In Brief

Impact of Climate Change on Seed Bombing Germination in Susunia Hills

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Green leaves of wild trees are visible for the first time on the rocky barren land of Susunia Hills. Chhatna Forest Range under Forest Division of Bankura District has succeeded in afforestation by spreading seed bombs comprising *Akashmani* and *Subabul* seeds. About two hundred seed bombs of such trees were spread on just two hectares of rocky land in Susunia Hills just prior to the commencement of the monsoon this year where previously no wild tree seedlings were seen to grow. All the staff of the Chhatna Range of the forest department are very happy with such success. Now they dream of increasing the forest area by spreading seed bombs on the remaining twenty-five hectares of such rocky land in Susunia Hills. Now they are trying to enrich the forests of Susunia Hills by keeping the seeds of *Amalki, Bahera, Haritki, Kend,* and *Haldu* in the sowing by seed bombing.

The impact of climate change cannot be ruled out in such success of greening by seed bombs in Susunia Hills. The seed bombs were scattered in the Susunia Hills with the arrival of monsoons this year (2023). Seedlings started to emerge from those seed bombs in August this year. August this year is the driest month in India's 122-year history. Rainfall has fallen in August 2023, the driest since 1901, while temperatures have risen. This year the average temperature in August in the country has been 28.4^0C while the normal temperature is 27.55˚C i.e., the inflation has increased by 0.84˚C. This increase in temperature due to global warming may have helped the seedlings grow from the seeds of seed bombs in the Susunia Hills. In rocky soils where seedlings have never grown naturally, temperature fluctuations can promote seed germination that may not have existed previously.

Evidence shows that the Susunia hills were once almost treeless. Fossils and remains of lions, wild buffaloes, giraffes etc. found on the hill prove that most of these hills were not covered by forests. A lion or a giraffe never likes dense jungles like a tiger. But no remains like bones or fossils of tigers were found here. Besides, King Chandravarman's inscription, the oldest inscription in West Bengal, carved on the hill about seventeen hundred years ago also proves that there was never a dense forest on the Susunia hills. All in all, it can be concluded that due to climate change, artificial forests through afforestation by the forest department have gradually been created across these hills to allow seedlings to grow.

In June this year, temperatures exceeded 46 degrees Celsius in Bankura, where Susunia hills are located in the treeless region of the district. Such an increase in temperature in Bankura district results from global warming due to climate change. This rise in temperature has made the scattered forest patches in Bankura district greener and more luxurious. So far, the observed effects of global warming due to climate change on forest floors have been positive. The exact same reason for climate change appears to be one of the factors for the germination of seeds placed in the seed bombs at Susunia Hills.

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