



Relationship between the parent material and the soil, in plain and mountainous areas

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One of the most important tasks of the soil is the nutrition of plants. This function is determinated by those parts of the geological media on what is the soil situated and from what the soil was formed (those two can be different). Soil can be formed definitely just from sediment, so it is more proper to speak about parent material than parent rock. Soil forming sediment is defined as the loose sediment on the surface, which is the upper layer of near-surface rocks in flat and hilly regions, and it is the upper layer of the sediment-ensemble situated on the undisturbed bedrock in mountainous areas. Considering its origin, these sediments could be autochthon or allochthon. Soil forming is determinated, besides other factors (climate, elevation, vegetation, etc.), by the parent material, which has a crucial influence on the type, quality and fertility of soils through its mineral composition, physical and chemical characteristics.

Agrogeological processes happen in the superficial loose sediments in mountainous areas, but the underlying solid rock (where on the surface or close to it, there is solid rock), has an effect on them. The plain and hilly regions covered by thick loose sediment and the areas build up by solid rock and covered with thinner loose sediment in mountainous areas should be searched separately.

In plain areas the near-surface formations have to be studied as a whole down to the saturated zone, but at least to 10 m. In regions of mountain and mountain fronts, the thickness, the composition and genetics of the young unconsolidated sediments situated above the older solid rocks have a vital importance, and also the relations among the soils, soil forming sediments and the base rocks have to be understood.