

7.25 Woosang land system

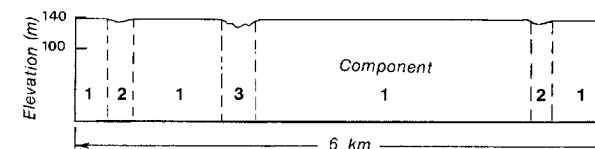
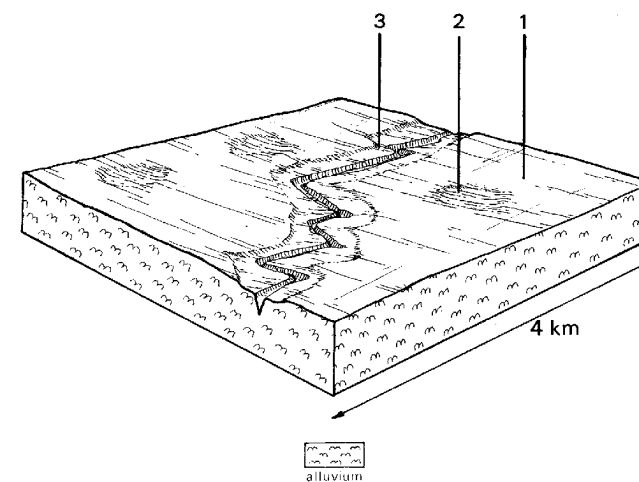
Extensive plains of Quaternary alluvium occur to the north of Coonoer Bridge. Calcareous duplex soils predominate, but the original woodland of *Eucalyptus microcarpa* and *Casuarina luehmannii* has been almost totally cleared for agriculture.

Cereal cropping is the major land use and the relatively dry climate necessitates fallowing the land. The topsoil structure is only moderate, however, and cultivation increases the wind erosion hazard. The fine structureless A2 horizon offers even less resistance to wind, should the A, be removed.

Waterlogging in isolated depressions and flooding along major watercourses are seasonal events of relatively low importance. The most significant forms of land deterioration include declining topsoil structure and soil nutrient levels, with consequent increases in soil compaction and run-off and reduced plant vigour. Actual soil loss through erosion is minimal.



*Extensive fertile plains are dotted with trees - grey box (*Eucalyptus microcarpa*) and buloke (*casuarina luehmannii*).*



WOOSANG LAND SYSTEM Area 408 sq. km

CLIMATE Rainfall (mm) Temperature (°C) Seasonal growth limitations	Annual, 400-450; lowest January (18), highest June (49) Annual, 15; lowest July (8), highest February (22) Temperature: less than 10 ⁰ C (av.) June-August Rainfall: less than potential evapotranspiration September-April		
GEOLOGY Age, lithology	Quaternary alluvium		
PHYSIOGRAPHY Elevation range (m) Relative relief (m) Drainage pattern Drainage density (km/sq. km) Land form	120-180 5 Parallel 0,7 Flat plain		
LAND COMPONENT Percentage of land system	1 90%	2 5%	3 5%
PHYSIOGRAPHY Position on land form Slope (typical) and range (%) Slope shape	Upper terrace 1,0-1 Linear	Depression 1,0-1 Concave	Present flood plain 1,0-1 Linear
NATIVE VEGETATION Structure Dominant species	Woodland <i>E. microcarpa</i> <i>E. leucoxyton</i> <i>Casuarina luehmannii</i>	Woodland <i>E. largiflorens</i> <i>E. microcarpa</i>	Woodland <i>E. camaldulensis</i>
SOIL Parent material Description Classification Surface texture Surface consistence (dry) Depth (m) Nutrient status Available soil water capacity Perviousness to water Drainage Exposed stone Dispersibility Slaking tendency	Alluvium Red calcareous sodic duplex soils Dr 2.23 - 3/ 1/ 030 Loam Slightly hard >2 Moderate surface, high subsoil Low surface, moderate subsoil Moderate Well drained Nil High High	Alluvium Reddish brown calcareous sodic duplex soils Dr 2.33 - 311/ 008 Loam Moderately hard >2 Moderate surface, high subsoil Low surface, moderate subsoil Slow-moderate Poorly drained Nil Moderate Moderate	Alluvium Grey uniform sandy loam soils Uc 4.31 - 2/ 11030 Fine sandy loam Soft >2 Low throughout Low throughout Moderate-rapid Moderately well drained Nil Low Low
PRESENT LAND USE	Cropping	Grazing	Grazing

Land deterioration hazards - Woosang land system

Disturbance	Component	Affected process and trend	Primary resultant deterioration		Primary resultant off-site process
			Form	Susceptibility	
Altered vegetation -reduced leaf area, rooting depth, perenniality	1	Reduced transpiration, increased leaching	Nutrient decline	Moderate	Increased movement of water and salts to groundwaters
	2	Reduced transpiration	Waterlogging	Moderate	
Reduced soil surface cover	1	Increased soil detachment	Windsheeting	Low	
Cultivation, increased trafficking, trampling	1,2	Increased soil compaction	Structure decline	Moderate	Increased run-off
Increased run-on	3	Increased soil detachment	Streambank erosion and flooding	Low	Increased sediment loads



Severe streambank erosion occurs when flash flows from the adjacent bills flood into this land system.



Bare fallows expose the weakly structured topsoil to the wind, making them more susceptible to wind erosion.