

SUBSISTENCE FUELWOOD CONSUMPTION (m3)1997/1998, RURAL AREAS

<i>Region</i>	<i>1997</i>		<i>1998</i>	
	<i>Population</i>	<i>Fuelw. cons.</i>	<i>Population</i>	<i>Fuelw. cons.</i>
Caprivi	84671	110073	86048	111863
Okakarara	21417	21417	21765	21765
Otjinene	27991	27991	28446	28446
Ongandjera	1274	1656	1294	1682
Tsumkwe South	3777	3777	3838	3838
Tsumkwe North	557	557	567	567
Tsumkwe West	2598	2598	2640	2640
Tsumkwe town	459	459	467	467
Tsumkwe total	7391	7391	7511	7511
Okak, Otjin, Tsu	56799	56799	57723	57723

FUELWOOD CONSUMPTION, M3 PER CAPITA/YEAR

(study on wood consumption in Namibia, Tatu Ollikainen, 1991, Directorate of Forestry, Windhoek)

<i>Area</i>	<i>m3/cap/yr</i>
Owambo	1.3
Kavango	1.3
Caprivi	1.3
Tsumkwe	1.0
Okakarara	1.0
Otjinene	1.0

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2.3.5 Total urban firewood consumption

Based on the same definition of urban population as in section 2.3.4 and the same estimates for population growth and urbanisation, an estimate can be made of the total firewood consumption in urban Namibia. As in section 2.3.4 some additional assumptions must be made:

- 288.000 people live in these towns.
- 20% of the population are non-buyers of firewood, but use the same quantity per person per day as main users.
- 20% of the remaining population, 46.000 people, are occasional users.
- Occasional users consume 0,70 kg per person per day.
- 80% of the remaining population, 184.000 people, are main users.
- Main users consume 1,12 kg per person per day.

Based on these assumptions, the total firewood consumption in these towns is about 110.000 tons. With a price of N\$ 180 per ton, the total value is about N\$ 20 mill. If we combine this estimate with the one for the total consumption in the 5 towns, the total urban firewood consumption in Namibia is 175.000 tons with a value of about N\$ 47 mill.

2.3.6 Total rural firewood consumption

In order to estimate the total firewood consumption in rural Namibia, the population figure has to be estimated since there are no exact data on this. Based on the expected urbanisation mentioned previously and an annual growth for the whole population of 3,1%, the rural population is estimated to increase from 953.000 in the census in 1991 to 1.095.000 in 1996. In the table below the population has been estimated regionally and the consumption per person per day is estimated. Based on this, the total consumption for rural Namibia is calculated.

Table 6: Total consumption of firewood in rural Namibia.

Regions	Estimated rural population	Estimated firewood consumption per person per day in kg	Total firewood consumption in tons
Kavango and Caprivi	195.000	1,50	107.000
Kunene, Erongo, Otjozondjupa, Omaheke and Khomas	210.000	1,30	100.000
Omusati, Ohangwena, Oshikoto and Oshana	625.000	1,00	228.000
Hardap and Karas	65.000	1,00	25.000
Total	1.095.000	1,15	460.000

To put a price on subsistence consumption of firewood is difficult. In this case the estimated price for urban Namibia, excluding the 5 towns, has been used and reduced further with on third. The argument is that subsistence consumers in rural Namibia will put a lower price on their time than the average town dweller. The price used for rural areas is N\$ 120 per ton, which puts a value on the total rural consumption of N\$ 55,2 mill.

The estimated consumption per person per day for Kavango/Caprivi is based on the figures for Rundu. In these regions firewood consumption is high because it is still available for the rural population and it can be collected in a short time. In the Central regions, the firewood is in general available in large quantities in the form of bush and it is therefore assumed that the consumption is relatively high. In parts of former Ovamboland, firewood is also available in large quantities, but in other parts it is not. The consumption has been set at 1 kg per person per day as an average. The same figure has been used for the southern regions with the same justification.

Consumption patterns of wood major wood and wood products in Namibia. 1997

J. Klæboe.