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GIS

GIS

Archive of SID

AHP

Neil, et al., )

(2004

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(TORAP)

TORAP

.(Khan & Abbasi, 2000)

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HSE<sup>3</sup>

( Theler, et al., )

.(2006

.(Chen, et al., 2000)

.(Mathews, et al., 1997)

ArcGIS

SPSS

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n×n

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$$W = \lim_{k \rightarrow \infty} d^k \cdot e / e^t \cdot D^k \cdot e$$

$$e = \begin{bmatrix} 1 \\ 1 \\ \dots \\ 1 \end{bmatrix}$$

$$w_i = \frac{\sum_{j=1}^n a_{ij} \cdot w_j}{\lambda_{\max}}$$

w

$$D = \begin{bmatrix} 1 & 4 & 2 & 2 \\ 0.25 & 1 & 2 & 5 \\ 0.33 & 0.143 & 1 & 5 \\ 0.5 & 0.2 & 0.2 & 1 \end{bmatrix}$$

$$D^2 = D \times D$$

$$D^2 \cdot e = \begin{bmatrix} 7.61 \\ 11.12 \\ 2.936 \\ 1.15 \end{bmatrix}$$

$$e^t \cdot D^2 \cdot e = (1 \ 1 \ 1 \ 1) \begin{bmatrix} 7.61 \\ 11.12 \\ 2.936 \\ 1.15 \end{bmatrix} = 191.216$$

$$D^2 = \begin{bmatrix} 4 & 9.2 & 24.6 & 41 \\ 5.31 & 4 & 15.75 & 25.75 \\ 2.196 & 1.99 & 4 & 11.715 \\ 1.12 & 2.22 & 2.2 & 4 \end{bmatrix}$$

$$A_{ij} = \sqrt[n]{\prod_{i,j=1}^n a_{ij}}$$

$$n = \sum_{k=1}^l w_k$$

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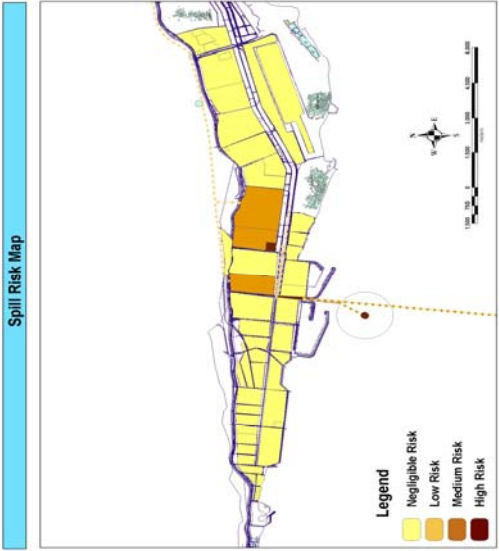
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AHP

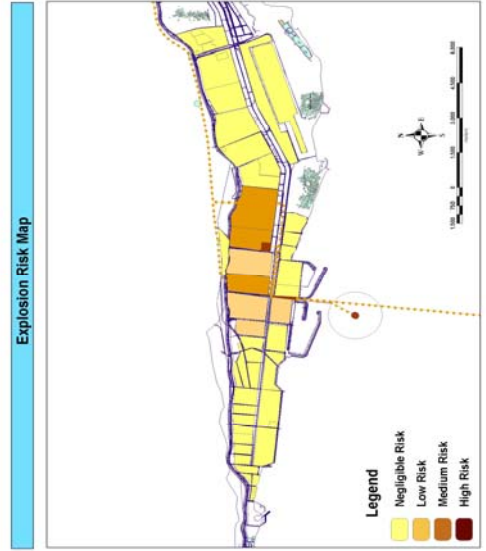
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	A <sub>11</sub> =1	A <sub>12</sub> =4	A <sub>13</sub> =3	A <sub>14</sub> =3
	A <sub>21</sub> =0.25	A <sub>22</sub> =1	A <sub>23</sub> =7	A <sub>24</sub> =5
	A <sub>31</sub> =0.33	A <sub>32</sub> =0.143	A <sub>33</sub> =1	A <sub>34</sub> =5
	A <sub>41</sub> =0.5	A <sub>42</sub> =0.2	A <sub>43</sub> =0.2	A <sub>44</sub> =1





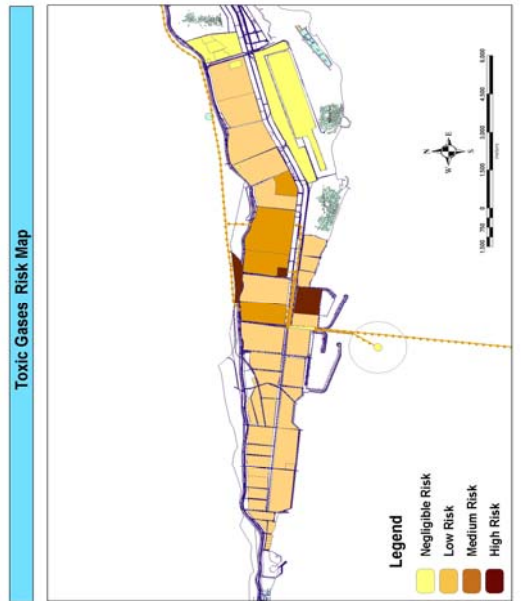
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- 1-Analytical Hierarchical Process
- 2-Tool for Rapid risk Assessment in Petroleum refinery
- 3-Health Safety and Environment

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