File S2

Supplementary Material for

Multi-variable governance index modelling of government's policies, legal, institutional strategies and management for climate compatible and sustainable agriculture development

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Table S3: Summary of Constituency based KW Test for GC-1 sample in Agriculture Sector

Hypothesis Test Summary				
	Null Hypothesis	**Test**	**Sig.**	**Decision**
1	The distribution of DRR, Vulnerability and Spatial Mapping is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of Regulation of Rights is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
3	The distribution of Climate Smart Practices is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
4	The distribution of Technological Innovation is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
5	The distribution of Climate Organization is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
6	The distribution of Institutional Effectiveness is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
7	The distribution of Climate Infrastructure is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
8	The distribution of Agriculture, Water and Energy Nexus is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
9	The distribution of Sustainability is the same across categories of Constituency.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .05. N = 357				

Table S4: Summary of Gender based KW Test for GC-1 sample in Agriculture Sector

Hypothesis Test Summary				
	Null Hypothesis	**Test**	**Sig.**	**Decision**
1	The distribution of DRR, Vulnerability and Spatial Mapping is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
2	The distribution of Regulation of Rights is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
3	The distribution of Climate Smart Practices is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
4	The distribution of Technological Innovation is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
5	The distribution of Climate Organization is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
6	The distribution of Institutional Effectiveness is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.

7	The distribution of Climate Infrastructure is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.045	Reject the null hypothesis.
8	The distribution of Agriculture, Water and Energy Nexus is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.000	Reject the null hypothesis.
9	The distribution of Sustainability is the same across categories of Gender.	Independent-Samples Kruskal-Wallis Test	.001	Reject the null hypothesis.
Asymptotic significances are displayed. The significance level is .05. N = 357				

Table S5: Summary of Correlations between CCD Criteria for GC-1 in Agriculture Sector

Pearson Correlations									
CCD Criteria	**AC1.1**	**AC2.1**	**AC3.1**	**AC4.1**	**AC5.1**	**AC6.1**	**AC7.1**	**AC8.1**	**AC9.1**
AC1.1	1								
AC2.1	.831**	1							
AC3.1	.884**	.855**	1						
AC4.1	.872**	.871**	.927**	1					
AC5.1	.914**	.892**	.932**	.943**	1				
AC6.1	.901**	.786**	.902**	.877**	.895**	1			
AC7.1	.723**	.561**	.788**	.798**	.740**	.741**	1		
AC8.1	.857**	.863**	.817**	.885**	.871**	.805**	.694**	1	
AC9.1	.815**	.842**	.766**	.770**	.828**	.811**	.447**	.727**	1
***. Correlation is significant at the 0.01 level (1-tailed), N = 357.*									

Table S6: Regression Model Summary for GC-1 of Agriculture Sector

Model Summary[b]				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915[a]	.837	.833	.42868

a. Predictors: (Constant), Agriculture, Water and Energy Nexus, Climate Infrastructure, Institutional Effectiveness, Regulation of Rights, DRR, Vulnerability and Spatial Mapping, Climate Smart Practices, Technological Innovation, Climate Organization

b. Dependent Variable: Sustainability

Table S7: ANOVA Summary for GC-1 of Agriculture Sector

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	327.901	8	40.988	223.037	.000[b]
	Residual	63.952	348	.184		
	Total	391.853	356			

a. Dependent Variable: Sustainability

b. Predictors: (Constant), Agriculture, Water and Energy Nexus, Climate Infrastructure, Institutional Effectiveness, Regulation of Rights, DRR, Vulnerability and Spatial Mapping, Climate Smart Practices, Technological Innovation, Climate Organization

Table S8: Summary of Regression Coefficients for GC-1 of Agriculture Sector

Coefficients[a]									
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**	**Correlations Zero-order**	**Collinearity Statistics**	
		B	**Std. Error**	**Beta**				**Tolerance**	**VIF**
1	(Constant)	-0.426	0.151		-2.811	0.005			
	DRR, Vulnerability and Spatial Mapping	0.205	0.048	0.276	4.304	0	0.815	0.114	8.747
	Regulation of Rights	0.327	0.046	0.453	7.042	0	0.842	0.113	8.836
	Climate Smart Practices	-0.179	0.061	-0.231	-2.952	0.003	0.766	0.076	13.085
	Technological Innovation	0.125	0.08	0.134	1.561	0.119	0.77	0.064	15.675
	Climate Organization	0.23	0.076	0.267	3.044	0.003	0.828	0.061	16.376

	Institutional Effectiveness	0.447	0.056	0.484	8.012	0	0.811	0.129	7.779
	Climate Infrastructure	-0.41	0.055	-0.335	-7.408	0	0.447	0.229	4.374
	Agriculture, Water and Energy Nexus	-0.187	0.048	-0.219	-3.874	0	0.727	0.147	6.795

a. Dependent Variable: Sustainability

Table S9: Regression's Residual Statistics for GC-1 of Agriculture Sector

Residuals Statistics[a]					
	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.4579	5.5407	2.4600	.95972	357
Residual	-1.06906	1.31972	.00000	.42384	357
Std. Predicted Value	-2.086	3.210	.000	1.000	357
Std. Residual	-2.494	3.079	.000	.989	357

a. Dependent Variable: Sustainability