



The next frontier: Human development and the Anthropocene

#HDR2020

Lessons learned from the Human Development Report 2020



01 Renewing human development for the Anthropocene

Heriberto Tapia

02 Anthropocene risks and human development

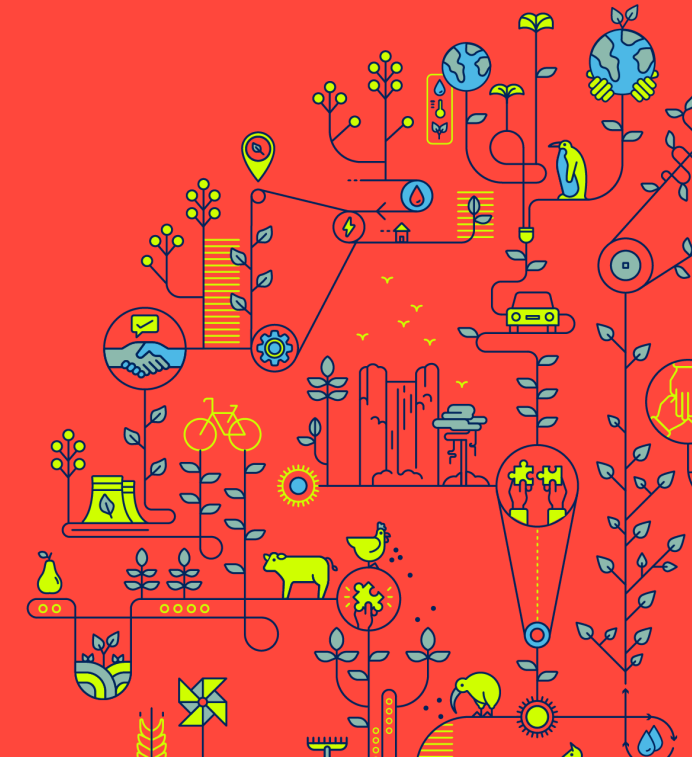
Heriberto Tapia

03 Acting for change

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04 Nature-based Solutions and Household Well- Being: Evidence from LAC

Almudena Fernandez



1990: Human Development Index (HDI) is born

“People are the real wealth of nations” (Human Development Report 1990)

But how to measure development? Can be find a single number?

Amartya Sen: “you must see how vulgar this imagined *single number* must be in terms of trying to represent simultaneously so many distinct features of life!”

Mahbub ul Haq: “People will pay tribute to the excellence of your multiple components, but when it comes to ready use, they will abandon your complicated world and choose the single GDP number instead”.

HDI (composite index): measures income, education and health
+ comprehensive tables/dashboards



Area	
• Total	11,581 km ² (4,471 sq mi) (158th)
• Water (%)	0.8
Population	
• 2020 estimate	2,795,484 ^[4] (139th)
• 2010 census	1,699,435 ^[5]
• Density	176/km ² (455.8/sq mi) (76th)
GDP (PPP)	2020 estimate
• Total	\$357.338 billion ^[6] (51st)
• Per capita	\$138,910 ^[6] (1st)
GDP (nominal)	2018 estimate
• Total	\$183.807 billion ^[6] (56th)
• Per capita	\$66,202 ^[6] (6th)
Gini (2007)	41.1 ^[7] medium
HDI (2019)	— 0.848 ^[8] very high · 45th
Currency	Qatari riyal (QAR)
Time zone	UTC+3 (AST)
Driving side	right ^[9]
Calling code	+974
ISO 3166 code	QA
Internet TLD	.qa قطر

HDI:
0.848
Rank #45

Enter The Anthropocene, the Age of Humans

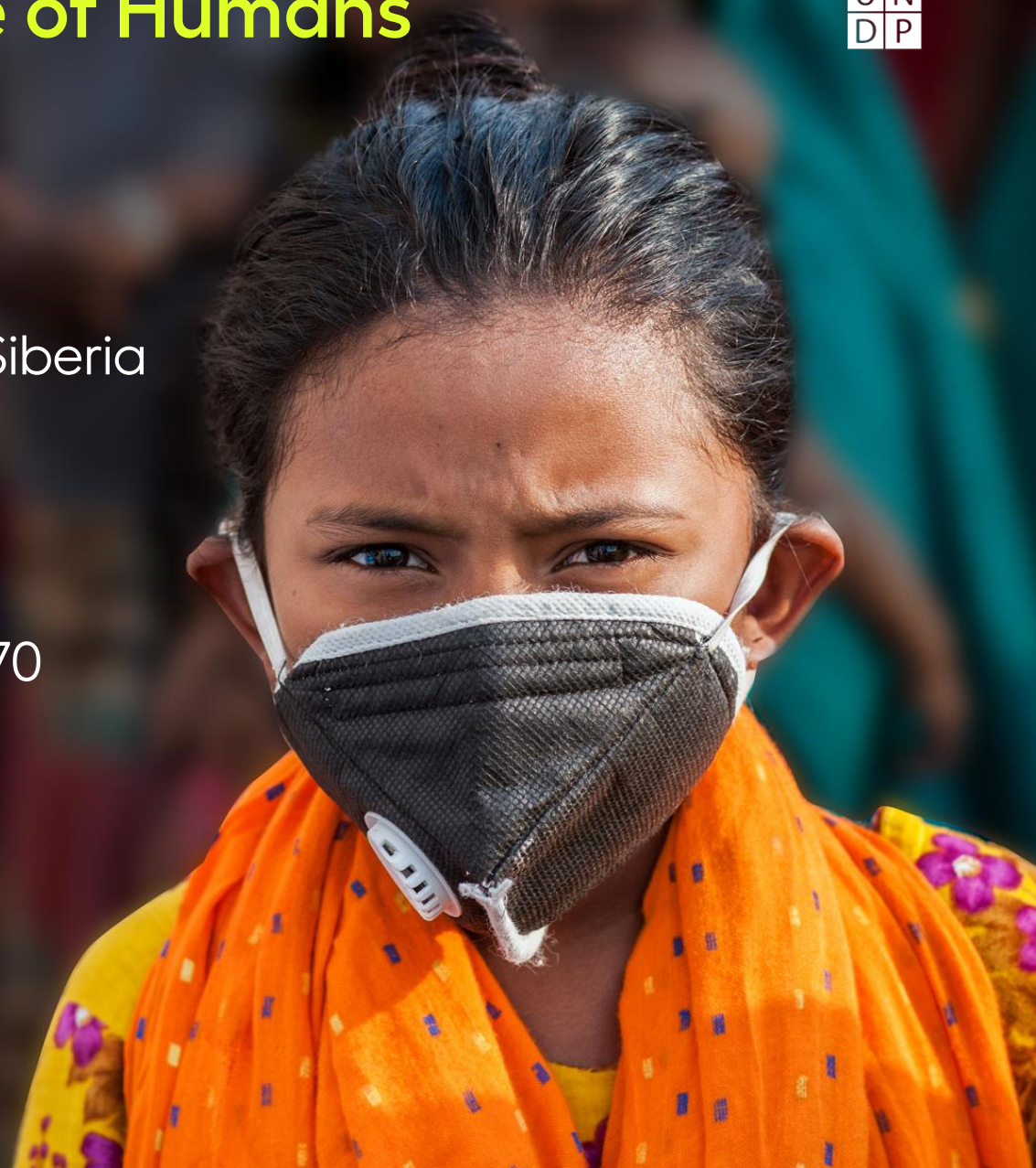
In 2020:

Enormous wildfires in Australia, USA, Brazil and Siberia

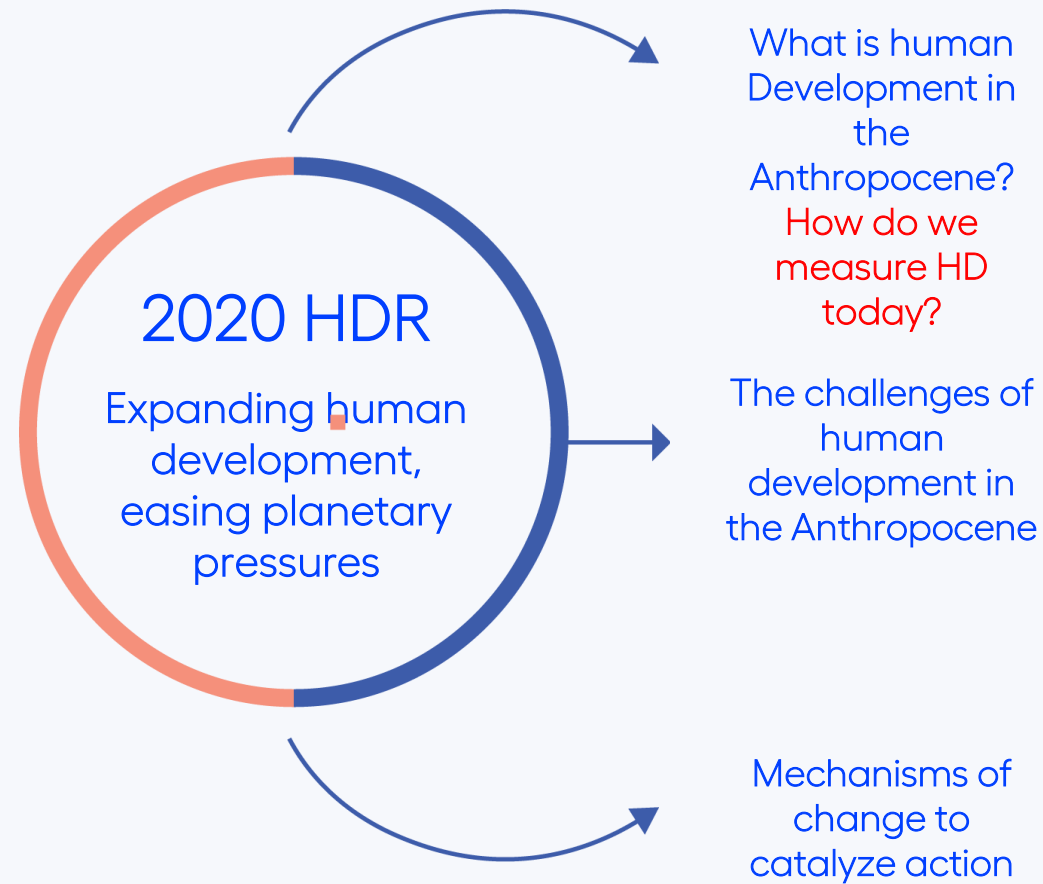
Hurricanes in the Atlantic break records

Global wildlife has declined almost 70% since 1970

COVID-19 global pandemic



The 30th Anniversary Report



The 30th Anniversary Report: Human Development and the Anthropocene

Not another sustainability report. It goes beyond needs, beyond sustaining, beyond summarizing well known policy options.

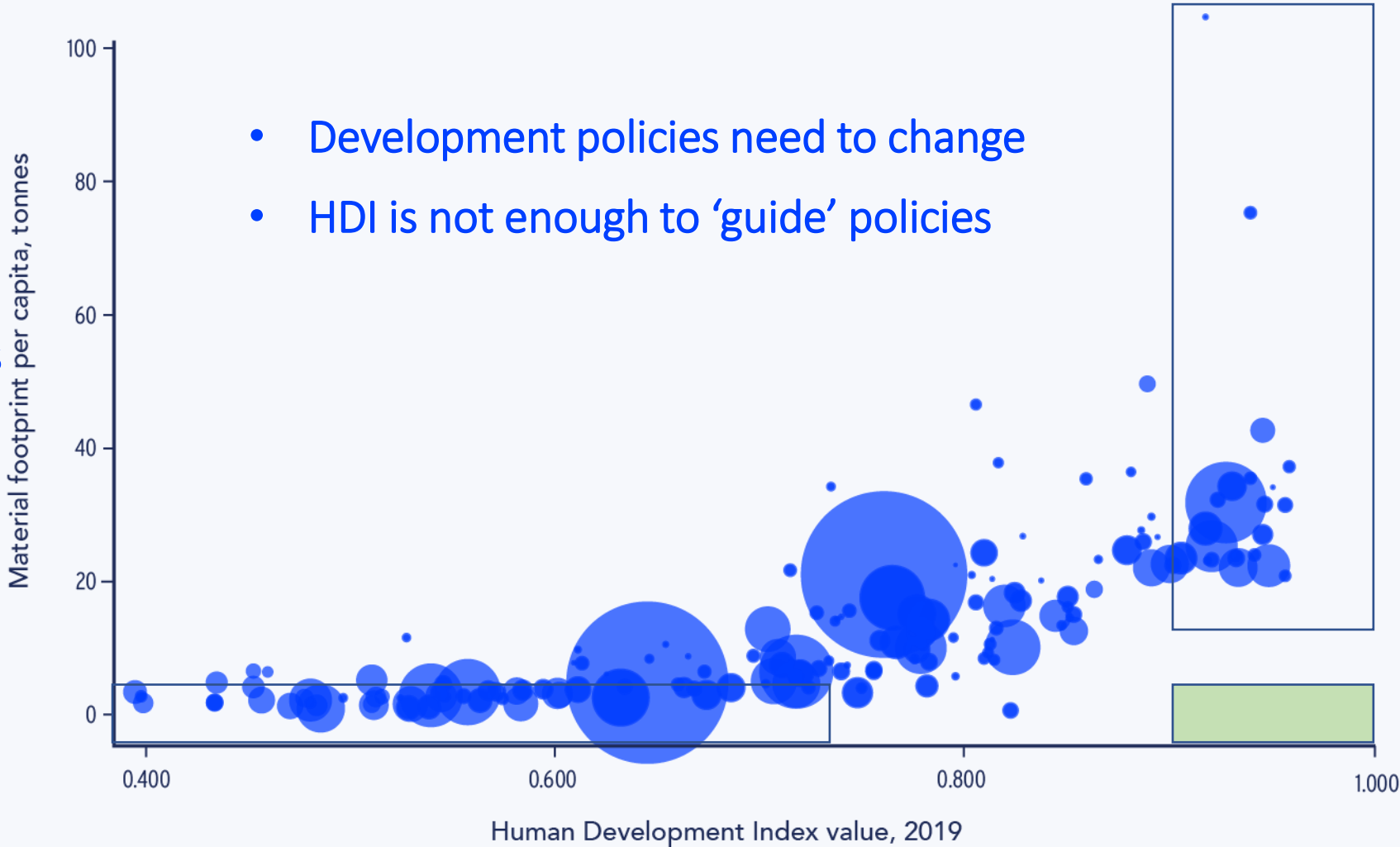
Refreshes human development for a new geologic epoch. Focuses on how we can expand human development while easing planetary pressures.

Moves thinking from solving discrete problems to navigating complex, interconnected social and ecological systems.



Problem: High human development means high resource use

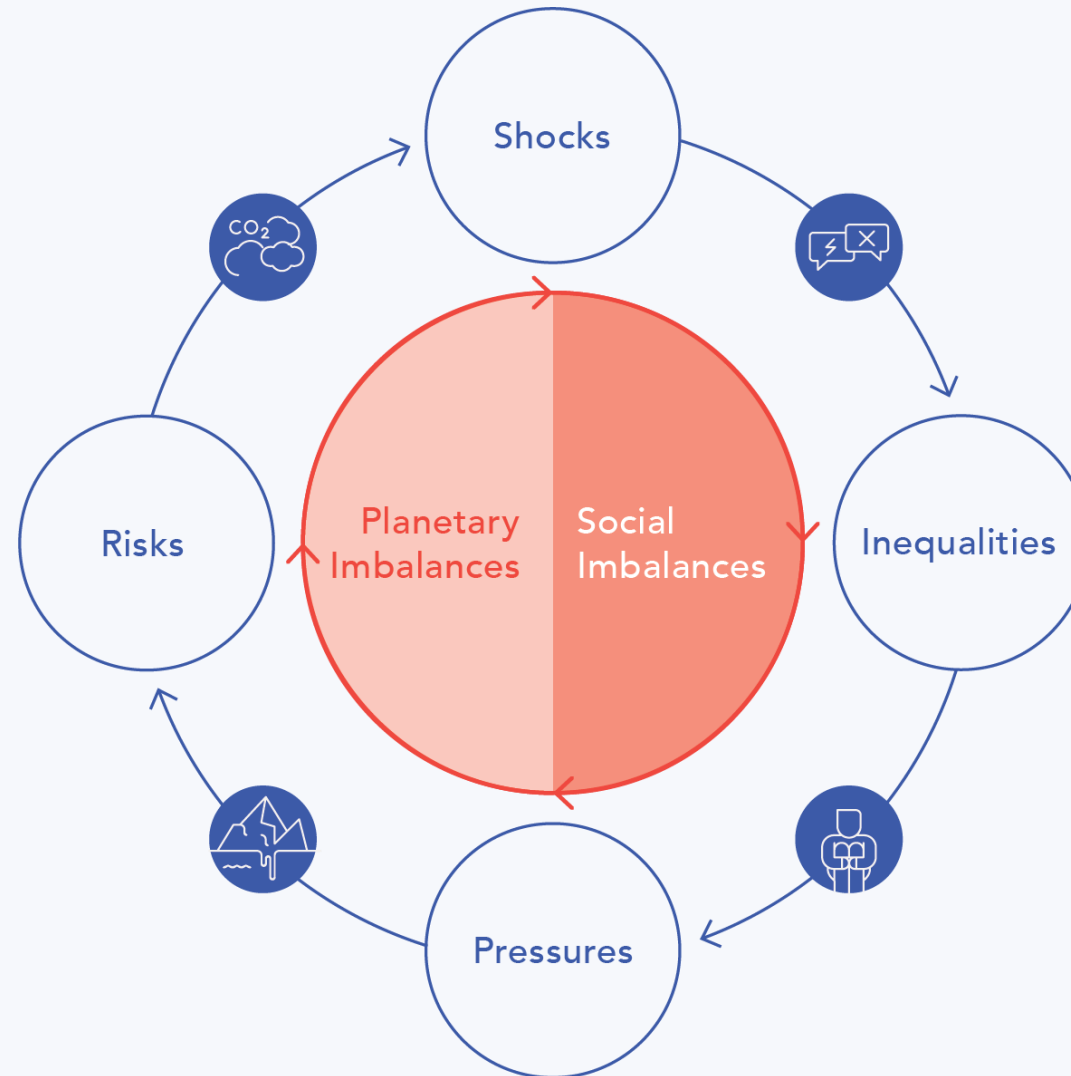
Where human development paths landed: high HDI goes with high pressure on the planet



Empty box: high HD, low planetary pressures

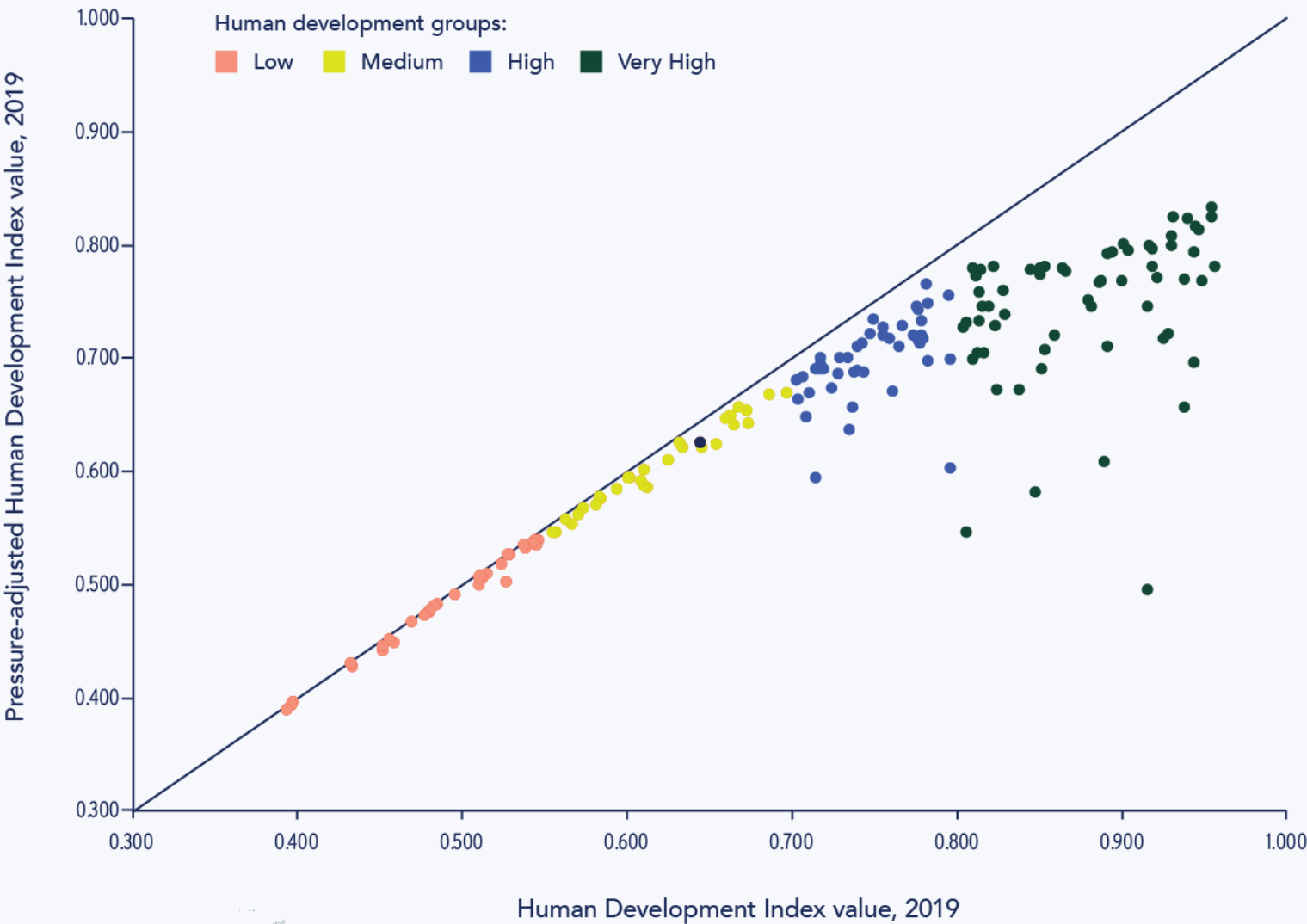
Inequality and Planetary Pressure A Vicious Circle

Planetary and social imbalances reinforce each other



A new era needs new measures: the PHDI

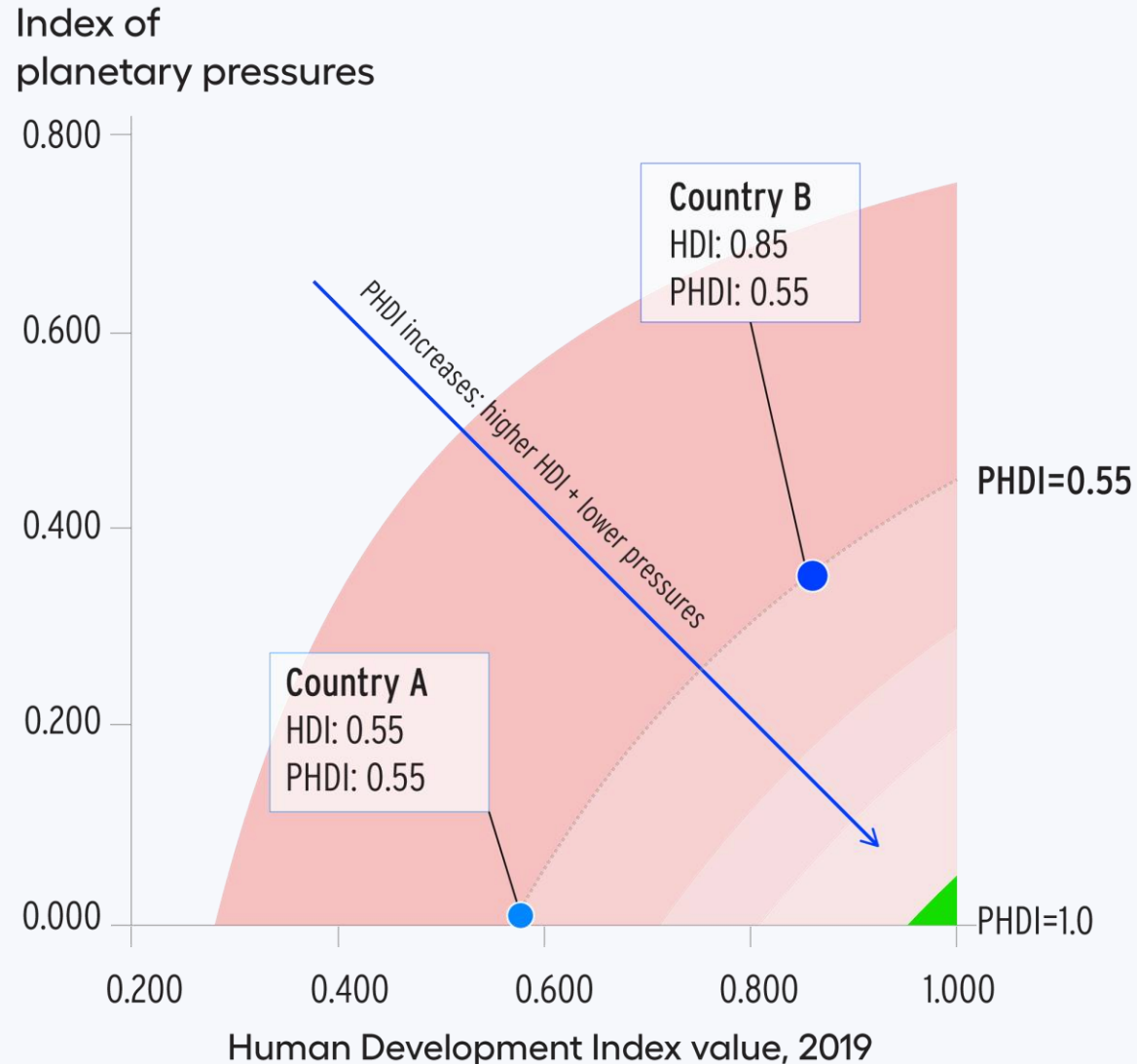
Adjusting the Human Development Index for planetary pressures (carbon dioxide and material footprint per capita).



Nowhere has high human development & low planetary pressure - yet



Adjusting the Human Development Index for planetary pressures.

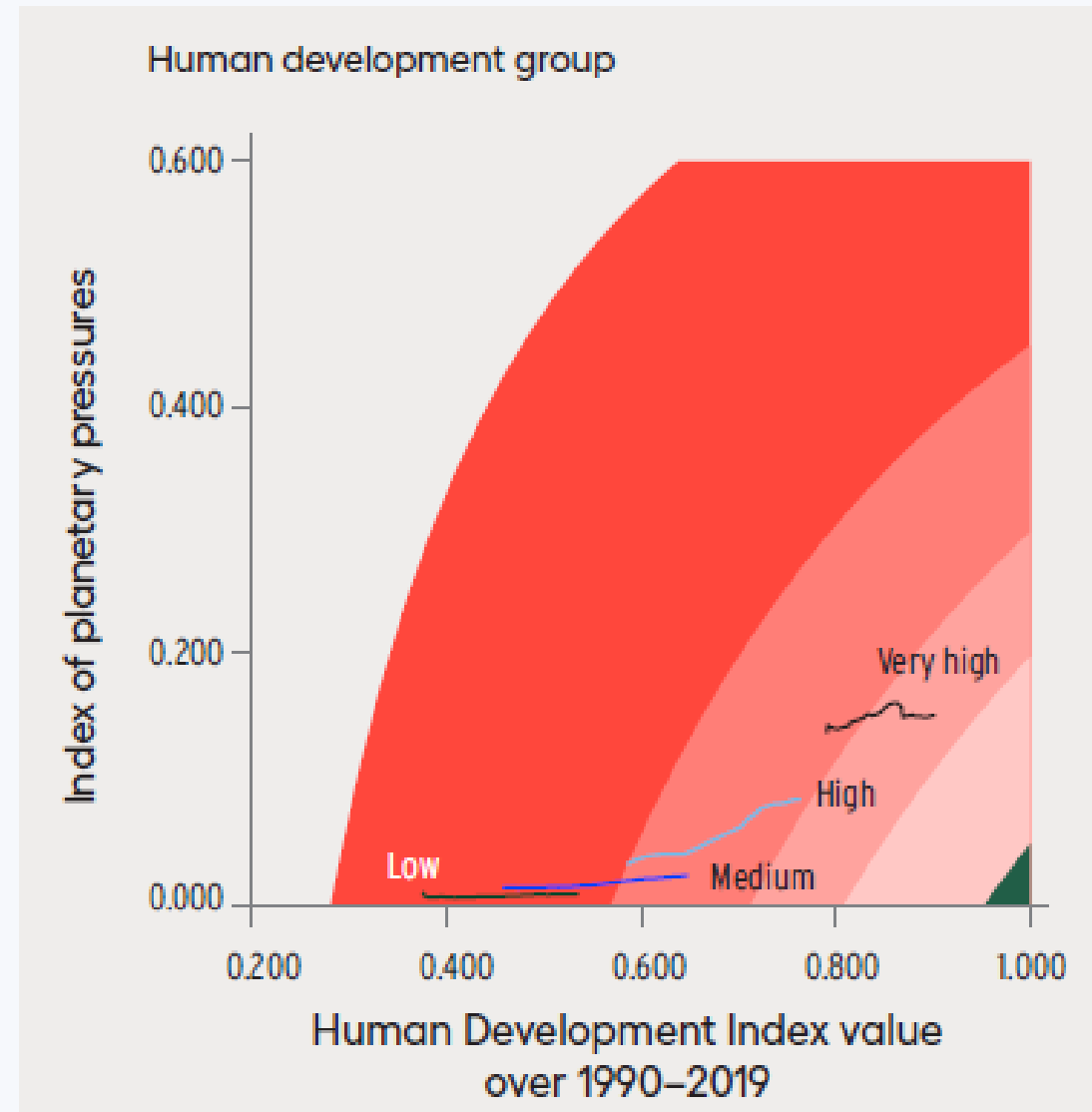


THE CHALLENGE:

- Expand Human Development
- Reduce pressures on the planet

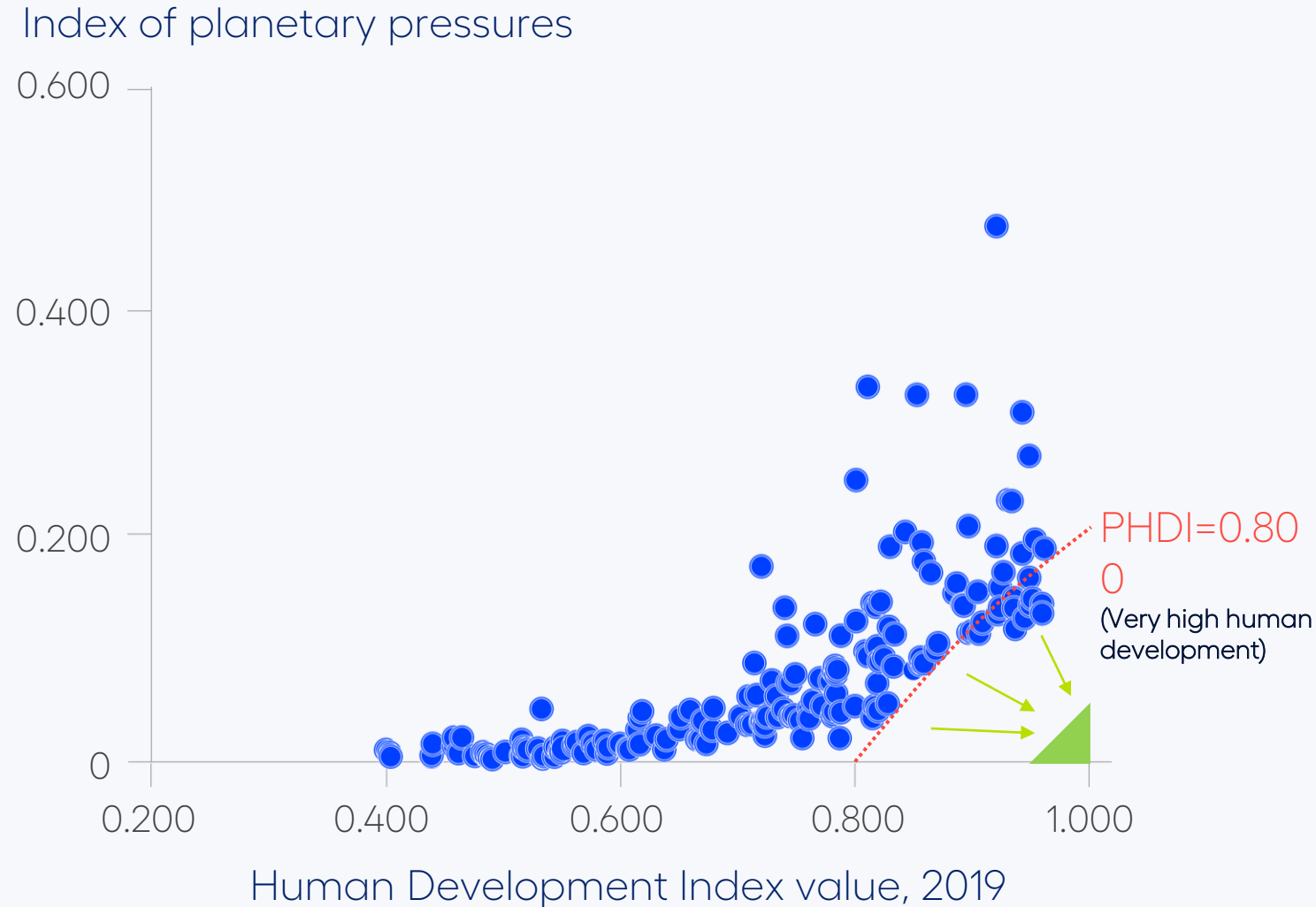
Simultaneous process, everywhere.

No country or territory is there yet.



Source: Human Development Report Office

Of the more than 60 very high human development countries in 2019, only 10 are still classified as very high human development on the PHDI



Human Development is as relevant as ever

How can we increase human development, while easing planetary pressures?

A focus on **capabilities**, **agency** and **values** can reorient our approach to the Anthropocene, so people and the planet prosper together.



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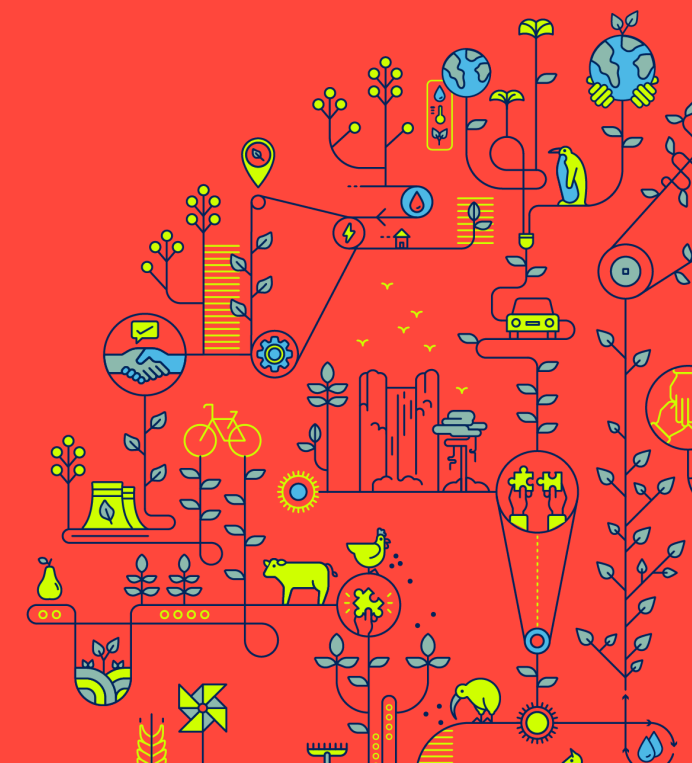
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Anthropocene risks and human development

The anthropocene has meant enormous uncertainty for societies:

COVID-19 global pandemic

Climate change weakening economic progress

Increasing hunger

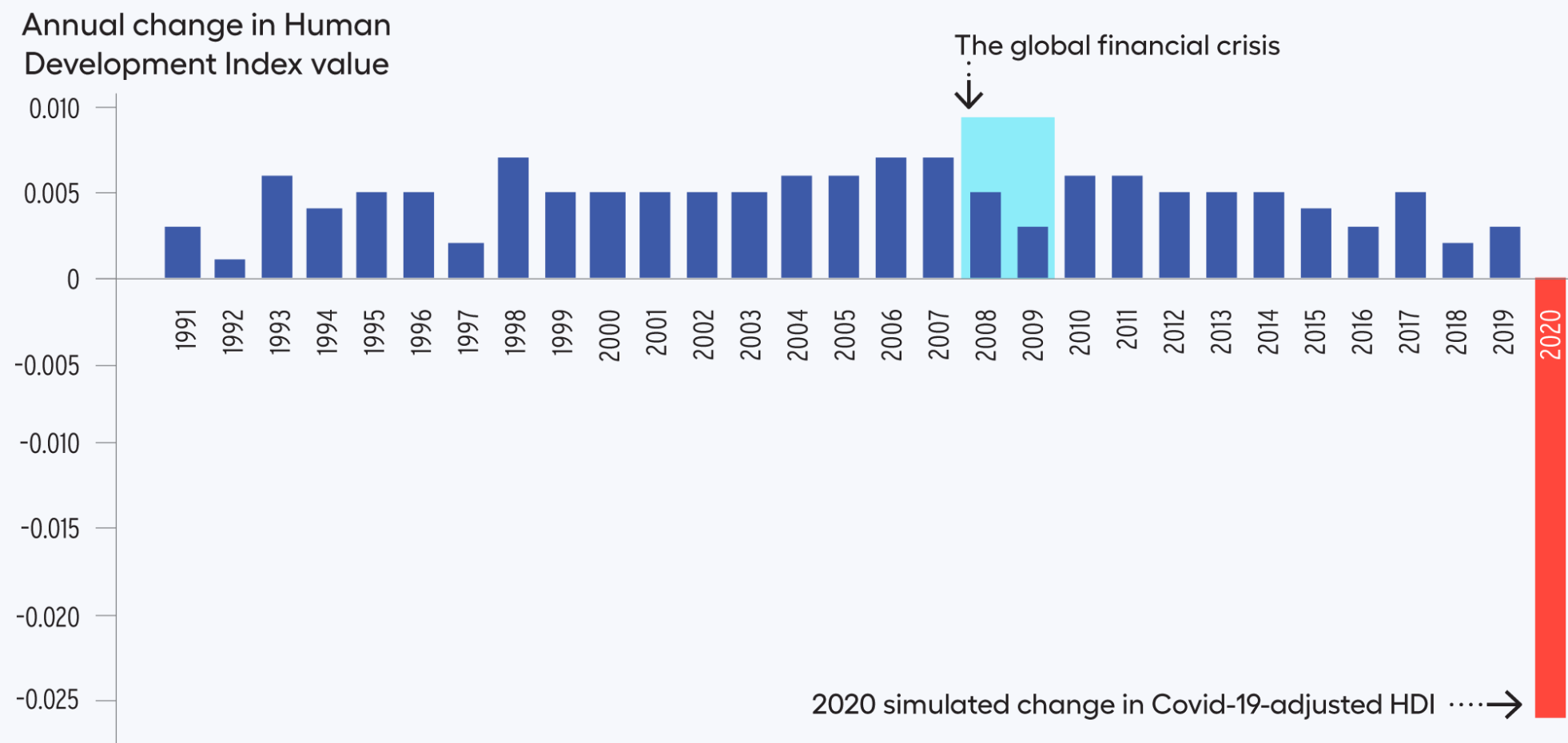
Increasing impacts from natural hazards



COVID-19 offers a glimpse of what is coming

It is also an opportunity for change

COVID-19: Unprecedented shock to human development



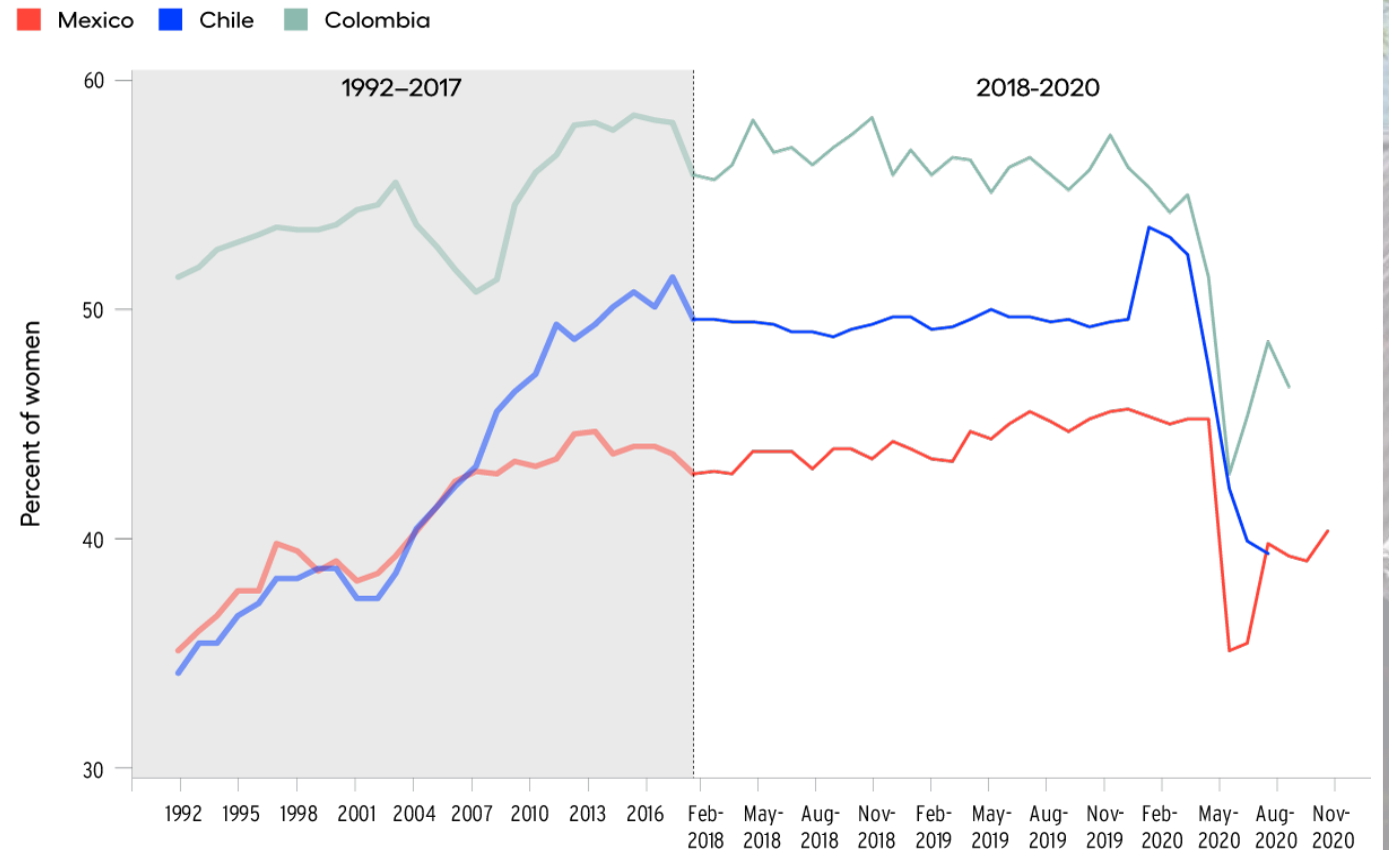
COVID-19: when environmental shocks interact with inequalities, empowerment gaps widen



Women and girls are disproportionately affected by shocks because of traditional roles and norms.

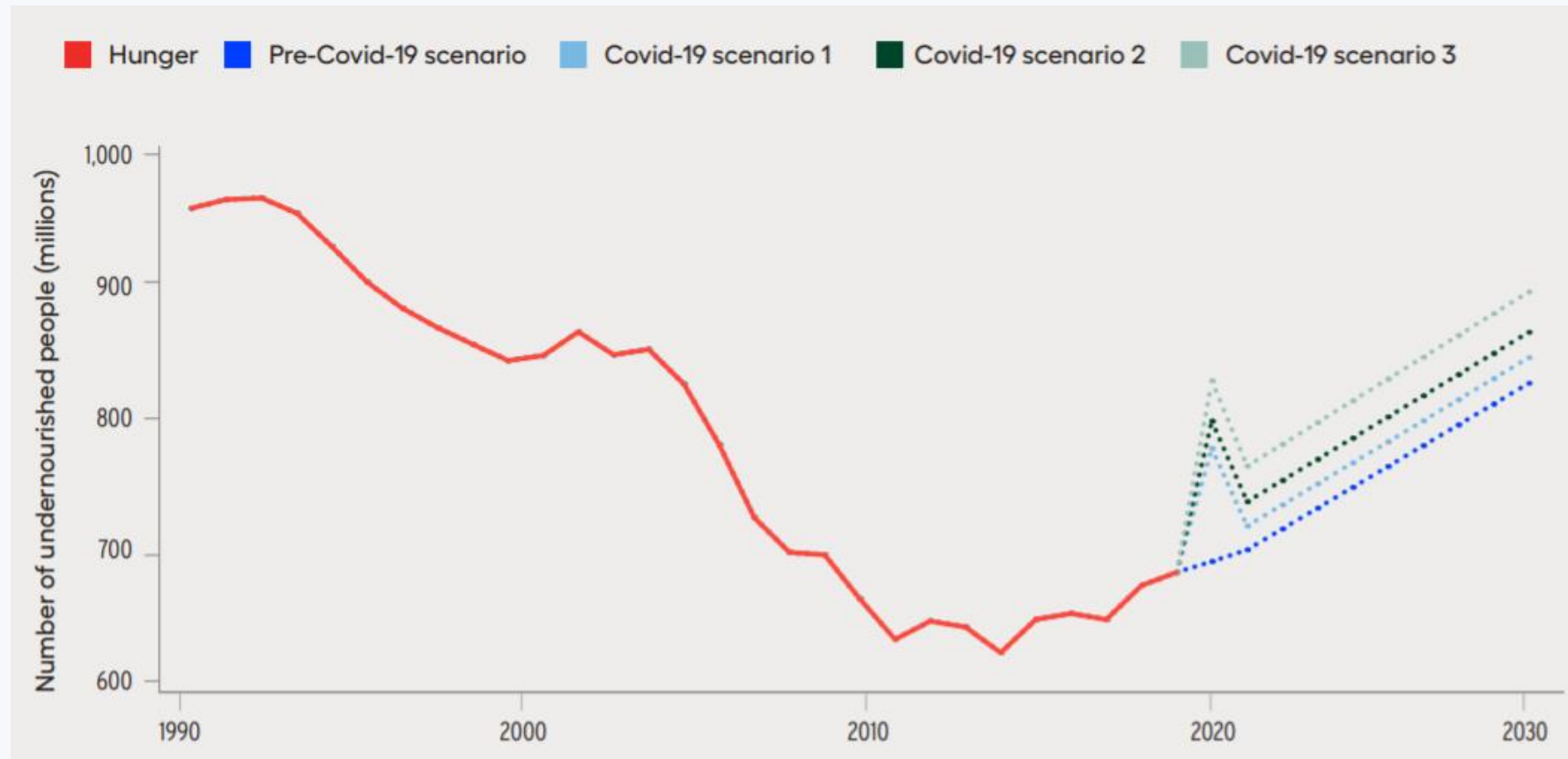
The Covid-19 pandemic has erased decades of progress in the female labour force participation

Female labor force participation rate by country, 1992–2020

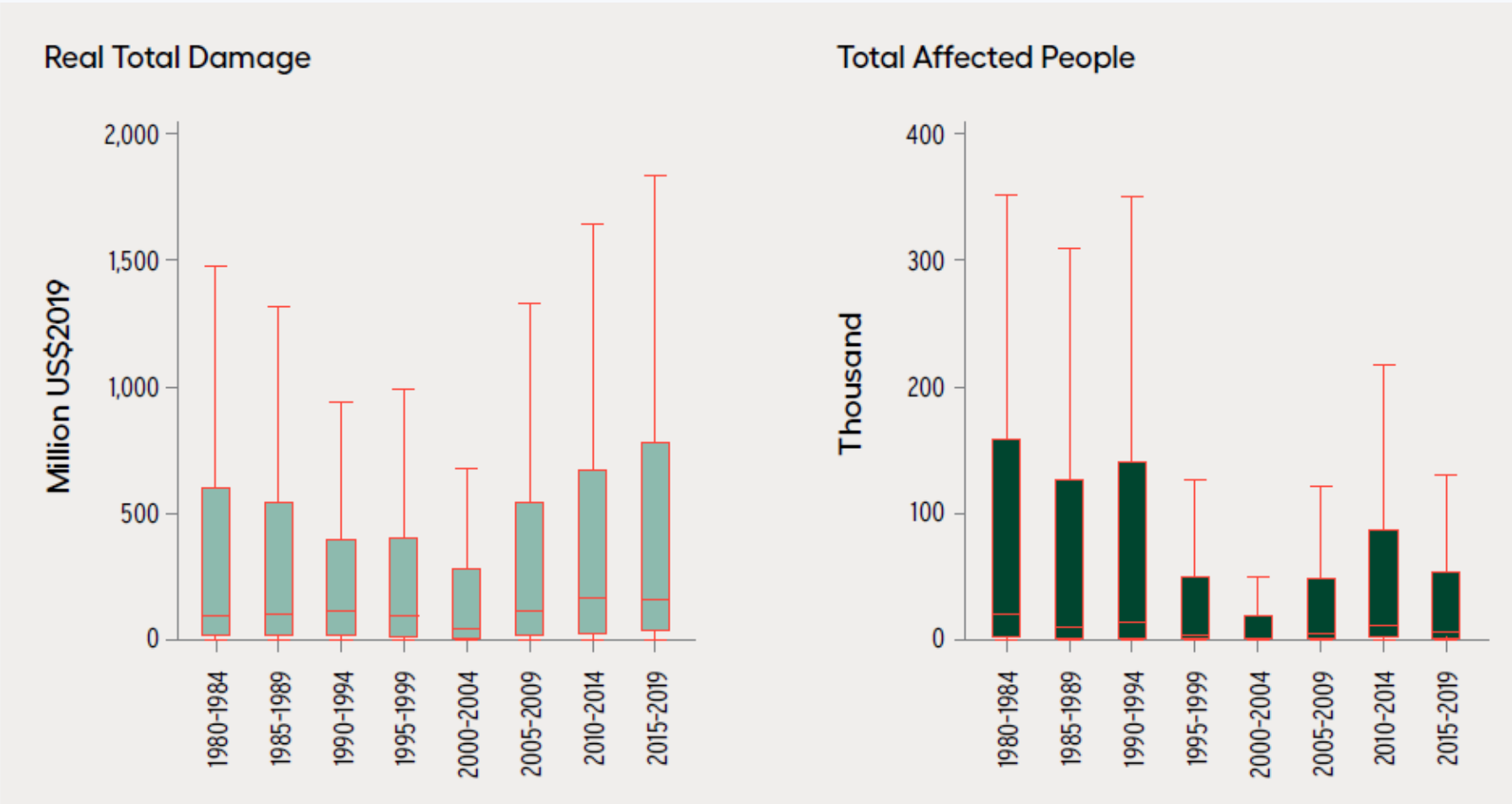


Increase in the number of people affected by hunger is driven by anthropogenic shocks

Hunger is on the rise



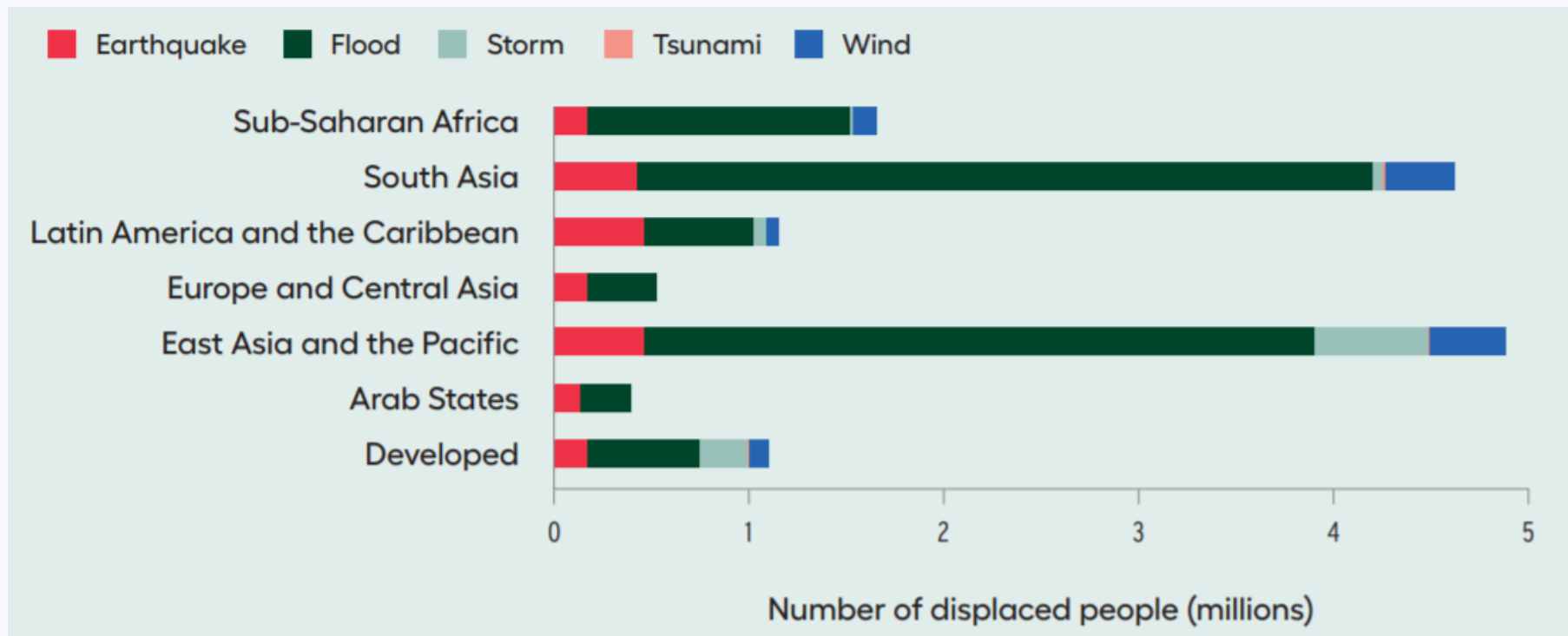
Increasing impact of natural hazards



Source: Adapted from FAO and others (2020), using data for 1991-2001 from FAO (2020b) and UNDESA (2015).

Natural hazards continued to trigger most new displacements in 2020

Globally, about 13.7 million people a year are expected to be displaced after 2020



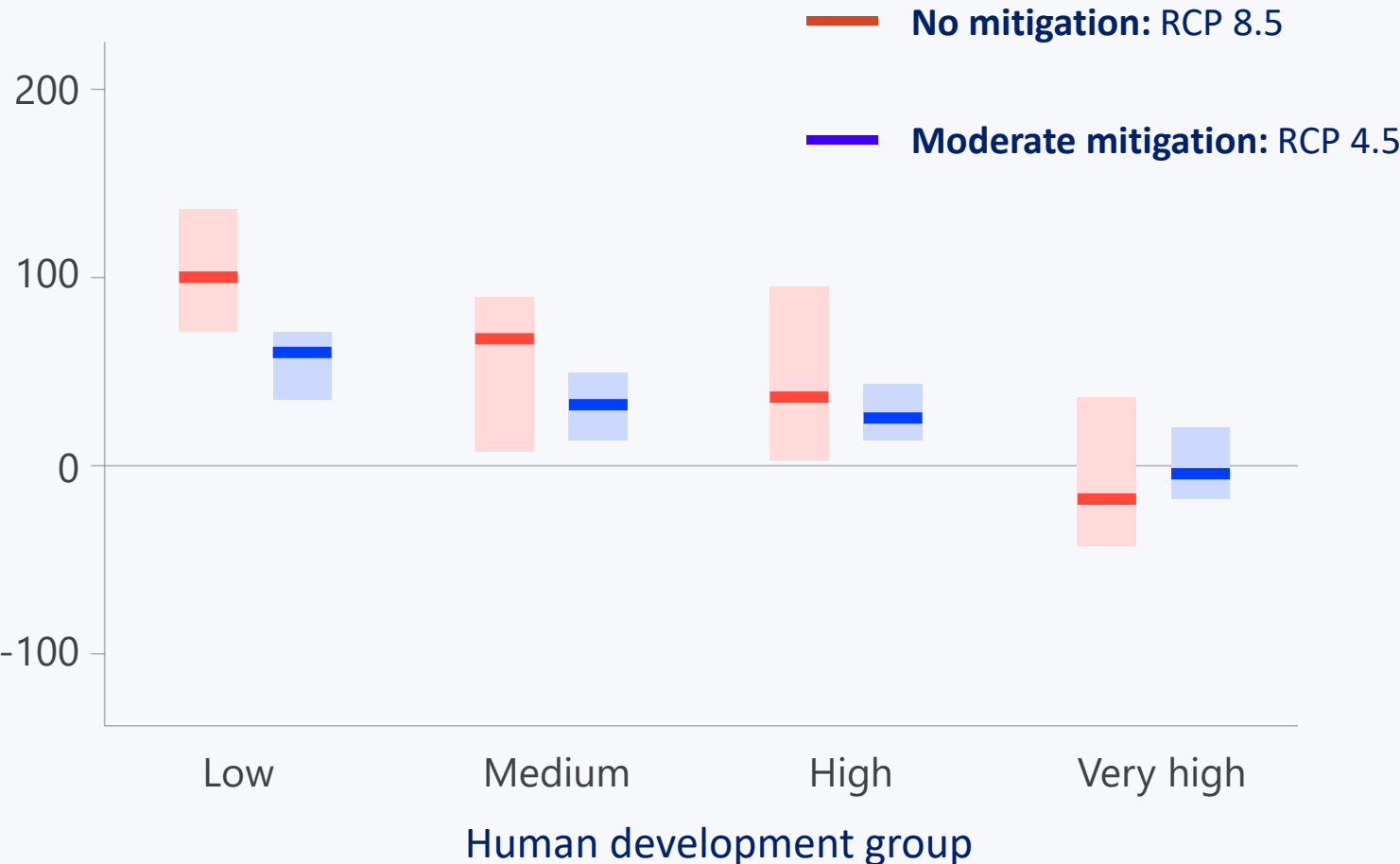
The Anthropocene: Greater impact in more vulnerable places

Threats
higher in
countries
with greater
social
vulnerability



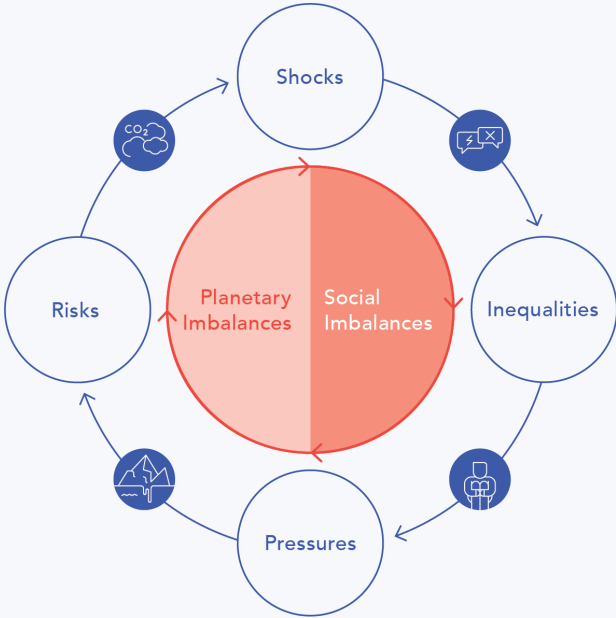
Looking forward: new and greater risks

Number of additional extreme temperature days by 2100*



*Number of additional extreme temperature days by 2100, compared with average for 1986-2005

By 2100 the number of days a year with extreme temperatures is expected to increase more in lower human development countries

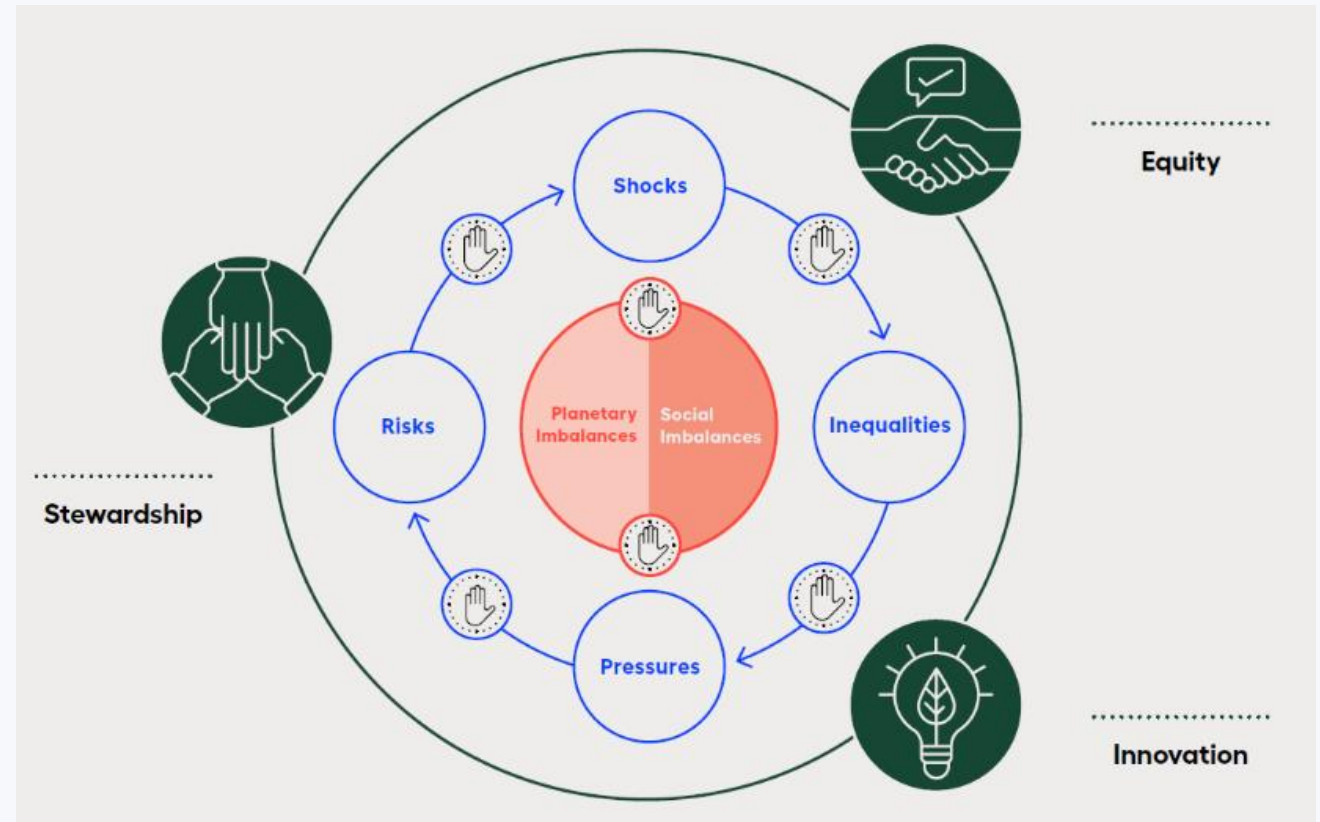


Navigating the Anthropocene: Equity, Stewardship and Innovation



- We do not know what the future will look like. But we know we need a **great transformation** in the way we work, live and cooperate.
- The report suggests three principles are key to navigating the Anthropocene.

Key principles to guide action in the Anthropocene



Source: Human Development Report Office.

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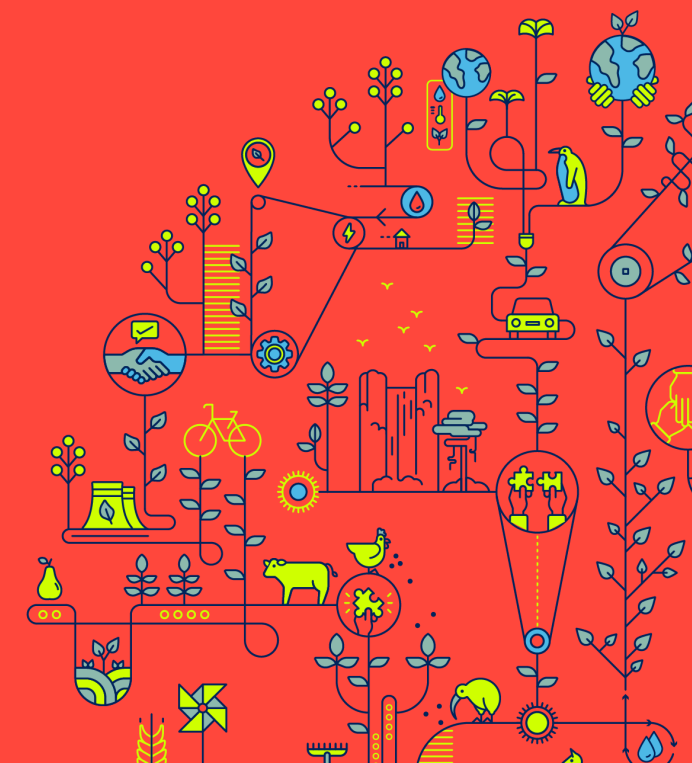
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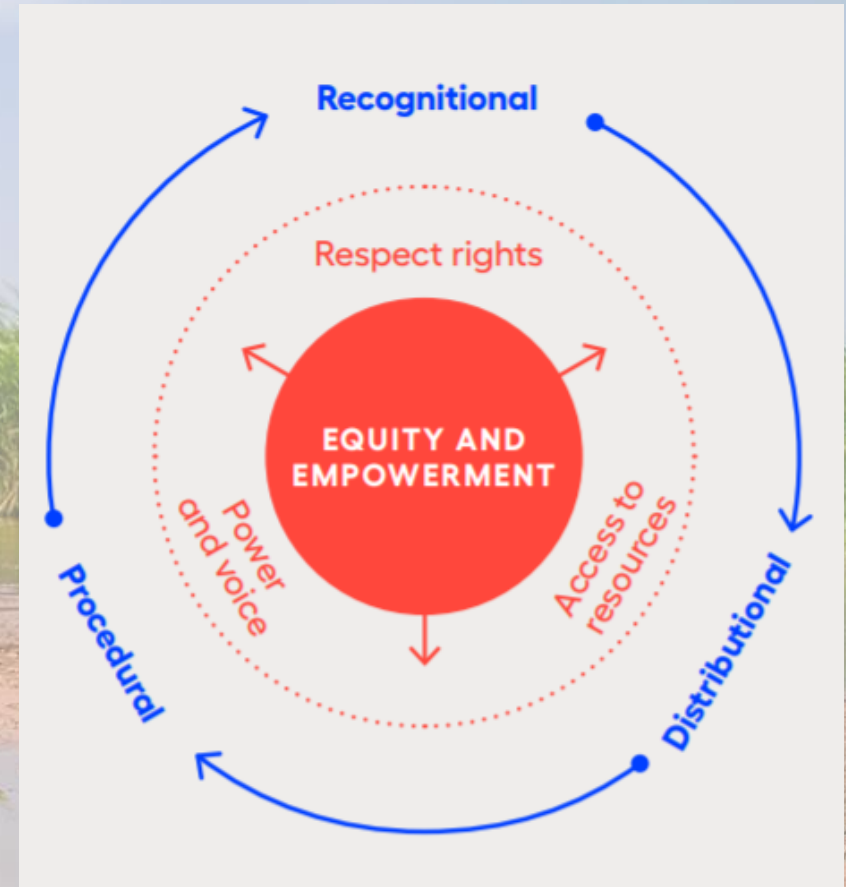
Almudena Fernandez



Planetary change shocks can reinforce patterns of disempowerment of specific groups

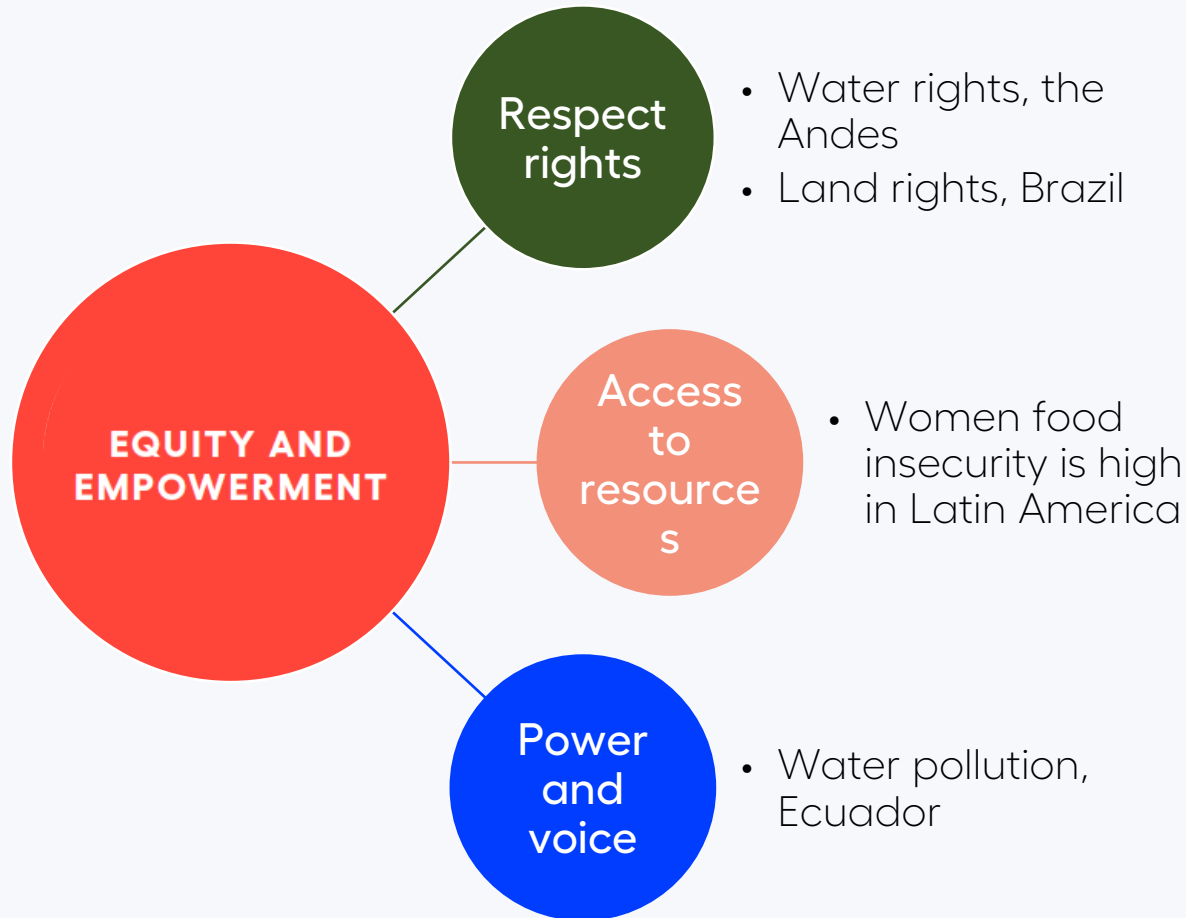
Planetary change can be disempowering

Addressing asymmetries in these three areas seeks to enhance the power of groups unseen, unheard and undervalued and guarantee **environmental justice**.



Source: Human Development Report Office based on Leach and others (2018).

Planetary change shocks can reinforce patterns of disempowerment of specific groups



Mechanisms for change

Three main mechanisms of action are explored:

Social norms & values



- Female education in **Haiti, Cuba and the Dominican Republic** contributes to long-term resilience to natural disasters.

Incentives & regulation



- Valuation of wetlands in **Brazil, Bolivia and Paraguay**.
- Collective payments for ecosystem services in **Mexico**.

Nature-based solutions

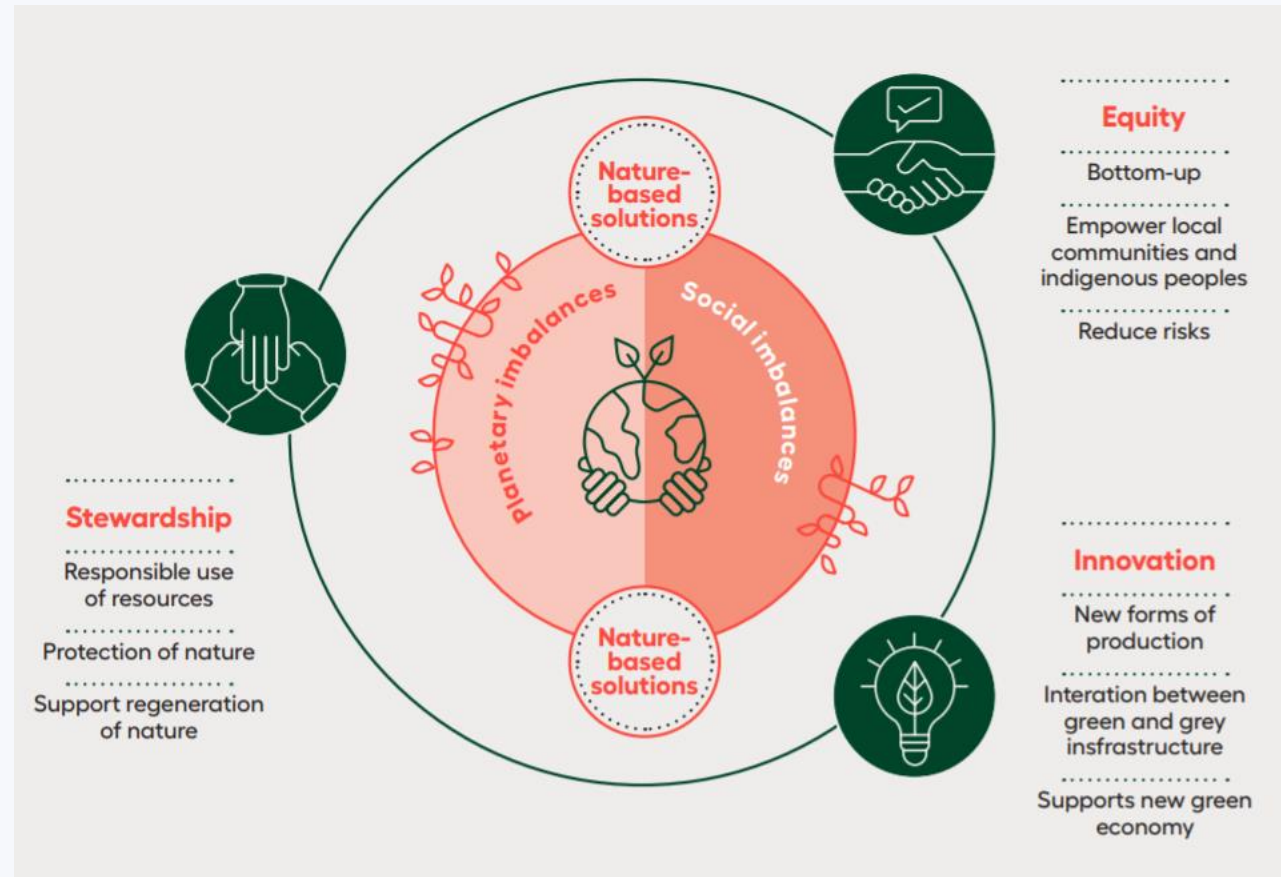


- Coral reef insurance in **Mexico**.
- Fund to protect water in **Ecuador**.
- Mapping natural areas in **Costa Rica**.
- Empowerment of indigenous farmers in **Jamaica**.

What can the flourishing of nature contribute to advance human development in the Anthropocene?

Actions to protect, sustainably manage and restore ecosystems can **empower** in ways that enhance equity, foster innovation and are rooted in a sense of stewardship of nature.

Key outcomes to guide action in the Anthropocene



Closing gaps in empowerment: Indigenous peoples as shapers and defenders of nature



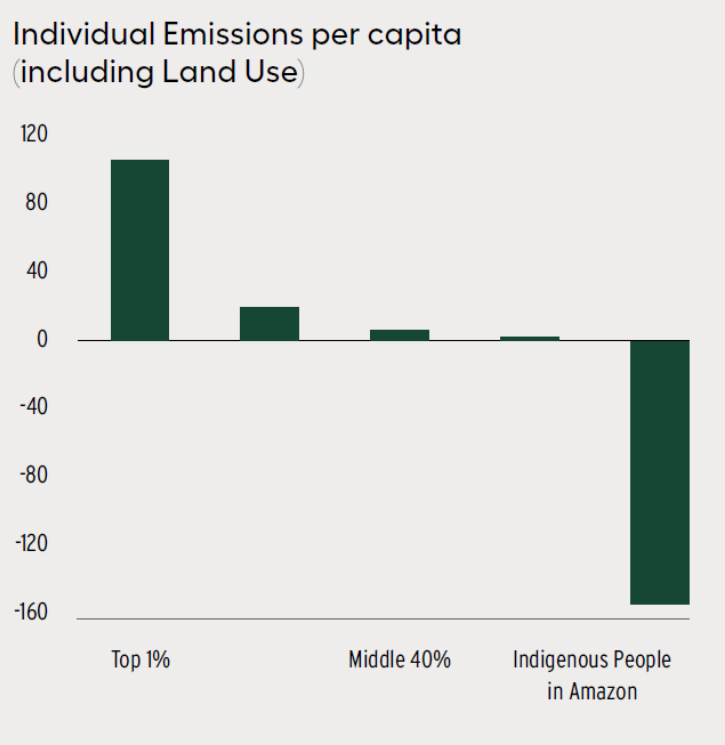
Supporting the practices of indigenous peoples that sustain biodiversity is key, especially since lands managed by indigenous peoples—around 25 percent of global land area—host an estimated 80 percent of global biodiversity.



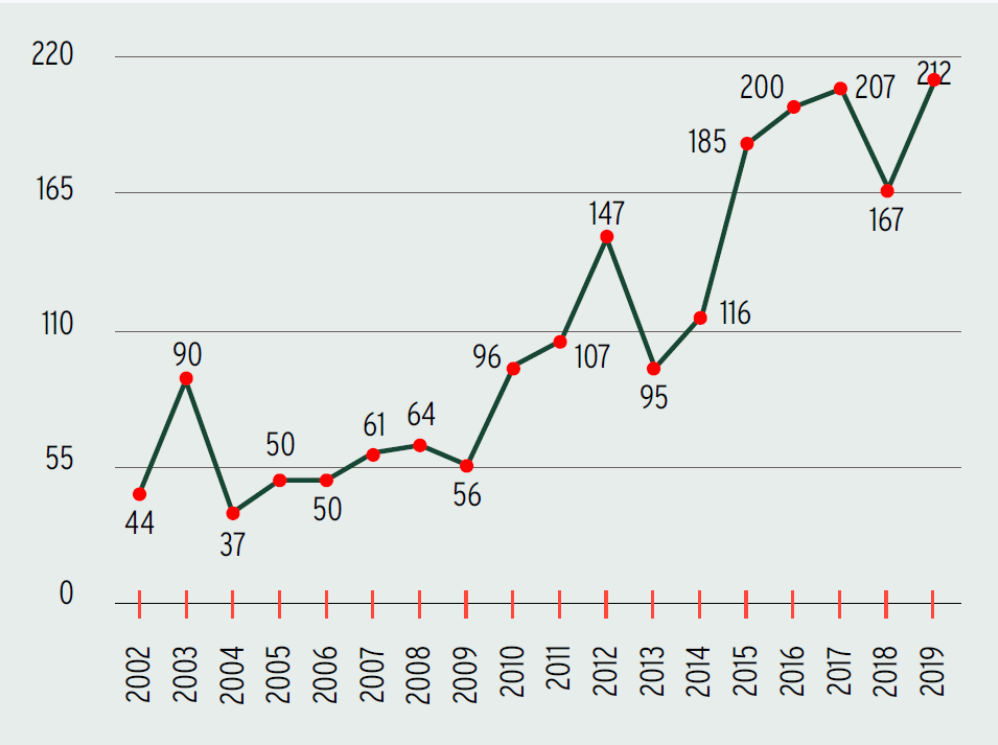
Indigenous peoples: pioneers and vulnerable at the same time



Per capita carbon capture by forests
(tons of CO2 equivalent)



Yearly killings of environmental activists, 2002–2019



Conclusion

It is time to chart bold **new paths**.

Recognizing and supporting the **contribution** of local communities and indigenous peoples are key to **ease planetary pressures**.

Recognizing ongoing **injustices** suffered by the communities and the way they shape their **agency and ability to thrive**.

Human development that tackles inequality and **empowers** people offers a pathway towards a **balance**.



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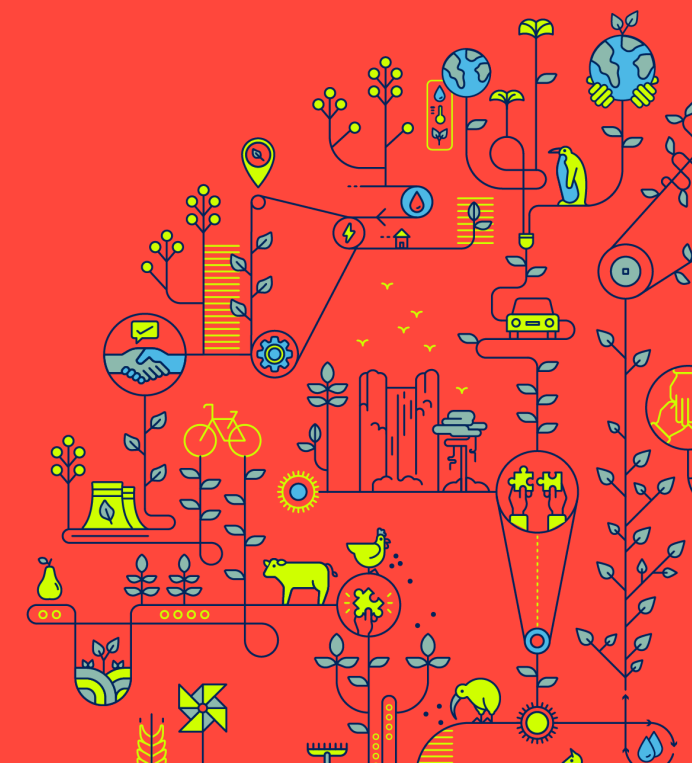
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NATURE-BASED SOLUTIONS AND HOUSEHOLD WELL-BEING: EVIDENCE FROM LATIN AMERICA AND THE CARIBBEAN THROUGH AN ASSET-BASED APPROACH

November 2021

Almudena Fernandez

Advisor to the Regional Director for Latin America and the Caribbean
(Based on research done by UNDP and Northeastern University)

3 LEVERS OF CHANGE TO PROMOTE HUMAN DEVELOPMENT BY ELIMINATING PLANETARY PRESSURES



**SOCIAL NORMS
& VALUES**

**INCENTIVES
& REGULATIONS**

**NATURE-BASED
SOLUTIONS**

MECHANISMS OF CHANGE TO CATALYZE ACTION IN HDR 2020

Nature-based solutions are understood as actions that protect, sustainable manage and restore ecosystems while simultaneously promoting well-being.

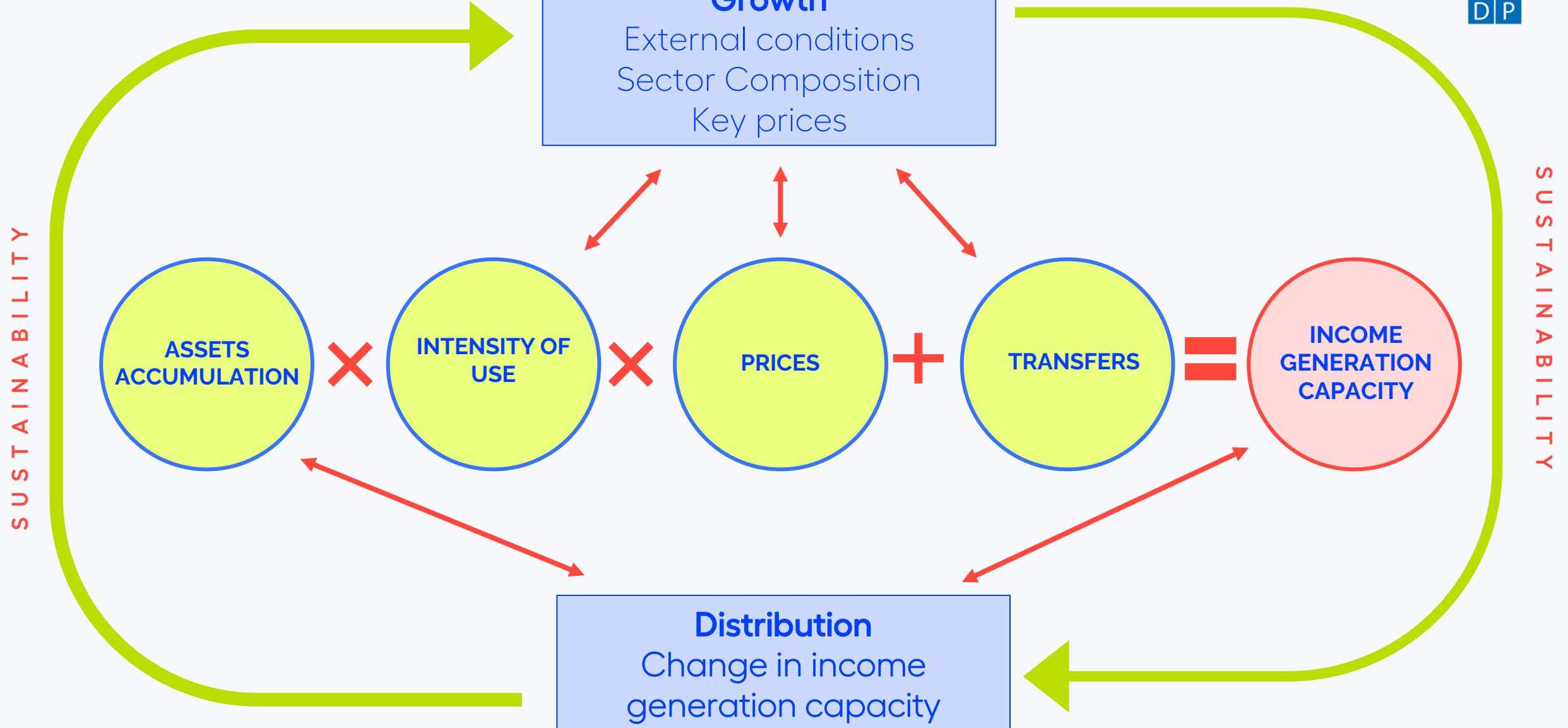
Because socio-economic and planetary systems are deeply connected

Source: Griscom and others 2017, figure 2.

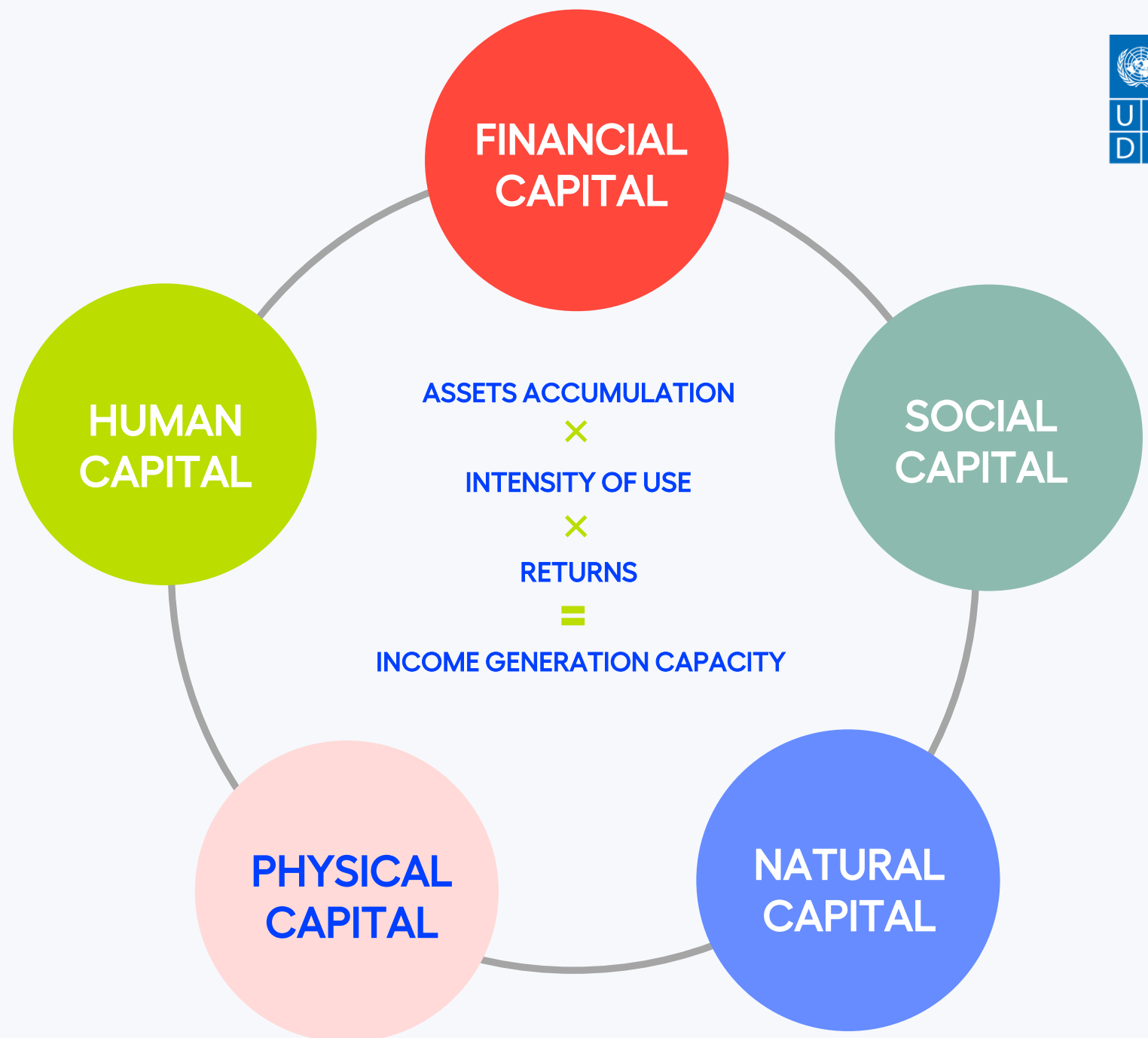
Source: Keys and others 2019, figure 3b.

**VARIOUS CHANNELS OF
TRANSMISSION THROUGH WHICH
NATURE-BASED SOLUTIONS CAN
IMPROVE HOUSEHOLD WELL-
BEING, AND CUMULATIVELY EASE
PLANETARY PRESSURES**

AN ASSET-BASED APPROACH:



FIVE TYPES OF ASSETS:



We looked at 5 UNDP NbS projects to understand their impact on household well-being



Colombia

Payment for Ecosystem Services (PES) and Biodiversity Conservation in the Coffee Sector project (2010-2014),

Guatemala

Climate Change Resilient Productive Landscapes and Socio-economic Networks Advanced project (2015-2018),

Cuba

Reduction of Vulnerability to Coastal Flooding through Ecosystem-based Adaptation in the South of Artemisa and Mayabeque Provinces project (2014-2020),

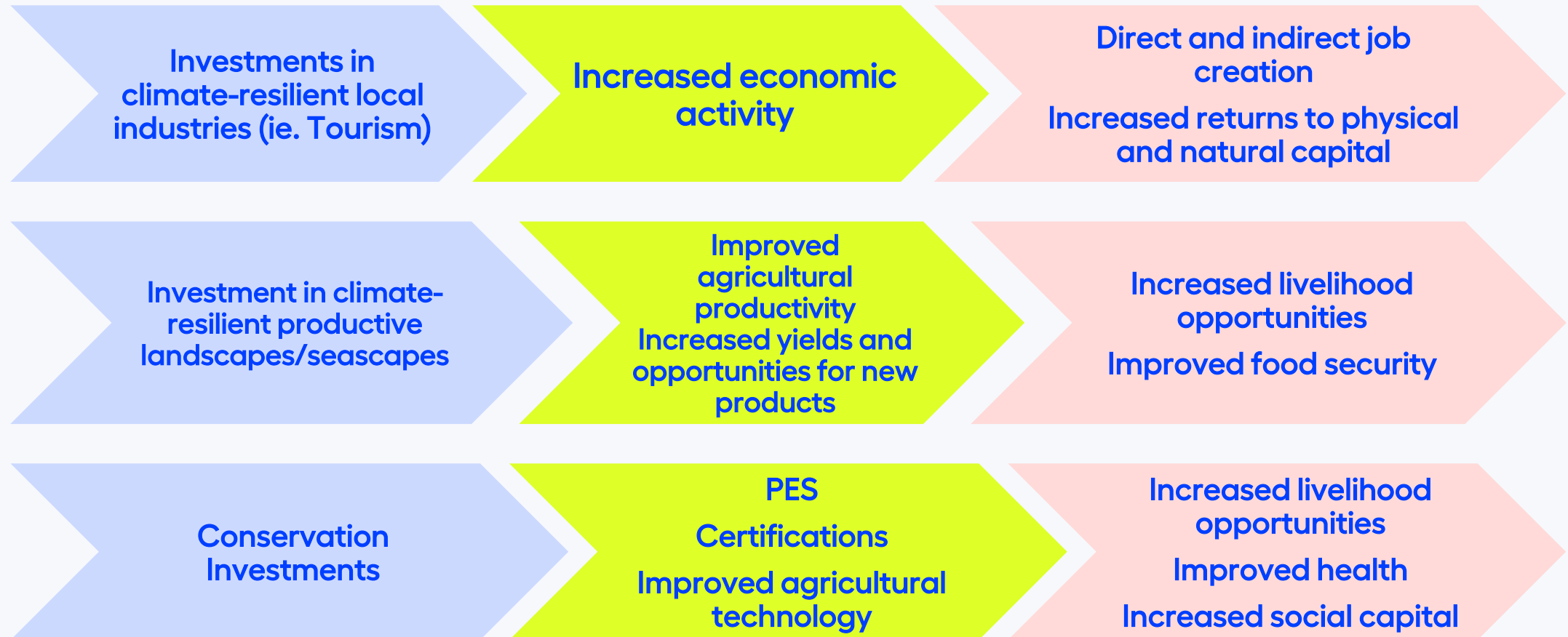
Grenada

Climate Resilient Agriculture for Integrated Landscape Management project (2020-2023).

Ecuador

Sustainable Development of the Ecuadorian Amazon: Integrated Management of Multiple Use Landscapes and High Values Conservation Forests project (2017-2022).

Pathways through which NbS impact Human Development while easing planetary boundaries



Some preliminary findings from the nature-based solutions in LAC



	ASSETS ACCUMULATION	INTENSITY OF USE	RETURNS
<p>HUMAN CAPITAL</p>	<p>Improved food security</p> <p>Improved health - using fewer toxic chemicals</p> <p>Acquisition of new productive skills</p>	<p>Job creation (direct and indirect_)</p> <p>Livelihood opportunities</p>	<p>Higher returns to labour due to increased productivity</p>
<p>PHYSICAL CAPITAL</p>	<p>Higher livestock yields</p> <p>Increased diversity & volume of fauna</p> <p>Assets for diversification</p>	<p>Increase agricultural and fishery productivity</p>	<p>Higher crop yields due to improved environmental quality and agricultural techniques</p>
<p>FINANCIAL CAPITAL</p>	<p>Increased asset accumulation (as a means of savings)</p> <p>Access to credit</p>	<p>Access to financial services</p> <p>Access to markets that require financial intermediation</p>	<p>Improved returns due to access to value chains</p>
<p>SOCIAL CAPITAL</p>	<p>Creation of seed banks</p> <p>Strengthened connection between actors</p>	<p>Commercial networks increases market access</p>	<p>Product certification increases returns</p>
<p>NATURAL CAPITAL</p>	<p>Increased soil health and biodiversity accumulation, water quality, reduced pollution</p>	<p>Increased environmental services have a positive impact on human and physical capital</p>	<p>Increased environmental services yield better results</p>

Some preliminary findings from the nature-based solutions in LAC



ASSETS
ACCUMULATION

INTENSITY
OF USE

RETURNS

HUMAN
CAPITAL



Increased eco and agro-tourism in Grenada lead to new jobs for tour guides and operators, entertainers, local producers, and boat operators. It is also increasing incomes for women-owned agro-tourism and agro-processing small businesses by investing in grants for adaptation initiatives, training, and marketing support.

PHYSICAL
CAPITAL



In Guatemala, 328 households establish women-managed family gardens growing vegetables, animal feed, and medicinal plants to provide consistent access to nutritious food and improve household food security

FINANCIAL
CAPITAL



In Ecuador, sustainable production is encouraged through access to markets and credit for participants in high conservation value landscapes. Initiative traces sustainable and deforestation-free cocoa production to help Amazonian producers enter the European cocoa market, with similar initiatives for livestock and coffee.

SOCIAL
CAPITAL



In Guatemala, the project established eight commercial networks for 2,491 smallholder producers and certified as Good Agricultural Practices (GAP) products, which leads to increase income due to premiums for certified products, as well as access to national and international markets.

NATURAL
CAPITAL



In Colombia, encouraging biodiversity through more sustainable coffee cultivation allowed farmers to certify their coffee, earning additional income for premium product – up to 29% higher income, on top of additional income from PES for carbon sequestration, for an average 8% increase in annual income.

NATURE-BASED SOLUTIONS ARE ONE IMPORTANT
MECHANISM THROUGH WHICH HUMAN
DEVELOPMENT AND PLANETARY HEALTH CAN BE
EXPANDED, STARTING AT THE LOCAL LEVEL,
PLACING HUMAN AGENCY AT THE CENTER, AND
ADDING UP TO GLOBAL IMPACT BOTH IN TERMS OF
SUSTAINABILITY AND GROWTH.



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