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## **CASE STUDY FOR ENVIRONMENTAL SCIENCE**

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### **TOPICS:**

- **CHIPKO MOVEMENT**
- **MINAMATA BAY DISASTER**

# CHIPKO MOVEMENT

## ABSTRACT:

Chipko movement, also known as Chipko andolan, was a nonviolent social and ecological movement in India in the 1970s spearheaded by rural villagers, notably women, with the goal of conserving trees and forests threatened by government-sponsored logging. In 1973, the movement began in the Himalayan state of Uttarakhand (then a part of Uttar Pradesh) and swiftly spread across India's Himalayas. Chipko is a Hindi word that means "to hug" or "to cling to," and it refers to the activists' principal method of clutching trees in order to obstruct loggers.



## INTRODUCTION:

After the Sino-Indian border conflict ended in 1963, the Indian state of Uttar Pradesh saw a surge in development, particularly in rural Himalayan areas. Many foreign-based logging corporations desired access to the region's vast forest resources, and the interior highways built for the battle enticed them. Despite the fact that rural communities relied largely on the forests for survival—both directly for food and fuel and indirectly for services like water purification and soil stabilization—government policies barred them from managing the lands and denying them access to the lumber. Many commercial logging operations were poorly managed, resulting in decreased agricultural yields, erosion, depleted water resources, and increased flooding across much of the surrounding area.



## LITERATURE REVIEW:

Several agitations took place in the mountain regions of what was then Uttar Pradesh (now Uttarakhand) between 1973 and 1979 to rescue trees from being cut down. These protests became known as the Chipko movement, and they eventually compelled the government to prohibit commercial tree felling. In 1967, however, the Chipko movement had already been established. Sunderlal Bahuguna, who quit politics to devote his life to social service, came up with the notion of focusing on forest conservation, while Ghanshyam Sailani, a folk musician, gave the movement the name Chipko through a song he penned.

The Chipko movement arose in India in the 1970s as a coordinated response to forest devastation. The movement's name is derived from the term 'embrace,' as the locals clutched the trees to prevent them from being felled by the contractors.



Numerous people are unaware that many groups in India have contributed to the conservation of nature over the millennia. The Bishnoi community of Rajasthan is one such example. This community established the initial 'Chipko movement' in Rajasthan some 260 years ago, in the early part of the 18th century. A large group of them from 84 villages, led by a woman named Amrita Devi, gave their lives to save the trees from being felled on the command of Jodhpur's Maharaja (King). Following this tragedy, the Maharaja issued a royal proclamation prohibiting tree chopping in all Bishnoi communities.

It began in the twentieth century in the hills, where agriculture is difficult to carry out and trees are the main source of life. One of the most well-known of these was the Chipko movement of 1973. The first Chipko action occurred in April 1973 in the village of Mandal in Uttar Pradesh's upper Alakananda valley, and extended over the next five years to numerous districts in the Himalayas. It was started by the government's decision to provide a sports goods company a block of forest land in the Alaknanda valley. This infuriated the locals, who had previously been rejected their request to utilise wood to make agricultural equipment. The women of the region, led by activist Chandi Prasad Bhatt, went into the forest and built a circle around the trees, stopping the men from cutting them down, with the help of a local NGO (non-governmental organisation), DGSS (Dasoli Gram Swarajya Sangh).

As a result of the protest's success, similar protests erupted in other parts of the country. Since their inception as a spontaneous protest against logging abuses in Uttar Pradesh in the Himalayas, Chipko supporters, primarily village women, have effectively prevented tree felling in a number of locations and affected natural resource policy in India. Dhoom Singh Negi, Bachni Devi, and a number of other village ladies were among the first to hug trees in order to preserve them. 'What do the woodlands bear?' they came up with as a slogan. 'Soil, water, and clean air.' Thousands of trees were preserved from being felled thanks to the Chipko movement's success in the hills.

Other people have also been active in this movement and have helped to steer it in the right path. Mr. Sunderlal Bahuguna, a Gandhian activist and philosopher, whose appeal to Mrs. Indira Gandhi, India's then-Prime Minister, resulted in the ban on tree felling. 'Ecology is permanent economy,' Mr Bahuguna coined the Chipko phrase. Mr. Chandi Prasad Bhatt is another Chipko movement leader. He pushed for the growth of local companies based on the preservation and sustainable use of forest wealth for the benefit of the community. Mr Ghanasyam Raturi, a Chipko poet whose songs can be heard throughout Uttar Pradesh's Himalayas, composed a poem detailing the process of embracing trees to prevent them from being felled.



The Chipko demonstrations in Uttar Pradesh won a big win in 1980, when Mrs Indira Gandhi, India's then-Prime Minister, issued an order prohibiting green logging in the state's Himalayan forests for 15 years. Since then, the movement has spread across the country to numerous states. The movement has stopped felling in the Western Ghats and the Vindhyas, in addition to the 15-year moratorium in Uttar Pradesh and has created pressure for a natural resource policy that is more responsive to people's needs and ecological requirements.

#### THE OUTCOME OF THE SURVEY:

The strength of this movement can be shown in the fact that after speaking with Indira Gandhi, she decided to halt cutting down trees for 15 years. However, there are significant flaws with this movement. This movement is not moving in the right direction. According to some activists, the Chipko movement was largely a struggle for economic survival.

- Chipko Movement is a peaceful and social movement in India that was founded by rural peasants, mostly women. This began in Uttar Pradesh's Himalayan area.
- The movement's major goal is to safeguard trees and the environment. Chipko is a Hindi word that means hug.
- More than 150 villages took part in this effort from 1972 to 1979.
- One of the most well-known social activists active in the Chipko movement is Sunder Lal Bahuguna.
- The strength of this movement can be shown in the fact that after speaking with Indira Gandhi, she decided to halt cutting down trees for 15 years.
- However, there are significant flaws with this movement. This movement is not moving in the right direction.
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The Chipko movement was inspired by a battle led by a woman that took place in India over 300 years ago. Back then, members of the Bishnoi community in Rajasthan risked their lives by embracing the trunks of sacred khejri trees in an attempt to rescue them.

Protests became more project-oriented as the movement progressed, eventually expanding to cover the entire ecology of the region, resulting in the "Save Himalaya" movement. Bahuguna marched 5,000 kilometres (3,100 miles) through the Himalayas between 1981 and 1983 to bring the movement to prominence. Throughout the 1980s, there were numerous protests against the Tehri dam on the Bhagirathi River and different mining operations, with at least one limestone mine closing as a result. Similarly, a huge reforestation initiative in the region resulted in the planting of over one million trees. Chipko demonstrations resurfaced in 2004 in response to the removal of the logging ban in Himachal Pradesh, although they were unsuccessful.

The Chipko movement was more of a way of life than a forest conservation effort. It also creates a new method of environmental protection. It is also an ecofeminist movement, and the Right Livelihood Award was given to it in 1987.



## CONCLUSION:

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The Chipko demonstrations in Uttar Pradesh won a big win in 1980, when Mrs Indira Gandhi, India's then-Prime Minister, issued an order prohibiting green logging in the state's Himalayan forests for 15 years. Since then, the movement has spread across the country to numerous states.

The Chipko movement was started by a woman named Amrita Devi in Uttarakhand near the Tihri Dam. Sunder Lal Bahuguna, a wildlife activist, is linked to the Chipko movement. We can support the Chipko campaign by planting trees and prohibiting tree cutting for immoral reasons.

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## REFERENCES:

<https://answers-to-all.com/object/what-is-the-conclusion-of-chipko-movement/>

<https://oaji.net/pdf.html?n=2019/1174-1554462982.pdf>

[https://en.wikipedia.org/wiki/Chipko\\_movement](https://en.wikipedia.org/wiki/Chipko_movement)

<https://www.britannica.com/topic/Chipko-movement>

# MINAMATA BAY DISASTER

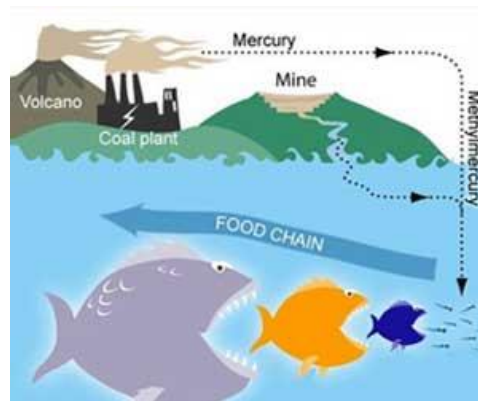
## ABSTRACT:

Minamata illness was named after the city of Minamata in Kumamoto Prefecture, Japan, where it was originally found in 1956. It was caused by the leakage of methylmercury in industrial wastewater from a Chisso Corporation chemical production, which occurred between 1932 and 1968.

In 1997, the government deemed the region fishable. However, some fish have been found to contain high levels of methylmercury, and exceptionally high levels of contamination have been identified in sediment in Minamata Bay, despite officials' assurances that the levels are safe.

## INTRODUCTION:

Nothing about this serene picture suggests that it was the scene of Japan's worst environmental calamity.



Beginning 50 years ago, mercury-contaminated fish from these waters poisoned entire neighbourhoods. Thousands of people were paralysed, and hundreds more perished in agony. Awful abnormalities were present in newborns.

To the rest of the world, the catastrophe known as Minamata Disease is a distant memory, and few outside Japan would recognise Chisso Corp. as the firm that poisoned Minamata Bay and the Shiranui Sea with lethal methylmercury. The calamity, however, never ended for Akinori, 62, and Itsuko, 58, and many of the residents who live along these rocky beaches.

The Moris' parents his father and both of her parents suffered from the disease's effects, which included blinding headaches, crippling loss of sensation in their limbs, insomnia, and dizziness. Both Akinori and Itsuko are experiencing symptoms of the disease as they get older, including excruciating hand and limb aches, as well as loss of feeling and coordination as a result of eating poisoned fish as children.

Itsuko stated as she pulled strips of seaweed from her fishing nets in the early sun, "Now it's starting in my hands and fingers." "They're all crooked and getting white."



Japan, like the Moris, never entirely recovered. Indeed, the sickness played a significant part in the formation of modern-day Japan. It sparked the Japanese environmental movement, and it became an international cause celebre, much like the Chernobyl nuclear accident and the Union Carbide chemical tragedy in Bhopal, India.

#### LITERATURE REVIEW:

It compelled Japan to accept the cost of the industrial miracle it constructed from the ruins of World War II, spurred other victims of such incompetence to seek reparations, and forced authorities to be much more vigilant in safeguarding the public from Japan Inc.'s mistakes.

However, the battle for Minamata is far from done. At least 2,000 people have perished as a result of the attack. Even now, the government is being forced to recognise more casualties, which some believe to be as high as 30,000. Many are confined to wheelchairs or beds, complaining of haphazard and insufficient diagnosis and treatment. Suits for additional remuneration are still pending. The administration continues to refuse to perform an epidemiological investigation into the true extent of the contamination.



Takeko Kato, managing director of Hotto Hausu, a vocational aid centre for Minamata disease victims, said, "Minamata Disease has been going on for 50 years and it still hasn't been fixed." "The country isn't doing enough to assist these people."

Minamata Bay's calamity began in silence.

Growing numbers of fish were discovered floating dead in the bay that flows into the Shiranui Sea in the early 1950s. Then crows dropped to their deaths from the sky or collided with rocks. Before dying, cats began gyrating in a strange "dance."

Then came the people. Villagers began to experience dizzy spells, as well as difficulty walking and speaking, by the mid-1950s. A growing number of people went into spasms, wilted, and died. In 1956, the name Minamata Disease was coined.



Victims huddled behind closed doors, ostracised by neighbours who worried the sickness was spreading. Fishermen suffered in silence because they were afraid that word of the ailment would jeopardise their livelihood. The persons who were most in danger were frequently the ones who battled doctors who tried to help them.

"They always stated there was no Minamata Disease around here," Shigeo Ekino, a researcher at Kumamoto University who has been studying victims since 1971, said. "Because if journalists reported that the sickness had arrived, the price of fish would fall."



The culprit was also shielded from accountability for the methylmercury it released during the creation of acetaldehyde, a chemical used to make a variety of items, including medications.

Chisso was a bright accomplishment in Japan's frenetic rush for postwar economic expansion in the 1950s, and it awed both bureaucrats and Minamata villagers an untouchability that allowed it to refuse to accept responsibility for more than a decade.

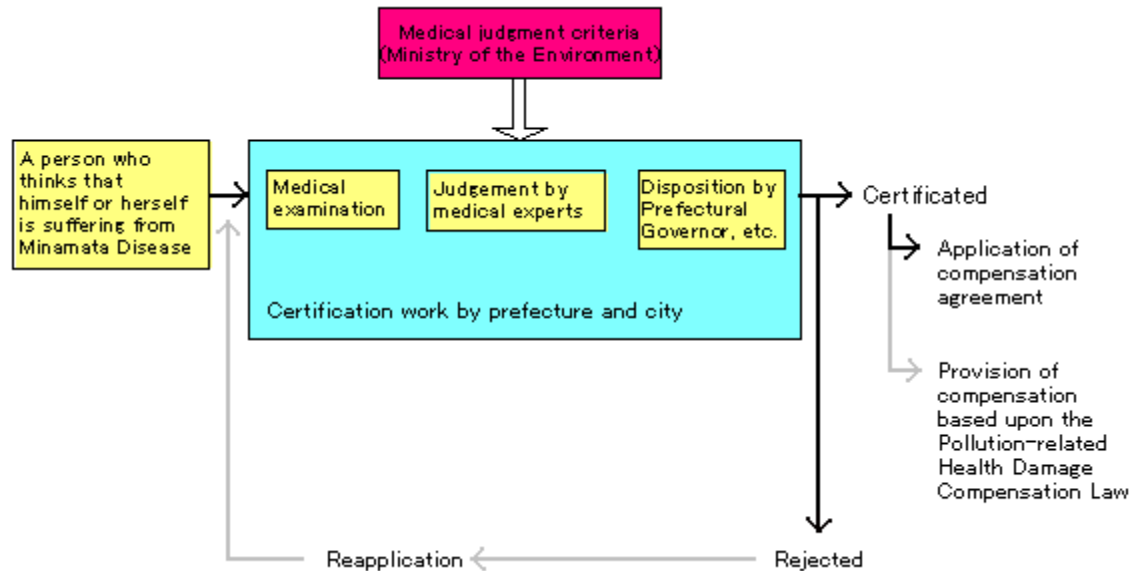
#### THE OUTCOME OF THE SURVEY:

In Minamata Bay and the Shiranui Sea, this very deadly compound bioaccumulated and biomagnified in shellfish and fish, causing mercury poisoning in the local people.

Causes: Mercury poisoning is a serious condition.

The restriction of fish and shellfish taken from Minamata Bay, as well as self-restraint of work by the fishing cooperative, began in 1956 in the area around Minamata Bay, when it became obvious that intake of fish and shellfish might be the source of the disease. Kumamoto Prefecture et al. The dividing nets in Minamata Bay were removed completely in early October 1997, after this direction had persisted with various interruptions. During this time, Chisso Co. Ltd. paid 140 million yen in compensation to the fishing industry in 1959, 3,930 million yen in 1973-74 FYs, and 950 million yen in 1992-98 FYs.

After June 1965, when Minamata Disease was first diagnosed in the Agano River watershed, Niigata Prefecture took steps to provide counselling to the concerned fishing cooperative in terms of self-restraint in catching fish and shellfish, as well as to the individuals who are affected.



Until now, many forms of environmental pollution assessments have been carried out in the area around Minamata Bay and the Agano River basin, including water quality, bottom sediment, fish and shellfish, hair samples, and so on. As a result, it's thought that continuous methylmercury exposure at levels that could cause Minamata Disease existed in the area around Minamata Bay until no later than 1968, and until no later than 1965 in the Agano River basin, and that since then, there hasn't been any such exposure that could cause Minamata Disease.

In the area around Minamata Bay and the Agano River basin, methylmercury concentrations in fish and shellfish are still being monitored.

The first full-scale survey to assess the magnitude of the health impact was conducted on roughly 110,000 inhabitants of the area around Minamata Bay in 1971, after the cause of the Minamata Disease was determined. The prefectural administration conducted a series of health surveys on the residents of the Agano River basin shortly after the patients were discovered, and the scale of the survey was around 80,000 for the total number of items.

## CONCLUSION:

Toxic substances pollute the environment, causing major consequences such as health problems and the degradation of the living environment.



In the instance of Minamata Disease, an agreement was reached between patient organisations and companies, and lawsuits were settled through a compromise between plaintiffs and companies, as well as the withdrawal of plaintiffs between the nation and plaintiffs, resulting in less social problems. However, in the places where the sickness occurred, certified patients are still experiencing symptoms, and the scenario is that residents' health fears have not yet been alleviated.

From the Minamata Disease, Japan has learned that activities that prioritise economic interests while ignoring environmental concerns cause a variety of serious consequences, including health problems, and that it is difficult to recover from these consequences later. From an economic sense, it is evident that these actions are not an economical decision because the steps to mitigate these damages require a significant amount of money and time in compared to the cost of taking measures to prevent pollution from occurring.

With the devastating effects of pollution, especially the Minamata Disease concerns, as a turning point, environmental protection measures in Japan have made significant progress, but the sacrifices made along the way have been enormous. We hope that it will be recognised once more how essential environmental consideration is, and that efforts will be taken to prevent environmental pollution without a devastating pollution experience, using Japan's experience as a lesson in other nations.

#### REFERENCES:

<https://www.env.go.jp/en/chemi/hs/minamata2002/ch6.html>

<https://www.verywellhealth.com/minamata-disease-2860856>

[https://www.env.go.jp/chemi/tmms/pr-m/mat01/en\\_full.pdf](https://www.env.go.jp/chemi/tmms/pr-m/mat01/en_full.pdf)

[https://en.wikipedia.org/wiki/Minamata\\_disease](https://en.wikipedia.org/wiki/Minamata_disease)