

## MALAM PERLULUHAWAAN - ABSTRACTS OF PAPERS

### S. PARAMANANTHAN: Lateritic soils of Peninsular Malaysia

The term 'laterite' was first introduced by Buchanan in 1807 to describe a variegated material which occurred in South India. This material when exposed hardens irreversibly. Today, however, the terms 'laterite' and 'lateritic soils', have very varied definitions. In fact any red coloured material rich in iron-oxides has been described as 'laterite', resulting in a lot of confusion in the literature. In order to overcome this, new terms such as plinthite, petroplinthite, pallid zone and iron-coated materials are defined as used by Soil Scientists.

Two types of 'lateritic soils' are found in Malaysia. Iron-coated materials are formed by the intense weathering, leaching and accumulation of iron further down the weathering profile. Such ferruginous materials are often red-coloured and retain their original rock structure - at least in part. The second type of 'lateritic soils' found in Peninsular Malaysia consists of rounded ferruginous gravels overlying the weathered saprolite, often unconformably. These types of soils often form cappings on hills. The erosion of these materials and dissection of the landscape result in two distinct catenal relationships between the materials and erosion products. There is some disagreement among soil scientists as to the processes which gave rise to the resultant landscapes.

It is believed that, intensive tropical weathering during the Tertiary resulted in the formation of the reddish-coloured soils with their iron-coated materials and their underlying plinthite (or laterite as defined by Buchanan). Subsequent dissection and erosion of the iron-coated materials gave rise to three geomorphic surfaces. These surfaces are probably related to the changes in sea-levels during the Pleistocene.

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