

() , ()

*

/

(Typic Haploxerepts Typic calcixerpts)

(Seginer, 1966)

(:



(Martinez-Casasnovas and Poch, 1998)

(Baade, 2000)

Ezochi, 2000; 2001)

(Deluna et al.,

(Bobrovitskaya, 2000)

raeisi_n@yahoo.com :

*

()

.(Seginer,1966)

()

Hadly et al., 1955; Harvey et al., 1985;

.(Foster, 1988; Belyaev, 2000)

/

.()



(.

پژوهشگاه علوم انسانی و مطالعات فرهنگی

(Barker et al., 1979; Dymond et al., 1986;

.Poesen and valentin, 2003)

)

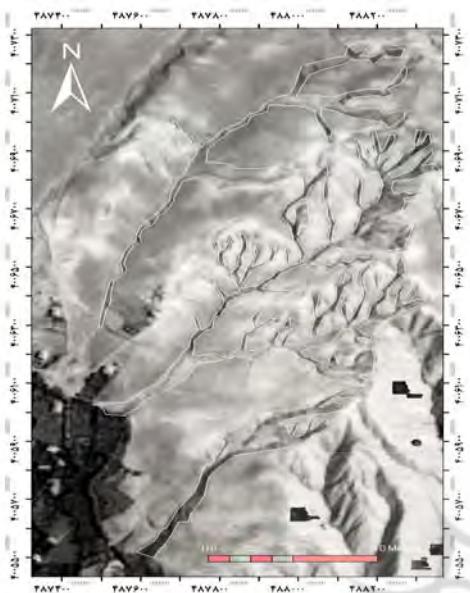
(

Studies significant watershed areas Taleghan,

.(1993)

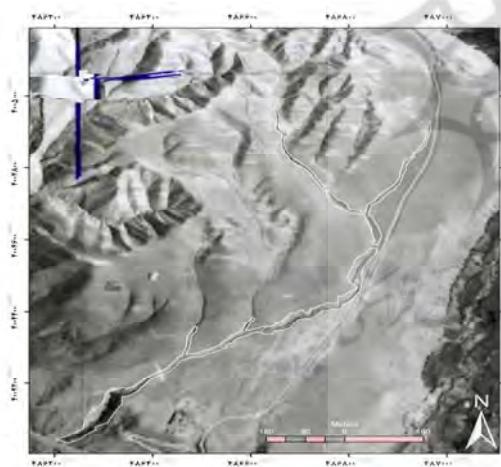
/
/
/

...
 ()
)gy1 ()Ngm
 Typic ()
) Typic Haploixerpts Calcixerpts
 (.Soil Survey Staf 2006) (ETM⁺
 G.P.S. PCI Geomatica 9.1 Arc GIS 9



PCI Geomatica 9.1

ETM⁺
PCI Geomatica 9.1



(Arc GIS 9)

(Arc GIS 9)

پژوهشگاه علوم انسانی و مطالعات اسلامی
پرستال جامع علوم اسلامی

()

) ()

(

()
()

()

()

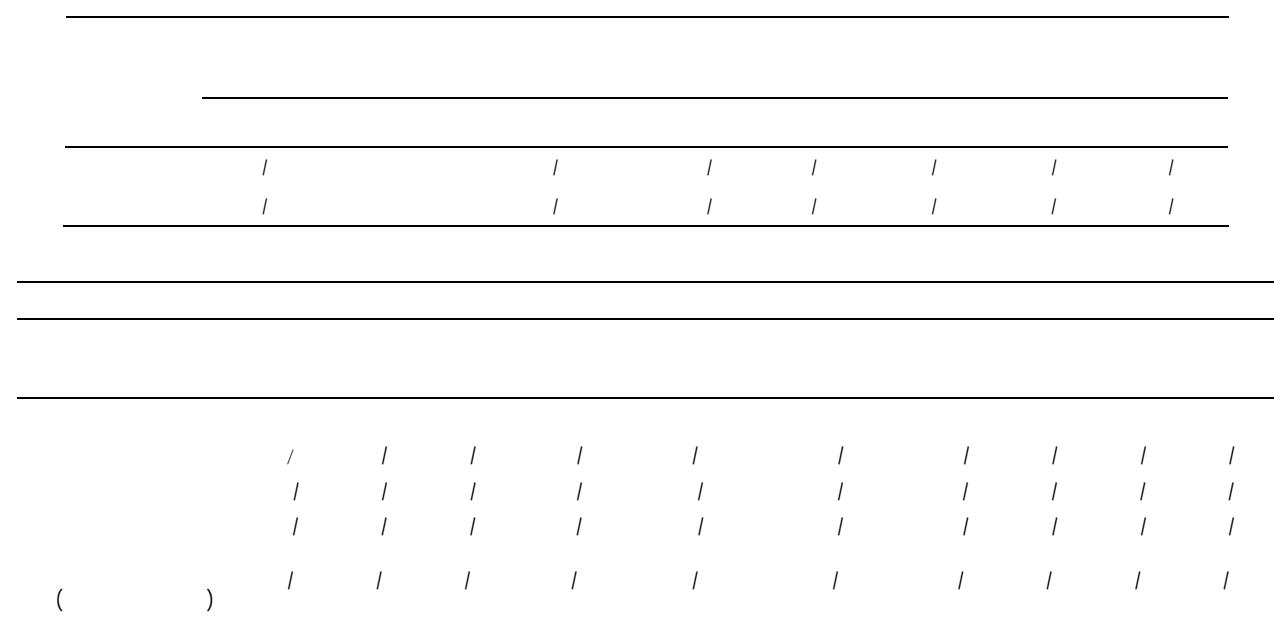
/

()

()

()

، ()

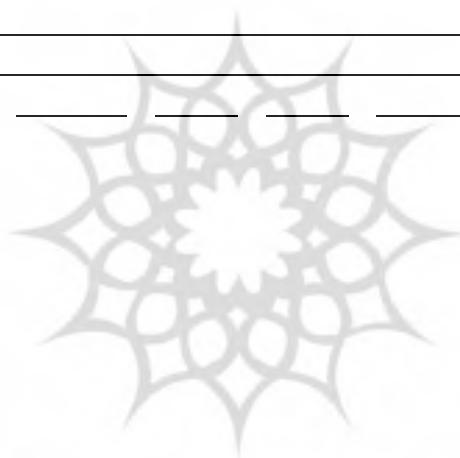


()

()

()

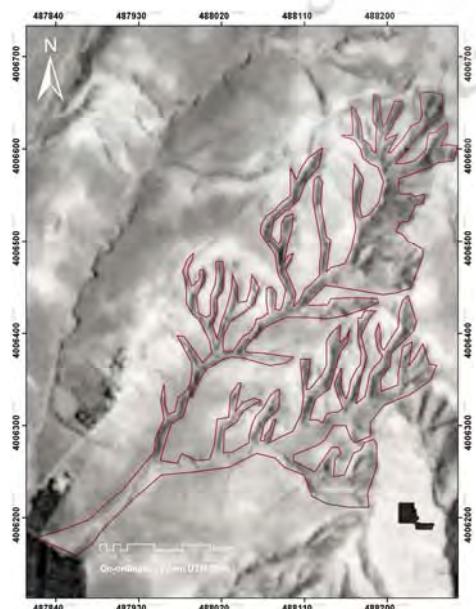
()



پژوهشگاه علوم انسانی و مطالعات فرهنگی
پرکل جامع علوم انسانی

.(

Arc info, Union, Erase



()

/ /

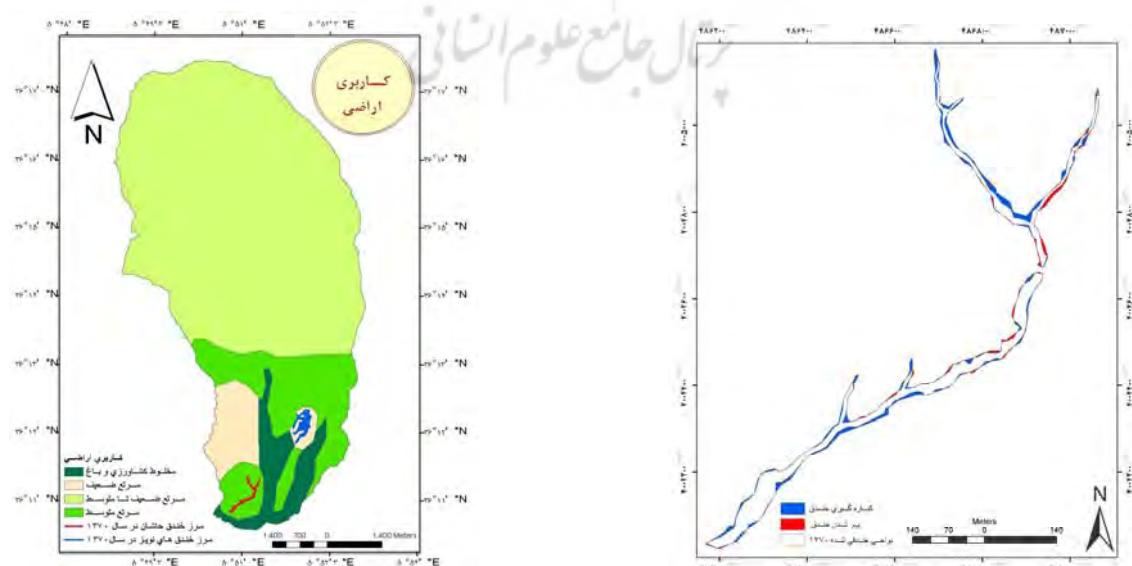
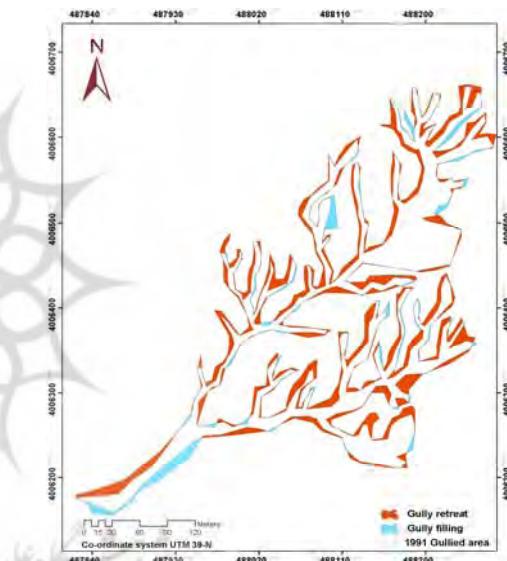
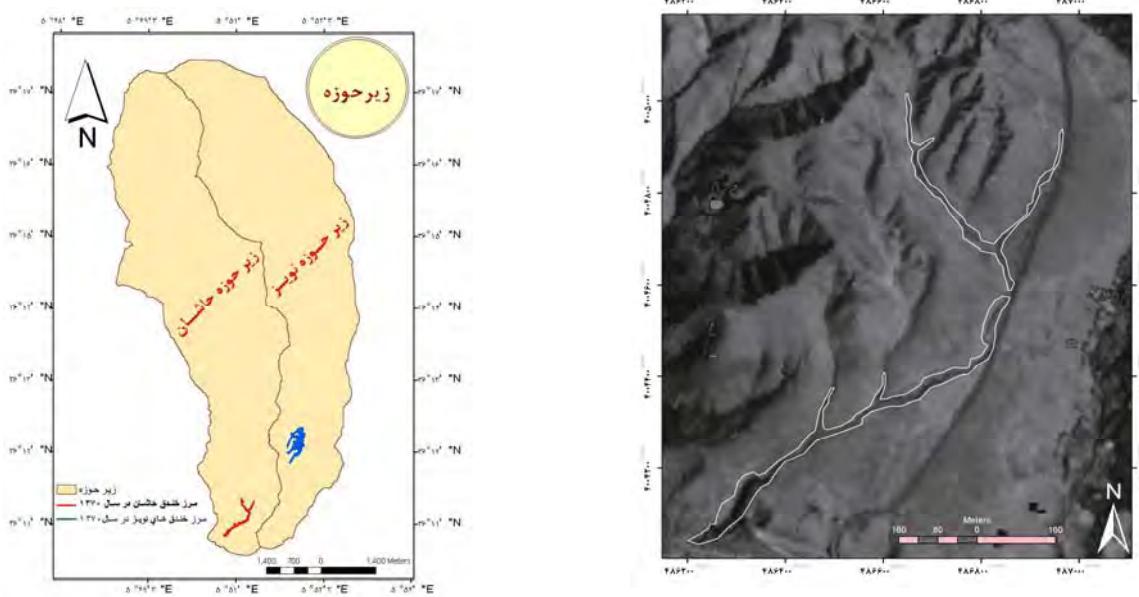
()

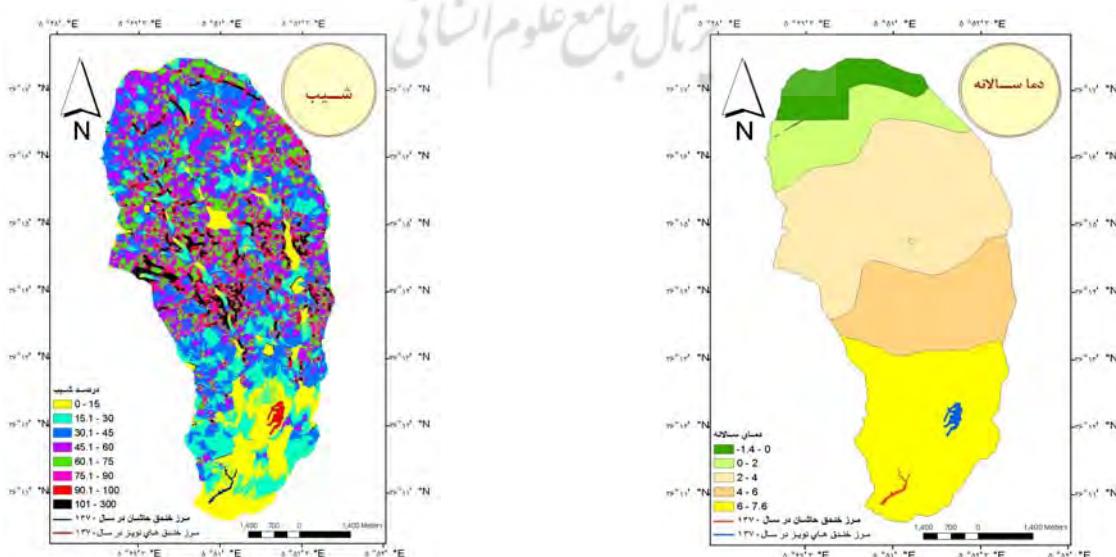
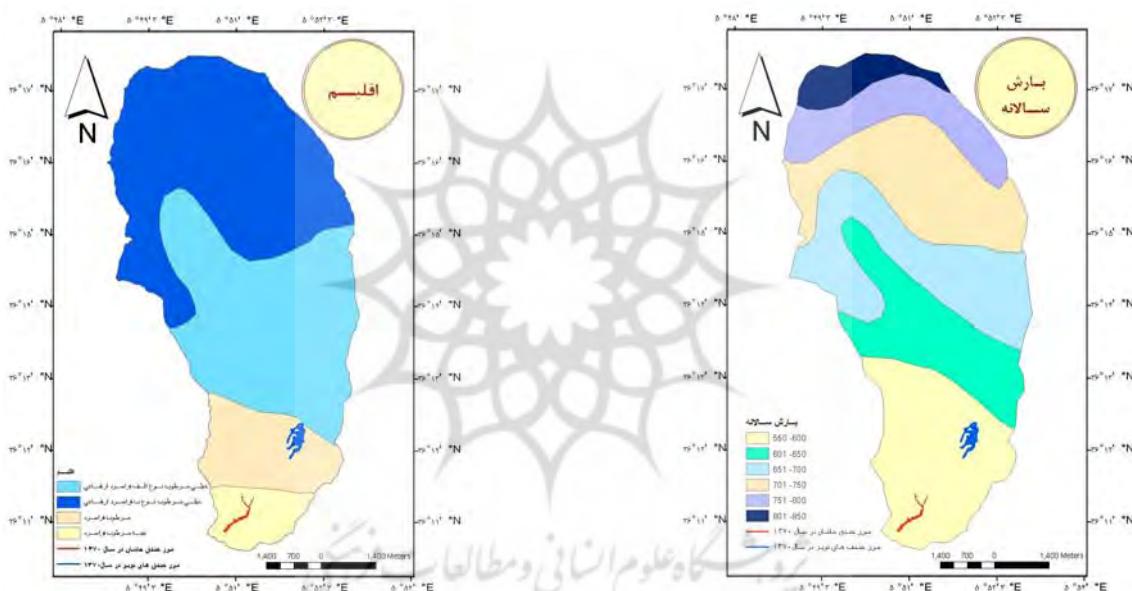
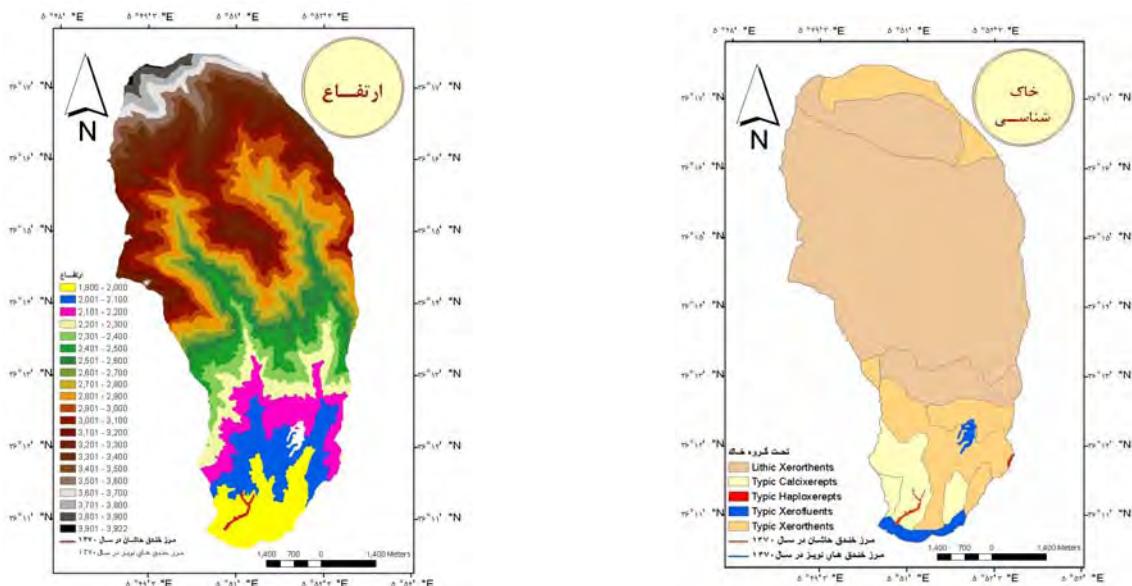
/ /

/

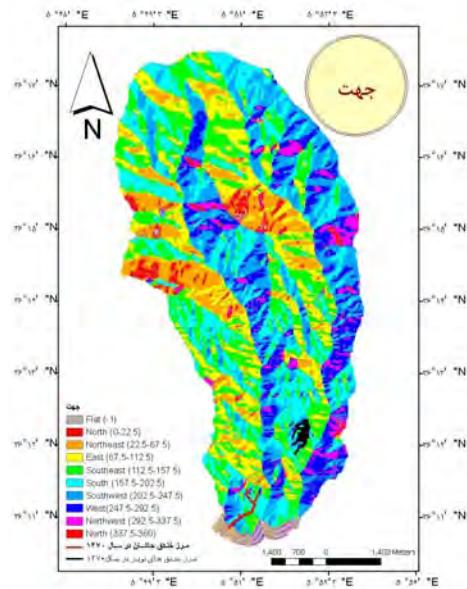
.() ()

/





(1985) Hadly et al (1955) Hadly and Rolfe



()

()

() ()

/ /

()

()

(1995) Ahmadi

پژوهشگاه علوم انسانی و مطالعات فرهنگی

()

(2003) Martinez-Casasnovas

/

(1998) Martinez-Casasnovas and Poch

/

()

(1995) Ahmadi

(1995) Ahmadi

REFERENCES

- Ahmadi, H. (1995). *Applied Geomorphology* (2^{en} ed.) Tehran University Publications. Page 614 (In Farsi)
- Baade, J. (2000). Ephemeral gully erosion concepts and consequences. *Elsiver Catena Verlag. Cermalingen.* (Web-Site).
- Baillie, I. C., Faulkner P. H. and Nicholsen. A. (1986). Problems of protection against piping and surface erosion in central Tunisia. *Environmental Conservation.*, 13(1): 27-40
- Barker, C. F., Morgan, R. and Ratcliffe. J. B. (1979). Soil erosion survey of Mole Famau Country Park. Count Clwyd Council Estates Dept. Planning and Research Park Contry Report 2. *Nat Coll. Agric. Engng. Silsoe*, Occasional Paper 7.
- Belyaev, V. R. (2000). *Specific features of gully formation under different natural conditions*. Geographic Faculty. Moscow State University. Moscow.
- Bobrovitskaya, N. N. (2000). Hydrological, meterorological and morphological aspects of studying gully erosion in period of global change. *Elsiver Catena Verlag. Cermalingen.* (Web-Site).
- Brink, J. W. and Jungerius. P. D. (1983). *The deposition of Stony Colluviums on clay soil as a cause of gully formation in the Rif Mountains. Morocco.* Earth Surf. Proc. And Land f. 8:pp. 281-285.
- De luna, E., loguna, A. and Giralds, J. V. (2001). *Estimate Volume of soil lost in a gully of an Olive-grave in Spain using a total station.* Catena.
- Dymond, J. R. and Hicks. D.L. (1986). Steepland erosion measured from Historical aerial photographs. *Soil and Water Conservation.* 41(4): 252-255
- Ezochi, J.I. (2000). The influence of runoff, lithology and water table on the dimensions and rate of gullying processes in Eastern. Nigeria. *Elsiver.Catena Verlag. Cermalingen* (Web-Site).
- Foster, G. R. (1988). Modelling soil erosion and sediment yield. In Lal, R.(ed.): *Soil Erosion Research Methods:* 97-117. SWCS. Ankeny. 244pp.
- Hadley, R. F, Willing, D. F. and Tair. A. (1985). *Recent Developments in Erosion and Sedement Yeild Studies.* Technical Documents in Hydrology. UNESCO. Pairs.
- Hadly, R. F and Rolfe. B. N. (1955). Development and significance of seepage steps in erosion. *Trans. Am. Geoph. UN.* 36(5): 792-804.
- Harvey, M. D., Watson, C. C. and Schunn, S. A. (1985). *Gully Erosion Tech.* Note. 366. USDA Bureau of Land Management. Denver. 181pp.
- Imeson, A. C. and Kwaad. F. J. (1980). Gully types and gully prediction. *KNAG Geografish Tijdschrift.* 15-5: 430-441.
- Ireland, H.A., Sharpe, C. F. and Eargle, D.H. (1939). *Principles of Gully Erosion in the piedmont of south caroline.* Tech. Bull. 633. USDA. Washington DC.
- Kirkby,M. J. and Chorley, R. J. (1967). *Throughflow, Overland flow and erosion.* Bull. Int. Assoc. Sci. Hydr. XII:5-21
- Loran, T., Zink, J. A. and Beek, K.J. (1988). Management, conservation and erosion database. Proc.VInt. *Soil Conserv. Conference.* Bangkok (Web-Site).
- Martinez-Casasnovas, J. A. and Poch, R.M. (1988). Conservation status of the soils of the Joaquín Costa reservoir basin. *Limnetica* 14: 83– 91.
- Matinez-casasnovas, J. A. (2003). A spatial information technology approach for the mapping and quantification of gully erosion. *Catena* 50: 293-308
- Poesen, J., and Valentin, C. (2003). Gully erosion and global changes. *Catena* 50 (2-4) pp.87-89.Special issues.
- Refahi, H.. (1996). *Water erosion and its control,* Tehran University Publications. Page 551(In Farsi)
- Seginer, I. (1966). Gully development and sediment yield. *J. of Hydrology.* 4:236-253
- Soil Survey Staff. (2006). *Keys to Soil Taxonomy.* (10th. ed.) U.S. Department of Agriculture, Natural Resources Conservation Service, Washington, DC.
- Tehran Regional Water Organization. (1993). *Watershed Management Studies Taleghan areas.* Page 282(In Farsi)
- Valentin, C., and Poesen, J. (2005). Gully erosion: impact,factors and control. *Catena* 50 (2005) pp.132-153.
- Verstappen, H. Th. (1977). Remote Sensing in Geomorphology. *Elsevier. Amsterdam.* (Web-Site).
- Williams, A. R. and Morgan. R. P.C. (1976). Geormphological mapping applied to soil erosion evaluation. *J. Soil and Water Conservation.* 31 (4): 164-168
- Zachar, D. (1982). *Soil Erosion.* Amsterdam, *Elsevier.* (Web-Site).