

# Śrauta Yajña and Environment

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According to the ancient thinking an environment is constituted of 5 elements – earth, water, light, air, space. A reference from Chandogya Upanishad 5.24.5 clearly sheds light on the close relationship between Yajña and environment. The verse is as follows –

यथेह क्षुधिता बाला मातरं पर्युपासते  
एवं सर्वाणि भूतान्यग्निहोत्रमुपासते ॥

The hungry children are very keen and eager to see their mother. Similarly all the 5 elements wait for the *agnihotra*.

Agnihotra is the basic model of Śrauta Yajña-s. Thus the śruti here implies that the *yajña*-s nourish, gratify and keep the five elements i.e. the entire environment happy, healthy and positively active. It is the mother and child relationship between the *yajña* and the environment. The R̥gvedic text 'अयं यज्ञो भुवनस्य नाभिः' Rv. 1.164.35 meaning *yajña* is a navel of the universe, implies the same. A navel feeds an embryo, so the *yajña* also feeds the universe. *Yajña* feeds the universe means *yajña* keeps it healthy, sound and harmonious, controlling serious disturbances in it, that otherwise would have proved a threat.

*Yajña* means a chain of actions offering an oblation, receiving favor of the deity, getting the desires fulfilled, there by again performing *yajña* so on and so forth. This happens on the gross as well subtle level. This aspect forms the meaning complex of the word *yajña*. When the Bhagavad Gītā (3.14) says यज्ञाद् भवति पर्जन्यः it reveals this aspect. यज्ञाद् भवति is normally understood that because of *yajña* performance or after the *yajña* performance, which is highly experiment oriented. However when *yajña* means a chain of actions where the subsequent arises out of the previous one, becomes very apt, exact and compact description process of raining, which we have studied in our school days with the term rain cycle. I sincerely maintain that the recycling would be an apt and honest translation of the term *yajña*, in the context of environment, if at all a term is to be translated.

Thus conceptually the term *yajña* has capacity to maintain harmony among five elements and hence from view point of performance it actually does so.

Now I will introduce a few institutes and persons who have performed *yajña* especially for environmental purposes and have published the findings and observations.

H.H. Gajanana Maharaj of Akkalkot (Maharashtra) (1918-1987) has

introduced a small *yajña* called *agnihotra* which is rooted in the vedic literature. However this *agnihotra* is totally different from the traditional Śrauta *Agnihotra* from view point of procedue and oblations. The *agnihotra* introduced by H.H. Gajanan Maharaj, Akkalkot is considerably small and compact. A large number of experiments on human health on plant health, on air purification are carried on this *agnihotra*. All these are available on internet. We hardly find any scientific experiment carried on traditional comparatively elaborate *śrauta* or *smārta* *agnihotra*.

Rarely experiments are carried on *Agniṣṭoma*.

There is a whatsapp group *yagyopathi* very actively working on this topic. The *yajña* effect on various aspects of human life and environment is tested by many people and results are circulated through whatsapp. However many times these *yajña*-s are not what traditionally called *śrauta* and *smārta yajña*. But specially designed on the basis of traditional one. Same is the case of *siddha yajña*-s. *siddha swami* Hardass founder of *Siddhapeeth Foundation* from *Vadagoan Sheri, Pune*, has designed different *yajña*-s, for different purposes. The foundation has carried experiments methodically on underground water, crops and human health. The foundation has huge data of *yajña* experiments.

Here are some results highlighting positive effect of *yajña* on environment.

A group of scientists led by *Dr. Manoj Garg, Director, Environmental and Technical consultants and UP pollution control board* conducted experiments during *Ashwamedha* in *Gorakhpur* in 1996. Experiments were set up at about 20m east from *yajñaśālā*. The samples of 100 ml each of water and air collected from surroundings and analyzed using high volume envirotech *APM-45* and other sensitive instruments. Summary of Results was published in *Akhand Jyoti* Sept. 97 p.22 and also available on net. It is as follows –

Air Sample –

	Level of Sulphur dioxide	Nitrous Oxide
Before <i>yajña</i>	3.36	1.16
During <i>yajña</i>	2.82	1.14
After <i>yajña</i>	0.80	1.02

Water Sample –

Before <i>yajña</i>	4500
During <i>yajña</i>	2470
After <i>yajña</i>	1250

Though agnihotra is vedic ritual, it has scientific background and so studied the effects of agnihotra and its ash on environment and plant growth. Experiments were performed to study the effects of the agnihotra fumes on microbial load, SOX and NOX levels in ambient air and plant growth. Experiments were also conducted to check the agnihotra ash on seed germination, plant growth, plant genotoxicity and water purification. From the study it was observed that the agnihotra resulted in reduction in microbial load and SOX levels but slight increase in NOX levels in surrounding air. There was significant increase in seed germination and plant growth as well as genotoxicity was naturalized due to agnihotra ash. Our result suggests that an agnihotra ash can be used to purify waste water. It can be seen that the agnihotra is beneficial for environment and agriculture.

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Abhang Pranay has also studied Somayajña. As per our result, SOx levels decreases up to 10 times (almost reduces to 90%) that of initial levels due to Somayajña. NOx levels increases 10 to 20% that of initial levels but at the end of *yajña* NOx level reduce to initial. Microbial count significantly reduce up to 98% due to Somayajña. Hence by performing *yajña* air purification can be controlled.

The results of the experiments carried in *Ahin Dvādaśa Rātra Somayāga* (in Urali Devachi 6.2.14 to 4.3.14) are presented in International Journal of Science and Research IJSR. Vol.4, Issue 1, Jan 15. Accordingly NOx level does not exceed standard or threshold level.

In the seminar jointly organized by the Vaidika Samshodhana Mandala, Pune and Swami Hardas Svayamsiddhapeeth, on *yajña-Revisited*, some scholars presented a case study related to *yajña*, and its effects on environment and human body and plants etc.

Hereby I will mention a few of them. Prof. Dr. Girish Pathade, Prof. of Physics in F.C. College presented his experiment on *agnihotra* and air purification, where he has mentioned positive results of *agnihotra* in purifying the air.

Jagdish Mohanto and a team presented a case study on *yajña* and Agriculture. As per their observations the *yajña* energy when directed to the orchard of pomegranate, successfully reduced the intensity and speed of the spoiling of the fruit due to certain disease. Finally the yield was healthy and juicy fruits.

Mr. Shankar Patra and his team worked on *yajña* effect on subsoil water purification and water level. The experiment on subsoil water

purification was conducted in Bolangir Odisha, the area surrounded by iron mines. The underground water was causing severe health problems to the residents. The post *yajña* analysis of the water showed the least presence of the toxic element in it and the water was certified by the authentic laboratory as pure drinking water.

Mr. Anand Gaikwad presented a wonderful paper on Homa Organic Farming for sustainability and climate change Adaptation. He has designed a project called Chaitanya Krishi, where he regularly performs *agnihotra* and observes its effects on botanical kingdom. His results are positive. Even he has trained his labor on the farm to perform the *agnihotra*.

Prof. Vasanti Limaye in her presentation on 'Scientific Rationale Behind Agnihotra's Effect on Household Plants methodically confirms the main effect of *agnihotra* vapor on plants in the following matter.

- Initiation of new growth in plants which was lying dormant for quite a long time.
- Induction of flowering in most of the plants.
- A lemon plant in fruiting stage with no flower on it, reverted to flowering on exposure to *Agnihotra* vapor.

Prof. Vasanti Limaye has well documented this studies.

Dr. Rita Kamlapurkar, who has studied *agnihotra* using all possible parameters of chemistry, physics, bio-technology, agriculture science, defines *yajña* as follows – *yajña* is a technical term from the vedic science of bio-energy denoting the process of removing the toxic conditions of atmosphere through the agency of fire. Dr. Kamalapurkar has studied several experiments and also some cases. Her conclusion is due to *agnihotra*, microbes are formed, they mixed into the air and purify the air in that area, by removing toxic elements in the area.

**Conclusion** – *Yajña* purifies the atmosphere and brings positive effects on human body, mind, animals and plants etc. is an age old experience. However carrying the experiments on this matter and thereby 'proving' and establishing it was done first time by the scholars of Aryasamāj motivated, supported and guided by Maharshi Dayanand. The foremost Vedic scholar Prof. Roopkishore Shastri has given very detailed list of the material which is used in the *yajña*, performed in different seasons. A point to be noted is that the Ayurveda also prescribes different types of *homa-s* under *daivavyapāśraya cikitsā*. I humbly maintain that such type of

methodical experiments are needed to get the following points – what sort of burning /combustion is this? What is quantity of emission of CO<sub>2</sub> through burning ? As per immense experiments carried on *yajña* and environment it is proved beyond doubt that it doesn't at least poses any threat to the environment. What might have been the reason ?

Now we are thinking of *yajña* and environment, since we are at verge of losing purity not only environment but even of life. However the visionary Maharshi Swami Dayanand has proclaimed long back in 1874 in his पञ्चमहायज्ञवर्धि (p. 764) that अग्नये परमेश्वराय जलवायुशुद्धकिरणाय च होत्रं हवनं यस्मिन् कर्मणि क्रियते तदग्नहोत्रम् । सुगन्धपिष्टमिष्टबुद्धवृद्धशौर्यधैर्यबलकरैः रोगनाशकैर्गुणै युक्तानां द्रव्याणां होमकरणेन वायुवृष्टजिलयोः शुद्ध्या पृथ्वीस्थपदार्थानां सर्वेषां शुद्धवायुजलयोगाद् अत्यन्तोत्तमतया सर्वेषां जीवानां परमसुखं भवत्येव। (अतस्तत्कर्मकर्तृणां जनानां तदुपकारतयाऽत्यन्तसुखलाभो भवतीश्वरपूरसन्नता चेत्येतदर्थमग्नहोत्रकरणम्।)

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