

# Setting Baselines: Good Practice Sharing

Outcomes of a Workshop in Hanoi,  
Vietnam, Aug. 31-Sept. 1, 2011

Presentation at the OECD/IEA CCXG  
Seminar on MRV and Carbon Markets  
Sept. 19, 2011

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# Outline of presentation

- Current importance of national baselines
- Aims of the CCXG/DEA project
- Issues discussed at the workshop
- Sensitivity of baseline projections
- Ideas for sharing good practice

# Focus on national baseline scenarios

- Some countries state mitigation goals based on deviation from 'business as usual' pathways
- No international guidance for GHG emissions projections, no existing requirement for non-annex I countries to report projections
- Overall global mitigation effort is dependent on robust BAU pathways
- Emissions projections are sensitive to data quality and economic, demographic and other assumptions
- Examples exist of very good practice in baselines

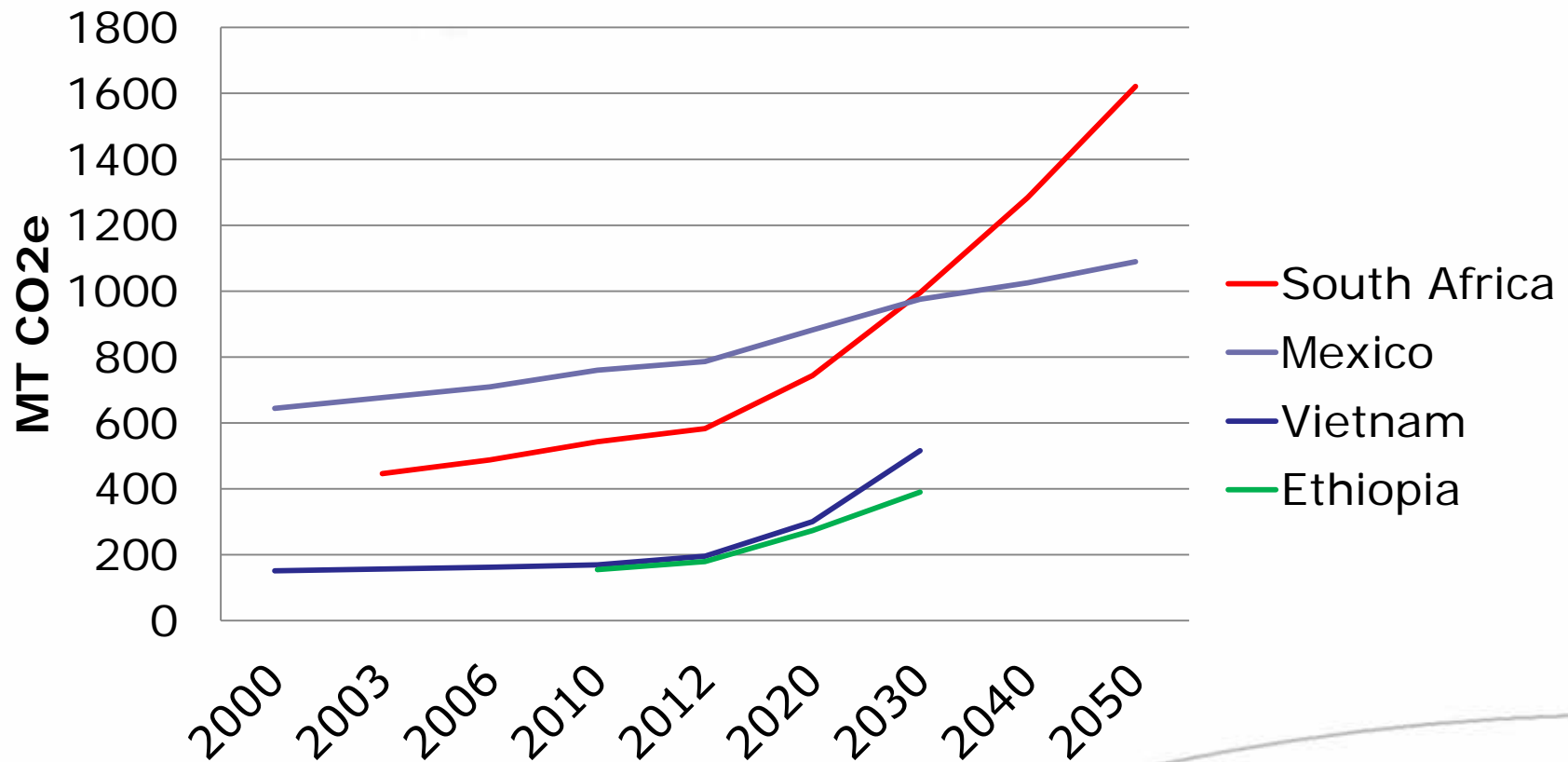
# Aim of the OECD / DEA baseline work

## **Gathered country experts in a workshop to:**

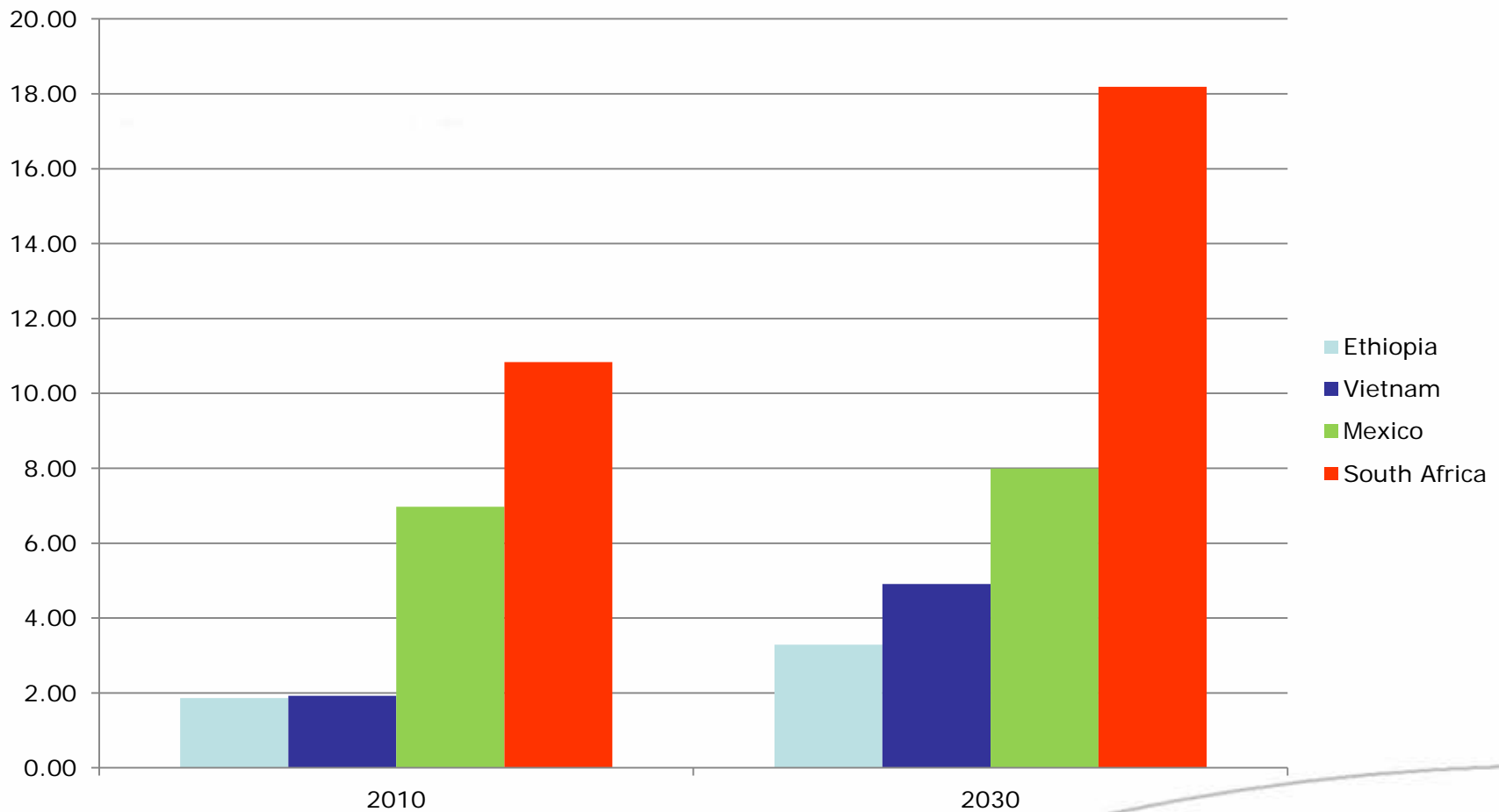
- Identify key assumptions and methodologies used for baselines scenarios in different countries
- Identify lessons learned, challenges and gaps, including those that may be common between countries
- Improve comparability between country baseline scenarios
- Highlight elements of good practice in national baseline setting
- Identify significant capacity gaps and explore ways to address these gaps
- Improve networking between country experts

# Comparing baselines in participating countries

## Baselines



# Comparing CO<sub>2</sub>e/capita



# South African baseline scenarios

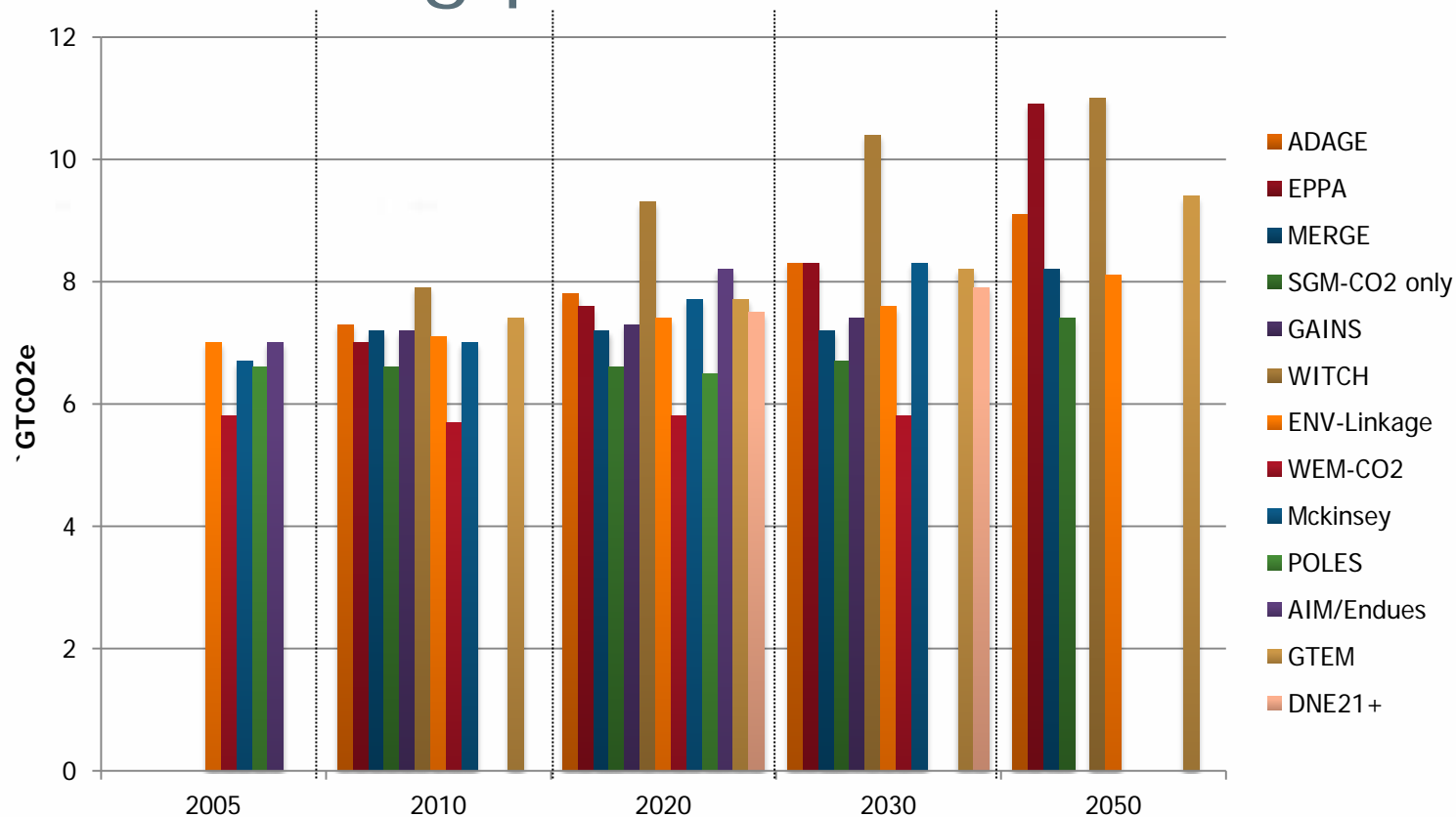
- Identified a number of 'Long Term Mitigation Scenarios' (LTMS) in 2008
- Two potential baseline scenarios 'Growth Without Constraints' (GWC) and 'Current Development Plans' (CDP)
- Strong emissions growth up to 2030
- Sensitivity analysis for key driver (economic growth)
- Peer review by World Bank group concluding *'the methodologies used in the research were consistent with international best practice and the results are robust'*

# Issues raised at the workshop

- **Data issues:** availability, quality and lack of emission factors
- **Identifying key assumptions and drivers**
- **Time factors** and **metrics**
- Sectors modelled and **methodological choices**
- Whether and how to include existing and planned **PAMs**
- **Review, consultations** and **transparency**
- How to include and **learn from CDM** and other mechanisms?
- Presenting **multiple scenarios, sensitivity analyses** and **frequency of revising baselines**
- Overcoming **technical and capacity constraints**

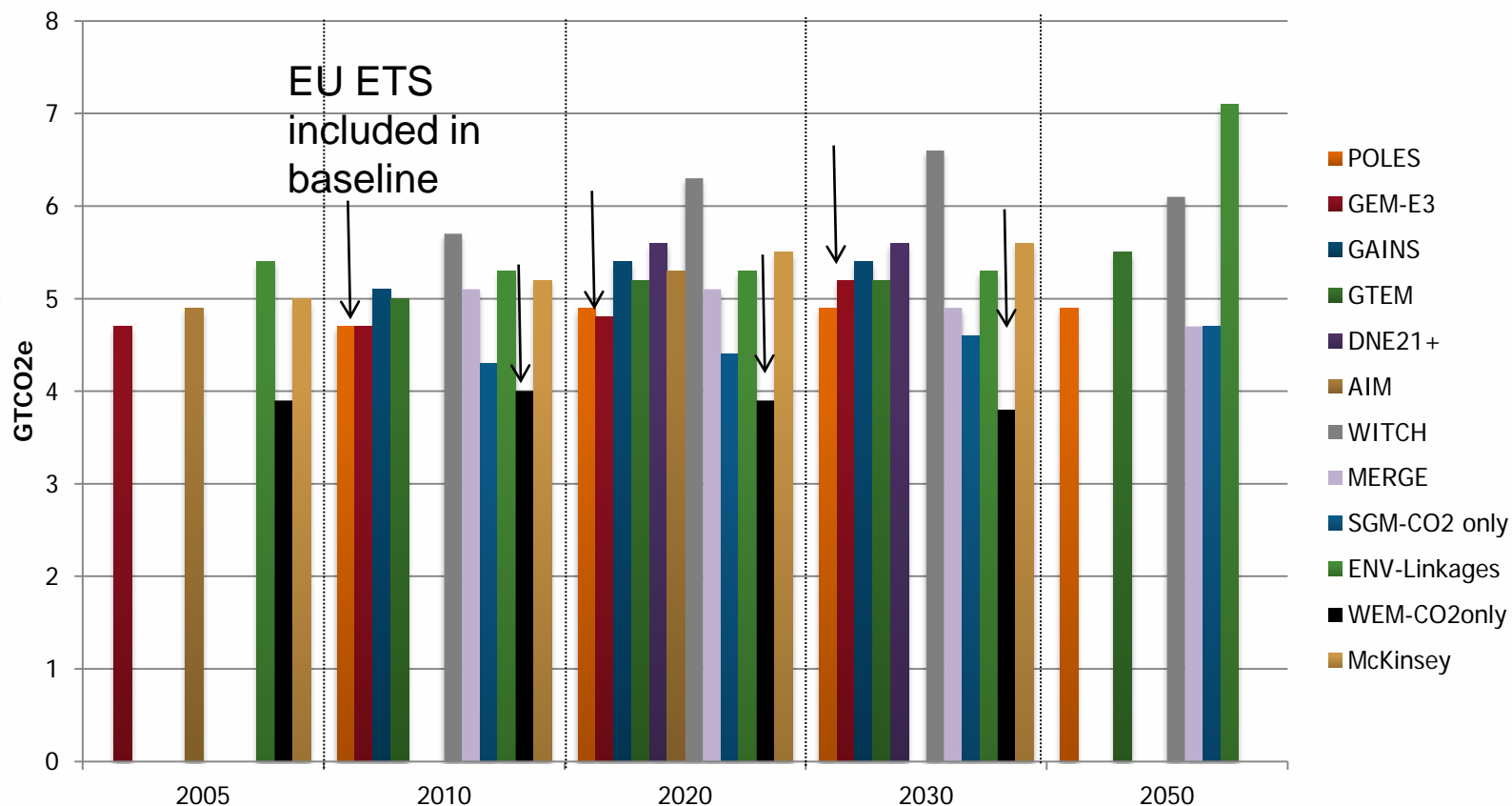


# Baseline scenarios highly dependent on modelling parameters



Comparison of US baseline emissions to 2050 as calculated by different models (CCXG study from 2009)

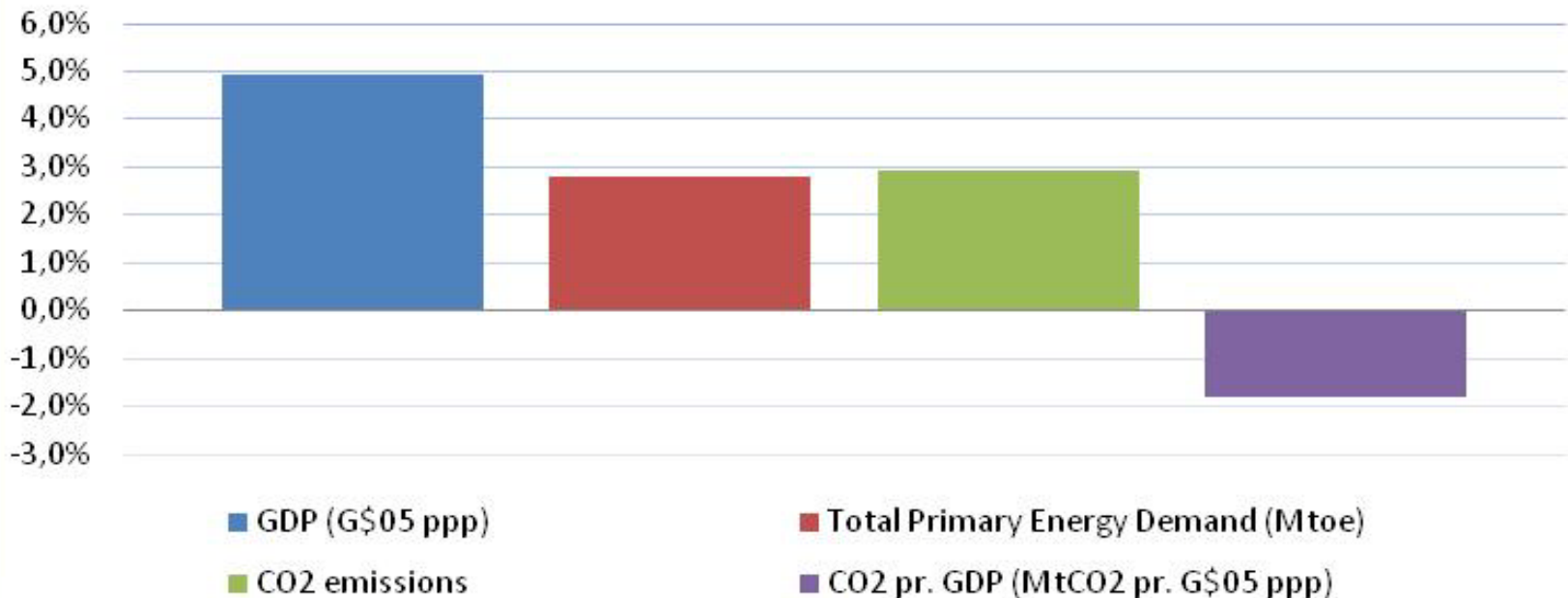
# Baseline scenarios for the EU



- EU ETS included in baseline for some models
- Different boundaries (EU27/25/EFTA)
- Different population and GDP rates

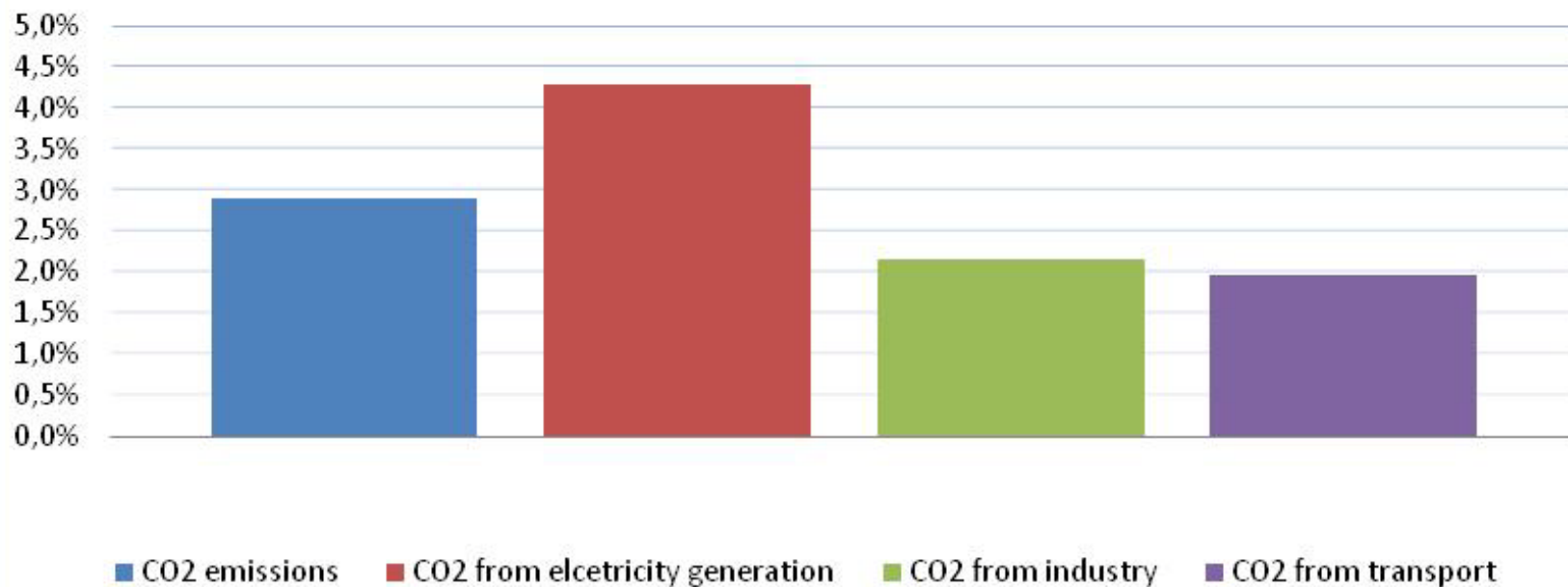
# GDP – a global driver

## High GDP scenario: Impacts in 2020 on overall energy use and emissions World



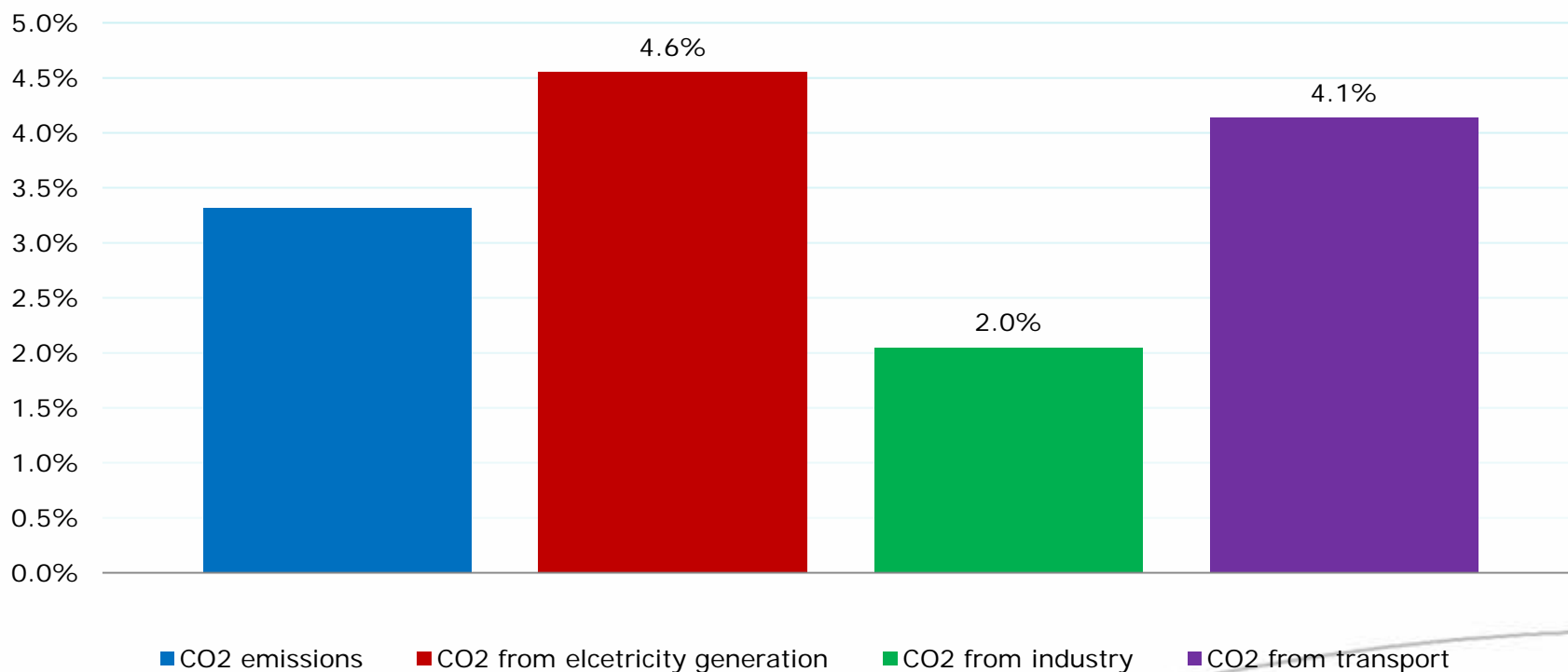
# World – emissions by sector

High GDP scenario: Impacts in 2020 on emissions by sector  
World



# South Africa– emissions by sector

**High GDP scenario: Impacts in 2020 on emissions by sector  
South Africa**



# Areas for identifying and sharing good practice

## DATA COLLECTION AND USE

- Guidance on calculating country-specific emissions factors
- Improving availability of inventory and activity data
- Data validation and verification
- Possibly data sharing?

## TRANSPARENCY AND REVIEW

- Stakeholder engagement early in the process
- In country experts reviewing data before release
- International peer review process, but how to define criteria?

## ASSUMPTIONS AND SENSITIVITY ANALYSIS

- Identification of key drivers
- Choice and transparency of assumptions
- Multiple scenarios, how to undertake sensitivity analyses
- When and how to revise baselines

## GUIDANCE ON METHODOLOGICAL CHOICES

- Clarity on when to apply bottom-up and top-down models where available
- Clarity on whether (and if so how) to include PAMs and technology learning

# Thank you

For further information on the Hanoi Workshop please contact:

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or visit the DEA website:

<http://www.ens.dk/en-US/Info/FactsAndFigures/nama/workstream/Sider/Forside.aspx>

# The workshop in Hanoi

- *Selected countries invited to share experience (Ethiopia, Kenya, Mexico, South Africa, Vietnam)*
- *Questionnaire developed and filled in by participating countries*
- *2 day workshop in Hanoi 31. Aug - 1. Sept. hosted by the Ministry of Natural Resources and Environment (MONRE)*
- *Presentation from participant countries, OECD, DEA, and invited experts from UNEP Risoe and GGGI;*
- *Extensive discussions in break out groups and in plenary*
- *Outcome thus far: draft document*