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Climate Change Impact & Adaptation Studies using Radionuclide Data

CTBTO has Radionuclide Stations deployed at various parts of the world as part of its verification regime. These stations are collecting data by sampling atmospheric air. The data produced by these stations can be used for studying climate change and its impacts. This data can be projected using pattern informatics techniques to map isotopes production indicating spatial and temporal distributions across climatic zones. These distributions can be correlated to other indicators particularly climatological to form related hypothesis. These hypothesis can be further tested using latest samplings from regional meteorological outfits while duly incorporating historical data. Climate change phenomenon and its impact in terms of variability of related observed data in relation to other factors can accordingly be structured in the form of a matrix indicating trends. This quantitative analysis helps in finding precise intricate impacts followed by identification of causal factors at both micro and macro level. Different correlation techniques can be applied to determine boundary conditions and forming thresholds for predicting climate change patterns. Models for developing simulations can accordingly be developed based on study findings. This briefly explained concept is challenging yet interesting as it may help us in understanding future of our habitat.

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