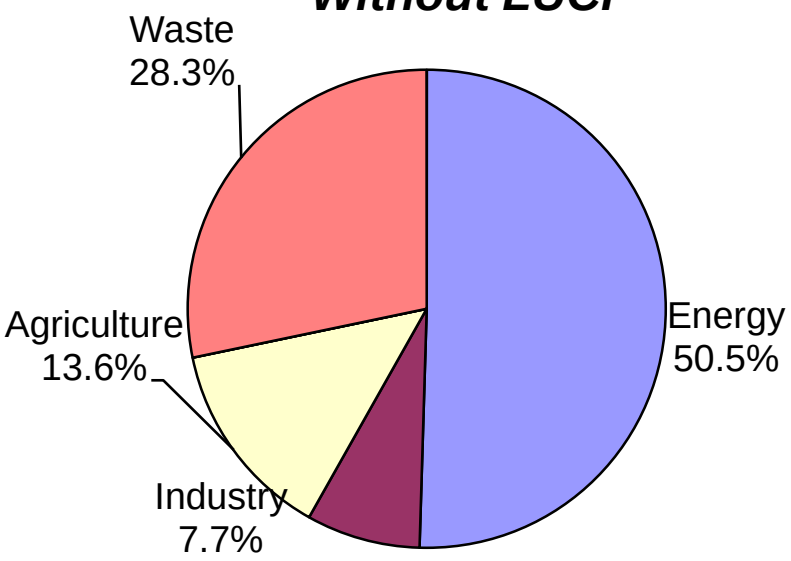
# Introduction of Indonesian LCS and Future Collaborative Works

Rizaldi Boer
Centre for Climate Risk and Opportunity Management,
Bogor Agriculture University

# Indonesia's National GHG Inventory 2000

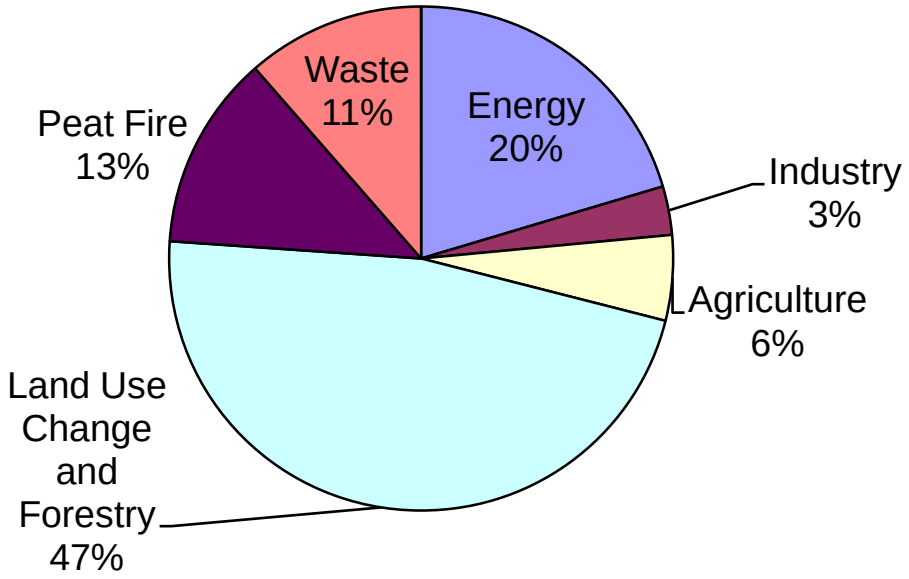
***Without LUCF***




*Source: MoE, 2009*

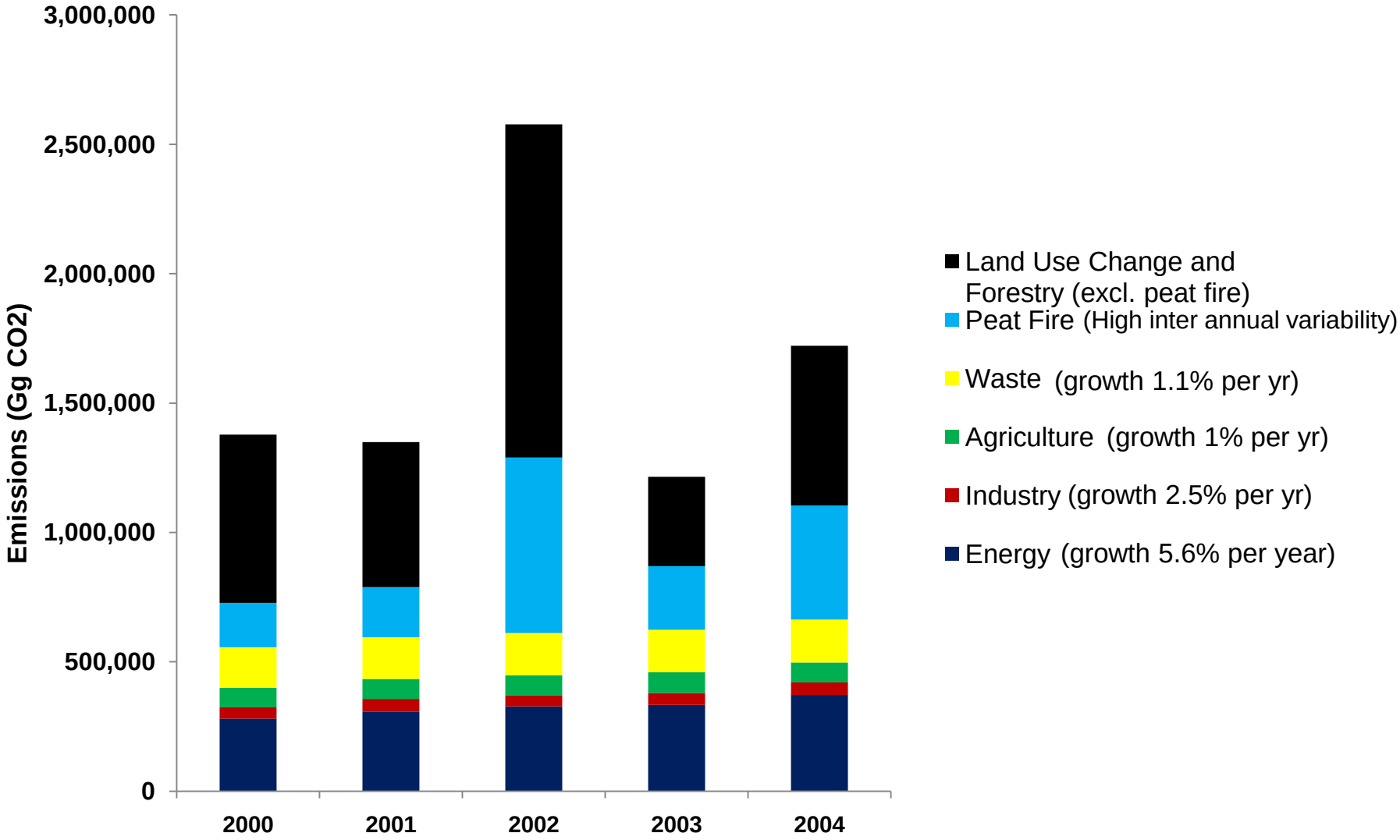
| Sector | Gg CO2e |
|---|---|
| Energy | 280,938 |
| Industry | 42,815 |
| Agriculture | 75,420 |
| Land Use Change and Forestry (excl. peat fire) | 649,254 |
| Peat Fire | 172,000 |
| Waste | 157,328 |
| **Total without LUCF** | **535,730** |
| **Total with LUCF (incl. peat fire)** | **1,356,984** |

***With LUCF***

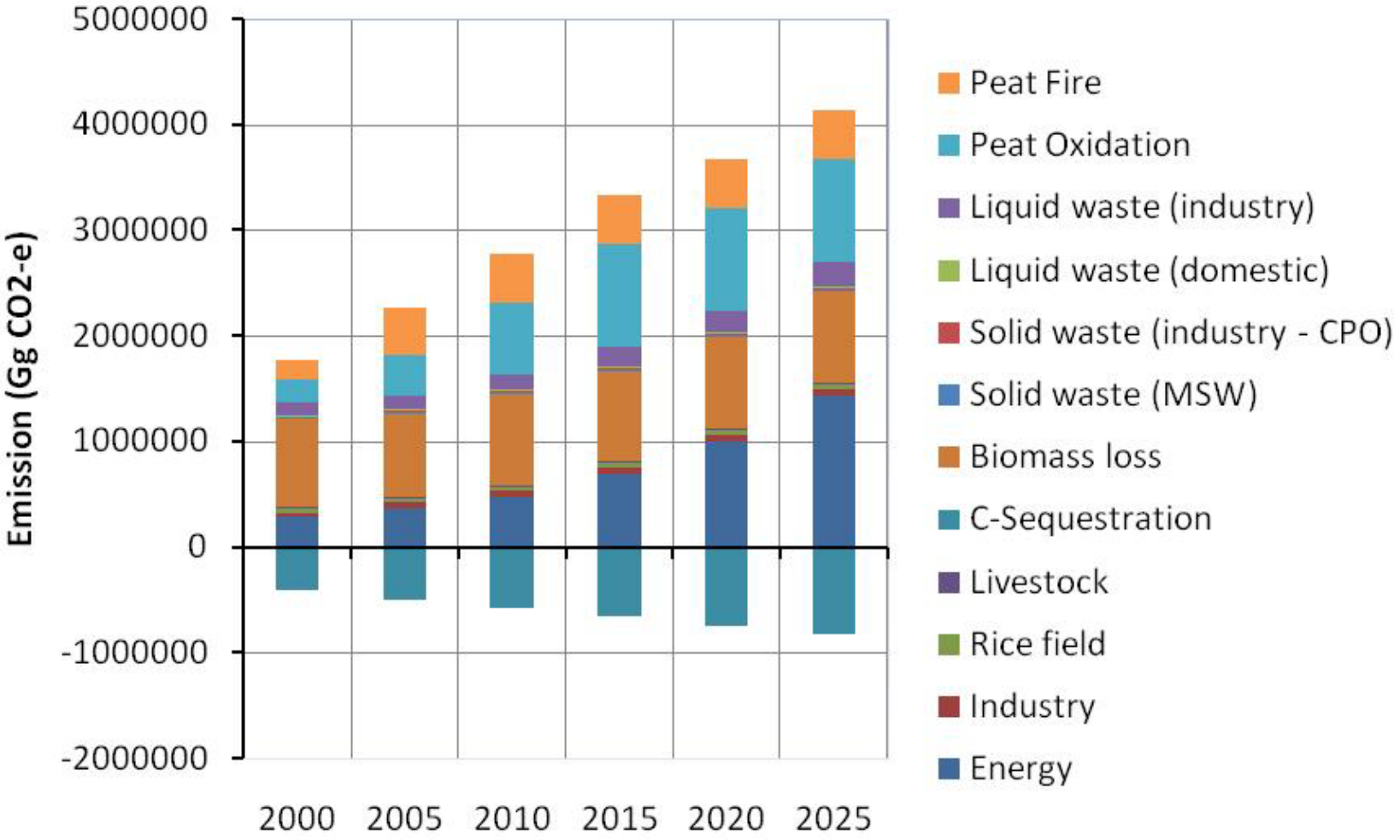



LULUCF and Peat Fire is the largest source of Emission (60%)

# Emission trend of All Sectors (2000-2004)

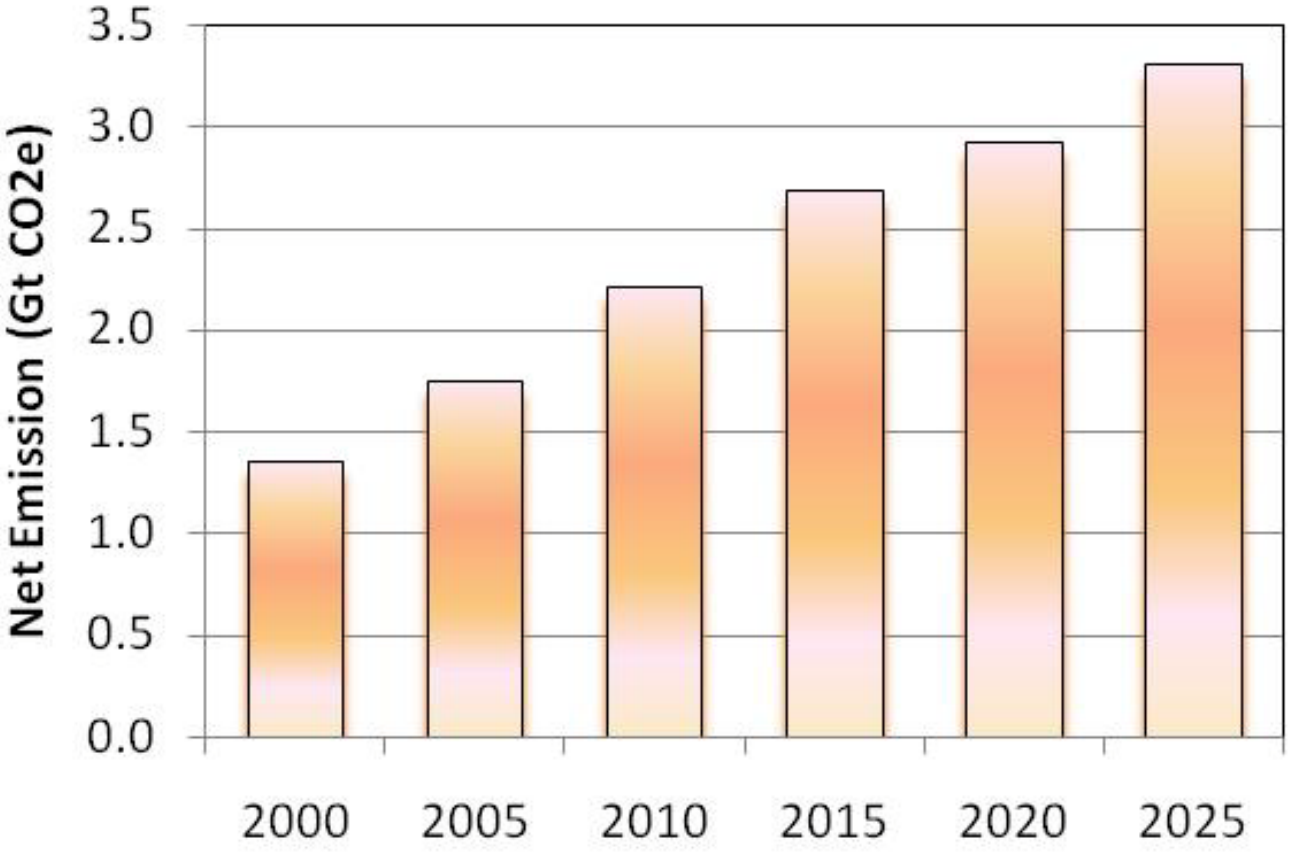


# Indonesian Current and Future GHG Emission by Sector




*Source: MoE, 2009*

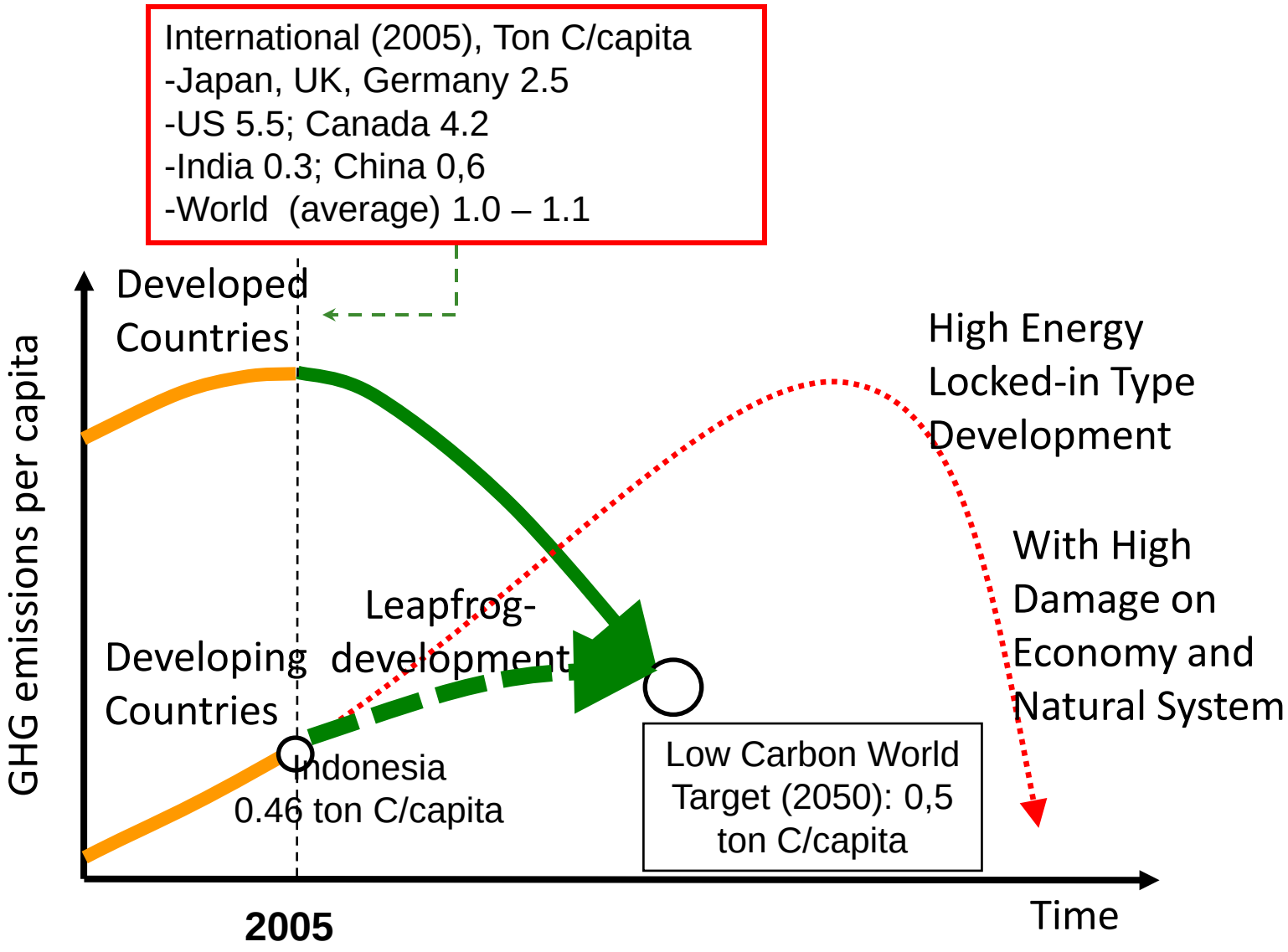
# Projection of GHG Emissions




*Source: MoE, 2009*

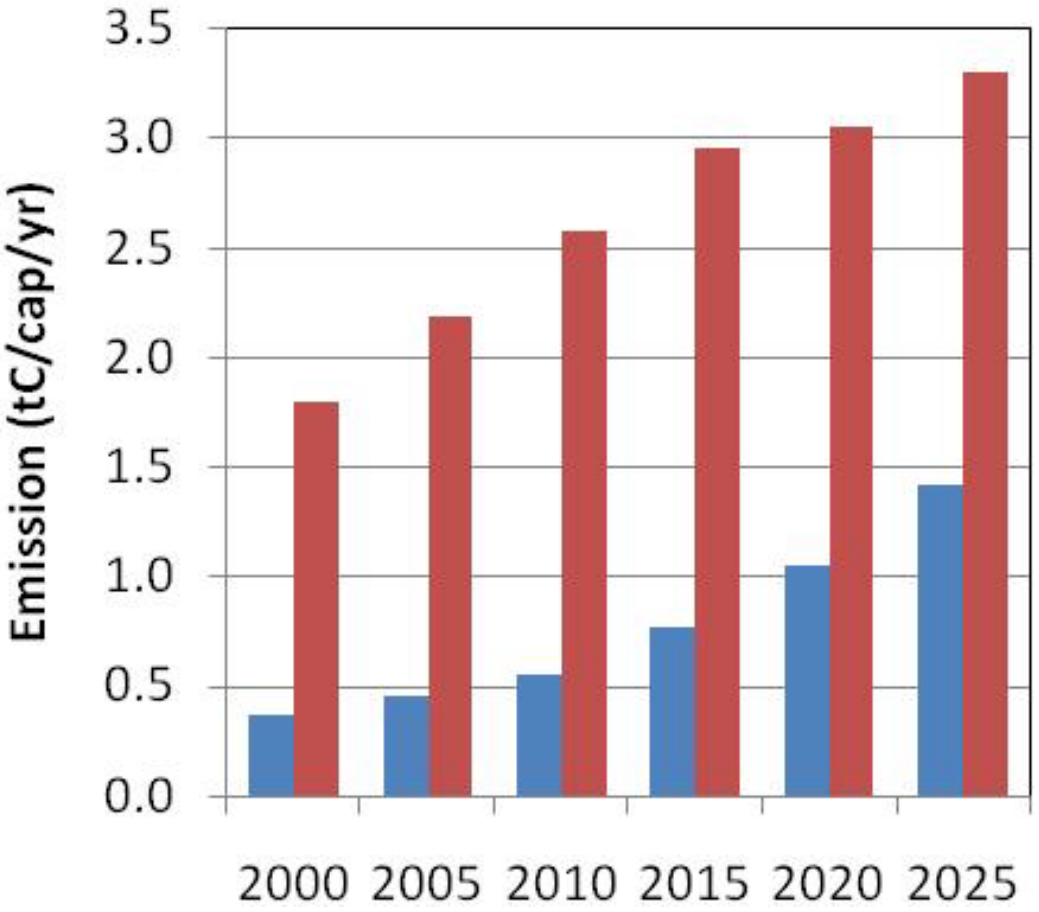
# EMISSION REDUCTION TARGET

# Designing Sustainable Low-Carbon




Emission per capita from energy. Source: Asian LCS Study (2009)

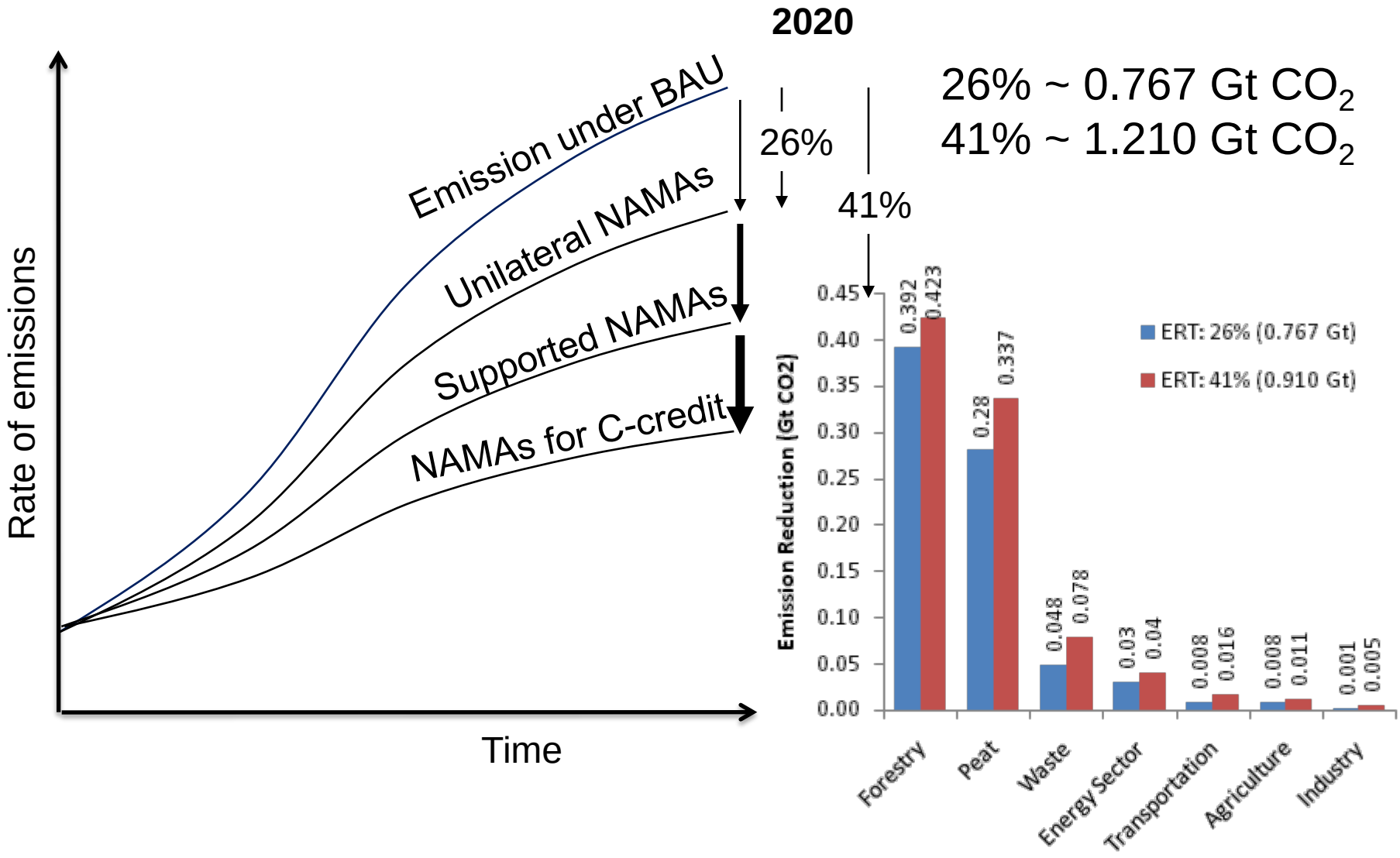
# Projection of Per Capita Emission under BAU



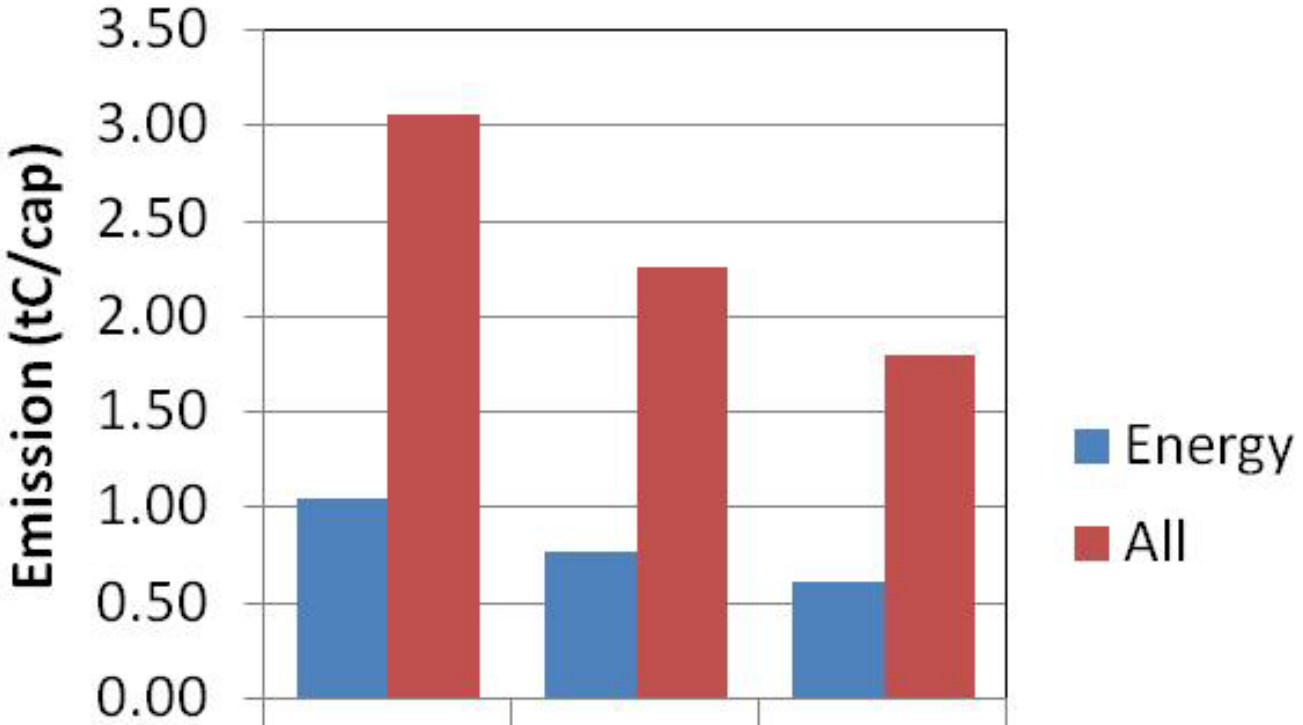

In 2020 rate of emission for energy is 1.04 ton C/cap and for all sector is about 3.05 ton C/cap

In 2005 rate of emission for energy is 0.46 ton C/cap and for all sector is about 2.18 ton C/cap

# National Appropriate Mitigation Actions (NAMA): Non-Binding Commitment of GoI

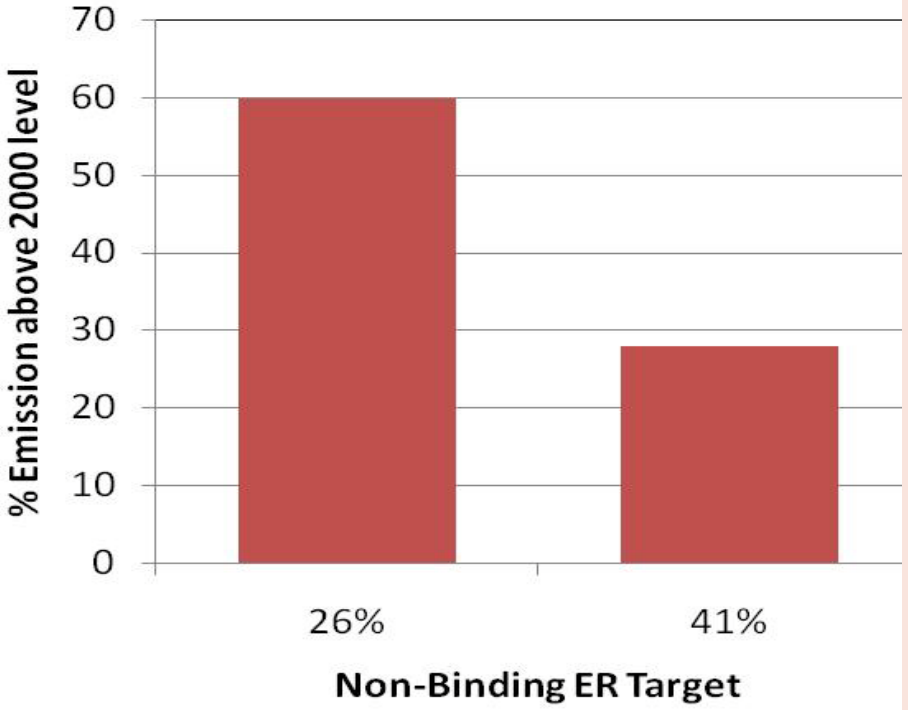


# Projection of Per Capita Emission under BAU and Mitigation Scenarios in 2020

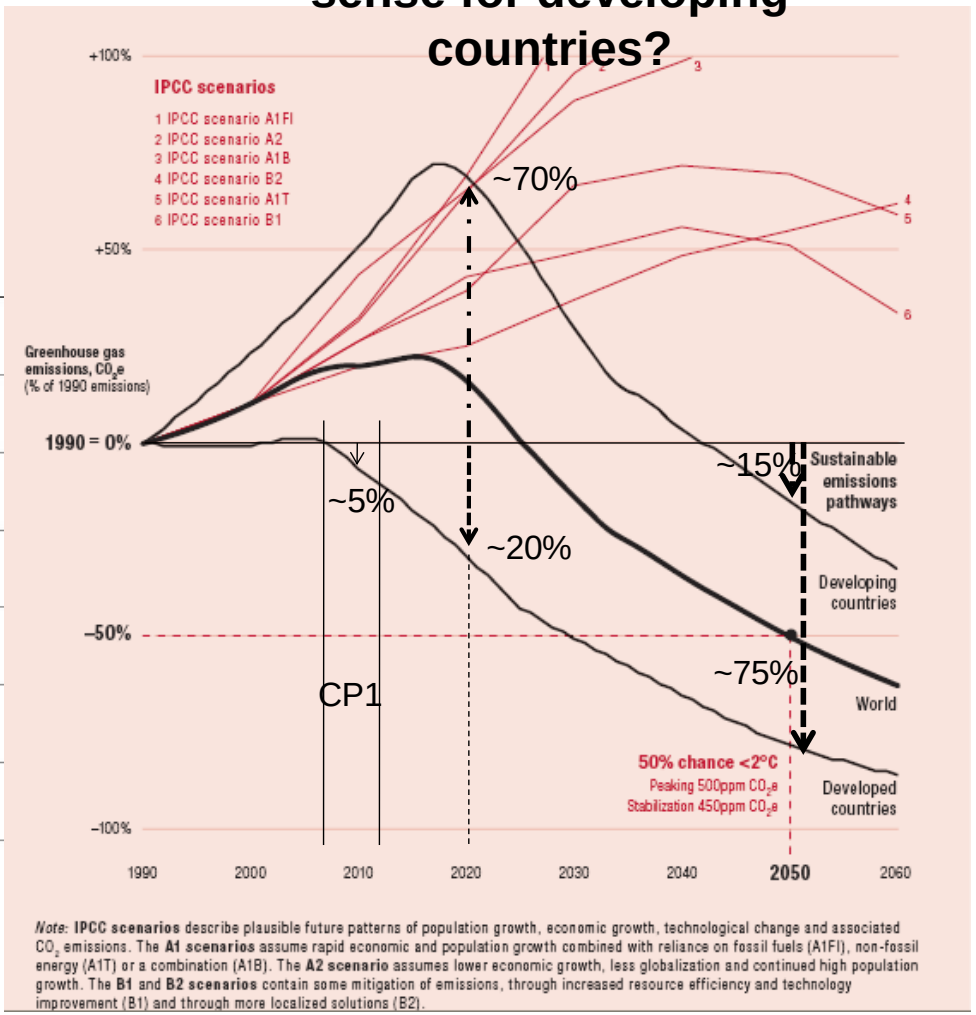



| | BAU | 26% | 41% |
|---|---|---|---|
| Energy | 1.05 | 0.77 | 0.62 |
| All | 3.05 | 2.26 | 1.80 |

# Level of 2020 emission relative to 2000 Level

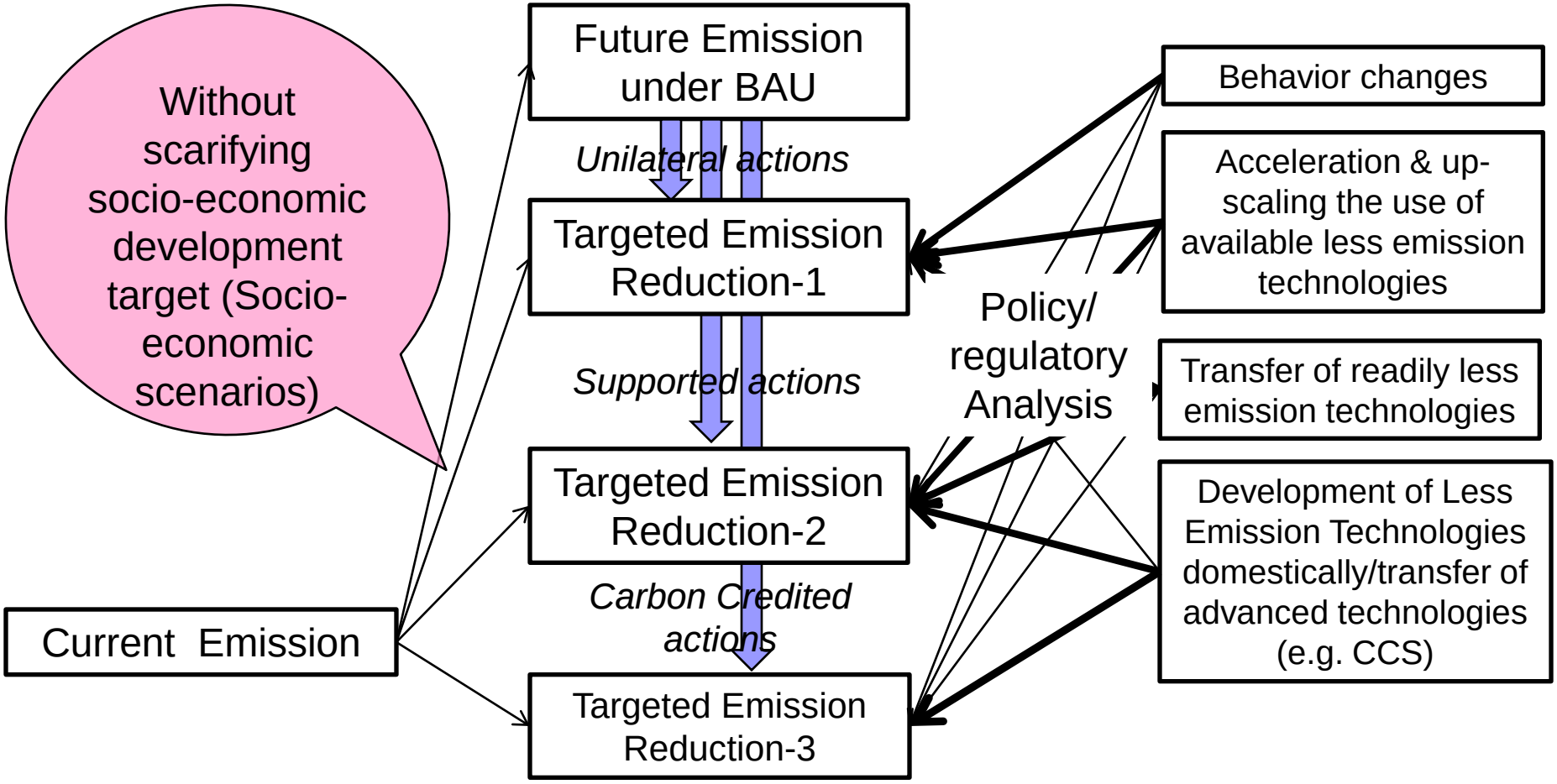



**Does it really make sense for developing countries?**




With the two non-binding Emission reduction targets (26% and 41%), level of Indonesian emission in 2020 will be about 60% and 28% above 2000 emission level respectively.

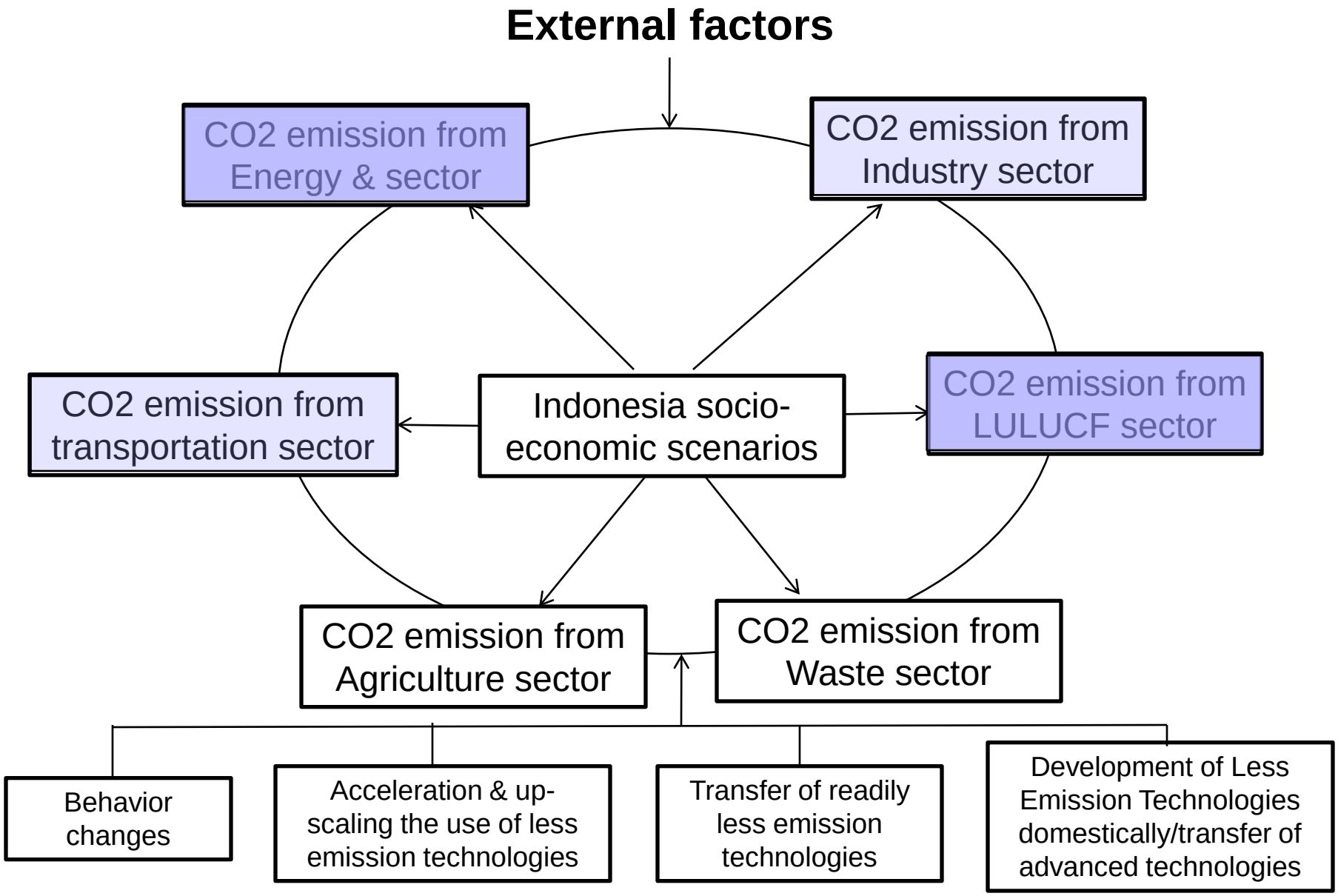
# Research Needs for SLCD/GG



# What is the main limitation of the emission projection studies?

- Projections of emission from sectors were developed independent of each other
- Assumptions used in making the projection for some sectors were sometime inconsistent
  - E.g. in projecting emission under BAU scenarios in agriculture sector (palm oil plantation) is not consistent with forestry sector policy which will be no more forest land released for the plantation until all land in non-forest area optimally used
- Integrated modeling is required to capture interaction and interconnection between sectors' emission, e.g. how certain policy in a sector will affect emission of other sectors

# Need for Integrated Modeling




THANK YOU