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UNCCD Types 1: Global indicators for assessment of the implementation of strategic objectives
Selection after consultation with EDN members (*European DesertNet*)
23/04/2009

LOCAL LEVEL

Nota Bene: These indicators listed below are exclusively local. This means that national indicators that can be used at local level are not listed below.

Type UNCCD	#	Indicators and units
STRATEGIC OBJECTIVE 1 To improve the living conditions of affected populations	S1 Decrease in numbers of people impacted by desertification/land degradation and droughts	1 Change of incomes and goods
		2 Schooling rate (%)
		3 Global activity rate (%)
		4 Land ownership (on farm, off farm)
		5 Satisfaction rate of farm needs (agricultural, animal husbandry, general) (%)
	S2 Increase in numbers of people living above poverty line	1 Net income from agriculture (on going year only) (US\$)
		2 Change of forest income
		3 Effective activity rate (%)
		4 Income per inhabitant (US\$)
		5 Income per worker (US\$)
	6 Income proportion from the main activity in the farm economy (%)	

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 1 To improve the living conditions of affected populations	S2 Increase in numbers of people living above poverty line (CONT.)	7	Ratio between family labor force et external labor force (%)
		8	Total agricultural area per inhabitant (ha, km2)
		9	Auto-consumption rate of farming products (agricultural, animal husbandry, general) (%)
		10	Mechanization rate (agricultural, livestock farming, general) (%)
		11	Change of incomes and goods
		12	Schooling rate (%)
		13	Global activity rate (%)
		14	Land ownership (on farm, off farm)
(CONT.)	S3 Decrease in numbers of people below the minimum level of dietary energy consumption in affected areas	1	Land ownership (on farm, off farm)

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 2 To improve the condition of affected ecosystems	S4 Decrease in affected areas	1	Land cover (%) at local scale
		2	Sensitivity index/Plant association
		3	Carrying capacity evolution
		4	Animal productivity evolution
		5	Animal density (UB/km ²)
		6	Managed areas compared to initial goal (zaï, compost ...) (ha)
		7	Wood density evolution/species/every 10 years
		8	Global botanical composition
		9	Species richness (global, perennial vs. annual)
		10	Plant cover evolution
		11	Biological types
		12	Physiognomy change: plant association area (per facies and agrosystems)
		13	Physiognomy change: ratio between ecosystems / agrosystems
		14	Biotope diversity
		15	Rain use efficiency for production (kg MS/ha/an/mm)
		16	Phytomass (KgMS/ha)

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 2 To improve the condition of affected ecosystems (CONT.)	S4 Decrease in affected areas (CONT.)	17	Pastoral value
		18	Potential evapotranspiration (mm, cm)
		19	Evolution of the natural vegetation per hectare (number of seedlings) on protected and unprotected plots
		20	Drought resistance (capacity of the vegetation to resist to serious or moderate water stress)
		21	Water infiltration capacity (mm/hour)
		22	Soil retention capacity
		23	Organic C
		24	N, P and K
		25	Cationic exchange capacity
		26	Soil biological indicators (soil microbiological biomass, breathing, enzymes, biomass N, microbiological species diversity)
		27	Fluctuation in water table level (m)
		28	Surface water and water table quality
		29	Measures of water tables controlling aquifer characteristics; climatic variations ; drainage volume
30	Longitudinal data on intra and inter annual variations of soil humidity by controlling climatic variability		

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 2 To improve the condition of affected ecosystems (CONT.)	S4 Decrease in affected areas (CONT.)	31	Ravines (m/km ²)
		32	Superficial crusting rate
		33	Sand Silted surface Rate
		34	Slope length
		35	Slope steepness
		36	Rock fragment (%)
		37	Soil depth (cm)
		38	Rain erosivity (mm/hour)
		39	Wind erosivity (m ³ /hour)
		40	Stability of the surface horizon ()
	41	Evolution of soil profile (humus, organic matter)	
	S5 - Increase in net primary productivity	1	Phytomass (KgMS/ha)

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 3 To generate global benefits through UNCCD	S6 Increase in carbon stocks in affected areas	1	
	S7 Areas of forest, agricultural and aquaculture under sustainable management	1	Land cover (%) at local scale
		2	Access radius for collecting firewood (duration)
		3	Herd composition by animal species
		4	Ratio between actual and possible carrying capacity
		5	Herd composition (sex and age classes)
		6	Food complements (fodder...)
		7	Date of the transhumance start (current year, previous year, mean, min, max)
		8	Location and density of firebreaks
		9	Density of decision centers (nb/km ²)
		10	Density of water point: nb/km ²
		11	Housing density (nb/km ²)
		12	Population growth rate (%)

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 3 To generate global benefits through UNCCD (CONT.)	S7 Areas of forest, agricultural and aquaculture under sustainable management (CONT.)	13	Farming activities rate (sensu lato) (%)
		14	Agricultural working population (%)
		15	Distribution of main and secondary activities (farming, pastoralism, forestry, marketing, handicraft...): diagram
		16	Distribution of farm size (total arable land or livestock size classes): diagram
		17	Equipment rate (%)
		18	Total agricultural area (ie cultivated-annual or perennials- or fallow)
		19	Rate of multiple jobholding (%)
		20	Rate of agriculture spread (%)
		21	Livestock increase rate (%)
		22	Livestock extensivity rate (%)
		23	Index of natural vegetation collection due to farming activities
		24	Index of natural vegetation collection due to pastoral activities (according to pastoral activities)
		25	Fire wood collection (kg of dry matter / day / season)
26	Fraction of farmers using alternative farming techniques (other than traditional)		

Type UNCCD		#	Indicators and units
STRATEGIC OBJECTIVE 3 To generate global benefits through UNCCD (CONT.)	S7 Areas of forest, agricultural and aquaculture under sustainable management (CONT.)	27	Evolution of investment level
		28	Irrigated perimeter drainage
		29	Satisfaction rate of farm needs (agricultural, animal husbandry, general) (%)
		30	Ratio between family labour force et external labour force (%)
		31	Total agricultural area per inhabitant (ha, km2)
		32	Autoconsumption rate of farming products (agricultural, animal husbandry, general) (%)
		33	Mechanization rate (agricultural, livestock farming, general) (%)
		34	Carrying capacity evolution
		35	Animal productivity evolution
		36	Animal density (UB/km2)
		37	Managed areas compared to initial goal (zai, compost ...) (ha)
		38	Pastoral value

UNCCD Types 4: Indicators for decision-makers, enabling the assessment of trends, success and failures at different scales

Type UNCCD	#	Indicators and units
<p>T4 Indicators for decision-makers, enabling the assessment of trends, success and failures at different scales</p>	1	Land cover (%) at local scale
	2	Number of treated gully erosion_nombre de ravines d'érosion traitées
	3	Number of rehabilitated hectares into farmed, pastured and wooded land (ha)
	4	Yields per hectare on treated plots compared to untreated plots
	5	Number of planted seedling
	6	Forest recover rate after 3 years
	7	Afforested areas in hectares
	8	Evolution of the mean family income (inc. The part due to actions to combat desertification)
	9	Evolution of migratory flow on a territory (rural exodus, population maintain, return) and link with the actions done to combat desertification
	10	Managed areas compared to initial goal (zaï, compost ...) (ha)
	11	Fraction of farmers using alternative farming techniques (other than traditional)
	12	Evolution of investment level
	13	Irrigated perimeter drainage

Type UNCCD	#	Indicators and units
<p style="text-align: center;">T4 Indicators for decision-makers, enabling the assessment of trends, success and failures at different scales (CONT.)</p>	14	Potential evapotranspiration (mm, cm)
	15	Evolution of the natural vegetation per hectare (number of seedlings) on protected and unprotected plots
	16	Drought resistance (capacity of the vegetation to resist to serious or moderate water stress)
	17	Water infiltration capacity (mm/hour)
	18	Soil retention capacity
	19	Organic C
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	22	Soil biological indicators (soil microbiological biomass, breathing, enzymes, biomass N, microbiological species diversity)
	23	Fluctuation in water table level (m)
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	25	Measures of water tables controlling aquifer characteristics; climatic variations ; drainage volume
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	27	Ravines (m/km ²)
28	Superficial crusting rate	
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