BEFS
Bioenergy and Food Security

Sustainable Bioenergy Development and FAO's Approach

The Bioenergy How2Guide

Latin America Expert Workshop, Brasil, November 2014

FAO and the Bioenergy How2Guide

- FAO is collaborating with the IEA on the Bioenergy How2Guide
- Aim: creation of a policy manual with practical guidance on bioenergy roadmap development at national or regional level
- FAO is contributing with knowledge, expertise and regional experiences

GBEP SUSTAINABILITY INDICATORS FOR BIOENERGY

ENVIRONMENTAL	SOCIAL	ECONOMIC
INDICATORS		
1. Lifecycle GHG emissions	9. Allocation and tenure of land for new bioenergy production	17. Productivity
2. Soil quality	10. Price and supply of a national food basket	18. Net energy balance
3. Harvest levels of wood resources	11. Change in income	19. Gross value added
4. Emissions of non-GHG air pollutants, including air toxics	12. Jobs in the bioenergy sector	20. Change in consumption of fossil fuels and traditional use of biomass
5. Water use and efficiency	13. Change in unpaid time spent by women and children collecting biomass	21. Training and re-qualification of the workforce
6. Water quality	14. Bioenergy used to expand access to modern energy services	22. Energy diversity
7. Biological diversity in the landscape	15. Change in mortality and burden of disease attributable to indoor smoke	23. Infrastructure and logistics for distribution of bioenergy
8. Land use and land-use change related to bioenergy feedstock production	16. Incidence of occupational injury, illness and fatalities	24. Capacity and flexibility of use of bioenergy

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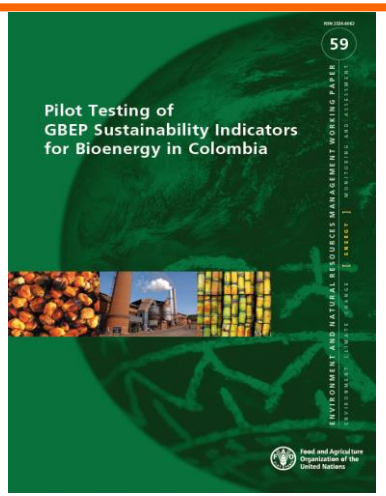
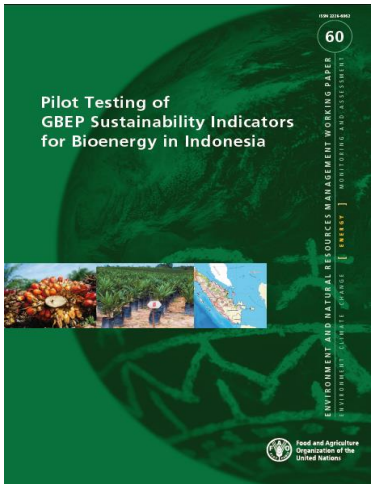
CAPACITY BUILDING: PILOTING THE GBEP SUSTAINABILITY INDICATORS

COUNTRIES	COMPLETED	IN PROGRESS	COMMITTED
Argentina		X	
Brazil		X	
China			X
Colombia	X		
Egypt		X	
Ethiopia			X
Germany	X		
Ghana	X		
Indonesia	X		
Italy			X
Jamaica		X	
Japan		X	
Kenya			X
Netherlands	X		
Paraguay			X
USA		X	
Sudan			X
Uruguay		X	
Vietnam			X





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Example of good practice: Integrated Food Energy Systems – Two types

Type 1:

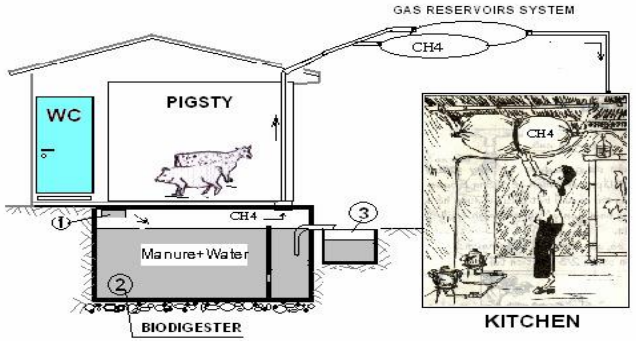
Optimising land use efficiency of food and energy production on the same land

Agroforestry system in the Maldives

Type 2:

Biomass use optimisation through recycling of all by-products

Pig-biogas system - Vietnam



The challenge is to scale up good ones