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Jaroslav Cerni

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$$Q_s = 77/38 e^{0/035}$$

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Method of Quantities Classification of Erosion

$$z = Xa.Y(\varphi + I)^{1/2}$$

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=Z

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*	*	$Y_9=1.67X_9$		$Y_8=0.25X_8$		$Y_7=20-(0.2X_7)$		$Y_6=0.33X_6$		$Y_5=0.33X_5$		$Y_4=.2X_4$		$Y_3=0.2X_3$		$Y_2=16.6X_2$		$Y^1=X$		
		Y	Y <sub>9</sub>	X <sub>9</sub>	Y <sub>8</sub>	X <sub>8</sub>	Y <sub>7</sub>	X <sub>7</sub>	Y <sub>6</sub>	X <sub>6</sub>	Y <sub>5</sub>	X <sub>5</sub>	Y <sub>4</sub>	X <sub>4</sub>	Y <sub>3</sub>	X <sub>3</sub>	Y <sub>2</sub>	X <sub>2</sub>	Y <sub>1</sub> =X <sub>1</sub>	
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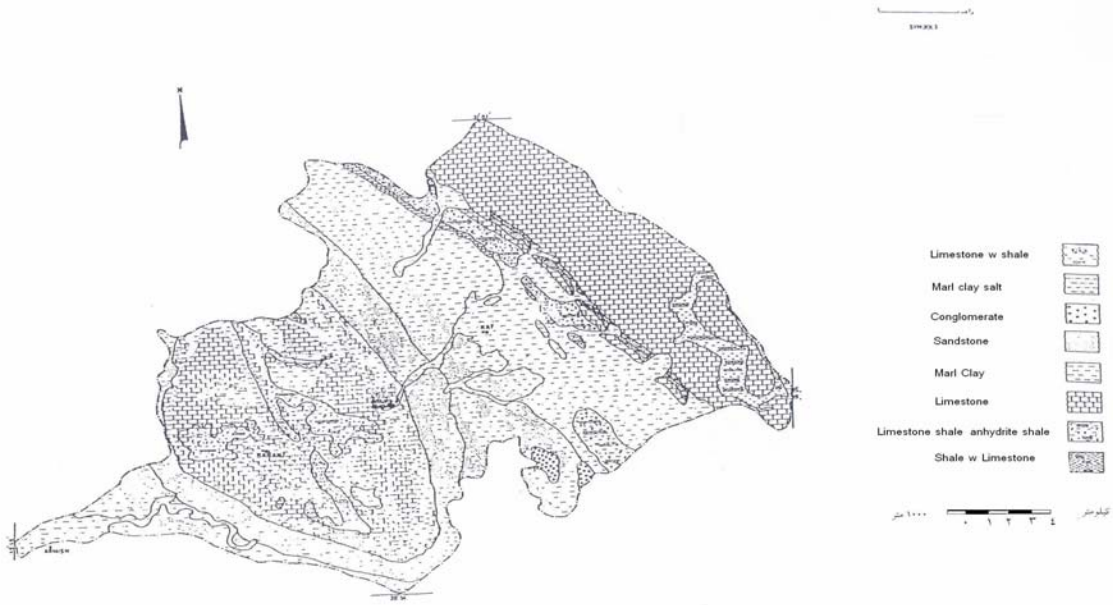
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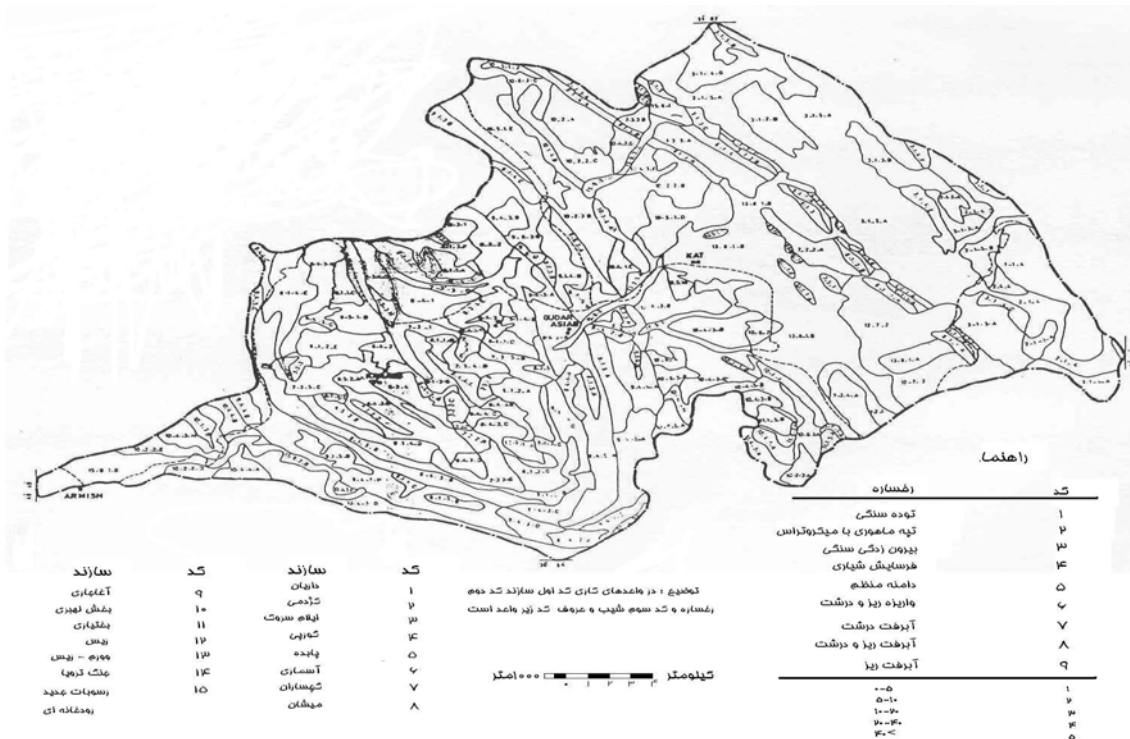
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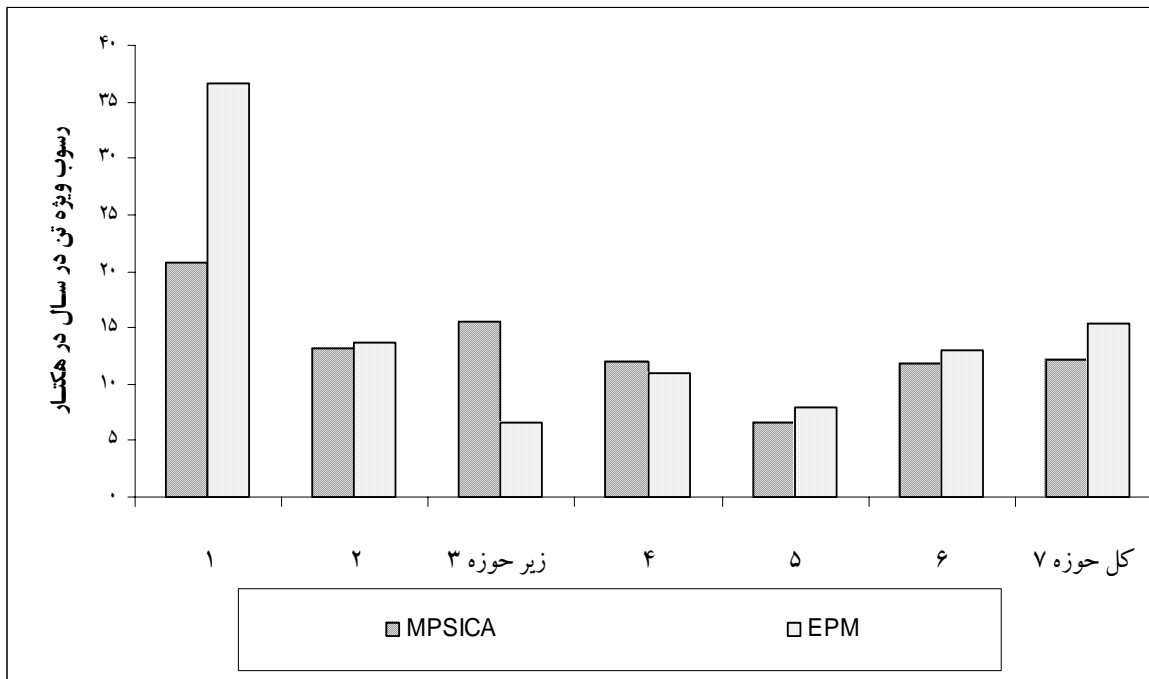


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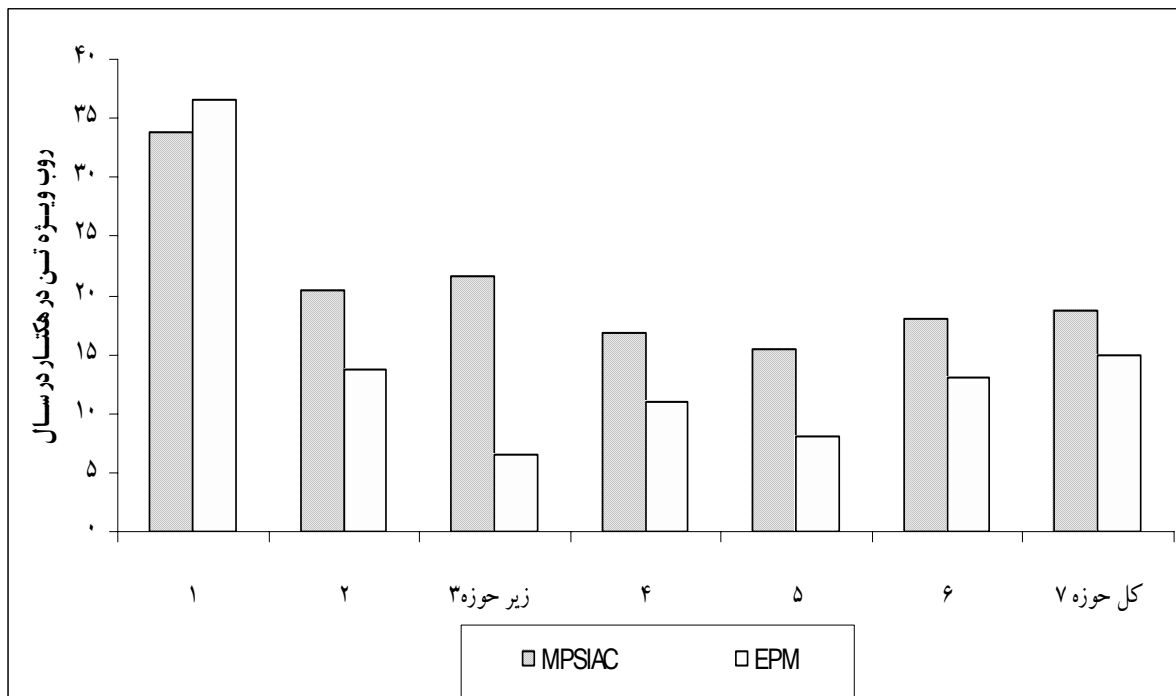


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## A Survey of Factors Affecting Erosion and Sedimentation in Baba-Ahmadi Watershed Basin, Using EPM and MPSIAC Models

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### Abstract

This study describes a pure sediment comparison evaluated in a survey of effective factors on erosion and sedimentation of Baba-Ahmadi watershed basin, using EPM and MPSIAC models. The selected watershed basin for this study was 37000 ha, that is one of the typical regions in Khuzestan province with respect to geological structure diversity, as well as problems like flood, water shortage, erosion and sediment. According to geomorphological investigation of the study area, 2 units, 15 types, 9 faces, 75 primary geomorphological units and 198 work units were distinguished and separated. Evaluation of effective factors on erosion and basin sedimentation in any work unit was carried out by using MPSIAC and EPM experimental methods. Also with contemplating this matter that slope and surface runoff water increase not seriously affect sediment production of structures or resistant rocks, the pure sediment of this basin was investigated in two cases, with contemplating the area of work units with or without resistant structure. The results showed that in spread of any work unit, rock nature is the manifest factor for resistance to erosion and this matter covers all faces. Also investigating on pure sediment of the watershed basin showed that on slope, the pure sediment of watershed basin was 18.54 ton/ha/year and after omitting the effect of these factors on work units with resistant structure decreased to 12.12 ton/ha/year.

**Keywords:** Erosion, Sediment, EPM, MPSIAC, Resistant structure, Work unit, Pure sediment, Slope, Surface runoff, Khuzestan

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