

() , ()

*

(// : // :)

(SMADM)

AHP

GIS

()

.(Santos et al., 2001)

SWSI SPI PDSI

()

Palmer 1965; Alley 1984; Byun and Wilhite 1999; Wu)

.(et al., 2001 ()

.(Barua, 2009) ()

(Multi-Attribute

.(Bazza, 2006)

Decision Making)

(Geographical Information System)

(Spatial Multi-Attribute Decision

Making)

()

(Laskar, 2003)

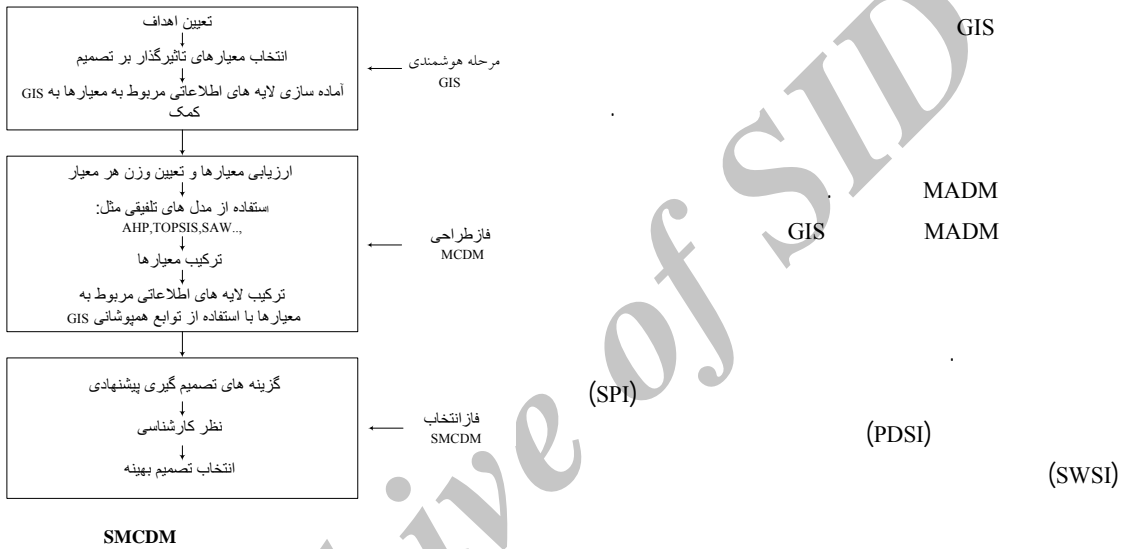
SMADM

(Salemi et al., 2000)

SMADM

(2006)

(Svoray et al., 2005)



()

()

(SMADM)

(Prakash , 2003)

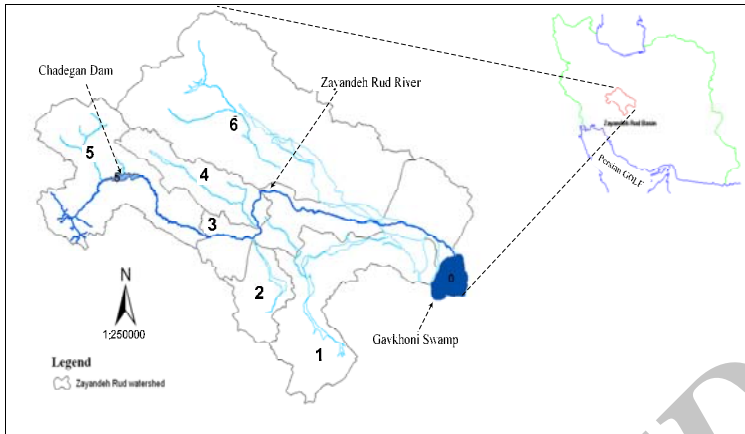
(Jankowski, 1995)

()

SMADM

()

()



(:)

AHP

(Saaty, 1994)

(D1)

(D4)

(D3)

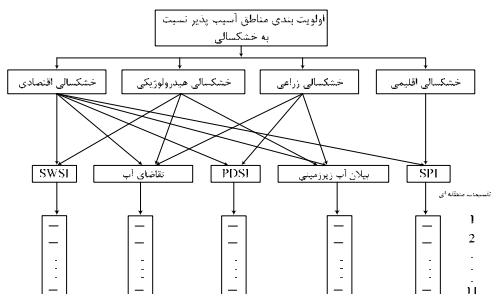
(D2)



(Malczewski, 2006)

SWSI PDSI SPI

(:)
(:)



MADM

(AHP)

AHP .

(Decision Makers)

AHP

()

/	SWSI
/	
/	
/	PDSI
/	
/	
/	SPI
/	
/	PDSI
/	
/	SWSI

(Kirkwood, 1997)

AHP

DM

DM

$m \times m$

A

SWSI

PDSI

SPI

GIS

$$a = (\alpha_{ij})_{m \times m} = \begin{matrix} D_1 & D_2 & D_3 & D_4 \\ D_1 & 1 & 4 & 3 & 2 \\ D_2 & 0.25 & 1 & 4 & 3 \\ D_3 & 0.33 & 0.25 & 1 & 3 \\ D_4 & 0.5 & 0.33 & 0.33 & 1 \end{matrix} \Rightarrow \begin{matrix} W \\ 0.48 \\ 0.28 \\ 0.14 \\ 0.13 \end{matrix}$$

χ_{ij}^{\min}

$\chi_j^{\min} / \chi_{ij}$

AHP

$$a_{ij} = \frac{1}{a_{ji}}$$

$$a_{ij} = 1$$

a_{ij}

(i, j)

W

A

GIS

(Overlay)

A

W

λ_{\max}

$$AW = \lambda_{\max} W$$

A

PDSI

()

PDSI

(A)

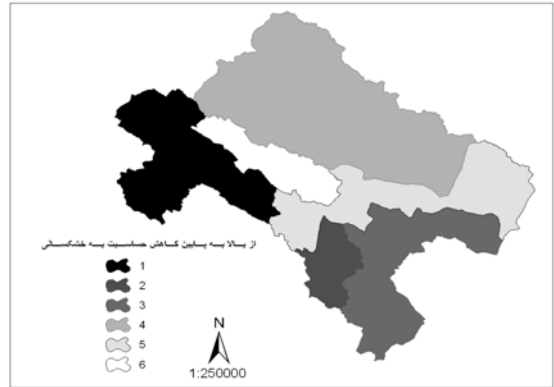
$$(= 0.25 \times 0.13 + 0.55 \times 0.28)$$

(/)

()

()
()
() ()

GIS



AHP

(SMADM) GIS

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