Geophysical Research Abstracts, Vol. 9, 01402, 2007 SRef-ID: 1607-7962/gra/EGU2007-A-01402 © European Geosciences Union 2007



## Morphotectonic study of rivers in southeastern Mesopotamian Depression

Asadiyan, M.H. (1,2)., Zamani, A..(1)

(1) Earth sciences department , Shiraz University, Iran, (2)Geology Group, Payam-e Noor University , Ahvaz – Iran(asadiyan@pnu.ac.ir / Fax: +987112284572 / Phone: +987112284572)

The wending features of rivers and their morphology are attracted by any body. One of the essential and influential agents dealing with this morphology is tectonics. It plays the principle notes along this chaos courses, stream reply to these notes as a sensitive sensor, created a fantastic symphony in realm of time and place, which are meanders.

In this study, tectonic setting and morphotectonic characteristic of Karun, Karkheh, jarrahi and Zohreh Rivers and their deltas and origin of marshes within this area has been analyzed and evaluated.

Studying lineaments and faults trend observed in satellites images and photographs reveals that the region experienced transpressional regime duo to convergence of Arabian and Eurasian Plates, associated shear in addition with gravitational stresses produce pull-apart basins which divided this part of Mesopotamian Depression to five blokes which named Karkheh in NW, Karun, Jarrahi, Mahshar and Zohreh Blocks in SE of this region, Shadegan International wetland and Amarah Marsh formed in this basins.

In large scale it is interesting to say that Mesopotamian Depression (M.D) is one of the successive mountain loops like belts which Helmand and Mashkal Basins in the first loop, Lut and Jazmurian Basins in the second, Sirjan Basin in third and M.D. in the fourth loop this structures which obvious in Google Earth infers that mountain belts meandered like a river and obeys Euler Elastic Band Curve (EUBC), in mathematic-physics, a shape which require least effort in deformation, this is an economic aspect of natural phenomena.