



Supplementary Fig. 1 Agro-climatic zones of Uttar Pradesh.
Source: Gulati *et al.* (2021).

Supplementary Table 1 Compound growth rate (%) of area, production and yield of pigeonpea in different agro-climatic zones of Uttar Pradesh

Agro-climatic zone	Sub-period 1 (1997–2007)			Sub-period 2 (2007–2023)			Whole period (1997–2023)		
	A	P	Y	A	P	Y	A	P	Y
I	-4.26	-3.35	0.95	-0.97	-0.45	0.52	-4.00	-4.04	-0.04
II	4.42	11.43	6.71	-1.73	-0.18	1.58	-2.03	-0.84	1.21
III	1.10	0.62	-0.48	-2.19	0.45	2.70	-4.93	-4.09	0.88
IV	0.99	-4.88	-5.81	-0.65	1.64	2.30	-2.14	-2.68	-0.55
V	-1.09	-6.04	-5.01	-0.87	1.10	1.98	-2.57	-3.66	-1.12
VI	5.06	-2.30	-7.01	-0.61	5.27	5.91	0.26	-0.57	-0.82
VII	-2.28	2.52	4.91	0.11	0.37	0.26	-3.27	-3.32	-0.05
VIII	0.53	-3.40	-3.91	0.70	2.78	2.06	-1.16	-1.37	-0.21
IX	0.53	-1.01	-4.86	0.44	3.23	2.77	-0.96	0.15	1.11

A, Area (%); P, Production (%); Y, Yield (%). Zone details are given under Materials and Methods.

Supplementary Table 2 Compound annual growth rate of area, production and yield of pigeonpea in Bundelkhand and Vindhyan zone

District	Sub period 1 (1997–2007)			Sub period 2 (2007–2023)			Whole period (1997–2023)		
	A	P	Y	A	P	Y	A	P	Y
Bundelkhand zone (zone VI)									
Banda	7.2	-0.45	-8.47	0.63	9.23	8.1	0.68	0.87	0.61
Chitrakoot	4.06	-7.45	-10.1	1.73	7.2	6.82	4.06	-0.78	-2.43
Hamirpur	4.59	9.5	6.59	-0.78	3.14	4.16	0.15	-0.22	-0.37
Jalaun	-0.45	1.25	0.9	-2.83	0.35	3	-2.07	-3.39	-1.36
Jhansi	-2.65	-7.14	-4.65	-13.4	-5.15	7.19	-7.89	-7.42	0.51
Lalitpur	-1.25	-21.21	-19.36	-23.22	-20.05	1	-11.25	-15.42	-1.81
Mahoba	2.45	5.6	3.55	-1.63	1.2	3.25	-10.5	-0.22	-0.53
Vindhyan zone (IX)									
Mirzapur	1.2	1.25	2.25	0.91	1.93	2.33	-3.72	-0.3	0.7
Sonbhadra	0.95	2.3	1.58	0.39	2.56	3.56	-0.84	0.86	1.7

A, Area (%); P, Production (%); Y, Yield (%).