

Supplementary Material:

Table S1. The weight assigned to different parameters.

Parameters	Range	Weight	Parameters	Range	Weight
Depth to water Table (m)	0 – 2	10	Topography	0 – 5	10
	2 – 5	8		5 – 10	8
	5 – 10	6		10 – 20	6
	10 – 20	4		20 – 30	4
	20 – 40	2		30 – 40	2
	> 40	1		40 – 50	1
Net Recharge(mm)	0 – 100	1	Impact of Vadose Zone	>50	1
	100 – 200	1		Aravalli Supergroup	5
	200 – 300	1		Bhilwara Supergroup	6
	300 – 400	2		Delhi Supergroup	7
	400 – 500	3		Extrusive/Intrusive group	6
	500 - 600	4		Marwar Supergroup	5
Aquifer Media	600 - 700	5	Hydraulic Conductivity	Quaternary Sediments	9
	700-800	7		Tertiary	4
	800-900	8		Vindhyan Supergroup	8
	900-1000	9		Waterbody	10
	>1000	10		0.002 - 0.2	1
	Basalt	2		0.2 - 0.5	2
	BGC	2		0.5 - 2	2
	Bilara Limestone	4		1 – 5	3
	Gneiss	2	LULC	Agriculture Land	8
	Granite	2		Built-up	10
	Hills	3		Wastelands	6
	Limestone	4		Grassland and grazing land	7
	Older Alluvium	6		Forest	6

	Phyllite	7		Water bodies	1
	Quartzite	3	Temperature Map	< 30	2
	Reserve Forest	8		30 - 34	3
	Rhyolite	6		34 - 36	4
	Sandstone	7		>36	5
	Tertiary Sandstone	7			
	Schist	4			
	Shale	10			
	Ultra-Basic	4			
	Younger Alluvium	7			
Soil media	Sandy Clay	2			
	Clayey Soil	2			
	Clayey Skeletal	2			
	Coarse Loamy	6			
	Fine Sandy	4			
	Fine Loamy	6			
	Fine Silty	6			
	Loamy Soil	6			
	Loamy Skeletal	6			
	Sandy Skeletal	8			
