

Table S2 Application and evaluation of approaches to combat sandy desertification in typical regions

Category of restoration technology	Name of restoration technology	Technical Evaluation					
		Potential to transfer	Easy to use	Readiness	Effectiveness	Suitability	Evaluation index
Biological	Plant breeding	4.33	4.50	4.67	4.67	4.50	0.91
	Protective/Buffering forests	4.00	4.00	4.00	5.00	5.00	0.88
	Aerial Seeding	4.00	3.00	4.00	5.00	4.50	0.82
	Windbreak and Sand Fixation	4.83	3.00	4.17	3.83	3.83	0.79
	Forest						
	Reseeding	4.00	4.00	3.00	4.00	4.00	0.76
	Artificial afforestation/grass	3.52	3.10	3.69	4.00	3.81	0.72
	Biological soil crusts	4.00	3.00	2.00	4.00	3.50	0.66
	Hedgerows	3.00	4.00	2.00	3.00	4.00	0.64
Engineering	Straw checkerboard	4.50	4.30	4.95	4.65	4.75	0.93
	Check dams	5.00	4.00	4.00	5.00	5.00	0.92
	Mechanical+biological sand barriers	5.00	3.00	4.00	5.00	5.00	0.88
	Scale ripples	4.00	1.00	5.00	5.00	5.00	0.80
	Grain for green	4.00	4.00	5.00	3.00	4.00	0.80
	Intercepting ditch	3.00	1.00	5.00	5.00	5.00	0.76
	Contour lines of “V”	3.00	3.00	4.00	3.00	4.00	0.68
	aqueducts preserve soil moisture						
	Stone checker	3.00	2.00	3.00	3.00	4.00	0.60
	Runoff catchment	3.00	2.00	3.00	3.00	4.00	0.60
	Rainwater harvesting	3.00	2.00	3.00	3.00	3.00	0.56
	Water-saving Irrigation	4.00	5.00	5.00	4.00	5.00	0.92
Agricultural	Conservation tillage	4.00	4.00	4.00	5.00	5.00	0.88
	Agro--grassland	4.33	2.67	4.33	4.33	4.00	0.79
	Fallow/No-tillage/Minimum tillage	3.50	4.00	5.00	3.00	4.00	0.78
	Stereo-agriculture	3.00	4.00	4.00	4.00	4.00	0.76
	Soil reclamation/fertilizing	3.50	2.50	4.50	4.00	3.50	0.72
	Grazing enclosures	4.72	4.61	4.33	4.78	4.56	0.92
Management	Community-herdsmen joint management mechanisms	5.00	4.50	4.50	3.50	4.00	0.86
	Confined/semi-confined farming	5.00	3.00	3.00	5.00	5.00	0.84
	Prohibiting/Rest/Rotational grazing	4.43	4.17	4.30	3.47	4.23	0.82
	Community participatory management	3.00	4.00	4.00	3.00	4.00	0.72

Natural restoration	3.50	3.50	2.50	3.50	3.50	0.66
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