

Towards analysis of in-between and within drivers and sectors

Being classified as a least developed country (LDC) Sudan is not obliged to pursue a GHG emission reduction target. Nevertheless, Sudan views the planning process to reduce GHG emissions, or rather pursue low-carbon development, as an opportunity to strengthen national capacity, promote sustainable resource management, facilitate technology transfer, and identify synergies between national economic objectives and sustainable development

Total GHG emissions in 1995 were 72,014 Gg of carbon dioxide-equivalent (CO₂e) 2000 were 77,650 GgCO₂-equivalent (CO₂e), which includes (i) 57,611Gg from agriculture, (ii) 9,392 Gg from Land Use Change and Forests (LUCF), (iii) 8,539Gg from energy, (iv) 2,015Gg from waste, (v) only 93Gg from industrial processes. LUCF accounts for about 12% of all GHG emissions, mostly from forest and grassland conversion.

Table (2). GHG emissions in RoS

Year	Gg of carbon dioxide-equivalent (CO ₂ e)		
	Sub-sector	Sub-total	Grand Total
1995	Agriculture	45273	
	Land Use Change and Forests (LUCF)	17777	
	Energy	7788	
	Waste	1003	
	Industrial processes	173	
	Total 1995	72,014	72,014
2000	Agriculture	57,611	
	Energy	8,539	
	Waste	2,015	
	Industrial processes	93	
	Total 2000	77.650	77.650
2013	Agriculture		
	Land Use Change and Forests (LUCF)	20,136	
	Energy		
	Waste		
	Industrial processes		
	Total 2013		

Sources: First, and second National Communications (NC) and draft inventory report for the 3rd National Communication

The trend in total GHG emissions for 1995, the year of the initial GHG inventory, and 2000 the second GHG inventory, GHG emissions have increased by about 8%, from in 1995 to 77,650 Gg CO₂e in 2000

Although there is increase in the total emissions but Land Use Change and Forestry sector (LUCF) has been decreased from 17777 to 9392 GgCO₂-equivalent or more than 47% reduction. This decrease is partially offset by significant switching from biomass/charcoal use in the household sectors (with its corresponding high CH₄ emissions) to greater LPG use. The other factors for this reduction include the expansion in afforested areas and managed forested land, in addition to improve application of the inventory methodology (forest

characterization).

The conversion of forests and grasslands accounts for all CO₂e emissions from the LUCF sector. This is mostly due to the deforestation and degradation of forests and rangelands associated with unsustainable biomass extraction in rural areas.

Regarding CO₂ removals by sinks, changes in forest and other woody biomass stocks that are under the management of the Forest National Corporation account for about 76% of all sequestered CO₂. The remaining 24% of all sequestered carbon is associated with the abandonment of agricultural lands.

Unlike the Initial and Second Communications the 3rd National Communication using 2013 data as base year did not include the forests of Southern Sudan after separation. The preliminary results of the 3rd national communication shows very high LUCF emissions of about 20136 Gg CO₂-equivalent. This is expected since the removal by sinks has been reduced dramatically as we lost the forests of the south of Sudan as a substantial sink of emission so results in the increase of emissions

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