



Air pollution mitigation through yajna: Vedic and modern views

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Received: 03.07.2019

Revised: 04.08.2019

Accepted: 19.09.2019

Abstract

In the modern way, our way of life has come under the influence of a new type of air pollution, just as humans are bound to live in polluted environment outside the home due to heavy pollution factors like factory, power plants and excess use of vehicles. Today, in the time of new technology, it is almost impossible to imagine life without these devices like mobiles, laptop, fridge, microwave ovens, air conditioners etc there is no strong solution to the radiation generated at the time of production and consumption of these devices. At the time the solution to reduce internal and external air pollution is found in our Indian scriptures as YAGYA. Veda is the pillar of Indian culture and human life .facts mentioned in Vedas are proven and important in the CHANDOGYA UPNISHAD, Yagya has been described as the best means of resolving environment pollution. It is said that about Yagya that it removes all impurities and pollution and makes it pure. The Havan Samegri used in the Yagya is burnt in fire and spread everywhere with the help of air removes contaminated air and creates a fragrant environment. In the modern era, it has become clear from the researches on Yagya that the number of particulate matters(which is harmful for human body and are responsible for lungs and heart diseases) are decreased by sacrificing some special wood like mango etc. It was observed that after performance of Yagya there was a significant decrease in the indoor EMR (Electromagnetic Radiation) level indicating a utility of Yagya as non-conventional solution for reducing indoor EMR level. Foreign scientist TRILVERT has said in his research that the sweet material like sugar used in Yagya has extraordinary power to purify the air

Key Words: *Air pollution, EMR, PM, Yagya, Veda, Modern Research.*

Introduction

Today, humans have created trouble for themselves by poisoning all the useful needs of life, including the environment around them, earth, water, air, sky etc. season friendly winter, summer, rainfall, sunlight are beginning to become distracted by their own tendency. In the modern way, our way of life has come under the influence of a new type of air pollution, just as humans are bound to live in polluted environment outside the home due to heavy pollution factors like factory, power plants and excess use of vehicles. Radiation emanating from mobile, laptop, microwave etc. and due to chlorofluorocarbon gas coming out of the fridge, air condition etc., the internal environment of the houses has also reached a dangerous state. The modern lifestyle in the world is making us victim of unknown and unseen hazards arising from the usage of electronic devices and gadgets. It is unthinkable to have a day without coming in to contact with electronic devices such as cell phones, laptops and tablets. In the whole world, people are

relying heavily on these technological tools for communicating with friends, family, and school children also works. Most of the people are unaware that these electronic devices emit waves of Electromagnetic radiation (EMR) (Saxena *et al.*, 2018a).

Air pollution -Harmful effects

A Study has been conducted by the international agency for research on cancer (IARC), to determine whether were any links between use of mobile phones and head and neck cancers in adults. Data gathered from 13 participating countries was pooled and analysed. It was found that there was increased risk of meningioma or glioma with using mobile phone for more then ten years. based largely on these data ,IARC has now classified Electromagnetic radiofrequency fields are possibly carcinogenic to humans, a(GROUP 2B),an equivalent category in which harmful pesticide comparable DDT has been kept. as per the report of World Health Organization (Blettner *et al.*, 2008; WHO, 2011). Particulate matters is a result of air pollution and associated with health hazard. Studies sport mild or strong association of PM with lung

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diseases including cancer, cardiovascular diseases, cognitive diseases, new born mortality rate, etc. Particulate matters are fine particles, which remain suspended in the air for a long time and enter our lungs through inhalation. The fine particles of size < 2.5 pm are declared as health hazard as they penetrate deep into lungs and lodge and themselves there. ineffective clearance of this PM from the air ways could cause particle retention in lungs tissues, resulting in a chronic, low-grade inflammatory response that may be pathogenetically important in both the exacerbation, as well as, the progression of lung disease (Ling and Van Eaden, 2009) Recent studies indicate that PM can probably cause oxidative injury to the air ways, leading to inflammation, remodelling and increased risk of sensitization (Guarniere and Balmes, 2014). Exposure to a wide range of air pollutants gives rise to oxidative stress with in the lung, and this appears to initiate responses that are particularly dangerous to susceptible members of population. One of the responses in the influx of inflammatory cells to the lung (Kelly, 20036).

Current efforts to control air pollution are scarce. There is an imperative need to find solution which can prevent or control the increasing air pollution. But there is no strong solution to these polluted particles and radiation in the air. Ancient texts including Vedas and Upanishads mentioned a technique called Yagya to purify the environment specifically polluted air. Yagya is a process in which herbs are sacrificed in fire with rhythmic chanting of mantra. It is stated in Vedic texts that Yagya purifies the atmosphere. In Modern era, there has been a lot of research to study the effect of the YAJNA on the environment. In the YAJNA, the sacrificed matter passes through these three categories- photochemical decomposition, oxidation and reduction causing CO₂ to be converted to oxygen to an extent (Saxena *et al.*, 2018b).

Now let's understand the effect of YAJNA on environment based on ancient Indian literature and modern researches-

Ancient Indian Literature

According to Indian tradition, YAGYA is considered useful in the order of exchange in creation. YAGYA is the scientific process by which the balance of oxygen and carbon dioxide is

farming in the atmosphere. It is said in RIGVEDA and YAJURVEDA-

YAT PURUSHEN HAVISHA DEVA YAGYA MATNVAT!

VASANTOSYASI DAJYAM GRRISHAM IDHAM: SHARADAM HAVI:!

RIGVEDA-10/90/6
YAJURVEDA-31/14

AYAM YAGYO BHUVNASYA NABHI:! -
YAJURVEDA -23/62 (Dwivedi, K.D)

In *chandogyaupnishad* YAGYA has been described as the best means of resolving environmental pollution. It is said about YAGYA that it purifies the atmosphere by removing all impurities, defects or pollution. Hence it is called YAGYA.

ASH H VAI YAGYO YOJYAM PAWATE!
IDAM SARVE PUNATI, TASMADESH AVA YAGYA:!

CHANDOGYA UPNISHAD- 4 /16 /1 (Pandya, P.)

Is is said in Atharveda and Rigveda that water is also purified by the air purification process of YAJNA.

Sindhubhya: katarvhavi:!

ATHARVEDA - 1/4/3

Sindhubhayohavymdhritv!

RIGVEDA - 7/47/3

Certain environmental purifiers are mentioned in the ATHARVAVEDA. they destroy pollution and purify the environment.

Ye pervata: somprishthaaap:!

Vat: perjanyaad agnisteykravyadamshishman!
ATHARVEDA-3/21/10 (Dwivedi, K.D)

(the elements that purify the environment are - mountain, water , air, rain and fire. they destroy pollution and purify the environment)

PREVENT AIR POLLUTION- An important mantra of the RIGVEDA states that air has nectar is oxygen. Don't let it get destroyed. This means that you do not do any work that lacks oxygen in the air.

Nu chinnuvayoramrit vi dasyet!
RIGVEDA - 6 /37/ 3 (Dwivedi, K.D)



In *BHAGWATGITA – LORD KRISHAN* Apreaches to *ARJUNA* and says that the cosmic circle created by the performance of YAJNA forms clouds of the original form of rain.

ANNADDBHAVANTI BHUTANI PERJNYADANN
SAMBHAV:!
YAGTADBHAVANTI PERJANYO YAGYA
KARMSAMUDHAV:!

(SHRI Bhagwad Gita)

Modern Researches-

In the modern era, the effect of YAJNA on the environment has been researched. Thousands of Victims of Bhopal Gas Tragedy in 1985. Monday, December 3, due to the emission of uncontaminated toxic gases from the gas factory in Bhopal, Madhya Pardesh, when the atmosphere there was affecting people. At the same destructive time, Prof. S.L. KUSHWAHA started his Agnihotra and just 20 minutes after the start of Agnihotra, the atmosphere of his residence became devoid of polluted gases (Saxena *et al.*, 2018b). The KUSHWAHA family and other two families survived the ill effects of these toxic gases (Gupta, 2011). In a Recent Study It was observed that after the performance of YAGYA there was a significant decrease in the indoor EMR level indicating a utility of YAGYA as Non-Conventional solution for reducing indoor EMR level (Saxena *et al.*, 2018c). A study examined the YAGYA's effect on Air PM. The study was conducted two indoor case study experiments to find the effect of YAGYA on PM in indoor environment in December 2017. The study showed trend of decrease of PM 2.5, PM 10 and CO₂ after performing YAGYA inside the residence of 2 case studies (Saxena *et al.*, 2018d).

Trilwert, a French Scientist states that sweet substances like sugar etc. used in material (HAVAN SAMAGRI) have extra-ordinary power to purify the Air. Its smoke has the ability to destroy germs of small pox cholera etc. French Scientist states that burning ghee destroys germs (Prakash, R.). The Femous chemist Dr. SATYA PRAKASH while analyzing the material in this book "Agnihotra" wrote that there are some element in which formaldehyde gas is produced. It spreads to the atmosphere without change. It is powerful germicidal agent (page 153) formaldehyde has effect only when it is

accompanied by sound of water, otherwise it does not have germical effect.

Western Scientist HALE, PALMER and Buge have started in their research that many substances come out in the form of the gas from sacrificial fire. It combines with air to create aroma which removes air pollution (Sharma, S; Brahamverches). Sanitary commissioner of Madras Dr. Colonel King states that mixing saffron in Ghee and Rice destroys germs.

Conclusion

Through this Historical, Philosophical and Modern Researches exegesis on Yagya. We can comprehend it significant in current world scenario while the whole World is struggling with environment problems. History has been witness of the development of Yagya as a requirement of Human Evolutionism. At this time Yagya is the best solution to air pollution.

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