



UNECE/FAO Policy Forum

Opportunities and impacts of bioenergy policies and targets on the forest and others sectors.

What is the future contribution of wood to meeting UNECE region's energy needs?

Contribution of agriculture to biomass supply

Dietrich Klein, chairman of the COPA-COGECA Working Party on "bioenergy/biotechnology"

Venue: Palais des Nations, Geneva, 10 October 2007



Food and climate change

Challenges for agriculture:

- 1. Food for the world population**
- 2. Biofuels for climate protection**



Dispute: Fuel vs. Food?

OECD-FAO

Agricultural Outlook 2007 – 2016

- Growing bio-fuel demand underpinning higher agriculture prices
- higher commodity prices are a particular concern for net food importing countries as well as the urban poor
- Second-generation technologies hold promise but depend on technological breakthroughs.



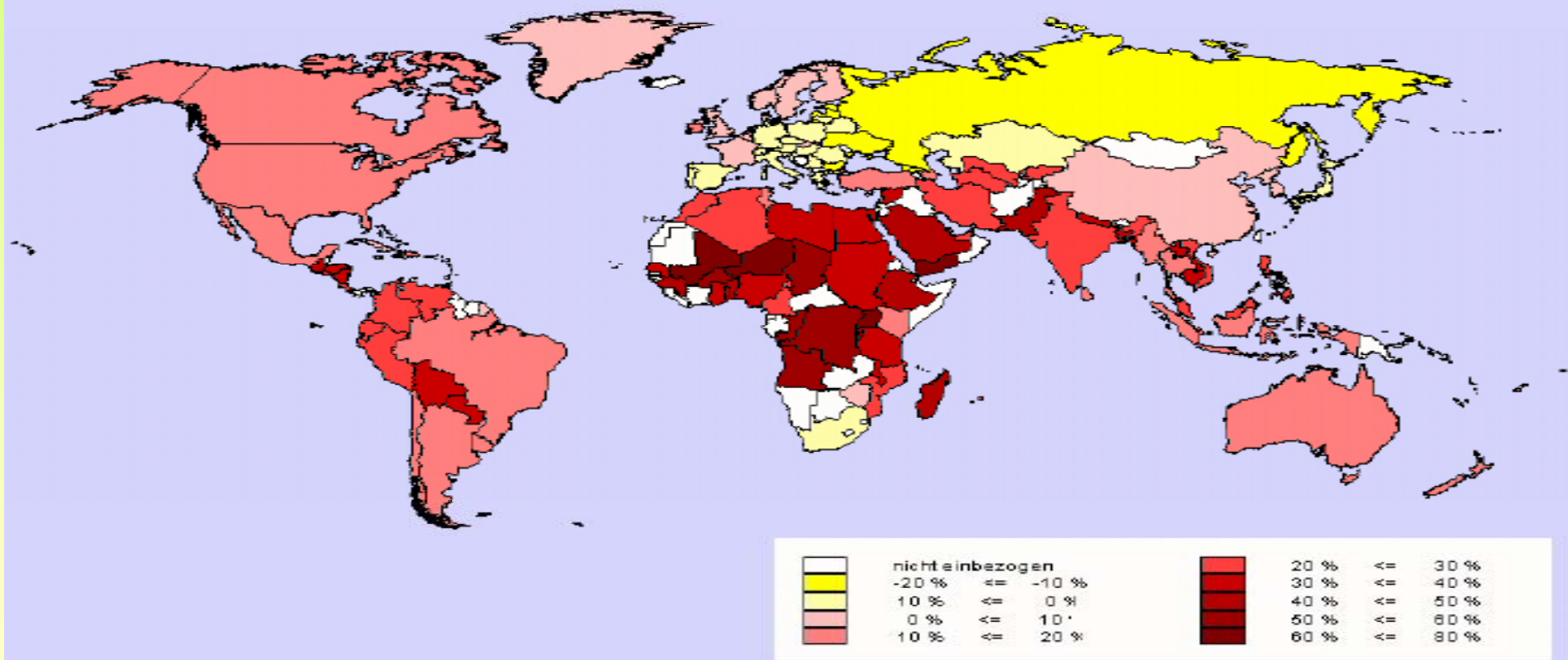
Food for the world

Growing Population

Region	Ø 2002-2005	2020
	[Mio.]	[Mio.]
Afrika	778	1.082
America	856	1.024
Asia	3.657	4.336
Australia	20	23
Europe	784	775
Total*	6.095	7.240

*119 countrys (Source: University of Hohenheim)

Bevölkerungsentwicklung von 2003 bis 2020 in %





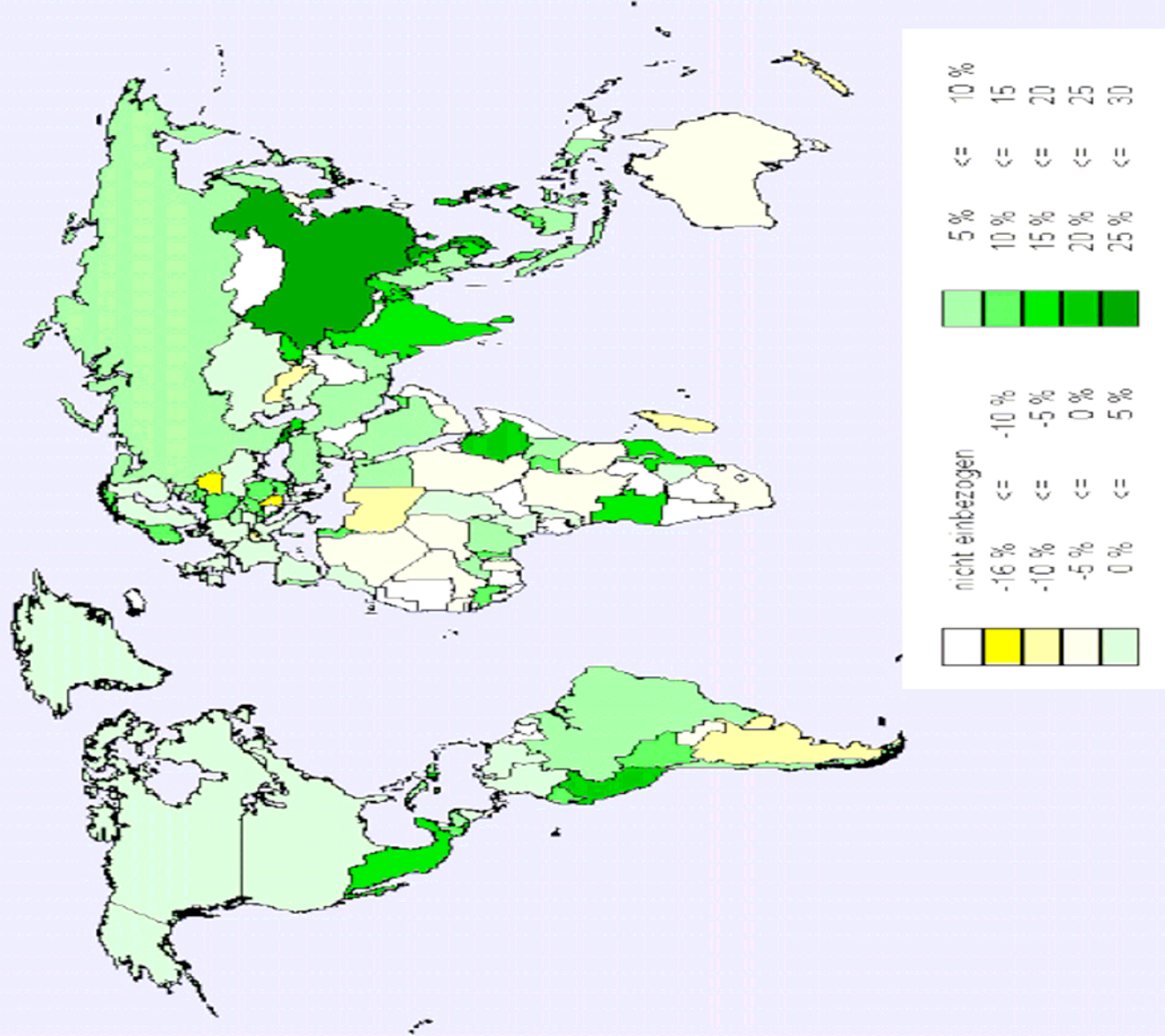
Food for the world

Growing consumption		
	Ø 2002-2005	2020
Region	Bln. CU	Bln. CU
Afrika	289.416	425.280
America	998.952	1.285.252
Asia	1.788.273	2.557.290
Australia	26.880	30.076
Europe	826.336	855.947
Total*	3.929.857	5.153.844

*119 countrys(Source: University of Hohenheim)

Food for the world

Entwicklung des Pro-Kopf-Verbrauchs 2003 bis 2020 in %





Fuel for the world

Bio fuel shares in transport fuels: Outlook 2010/2015/2020

Year	China	India	Brazil	US	EU
2005	2%	1%	37%	2%	1%
2010	4%	5%	47%	3%	4%
2015	6%	8%	49%	3%	7%
2020	8%	11%	58%	4%	10%

(Source: Rosegrant et al IFPRI)

IFPRI: Percentage Changes in World Prices of Feedstock Crops

(Aggressive biofuel growth and cellulosic conversion)

Feedstock/crop	Year
	2020
Cassava	54%
Maize	23%
Oilseeds	43%
Sugar beet	10%
Sugar cane	43%
Wheat	16%

(Source: Rosegrant et al IFPRI, IFPRI IMPACT projections)



Outlook worldprices

OECD: Percentage Changes in World Prices of Feedstock/Crops

Feedstock/crop	2005-2014	
	41 US\$/barrel	71 US\$/barrel
Wheat	5%	12%
Maize	8%	18%
Sugar (white)	62%	18%
Oilseeds	2%	19%

(Source: AGR/CA/APM (2005) 24/FINAL)



Look back: world prices

Wheat [Ø US\$/t cif Rotterdam]

1995	2000	2005	2007
\$245	\$162	\$223	\$302 (est.)

Outlook worldprices: augury?



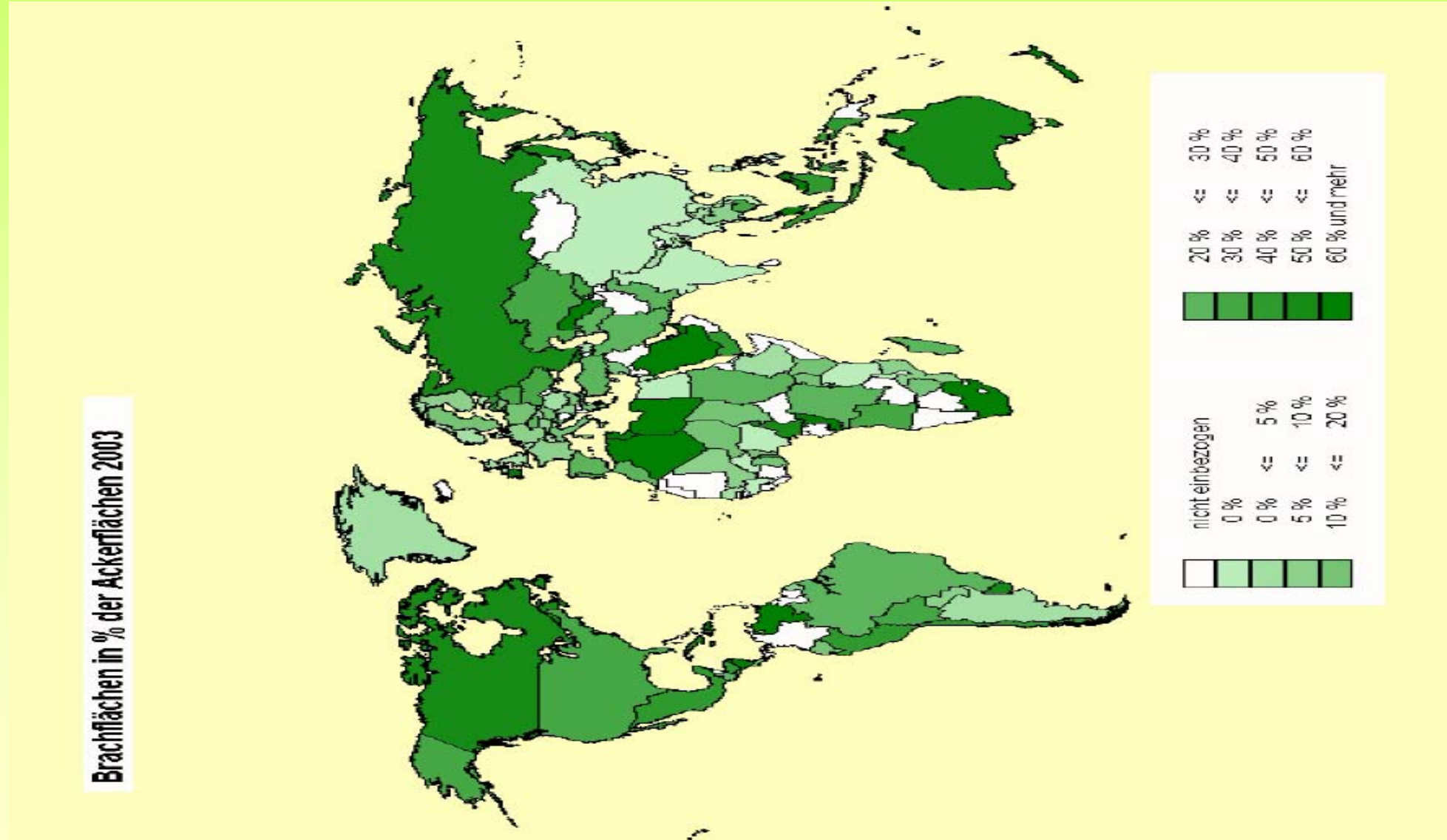


Outlook world arable land

(without fallow and excess production land)

Arable Land		
Region	Ø 2002-2005	2020
	Mio. ha	Mio. ha
Afrika	179	206
America	362	364
Asia	468	496
Australia	48	52
Europe	301	277
Total*	1.358	1.395
*119 countrys		

Outlook world agricultural potential: Fallow land





Outlook world agricultural potential: Fallow land

Landpotential 2002-2005 [Mio. ha]	
Region	Fallow land
Afrika	40,85
America	127,74
Asia	44,64
Australia	24,91
Europe	102,36
Total	340,51
<small>(Source: University of Hohenheim)</small>	



Conclusion: Food for the world and fuel for climate protection

1. Growing food consumption covered by 1.4 Bln. ha arable land.
2. Rising commodities prices activate 0.35 Bln. ha fallow land.
3. Cereal yields improved by R+D.
4. Decline of state market intervention leads to more oscillating markets for agricultural commodities.
5. Actual price hausse is due to low prices for agricultural commodities in the past.



Thank you for your attention

COPA-COGECA

61, rue de trèves

B-1040 Brussels

WWW.copa-cogeca.be