

Complementary Policy Perspectives for Governing Low Carbon City Development

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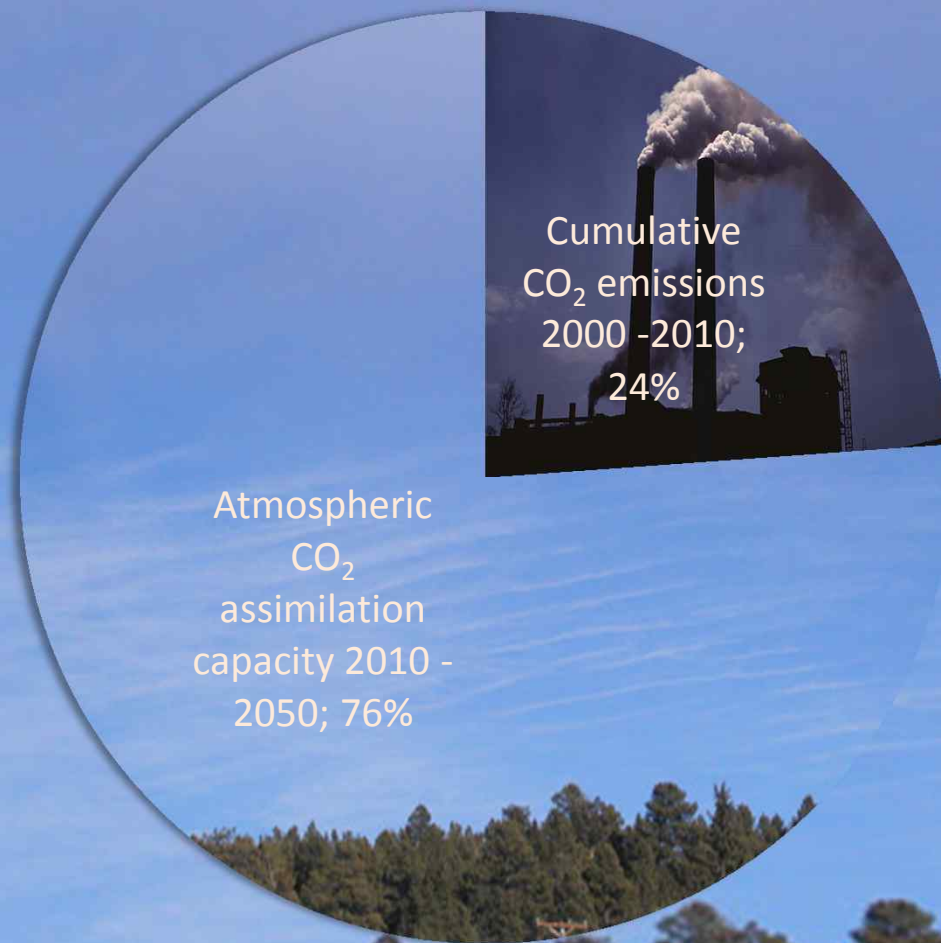
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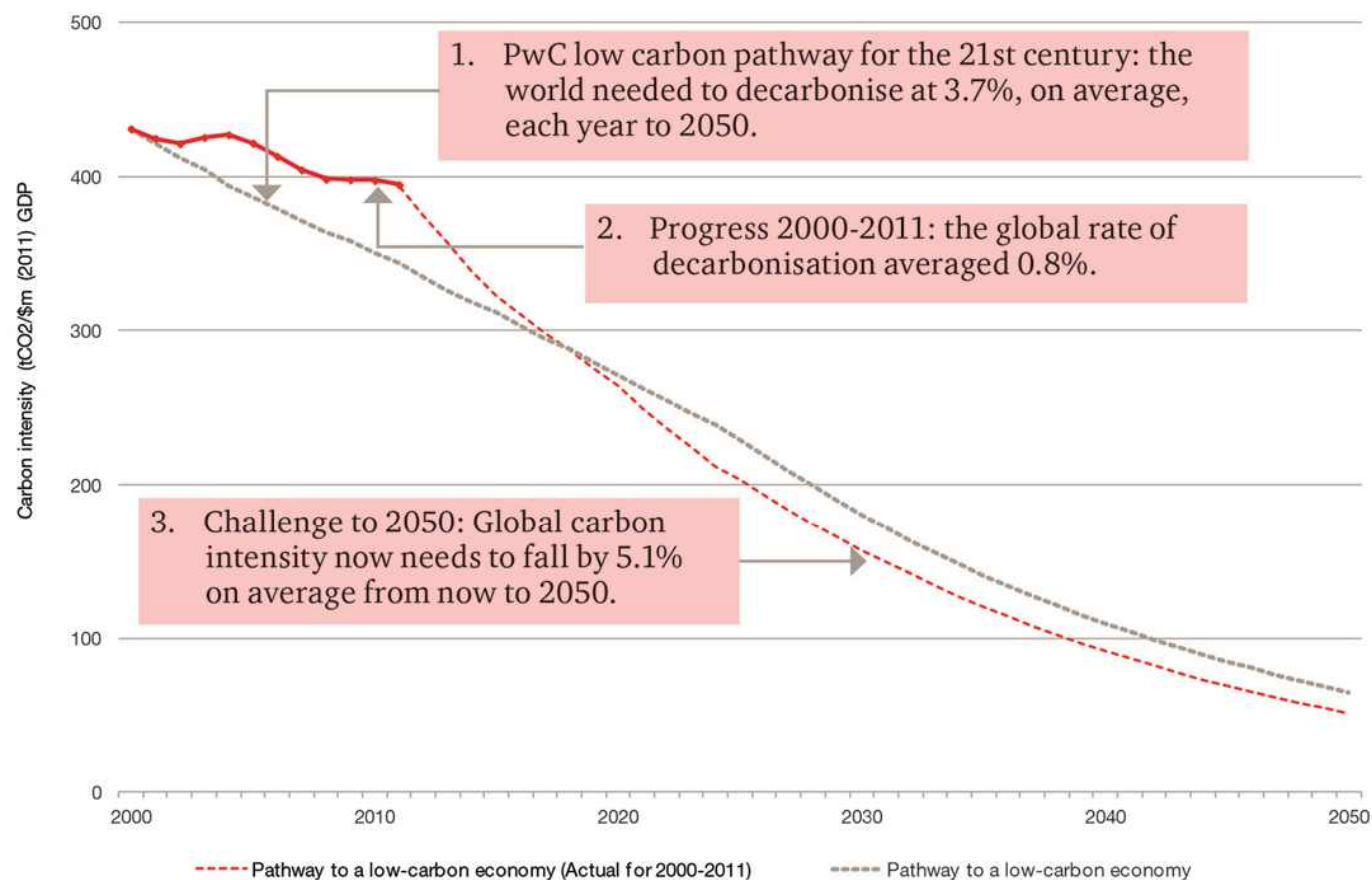
Status of atmospheric space to absorb CO₂



*Data source: EDGAR v4.2;
Oliver et al., 2012*

Carbon intensity improvement

Figure 1: PwC's Low Carbon Economy Index* – Global



* We use the carbon intensity for countries as a measure of progress towards a low carbon economy. The carbon intensity of an economy is the emissions per unit of GDP and is affected by a country's fuel mix, its energy efficiency and the composition of the economy (i.e. extent of activity in carbon-intensive sectors).

Source: PwC's analysis, data from World Bank (2012) and BP Statistical Review (2012)

Source: PwC, 2012

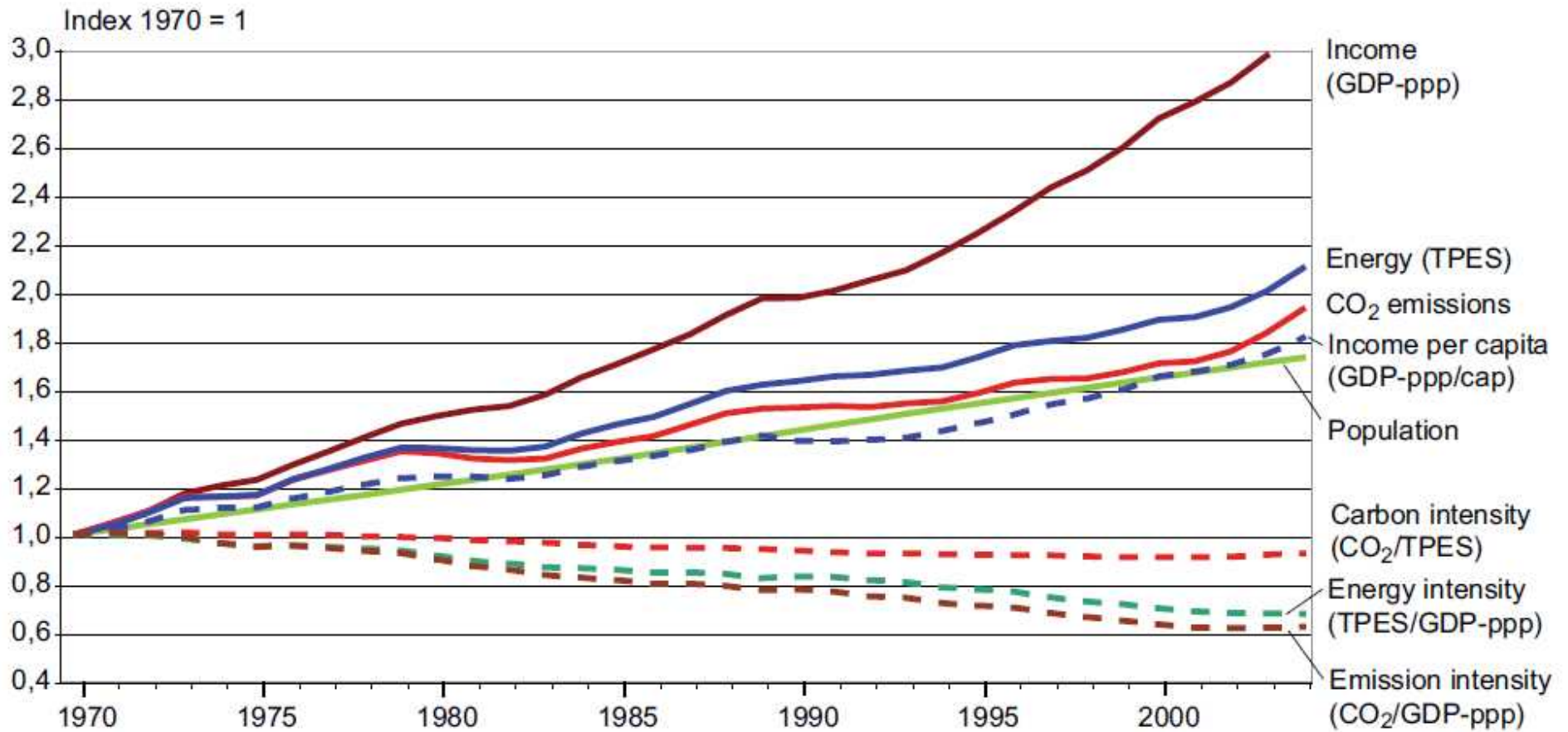
	Annual average change in carbon intensity 2000-2011	<u>Required annual</u> decarbonisation rate 2012-2050
World	-0.80%	-5.10%
France	-2.40%	-4.40%
UK	-2.80%	-5.20%
Germany	-2.20%	-5.20%
<i>Indonesia</i>	<i>-1.00%</i>	<i>-4.90%</i>
EU	-2.30%	-5.20%
USA	-2.10%	-5.20%
Italy	-1.20%	-4.30%
Mexico	-0.20%	-4.60%
South Africa	-1.40%	-5.60%
Russia	-3.90%	-6.00%
Brazil	-0.70%	-4.10%
Argentina	-1.60%	-5.00%
<i>South Korea</i>	<i>-1.00%</i>	<i>-6.50%</i>
Canada	-1.40%	-5.30%
Saudi Arabia	1.90%	-7.00%
<i>India</i>	<i>-1.40%</i>	<i>-4.40%</i>
Turkey	-0.50%	-5.00%
<i>China</i>	<i>-1.40%</i>	<i>-6.10%</i>
<i>Japan</i>	<i>-0.80%</i>	<i>-4.80%</i>
Spain	-1.90%	-3.60%
Australia	-1.70%	-5.30%

Data source:
PwC, 2012

Classification of stabilization scenarios according to alternative targets

Category	Additional radiative forcing (W/m ²)	CO ₂ concentration (ppm)	CO ₂ -eq concentration (ppm)	Global mean temperature increase above pre-industrial at equilibrium, using "best estimate" climate sensitivity ^(a) , ^(b) (°C)	Peaking year for CO ₂ emissions ^(c)	Change in global CO ₂ emissions in 2050 (% of 2000 emissions) ^(d)	No. of assessed scenarios
I	2.5-3.0	350-400	445-490	2.0-2.4	2000 - 2015	-85 to -50	6
II	3.0-3.5	400-440	490-535	2.4-2.8	2000 - 2020	-60 to -30	18
III	3.5-4.0	440-485	535-590	2.8-3.2	2010 - 2030	-30 to +5	21
IV	4.0-5.0	485-570	590-710	3.2-4.0	2020 - 2060	+10 to +60	118
V	5.0-6.0	570-660	710-855	4.0-4.9	2050 - 2080	+25 to +85	9
VI	6.0-7.5	660-790	855-1130	4.9-6.1	2060 - 2090	+90 to +140	5
Total							177

[Source: IPCC WGIII, Technical Summary – Fourth Assessment Report 2007, P.39]



Source: IPCC WG III, Figure 2, SPM, P5, Fourth Assessment Report

1970 to 2004: cumulative CO₂ increase was 80%

Effect of: energy intensity on emissions of GHGs = -33%; of income growth = +77%; of population growth = +69%.

Jakarta, Indonesia

Indonesia is committed to developing NAMAs

Presidential Regulation (Number 61 in 2011) on *The National Action Plan for Greenhouse Gas Emission Reduction*

Provides framework for developing RAN-GRK and RAD-GRK

Stipulates BAU Deviation Target of -26% by 2020, and up to -41%

Jakarta Special Capital Region (*Daerah Khusus Ibukota*, or DKI) has provincial status and has developed its RAD-GRK

Former governor of Jakarta committed to reduce GHG emission by 30% relative to BAU baseline in 2030

Jakarta...



Source: *Guideline for Developing Local Action Plan for Green House Gas Emission Reduction (RAD-GRK)*, Govt. of Indonesia. Pages 4-7.

“is an *integrated part* of Local Development Strategy and based on policies and local strategic plan”

“RAD-GRK is a *local development plan* with new approaches that more focus on GHG emission reduction efforts”

Jakarta...

3.3 tCO_{2eq}
per capita
per year

6.9 tCO_{2eq}
per capita
by 2030

5.9 tCO_{2eq}
per capita
per year

Efficiency is
*necessary but
insufficient* in
environmental
governance

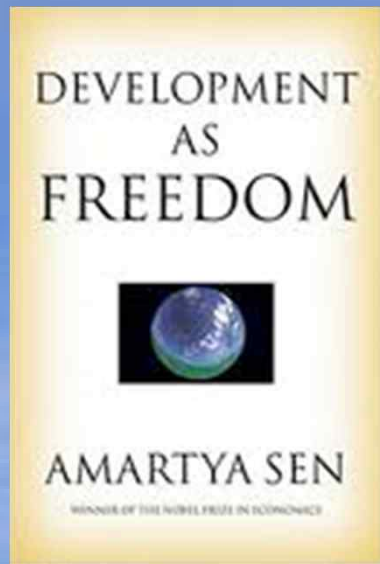
An agenda for sub-regional, regional and global partnerships for low carbon city development

The challenge:

“preoccupation with productivity and production” in pursuit of “*more* elegant cars, *more* exotic food, *more* erotic clothing and *more* elaborate entertainment” (J. K. Galbraith in *The Affluent Society*).

“Poor countries cannot and should not imitate the production and consumption patterns of rich countries. And rich countries must reduce their ecological footprint because from a global perspective their per capita consumption and production are not sustainable” (Human Development Report, 2013, p.34).

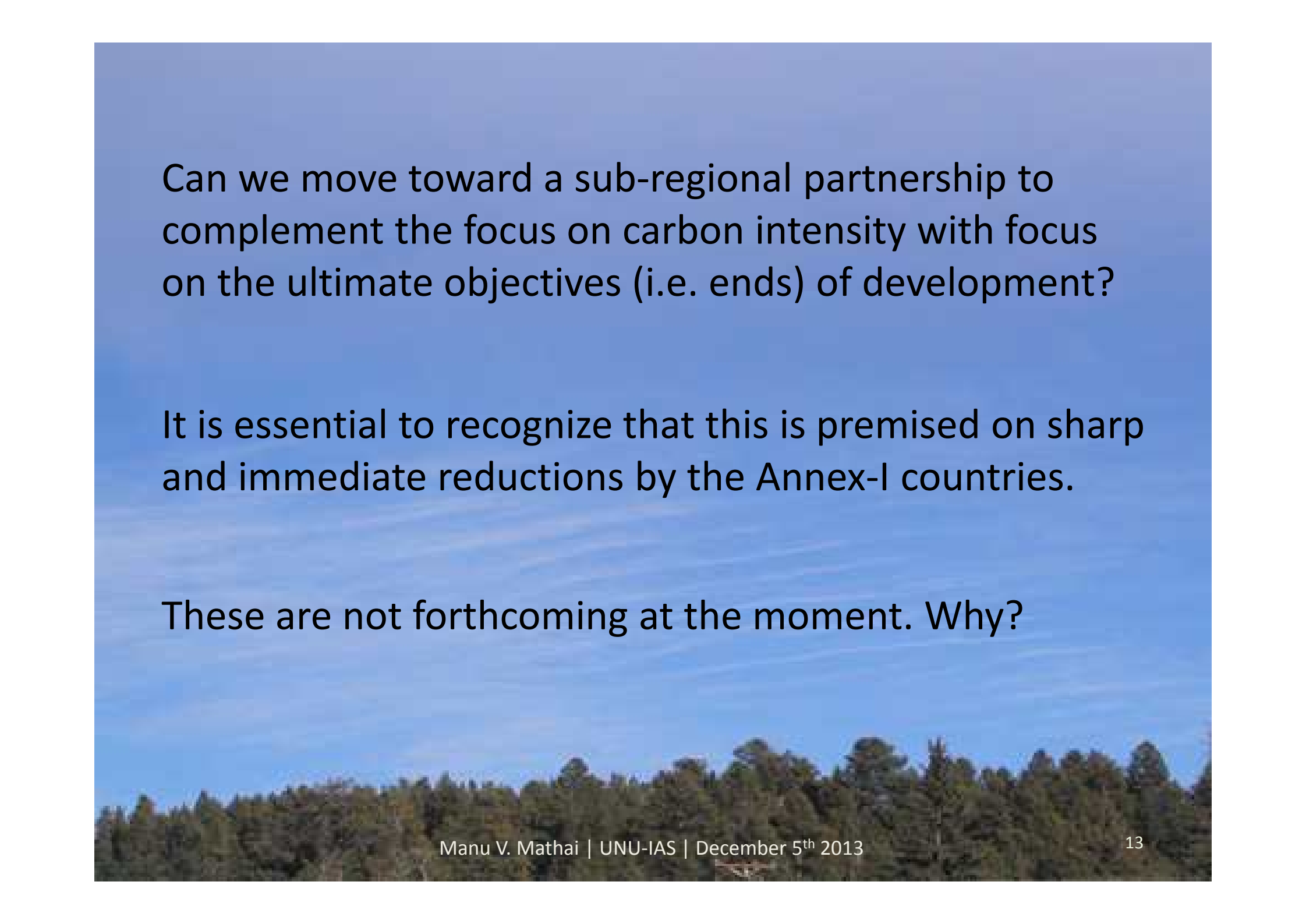
“Sustainable Structure of Living Together” (Mathai, 2012, 2013)



Development Focused, End-Use Oriented, Service Directed (DEFENDUS) model for energy planning



Technology choice



Can we move toward a sub-regional partnership to complement the focus on carbon intensity with focus on the ultimate objectives (i.e. ends) of development?

It is essential to recognize that this is premised on sharp and immediate reductions by the Annex-I countries.

These are not forthcoming at the moment. Why?

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Thank you!

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