"BEGINNING OF A RESEARCH ON ARTIFICIAL RAIN BASED ON NATURAL PROCESS AND ITS SUBSEQUENT ACHIEVEMENT"

This is a dream for bringing green revolution in the entire world. Let's make this dream come true. The work of bringing a green revolution in the universe has been entrusted to us by God to make all living beings happy. With a hearty thanks to the Almighty God, we will follow the footsteps of God and complete this project on artificial rain research based on natural process. This research shall also bring to the forth a technology which can halt excessive rains whenever there is a cloud burst. This means we can have rains as much as we need and wherever we want it to happen. God will carry out the work assigned to us.

This happened somewhere during the early 70s. From the year 1972 to 1976, there was no rain for three to four consecutive years. Drinking water was not available. There was a huge shortage of food and water. People started going for labor work under the employment guarantee schemes. During the course of my work with my mother, I got a blister on my palm which broke out. One day when my mother had gone two kilometers to fetch drinking water, she left a tiffin containing red sorghum bread, onion and red chutney. I opened the tiffin and started eating the food items. My mother later arrived and brought some water. When my mother saw me eating, she got infuriated. Seeing my sad face she then asked me to eat and I rushed and started gulping the food. But my mother told me to wash my hands. I just washed the tips of my fingers and continued eating. My mother upbraided me for not washing my hands properly and poured the cold water from the well freshly brought by her. The blistered hand started hurting me like hell. I cried. My mother looked at my hand. The hand was sore. The skin was peeled off. There were tears in her eyes. My mother cursed God. In common parlance she cussed the God "Oh! You wretched God, you have no wisdom. Why don't you pour rains?" A thought started circling my mind. Had it rained why did I

have to come to work? Mother burst into tears. I too started weeping. In the scorching sun with no shade of the trees I was standing there helpless. A lot of people came to work as if there was some village fair. We were eating chutney and bread under the blistering sun, under the shadow of an imaginary tree. Tears started rolling on my cheeks. A thought started forming in my mind. "Why didn't it rain? Why didn't it rain?" I was thinking a lot. There was no second thought in my mind. Drops of sweat were falling on the ground due to intense heat from my body. After finishing work, we went home. Even while returning home there was a huge commotion of thoughts in mind. Why didn't it rain? What does it need to make rain fall?

As usual, we came to the temple in the evening to pay obeisance to God. Now I had a resolution in my mind. I will have to undertake a lifelong research to make this dream come true. With **Goddess Sonai's** blessing, the work on making this dream reality started working. It is still continuing. This thought has been instilled in our minds by **Goddess Sonai** at an early age for the welfare of all living beings by providing artificial rain based on natural process. Secondly, it should rain whenever we need and wherever we want. No doubt it has become our "**Guru Mantra**" that '**if you do good to the world, it ultimately becomes your own good**". Fortunately, this Guru Mantra has reached its culmination by the grace of **Sadguru Paramahansa Ramchandra Maharaj**.

The research work started from 1975. The first research paper was published as "Effect of endothermic reactions associated with lightning on atmospheric chemistry" in Indian Journal of Space Physics Vol. 22, April 1993, pp123-131, under the aegis of Atmospheric Rainmaking Research Society, Chimur Dist. Chandrapur, registered under Maharashtra Government in 1998 as NGO. "Artificial rainmaking system in a way of natural phenomena" research paper was also published in "Indian Journal of Science and Technology", www.indjst.org, Vol. 1No. 6 (Nov. 2008).

- IRRA Scientist Group also published research papers in national and international Journal as Fellow as stated below
- ➤ IRRA Scientist Group Member (Dr.S.K.Chopkar) presented research paper as "Artificial rainmaking by Laser system similar to natural lightning phenomena in the atmosphere" in "NATIONAL WORKSHOP ON ATMOSPHERIC CHEMISTRY (NWAC-99), Indian Institute of Tropical Meteorology, Pune, Maharashtra.
- ➤ IRRA Scientist Group Member (Prof. D.K. Chakrabarty) presented research paper as "Femtosecond terawatt laser system to produce artificial rain" in International Conference, Institute of Radio Physics & Electronics, University of Calcutta,92 A P C Road, Kolkata 700 009,India.
- ➤ IRRA Scientist Group Member (Dr. S.K.Chopkar) presented research paper as "Novel technology for artificial rainmaking by laser system similar to natural lightning phenomena" in "International Environment Sahara Conference at Dakhala, Morocco, 27-28 September 2018".
- ➤ IRRA Scientist Group has been awarded Outstanding Scientist Award, VDGOOD, 14-15, Sep.2019, Chennai, India.

Our Mission is "Even Distribution of Rain for bringing about Green Revolution in the Globe" and our Vision is "Global Prosperity through Artificial Rainmaking in the whole world for all the human beings".

Our Main objectives are:-

- 1) To control excess rainfall
- 2) Natural Seeding for Artificial Rainmaking.

Our novel technology is awarded with International Publication Patent No: WO/2008/062441 and Revised International Patent Application No: PCT/IN2017/000105. Indian Patent Number: 238000 and Revised Indian Patent File Number: 201721008920. Our research papers have been published in national and international Journals such as "The International Journal of Meteorology, Volume 35, and number 355 on November 2010 (www.ijmet.org). For more details there can be a Google

search on "Artificial rainmaking by endothermic reactions" or www.irraindia.org can be visited. Our aim is "Green revolution in the whole world for all human being".

IRRA is a private organization which works under "**NO PROFIT AND NO LOSS**" basis. We work for the welfare of the society. We have no source of income and no funding from anyone. Our scientists work here on voluntary basis during their free time. We manage by contributing money from our own resources.

Now, Innovative Rainmaking Research Association is registered with Government of India, Ministry of Corporate Affairs under Section-8, on a "no profit, no loss basis". We have developed "Innovative rainmaking technology by laser system initiation endothermic reactions similar to natural lightning phenomena in the atmosphere"

A laser beam has to be shot into the cloud region of the atmosphere to create high temperature. This high temperature will break the bonds of atmospheric N_2 and O_2 and produce N and O which will be in excited state (N*, O*). These excited N* and O* are very unstable. They immediately fall to the ground through endothermic reactions.

These endothermic reactions absorb heat from the cloud region. As a result, temperature of the cloud region falls, condensation takes place and rain drops are formed which act as natural seeds ultimately resulting in rains. It is used as rain drain by Laser system from ground for creating Green environment. "Laser photons photo-dissociate atmospheric compounds N₂ and O₂ and form ozone (O₃) and nitrogen molecules (NO). Increase of O₃ and NO concentration after lightning has also been experimentally observed. This lightning phenomenon created through artificial lightning by laser system can produce rain in the atmosphere. This has been practically proved as "Laser-induced water condensation in air". Scientists have succeeded in obtaining raindrops from an altitude of 45 to 75m of the atmosphere by terawatt mobile laser.

For "Laser-induced condensation and water drops formation in laboratory cloud chamber" to happen only endothermic reactions are responsible for condensation and water drops formation. Ozone (O₃) and nitrogen molecules (NO) are measured after Laser shooting in cloud chamber. These NO and O₃ formation are endothermic reactions, these reactions require large amount of heat energy which is taken from surrounding atmospheric clouds, and condensation takes place for formation of water drops. Our phenomena "Innovative rainmaking technology" practically proved.

IRRA Scientist Group proposes laser system of specification: 10^{12} watt, 800nm, 500mJ, 120fs and 10Hz for this research project. The results could be a great game changer and of immense benefit to human being for bringing up a "Green revolution in the whole world for all human being".

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