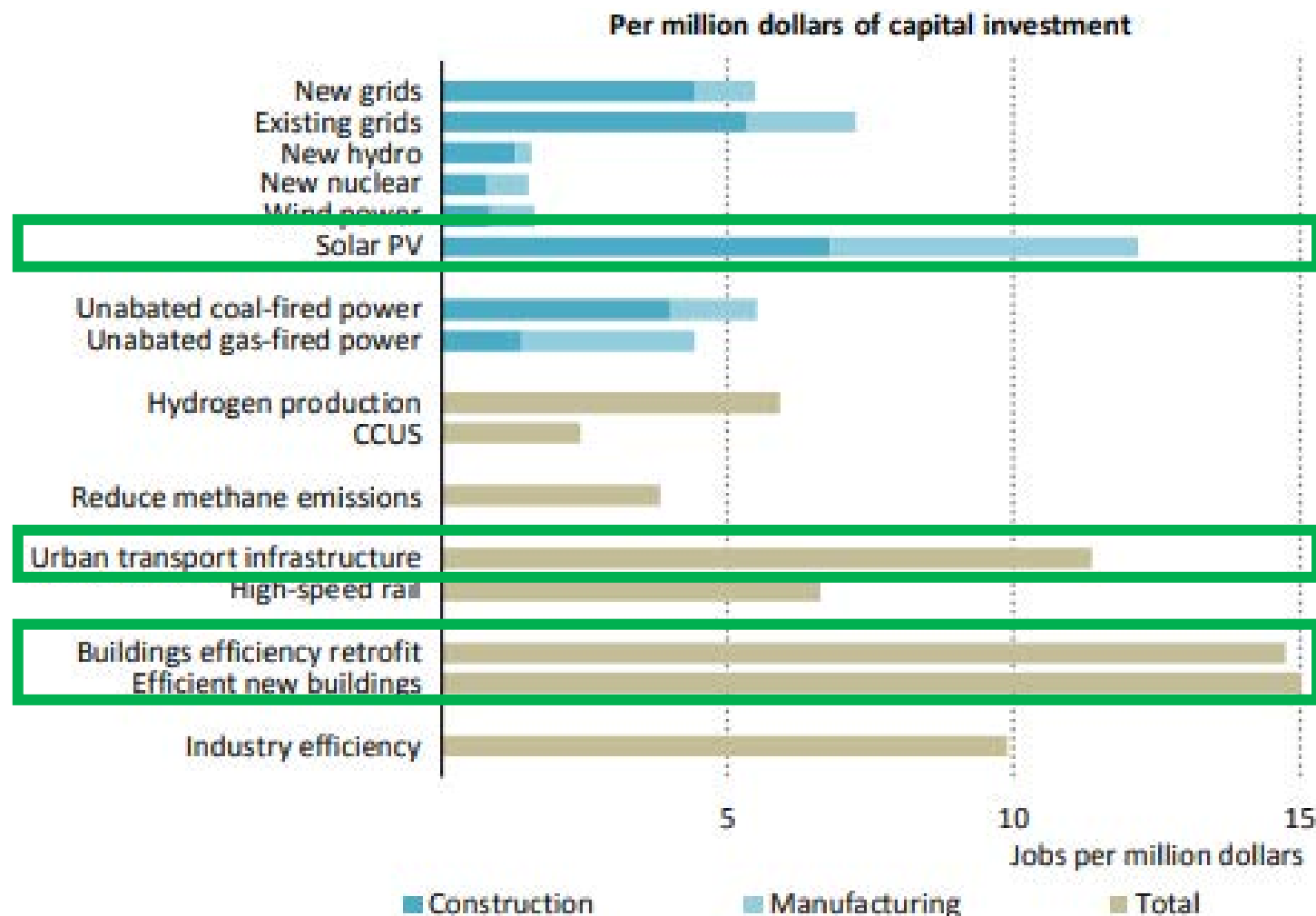
# Select projects and interventions with the large job content

Among the investments that generate **more than 10 jobs per million dollars invested**, one finds many green investments such as

- **Solar PV**
- **Urban transport infrastructure**
- Building energy-efficiency **retrofit or construction**

However, one also has to consider:

- **Skill composition and geographical distribution:** will these jobs be accessible to the unemployed?
- **Timeliness:** are these projects ready to be implemented?
- **Domestic content and financial sustainability:** will these projects increase trade balance issues or create unsustainable maintenance needs?





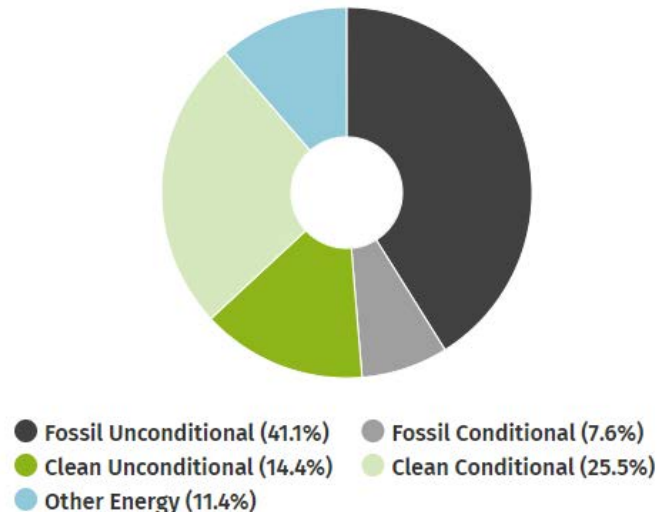
# Invest in a resilient zero-carbon economy

Depending on how they are designed, **recovery and stimulus packages** implemented to mitigate the economic consequences of COVID-19 can either:

- **Entrench fossil fuel and carbon-intensive activities and practices**, and reduce the resources available in the future to finance the transition to a zero-carbon economy
- **Support and facilitate the transition toward a resilient and inclusive zero-carbon economy**, through increased investment in public transit, landscape restoration, building retrofits

So far, stimulus and recovery packages offer a mixed picture, with **less than 40% of resource supporting a green transition.**

Updated: 19 August 2020



Source:

# Investing in resilience is sound, profitable, and urgent

**LIFELINES**  
The Resilient Infrastructure Opportunity



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**\$4**

In net benefit for each \$1 invested in infrastructure resilience

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**\$4.2 trillion**

Net benefit from building new infrastructure to higher resilience standards

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**\$100 billion**

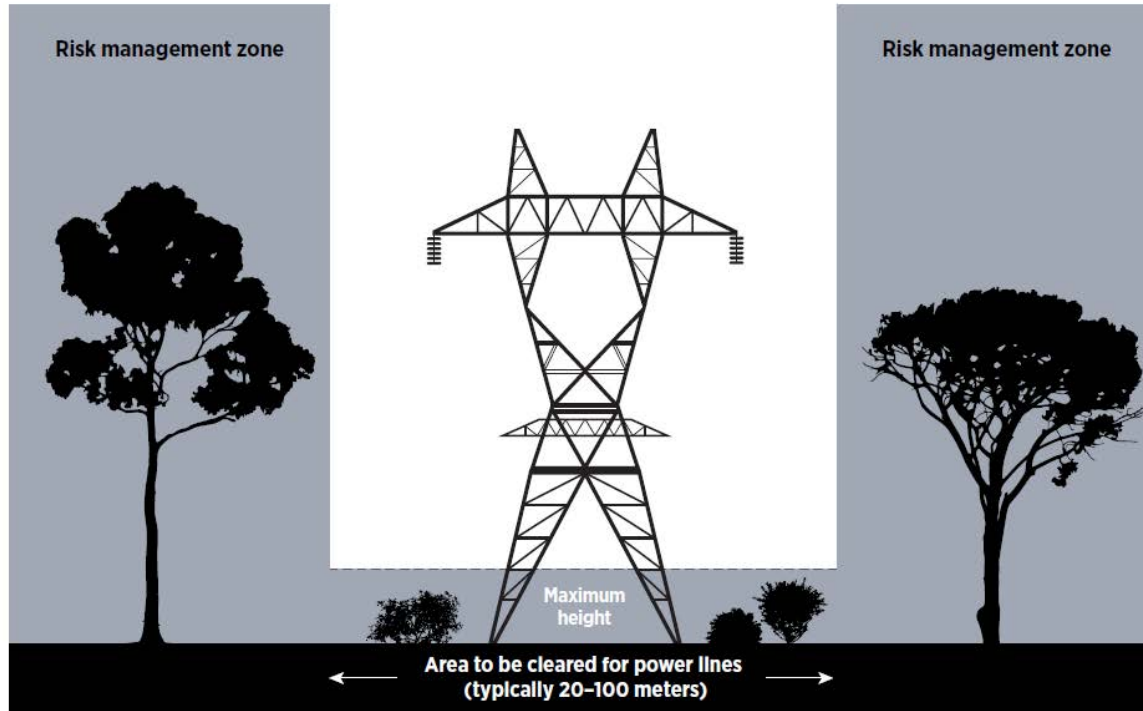
Cost of delaying action by one year



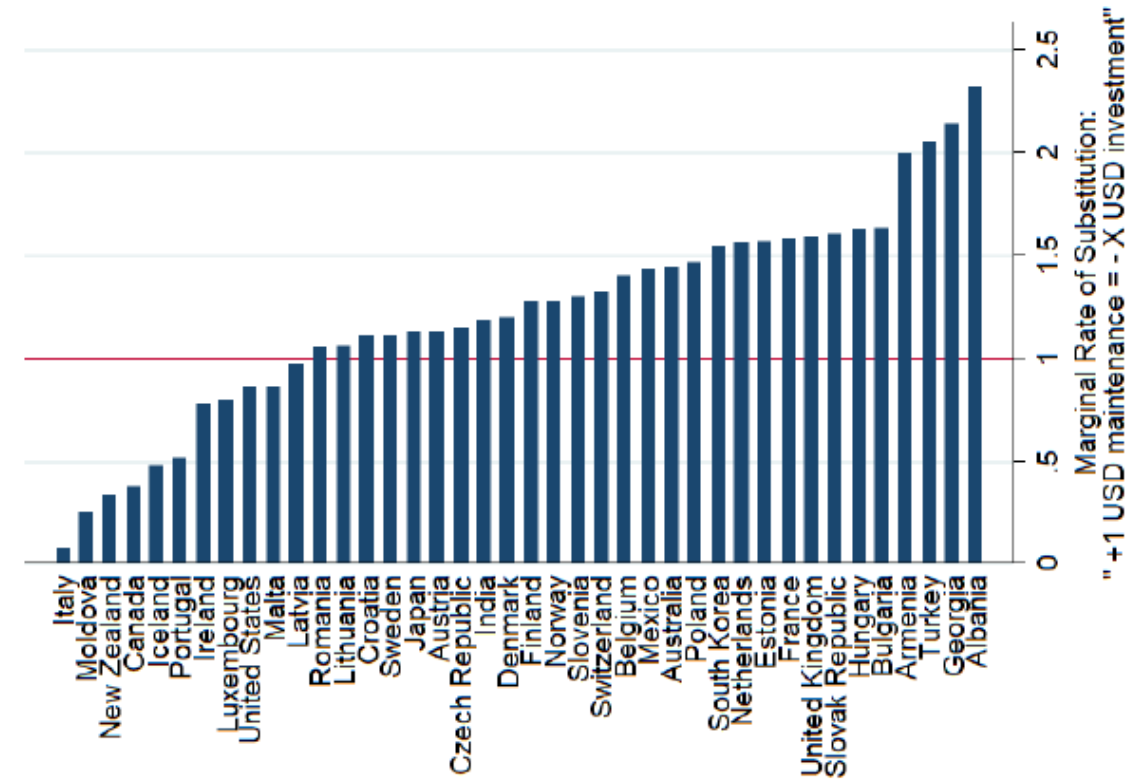


# A major opportunity through maintenance

In the power system



In the transport system

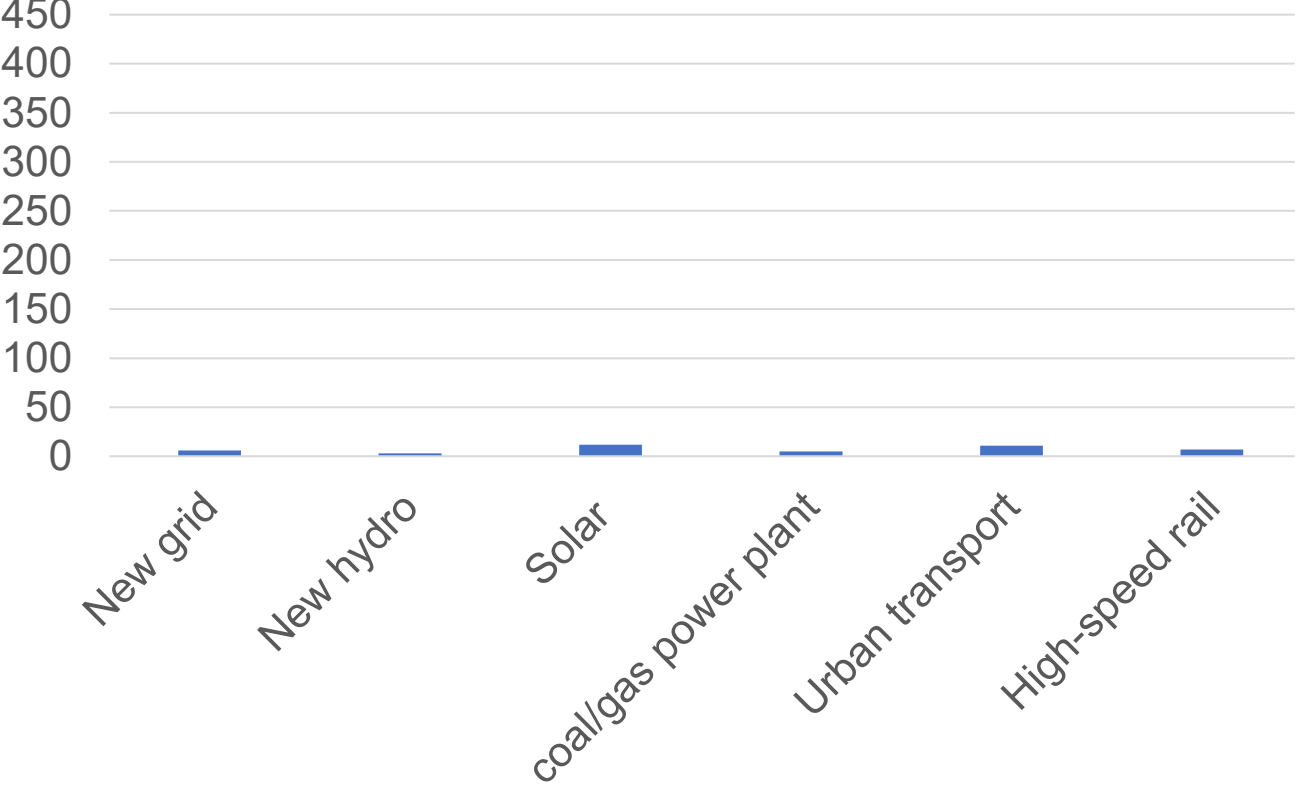


Source: Kornejew, Hallegatte, Rentschler 2019

# Maintenance is very labor intensive, and quicker to do than investing in new assets

Job year per \$1 million in spending

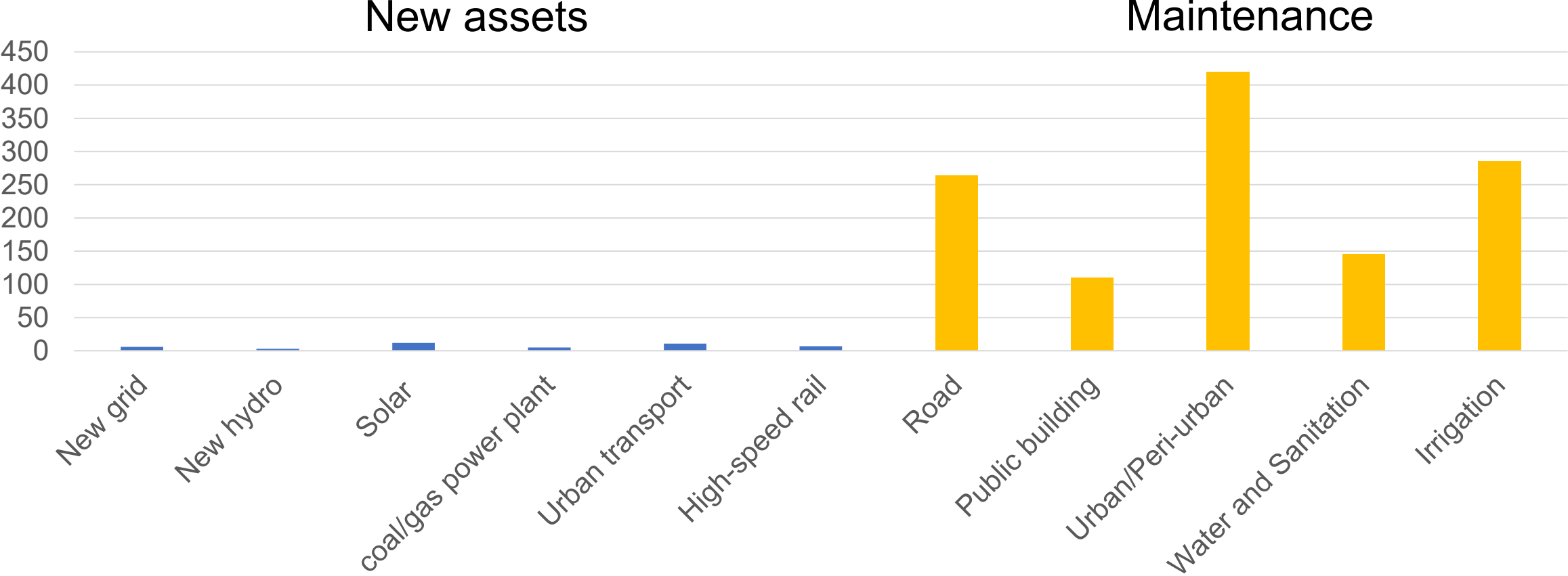
## New assets





# Maintenance is very labor intensive, and quicker to do than investing in new assets

Job year per \$1 million in spending



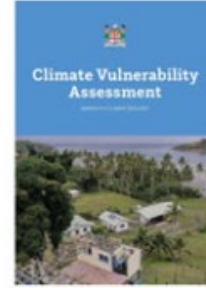
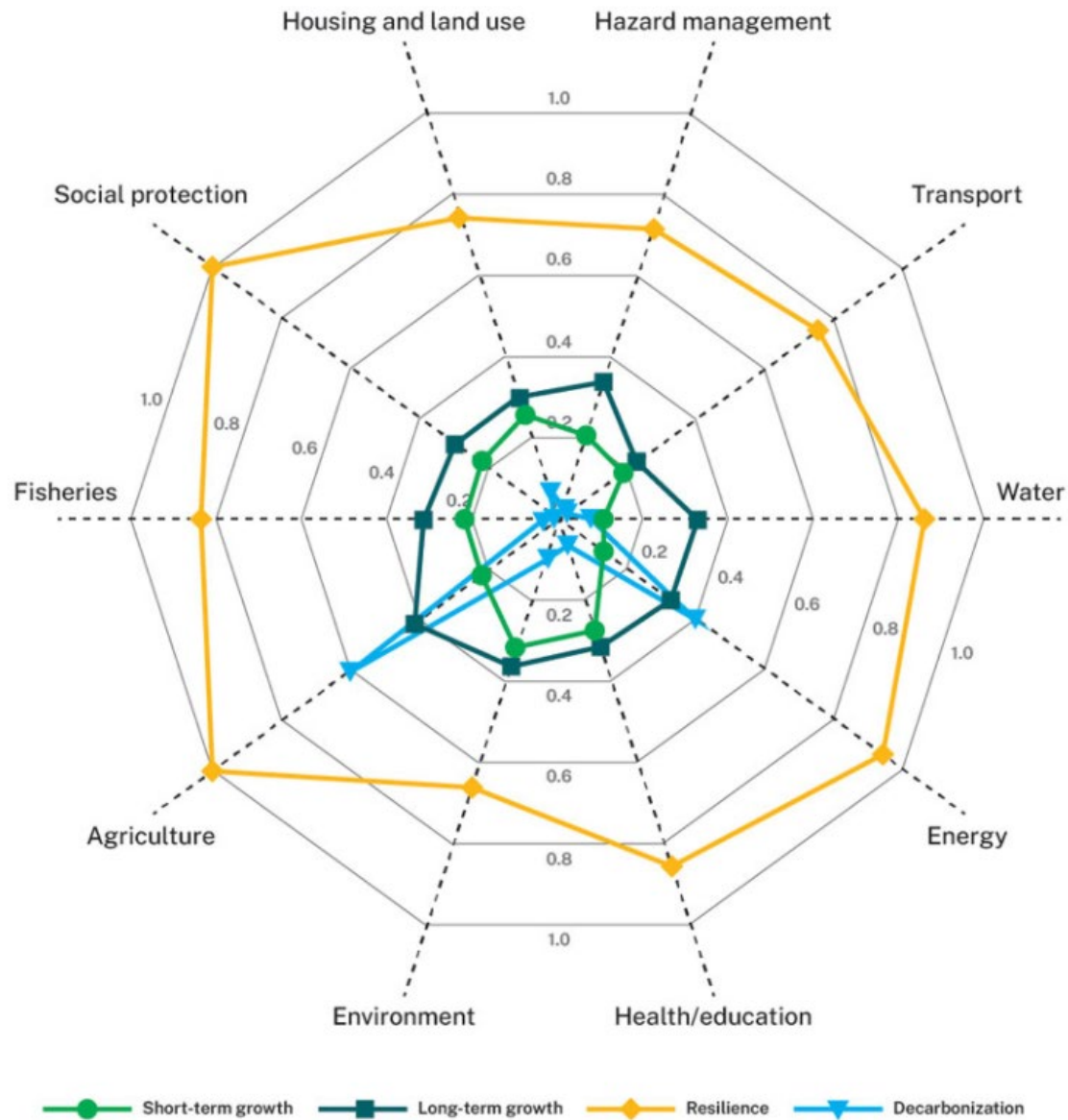


# Climate Vulnerability Assessment

MAKING FIJI CLIMATE RESILIENT







### BUDGET CUT-OFF ANALYSIS

[score weight: short-term (1), long-term (0.5), resilience (0.5), decarbonization (0.5)]

INTERVENTION TITLE	CATEGORY	COST (F\$M)	ST	LT	R	D
Improving resilience of rural mini-grids and solar home systems.	Energy	4	■	■	■	■
Sustainable agricultural practices.	Agriculture	2	■	■	■	■
Housing micro-finance (5-year loans) to retrofit existing houses and construct new houses to approved designs and standards.	Housing and Land Use	2	■	■	■	■
Community level investments for improved ecosystem resilience – Phase I.	Environment	30	■	■	■	■
Diversification of renewable energy generation.	Energy	30	■	■	■	■
Expansion of underground distribution lines.	Energy	90	■	■	■	■
Progressive structural upgrades of all remaining schools and health facilities not affected by TC Winston - Phase I.	Health/ Education	60*	■	■	■	■
Expansion of solar generation.	Energy	79.2	■	■	■	■
Promotion of alternative income-sources not dependent on fisheries.	Social Protection	10	■	■	■	■
Reduction of physical water losses.	Water	50	■	■	■	■

■ TOP 10%, ■ MIDDLE (10%-90%), ■ BOTTOM 10%, ■ DECARBONIZATION INTERVENTIONS WITH 0%  
 ST = short term, LT = long term, R = resilience, D = decarbonization, \* represents 20% of total intervention costs

More information?

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