



Was COP22 a real "COP of action"?

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**FEEM Policy Seminar,
29 November 2016, Milan**

Agenda

Three interconnected parts:

1. “Negotiation bulletin”:

- Technical and political advancements
- Initiatives “a latere” of negotiations

2. Finance: fuelling climate action

3. INDCs transparency and the role of domestic policies

COP 22: faces and numbers

Marrakech: 7 – 19 November 2016



MARRAKECH
COP22|2016|CMP12
UN CLIMATE CHANGE CONFERENCE

15 800 government officials

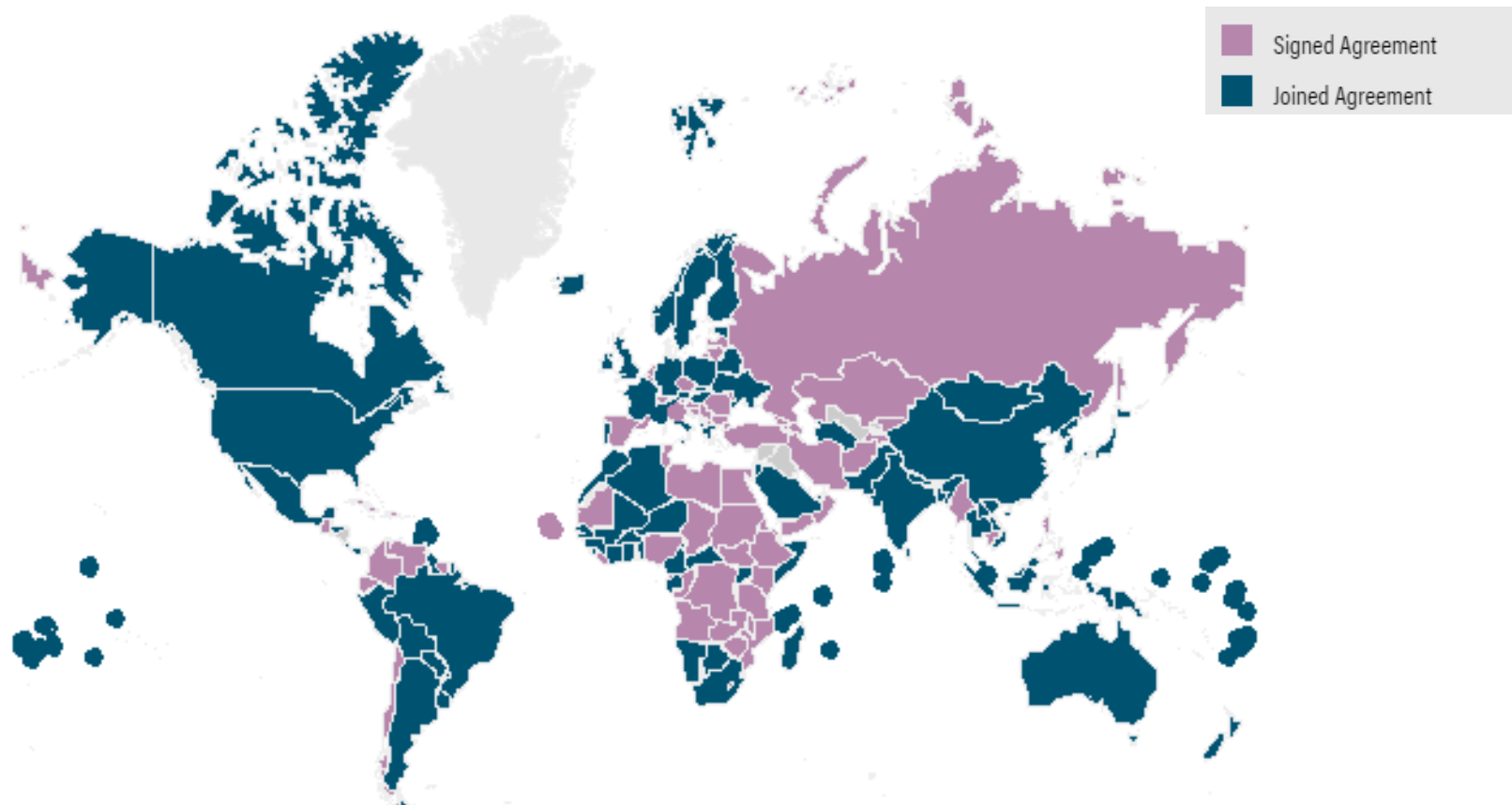
+ **5 400** observers

+ **1 200** media

= **22 500** people

(vs 36 200 in Paris)

Background: Early entry into force of the PA



193 Parties signed ⓘ



Source: CAIT Paris Agreement Tracker

Tasks for COP 22

1. **Development of the PA «rule book»:** operational guidance to fulfill the agreement's objectives

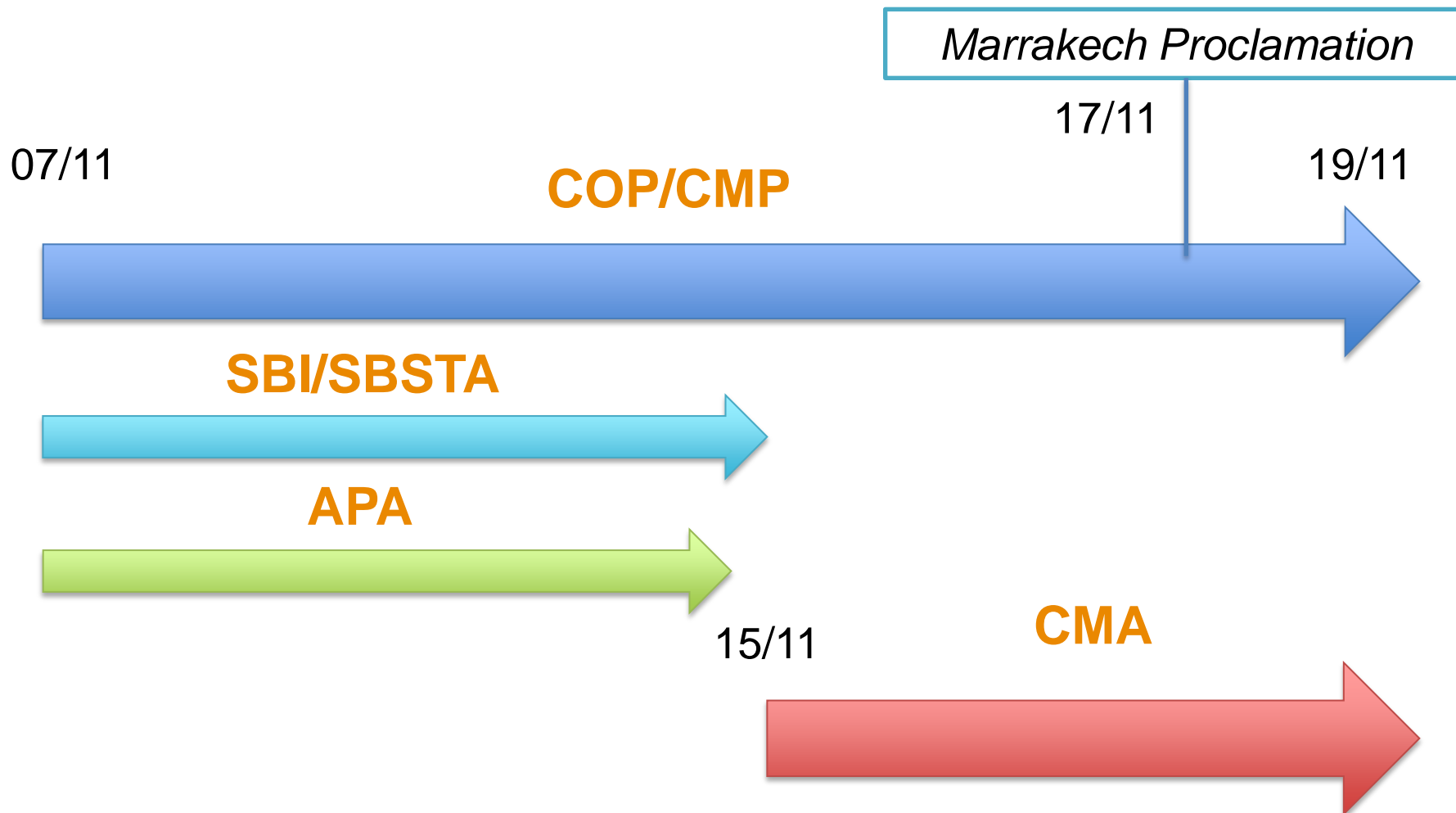
➡ from “**what**” to “**how**”

- How Parties will **communicate** their efforts on mitigation, adaptation, climate finance, transfer of technology and capacity building?;
- How efforts will be ambitiously **reviewed** and **scaled up** every five years?
- How to create a process to facilitate **implementation** and promote **compliance**?

2. PA-related issues: Finance, Capacity building

3. Inheritance from previous COPs: Loss & Damage, Gender

COP 22: structure and negotiation streams



Entry into force of the PA and CMA

Informal consultations under COP 22 and CMA Presidency on:

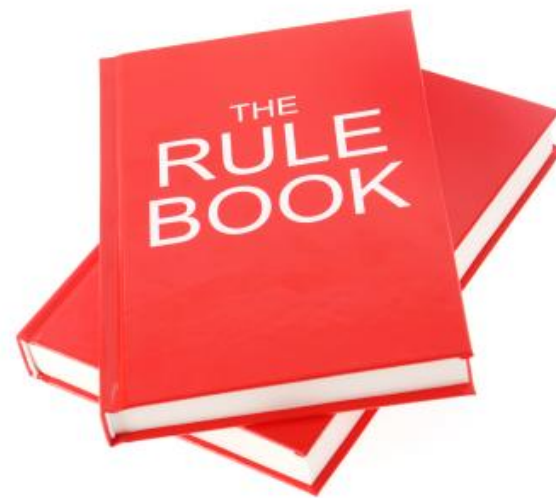
1. When the **CMA1** was to be reconvened (2017 or 2018)
 - CMA 1-2 at COP 23 to review progress on implementation and CMA1-3 at COP 24 to adopt outcomes.

2. “**Orphan issues**” (mandated under Paris without an agenda item)
 - To be considered by APA + “consideration of common timeframes for NDCs” and “training, public awareness, participation and access to information” forwarded to SBI 46

Entry into force of the PA and CMA

3. Adaptation fund (not originally in the Agenda!):
 - AF should serve di PA following decisions to be taken by 2018
4. 2018 facilitative dialogue:
 - mandate to COP 22 and COP 23 to undertake consultations and report back to COP 23

2018 deadline for the rulebook!



APA: the rulebook

Mitigation

- Features, information and accounting of NDCs
- qualitative/quantitative; differentiation; adaptation and MOI?

Adaptation Communications (art. 7)

- How to operationalise the global goal on adaptation, vehicle for AC

Transparency framework (art.13)

- informing MPGs from exististing MRV arrangements

Global stocktake (Art. 14)

- process with technical and political phases, scientific inputs from the IPCC



No substantial outcomes but clear work programme up to May 2017 (calls for submissions, workshops and roundtables)

Paris Committee on Capacity building

Art.11 of the PA recognises capacity building as prerequisite for achieving the agreement's goals

- **Paris Committee on Capacity-building (PCCB)** to address gaps and needs (Decision, par.72/74) with a 2016-2020 workplan



Operationalized: its members have been elected and it will take up its work in May 2017.



Indigenous people

First steps towards the implementation of the “**Local communities and indigenous peoples platform**” established in Paris (1/CP.21, par. 135)

- To allow for an exchange of experiences and sharing of best practices on mitigation and adaptation and ultimately lead to more climate actions.



Gender

Extention (+ 3 years) of the **Lima work Programme on gender** :

- Improving gender balance and participation of women in all UNFCCC processes (delegations and bodies)
- Increasing awareness and support for the development and effective implementation of gender-responsive climate policies.

Gender of heads of Party delegations to sessions of the governing bodies of the Convention and its Kyoto Protocol^a

<i>Session</i>	<i>Total number of heads of delegation</i>	<i>Number of female heads of delegation</i>	<i>Percentage of female heads of delegation</i>	<i>Change in percentage of women</i>
ADP 2.10 (Aug–Sep 2015)	206	63	30	2 ^b
ADP 2.11 (Oct 2016)	232	67	29	–1 ^c
COP 21/CMP 11 (Dec 2015)	697	142	20	–6
SBI 44/SBSTA 44 (May 2016)	261	78	30	0

Abbreviations: ADP = Ad Hoc Working Group on the Durban Platform for Enhanced Action, APA = Ad Hoc Working Group on the Paris Agreement, CMP = Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol, COP = Conference of the Parties, NA = not

Gender
composition.
Report by the
Secretariat
(2016)

Loss and Damage

Review of the **Warsaw International Mechanism** (WIM)

- **Periodical process** (first in 2019) to consider progress on the implementation of the ExCom's workplan and to reflect, in the long-term, on how the WIM may be enhanced and strengthened.
- **5-year rolling workplan** approved.

Climate migrants? Secured by Paris!

- Task force on displacement under the WIM (Sept. 2016)



Marrakech Action Proclamation



- Irreversible momentum for climate action;
- Call for highest political commitment and solidarity with the most vulnerable;
- Pre-2020 ambition
- USD 100 billion mobilization goal

Long term low carbon development strategies (2050)

Ex art. 4, paragraph 19, of the Paris Agreement.

- **Canada:** - 80% by 2050 wrt 2005 levels (innovation, phase-out of coal power plants, carbon pricing)
- **USA:** - 80% by 2050 wrt 2005 levels (transition to low carbon energy systems, CCs and reduction of non-CO2 emission)
- **Mexico:** - 50% by 2050 wrt 2000 (focus also on adaptation)
- **Germany:** -95 % by 2050 wrt 1990 levels – GHG neutrality (energy, buildings, transport, industry, agriculture, land use and forestry)



2050 pathways platform launched at COP 22!

Vulnerable countries' initiatives

Climate Vulnerable Forum (CVF)'s **Marrakech Communiqué:**

- Update NDCs as early as possible before 2020
- Prepare mid-century, long-term low GHG development strategies as early as possible before 2020
- Meeting 100% domestic renewable energy production as rapidly as possible

Adaptation of African Agriculture Initiative (AAA):

- to place Adaptation of African Agriculture at the heart of climate debates;
- Supported by 25 African countries, UNFCCC and FAO.
- to attract a substantial share of climate funds;

Climate Finance in the Paris Agreement

The Paris Agreement (PA) represents a significant shift in terms of ambition on climate finance:

- Calling for **making finance flows consistent** with a pathway towards low greenhouse gas emissions and climate resilience development (Article 2.c).
- Developed country Parties shall provide **financial resources to assist developing country Parties** with respect to both mitigation and adaptation (Article 9.1).

Climate Finance in the Paris Agreement (2)

The PA has set a framework for making finance flows from developed to developing countries possible:

- **The Green Climate Fund (GCF)** and the **Global Environment Facility (GEF)** are the operating entities that “**shall**” serve the PA (Article 9).
- The GCF, established in 2010 (Cancun Climate Conference), will devote 50% to mitigation and 50% to adaptation.
- Other operating entities serving the PA are: the Least Developed Countries Fund & the Special Climate Change Fund.
- The **Adaptation Fund** “**may**” serve the PA subject to decisions of CMA and CMP...

Climate Finance in the Paris Agreement (3)

“Prior to 2025 the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) shall set a **new collective quantified goal from a floor of USD 100 billion per year**, taking into account the needs and priorities of developing countries”.



This new quantified goal has not been set yet



Climate Finance at COP 22

“Marrakech Action Proclamation for our Climate and Sustainable Development”



“We the Developed Country Parties reaffirm our **USD 100 billion** mobilization goal” (per year by 2020)

“We call for an **increase in the volume, flow and access to finance** for climate projects, alongside improved capacity and technology, including from developed to developing countries”.

Climate Finance at COP 22 (2)

The “Marrakech Partnership for Global Climate Action”

Promoted by the COP22 High-Level Champions L. Tubiana and H. El Haite

calls for a much larger global scale mobilization of **infrastructure finance** as high as **USD 6 trillion per year** on average during the next 15 years.

The incremental up-front investment cost of zero-GHG and climate resilient infrastructure **adds 5% of the total investment needed.**

Climate Finance at COP 22 (3)

The Standing Committee on Finance (SCF) assists the COP on measurement, reporting and verification of climate finance, through biennial assessments.

The 2016 biennial 2013-2014 assessment advances in:

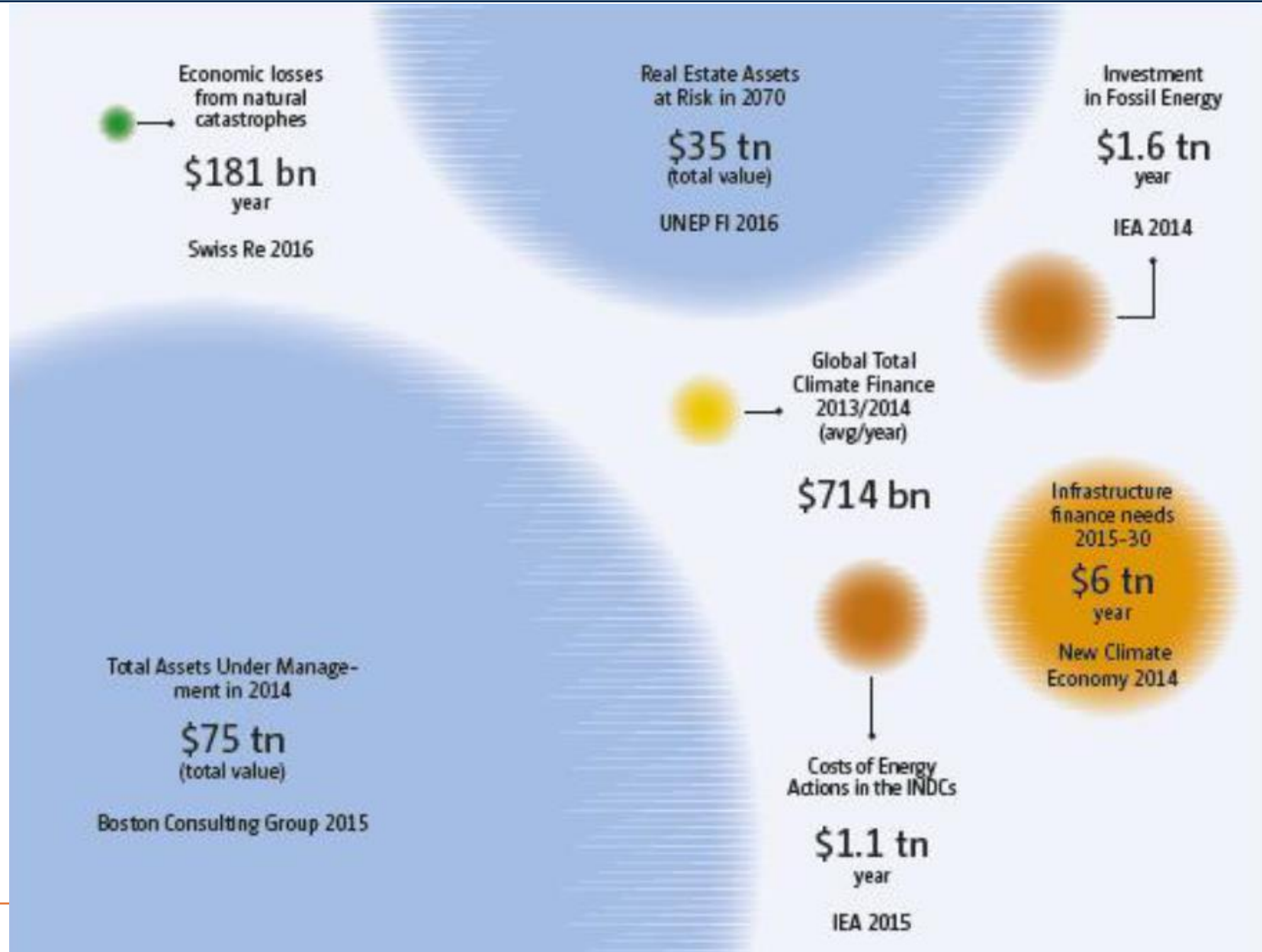
1. Tracking and reporting of information on climate finance;
2. Making available MDB and multilateral climate fund data through the Development Assistance Committee (DAC) of the OECD;
3. Applying common principles for tracking mitigation and adaptation finance;
4. Making available data on climate co-financing flows.

Climate Finance at COP 22 (4)

2016 biennial assessment key findings:

1. Climate-related global finance flows **USD 714 billion** on average in 2013-2014.
2. Mitigation finance is 70%, adaptation finance is 25%.
3. Private investments in RES and EE the largest share.
4. Most climate finance is mobilized and deployed domestically, both in developed and developing.
5. Co-finance does not equate to mobilization.
6. Ownership and alignment with NDCs is recognized as key to ensure effectiveness.

Climate Finance at COP 22 (5)



Capacity-building Initiative for Transparency

At COP 21 Parties requested the Global Environment Facility (GEF) to support the establishment of a “**Capacity-building Initiative for Transparency**” (CBIT).

Aimed at strengthening the institutional and technical capacities of developing countries to meet the enhanced transparency requirements in the Paris Agreement.



At COP22 the CBIT was officially launched

The NDC Partnership

The NDC Partnership is a new coalition of developing and developed countries and IOs to ensure countries receive the technical and **financial support** to achieve ambitious climate and SDGs as fast and effectively as possible.

To **translate NDCs into investment-ready vehicles**:

1. engaging more the private sector;
2. making donors more responsive to countries' needs.
3. making recipient countries more aware of funding opps.

Co-chaired by Morocco and Germany. This latter will align its climate finance - **€2.7 billion (2015)** - to the Partnership and will further increase this support to **€4 billion by 2020**.

The operating entities of the UNFCCC

- ✓ The **GEF** is projected to invest USD 3 billion in climate finance from 2014 to 2018 and, since its establishment at 1992 Rio Earth Summit, has already directed **USD 57 billion** from public and private sources to developing countries in over **1,100 climate mitigation projects**.
- ✓ Within one year, the **GCF** has allocated **USD 1.2 billion** for a total of 27 projects covering 37 countries, equally distributed to mitigation and adaptation, through co-funding and by a **leverage ratio of 1:15**.

The Green Climate Fund

The GCF has announced at COP22:

- ✓ to have approved the **first fast-track National Adaptation Plan grants** for Liberia and Nepal.
- ✓ the proposal by the **first commercial bank accredited by the Green Climate Fund**, Deutsche Bank, to contribute through co-funding to energy access (SDG 7) in Sub-Saharan Africa.

The Green Climate Fund (2)

Project Name	Impact	Funding (\$)	tCO2 avoided	Region	Co-financing	Accredited Entity
Universal Green Energy Access Programme	Mitigation	301.6m	50.6m	Sub Saharian Africa	73,50%	Deutsche Bank
Sustainable Landscapes in Eastern Madagascar	Mitigation and Adaptation	69.8m	10.9m	Africa	23.4%	EIB
GCF-EBRD Sustainable Energy Financing Facilities	Mitigation and Adaptation	1.4b	29.1m	Africa, Asia Pacific, Eastern Europe	73.4%	EBRD
Empower to Adapt: Creating	Adaptation	10.0m	N/A	Africa	0%	EIF (national)
CRAVE	Adaptation	10.0m	N/A	Africa	5%	EIF (national)
Development of Argan in Degraded Environment - DARED	Adaptation and Mitigation	49.2m	N/A	North Africa	20%	ADA (national)
Senegal Integrated Urban Flood Management Project	Adaptation	79.2m	N/A	Africa	78.9%	AFD
Sustainable Energy Facility for the Eastern Caribbean	Mitigation	190.5m	9.4m	Latin America & Caribbean	58%	IDB
Planning Instruments to Reduce Emissions from Deforestation	Mitigation	84m	15m	Latin America & Caribbean	51%	UNDP
GLOF risk reduction in Northern Pakistan	Adaptation	37.5m	N/A	Asia Pacific	1.3%	UNDP
Climate Action and Solar Energy in Chile	Mitigation	265.0m	3.7m	Latin America & Caribbean	81.5%	CAF (regional)
Resilience of smallholder farmers in the Dry Zone	Adaptation	52.1m	N/A	Asia Pacific	26.9%	UNDP
Tuvalu Coastal Adaptation Project	Adaptation	38.9m	N/A	Asia Pacific	7.45	UNDP
CAMP4ASB	Mitigation and Adaptation	68.8m	N/A	Asia Pacific	72,40%	WB
Resilience vulnerable coastal communities Viet Nam	Mitigation and Adaptation	40.5m	1.9m	Asia Pacific	27.2%	UNDP
Africa Hydromet Program – Mali Country Project	Adaptation	27.3m	N/A	Africa	16.5%	WB
Large-scale Ecosystem-based Adaptation in Gambia River Basin	Adaptation	25.5m	N/A	Africa	19.5%	UNEP
Investment in energy efficient building retrofits in Armenia	Mitigation	29.8m	1.4m	Eastern Europa	32.9%	UNDP
Energy efficiency investments by SMEs	Mitigation	41.7m	562.0k	Latin America & Caribbean	48%	IDB
Fiji Urban Water Supply and Wastewater Management Project	Adaptation	222.0m	N/A	Asia Pacific	86%	ADB
Support of Vulnerable Communities in Maldives	Adaptation	28.2m	N/A	Asia Pacific	16.3%	UNDP
Energy Efficiency Green Bonds in LAC	Mitigation	328.0m	13.2m	Latin America & Caribbean	93.3%	IDB
KawiSafi Ventures Fund in East Africa	Mitigation and Adaptation	110.0m	1.5m	Sub-Saharan Africa	77.3%	Acumen Fund, I
Climate-Resilient Infrastructure Mainstreaming in Bangladesh	Adaptation	80.0m	N/A	Asia Pacific	50%	KFW
Resilience of Ecosystems and Communities	Adaptation	8.2m	N/A	Africa	6.7%	Centre de Suivi
Modernized Early Warning Systems in Malawi	Adaptation	16.3m	N/A	Africa	24.4%	UNDP
Building Wetlands Resilience in Peru	Mitigation and Adaptation	9.1m	2.6m	Latin America & Caribbean	31.5%	Peruvian Trust f

The Multilateral and Regional Development Banks

- At COP22, the **WB** announced a new plan to ramp up support for the MENA region: “MENA Climate Action Plan 2016-2020” aimed at doubling the Bank financing dedicated to climate action up to USD 1.5 billion per year by 2020.
- The **African Development Bank (AFDB)** and the **GEF** reiterated their commitment to support African cities and to build urban resilience, and pledged to redouble their efforts to climate finance adaptation.

Adaptation Finance: the most contentious issue

Expectations by developing countries on the adaptation financing were not satisfied.

However positive signs on adaptation finance are twofold:

- First, the decision that the **Adaptation Fund “should” serve the Paris Agreement**, instead of the Kyoto Protocol (not coinciding country Parties: e.g. the US);
- Second, the surpassing of the 2016 resource **mobilization target of USD 80 million** thanks to new contributions from Germany, Sweden, Italy and Belgium.

1. Context and Scope

- Main Questions

1. In the context of INDCs, how National energy policies can contribute to:
 1. Technological improvement
 2. Air pollution improvements
2. Can INDC strategies be made more efficient?
3. Are energy policies more or less effective than emission reduction policies?

- Using Integrated Assessment Models (IAM)

- WITCH model: 13 world regions with a detailed energy sector, contributor to the IPCC scenarios, FASSTR (mortalities from air pollution)
- Simulate unconditional Cancun and INDC pledges
 - Emission reduction pledges
 - Energy policy commitments

2. Energy Policies

Capacity [GW]				Share
China	2015	Hydro: 270 Solar: 10 Wind :100	2020	Gas in total primary energy 10% Non-fossil fuels in primary demand 15%
	2020	Nuclear: 55 Wind: 200 Solar:100	2030	Non-fossil fuels in primary consumption 20%
Europe			2020	Renewables in power generation 10% Renewables in final demand 20%
			2030	Renewables in total primary energy 27%
USA			2020	Renewables in power generation 14%

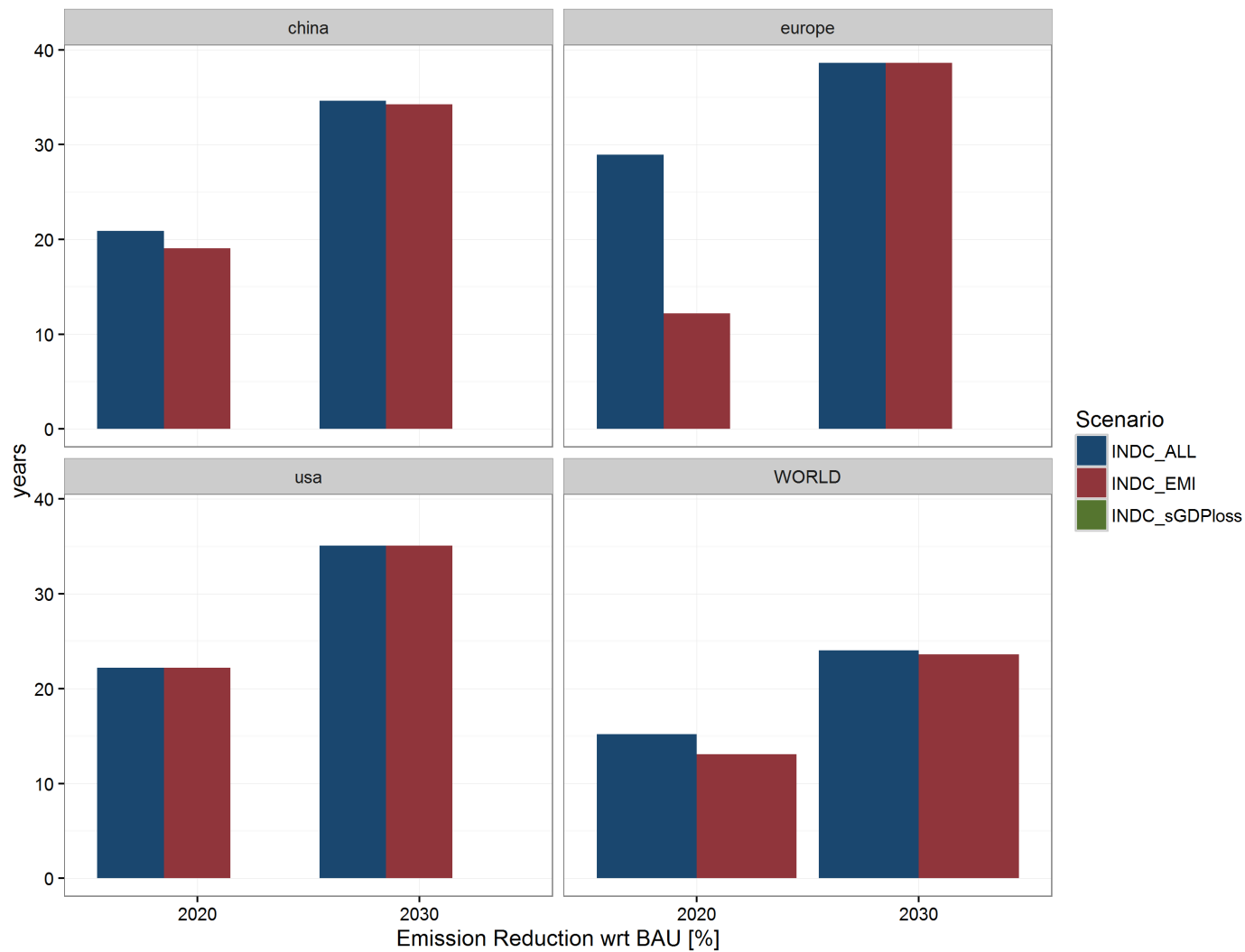
3. Scenarios

Scenario name	Scenario description
bau	Business as usual
INDC_EMI	Implementation of the INDC emissions pledges
INDC_ALL	Implementation of the INDC emissions and energy pledges
INDC_smac	Cost Efficient
INDC_sGDPlloss	Same cost (GDP loss) as INDC ALL but equalizes the mac for all sources within a country

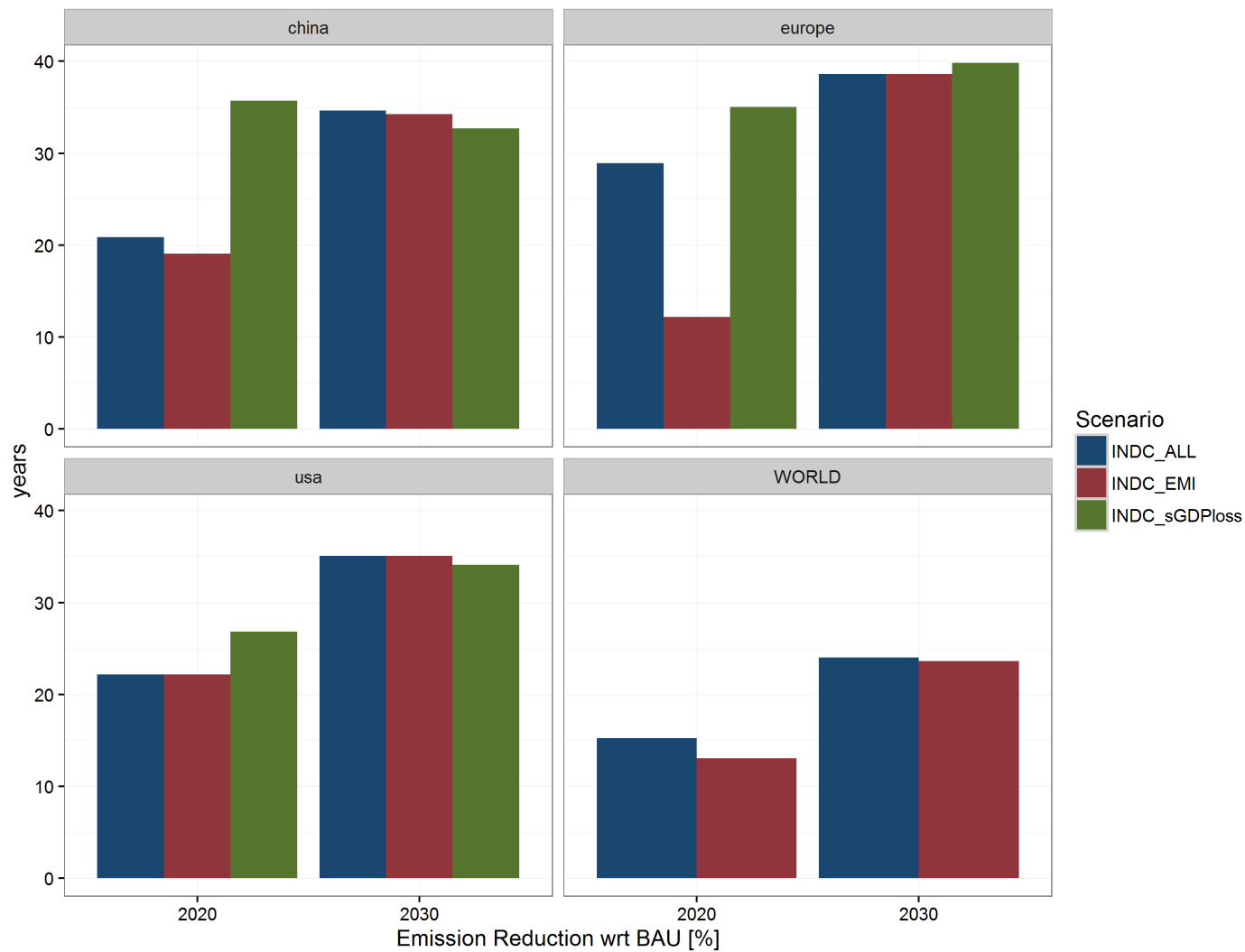
2. GreenHouse Gases (GHG) emissions

Can the NDCs be made more effective?

4.1. Emission Reduction vs BAU



4.1. Emission Reduction vs BAU

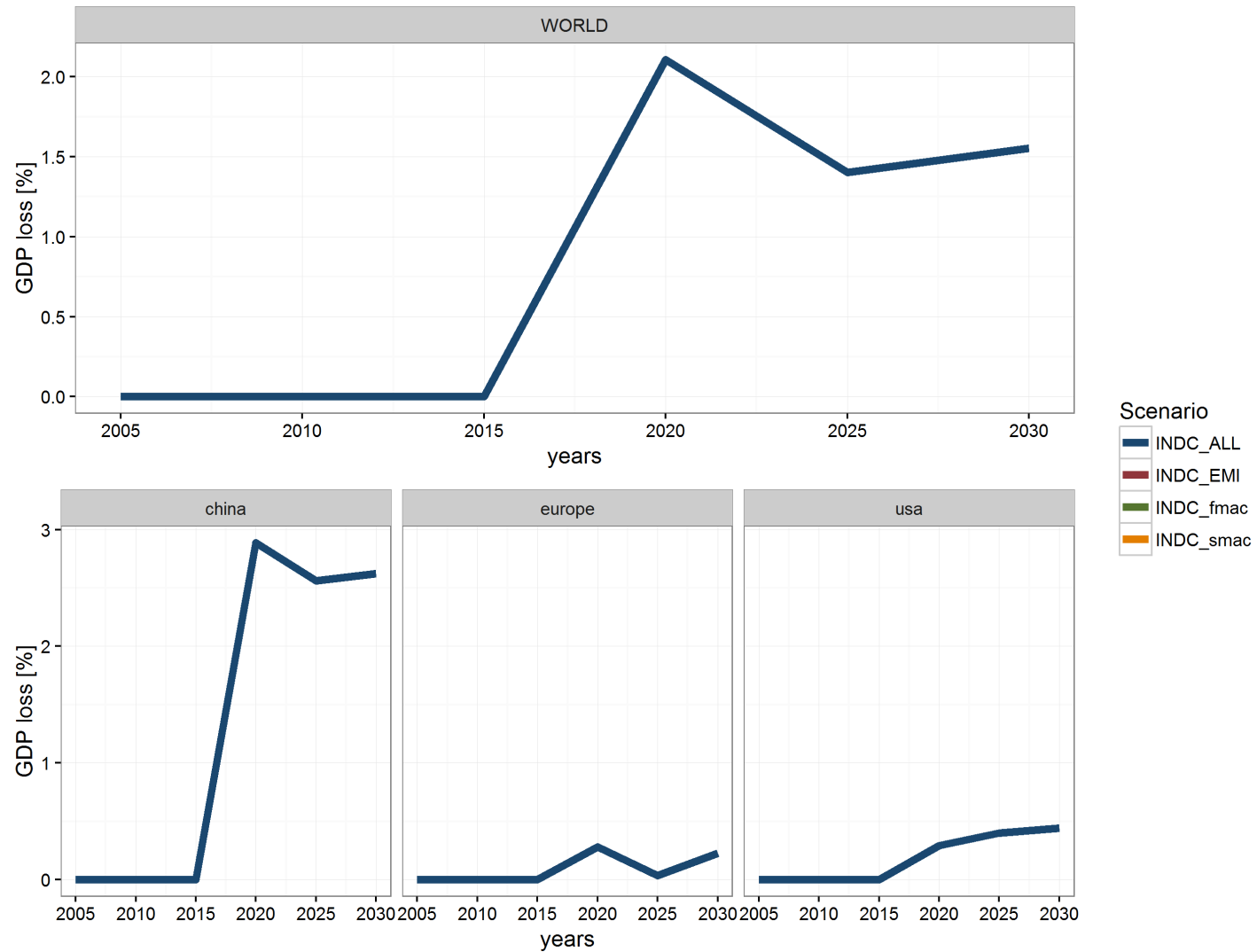


5. GDP Loss (% wrt BAU)

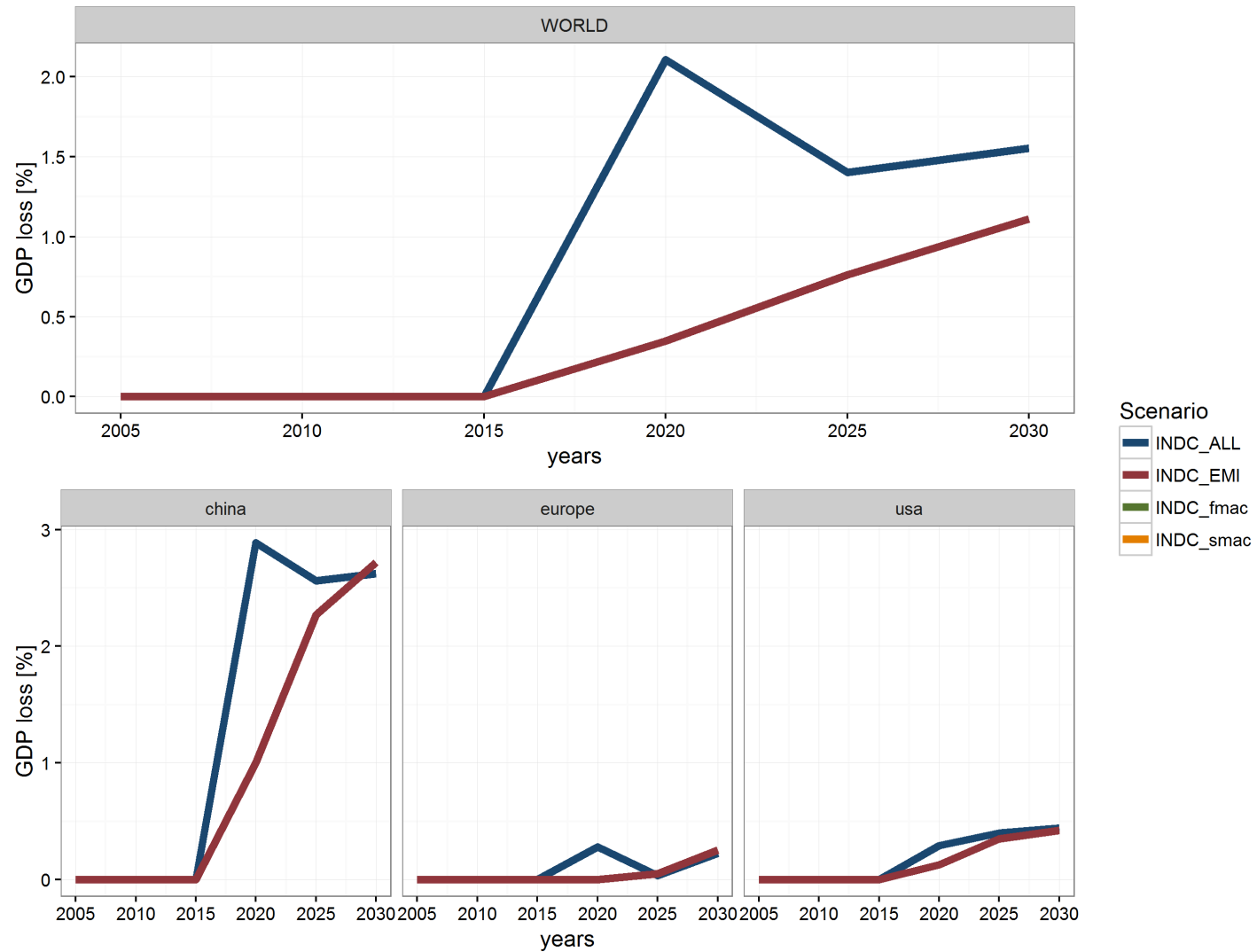
- GDP Loss with respect to the BAU measures the total cost of a policy, it includes the effect of trade of resources between regions, investment costs and taxes

Can the NDCs be less costly?

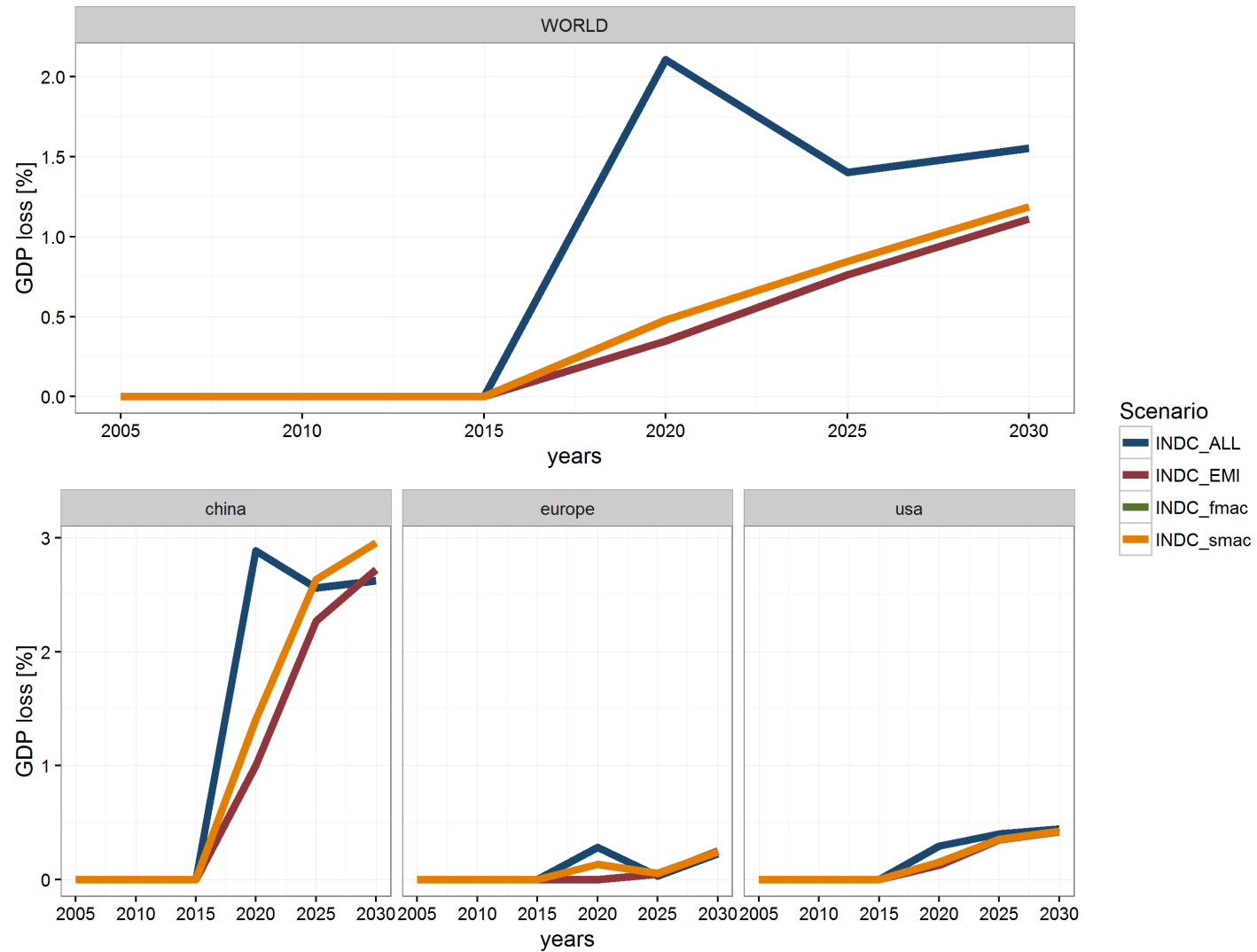
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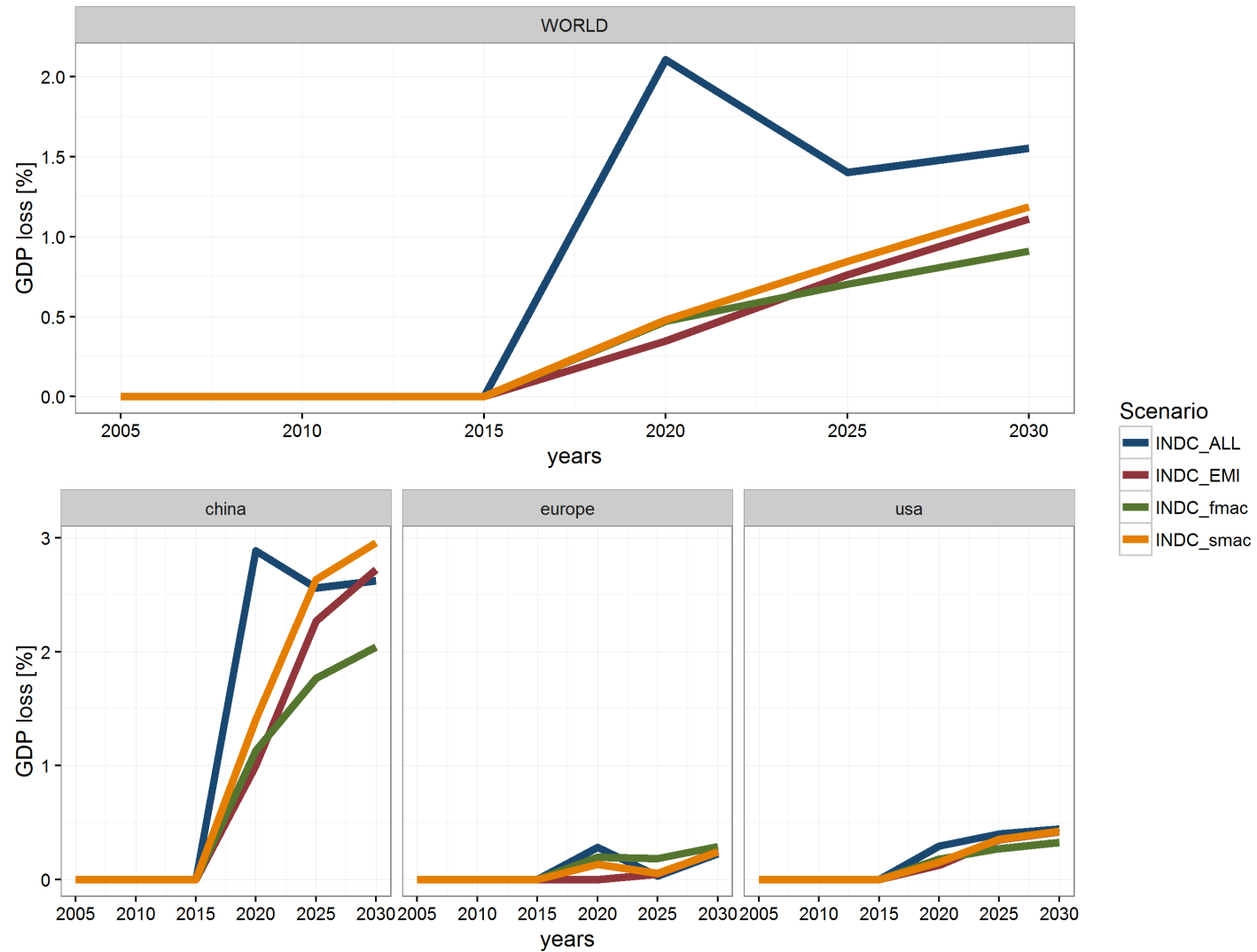
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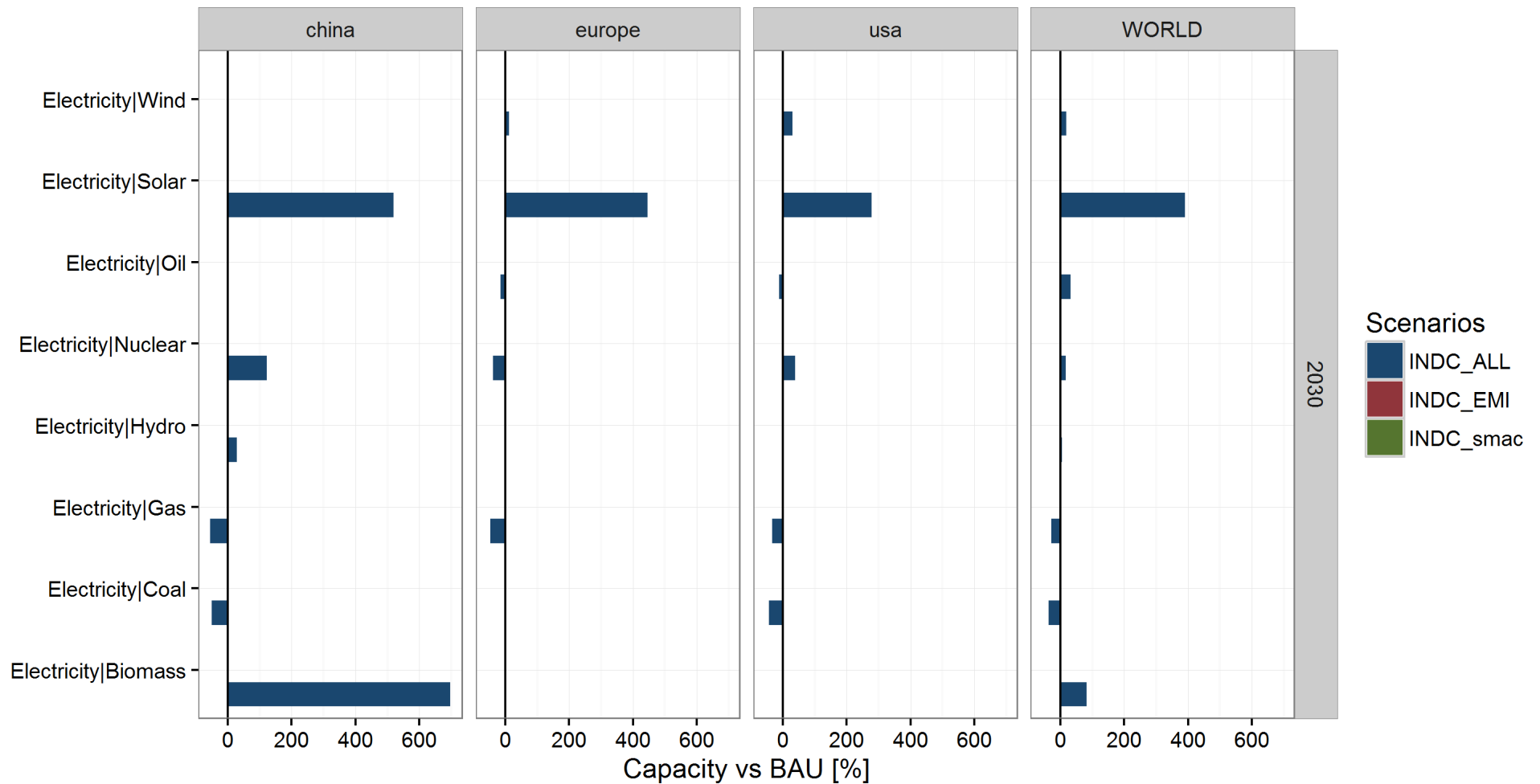


6. Installed capacity

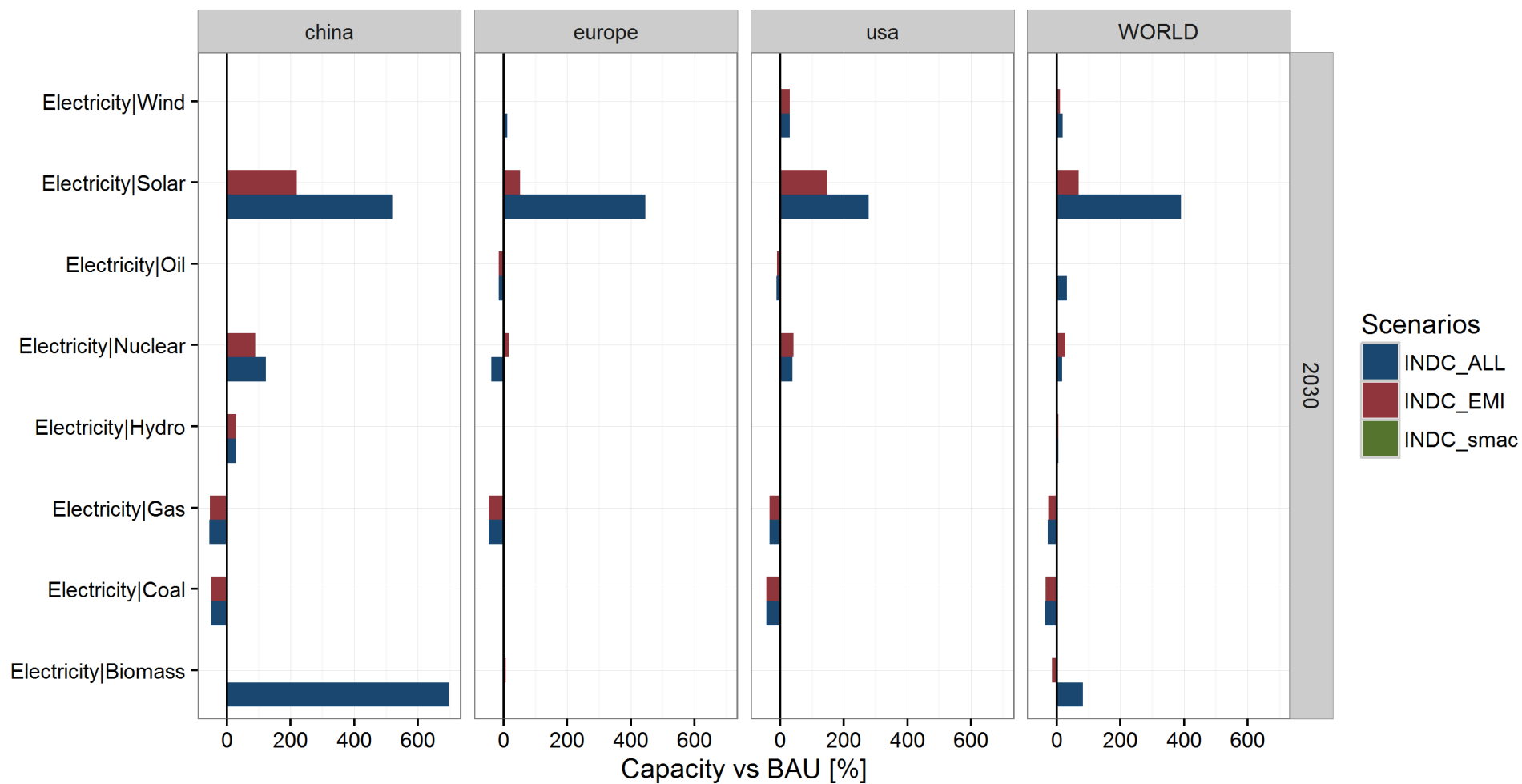
- Installed capacity is a measures of the investments on the energy system

Do national policies benefit technological innovation?

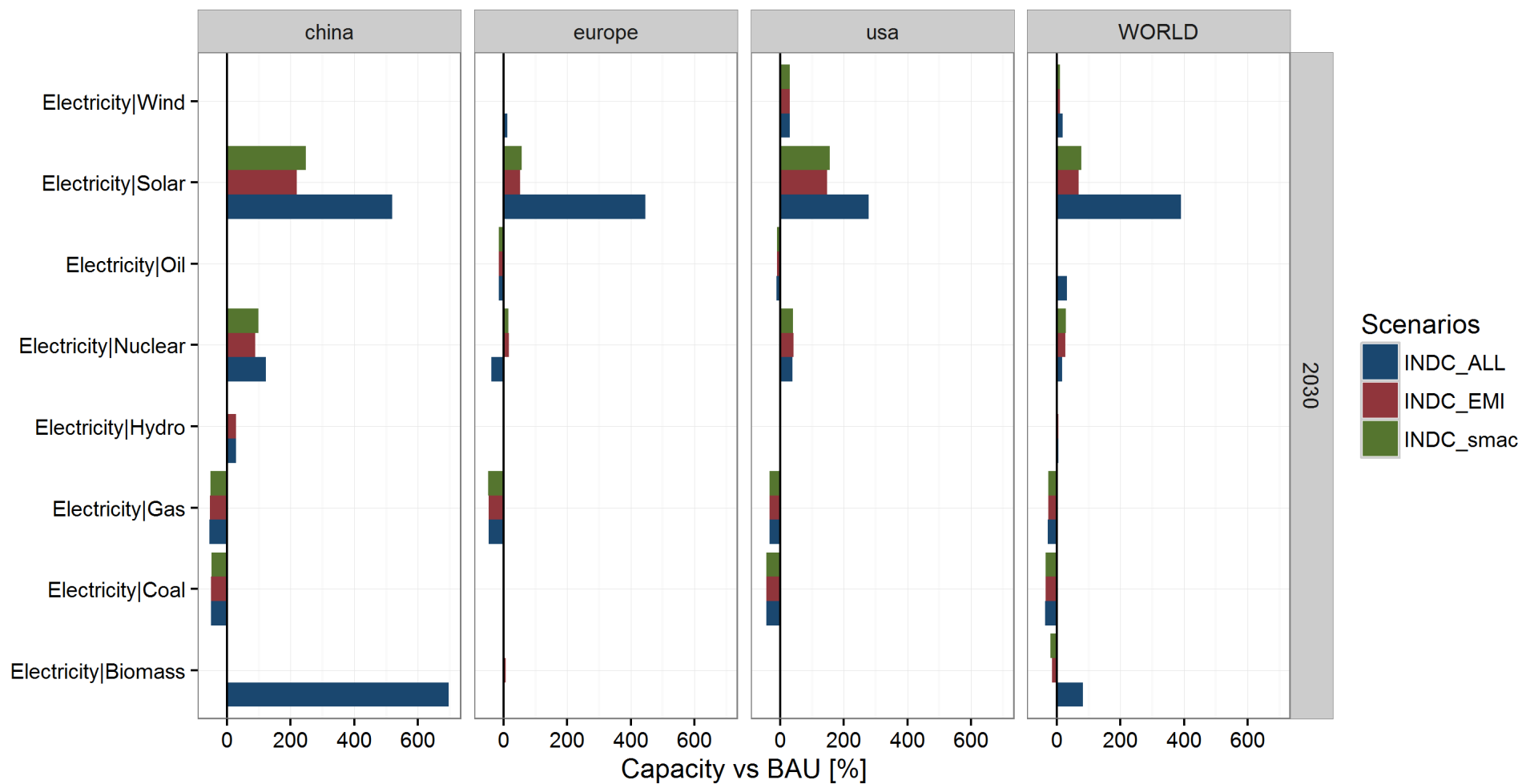
7. Installed Capacity



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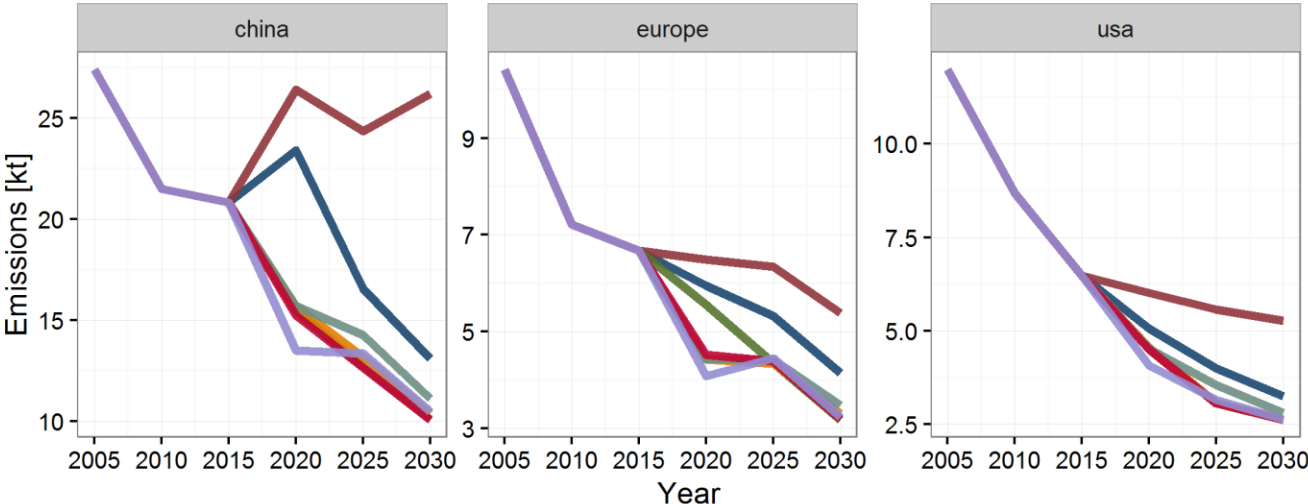
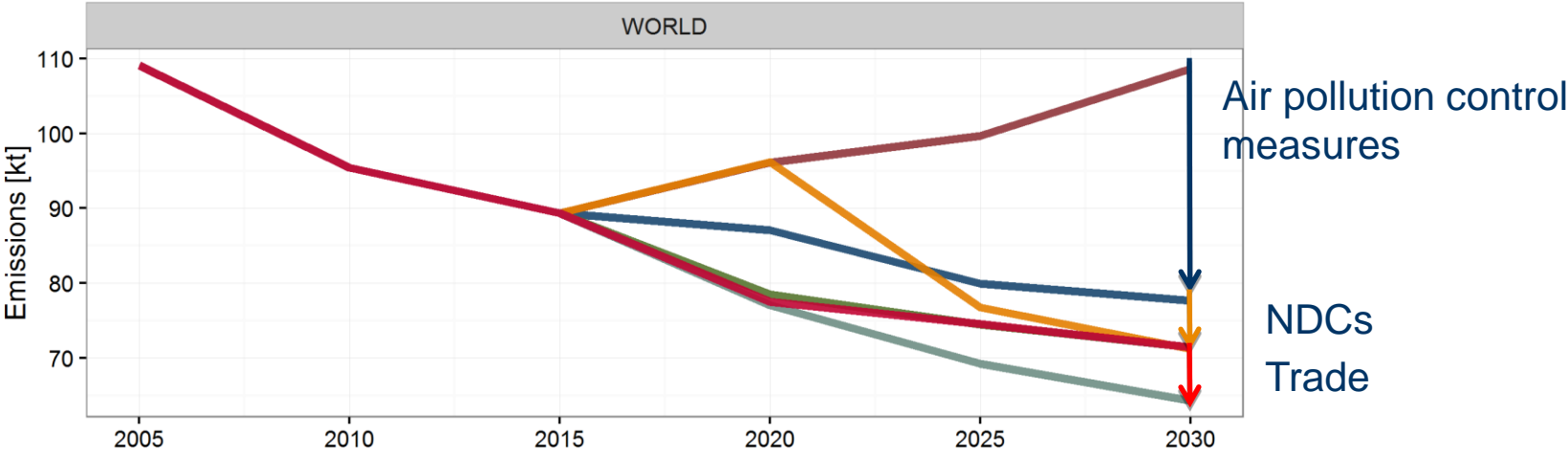
7. Air Pollution

Do national policies generate air pollution co-benefits?

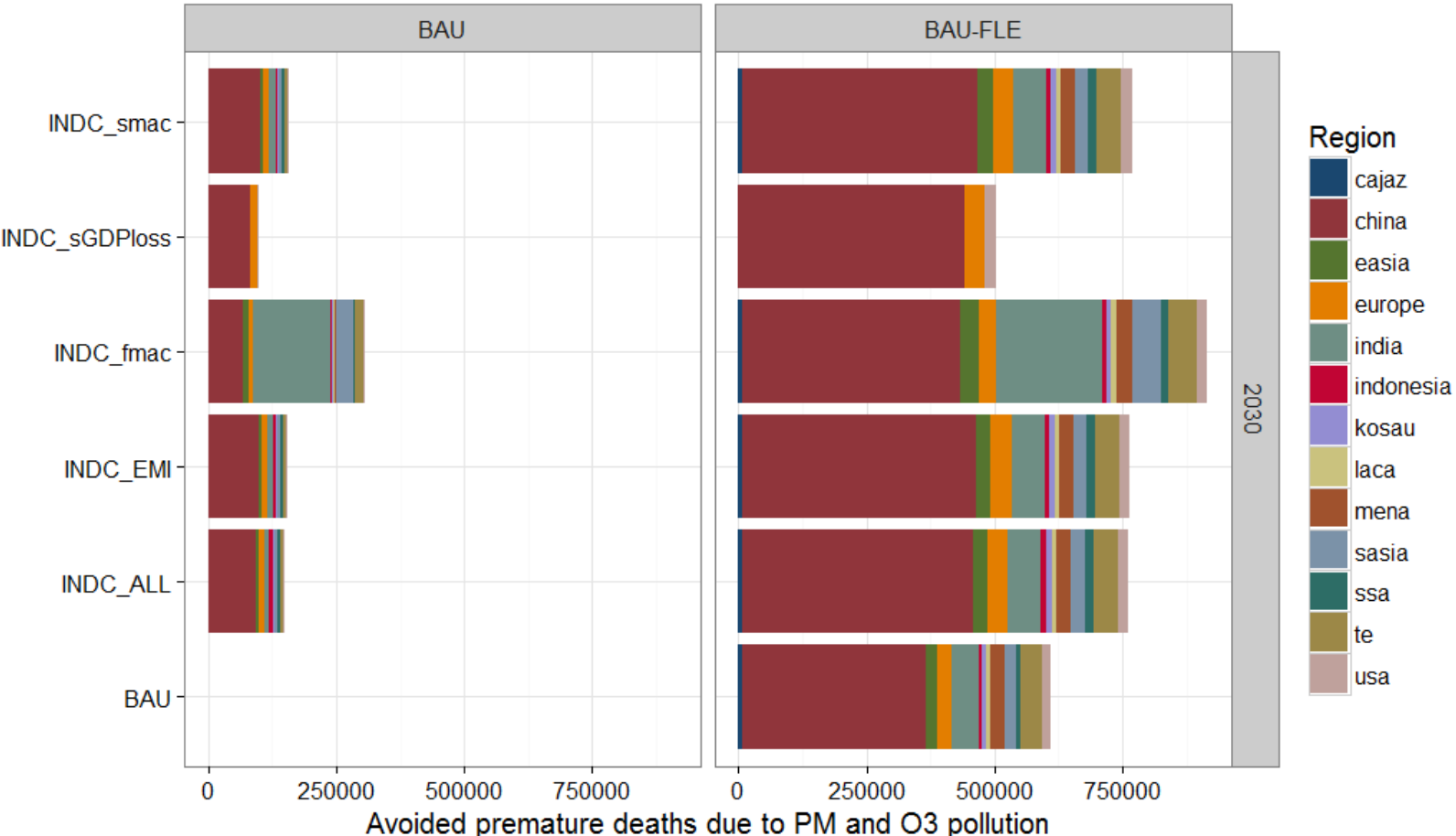
8. Air pollution Emissions (SO2)

Scenarios

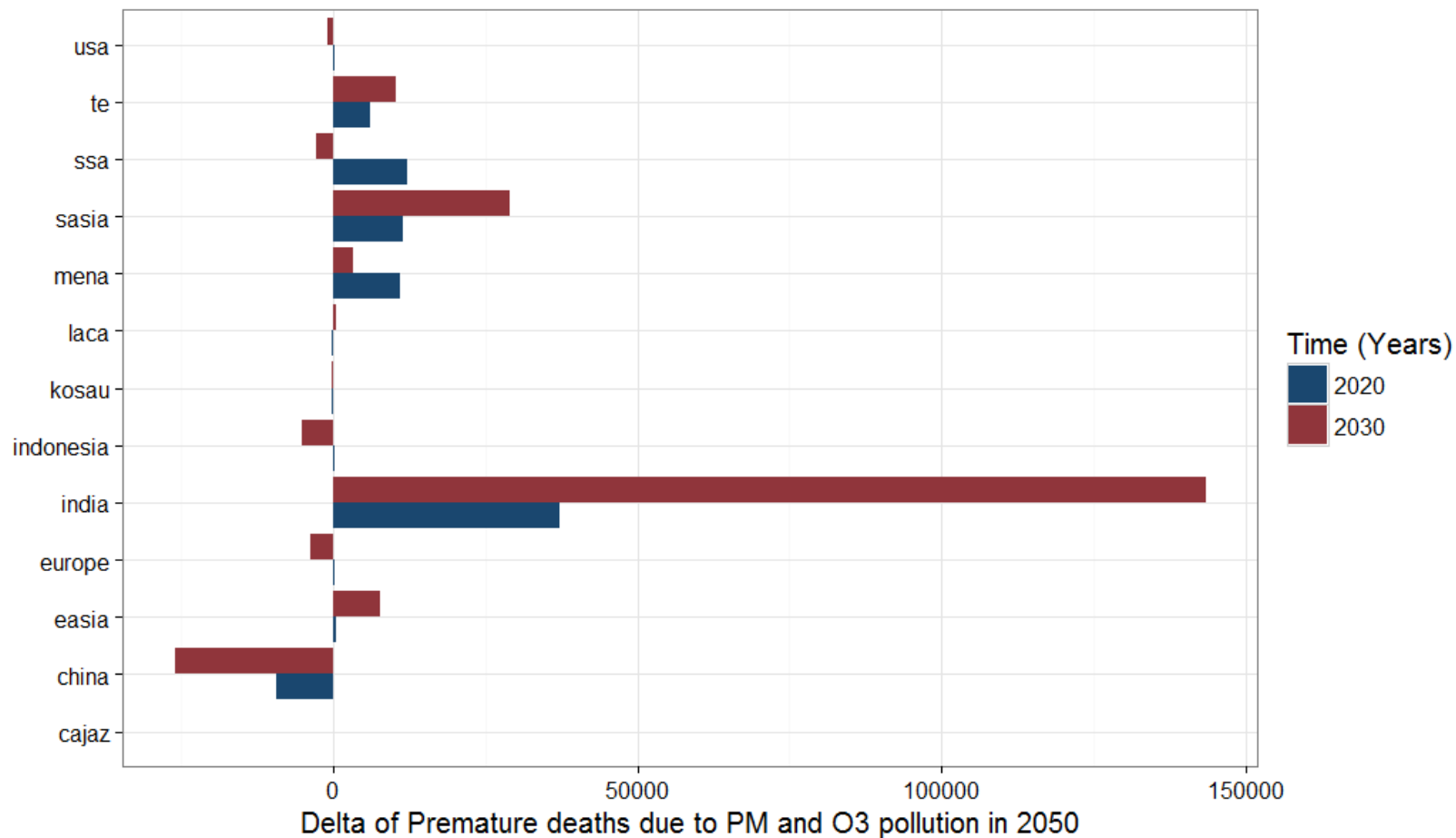
- bau
- bau_fle
- INDC_EMI
- INDC_ALL
- INDC_fmacc
- INDC_smac
- INDC_sGDPlloss



8. Mortality due to Air Pollution

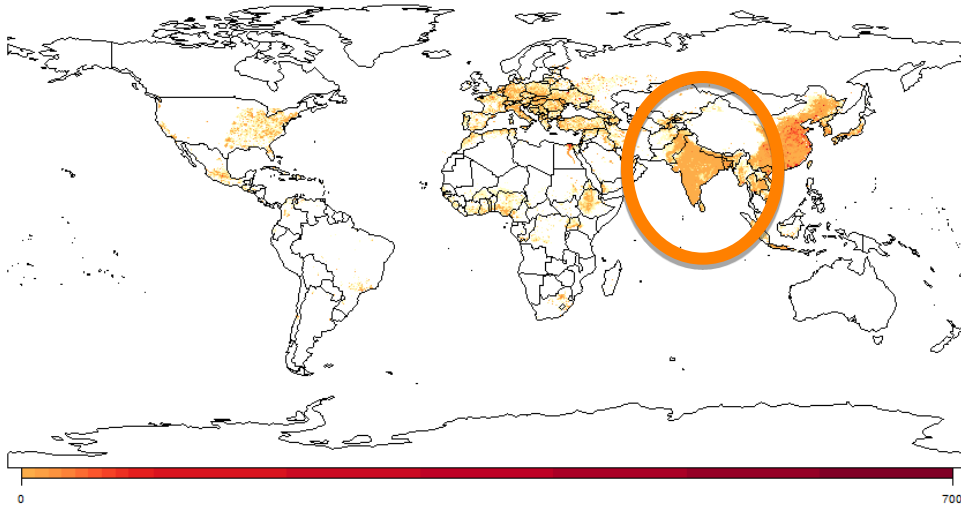


8. Mortality due to Air Pollution – Effects of Global trade

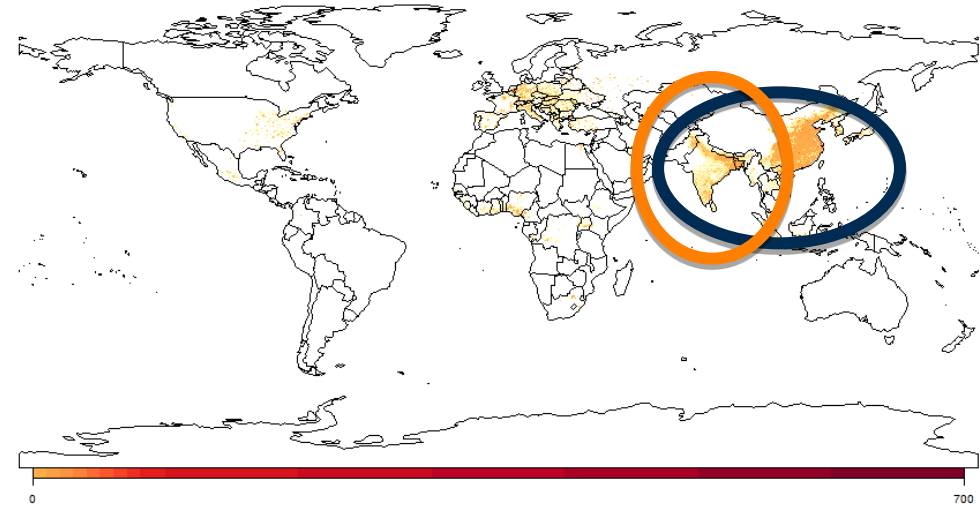


8. Mortality due to Air Pollution in 2030 (avoided deaths)

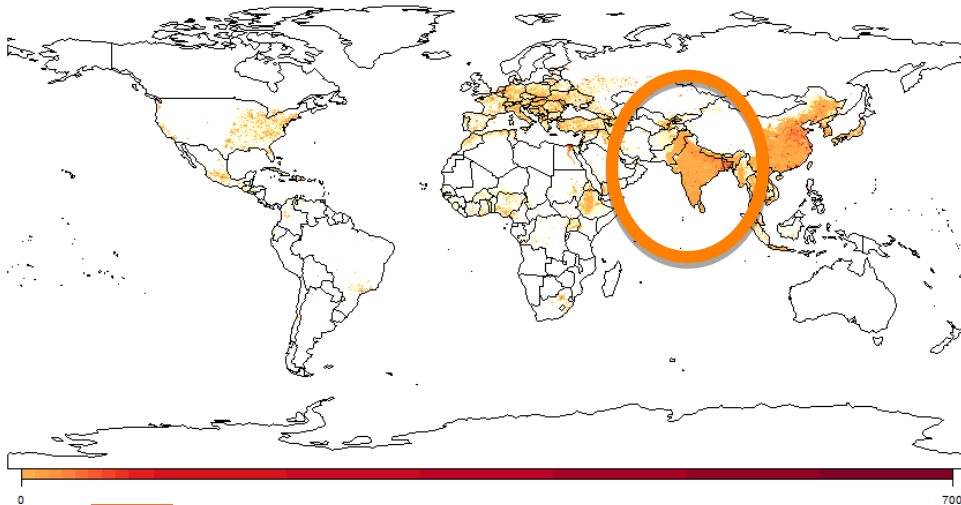
NDC vs BAU-FLE



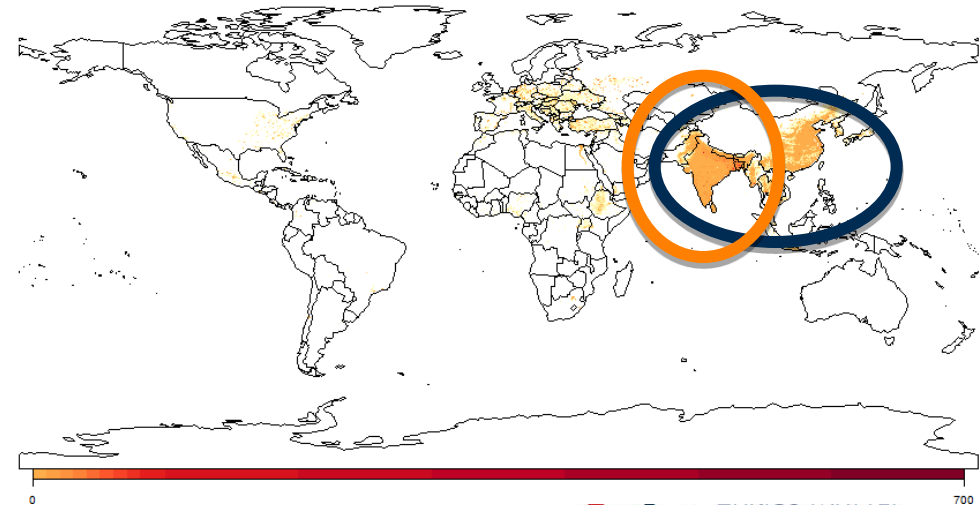
NDC vs BAU



Trade vs BAU-FLE



Trade vs BAU



Conclusions

Can the NDCs be more effective?

- The combination of both emission reductions and energy policies brings emissions down than considering only emission reduction pledges
- For some countries, with the same GDP loss of NDC national commitments is possible to achieve higher reductions both of GHG and air pollutants and avoid more premature deaths, especially in 2020

Do national policies benefit technological innovation?

- Higher deployment of renewables and less development of nuclear (in EU)

How can NDCs generate more air pollution co-benefits?

- A global GHG emission could avoid a considerable number of premature deaths
- The most efficient scenario in terms of climate targets is also more efficient than the NDC policies

Thank you for your attention!

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