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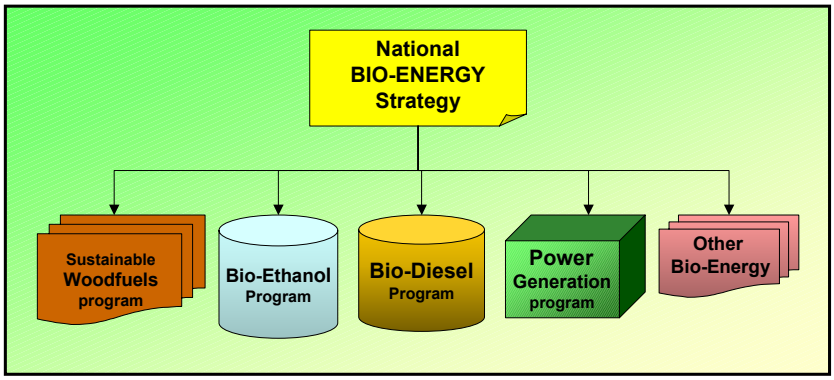
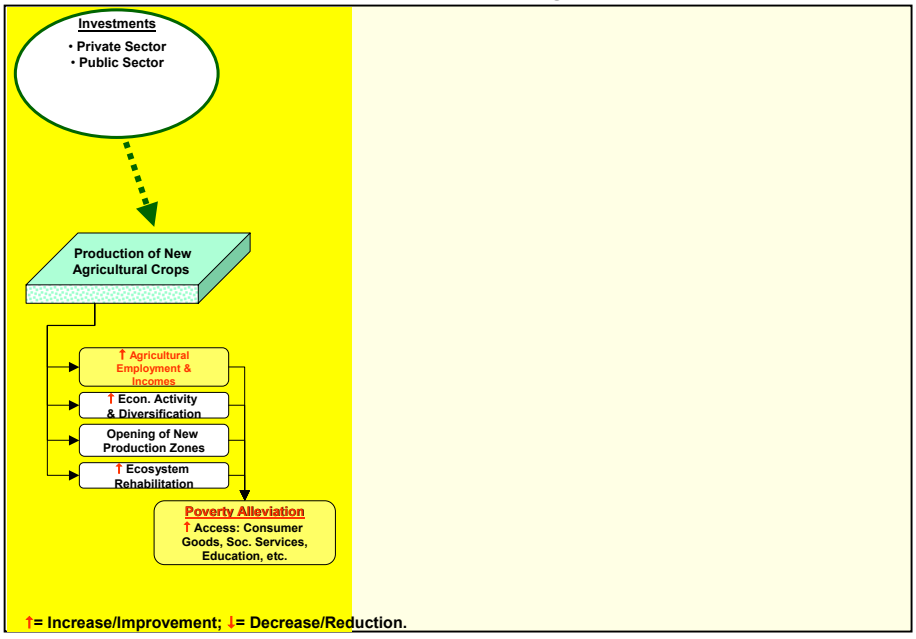
Vision: **Contribute to Poverty Alleviation and Climate Change Mitigation in client countries through the development of comprehensive and sustainable biomass energy sector policies, strategies and investments.**



Moving LDC's towards a "Renewable Energy Platform" for a sustainable future .....

Ethanol/Millennium Gelfuel: A Sustainable Engine for Rural Transformation



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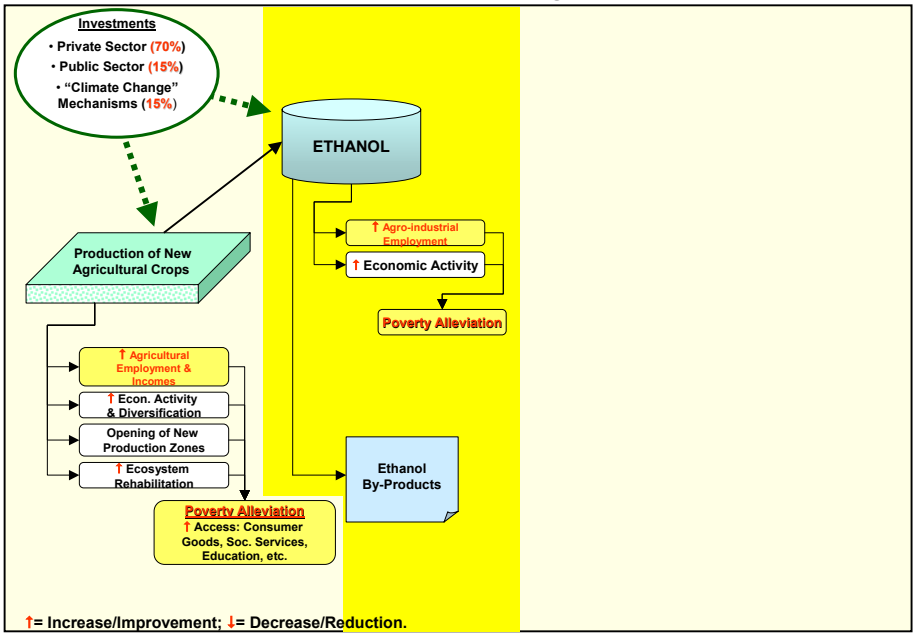

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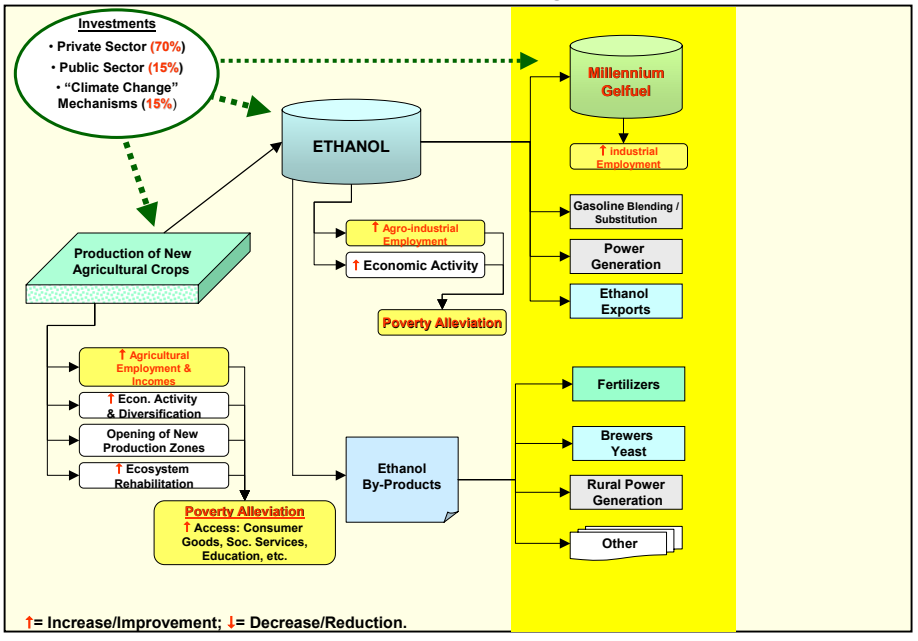

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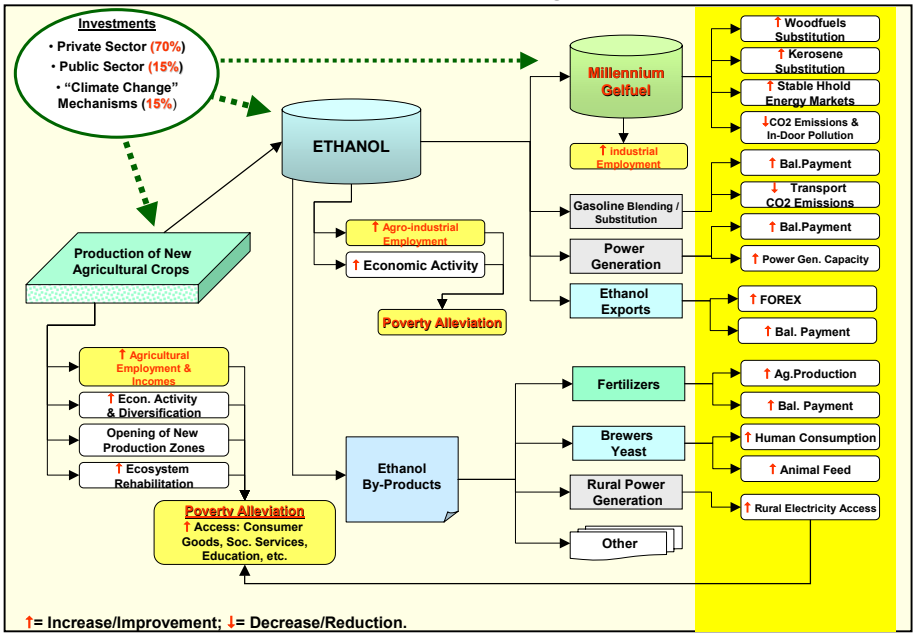

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MILLENNIUM GELFUEL

A Renewable and Low-Cost Cooking Fuel for Africa

TABLE 2: Land Requirements, Rural Employment and Millennium Gelfuel Production From 25% and 50% Increase in Agricultural Crops in Africa [1]

25% Production Increase over '2000 Crop Levels	SUGAR CROPS						STARCH CROPS									ALL CROPS		
	SUGAR CANE			SWEET SORGHUM			CASSAVA			MAIZE			SWEET POTATOES			TOTALS		
	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)	(2)	(3)	(4)
REGION	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)	Ha (10^6)	Jobs (10^6)	Gelfuel (10^6 Lt)
Central Africa	0.1	0.0	93.3	0.4	0.2	122.3	0.6	0.2	1,257.7	0.7	0.2	385.6	0.0	0.0	39.8	**1.7**	**0.7**	**1,898.5**
Eastern Africa	0.1	0.1	437.1	0.8	0.4	301.7	0.8	0.4	1,250.7	2.7	0.9	1,989.6	0.3	0.1	275.5	**4.8**	**1.8**	**4,254.6**
Southern Africa	0.1	0.0	583.4	0.1	0.0	54.1	0.0	0.0	0.0	0.9	0.3	1,611.1	0.0	0.0	2.5	**1.1**	**0.4**	**2,251.1**
Western Africa	0.0	0.0	89.3	3.0	1.3	1,116.0	1.2	0.5	2,610.9	1.8	0.6	1,331.0	0.1	0.1	134.4	**6.2**	**2.5**	**5,281.6**
Total ->	**0.3**	**0.1**	**1,203.1**	**4.3**	**1.8**	**1,594.1**	**2.6**	**1.1**	**5,119.3**	**6.1**	**2.1**	**5,317.2**	**0.5**	**0.2**	**452.2**	**13.8**	**5.4**	**13,685.9**
50% Increase																		
Central Africa	0.1	0.1	186.5	0.8	0.3	244.5	1.1	0.5	2,515.4	1.4	0.5	771.2	0.1	0.0	62.6	**3.4**	**1.4**	**3,780.1**
Eastern Africa	0.2	0.1	874.2	1.7	0.7	603.3	1.6	0.7	2,501.4	5.4	1.9	3,979.2	0.7	0.3	551.0	**9.6**	**3.7**	**8,509.2**
Southern Africa	0.2	0.1	1,166.8	0.1	0.1	108.3	0.0	0.0	0.0	1.9	0.7	3,222.2	0.0	0.0	5.1	**2.2**	**0.8**	**4,502.3**
Western Africa	0.0	0.0	178.7	6.1	2.5	2,232.0	2.4	1.0	5,221.8	3.6	1.3	2,662.0	0.3	0.1	268.7	**12.3**	**5.0**	**10,563.2**
Total ->	**0.5**	**0.3**	**2,406.1**	**8.7**	**3.6**	**3,188.1**	**5.1**	**2.3**	**10,238.6**	**12.2**	**4.3**	**10,634.5**	**1.0**	**0.4**	**887.4**	**27.5**	**10.8**	**27,354.8**

Source: Phillips, T., "Agro-Economic Assessment of the Potential to Produce Fermentation Ethanol Alcohol In Africa", RPTES Program, 2002.

Notes: **(1)** Projections based on 25 and 50 percent of 2001 and production of the specific crop. It is assumed that yields remain constant and that labour inputs will increase in proportion to production increases. Required land expansion was constrained by availability of suitable land. Sources: (a) for Production data: FAO, Agricultural Production, FAOSTAT (http://apps.fao.org/); (b) for Suitability data: IIASA and FAO. (2000); and, (c) for Global Agro-Ecological Zones http://www.fao.org/ag/AGL/agll/gaez/index.htm.

(2) Land requirements of projection scenarios presented in million Hectares (Ha).

(3) Employment Generation presented in millions and only reflect new jobs in the agricultural production phase. Actual number calculated on the basis of total number of day/person labour input divided by 250 workdays/year. Agro-industrial employment in ethanol distillation and gelfuel production is estimated to be of the order of **100,000** new permanent jobs not included.

(4) Millennium Gelfuel production calculated on the basis of 1.2:1 volume ratio with respect to ethanol alcohol production.

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MILLENNIUM GELFUEL

A Renewable and Low-Cost Cooking Fuel for Africa

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Southern Africa	0.1	0.0	583.4	0.1	0.0	54.1	0.0	0.0	0.0	0.9	0.3	1,611.1	0.0	0.0	2.5	**1.1**	**0.4**	**2,251.1**
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