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Hatch *et al.*, 1999 Likens & Meyer, 1979)

(Ide *et al.*, 2007 Ramos *et al.*, 2006

et al. 2010)

(Noor *et al.*, 2011 Noor *al.*,

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Chung *et al.*, Yoon *et al.*, 1992)

(2002

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et al. 2010 Zhang *et al.*, 2005 Kothyari *et al.*, 2002

(Noor *et al.*, 2011 Noor *al.*,

Bruhn & Kronvang (1996)

Ide *et al.*, (2008)

Sharpely *et al.*,

Zhang *et al.*, (2005) Mihara *et al.*, (2005) (1991)

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McDowell *et al.*,)

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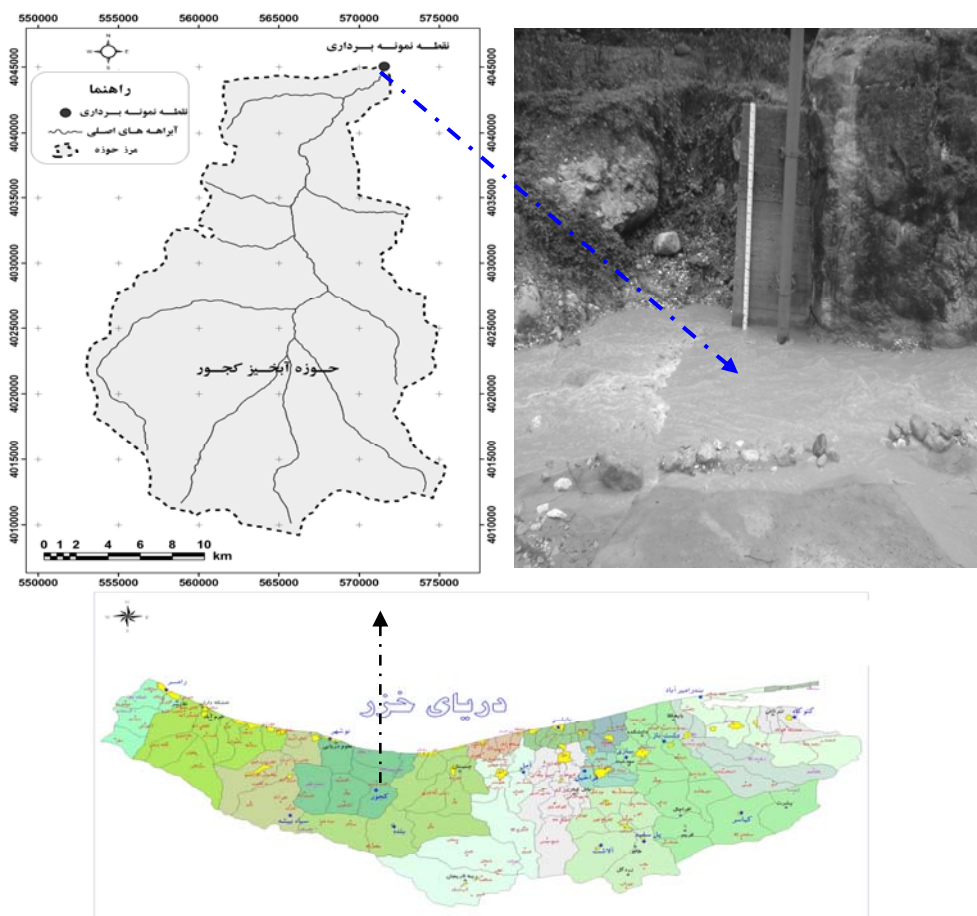
(Noor *et al.*, 2010 Lal & Blanco, 2008 Bowes

(Ide *et al.*, 2008)

¹ Eutrophication

² Particulate

(Noor *et al.*, 2010)



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Walling *et al.*)

پایان (al., 2001)

(Noor *et al.*, 2010)

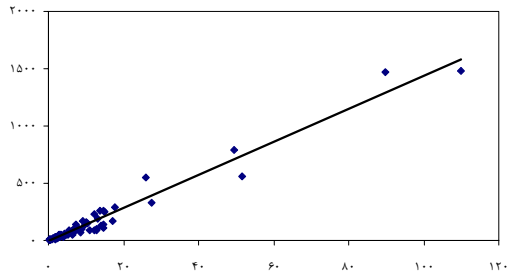
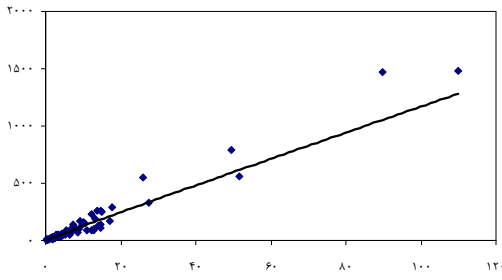
(Noor *et al.*, 2010 Lu & Li, 2008 Das, 2000)

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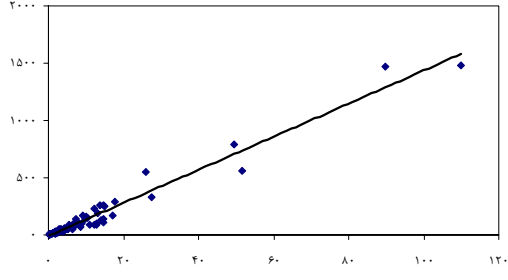
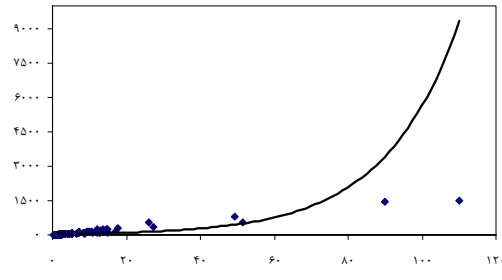
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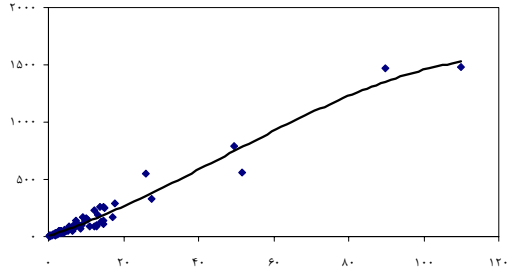
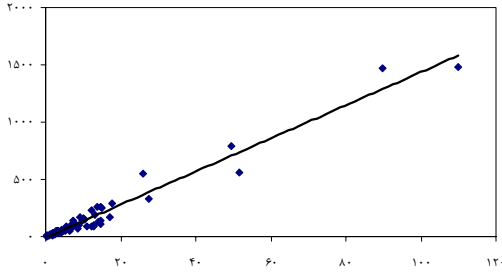
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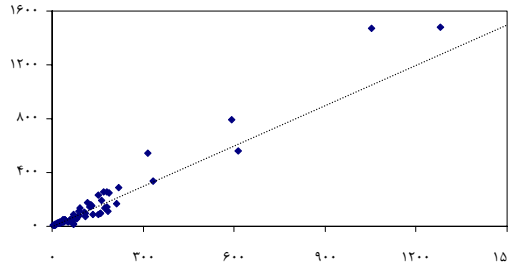
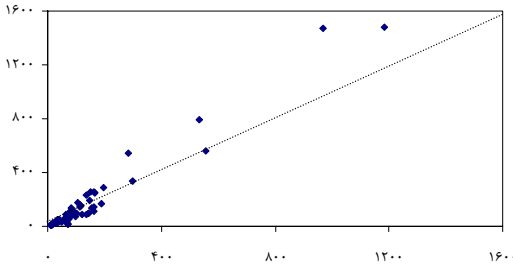
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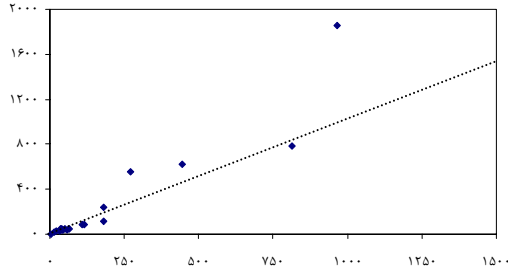
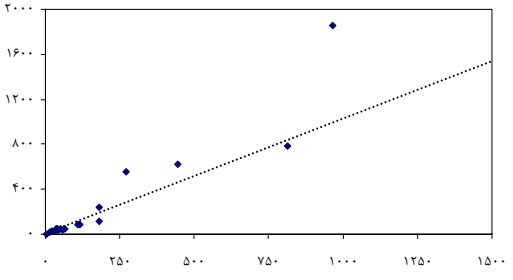
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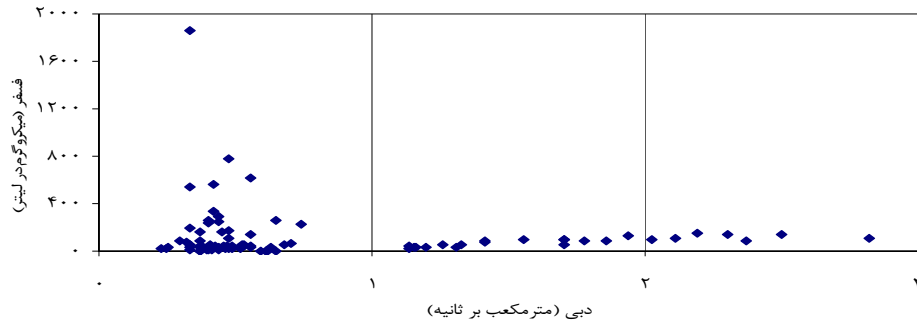
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Albert *et al.*, .

Mihara *et al.*, (2005) Zhang *et al.*, (2005) (1981)

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Ability of Flow Discharge and Suspended Sediment Concentration for Prediction of Phosphorus Concentration (Case Study: Kojour Watershed)

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Abstract

Some contaminants associate with soil particles and, thus, their transport and fate in the environment is determined by the soil erosion processes. Eutrophication, low oxygen levels and high nutrient (nitrogen and phosphorus) concentrations in reservoirs, canals and other water courses, is a common water pollution feature. Phosphorus (P) is one of the major plant nutrients and also the major nutrients controlling eutrophication of surface water. P load pulsed by heavy rainfall may damage the ecological quality of downstream. The present study was conducted in Kojour Watershed located in Mazandaran province. The results showed that P loss varied from 0.26 gr lit⁻¹ to 1860.64 gr lit⁻¹. It also proved that P concentration could not be estimated by flow discharge, while sediment concentration can estimate loss of P with determination coefficient and estimation error of 94% and 23%, respectively. The results could facilitate the application of given methods obtained in the present study to other ungauged watersheds with similar conditions and leading to the suitable soil and water management and planning.

Keywords: Soil erosion , Nutrient loss, P concentration, Regression model, Kojour Watershed