



Climate change: Trade as an enabler of diversification

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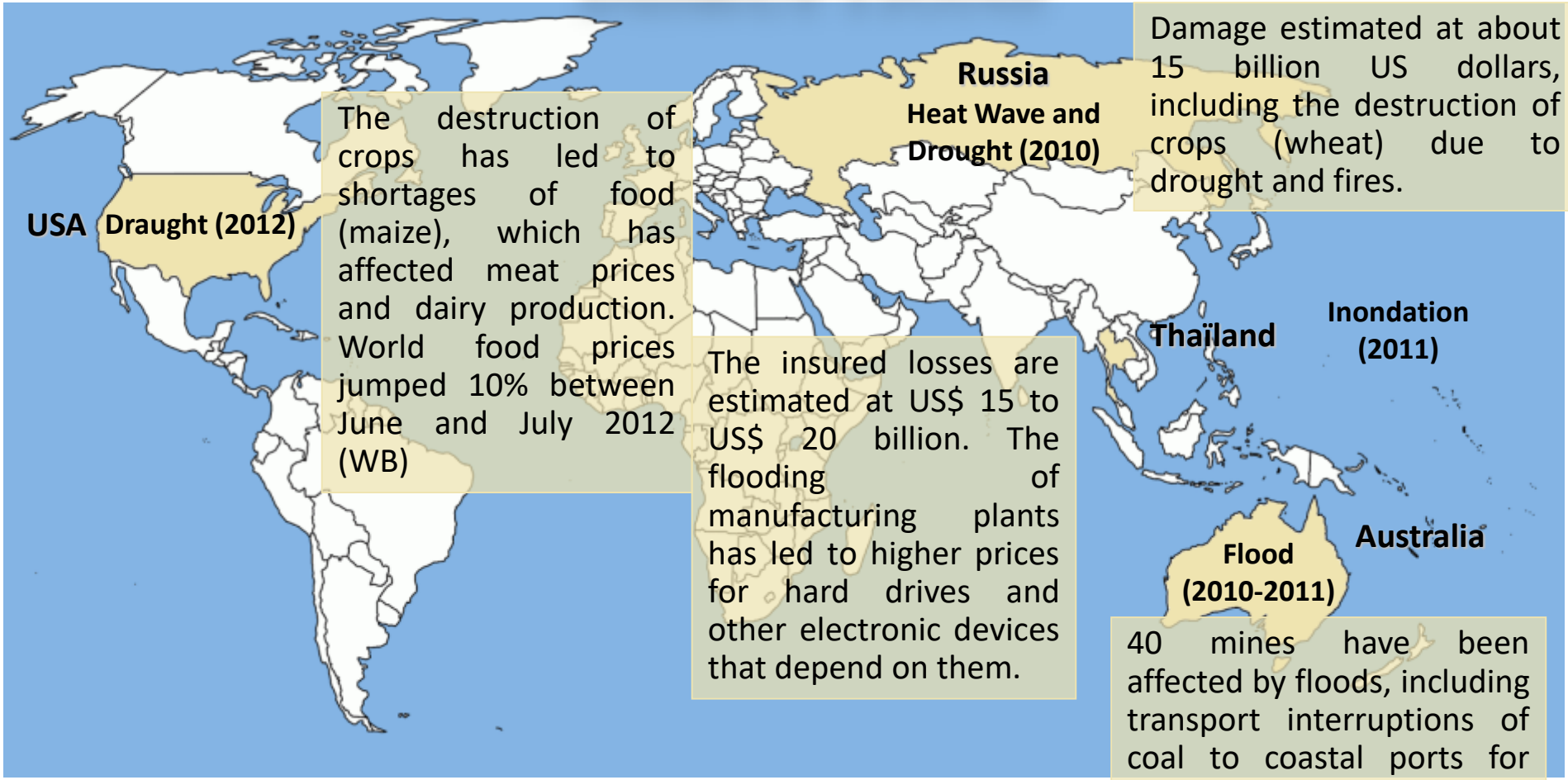
EXTREME WEATHER EVENTS, TRANSPORTATION AND VALUE CHAIN DISRUPTIONS



The destruction of crops has led to shortages of food (maize), which has affected meat prices and dairy production. World food prices jumped 10% between June and July 2012 (WB)

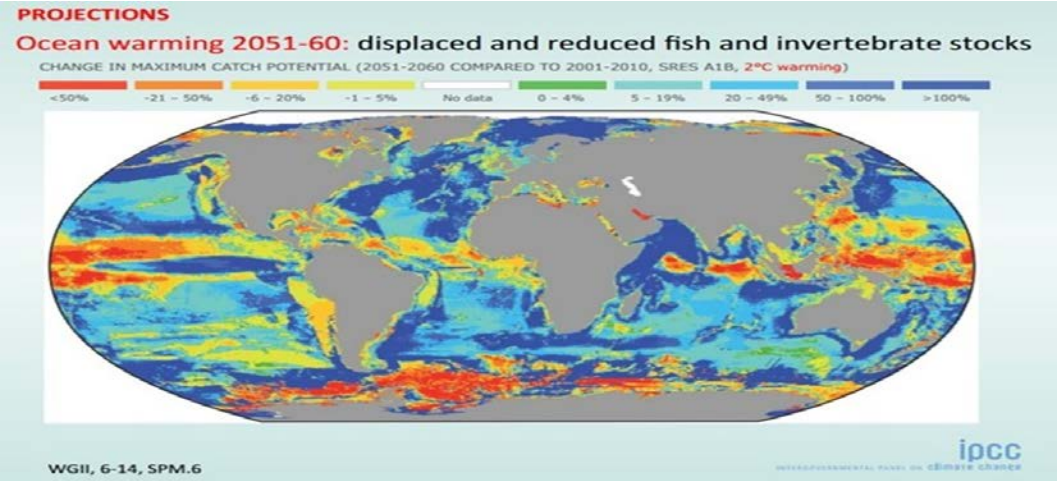
Damage estimated at about 15 billion US dollars, including the destruction of crops (wheat) due to drought and fires.

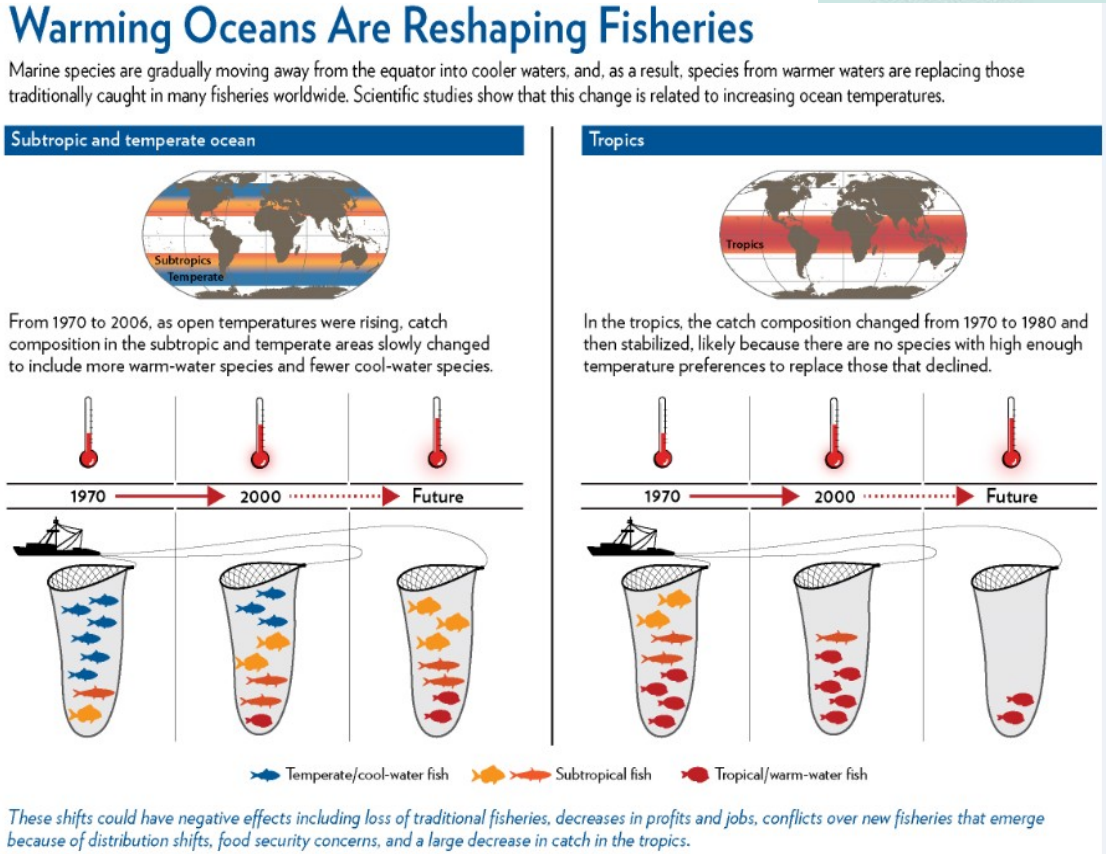
The insured losses are estimated at US$ 15 to US$ 20 billion. The flooding of manufacturing plants has led to higher prices for hard drives and other electronic devices that depend on them.

40 mines have been affected by floods, including transport interruptions of coal to coastal ports for exportation

Climate change impacts fisheries

- Broad impacts brought by climate change in the marine environment: warming water temperatures; changing ocean currents; extreme weather events, storm severity and frequency; and ocean acidification



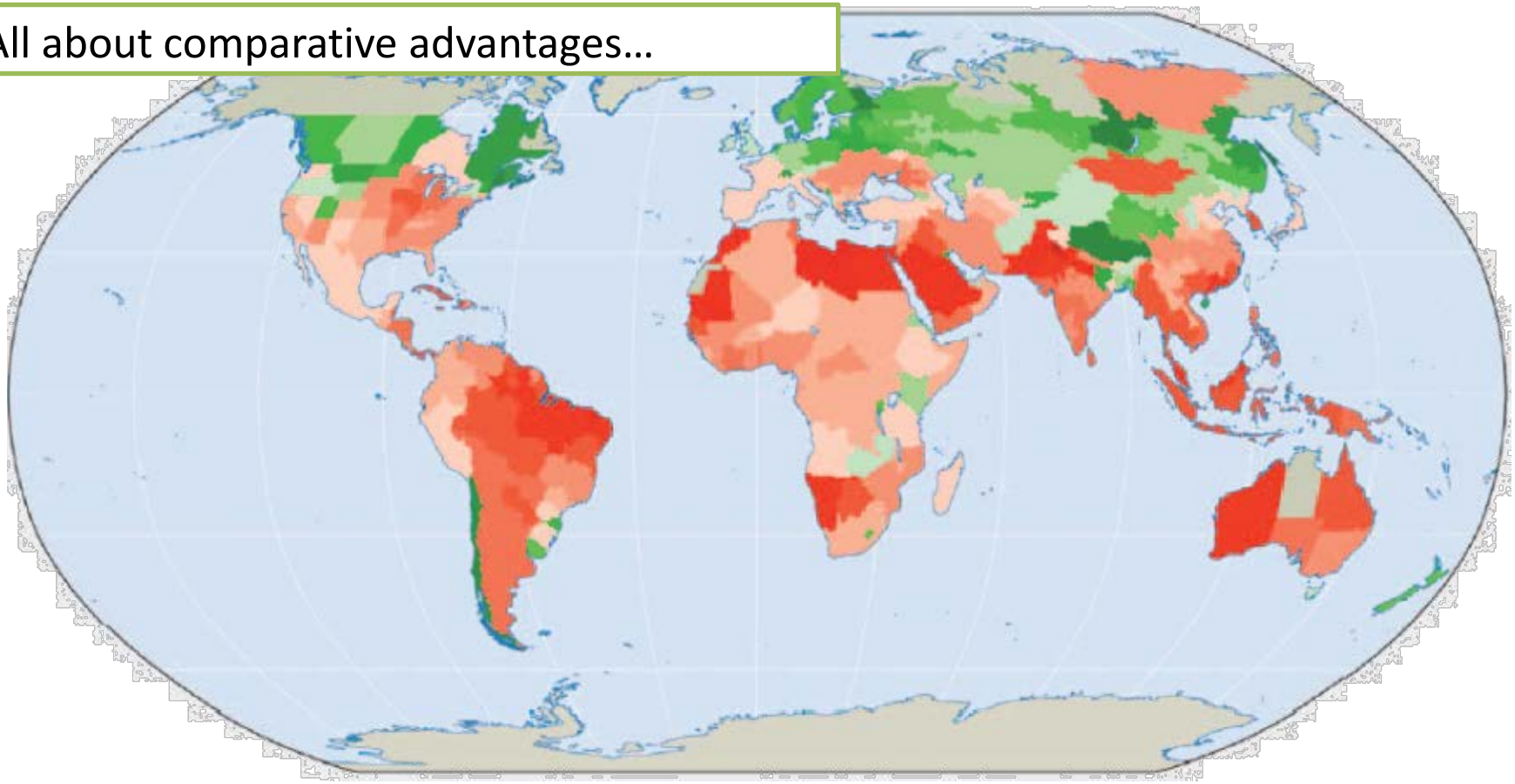


- Fish migration**:** fish which normally thrive in the tropics are quickly migrating in an effort to discover cooler seas. (*Cleaner seas*)
- FAO experts predict that *tropical countries could face up to a 40 per cent drop in the catch potential of traditional and/or commercially valuable species; while high-latitude regions could gain as much as a 30 to 70 per cent increase in catch potential. (BIORES 2015)*
- *The expansion of 'dead zones' driven by climate change.*

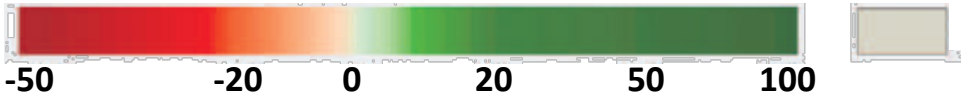
Source: UBC news (May 2013)

Impact of Climate Change on Trade

- All about comparative advantages…

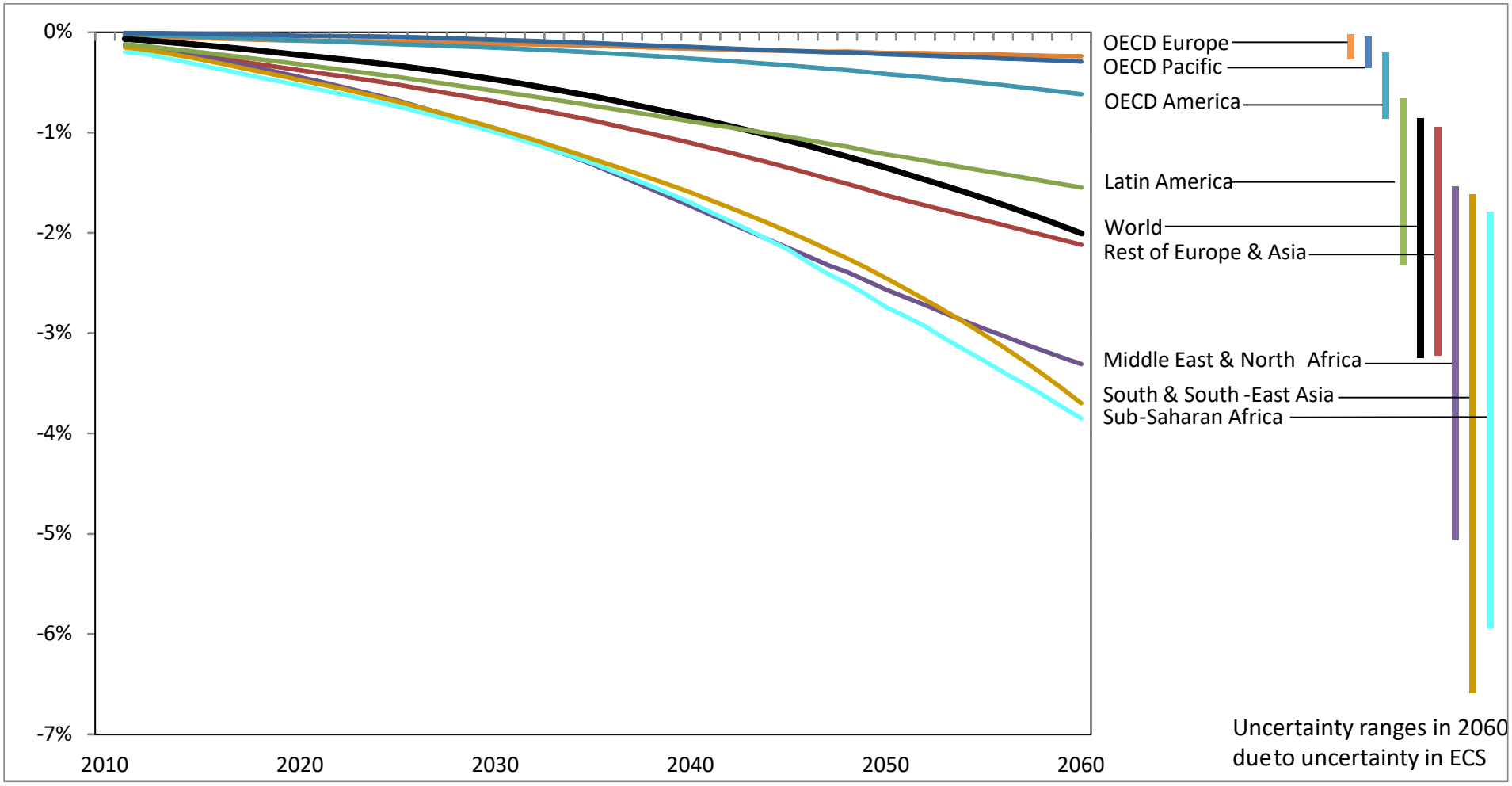


Percentage change in crop yields between present and 2050



Source: Wheeler and von Braun (2013)

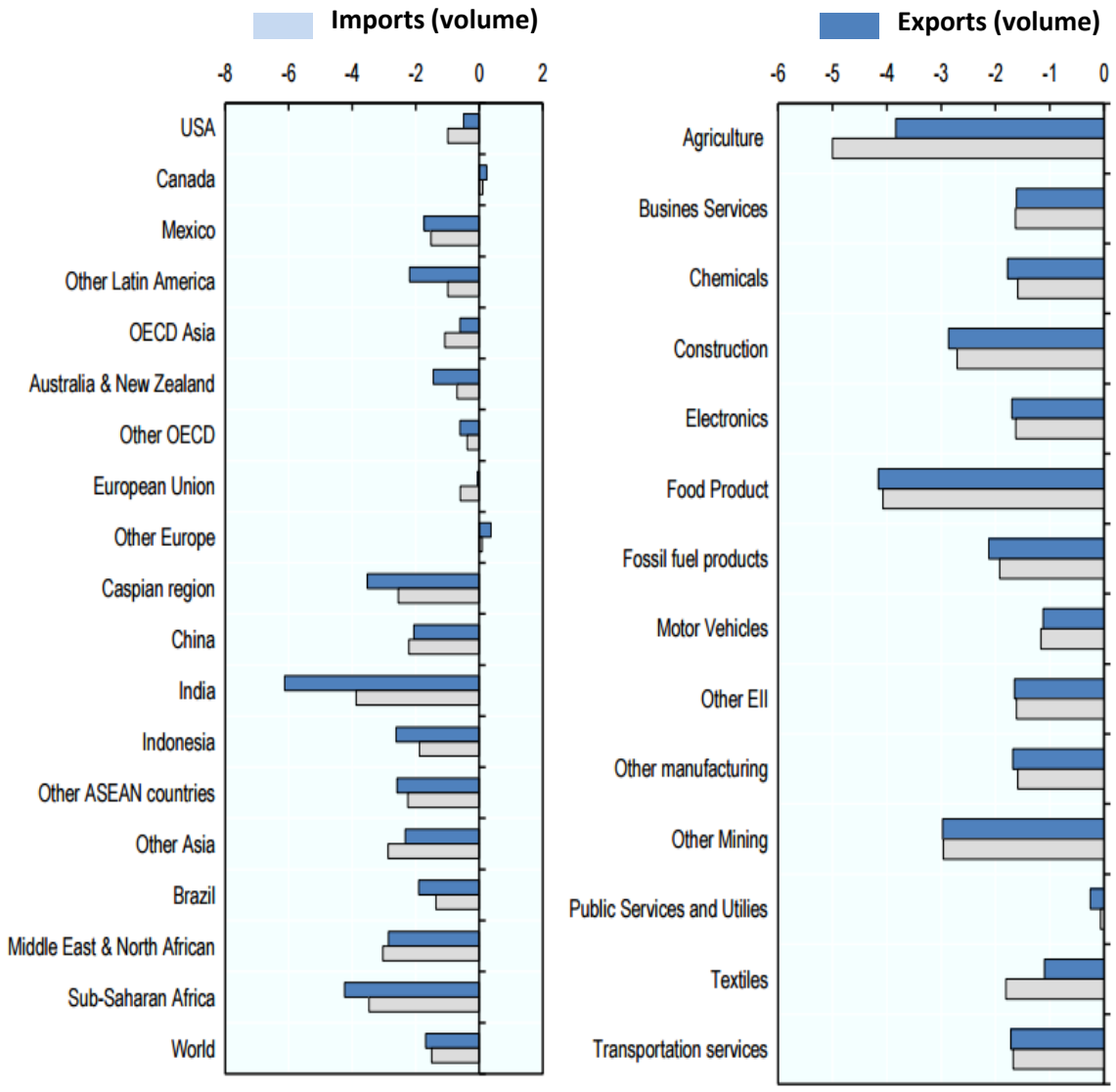
The regional consequences of market damages are strongest in Africa and Asia



Source: OECD (2016)

Impacts on agriculture are relatively strong and agricultural and food trade flows are more affected than other commodities

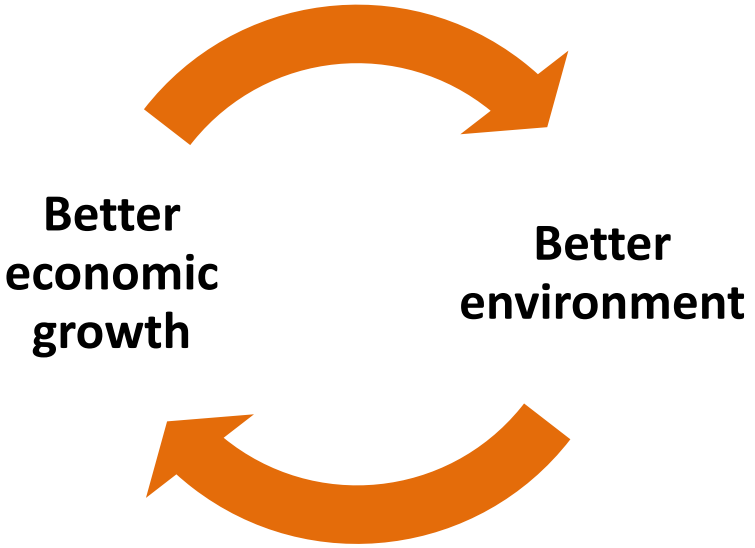
- Generally less imports and exports
- Uneven regional effects across the world
- Agricultural and food products most affected



Source: OECD (2016)

Identifying “win-win” opportunities

Trade as “enabler”



13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

5 shared trade and environment gains

1 MORE AFFORDABLE PROTECTION OF THE ENVIRONMENT

2 FASTER ADOPTION OF GREEN TECHNOLOGIES

3 INCREASED INNOVATION & INVESTMENT IN EARTH-FRIENDLY SOLUTIONS

4 OPPORTUNITIES FOR WORKERS & ENTERPRISES

5 A CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

WHAT WILL IT TAKE TO ACHIEVE 2°C?

Delaying action to 2030 will increase the costs of decarbonisation.
It will also mean we will need to introduce new technologies more quickly.

HOW MUCH WILL DECARBONISATION COST?

Mitigation costs as share of global GDP over the 21st century[1]

GLOBAL ACTION BY 2020

1.7% GLOBAL GDP

GLOBAL ACTION BY 2030

2.2% GLOBAL GDP

HOW FAST WILL WE NEED TO DECARBONISE?

Modelled rate of decarbonisation required (%/year)[2,3]

4% fastest known sustained annual rate of decarbonisation[5]

HOW FAST WILL WE NEED TO DEPLOY KEY TECHNOLOGIES?

Deployment rates ... GW/year)[2,3,4]

WAITING UNTIL 2030...

...will cost 30% more[6]

...means decarbonising two to three times as fast as if we start in 2020

...means deploying key low-carbon technologies at rates far greater than 50 GW/year: as fast as coal use increased at the start of the 21st century

2000–2010 average annual deployment rates (GW/year)

1. Using one illustrative model that fits IPCC range
2. Using a range across three models
3. Rate is for the decade following start of action
4. Deployment rates are average annual rates over the decade following the start of mitigation action
5. Maximum average annual decline over a decade, Sweden 1973–1983
6. Delaying the deployment of key technologies would further increase mitigation costs

For further information, please visit www.avoid.uk.net/feasibility/moreinfo

AVOID 2
Can we avoid dangerous climate change?

Trade can help on all fronts...

… while creating job opportunities…

2,580 person-days

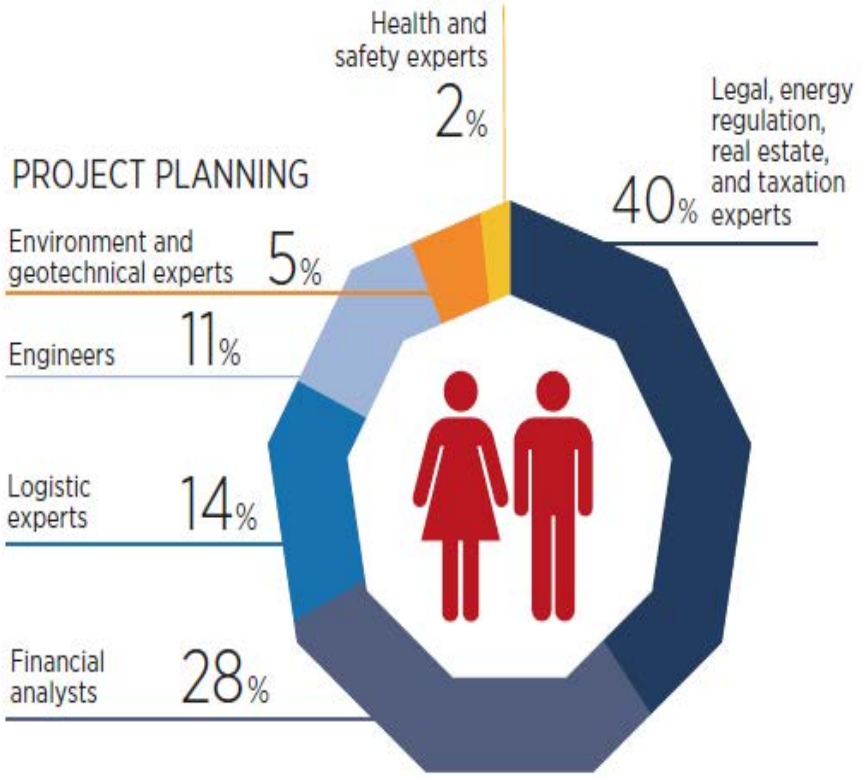
PROJECT PLANNING

19,000 person-days

MANUFACTURING AND PROCUREMENT

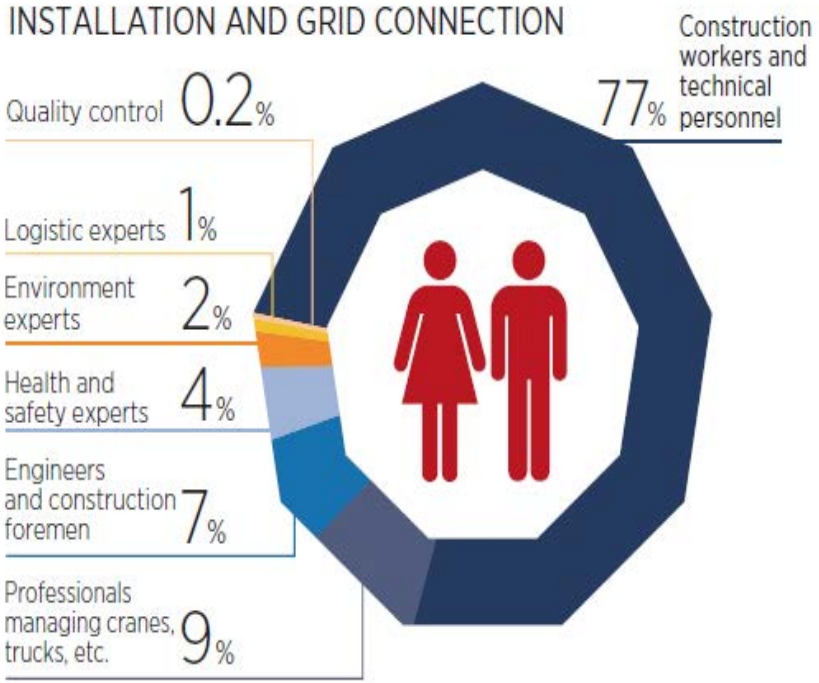
875 person-days per 300 miles

TRANSPORT



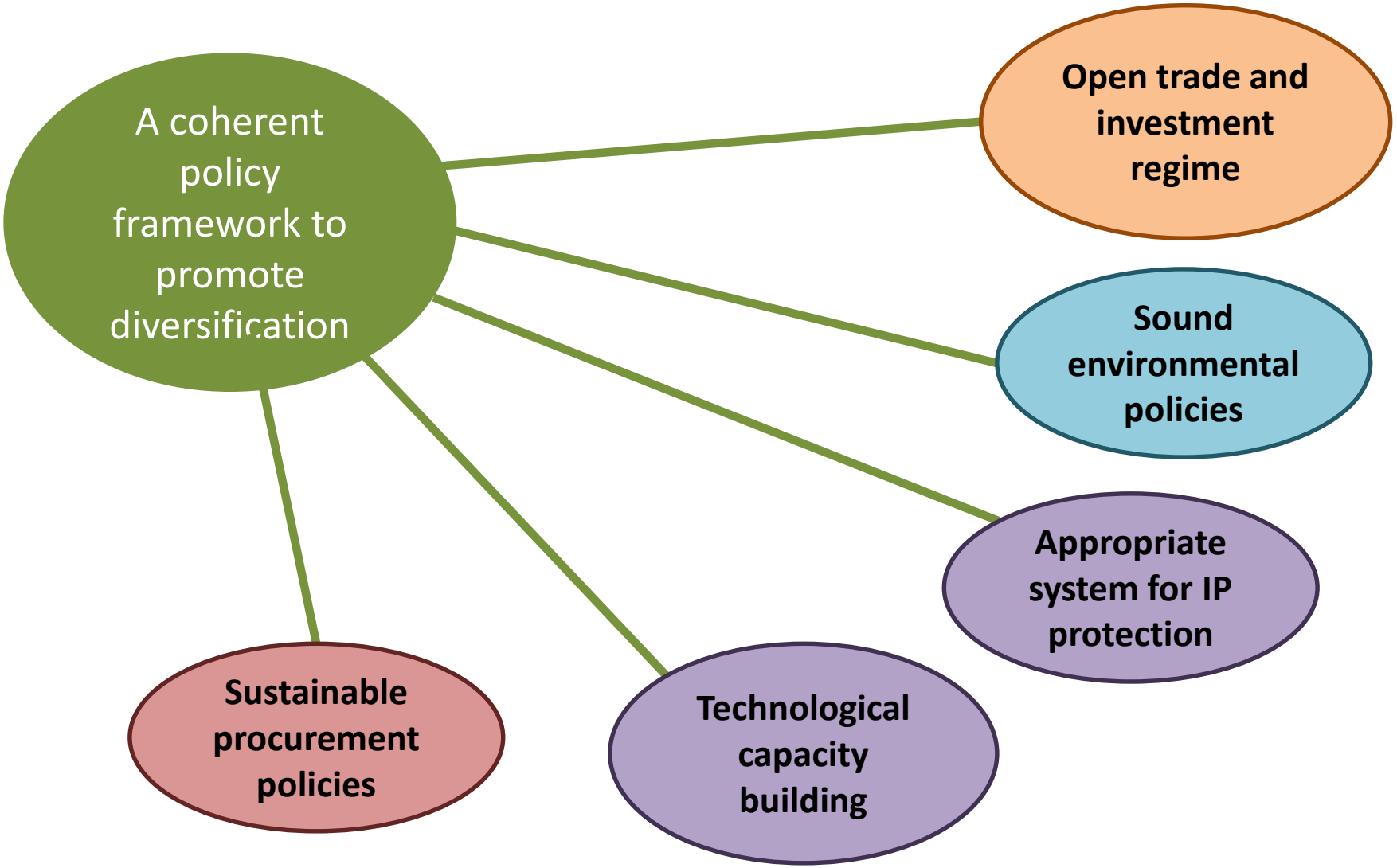
Source: IRENA (2017)

… while creating job opportunities…

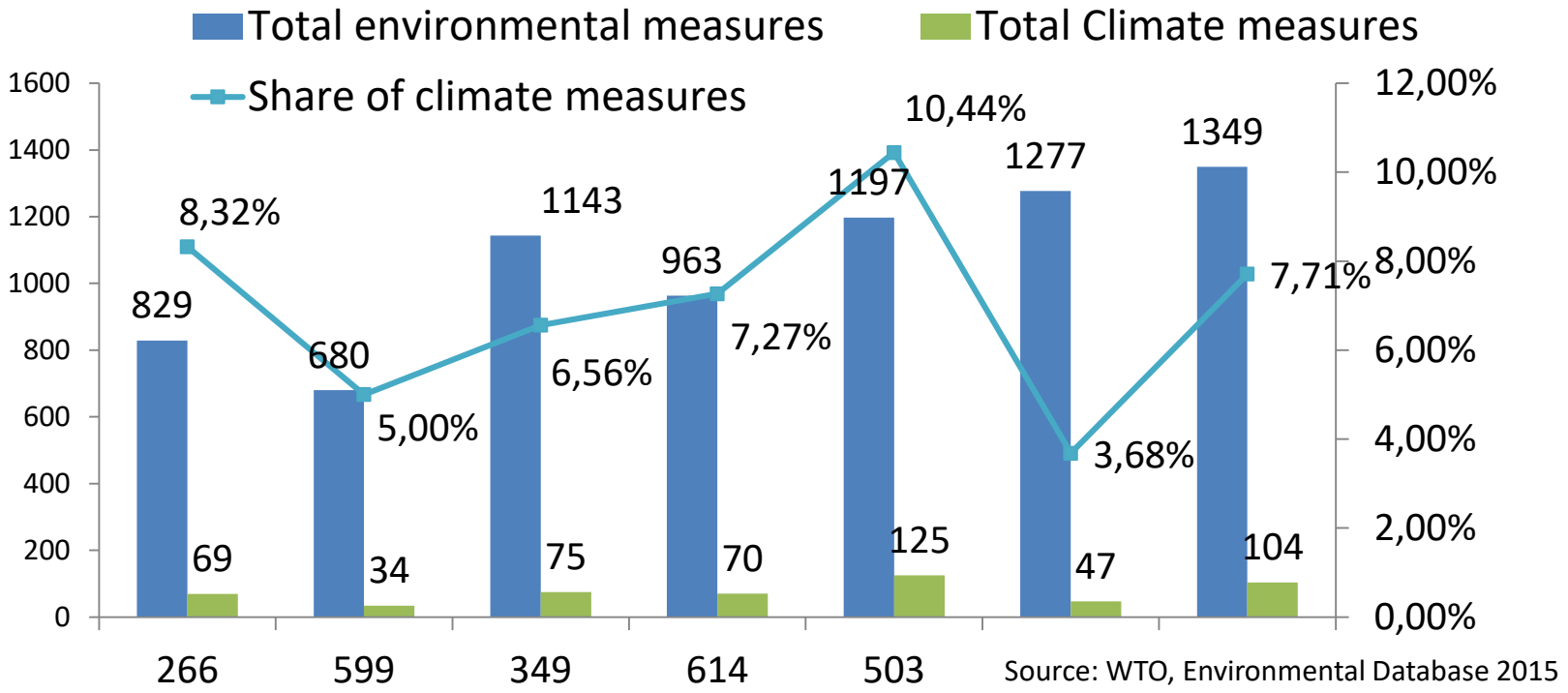


Source: IRENA (2017)

Trade is not a silver bullet, but a necessary part of a coherent diversification framework



Share of Environment-related Measures adopted for CC reasons



- Since 2009, **524 measures** notified to the WTO for climate mitigation/adaptation
- If we also consider climate change-related measures (*clustering*) – around 38% of the environment-related measures notified to the WTO are adopted for climate action purposes…

A unique WTO forum for trade and environment

CTE supports WTO members in:

- Understanding the **links between trade and environmental policies**
- Learning from **national experiences**
- Avoiding **green protectionism** and strengthening the **positive interaction** between trade and the environment
- Coverage – Fishing
  - Climate change
  - Other issues

Thank you

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