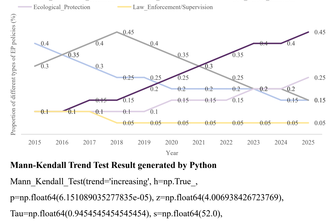
More detailed table/chart data

Figure-1 Proportion of different types of China's EP policies (2015-2025)

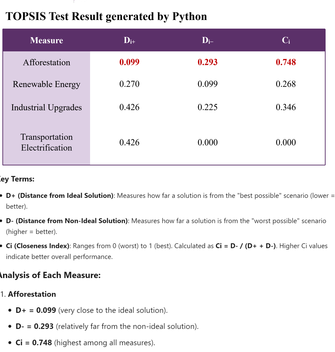


Mann-Kendall Trend Test Result generated by Python

Mann_Kendall_Test(trend='increasing', h=p.True_, p=np.float64(6.151089035277835e-05), z=np.float64(4.006938426723769), Tau=np.float64(0.9454545454545454), s=np.float64(52.0), var_s=np.float64(162.0), slope=np.float64(0.038888888888888889), intercept=np.float64(0.055555555555555555))

1. ** trend='increasing' **
   - Indicates the direction of the detected monotonic trend. In this case, the data shows a statistically significant **upward trend**.
2. ** h=p.True_ **
   - Hypothesis test result:
     - h=True means the null hypothesis (no trend) is **rejected**.
     - There is significant evidence of a trend in the data.
3. ** p=6.15e-05 **
   - **p-value** (extremely small: ~0.00006515).
   - Indicates strong statistical significance ($p < 0.05$ is typically considered significant). The probability of observing this trend by chance is nearly 0.
4. ** z=4.007 **
   - **Z-score**, a measure of trend strength and direction.
   - A large positive value (4.007) confirms a strong upward trend. Negative values would indicate a downward trend.
5. ** Tau=0.945 **
   - **Kendall's Tau coefficient** (ranges from -1 to 1).
   - Values close to **+1** indicate near-perfect agreement in upward trend (very strong monotonic relationship).
6. ** s=52.0 **
   - **Test statistic S**. Positive values suggest increasing trends.
   - Represents the number of concordant pairs minus discordant pairs in the data.
7. ** var_s=162.0 **
   - **Variance of S**, used to calculate the Z-score. Larger datasets or more variability may increase this value.
8. ** slope=0.0389 **
   - **Sen's slope** (non-parametric estimate of trend magnitude).
   - Indicates the variable increases by ~0.0389 units per time step on average.
9. ** intercept=0.0556 **
   - Intercept of the trend line (if modeled as a linear relationship: y = slope * x + intercept).
   - Represents the estimated baseline value at the start of the time series.

Figure-2 Comparison Table of Emission Reduction Effects and Costs of China's Major Low Carbon Policy Measures (2013-2023)



TOPSIS Test Result generated by Python

Measure	D_{i+}	D_{i-}	C_i
Afforestation	**0.099**	**0.293**	**0.748**
Renewable Energy	0.270	0.099	0.268
Industrial Upgrades	0.426	0.225	0.346
Transportation Electrification	0.426	0.000	0.000

Key Terms:

- **D+ (Distance from Ideal Solution)**: Measures how far a solution is from the "best possible" scenario (lower = better).
- **D- (Distance from Non-Ideal Solution)**: Measures how far a solution is from the "worst possible" scenario (higher = better).
- **Ci (Closeness Index)**: Ranges from 0 (worst) to 1 (best). Calculated as **Ci = D- / (D+ + D-)**. Higher Ci values indicate better overall performance.

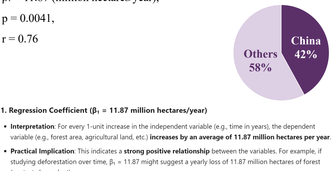
Analysis of Each Measure:

1. **Afforestation**
   - **D+ = 0.099** (very close to the ideal solution).
   - **D- = 0.293** (relatively far from the non-ideal solution).
   - **Ci = 0.748** (highest among all measures).
   - **Conclusion**: **Best-performing option** (closest to ideal and farthest from non-ideal).
2. **Renewable Energy**
   - **D+ = 0.270** (farther from ideal than Afforestation).
   - **D- = 0.099** (very close to the non-ideal solution).
   - **Ci = 0.268** (lowest Ci value).
   - **Conclusion**: **Weakest performance** (poor balance between D+ and D-).
3. **Industrial Upgrades**
   - **D+ = 0.426** (farthest from ideal).
   - **D- = 0.225** (moderate distance from non-ideal).
   - **Ci = 0.346** (second-highest Ci).
   - **Conclusion**: Moderate performance, but significantly worse than Afforestation.
4. **Transportation Electrification**
   - **D+ = 0.426** (same as Industrial Upgrades).
   - **D- = 0.000** (directly overlaps with the non-ideal solution).
   - **Ci = 0.000** (lowest possible score).
   - **Conclusion**: **Worst-performing option** (identical to the non-ideal scenario).

Ranking (Best to Worst):

1. **Afforestation** (Ci = 0.748)
2. **Industrial Upgrades** (Ci = 0.346)
3. **Renewable Energy** (Ci = 0.268)
4. **Transportation Electrification** (Ci = 0.000)

Figure-3 Changes in annual afforestation area in China (2010-2021)



Country/Region	Project/Cooperation Content	Area (hectares)	Partners/Implementing Entities	Data Sources
Africa	China-Africa "Green Great Wall" Initiative	1000000	China and African Union	China National Forestry and Grassland Administration (2021), AU Green Wall Progress Report
Kazakhstan	China-Kazakhstan Border Afforestation	2000	Chinese Academy of Sciences and Kazakh institutions	Northwest Institute of Eco-Environment and Resources, CAS (2021)
Mongolia	China-Mongolia Desertification Control	6600	China Green Foundation and partners	China Green Foundation Annual Report (2023), Mongolia Ministry of Environment
UAE	Dubai Desert Greening Pilot Project	1000	Chinese firms and Dubai Government	The National (UAE, 2023), Qingdao Seawater Rice R&D Center Agreement
Southeast Asia	Laos/Cambodia Economic Forest Plantation	300000	Chinese agricultural enterprises	World Bank Report on SE Asia Forestry (2020), China Ministry of Commerce
Brazil	Eucalyptus Plantations by Chinese Firms	200000	Chinese paper companies	Brazilian Tree Industry Report (2020), APP Sustainability Report

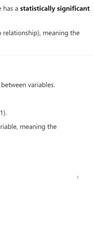
Regression Analysis Result generated by SPSS

$\beta_1 = 11.87$ (million hectares/year),

$p = 0.0041$,

$r = 0.76$

Figure-4 Newly added Global Green Area Contributions (2019)



1. Regression Coefficient (β_1 = 11.87 million hectares/year)

- **Interpretation**: For every 1-unit increase in the independent variable (e.g., time in years), the dependent variable (e.g., forest area, agricultural land, etc.) **increases by an average of 11.87 million hectares per year**.
- **Practical Implication**: This indicates a **strong positive relationship** between the variables. For example, if studying deforestation over time, β_1 = 11.87 might suggest a yearly loss of 11.87 million hectares of forest (context-dependent).

2. p-value = 0.0041

- **Interpretation**: The p-value tests the statistical significance of the regression coefficient (β_1).
- **Conclusion**:
  - Since **p < 0.05** (a common significance threshold), the independent variable has a **statistically significant effect** on the dependent variable.
  - The extremely small p-value (0.0041) strongly rejects the null hypothesis (no relationship), meaning the observed trend is **highly unlikely to be due to random chance**.

3. Correlation Coefficient (r = 0.76)

- **Interpretation**: Measures the strength and direction of the linear relationship between variables.
- **Conclusion**:
  - **r = 0.76** indicates a **strong positive correlation** (values range from -1 to +1).
  - The model explains **r^2 = 0.76² ≈ 57.8%** of the variance in the dependent variable, meaning the independent variable accounts for 57.8% of its variability.