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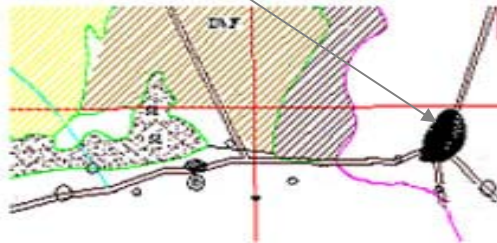
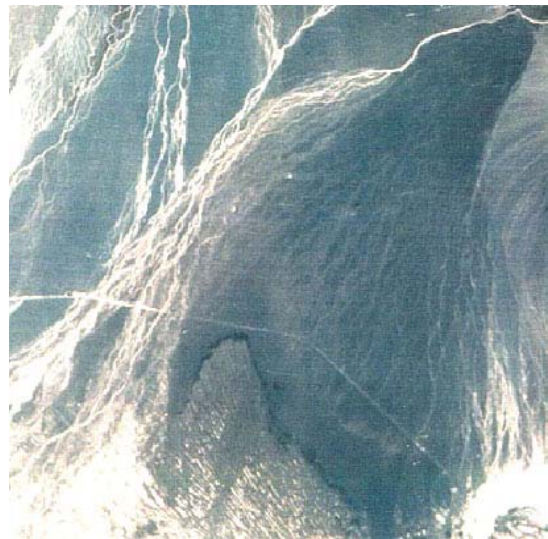
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(*Kaskin Subzone*) )

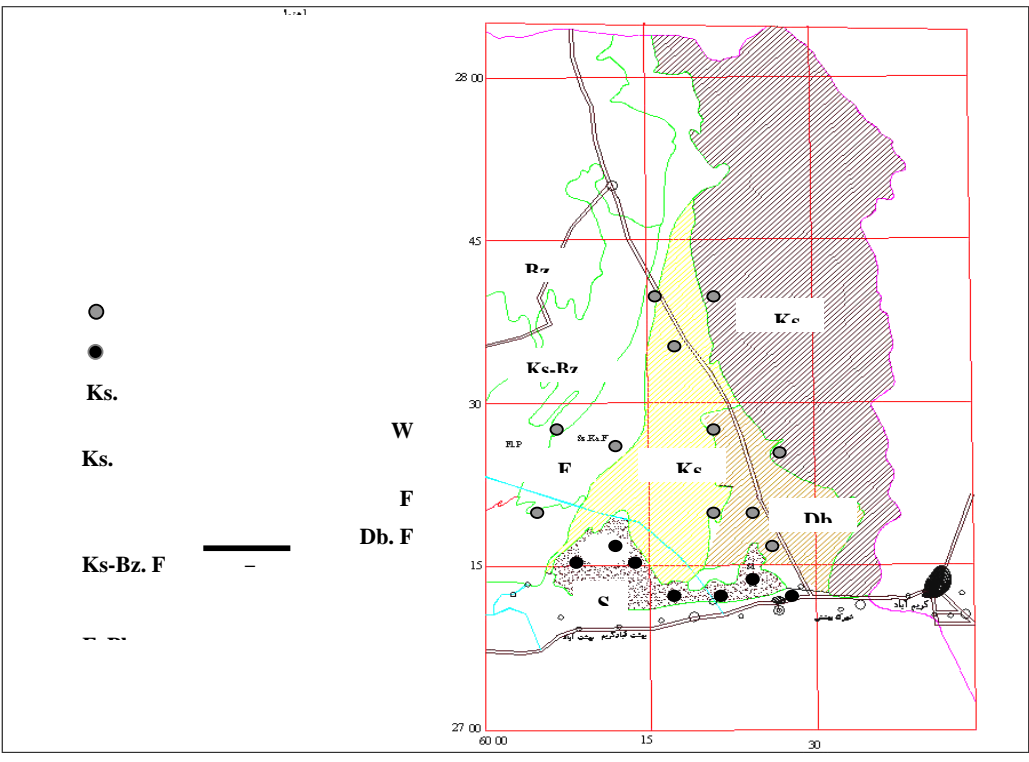
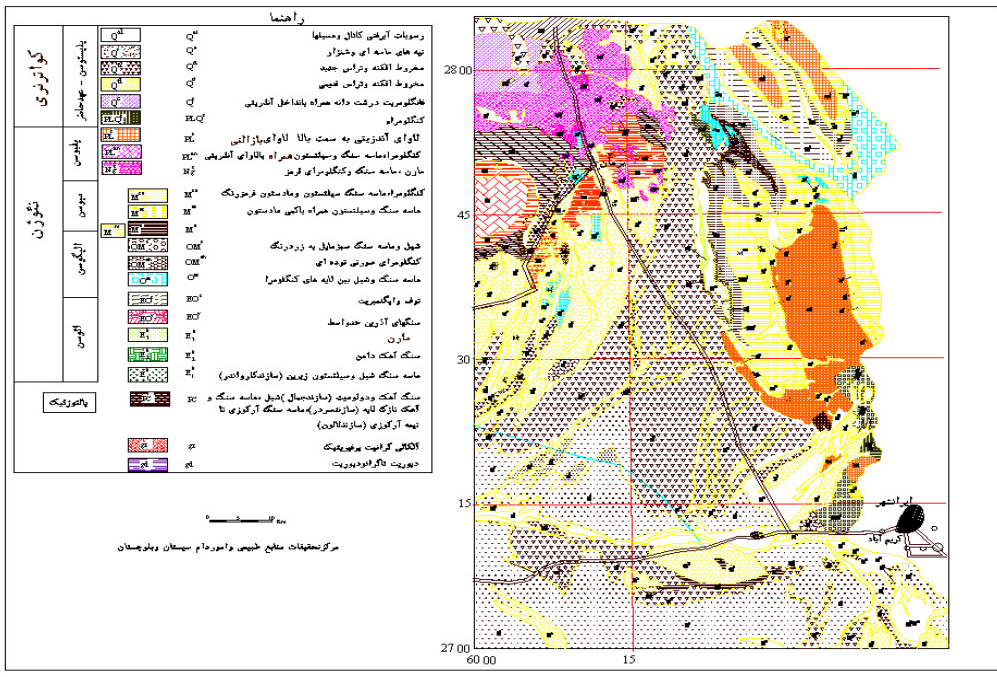
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(SDI:

(SKI:

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$$SDI = \frac{\varphi\%84 - \varphi\%16}{4} + \frac{\varphi\%94 - \varphi\%5}{6.6}$$

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$$SKI = \frac{\varphi\%16 + \varphi\%84 + 2\varphi\%50}{2(\varphi\%84 - \varphi\%16)} - \frac{\varphi\%5 + \varphi\%95 - 2\varphi\%50}{2(\varphi\%95 - \varphi\%5)}$$

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/	/	/			Sd-0-10
/	/	/			<i>Sd-Si<sub>1</sub></i>
/	/	/			<i>Sd-Si<sub>2</sub></i>
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## **The role of textural and mineralogical characteristics of sediments in source studies of sand dunes (Case study: West of Iranshahr)**

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### **Abstract**

The studied region is located west of Iranshahr, in Sistan and Baluchestan Province. In this research granulometric, mineralogical and morphoscopic characteristics of sand dune sediments for analyzing the genetic relationship between sand dunes and their source areas are presented. The research method consists of preparing general geomorphologic map of the area, analyzing wind data, investigating questionnaires related to the winds in the area, sampling sand dunes and different facies of source areas, granulometric analysis, preparation of granulometric curves and determination of sedimentological indices as well as mineralogical and morphoscopic investigations. The results have shown that the main wind direction is northwest and sand dunes are mainly of barchan type. The presence of different Neogene sedimentary rocks in the upland drainage basin (Kaskin drainage basin) and their susceptibility to erosion show their potential in producing sand grains as primary source of aeolian sediments. These are eroded and the materials are transported and deposited as alluvial fans and terraces and floodplains in the area which are now under wind erosion.

**Keywords:** Sand dunes, Iranshahr, Sistan and Baluchestan, Source study, Mineralogy, Granulometry