

Behavior of Individuals in Relation to Flood: A Socio-physical Soil-Climatic Relation Factor

A Poster for the Workshop on Sociophysics: Social Phenomena from a Physics Perspective

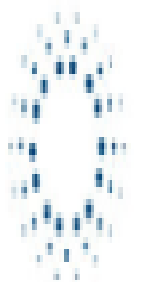


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*Soil Physical Factors + ClimFactorsate + Policies
= Actions Needed for solution towards individual behaviou*

Where ;

$$Sf + Cf + P = Ha$$

Sf= Soil factor

Cf =Climate factor

P = Policies

Ha=Human behavior

Ha could be -

Ha could be +

If Ha + = increase in social wellbeing

Ha - = reduction in social wellbeing

A pilot survey to assess the behavior of individuals in relation to flood

- + Mitigative**
- + Adaptative**
- + Rejective**
- + Undecided (Nature forces)**
- + Unpreparedness**



The pains, the Struggle, and the needed Science!



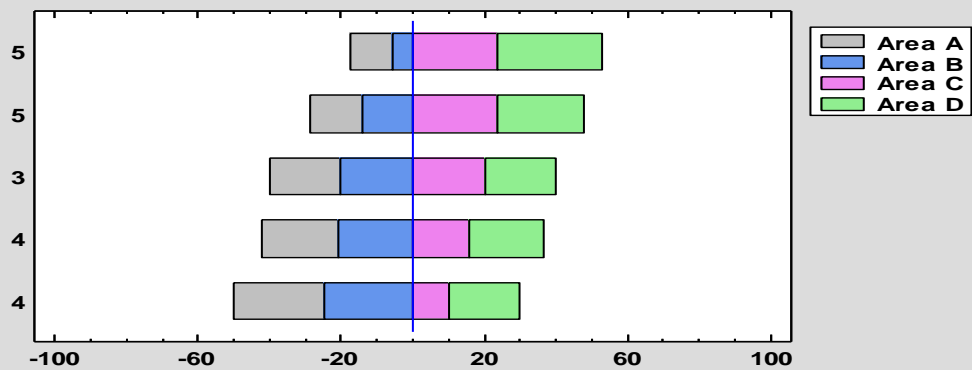
Food kills

Flood destroys

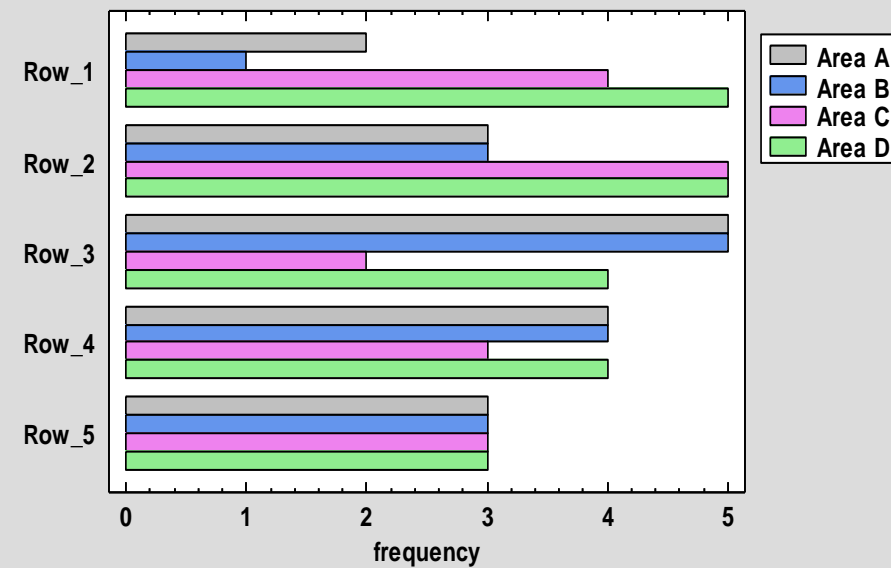
Flood causes trauma

Flood stresses and worsen social webbing

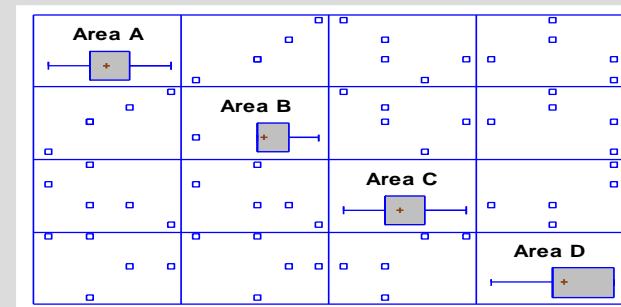
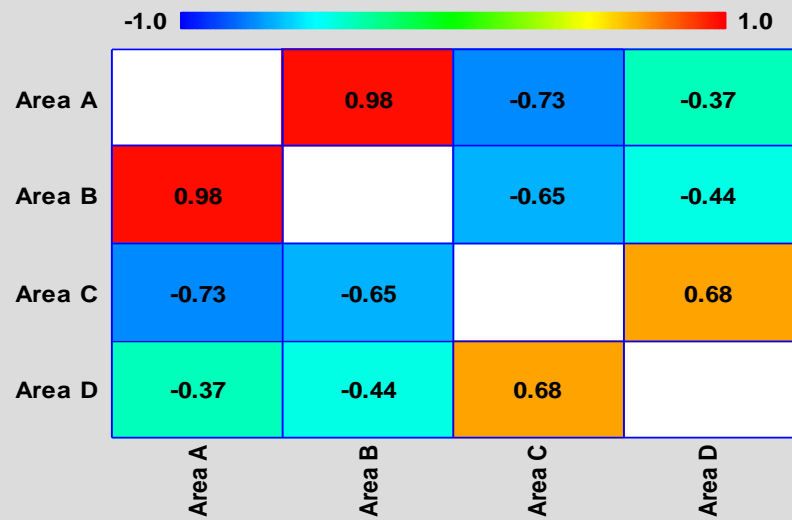
Likert Plot



Barchart



Pearson Product-Moment Correlations



The observed impact so far, and still counting

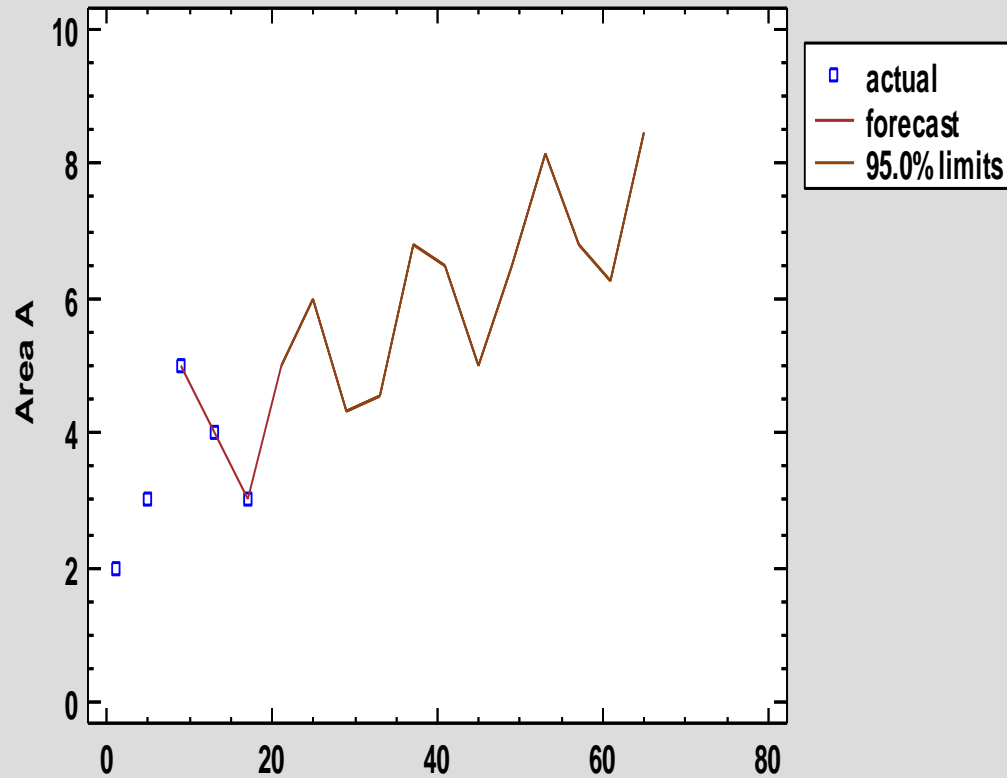
	Area A	Area B	Area C	Area D
Count	5	5	5	5
Average	3.4	3.2	3.4	4.2
Standard deviation	1.14018	1.48324	1.14018	0.83666
Coeff. of variation	33.5346%	46.3512%	33.5346%	19.9205%
Minimum	2.0	1.0	2.0	3.0
Maximum	5.0	5.0	5.0	5.0
Range	3.0	4.0	3.0	2.0
Std. skewness	0.369527	-0.503556	0.369527	-0.46761
Std. kurtosis	-0.081024	0.39608	-0.081024	-0.27945

Advisory Rule

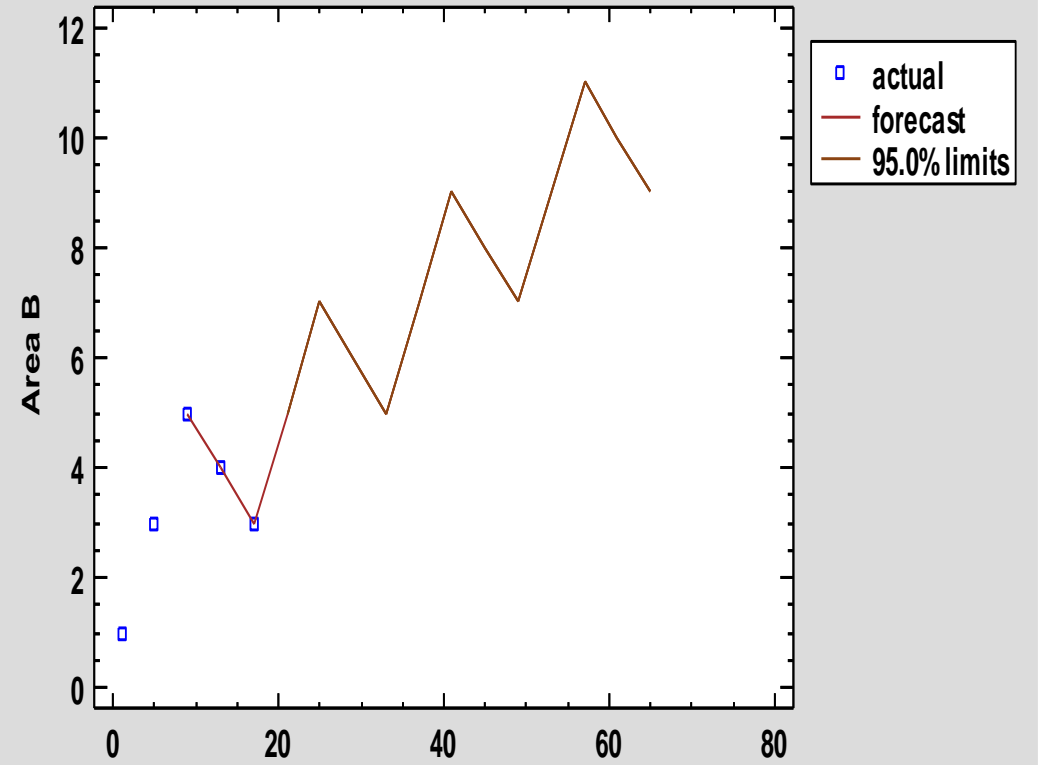
Values of these statistics outside the range of -2 to +2 indicate significant departures from normality,

Forecast for return period for once every 4 years interval

Time Sequence Plot for Area A
ARIMA(2,2,0)

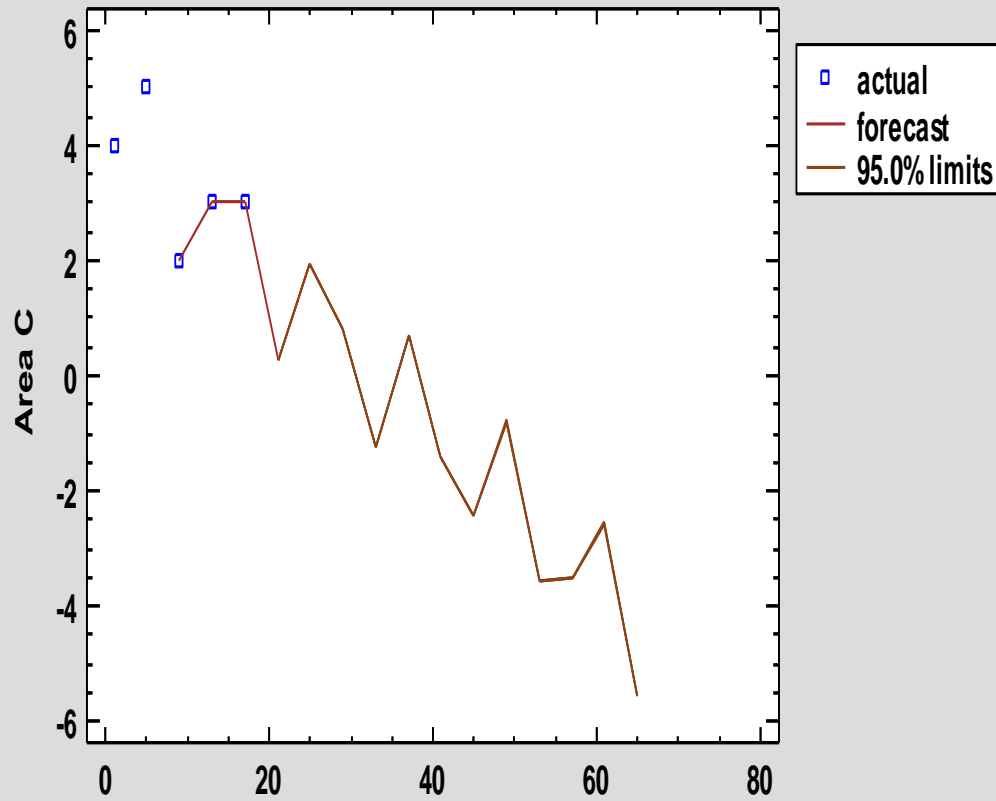


Time Sequence Plot for Area B
ARIMA(2,2,0)



Forecast for return period for once every 4 years interval Cont.

Time Sequence Plot for Area C
ARIMA(2,2,0)



Time Sequence Plot for Area D
ARIMA(2,1,0)

