Regulation of Euphrates and Tigris Rivers and Changes of Basin Soils

Ahmad Majar (1) and Vladimir Starodubtsev (2)
(1) GCSAR - Damascus – Syria, (majar2000us@yahoo.com), (2) Ukrainian National Agrarian University - Kiev, (vmstarodubtsev@voliacable.com)

Rivers can be regulated for many purposes (flow regulation, irrigation, navigation, energy generation and ... etc) and this may cause some negative ecological changes in basin of these rivers, one of the clearest examples of this situation, the case in the Euphrates and Tigris basin, where the both rivers are regulated with series of reservoirs and this leads to many ecological changes. In this study we tried to light out the expected changes might happen in soil cover of basin as a result of this large-scale regulation, and in which scheme the soils here undergo changes, how the hydromorphic soil will be changed with the intensification of the processes of desertification. Meadow and meadow – boggy soils of light texture (sands and loamy sands) are gradually transformed onto desert sands. The soils of heavier texture (loams and clays) turn into takyr – like saline soils. At the same time in middle reaches of the rivers the processes of salinization and desertification invade the soils (in Syria) in connection with intensive irrigation of soils, which possess complicated reclamation properties.

Key words: Euphrates, Tigris, Reservoirs, river regulation, salinization and desertification,