

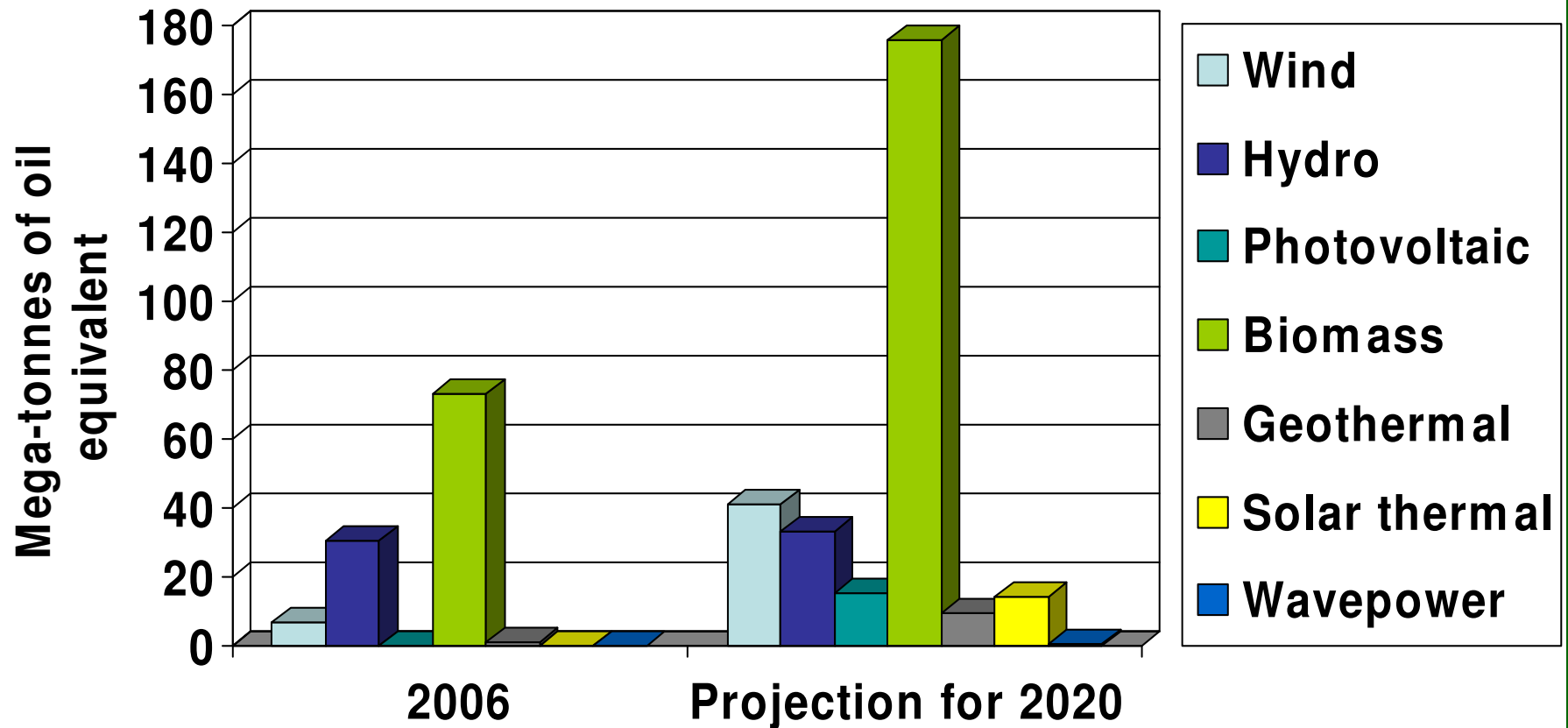
Overview of developments of wood-based bioenergy in the Netherlands and EU

Deepak Rughani
Biofuelwatch/Global Forest Coalition
26th May 2010



Wood for biomass, Germany,
www.ecoseed.org

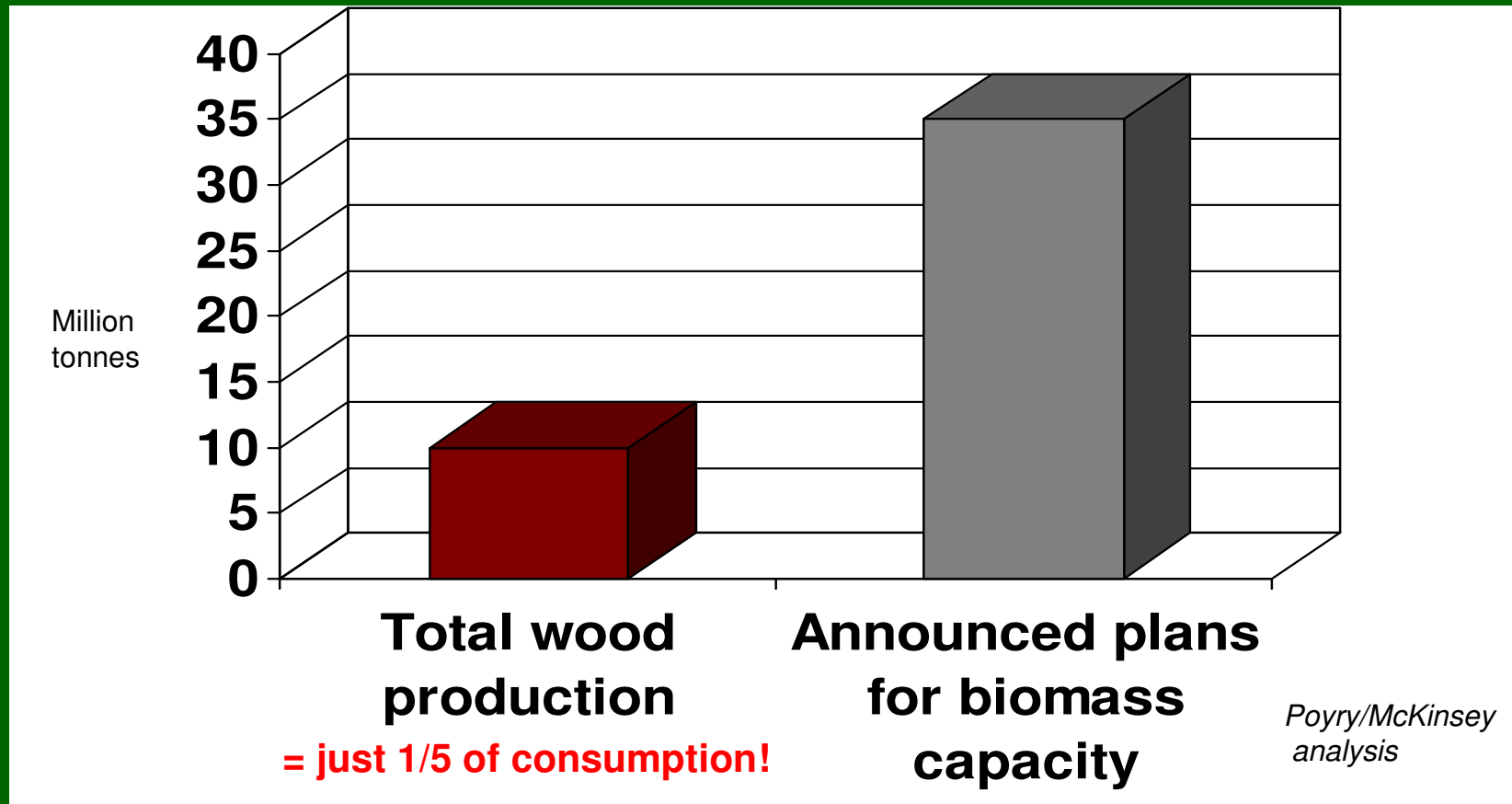
Predictions by the European Renewable Energy Council



Popular misperception of renewable energy is that it will primarily mean solar & wind

EREC: The proportion with respect to total energy use from biomass is expected to increase from 6.0% to around 13%

Biomass plans in the UK



Most of this capacity is for **dedicated biomass power stations, mainly at ports**

Identified sources: US, Canada South America, South Africa, Baltic States and Russia.

Another popular misperception is that it will come from mill ends, sawdust, branches, trimmings.

- Nutrient and soil organic matter return
- Demand far outpaces new production of residues

Biomass plans in Germany

- **40%** of current biomass involves burning woodchips and pellets made **from trees** felled for this purpose.
- Current wood harvest: **48 million m³ / year**
- Planned wood harvest: **80 million m³ / year** [60% >]
- Planned wood burning by 2020: **50 million m³ / year.**

Germany is **2nd biggest importer paper and pulp worldwide** (*11.6 mega-tonnes & 4 mega-tonnes respt., 2006*)

Meeting growing biomass demand domestically, would translate into yet more pulp, paper & other wood product demand abroad

...and dry up exports

Biomass expansion in the Netherlands

- **Co-firing of wood pellets** went up from **200 000 tonnes** in 2002 to over **900 000 tonnes** in 2008. [x 4.5]
- Electrabel & GDF intend to burn another **470 000 tonnes** of wood pellets in 2010. [x7 > 1.4mt]
- Imtech NV is pioneering dedicated wood burning.
- Domestic wood pellet **production** is a mere **130 000 tonnes** [$< 1/10$]
- Most wood and wood products used in the Netherlands are imported from Germany, Scandinavia, Indonesia and West Africa.
- Imports from Germany are set to fall due to that country's bioenergy subsidies.

“With current assumptions we see a gap between supply and demand of more than 200 million m³ wood by 2020”

Cepi based on report by Poyry/McKinsey

... it's becoming clear that this gap will be filled in two ways

In the North...

Good-bye to carbon sequestration



*Photo: E.On's Steven's Croft biomass
Power station in Scotland*

In Europe, meantime, a growing industry and policy consensus is emerging that all or **most 'new growth' of trees should be harvested** ...So, no more carbon sequestration by forests in Europe either.

Europe's new export: New 'efficient' harvesting for bioenergy promoted by European & US corps...



Photo: Peter Wohlleben, German forester and author

Whole tree removal and short rotations leading to depleted and compacted soils

In the South...

“Trees grow faster in the tropics, labour is cheaper and governments provide a series of subsidies to encourage the expansion of the industry.”

From *Plantations, Poverty and Power*, Chris Lang, published by World Rainforest Movement

Pulp and paper industry moves to the South:



Picture: Greenpeace – Deforestation for pulp and paper tree plantations by APRIL, Riau Province, Sumatra. (APRIL’s European sales office is based in the Netherlands.)

How the pulp and paper industry continues to move to the South

- The pulp and paper industry is working towards a **five-fold increase in pulp and paper capacity** (though hampered by the recession), particularly in: Uruguay, Brazil, Indonesia, Australia, China, Russia and also in South Africa, Laos, Malaysia and Vietnam.
- Meanwhile **pulp mills** in Scandinavia, elsewhere in Europe, in Canada and the US are **closing down** – and **bioenergy companies are starting to look to the South**, too, while diverting more European wood to power stations.



Atlantic Forest in Brazil being destroyed for monoculture tree plantations
pulpinc.wordpress.com

US Plantations from paper to bioenergy markets



*Record fire rages across pine plantations in Georgia, 2007,
www.msnbc.msn.com*

The southern US has been the world's largest paper producing region, supplying much of the US market, though at a high cost to natural forests, soil and water. Now, pulp mills are closing down to be replaced by...

“World’s Largest Biomass Pellet Plant Opens in Florida”, 2008



...With another in Alabama plus a **much larger one in Georgia (RWE Innology)** planned and possibly underway

Is the US paper & pulp economy being displaced to the South?

A

The Flipside...

December 2009 Medco dropped plans for a paper & pulp mill in Merauke in favour of wood chip and pellets for export. Rainforest conversion is clearly stated in the management plan

“...a large joint venture with Korean firm LG International ... focusing on one million hectares of timber plantations in Merauke ... to produce 1.4 million tons of wood chip and 3.6 million tons of wood pellet a year for energy production.”

From: Up for Grabs by Telapak and Environmental Investigation Agency

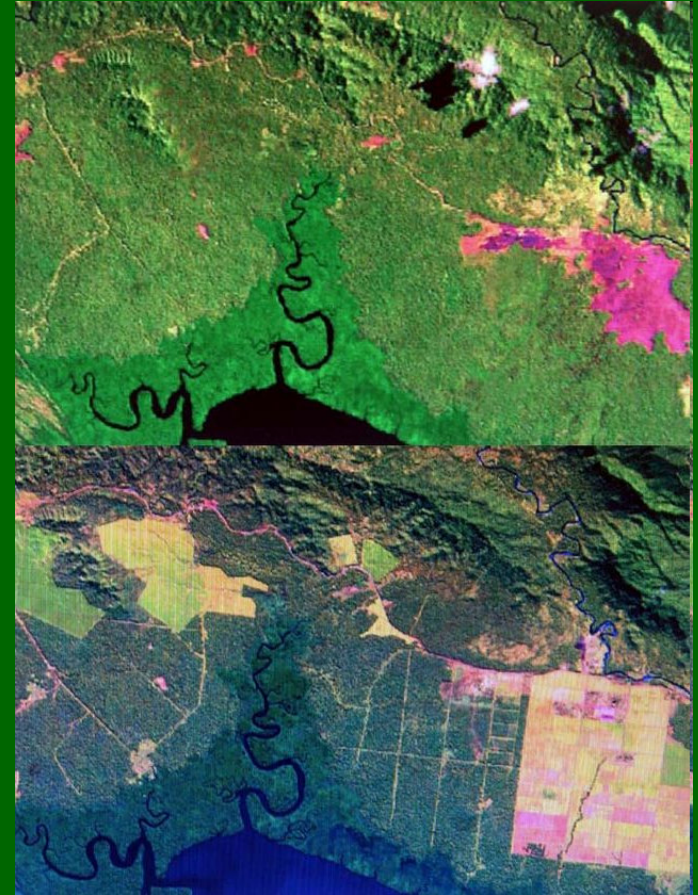
+ rice, agrofuels, mining interests!



Deforestation in Modan, Sorong, West Papua, April 2009 From 'Up for Grabs' – Soon for wood pellets and wood chips for export?



Ramu, Madang,
*e-Protest by Ecological Internet on behalf of
indigenous peoples of PNG
Logging soon to be subsidized by UN carbon markets?*



The variation in oil palm in Milne Bay,
on the south-east tip of the PNG mainland.
Top image: 1990, bottom image: 2005.
(University of Papua New Guinea, file photo)
ABC News

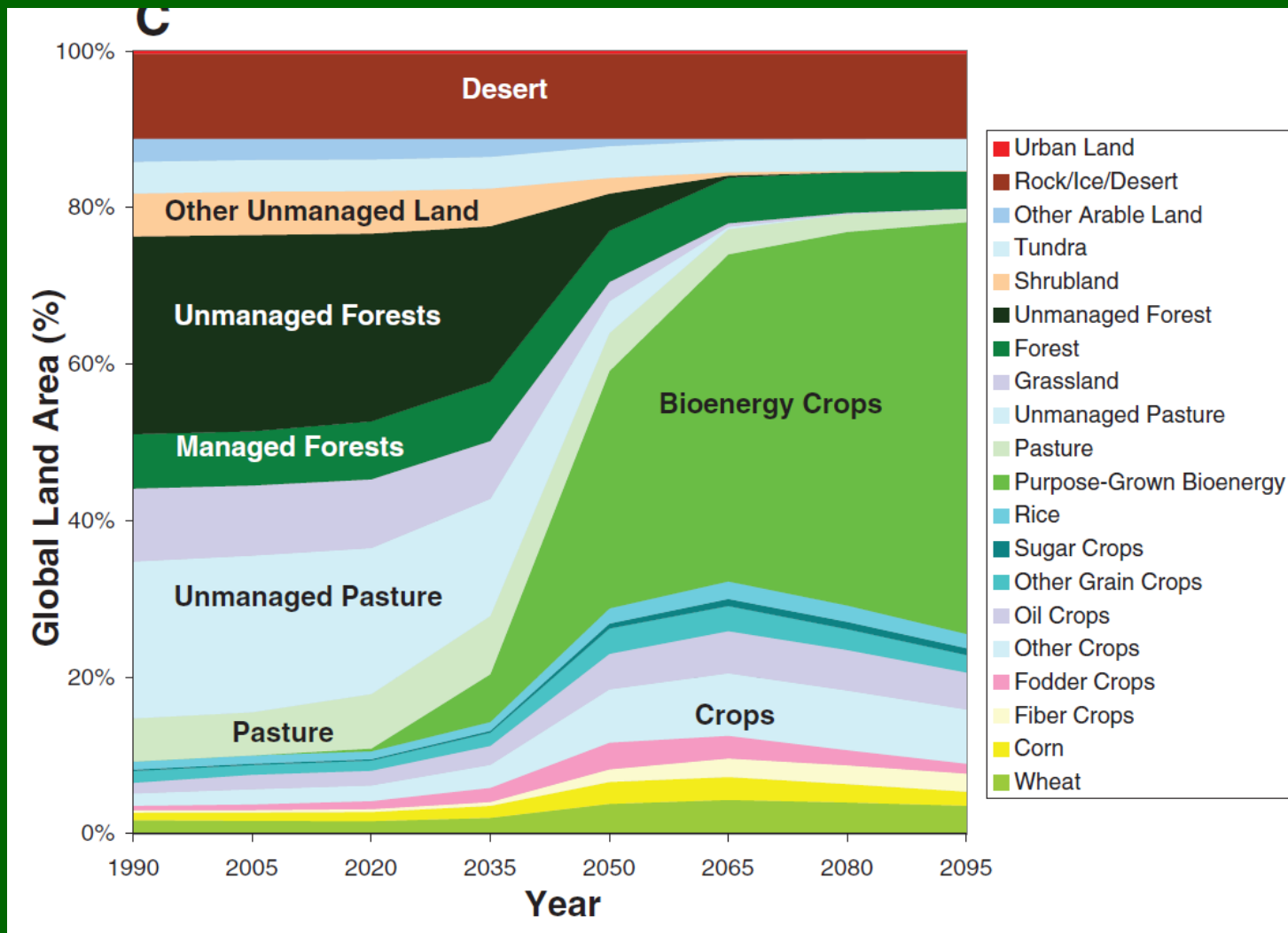
Wood for bioenergy from the Republic of Congo



MagForestry Eucalyptus plantation in the Republic of Congo

news.mongabay.com

“Future operating results are expected to improve based on the strengthening world economy and the expected demand from the biomass energy sector”



Forecast by **Wise et al**, published in *Science* of what will happen to the world's forests and grassland with policies to reduce CO₂ emissions from fossil fuels and which class all bioenergy as 'carbon neutral'.



1x



10 x

100x



400x

