

CHAPTER 1

AN INTRODUCTION TO SRI LANKA AND ITS FORESTS

1.1 Location, topography and climate

Sri Lanka is a tropical island nation, 65,610 km² in area. It consists of a coastal plain and a central highland massif, whose highest point is Pidurutalagala (2,524 m) (figure 1.1). It has climatic conditions determined partly by altitude and partly by degree of exposure to the monsoonal winds; conditions range from hot to cool, and from wet to arid (figure 1.2). The average mean temperature for the coast is about 26.7°C, and for the hill country 19.2°C. Temperatures at elevations over 1,800 m altitude, in the heart of the rugged central montane massif, can drop to freezing, bringing regular ground frosts in places. Rainfall is generally monsoonal. In the dry zone (the lowland plains of the north and east) rainfall is generally below 1,900 mm per year, dropping to about 125 mm per year in the driest (semi-arid and arid) areas. In the wet zone (the south and west), rainfall ranges between 1,900 mm and 5,000 mm per year.

1.2 People and forests

The country is divided administratively into nine Provinces and 25 Districts (figures 1.3 and 1.4). The population of the country is estimated at 18.1 million (1995), increasing at the rate of around 1.2% per year. Life expectancy is higher than for most developing countries, and the country's literacy rate is now over 90 per cent. Population increase has continued while forest cover has declined over the last century (Nanayakkara, 1982). From covering an estimated 84% of the land in 1884, it was reduced to 24% in 1992 (table 1.1; figure 1.5).

Date	Area (ha)	%
1884	5,540,000	84
1900	4,610,000	70
1953	3,295,000	50
1956	2,900,000	44
1983	1,760,000	26
1992	1,582,756	24

Table 1.1

Estimated forest cover in Sri Lanka, 1884 to 1992. Note that the table refers to closed canopy forest only: estimates for open canopy and scrub are only available for 1983 (625,000 ha) and 1992 (463,842 ha). The 1992 assessment is from the Landsat Thematic Mapping project.

Natural forest types in Sri Lanka depend on the prevailing climatic conditions. To facilitate management planning, and indeed for the purposes of this report, the following main types are recognised:

- Montane forest
- Sub-montane forest
- Lowland rain forest
- Moist (wet or humid) monsoon forest
- Dry monsoon forest
- Riverine forest
- Mangrove forest
- Sparse forest

Some of the most commonly occurring tree species in the lowland rain forest, the moist monsoon forest, and the dry monsoon forest, are given in Box 1.1. Table 1.2 shows the extent of each forest type in the nine provinces of Sri Lanka in 1992.

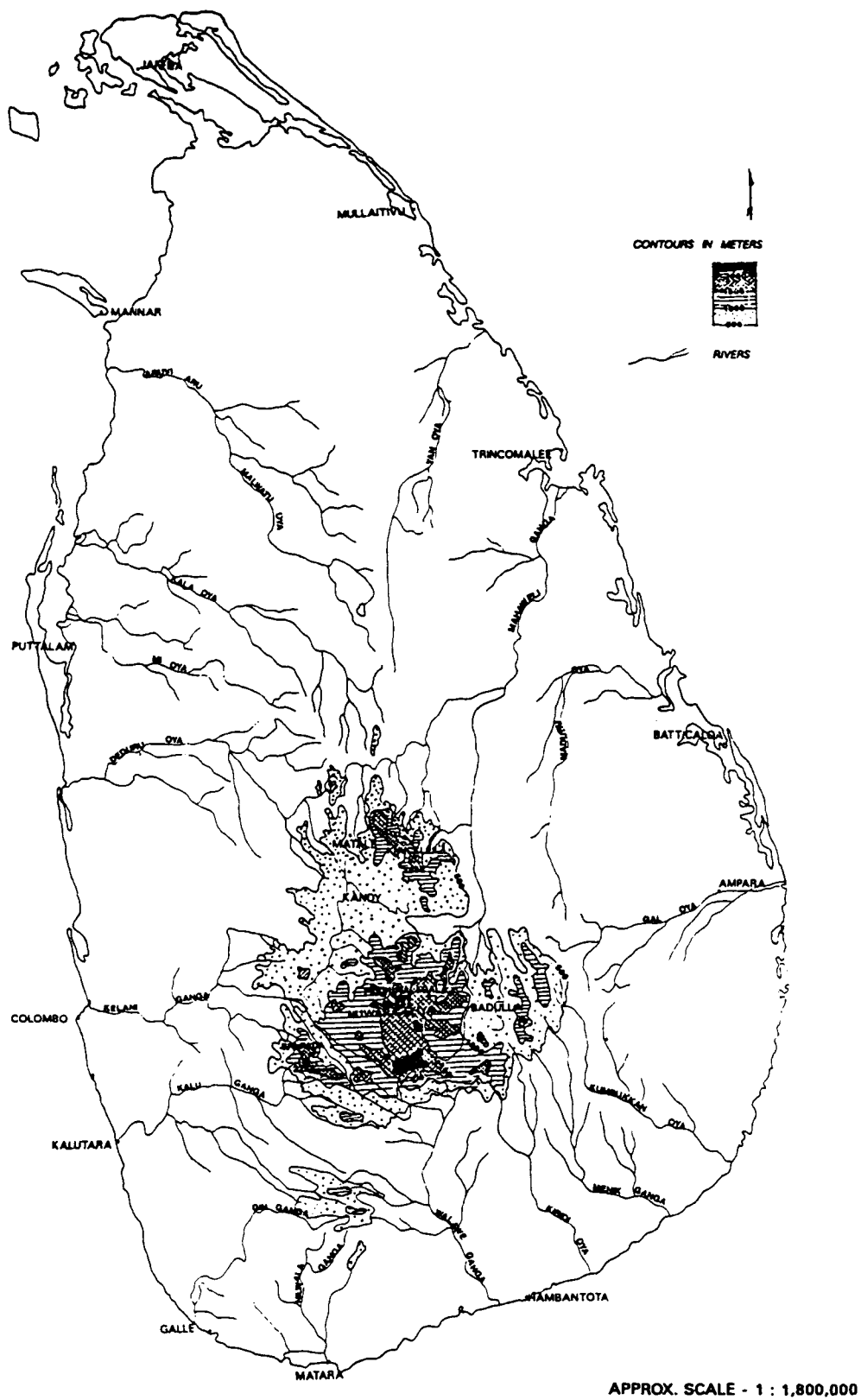
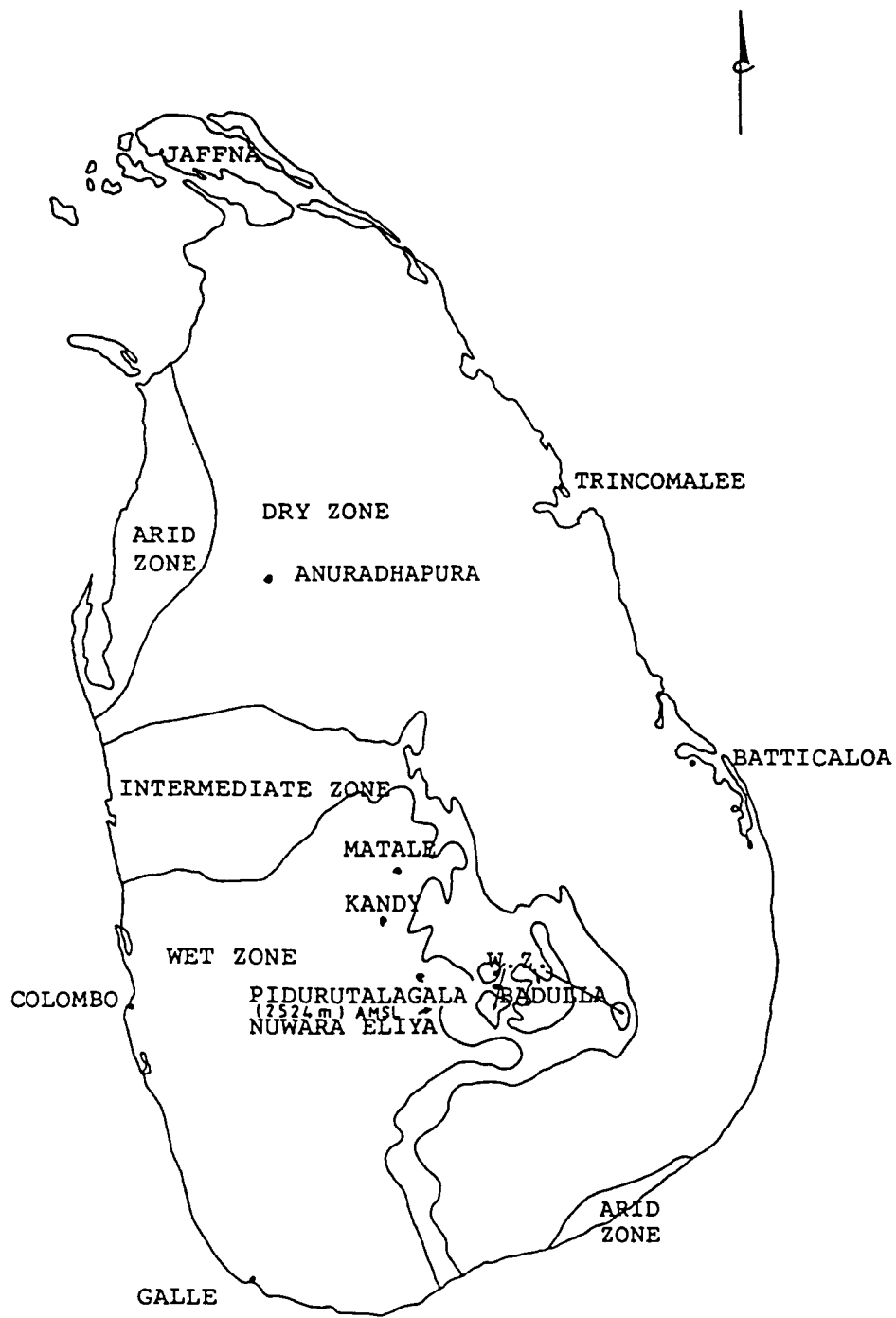


Figure 1.1. Sri Lanka: relief and major rivers



APPROX. SCALE - 1 : 2500,000

Figure 1.2. Sri Lanka: climatic zones

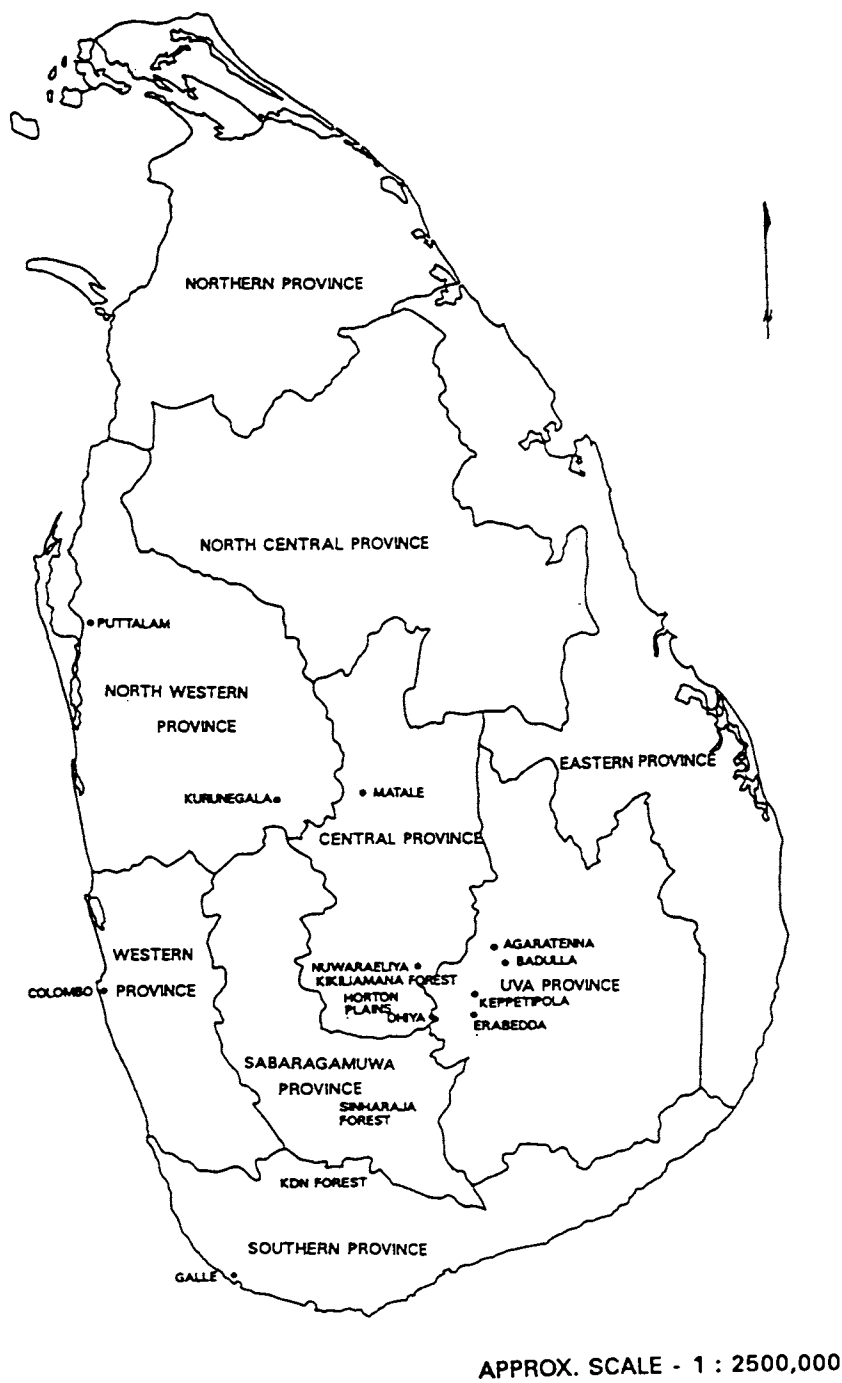
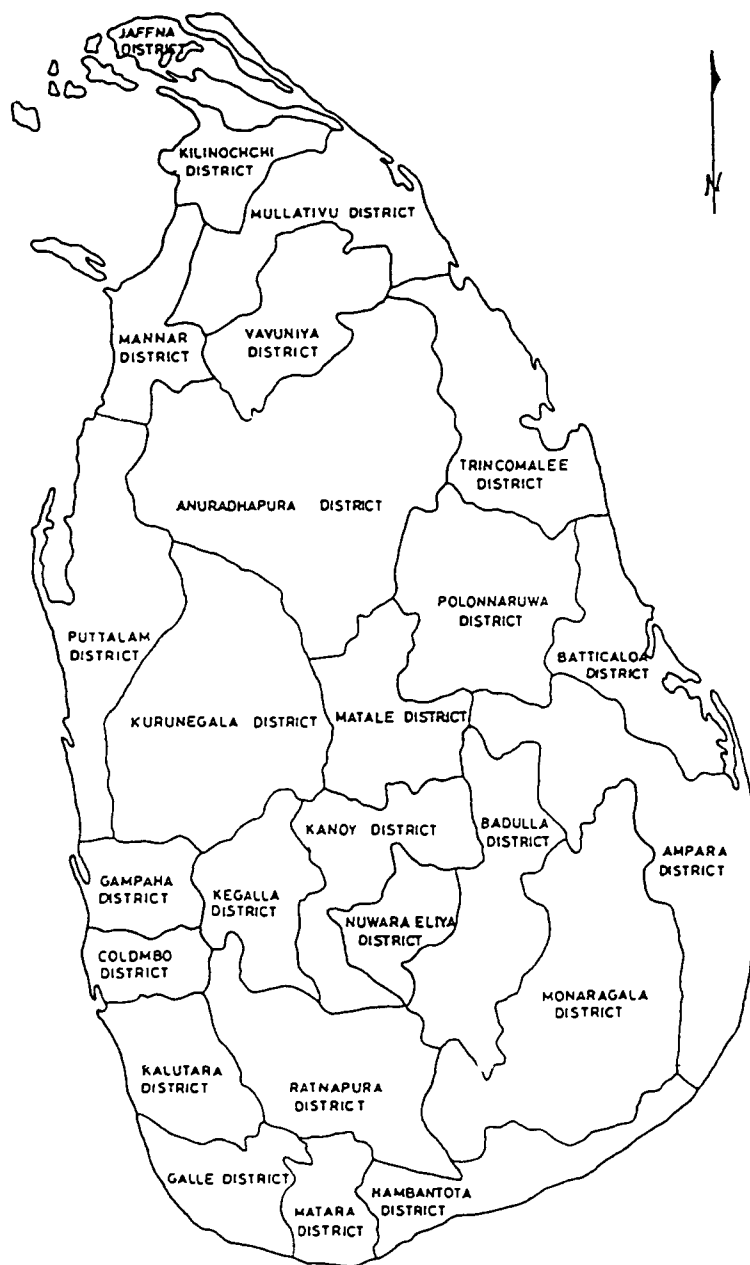


Figure 1.3. Sri Lanka: provinces



APPROX. SCALE - 1 : 2500,000

Figure 1.4. Sri Lanka: administrative districts

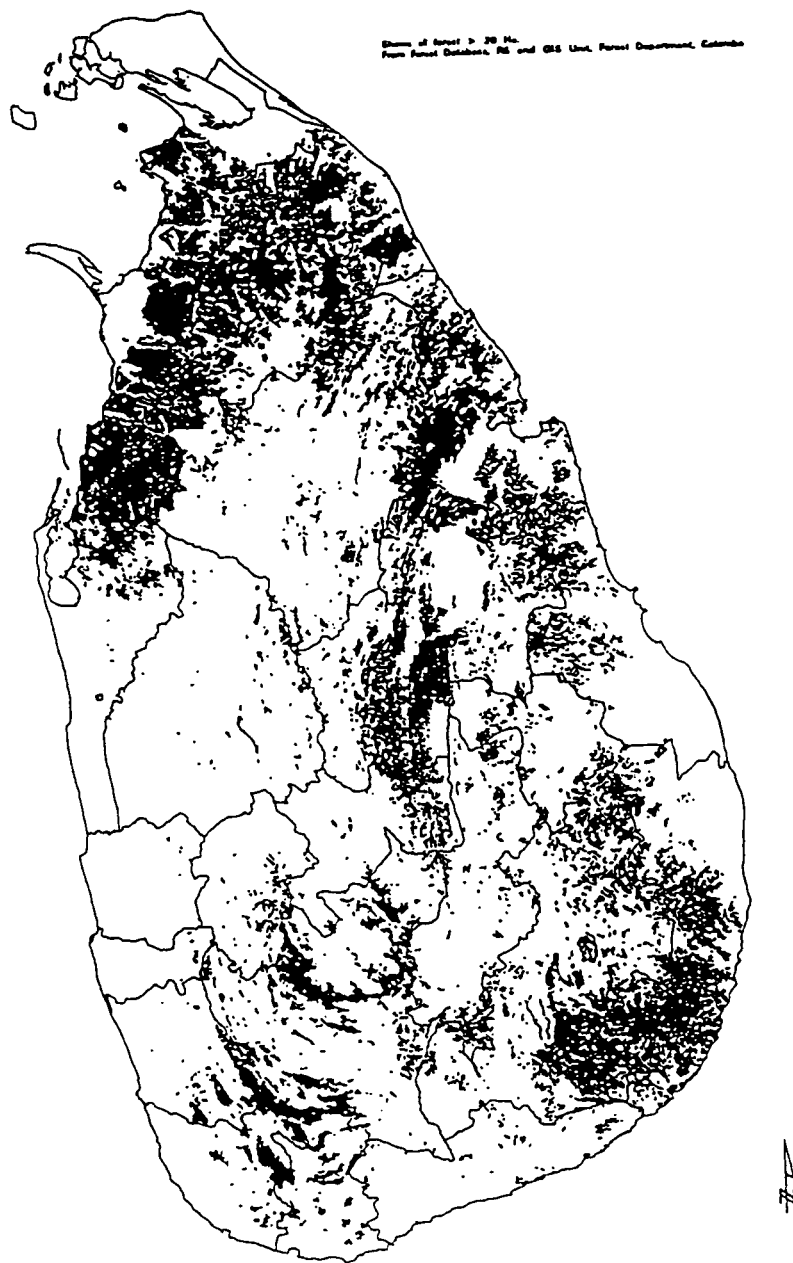


Figure 1.5. Sri Lanka: extent of closed canopy natural forest, 1992

Box 1.1
Some of the most commonly occurring tree species
in three forest types in Sri Lanka

Lowland rain forest	Moist monsoon forest	Dry monsoon forest
Alstonia	Daminiya	Daminiya
<i>Alstonia</i> spp.	<i>Grewia tiliifolia</i>	<i>Grewia tiliifolia</i>
Alubo	Domba	Kahata
<i>Syzygium makul</i>	<i>Syzygium gardneri</i>	<i>Grewia arborea</i>
Del	Hama	Kaluwara
<i>Artocarpus nobilis</i>	<i>Tetrameles nudiflora</i>	<i>Diospyros quaesita</i>
Diyapara	Kahata	Kaluwella
<i>Wormia triquetra</i>	<i>Careya arborea</i>	<i>Diospyros</i> spp.
Dun	Kenda	Ketakela
<i>Shorea</i> spp., <i>Hopea</i> spp.	<i>Macaranga peltata</i>	<i>Bridelia retusa</i>
Etamba	Milla	Milla
<i>Mangifera zeylanica</i>	<i>Vitex pinnata</i>	<i>Vitex pinnata</i>
Godapara	Mora	Mora
<i>Dillenia retusa</i>	<i>Euphorbia longana</i>	<i>Euphorbia longana</i>
Hedawaka	Satin/Buruta	Palu
<i>Chaetocarpus castanocarpus</i>	<i>Chloroxylon swietenia</i>	<i>Manilkara hexandra</i>
Hora	Velan/Welang	Satin/Buruta
<i>Dipterocarpus zeylanicus</i>	<i>Pterospermum canascens</i>	<i>Chloroxylon swietenia</i>
Kirihembiliya	Wira/Vira	Teak
<i>Palaquium petiolare</i>	<i>Drypetes sepiaria</i>	<i>Tectona grandis</i>
Malaboda		Velan/Welang
<i>Myristica dactyloides</i>		<i>Pterospermum canascens</i>
Milla		Wira/Vira
<i>Vitex pinnata</i>		<i>Drypetes sepiaria</i>
Pelen		
<i>Kurruvia zeylanica</i>		
Welipenna		
<i>Anisophyllea cinnamomoides</i>		

Table 1.2

Natural forest cover by province, 1992 ('000 ha). The figures refer to "dense" or "closed" forest with a canopy closure of 70% or more.

	Mon-tane	Sub-mont-ane	Low-land rain	Moist mon-soon	Dry mon-soon	River-ine	Mang rove	Sparse	Total
Eastern	0.0	0.0	0.0	58.5	201.5	12.0	3.2	75.7	350.9
North-em	0.0	0.0	0.0	0.0	401.5	0.8	2.3	52.6	457.2
North-central	0.0	0.0	0.0	47.3	248.2	0.5	0.0	139.6	435.6
North-western	0.0	0.0	0.0	1.8	87.6	0.8	2.3	31.9	124.4
Uva	0.1	4.0	2.3	81.1	117.0	4.6	0.0	80.4	289.5
Central	3.0	44.9	31.1	47.5	15.2	0.0	0.0	18.5	160.2
Western	0.0	0.0	22.3	0.0	0.0	0.0	0.2	1.3	23.8
South-em	0.0	0.5	35.8	2.9	19.7	3.7	0.7	58.8	122.1
Sabar-agam-uwa	<0.1	19.4	50.0	4.8	3.6	0.0	0.0	5.0	82.8
Total	3.1	68.8	141.5	243.9	1094.3	22.4	8.7	463.8	2046.5