

# **Tackling Delhi's Air Pollution : Opportunities for Cooperatives**

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## **Introduction**

There are more than six lakh cooperative in India covering 100% of the villages. With a huge network and reach, the cooperatives have showed their strength in various areas of socio-economic activities. The cooperatives being rooted in their communities are more aware of their environment than any other organisation. So, their sustainable character is in-built, which can have much impact in tackling various environmental challenges, most importantly related to climate change..

The present paper attempts to provide a solution based on the sustainable character of cooperatives in Delhi's air pollution. When we think of climate change in India, Delhi's problem of air pollution is at the top of the agenda. The sustainability debate in India is not complete without discussion of Delhi's air pollution, which has now acquired a global attention. Despite several steps being taken, and various organisations/NGO's now active in finding solutions to this problem, Delhi's air pollution has not been curbed. A certain level of apathy is clearly visible as an action-oriented approach is clearly missing.

Against the above backdrop, my paper attempts to provide a solution based on the sustainable character of cooperatives in tackling Delhi's air pollution. The methodology of the paper is exploratory with a strategy orientation based on secondary sources. The paper delves into a field of utmost concern, where cooperatives can contribute a lot, a vital aspect which has not been explored yet, but where there are immense potentialities for the cooperative sector.

## **Strengths of Cooperatives**

Secretary General Ban Ki Moon in his message on the International Day of Cooperatives 5 July, 2008, said, "Cooperatives have long fostered inclusive and sustainable approaches to economic and social development at the local level. It is in keeping with this focus that cooperatives are expanding their development efforts creatively, into areas such as environment sustainability and carbon neutrality, as communities around the world are struggling to adopt to climate change and strengthen their resilience against its impacts".

The above quote clearly shows that cooperatives possess certain in-built strengths because of their strong community roots and their character which is committed to the socio-economic development of the communities at the local level. The seven principles of cooperatives are associated with sustainability to such a degree that cooperatives are a clear manifestation of sustainable development. For example, in the Principle of Cooperatives, "Concern for Community" has been a predominant factor in building up their sustainable edifice. The cooperatives have a responsibility in helping the community in preparing for climate change risk management.

Cooperatives are an embodiment of collective action, which is very important in combating climate change. Cooperatives are based on joint action of the members who work together based on democratic principles for a common cause, which is very important for tackling major socio-economic challenges. The hazards of climate change can best be met by organisations which are based on collective spirit, with a wide network and reach with the rural and urban communities. Besides, cooperatives do not clamour for profits, as broader societal concern is their prime mission. This clearly means that they have deeper sensitivities towards various issues of concern which can impact the movement in the world. Due to this, the cooperatives are effective institutions to create awareness for an issue, related to climate change for example, Delhi's air pollution. The membership base of the cooperatives is a big advantage in creating awareness, or building up consciousness for an issue which has impact on the community. Cooperatives also educate and train the members not only in areas of cooperative development for

enhancing their professionalism, but also in areas of societal concern so that these communities can manage these issues in an effective manner.

### **Magnitude of Delhi's Air Pollution and Impact**

It is well known that Delhi is breathing the most polluted air in the world, according to WHO Report in 2014. The WHO found that 13 of 20 most polluted cities in the world are in India, with New Delhi's air being the world's worst. While China's air quality has hogged limelight, various studies point out that New Delhi's air is often worse than that of Beijing. On an average, Delhi's air is more laden with dangerous PM2.5 (fine particulate matter than can penetrate deep into the lungs) than Beijing's.

The causes of air pollution are many and varied. These are - addition of rising number of vehicles, waste burning, suspended dust of construction and industrial activity, power plants, industries and diesel generators, burning of bio-wastes, stubble burning in neighbouring states, sandstorms blowing in farm desert state of Rajasthan, etc. A study undertaken by JNU in Delhi shows that Delhi's air is full of cancer causing deaths. Another study has indicated that 660 million people across the country are exposed to unhealthy levels of PM2.5 resulting in reduced life expectancy. The health consequences due to exposure to poor air quality are alarming. Air pollution has become the 5th largest killer in India after high blood pressure, indoor air pollution, tobacco smoking, and poor nutrition with 627,000 premature deaths from air pollution related diseases.

### **Action Taken**

The Government has taken up short-term preventing measures like stopping the burning of bio-wastes, initiating work for major up gradation of pollution under control system and issuing challans of over loaded goods vehicles, enhancing of parking slots availability, strict monitoring of polluting industries. The odd-even traffic formula to decongest the roads of Delhi was undertaken by Delhi Government, but it did not lead to desired results.

Till date, formulating effective action-plans for generating awareness for the harmful impact of air pollution are absent. In fact, Delhi does not have Advisories or

action-plans with clear-cut achievable targets. There is now a realisation that a measure people-oriented awareness campaign is needed to check air pollution, but this has not translated into concrete actions at the ground level.

### **Role of NGOs**

Few of the NGOs like Green Peace, Hean Air Asia, etc. have stepped in to advocate, create awareness, mobilise charge through communication with the public and key stakeholders, foster collaboration with like-minded other type of organisations, etc. Being specialised in environmental issue, they no doubt have expertise to supplement the work of government and other agencies, but it is realised that more such efforts from other organisations are needed at a time when this problem has taken an alarming proportion.

### **Role of Cooperatives in India**

The cooperatives in India have already taken necessary steps in combating climate change. It is well-known that IFFCO and KRIBHCO are recognised for environment protection and energy conservation, and they encourage tree-plantation, bio-gas, vermin-compositors, etc. While on one hand dairy cooperatives have promoted tree growers cooperatives recycling of milk pouches, solar water-heater, on the other hand we find that sugar cooperatives are involved in efficient treatment, recycling of effluent water, promotion of bio-gas, etc. The role of Indian Farm Forestry Development Cooperatives needs to be mentioned here as it has played an important role in planting trees and regenerating degraded land. There are also cooperatives which have played an important role in checking soil erosion. The cooperatives with their wide network and reach are strategically well positioned to play an important role in combating climate change. They can carry out awareness programmes by reducing CO<sub>2</sub> gaseous emission reduce fuel consumption, adopt energy efficient technology, manage waste disposal, etc.

The above discussion clearly indicates that cooperatives have a good track record in tackling climate change. So, they can easily diversify in the field of tackling Delhi's air pollution, which is a major national concern. Their ability to diversity in this area will be

a challenging opportunity to show their strengths, learn from the experience, and grow and develop in the process.

### **Opportunities for Cooperatives in Tackling Air Pollution**

The strategy for cooperatives in tackling air pollution with focus on awareness building can be Delhi-based, and also rural centric, as found in the rural areas of Punjab, UP, Haryana around Delhi where stubble burning among the farmers is rampant. The two-pronged strategy is based on the situation and the ability of cooperatives to make effective in-roads based on their inherent strengths. The two approaches complement each other, and can be effective in tackling Delhi's air pollution.

#### **I. *Building up Awareness in Delhi***

When we see role of various organisations/agencies in creating awareness for Delhi's air pollution, we find that cooperatives have a distinct edge in mobilisation efforts. The cooperatives primarily cater to the interests of the poor and vulnerable sections of the community where there is more need for building up awareness, so that these sections of the society can adapt to pollution changes. Information, education and communication are the three areas in which cooperatives can play important role in building up awareness. Providing timely updates on the pollution hazards in a simple way through easy to understand communication medium is an area where cooperatives can easily make an impact in the rural communities in the slums and sub-urban areas of Delhi. The women members of cooperatives here can play an important role as effective communicators. The women members can reach out to the safai karamcharis not to burn biomass. Cooperatives can devise effective outreach programmes in schools, colleges and universities in Delhi so as to draw the attention of youth towards this hazard. At the level of NCUI, efforts are being made to popularise the cooperative model in the schools where students are made aware of the basic concepts of cooperatives, principles and values, ways to form cooperatives, strengths of cooperatives vis-a-vis private companies, etc. During these programmes, the students are encouraged to visualise ways in which they can form cooperatives. Formulating separate cooperative module on environmental hazards including the current air pollution in Delhi would not only make them aware, but

this would also help them generate ideas, so to fund solutions based on cooperative concept.

Education and training are the important cooperative principles which can play an important role here. Cooperatives have a huge training infrastructure due to which they are more strongly placed than other organisations/NGOs in tackling air pollution. The national and state level cooperative training institutes can not only create awareness amongst the members, but also amongst those who are not associated with cooperatives, for example youth, women, weaker sections of the society. These orientation/training programmes may cover not only theoretical aspects, but also touch upon ways how the trainees can devise effective mechanisms to cope up with the challenge of air pollution. These mechanisms may be in the form of innovations based on technology which can tackle various forms of air pollution. Though other organisations/NGOs may have an edge over cooperatives in devising of technology, but cooperatives due to their wide network of training can encourage formulation of local-specific community-oriented technologies based on cooperative model to tackle the problem of air pollution.

Effective communication is again a strength for cooperatives vis-a-vis other organisations in tackling air pollution in Delhi. This is again because of the advantage of their strong network and reach. The only requisite is for them to devise powerful communication content based on cooperative ethos which can generate awareness and strike a right chord among the common populace. Cooperatives can set up a community radio which can voice the concerns of the community on this issue of concern. Since they are primarily community-based, the community ethos can be a big advantage for them. The communities will feel more free to express their views/opinion on these issues. No doubt, this communication platform can influence government opinion and policy-making which can be a big boost to cooperatives in tackling this menace. Similarly, social media through cooperatives can also play an important role in this regard. Here again the strong membership advantage will be beneficial for cooperatives in the pursuit of wider dissemination of the messages to all stake-holders in this area of concern.

## II. *Stubble Burning*

The government has recognised that burning of crop stubbles in the neighbouring states of Delhi in Punjab, Haryana, Uttar Pradesh is the biggest cause of air pollution in Delhi. Farmers do not have enough machinery to manage the straw, as farmers opt for easy way out at cost of air and soil pollution. For example in Punjab burning of stubble burn out 1 lakh tonnes of nitrogen, 5 lakh hectares of phosphorus and 2.5 lakh tonne of potash in soil over 29-30 lakh hectares in which paddy is grown. Some big farmers are purchasing straw management machines like chopper and shredder, but every farmer can not afford as it costs Rs. 2 - 3.5 lakhs. Burning straw leads to increase in PM in air. It causes release of acids like sulfates, nitrates, metals in air, causing severe health problems. If farmers have to be prevented from burning stubble, a large of straw-chopping machines has to be made available to the farmers at low prices.

Stubble burning presents a very good opportunity for cooperatives to intervene and present a viable model where they can mobilise farmers to join them so that they can buy the machines at lower prices. Again because of their wide reach, they can initiate awareness drives to inform farmers about adverse impact of stubble burning on environment, health and soil. They will be more effective than other organizations and NGOs in this regard. The agricultural cooperatives are active in the northern states. They have a firm foothold as they built up strong bonds of trust with the farming community. The primary agricultural cooperatives can easily diversify in this field as they are aware of the farming practices, and the need for new technologies to minimise the waste losses through effective ways.

Through PACs a group of farmers can buy the machines not only at lower prices, but they can also use the machines , for example baler machines, to sell the bye-products to bio-mass plants located in the district. This will generate employment for rural youth, and the farmers can earn crores of money by selling straws and stubbles. This can be a winning proposition if cooperatives are roped in this venture. The government considering the success of cooperatives and acknowledging the viability of this model in mobilising the farming community, will have to give support by providing 100% subsidy

to the cooperatives without being expected to contribute anything. The cooperatives because of their training experience as well expertise in farming operations, can train the farmers in crop residues management better than other organisations/NGOs working in this field.

### **Challenge of Image Building and Collaborations**

The problem of Delhi's air pollution presents a very challenging opportunity for cooperatives to make meaningful interventions. As this is a national issue, where the government is looking for strong organisations to emerge as support partners, it is a very good opportunity for cooperatives to show their strong potentialities in making strong impact in tackling Delhi's air pollution. This may be also an occasion to collaborate with NGOs and other organisations who are working in this field. Forging fruitful collaborative relationships with other organisations in the areas of social/environment development is also the need of hour for the cooperative sector. Cooperatives can not work in isolation. They have to forge mutual synergies with other organisations for a common cause like air pollution. This can further build up their credentials as organisations who have a mission to bring in changes when the communities face health hazards. By coming up with a pioneering contribution through taking appropriate measures so that the health of the population is not affected can be a big noble endeavour for them. Similarly, the threat of migration of people looms on the horizon in a big way due to rising air pollution in Delhi. The action taken by the cooperatives in tackling this situation can be a win-win situation for them.

### **Conclusions**

At a time when Delhi is facing a big problem of air pollution, organizations like cooperatives can not remain aloof. It is generally emphasised that cooperatives are not pro-active due to which they provide opportunities for other organizations to take advantages despite having more capabilities and inherent strengths than others. The time is indeed ripe for cooperatives now to make sincere efforts to emerge as key players in tackling Delhi's air pollution. The organizations like NCUI, IFFCO and others must take the lead now to open a new chapter of cooperative activism.

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