

**“Gold In The Garbage: Waste Management (During Uttarayan; Kite Festival)”**

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**Abstract-**

The following is an article which traces the waste disposal mechanism conducted in Gujarat after the kite festival and its connection to national legislations and international conventions. An empirical research has also been conducted and included in this article in order to seek the ground reality and its supplement or departure from the doctrinal research. The article covers the origin of the concept of sustainable development and goes on to describe the various international conventions on climate change. Linkage between sustainable development, climate change and the local issue taken up from Gujarat has been highlighted in the article. Further stating the flaws and loopholes in the same.

The article draws a picture of the waste management after the Kite Festival, its treatment, impact and its reality. Data collected from the resident's sheds light on the true aspect supplementing the arm chair research. The international conventions for the same are brought forth some of them being: UNFCCC, Brundtland Report, Kyoto Protocol, Montreal Protocol, Rio Declaration and Paris Agreement.

Keywords: Environment Protection Act, Municipal Solid Wastes Rules, UNFCCC, Rio, Brundtland Report, synthetic Manjha, NGT, Paris Agreement, Kyoto Protocol, Aircraft Rules, Air Act

**Introduction-**

Waste management plays a core role in achieving sustainable development. Therefore, the international conventions highlight how they lack and the inefficiency of waste management leads to several issue, one being climate change. The waste management in Vadodara, city in Gujarat specifically after Uttarayan (Kite Festival) impacts the environment indirectly hampering our achievement goal of sustainable development.

**Local Issue-**

From the year 1989, Gujarat has been organizing the festival of Uttarayan on international levels known as the International Kite Festival. In the year 2014, the kite manufacturers and the set-up industries all over the state had a turnover of about ₹ 700 crore. When statistically analyzed, one major city of Gujarat provided 30,000 employment opportunities to the people. The state of Gujarat alone manufactures kites of a quantity of 1.5 crore all year around. This affects the livelihood of a lot of people but the product made violates the environmental concern and its disposal is of graver concern. It is a battle between survival of industries and environment

protection. Sustainable development must always take care of balancing of convenience between the same.

Originally, the kites used to be made from recycled paper and bamboo sticks of minute thickness. It comprised of rice gluten and tree gums along with aluminum oxide and zirconia alumina. But in today's times, the kite composition materials have been replaced. With use of polypropylene<sup>1</sup> and in some cases substituted by nylon blends which is non-recyclable in nature has caused an imbalance of convenience. In place of recycled paper now the industries use plastic sheets which is hazardous as it is non-biodegradable, synthetic and releases hazardous chemicals when burnt.

In recent times, the competitive attitude along with the attractive nature has widely increased. This has led to the nylon threads made by vendors to be made from monofilament fishing line which then is coated with powdered and crushed glass. This is traditionally known as manjha which is unbreakable due to its strength characteristic from the powdered glass and is dangerous. It is dangerous in the following ways: being stronger and coated with glass, it has caused several deaths; being made of nylon and plastic the components are non-biodegradable and when burnt would cause release of various air pollutants. These components come under the definition of hazardous substances under Section 2 (e) of the Environment Protection Act, 1986.

In the year 2017, the synthetic thread also called the Chinese manjha was banned throughout the nation. This manjha being coated with powdered glass not only led to several deaths of birds and human but also caused immense air pollution when burnt by the Vadodara Municipal Corporation. The suspended particles cause air pollution and disturb the ecologic balance. This causes climate change and a rise in temperatures. The National Green Tribunal took this issue up to the court<sup>2</sup> for banning Chinese manjha, and the court passed an order banning its use. Many cities in India such as Amritsar, Jaipur and Bareilly have banned usage of the synthetic threads. A couple of years ago, Chennai made flying of kites a non-bailable crime.

After the festival is over, the manjha is not discarded efficiently. They are found scattered on the ground and in rivers, drains, on trees and electric cables. Due to non-appropriate disposal of synthetic threads intertwined in trees and electric cables which pose a serious threat to animals as well as electric mishaps and power cuts. A case was filed by Nikunj Sharma, a member of PETA<sup>3</sup>. Cotton strings being substituted with nylon threads non-biodegradable in nature and being unbreakable has caused several issues.

In theory the ban was effective but the shopkeepers and manufacturers continued to produce the nylon threads at double the prices. The police and the government were ineffective in conducting

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<sup>1</sup> GPCB Report "Banned Chinese manjha still on sell" Manish Kumar TNN Times of India, 6/1/2010

<sup>2</sup> Khalid Ashraf & Ors. v. UOI & Ors.

<sup>3</sup> PETA v. UOI

timely checks on the ban, manufacture, production, sale and so on as per stated by Indian Penal Code. The ban if violated could lead to fine of ₹ 1 lakh and imprisonment up to 5 years or both under the Environment Protection Act, 1986<sup>4</sup>. The general belief being that since the manjha is difficult to cut or handle, the Vadodara Municipal Corporation collects all the manjha and burns it together.

The Municipal areas under the Vadodara Municipal Corporation generates about 1,33,760 metric tons of solid waste per day. Out of which 25,884 is treated and the rest is collected. The Municipal Solid Wastes (Management and Handling) Rules, 2000 has been set for handling of solid wastes by the ministry. Despite the rules set forth, the implementation is facing criticism by all. The municipality of Vadodara has a facility of intergraded processing whereby the biodegradable waste is composted and recyclable material is recovered. But the composition of kites and manjha is neither biodegradable nor recyclable thereby causing implementation issues.

The Aircrafts Rules, 1937 put forth basic rules of the air<sup>5</sup>, dangerous flying<sup>6</sup> concepts and general safety<sup>7</sup> for flying of kites. In addition to the following rules, the Air (Prevention and Control of Pollution) Act, 1981 gives power to take air samples in connection to the air pollutant emissions<sup>8</sup>. It further provides power to give directions<sup>9</sup> with a duty to abide by the same. The Indian laws also state that a person must not exceed the emission standards<sup>10</sup> set in all circumstances through his actions and activities.

### **National Level-**

The international conferences brought forth immense change in the environmental issues and landmark changes worldwide for achieving a sustainable developed nation. In India, the 42<sup>nd</sup> amendment brought about environmental protection as a fundamental duty under article 51-A(g) and a Directive Principle of State policy (DPSP) under article 48-A of the Indian constitution.

In India, Article 21 of the Indian Constitution provides for right to life and liberty. Over the years, this ambit has been interpreted into various broader rights, one of them being right to a clean and healthy environment. In addition to this, Article 253 of the Indian Constitution states that when the nation is a signatory to any international treaty which is not supplanting any constitutional provisions, it would be enforced like any law as passed in the country.

The multilateral agreements entered into by nations on environmental issues form a basis and an introduction to international level conventions. India in the year 2019 joined the Climate &

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<sup>4</sup> Section 15 of the Environment protection Act, 1986.

<sup>5</sup> Section 16 of the Aircrafts Rules, 1937.

<sup>6</sup> Section 21 of the Aircrafts Rules, 1937.

<sup>7</sup> Section 21A of the Aircrafts Rules, 1937.

<sup>8</sup> Section 26 of the Air Act, 1981.

<sup>9</sup> Section 31A of the Air Act, 1981.

<sup>10</sup> Section 7 of the Environment (Protection) Act, 1986.

Clean Air Coalition (CCAC) in order to tackle and combat air pollution. They plan to solve issues through the solution-oriented approach for sustainable production of cleaner energy and effective implementation.

In accordance to Article 253 and as per decisions taken in the Stockholm Conference, the following acts were introduced in India. The Water Act (1974), The Air Act (1981) and the Environmental Protection Act (1986) were implemented keeping in mind the aim set to be achieved in the 1972 Stockholm Conference. The preamble of The Air Act (1981) states that it has been enforced due to the decisions taken in the conference to reduce air pollution; control and maintain the air quality. Ever since then, EPA has formed the integral part with immense development through the ages.

In India, Ministry of Environment, Forests and Climate Change has created zenith committee long with a working group under ministry of health and Indian Council of Medical Research. Through this they have initiated projects and action plans in order to minimize air pollution and mitigate its impacts. Under UNFCCC, the nodal ministry for climate change mediations is MoEF&CC

For the same, the Central Pollution Control Board sets and aims at reducing the emission standards from various sources including municipal solid waste burning. Under 18(1)(b) of the Air Act (1986) CPCB puts forth a number of ways in order to minimize and control air pollution. The CPCB is answerable to the UNFCCC by submission of reports.

In the year 2014, the government of India, passed the CCAP (Climate Change Action Plan) through the cabinet with a budget of 290 crore for a time period of 5 years. It has enacted the (NAPCC) Nation Action Plan on Climate Change which helps provide coordination between implantation on national and state level. The state has implemented the (SAPCC) State Action Plan on Climate Change which forms its policies in accordance to the NAPCC in order to supplement it and not supplant it.

In 2019, India launched NCAP (National Clean Air Program) for mitigating air pollution particulates by 20-30 percent approximately. The step taken by the country in the year 2015 as to the BS6 was with the same motive. It further aims at reduction in particulates above standard emission from various sources and not limited to vehicular and industrial activities.

### **Sustainable Development:**

- **Stockholm Conference-**

The concept of sustainable development first made its landmark appearance through international environmental law in the Stockholm Conference which took place in the year 1972. This conference made the nations realize that despite each of them being sovereign entities, when a treaty was discretionarily taken up, the other nations would have a right to dictate the

domestic actions which have its repercussions internationally. The principle of ‘common but differentiated responsibility’ was established when they were struck by the realization that humans activities caused irreparable and irreversible damage to the environment. Interdependent ecosystem was the core idea behind this principle which links to principle 2 of Rio which brings forth no harm to neighbor rule.

The signing of two important paperwork took place during the Stockholm conference: The Stockholm Declaration (Declaration of Principle for the Preservation and Enhancement of Human Environment) and the Action Plan.

- **Brundtland Report-**

In the year 1983, the Brundtland report for the first time brought forth the idea of parallelism. Economic development along with protection of the environment. The report “Our Common future” provides for a multilateral answer for achieving sustainable development. The definition of sustainable development was abstract until the report provided a concrete definition. The definition went as follows “development which meets the needs of the present without compromising the ability of future generations to meet their own needs.”<sup>11</sup> The needs specifically referred to the needs of the poor in the developing nations and not the developed nations.

- **Kyoto Protocol-**

The Berlin mandate had led to the Kyoto Protocol taking place. Concept of cap & trade arrangement was established through the Kyoto Protocol. Wherein the nation would put a cap on the emission as per the set standards and norms. Companies would then buy and sell the emission thereby creating emission prices. This brought in companies controlling their emissions due to incentives gained through market-based approach. During this protocol the fine demarcation between hard and soft laws became indistinguishable. Legally binding laws and non-binding principles blurred.

The Kyoto Protocol which lays emphasis on emission standards<sup>12</sup> to attain sustainable development, introduces a Clean Development Mechanism (CMD) with a motive to aid the developing nations in reaching sustainable development and reducing carbon trading.

- **UNFCCC (United Nations Framework Convention on Climate Change)-**

The Preamble of UNFCCC along with its Article 3 has a mention of the concept of sustainable development and its achievement as a goal. Similarly, the preamble of WTO also mentioning about attainment of sustainable development. This convention has an objective to mitigate greenhouse gases and its effects. It lays emphasis on international cooperation to attain

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<sup>11</sup> Our Common Future, 1987.

<sup>12</sup> Article 2 and Article 3 of the Kyoto Protocol.

sustainable development. India joined in 1992 but ratified itself in 1993. In 1993, the convention was not legally binding and obliged for India's commitment but eventually after the Paris Agreement, 2015 the scenario changed. That led to the development of National Action Plan on Climate Change and National Environment Policy.

- **Rio Declaration/ UNCED/ Earth Summit-**

The principle of Sustainable Development from the Stockholm Declaration was restated in the Rio Declaration. In the year 1992 when this conference took place in Brazil, it laid down 27 legal principles in order to attain the goal of sustainable development.

The Rio Declaration with its main goal towards achievement of sustainable development has 27 principles wherein Principle 7 talks about common but differentiated responsibility. The common but differentiated responsibility extends to reducing the burden of threat climate change has on individual nations.

The carrying capacity of the environment must not exceed the human activities effects and must be capable enough to absorb its impacts. This is principle 6 of Stockholm Declaration, 1972 which connects to the objective of sustainable development and sustainable utilization. The 5 major principles of Rio form the basis of attaining sustainable development. They being: Precautionary Principle, Polluter Pays, Intergenerational equity, Environmental Impact Assessment and Public Trust Doctrine.

- **World charter of Nature-**

This charter came up with five basic principles in order to conserve and preserve nature as a whole entity. Ecosystem protection along with protection from hostile activities formed the crux of the charter. This eventually aimed at attaining sustainable development. The concept of People, Planet and Profit was reemphasized in the World Charter of Nature.

- **Negotiations on Climate Change in Bali, 2007-**

This conference was sought at damping the climate change sources along with an aim to thereby attain Sustainable Development. A substantial plan was agreed upon to achieve the target by the year 2009. It set forth global emissions standards and a reduction in the same with about 20-40 percent. This clearly failed as no concrete actions took place along with failure to reach an agreement. The negotiations took place as a 3<sup>rd</sup> conference for Kyoto Protocol members and the 13<sup>th</sup> meet for UNFCCC parties.

- **Agenda 21-**

The Earth Summit led to the occurrence of Agenda 21. India became a signatory to balance the infrastructure development along with environmental protection. This convention discards self-centered economic policies on local, national and global level. The balance of convenience

comes into picture here. Balance between economic development and advancement along with environmental development; main goal being sustainable development.

- **United Nations Environment Program-**

The UN environment program was organized by intergovernmental panel on climate change. It came to notice that climate change is the greatest obstacle in attaining sustainable development since its effects were irreversible and had far reaching impacts. The program addressed issues on several topics from environmental science to implementation of policies to nations. Its activities were linked to harmful emissions, environmental emissions, climate change and environmental governance. The program sought at creating a linking factor between international conventions and national implementation.

- **Millennium Summit, 2000-**

The Millennium Summit which took place in the year 2000 in the city of New York reiterated the common goal and objective nations had to achieve. The goal being environmental protection and sustainability. The summit gave insights into the function of UN with the advent of a new century. Millennium Development Goals were enacted wherein the environment protection also took its position.<sup>13</sup> Further it put forth a new vision and sight for the UN goals and its plan to achieve the same.

- **Johannesburg 2002 World Summit on Sustainable Development (Rio+20) -**

The WSSD laid emphasis on expansion and achievement of a sustainable future. The soft law instruments which needed to be replaced by hard laws in order to make them legally binding for a better sustainable future took place. UNCED plan was restated wherein the 3 fundamental aspects of sustainable development was spoken about: The People (society, social equity), the Planet (environment) and the Profit (economic growth).<sup>14</sup> Achievement of the goal through mutual and interdependent approach was seen as a key factor.

- **Montreal Protocol, 1987-**

This conference laid emphasis on the depletion of ozone layer due to rise in global warming and drastic climate changes. It set forth standards to reduce consumption and production of ODS which were drastically affecting the ozone layer. India became a signatory to the Montreal Protocol in the year 1992. For the implementation of the same, India through its MoEF & CC approved of an ozone cell for supplementing the protocol. The Montreal Protocol emphasizes on duty nations have in protecting the ozone layer through its activities. Kigali amendment to the protocol brought further changes.

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<sup>13</sup> Chapter 4, "Protecting our Common Environment".

<sup>14</sup> Gabcikovo Nagymaros Case, (1997) ICJ Rep 7.

- **Beijing amendment along with Vienna Convention –**

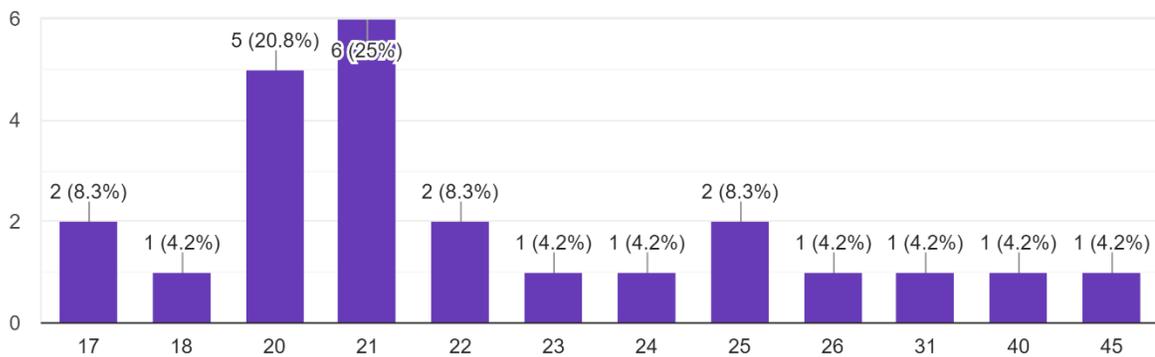
Seventy-seven nations being signatory to this convention lays down guidelines for the control of HCFC and BMC. Controlling emissions of harmful carbon elements in various forms is the main concern of this convention and its signatories. Scientific knowledge and technological advancement increased thereby bringing about more information of the climatic implications. The concept of financial matters, reports and trust funds came into picture. The standards set for emissions brought in national policies in various of its signatories.

- **Paris Agreement-**

The Paris Agreement forms the most recent meet wherein mitigation of green house gases is of utmost importance. Mitigation of the same would improve the climate change scenarios. An increase by 2 degree C was estimated and a limitation control to a limit of 1.5 was set forth. Emission targets along with a specified date target was set on a rather serious note. Worst case scenario precautions are also opted wherein adaptability ability to severe climate changes are been enforced and implemented. The sustainable development mechanism have been adopted in this agreement.

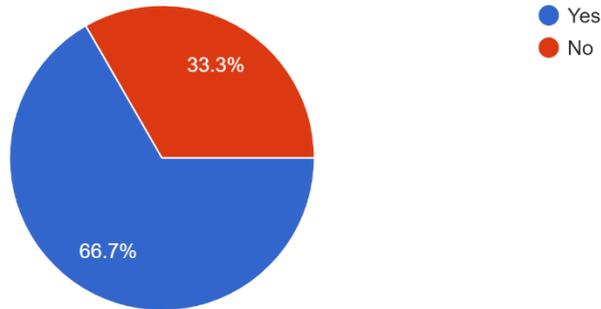
**Empirical Research-**

Your age  
24 responses



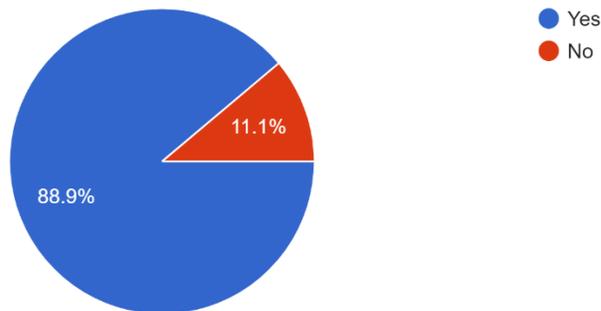
Are you a resident of Vadodara city?

24 responses



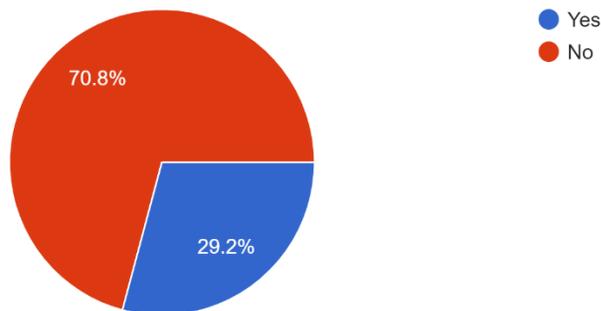
If no, have you visited Vadodara for Uttarayan (Kite Festival)?

18 responses



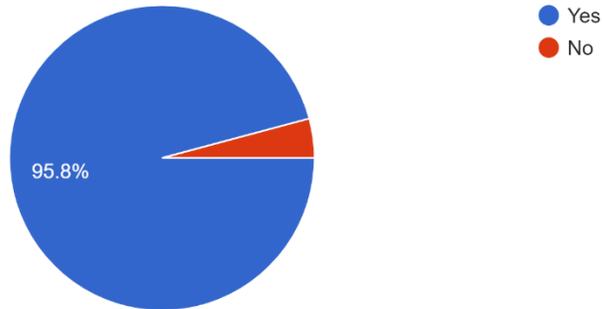
According to you is the city immediately cleaned up after the festival is over?

24 responses



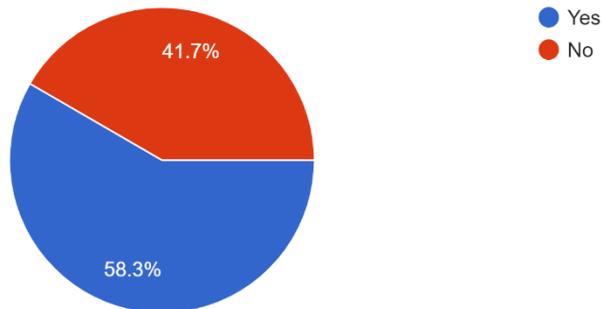
Are you aware of the ban on Chinese and nylon manja which is non-biodegradable in nature?

24 responses



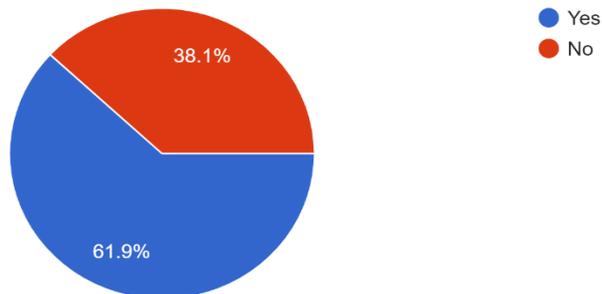
According to you, after the waste of manja is collected, is it burnt by the Vadodara Municipal Corporation?

24 responses



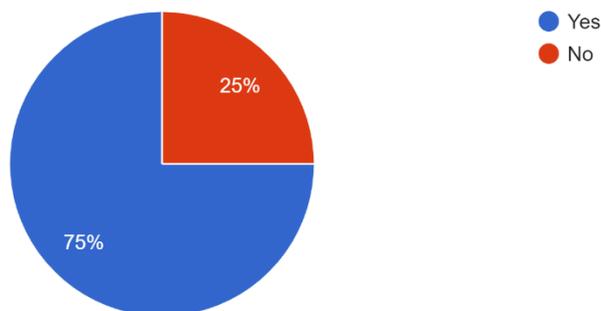
If yes, are you affected by the burning of manja year after year?

21 responses



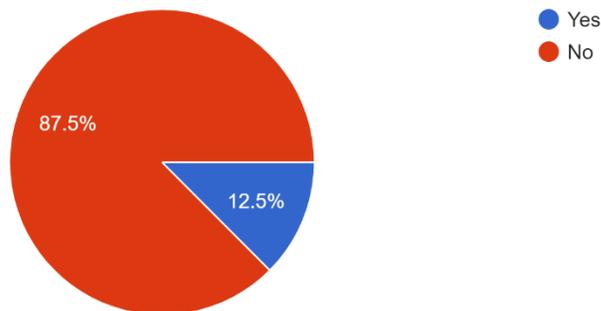
Are you as an individual against the way manja is disposed off?

24 responses



Is the Vadodara Municipal Corporation or any other authority compensating the people affected for causing air pollution?

24 responses



**Data Analysis-**

About 70 percent of the people who reside in Vadodara or have visited the place for the kite festival feel that the place is not cleaned up immediately by the Municipal Corporation. This is in accordance with the data found out through various reports. The manjha is all over the place and the municipal corporation fails despite laws, rules and byelaws being enforced. More than 90 percent of the people are aware of the ban on the Chinese manjha but the same usage is visible in unproportionable scale. This indirectly shows that the competent and responsible authority fails at putting a check on the usage of the synthetic threads.

58 percent of the people feel that the nylon thread is burnt by the Vadodara Municipal Corporation. As per the doctrinal research, it has been seen that Vadodara municipal corporation

does burn the waste which releases immense number of harmful particles. But as per the empirical research a little more than 50 percent of the people feel the same.

61 percent people feel that they are being affected by the burning of the wastes which is non-biodegradable. The remaining 39 percent may not be directly affected due to distance issues. But if 61 percent people are affected the world is affected, since environmental issue is not a sovereignty issue but the neighbor's rule as principle 2 of Rio applies.

75 percent people are against this step taken by the Municipality wherein they burn the waste. But no signs are visible in which people have opposed or taken any steps to forbid the same. 87 percent people feel that they are not compensated for the same yet no concrete action has been taken by individuals or activists.

### **Suggestions and Recommendation-**

Laws exist at international, national and local level for solid waste management. Despite enactment of laws, the municipality fails to provide a solution. Everyone knows that environment needs to be protected for sustaining ourselves if not others. But we enact hard and soft laws for the same. Basic sense of taking care of the environment for sustainable development needs to be put forth through laws and rules which still fail us on daily basis.

International conventions put across a goal but attainment of that goal is through vast and specific possibilities which ignores the actual nature and local issues of a place. Without the ground reality laws are enacted as an overall generalization which eventually cause a failure. International cooperation exists but they do not take into account the ground reality.

Ice caps still melt and climate change is still adversely affecting people. People are aware of this issue still lack capability to take action because they are in slumber. Mitigation of climate change has become more of a political issue rather than a technological issue. If coordination exists between global and local issues whereby implementation becomes stricter, there is a possibility for change.

### **Conclusion-**

Internationally the concept of sustainable development emerged years ago, it was adopted by nations a couple of years later but the repercussions of human activities centuries ago still affect the current and future generation. Laws exist for supplementing the need to protect environment but are contrary to the implementation standards sought to achieve. Balance of convenience must keep in mind that without the environment there would be no scope for development and advancement. Nations as well as its citizens need to wake up from the slumber and take actions else the laws will fail its purpose.