



“Direct and indirect impact of biofuels policies on tropical deforestation in Malaysia“

Closing remarks

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Bioenergy at WAGENINGEN UR



WAGENINGEN UR



Current use of Palm oil for biodiesel is unclear.....

Estimated Feedstock Use for Biodiesel Production (in 1,000 MT)

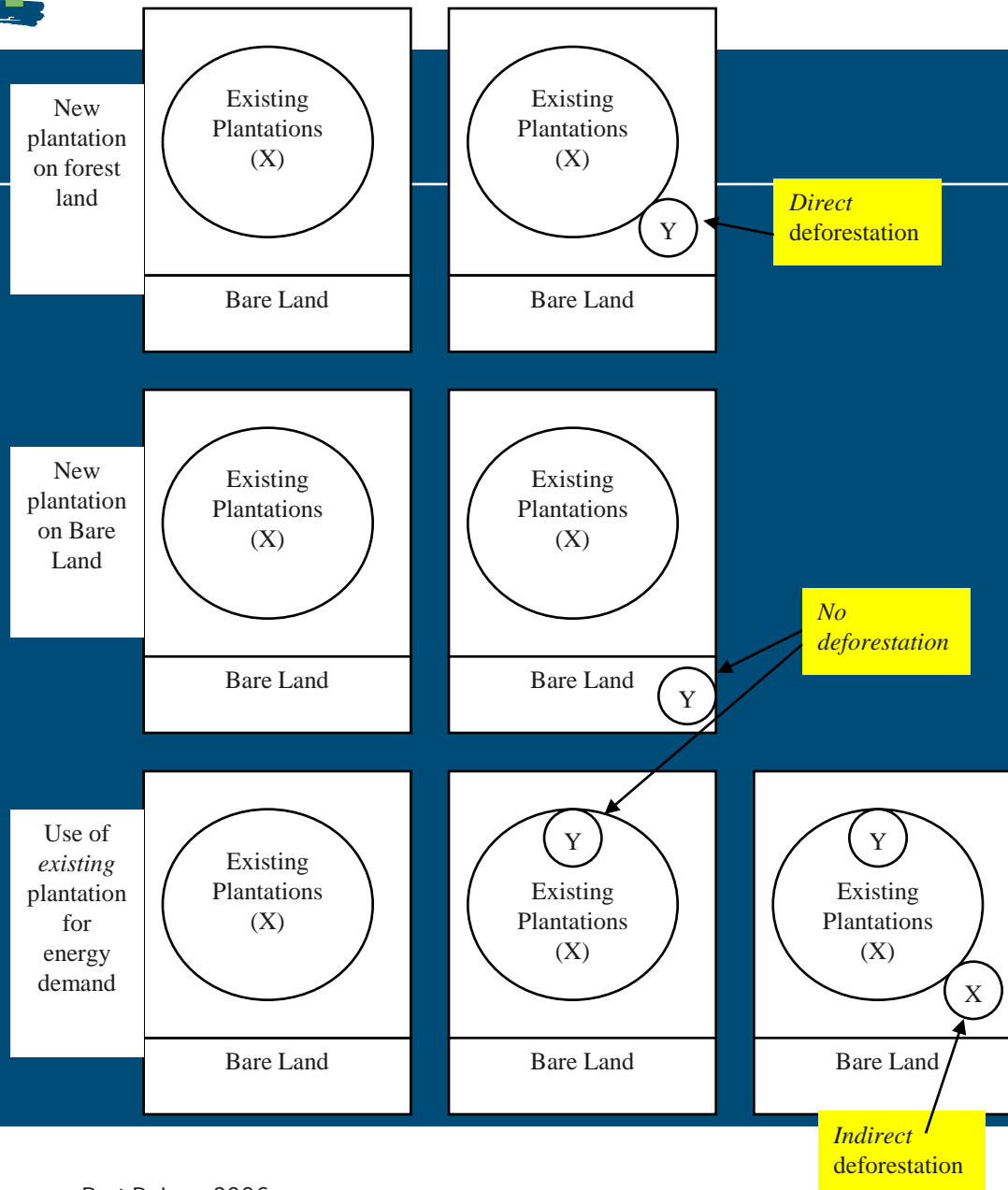
	2006	2007e	2008e	2009f	2010f
Rapeseed Oil	3,150	3,550	3,700	4,900	5,650
Soybean oil	800	900	900	1,000	1,200
Palm oil	150	400	400	420	450
Sunflower	180	220	300	420	450
Other and not attributed	110	110	100	100	160
Subtotal Vegetable oils	4,390	5,180	5,400	6,840	7,910
Recycled Vegetable Oil	120	135	230	300	490
Animal Fats	10	35	130	160	200
Grand total	4,520	5,350	5,760	7,300	8,600

Note: Data for feedstock use is not available. The figures above represent estimates by EU FAS posts.



Institute AFSG of Wageningen UR

- Developing technology for sustainable agri-chains
- You can do a lot on the technical side!
 - Biorefinery: share the foodprint with more products= energy + other products



Have we discussed indirect effects?

Indirect GHG effect is not the same as blame!

Generally someone else (in another country) is to blame for the indirect GHG effect!

It can also be GHG emissions due to LUC for another crop in another country



- Estimates of the indirect effect vary from $\pm 0\%$ (potential studies) to $\pm 80\%$ (Searchinger et al., 2008, Science) (Eickhout, 2008)
- Indirect (GHG) effects appear significant enough to make agri-biofuel unsustainable in the Business As Usual scenario
- Is the indirect GHG effect of rape biodiesel (or maize for anaerobic digestion) in Europe different from the indirect effect of palm biodiesel? More indirect but not necessarily smaller??



- There is a concern that sustainability demands will become an (undue) trade barrier → scientific basis for sustainability assessment is therefore even more important →

How to isolate yourself from the indirect effect?

- Oil palm appears to have a large untapped potential to also produce other (fibre) products (which may share the footprint) thus reducing the time to repay the carbon debt. Oil yield potential has potential to improve too!
- Is allocation on the basis of LHC (for by-products) the way to go? It appears this gives the least credit to making added value products from by-products – Any other allocation system seems better (price – mass – replacement)



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- Is degraded land the way to go? We need to understand if the use of “degraded land” is an option to avoid indirect effects! – Where is the land? What is the extra cost? What is the GHG effect of conversion? What is the productivity? etc



- “We argue that the official sustainability demands will focus heavily on GHG performance of biofuel as this is a primary driver for the existence of biofuels in the EU. Furthermore it is also a demand that can be set under WTO and EU trade regulations”
- “GHG performance can in principle be quantified in an objective way, though much needs to be assessed and developed”
- “Methods and cost effective certification (or other systems) will have to be implemented and producers may have to adapt production systems in order to improve GHG impact”
- “Challenges lie in agreeing on methods for GHG assessment especially for indirect effects”



END

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