



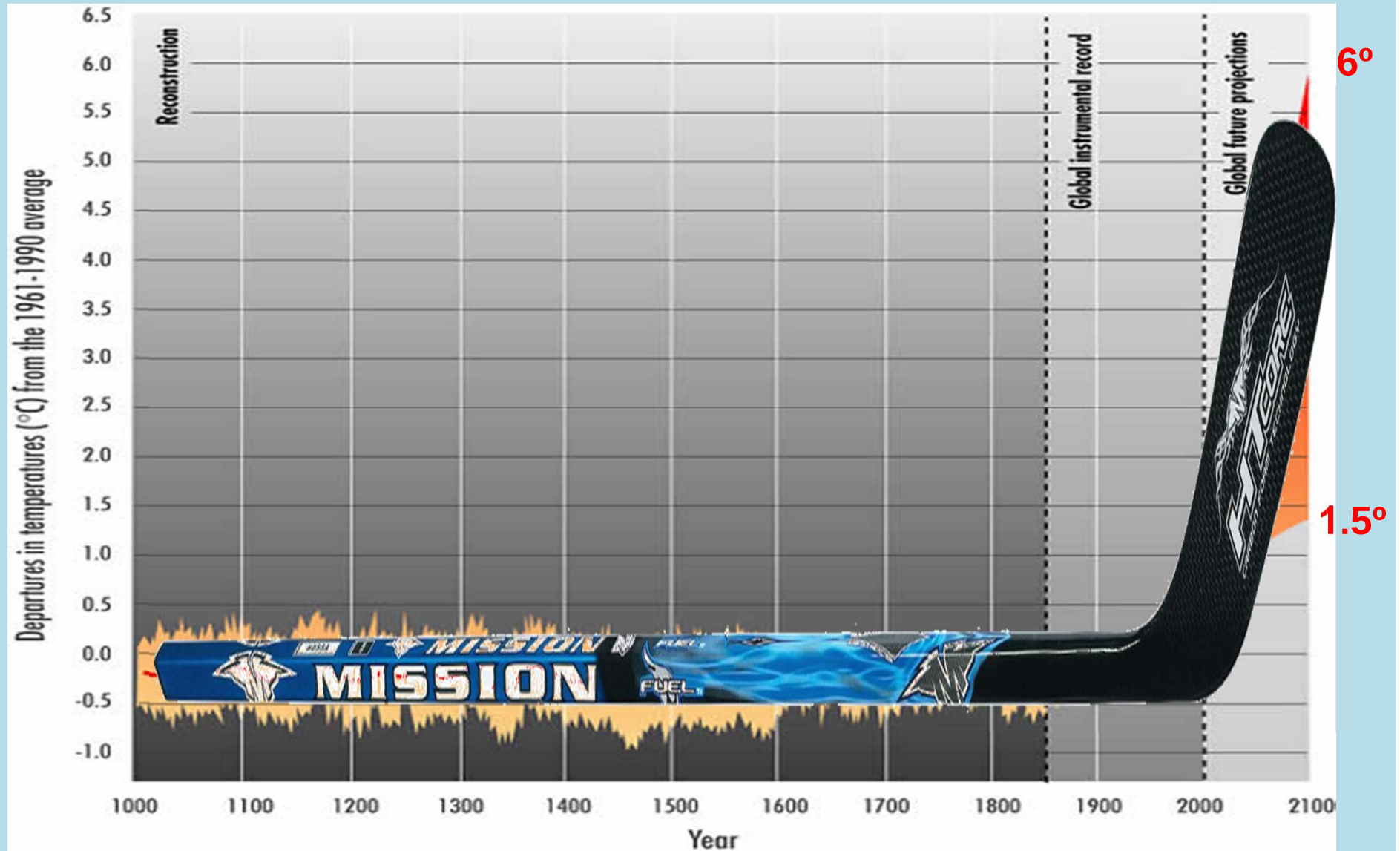
Bridging the Gap – A Role for Business in Climate Change Adaptation

Setting the Scene:

Why should the private sector care about climate change?

UNDP Asia-Pacific Regional Center
Bangkok, February 2011

1. Impacts of Climate Change





Changes in forest composition, extent, health & productivity; forest fires

Variability in water supply, quality & distribution; growing competition and risks of conflicts; transboundary water management issues

Erosion, inundation, salinisation; stress on mangroves, marshes, wetlands

PUBLIC HEALTH

AGRICULTURE

FORESTRY

WATER RESOURCES

COASTAL SYSTEMS

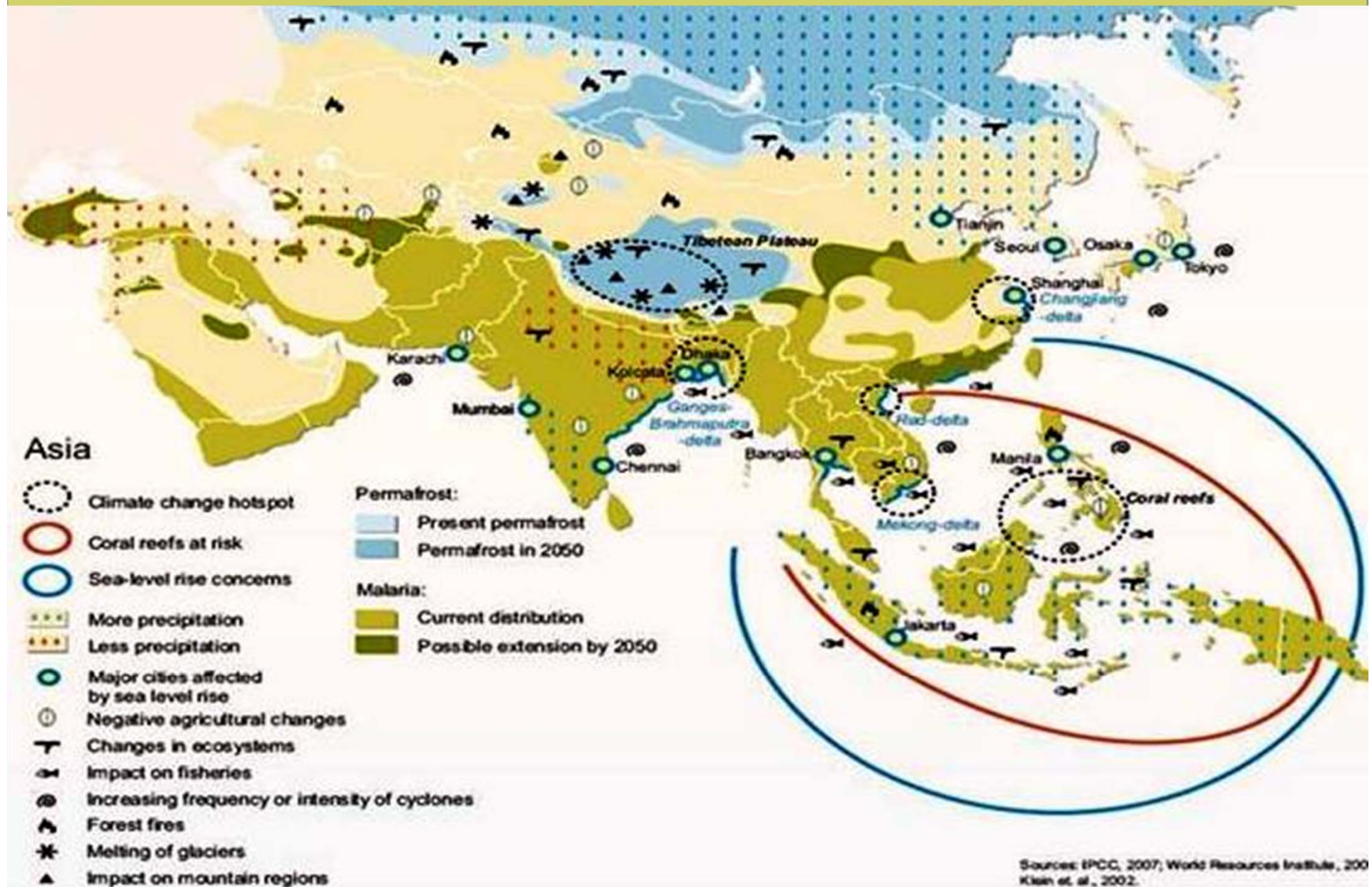
ECOSYSTEM SERVICES



Increasing incidents of infectious, water-borne and vector-borne diseases, heat stress & mortality, additional public health costs

Less predictability in crop yield, changing irrigation demand, growing risk of pest infestations

Loss of habitat, species and protective ecosystems; migratory shifts



- **Some changes are more certain than many people think:**
 - CO₂ *will* rise (how much depends on us)
 - Temperatures *will* rise (+0.6 - 1.5°C by 2030, 1 – 5 °C by 2070)
 - Sea level *will* rise (~1m by 2100)
 - Oceans *will* acidify

For these impacts, the trend and magnitude of change is quite sure, just the timing is a little uncertain

- **Some changes are likely, but the direction of change will vary across locations:**
 - Rainfall patterns will change, but we don't know exactly where
 - Storms/cyclones will most probably intensify
 - 'High end' extremes will be more likely (and may co-occur):
Heatwaves, drought, fires, hail, floods
 - 'Low end' extremes will generally decline (e.g. frosts)

*These impacts are more uncertain
(but these phenomena are variable anyway)*

2. What is Adaptation?

Public and private sector entities can do something to reduce climate change-related risks:

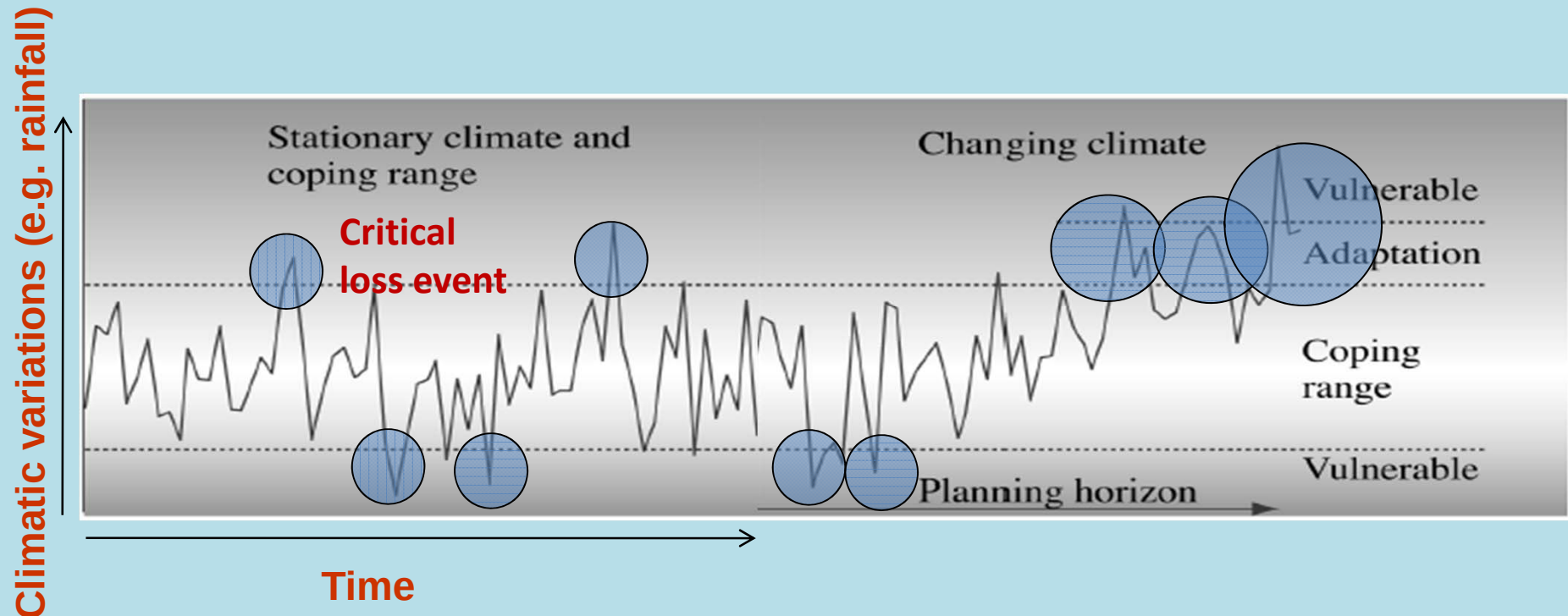


**CLIMATE
CHANGE
MITIGATION**

**CLIMATE
CHANGE
ADAPTATION**

- “Initiatives & measures to **reduce vulnerability** of natural & human systems against **actual or expected climate change effects**” (UNFCCC, 2007)
- Adapting to Climate Change entails measures to reduce the negative effects of climate change or exploit the positive ones by making the appropriate **adjustments** and **changes** (e.g. in public policy, investment planning, research & technology, etc.)
- **“Development in a carbon-constrained world”**
“Development with a future vision of risk”

Vulnerabilities in a changing climate do not remain static





• Incremental Adaptation

Maintaining existing activities and building on existing technologies

- reactive and proactive
- local scale, sometimes autonomous
- maintain existing objectives

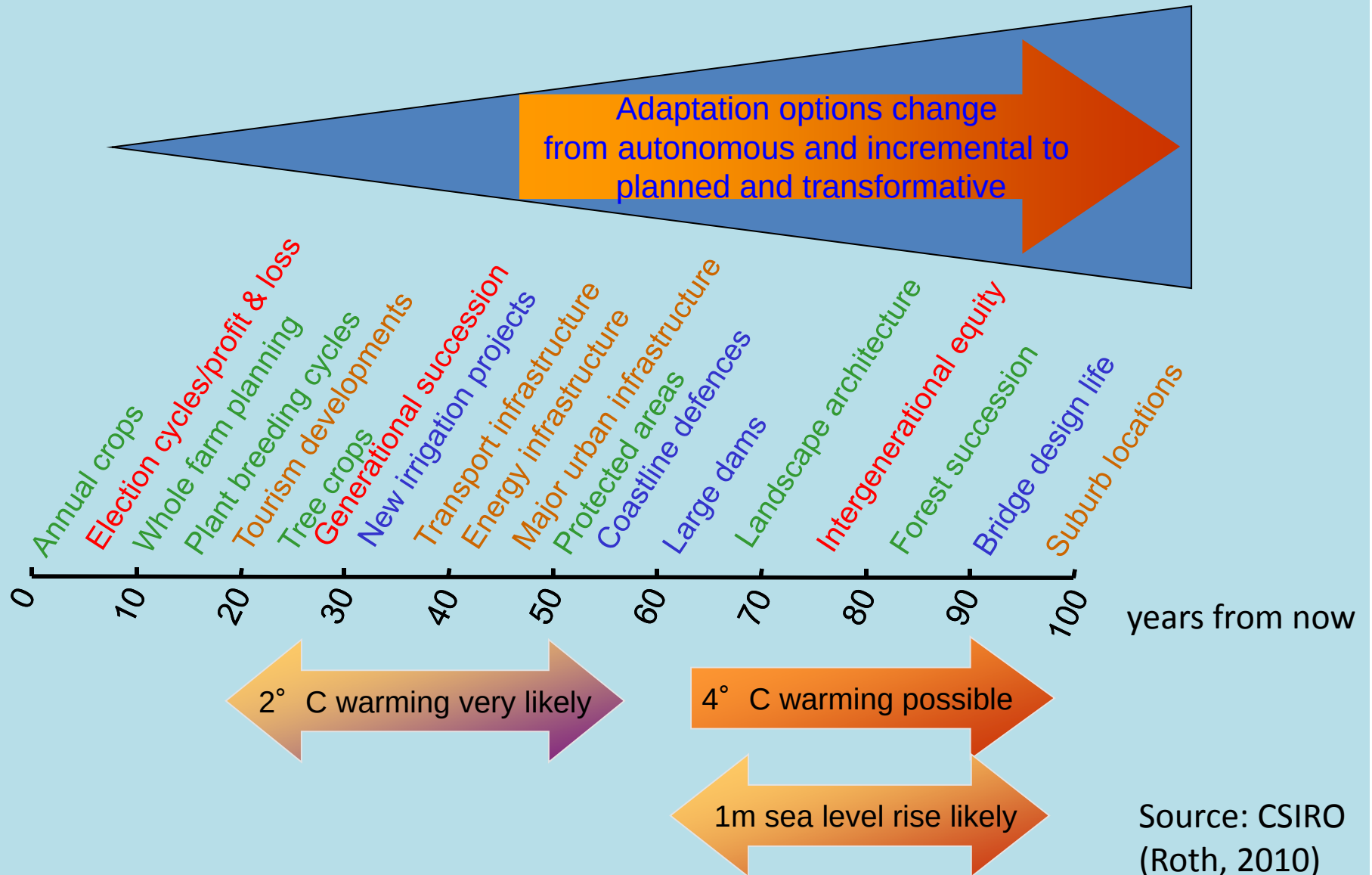


• Transformational Adaptation

Major changes in enterprises, land use, investment planning

- proactive and strategic
- cross-scale and based on planning
- fundamentally re-assess objectives

Not everything has to adapt at once...

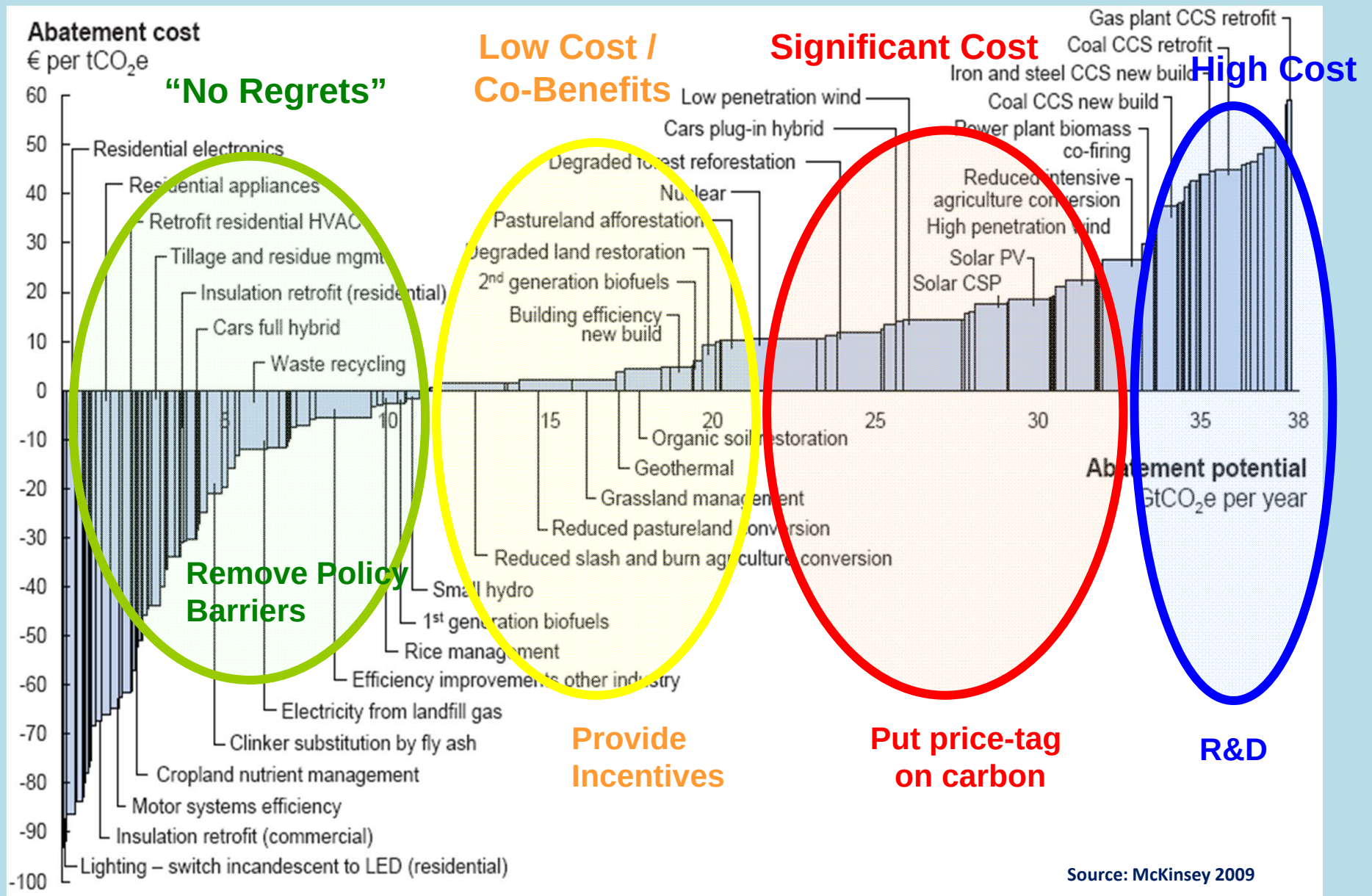


3. What are Governments doing?

Governments are acknowledging a new Development Paradigm:

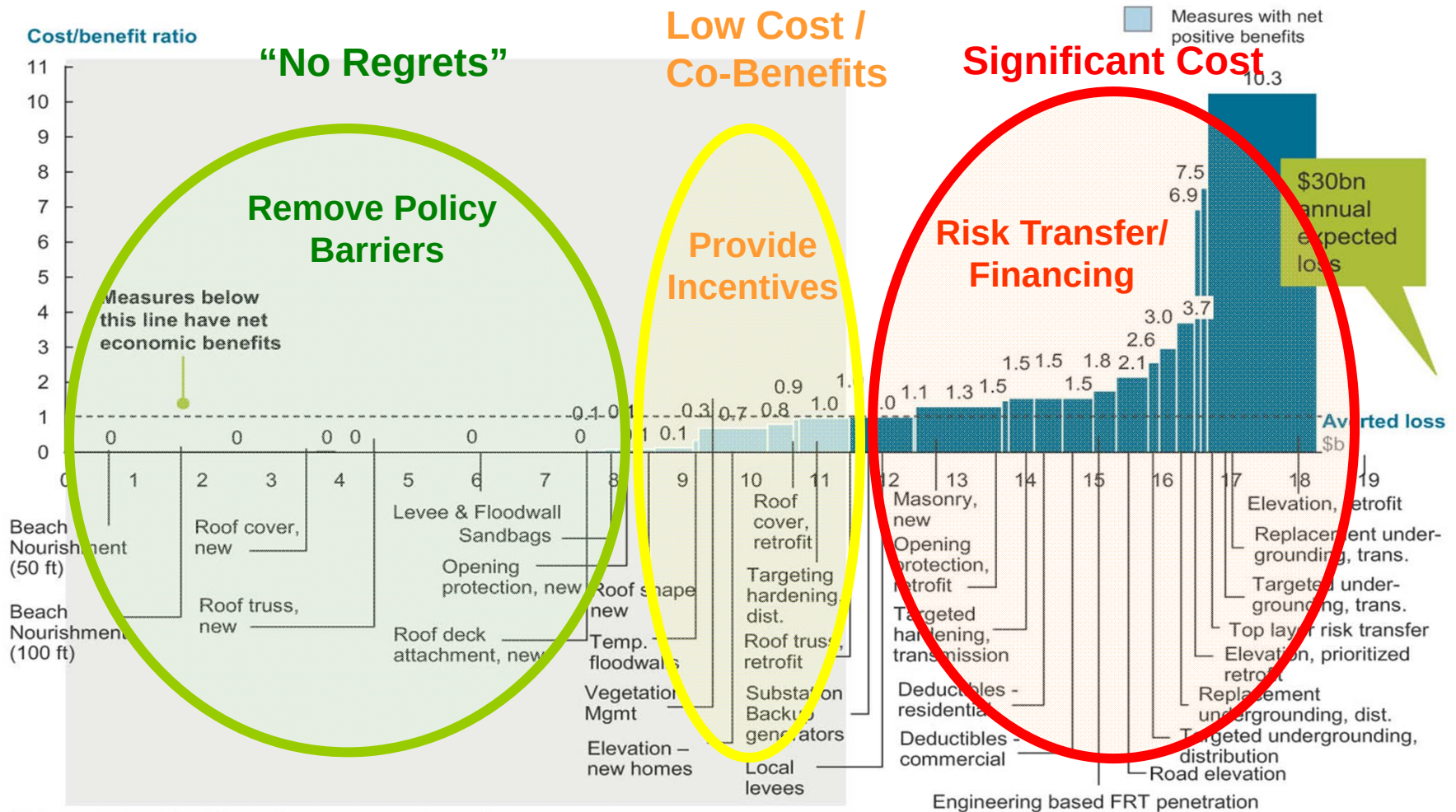
“Low emissions & climate resilient development”

- Engaging in International CC agreements and negotiations
- Accessing and sequencing different sources of finance for climate change mitigation & adaptation
- Piloting innovative climate change adaptation projects
- Strengthening capacities for climate research
- Developing institutional structures to address climate change-related risks and opportunities
- Branching out from Environment to non-Environment ministries



Adaptation cost curve – Florida test case

MODERATE CLIMATE SCENARIO



Note: Calculated in 2008 dollars for the moderate climate scenario

4. Climate Change-related Risks and Opportunities for the Private Sector

How does the Private Sector engage in Adaptation?

Climate-proofing supply chains and operations; safe-guarding own interests

- Supply & Infrastructure disruptions
- Water scarcity
- Increased insurance costs
- Liability risks
- Regulatory exposure

Engaging with public sector or civil society initiatives to pursue common objectives

- Health of workforce
- Continuous logistics
- Political stability
- Healthy natural resource base
- Increased regulatory pressure
- Address reputational risks

Provision of products or services in response to a new market need

- New products, technologies and services
- New market segments
- Benefits from a more favorable regulatory framework

Bottom Line for many Businesses:



- 1) Anticipatory and precautionary adaptation is more effective and less costly than last-minute adaptation or retrofitting
- 2) In the face of climate change, public and private sector interests move closer together. There is more potential for *Win-Win* situations
- 3) 'No-regrets' climate change adaptation and mitigation measures make sense no matter how the climate will develop
- 4) Climate change brings opportunities as well as threats. It pays off to study climate-related effects on markets & technologies

- Allianz Group: Insuring against climate impacts and rewarding sustainable business practice
- BASF: New technologies for climate change adaptation
- Caisse des Dépôts: Climate-proofing infrastructure
- Cisco Systems: Improving governance through technology
- Deutsche Post: Responding to disasters
- International Union of Railways: Climate-proofing future investments
- McKinsey & Company: Learning about the economics of adaptation
- Munich Reinsurance: Building alliances around climate insurance
- Ricoh: Conserving forests
- Sagawa Express: Climate Savers
- Siemens: Developing adaptation technology
- Sompo Japan Insurance: Providing weather index insurance in Thailand
- Suntory: Conserving water resources
- Thames Water: Adapting business operations
- Veolia Environment: Advancing climate knowledge