

CHAPTER – IV

ENVIRONMENTAL POLLUTION OF KUMARGRAMDUAR BLOCK : A SOCIO-LEGAL PERSPECTIVE

4.1. INTRODUCTION

Environmental pollution is now-a-days the most dangerous socio-ecological menace all over the globe. The Sub-Himalayan West Bengal is however no exception to it. Environmental pollution is considered 'as any undesirable change in the physical, chemical or biological characteristics of any component of the environment (air, water, soil), which can cause harmful effects on various form of life or property'.¹ According to the greatest ecologist Odum (1971) "Pollution is an undesirable change in the physical, chemical or biological characteristics of our air, land and water that may or will harmfully affect human life, or that of desirable species, our industrial processes, living conditions and cultural assets or may or will waste or deteriorate our raw material resources." Environmental pollution is a burning problem in Kumargramduar Block of the Sub-Himalayan West Bengal.

Pollution affects the flora and fauna, soil, air and water system of Kumargramduar Block. The endemic flora and fauna appear to be in great danger here. Soil pollution also affects agriculture and water system like rivers and natural springs. All pollution is caused here due to burning of agricultural residues, smoking from tea-factories and black smoke particularly from most of the vehicles, dolomite and stone crushing and non-regulated domestic smoking. The major four components namely biosphere, atmosphere, hydrosphere and lithosphere are interrelated and indispensable constituents of the environment. If one constituent of the environment is affected then all the constituents are also affected. In Kumargramduar Block, pollution menaces the environment. Human beings are responsible to pollute the regional environment here.

4.2. SOURCES AND TYPES OF POLLUTION

Pollution means the unwanted and undesirable changes of any constituent of the environment. Kumargramduar Block is an agricultural belt. Here agriculture is the primary sector of economy. The regional economy is dependent on agriculture in the non-forest populated southern part of the block. In the northern part, tea gardens are situated. Besides tea gardens, forest land (it is a part of Buxa Tiger Reserve core area) is also observed. Tea industry is, in a broad extent, an agro-based industry.

Pollution happens from agriculture, industry, transportation system and domestic work in Kumargramduar Block. Pollution levels of different sources of pollution are given in tables as follows :

Sources of Pollution	Pollution Levels (in %)
AGRICULTURE (A)	30
INDUSTRY (I)	20
TRANSPORTATION (T)	12
DOMESTIC (D)	36
PHYSICAL / NATURAL (N)	2

Table-7 (Prepared by the author) : Pollution levels of different sources of Pollution of Kumargramduar Block

From the given table, the author observes that different sources of activities are responsible to pollute the environment of Kumargramduar Block. Apart from physical or natural phenomena (2%) like flood, soil erosion, draught and earthquake etc., anthropogenic reasons are also largely occurred the pollution menace in this block. Amongst the anthropogenic sources of pollution, pollution is happened in a large scale from domestic source (36%). Agriculture and industry are responsible for 30% and 20% pollution of the area respectively. Tea-industry is an Agro-based industry. Pollution occurred from tea-industry is incorporated into the industrial source of pollution for easy calculation. Being the rural area including three semi-urban hubs like Kamakhyaguri Census Town, Barobisha and Kumargramduar, the transportation system seems to be happened 12% pollution in the entire block. The most of the vehicles transport on the National Highway (NH-31C) across the block from the West to the East on the southern area of the block. Apart from this a large numbers of vehicles transport on the Barobisha-Sankosh road and Hatipota-Jaini road. Railway is also connected in Kumargramduar Block. The bar-diagram of the pollution of Kumargramduar Block is given as follows :

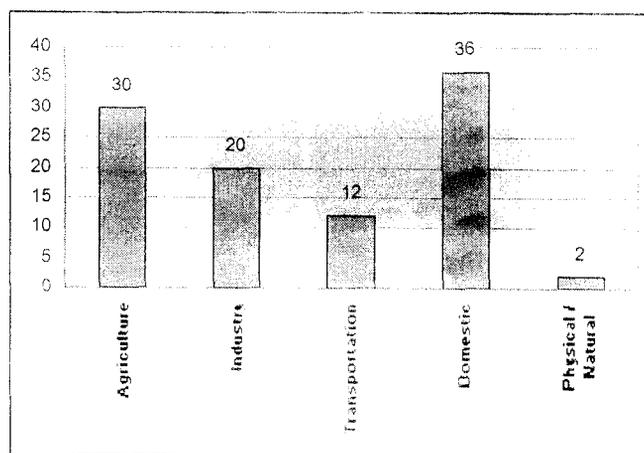


Diagram-6 (Prepared by the author) : Pollution Levels of different sources of pollution of Kumargramduar Block.

The pollution level seems to increase day-by-day due to lack of proper awareness of all walks of people, non-sustainable agriculture and lack of eco-friendly industrial activities in Kumargramduar Block. In a word, environmental pollution is a social problem of underdeveloped area in the Sub-Himalayan West Bengal. Farmers cultivate their crops to produce yields by hook or by crook. So they apply chemical fertilizers along with chemical pesticides, herbicides and weedicides to their agricultural lands. So the rural agro-eco-system is affected in a broad extent. Ecological balance has been destroying Kumargramduar Block. The relationship among non-sustainable agriculture, pollution and biosphere is given as follows :

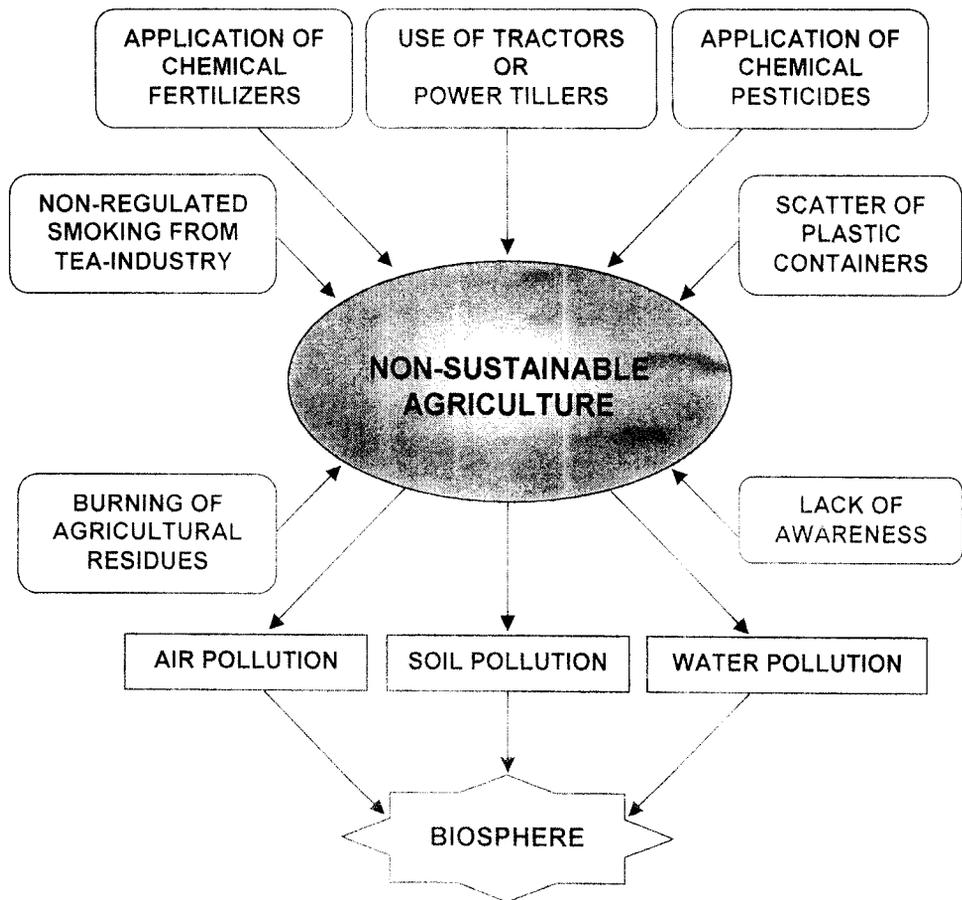


Diagram-7 (Prepared by the author) : Relationship among Non-Sustainable Agriculture, Pollution and Biosphere.

Due to using a pesticide and chemical fertilizers in agriculture at a great extent, the earth worm, insects and other smaller organisms appear to threaten and some have gone into extinct. As a result, the fertility rate is decreased. These

activities have stopped the biological pollination of the crops and affected the ecological balance and the food security. If these would not be regulated properly, desertification rights appear in near future.

Burning of agricultural residues is increasing Carbon-di-Oxide (CO₂), Sulphur-Oxides (SO₂, SO₃) and so on. These are responsible for global warming and air pollution.

Pesticides and chemical fertilizers mix into water in the rivers and the natural springs during the rain. As a result, aquatic eco-system is affected. Uses of plastic containers of agricultural components such as fertilizers, pesticides, containers of crops are left in the agricultural fields. These hindrance the river channel in Kumargramduar Block of the Sub-Himalayan West Bengal.

Farmers cultivate the bodo rice by obstructing the river channels. They plant the paddy seeds and grow sapling beside the river bed. They obstruct the river channel in the block. As a result, some smaller tributaries lose the flowing of water. They use pesticides and chemical fertilizers for growing the sapling here. These pesticides and chemical fertilizers mix with the river water and create water pollution. Due to this, water is polluted and ecological balance of aquatic sources is destroyed.

The tea plantation is the most vital component of the regional economy here. Tea industry is the combination of industry and agriculture. It can broadly be said as the agro-based industry. Hence the agricultural and the industrial pollution are simultaneously observed. Tea plantation management uses diverse pesticides and chemical fertilizers. It may create pollution. In addition to this from the tea industry, black smoke comes out and this is not strictly regulated. This is responsible for air pollution. From the tea manufacturing units, noise pollution is also created due to non-regulated abatement system of the units.

Animal husbandry is one of the remarkable sources of livelihood in Kumargramduar block along with other parts of the Sub-Himalayan West Bengal. It comprises dairy, poultry, cattle rearing for meat, piggery and so on. Dairy is the most

important source of earning money. The cattle are grazed in the forest land, agricultural land, river bank and in so many other places besides the grazing lands. As a result, the forest land may be destroyed and agricultural crops may be devastated. The cattle excreta is mixed with water run-off and soil etc. and contaminate soil, water etc. soil-texture may also thin. So there is a possibility of soil being eroded. In diary far, cattle excreta creates odour. Methane (CH_4), Ammonia gas (NH_3) increase and hence air is polluted. Water is contaminated. Poultry wastages inhibit the environment. Piggery is also an alternative source of income of the people of Kumargramduar Block of the Sub-Himalayan West Bengal. Due to piggery huge amount of pollutants are created which pollute the entire area.

Tea industry is the most dominant industrial activity in Kumargramduar Block. Besides this, mining brick-field and pottery, bidi manufacturing, bakery and food products, brewery and beverage are important economic activities in the area. Though these industrial sectors are the most vital and valuable sources of income, these inhibit the environment of Kumargramduar Block. Air is polluted, water is contaminated. Noise is created. Malodour is increased due to these. It happens due to lack of proper environmental management by the authorities of the industrial sectors. In addition, noise is created due to high volume of microphones, loud speakers and other modes of entertainment.

Soil erosion is increased due to mining especially. There is a threatening endemic fauna which is due to fishery, tea industry, mining and so on. The research investigator has observed that mining activities are responsible for soil erosion and obstructing the river flow in Kumargramduar Block. The area of present research investigation and adjoining Bhutan hill are the treasure house of dolomite, sand, stone, etc. People are hoisting sand and stone from the riverbed. Dolomite is mining in the Buxa Hills and the Bhutan Himalaya. The dust is mixed with run-off water and falls into the rivers. The silt deposition creates a problem in the riverbed. The navigability of the river is decreased. Floods frequently occur in this region. Sand and stone hoisting are the causes of the breaking of embankments of the rivers. As land use planning is not maintained properly land is affected.

Black smoke is produced due to non-regulated brick-field and pottery. Dust is originated. Air pollution is caused. Beedi manufacturing factory produces huge smoke. So air pollution is originated severely due to non-regulated factory here. Bakery and food products, brewery and beverage also produce air and water pollution combinedly.

Public transportation system is used to carry on passengers and goods from here and there. This comprises bus, truck, taxi, motor-cycle, train and even diesel-driven ferry service and so on. All these have caused air pollution severely. Noise is also created due to non-regulated air-horns. The diesel-driven ferry service also causes water pollution due to diesel, it sometime floats over the river water. Diesel creates a layer on the water. So this layer is harmful to the aquatic flora and fauna due to lack of dissolved oxygen into water. Train is one of the sources of noise and air pollution here along with other part of the Sub-Himalayan West Bengal. The author finds out some severe accidents of the wildlife especially elephants with the trains in Kumargramduar Block along with the remaining portions of the Sub-Himalayan West Bengal in recent past.

Housing is the most important constituents of human society. In this region, most of the houses are cottages, clay-made and these are not well decorated. Due to the lack of proper sanitary conditions, most of the houses of this region stand opponent to the principles of public health and hygiene. Due to less number of lavatories and urinals, people are habituated to open defecation in the open places. Due to this air and water is poisoned and pollution takes place in Kumargramduar. Only a few houses are brick-built and these create different type of pollution. Lack of sunlight and the less decorated ventilator may create health hazard conditions for the inhabitants. Both types of housing estates inhibit the environment and contaminate air and water of the area. Due to lack of proper drainage system, garbage gathers in the surroundings of human habitat. Odour is created out of it. Odour is the most dangerous health hazards in the area. Various parasites, pathogens are produced from its. All these lead to break out of various diseases.

Cooking is another source of domestic pollution. Odour is created due to cooking. Air and water are contaminated. It mainly occurs due to absence of well decorated ventilator of the kitchen in case of brick-built houses and lack of space in the case of cottages for the cooking purposes. This condition is noticed mostly in the slum areas and forest villages. Most of the villagers cook their foods with dry leaves, fuel wood, dry cow dung etc. and create large amount of smokes. As a consequence air pollution is caused. Semi-urban households of Kumargramduar, Barobisha and Kamakhyaguri use fuel wood, coal, kerosene oil and L.P.G. gases and also create huge smokes which are the causes of air pollution. A few households also use air-cooler, refrigerator which is the sources of Freon gas. CFCs (Chloro-Floro Carbons) which cause temperature rise of the earth. The CO₂ is the most harmful gas which causes temperature rise of the earth. The CO₂ is called “Green House Gas” (GHG). It is also sourced from the air-cooler and so on.

Environmental pollution is originated from different types of activities of human beings. Pollution is unwanted and undesirable phenomena. It is generally man-made. It is the most significant socio-ecological anthropogenic hazards, originating from non-sustainable agriculture and animal husbandry, tea industry, dolomite and sand mining, stone crashing, beedi-manufacturing, bakery and food products, public transportation systems, housing and cooking and so on. Environmental pollutions are of different types namely air pollution, noise pollution, water pollution and land pollution in Kumargramduar Block along with the remaining parts of the Sub-Himalayan West Bengal.

4.3. IMPACT OF POLLUTION ON FLORA AND FAUNA INCLUDING HUMAN BEINGS

Pollution inhibits the progress of human society. It affects human life. Human life depends upon the culture and society. Human society is a part and parcel of biosphere. According to Bright’s Dictionary of Environment, biosphere is ‘defined as the entire area of the earth that is inhabited by organisms, extends from the ground sector (the pedosphere) over the water zone (the hydrosphere) into the layer of

atmosphere are the ecosystems in the form of forests savannas, lakes, seas, etc. which are in a constant phase of development and are consequently, capable to a certain extent, of self-regulation. Eco-systems are operating complexes for life communities (biosensors) and non biological environmental factors.’ Biosphere is dependent upon the other three constituents of environment namely atmosphere, hydrosphere and lithosphere. All these constituents are interconnected and interrelated to each other. They make web to take all constituents in environment. There are the unwritten harmonies among these four constituents. But due to anthropogenic reasons, all these constituents do not maintain the harmony all over the globe. So environment appears in the mouth of utter disaster. Environment is polluted severely. So, environmental pollution brings a big question mark in front of biosphere at every corner of the earth. The disruption of biosphere affects the human culture and society including flora and fauna here and there.

Kumargramduar Block of the Sub-Himalayan West Bengal is no exception from the environmental pollution menace. Kumargramduar Block is a unique ecological area among the Sub-Himalayan West Bengal for endemic species of flora and fauna. As it is a part of the famous Buxa Tiger Reserve, it has magnificent biodiversity. But environmental pollution is running the precious endemic species of flora and fauna. It affects lifestyles and culture severely. Environmental pollution in this block is broadly a man-made problem. Pollution affects flora and fauna ruthlessly. Human interference with the nature in Kumargramduar Block along with other areas of the Sub-Himalayan West Bengal has reached such stage that it had led to frequent environmental disasters thereby causing large scale damage to life and property.

Flora and fauna are affected due to numerous anthropological factors in this pristine Sub-Himalayan environment. The environmental hazards in the area of investigation appear to be interplay of human and physical attributes, which include landslides, draught, floods, decline in the forest cover, and decline in agricultural-yield, soil loss, and problem of salutation in reservoirs and rivers, extinction of rare species of wild animals etc. the natural springs are rapidly dying. domestic animals are less productive or unproductive. the fodder resources are limited and natural

forests are fast disappearing in Kumargramduar Block along with the other surroundings of the Sub-Himalayan West Bengal.

Pollution from agricultural practices of the area under investigation affects flora and fauna severely. Farmers use various chemical fertilizers to increase their production. They apply large amount of pesticides, herbicides, fungicides to prevent various harmful organisms such as insects, pests, vectors, fungus, bacteria, virus and other pathogens etc. But a large amount of harmless organisms die due to application of the above pesticides etc. The ecological balance is, therefore, destroyed. Numerous animals and plants have become extinct and a huge number of animals and plants have been threatened into endangered species. Agricultural residues also cause pollution.

The chemical fertilizers are mixed with water run off and brought into the rivers, lakes, ponds and other sources of water. Due to this, water is polluted and ecological balance of aquatic sources is destroyed. The research investigator has got information from the local people that some oil based insecticides are spread by the tea-estate management for the controlling of harmful insects in the study area. As a result the Raidak, the Gholani, the Bish, the Jainti, the Sankosh and other tributaries are polluted. That is why the insecticides are mixed with these waters. So, the aquatic fauna and flora are threatened to extinct. Some have already disappeared. Some species of fishes (i.e., Chepti, Zonga -- these are local names of endemics species) have disappeared since past 15 to 16 years. The fish population of the Ganga is poisoned due to use of the large scale pesticides. It has become a health hazard for the people after eating such poisoned fish. As a result, cancer is increasing. It is a result of a case study which is guided by a research team of Patna University in collaboration with Ahimeh University (Japan) under the supervision of Dr. Rabindra Kumar Singh, Department of Zoology, Patna University (Source : The Ananda Bazar Patrika, dt. 26th July, 2003).

The agro-based industrial pollution is noticed during the manufacturing of tea from the raw tea leaves in the factory. In most of the factories, the unlimited and uncontrolled chimneys spray the harmful black smoke in the vicinity. This black

smoke causes air pollution. The non-regulated noise is also a menace. It creates an obnoxious condition to the people and all other living beings.

As noise pollution is increased, air pollution also takes place, so the global atmospheric temperature is increased. The atmospheric temperature of the area of the research investigation increases due to various anthropogenic factors which degrade the entire ecological balance of the area. It affects the entire climate. As a result, climate change also occurs. The general environmental impact is understood from degraded natural vegetation, flood and draught etc. in the entire region. In a nutshell, climate change is the most harmful phenomenon due to improper environmental management.

Environmental pollution affects, in a broad extent, the flora and fauna in Kumargramduar Block along with the other portion of the Sub-Himalayan West Bengal. Human society is dependent upon the existence of flora and fauna. Flora and fauna are also dependent upon the ecological balance of the environment. Pollution menaces the ecological balance. Man-made pollution is the real hazard in the environment of the Sub-Himalayan West Bengal. Kumargramduar Block of the Sub-Himalayan tracts of West Bengal stands on the mouth of impending ecological disasters in near future due to man-made pollution hazards. The impact of pollution is very erodible on the ecological harmony of the environment in the area of investigation.

4.4. AWARENESS ABOUT THE ABATEMENT OF ENVIRONMENTAL POLLUTION

Environmental pollution menaces all corners of Kumargramduar Block. It is a man-made hazard due to lack of ecological awareness. Abatement of environmental pollution depends upon the awareness in environmental problems. The diagram is given as follows :

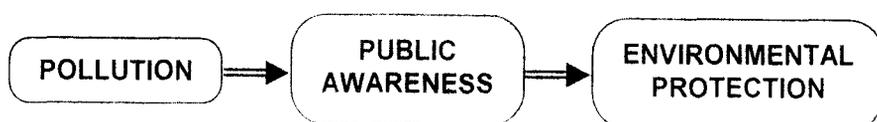


Diagram-8 (Prepared by the author) : Relationship among Pollution, Public Awareness and Environmental Protection

Public awareness is sourced from some social conditions of the society. The social conditions are poverty, food security, health, education, democratic norms, and motivation of public and public participation. The diagram is mentioned here as follows :

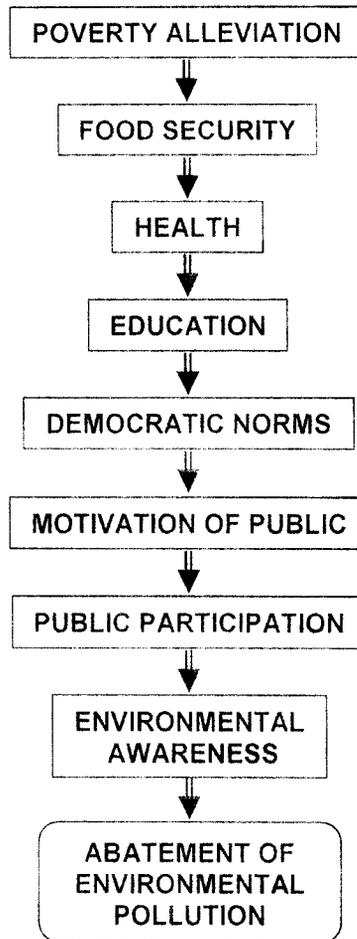


Diagram-9 (Prepared by the author) : Relationship of Social conditions and abatement of environmental pollution

Poverty is the root cause of all types of problems. It is the origin of crime. The indigenous people of Kumargramduar Block depend upon the environment for their livelihood. Environment is losing its carrying capacity due to stress of huge pollution over land, forest, wildlife, water. To abate the environmental pollution, poverty alleviation is the key to it.

Most of the people of Kumargramduar block are of below the poverty levels. Food insecurity can be mitigated if poverty is alleviated properly. Food security is the

main objective to restore good health. Good health is the indicator of health and pollution free life of the people. Food security means every person can be able to take food daily. Food security is the pre-requisite condition of healthy life.

Health means physical and mental health of the people. Physically and mentally fit can be able to live without any hindrances. Pollution affects the health of the human beings severely. It menaces human life. Sound health can do all workings smoothly.

Education means all round development of human beings. It is the adjustment procedure to the society. Sound mind and healthy body is able to get education properly. Democracy is fruitful with the light of proper education. Education can prepare the democratic norms among the citizens. Democracy means the rule of common people for their own welfare by universal adult franchise. Democratic norms can initiate of thinking for their own welfare and prosperity. Education can usher a new beacon towards preservation of democratic norms. In democracy, people take an initiative to do something for their own benevolent. Education can do it. Education can mould their mind to protect the environment and abate the pollution. It can motivate the common-folk to abate the pollution. Pollution disrupts human society including all flora and fauna in Kumargramduar Block of the Sub-Himalayan West Bengal. Public participation can abate the environmental supervision of the Panchayat Raj Institutions (PRIs) can create awareness about the environment and mitigate the pollution hazards from the micro levels.

4.5. LEGISLATIVE MEASURES TO MITIGATE ENVIRONMENTAL POLLUTION

Environmental pollution should be mitigated by means of public awareness vis-à-vis legislative measures. Public awareness along with public involvement is the pre-requisite condition to take legislative initiatives for the environmental protection in Kumargramduar Block. Environment and forests are incorporated in the Concurrent List of the Constitution of India. The Union Parliament and the West Bengal Legislative Assembly have made different acts related to environment, forest

and wildlife for the whole country and the State of West Bengal respectively. The existing environmental acts are given below :

I. Acts formulated by the Union Parliament :

A) Air Acts –

- i) Air (Prevention and Control of Pollution) Act, 1981
- ii) Air (Prevention and Control of Pollution) Rules, 1982
- iii) Air (Prevention and Control of Pollution) Amendment Act, 1987
- iv) Motor Vehicle Act, 1988

B) Water Acts –

- i) Water (Prevention and Control of Pollution) Act, 1974
- ii) Water (Prevention and Control of Pollution) Rules, 1975
- iii) Water (Cess) Act, 1977
- iv) Water (Prevention and Control of Pollution) Amendment Act, 1988

C) General Environment Acts –

- i) The National Environment Appellate Authority Act, 1977
- ii) Environmental (Protection) Act, 1986
- iii) Environment (Protection) Rules, 1986
- iv) The Publicity Insurance Act, 1991
- v) The Public Liability Insurance Act, 1991
- vi) The National Environmental Tribunal Act, 1995

D) Forest and Wildlife Acts –

- i) Wildlife (Protection) Act, 1972
- ii) Forest (Conservation) Act, 1980
- iii) Indian Forest Act (Revised), 1982
- iv) Wildlife (Protection) Amendment Act, 1991
- v) Wildlife (Protection) Rules, 1995
- vi) Wildlife (Protection) Amendment Act, 2002
- vii) Biological Diversity Rules, 2003
- viii) Forest (Conservation) Rules, 2003

- ix) The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

II. Acts formulated by the West Bengal Legislative Assembly :

- i) The West Bengal Forest Produce Transit Rules, 1959
- ii) The West Bengal Forest (Establishment and Regulation of Saw Mills and other wood-based Industries) Rules, 1982
- iii) The West Bengal Amendments, 1981 and 1988 of the Indian Forest Act, 1927
- iv) West Bengal Trees (Protection and Conservation in Non-Forest Areas) Act, 2006
- v) West Bengal Trees (Protection and Conservation in Non-Forest Area) Rules, 2007

The acts should be enforced properly in Kumargramduar Block of the Sub-Himalayan West Bengal along with the other regions of West Bengal. Strict enforcement of laws can initiate to protect the fragile Sub-Himalayan environment of Environment and the Department of Forest falls into any legal hindrance during enforcement of these laws, legislative measures for amendments of acts should be initiated by the Union Parliament and the West Bengal Legislative Assembly in the respective acts.

4.6. ADMINISTRATIVE MEASURES TO COMBAT THE ENVIRONMENTAL POLLUTION

Ministry of Environment and Forests, Government of India is the principal nodal agency to combat the environmental pollution in India under the Minister of Cabinet rank or Minister of State (Independent Charge). In West Bengal, the Department of Environment, Government of West Bengal is the nodal implementation agency to mitigate the environmental pollution in the jurisdiction of the State of West Bengal under the Cabinet Minister. Kumargramduar Block of the

Sub-Himalayan West Bengal is under the territorial jurisdiction of the State of West Bengal.

The Minister of Environment discharges his duties through the Principal Secretary of the Department. On 2nd June, 1982 the Department of Environment was created. Pollution control is controlled by the West Bengal Pollution Control Board (WBPCB), autonomous organization of the Department of Environment, Government of West Bengal. Environmental protection and pollution control activities should be undertaken up to micro levels through decentralization of the functioning of the department. In recent last the Government of West Bengal has given an order relating to environmental protection. In Municipalities, the Executive Officers will monitor the pollution problems and in non-municipal areas, the Block Development Officer will monitor the pollution problems through the Environment Cell in the respective areas. The above officials will also inspect the pollution site and take some quasi-judicial measures to control the pollution.

Forest and wildlife are integral constituents of environment. Forest and wildlife conservation are discharged by the Department of Forest, Government of West Bengal in the whole state. The Department discharges its duties through departmental directorates and corporations. The present research investigator proposes to the Government of West Bengal to have one integral state ministry involving both the Departments of Environment and Forests. This will facilitate the functioning of the above departments. Like this, Zilla Parishad (the District Council), an apex Panchayati Raj Institution (PRI) at the district level should be reconstituted as its Sthayee Samity (i.e. Standing Committee) as one 'Parivesh-O-Bon-Sthayee Samity' (i.e. Standing Committee of Environment and Forests). The committee should be given the task of formulation of plan, implementation of the plan at the district level under the area of decentralization. Only proper democracy can fruitfully augment the decentralization process. As India is a welfare country declared by the 'Directive Principles of a State Policy' (Article 38 of the Constitution of India), decentralization is a means to develop the country. So for the welfare of the people,

Panchayati Raj Institutions take an initiative for environmental protection at micro-level. The PRIs are the people's own institutions through the process of decentralization.

Kumargramduar Block of the Sub-Himalayan West Bengal is at present a pollution-affected area due to man-made environmental hazards. Kumargramduar Block is under the administrative jurisdiction of Jalpaiguri Zilla Parishad. In West Bengal, there are three-tier Panchayati Raj Institutions namely Zilla Parishad (at apex level), Panchayat Samity (at middle level or block level) and Gram Panchayat (at village level). Jalpaiguri Zilla Parishad gives directives to Kumargramduar Panchayat Samity for the welfare of the entire Kumargramduar. The Samity gives directives to all the Gram Panchayats (G.P.s) in all matters related to rural development. The Gram Sabha is a body of electorates who cast their franchise to elect Village Panchayat Member. It is also a body to formulate plan for rural development under the aegis of the Gram Panchayat (G.P.)

For the administration of the environment at micro level, Gram Sabha should find out sources of environmental pollution and formulate the mitigation in plan at the Gram Sabha level. There is a proverb, "Work locally and think globally". This proverb is fruitful if the Gram Sabha takes an initiative to find out the problems and to formulate the plan. The village Gram Panchayats (GPs) should, therefore, encourage the Gram Sabha in the matters of environment. The diagram is mentioned here as follows :

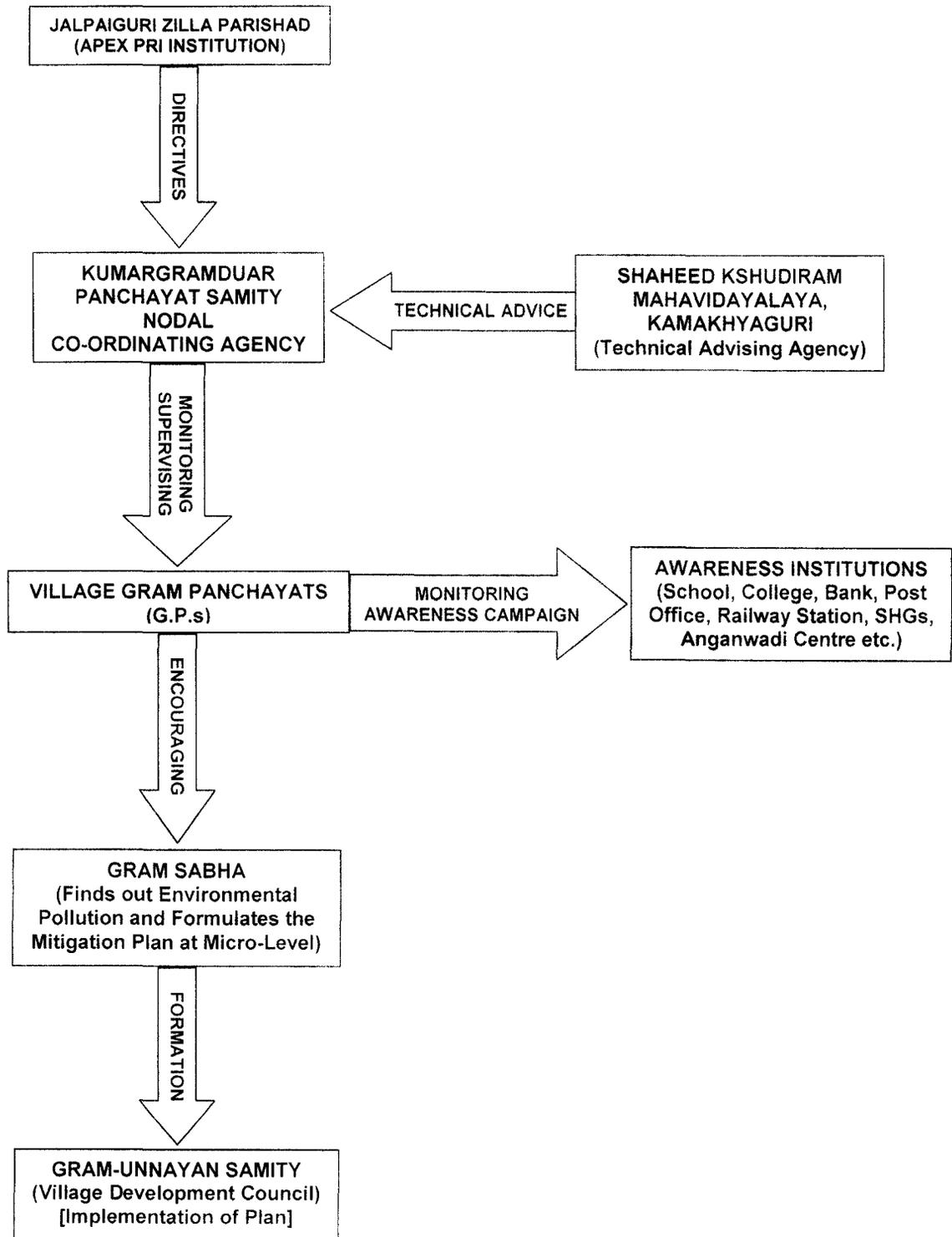


Diagram-10 (Prepared by the author) : Functions of the different level of Panchayati Raj Institution.

The Village Gram Panchayats should monitor the awareness campaign through the societal institutions namely high schools, primary schools, post offices, forest range offices and beat offices, Self-Help Groups (SHGs) and Anganwadi Centres etc. The Gram Unnayan Samity (i.e. Village Development Council) is

formulated by the Gram Sabha. The respective Gram Unnayan Samity should implement the plan formulated by the respective Gram Sabha.

The Panchayat Samity should supervise and monitor the village Gram Panchayats. Shaheed Kshudiram Mahavidyalaya at Kamakhyaguri should discharge its duties as the nodal technical advising agency of Kumargramduar Panchayat Samity of the Jalpaiguri district. Kumargramduar Panchayat Samity discharges its duties as the principal nodal co-ordinating agency in the protection of the environment of the entire Kumargramduar Block. Forest Protection Committees (FPCs) and Eco-Development Committees (EDCs) should make aware the environmental matters to the respective jurisdiction along with the P.R.I.s.

Jalpaiguri Zilla Parishad as apex PRI body should give directive, monitor and co-ordinate with Kumargramduar Block in the matter of environment in collaboration with the proposed reconstituted State Department of Environment and Forests, Government of West Bengal. The department can enforce the laws related to environment in collaboration with the PRIs in Kumargramduar Block for the environmental protection.

4.7. JUDICIAL SET-UP TO PROTECT ENVIRONMENTAL POLLUTION

In the organization of the Government, there are three integral wings namely administration, legislature and judiciary. For the welfare of the nation, these three integral wings of the Government should discharge their duties according to the directives of the Constitution of India. Judiciary initiates the role of environmental protection in the entire country. The Supreme Court of India the apex Court of the Country has given the holistic judgments in many environmental cases in India.

The Calcutta High Court of Judicature has constituted the "Green Bench" to deliver the easy judgment in the environmental disputes under its jurisdictions. In Kumargramduar Block of the Sub-Himalayan West Bengal, all environmental disputes are under the jurisdiction of the Calcutta High Court. The Calcutta High Court gives directives to the Jalpaiguri District Court in the ecological disputes. The Alipurduar Sub-Divisional Court has direct jurisdiction in the ecological disputes of

Kumargramduar Block. The court may give its judgment as the civil suit or the criminal suit in the ecological disputes.

The Alipurduar Sub-Divisional Court should take an initiative to protect the environment of Kumargramduar Block. The Court should make an Empowering Committee to monitor the environmental protection of the area of investigation accompanying the experts' groups namely ecologists, educationists, lawyers, administrators along with social workers and senior citizens of the block. The court made Empowering Committee (EC) should monitor the workings of Kamakhyaguri's Saheed Kshudiram Mahavidyalaya as the Technical Advising Agency and Kumargramduar Panchayat Samity as the Principal Nodal Co-ordinating Agency for environmental protection of Kumargramduar Block of the Sub-Himalayan West Bengal. The Empowering Committee (EC) should co-ordinate with these agencies when problems are raised. This Empowering Committee (EC) can transfer of technological know-how and advise these agencies for enforcement of laws for the environmental protection in Kumargramduar Block of the Sub-Himalayan West Bengal.

4.8. CONCLUSION

Environmental pollution is a man-made physico-social phenomenon in Kumargramduar Block of the Sub-Himalayan West Bengal as found in other parts of the earth. Pollution menaces human society severely. It affects all flora and fauna in the area. It clogs the wheel of sustainable development of the Sub-Himalayan West Bengal. The three integral components of the Government such as administration, legislature and judiciary along with the public participation can abate the environmental pollution in the area of study. Decentralization can initiate the steps to the environmental protection at micro level. A new initiative for pollution-fee zone should be taken in Kumargramduar Block through the public awareness vis-à-vis the enforcement of laws for the environmental protection.

¹ Kaushik, Anubha & Kaushik, C.P. (2004) : Perspectives in Environmental Studies, New Age International Publishers, New Delhi. pp. 123.