CHAPTER II

STATE POLICIES IN SOVIET RUSSIA
TOWARDS ENVIRONMENT
It is true that 'economy plays a vital role on environment' and 'environment plays a vital role on economy'. In both the ways they are interdependent on each other. We know that in later ages economies grew and the theory of capitalism, socialism came into existence. America emerged as a super power following capitalist form of economy and Soviet Union by adopting socialism. Two different countries, adopting different forms of economies have almost same impact on the environment. It is widely known that socialism believed on equal distribution of resources. Then question arises, what were their policies towards environment and how they dealt with it. All the administration, laws and policies were made in the center, Moscow. The state controlled the means of production and allocated all investment. This chapter is subdivided according to the rulers ruled on Soviet Union for last 80 years and some account of disintegrated Russia is also taken.

Environmental policy issues in the USSR have always been very contradictory and divergent i.e., expressed legislative intentions have sounded rather optimistic in their approach to ecological problems, but practical outcomes have been disappointing because the intentions have not been implemented.

The critical environmental situation in the Soviet Union is a result of almost seventy years of dogmatic and doctrinal “communist-style” development - years of major ecological disasters. Throughout the whole history of the economic development of USSR it is difficult to discover a single period of
nature protection activity which was not rendered ineffective by a corresponding environmental destruction. For instance, national economic five year plans, originally started in the late 1920s under Stalin, have degraded natural resources (such as rivers, forests etc.), to say nothing of the millions of citizens from all fifteen republics of the USSR who perished during the thirty - years of Stalin's unprecedented reign of terror.

This period was followed by some eleven years of Khrushchev's ill-planned and ecologically damaging reforms in industry and agriculture, which were, in turn, followed by about twenty years of Brezhnev's rule, usually described in the USSR as "years of economic stagnation and corruption" during which ecological interest counted for little. At the 28th USSR Communist Party (CPSU) Congress in July 1990, its newly elected General Secretary, and the Country's President, M. Gorbachev, acknowledged that most of the current ecological problems stemmed out from 1930s and 1950s. Nevertheless, this was only half-truth; it should also be recognized that many were caused by the existing legal and institutional organization of economic and social life.

In historical retrospective, there were several main stages in the evolution of environmental legislation in the USSR:

a) The period 1920-1940s, which saw the foundation of Soviet nature and conservation, laws (Stalin's period)

b) The period of legislative consolidation in environmental protection i.e., 1950-1970s (started in the period of Khrushchev continued till Brezhnev period)
c) The contemporary stage in the evolution of environmental legislation, when problems became reflected in the constitution and in environmental policy formation (Gorbachev’s period).

d) Disintegration of the USSR and hence total negligence of the environment. (Transformation to market economy under Yeltsin).

In fact, environmental law and management really were never important in Soviet internal and external life. While there have been changes in offices, Soviet attention to environment since the death of Stalin, certain fundamental perceptions of environmental use and protection have remained the same. In large part, this is because the basic economic structure set up during the industrialization drive of the 1930s experienced only minor modifications through the Khrushchev and Brezhnev eras.

By the early 1980s, formal planning for nature protection was underway in several industries, although only the program for ferrous metallurgy was actually published. By the mid-1980s, the fact that the general theme of environmental difficulties was prominent in Soviet literature, it was sufficient encouragement for a reconsideration of the question of environment in the Soviet Union.

HISTORICAL PERSPECTIVE: TILL 1917 REVOLUTION

Under the direction of Minister of Finance, Sergey Witte, the government’s industrialization program picked up in the 1890s. It was followed by the extension of Russia’s railway lines, textile production and almost every area of heavy industry e.g., iron and steel production, oil drilling, coal mining.
In the late 1890s until the outbreak of the First World War in 1914, there was huge rural-urban migration, where peasants moved towards the cities to work in the industries.

Environmental protection was a marginal concern at the time of the Bolshevik Revolution. The large number of decrees and resolutions could be considered environmentally related in the broader sense. The Socialist attitude toward nature was “Nationalization” i.e., the process of putting all natural resources and all means of production under state ownership, which continued till the Soviet Union’s disintegration. Laws were “Conservationist” in character aimed at more complete and efficient exploitation of Soviet Union’s natural resources.

The first Soviet nature preserve, “the Astrakhan Zapovednik” in the Lower Volga delta, was approved by Lenin in 1919 shows, though negligible, but actions towards nature protection. Momentum of the pre-Revolutionary Russian Nature Protection movement was neglected due to the 1917 revolution and the civil war.

**Lenin 1917-1924**

Plundering of natural wealth in the Tsarist Russia was critised by Lenin. He believed that the most intensive plunder of natural resources “undoubtedly marked the beginning of Capitalism.” According to him exploitation of natural

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2 Zapovedniki, or state nature preserves, are large tracts of land set aside for preservation and scientific research, legally hunting and fishing, lumbering and other forms of commercial exploitation are forbidden within them.
resources helps increase in technical facility, on one hand, and unbridled competition and greed of Capitalist for profit on the other.

He argues against this exploitation of earth's wealth, "Capitalism creates large scale production and competition, which are attended by rapacious use of the productive forces of the soil" (talking about Russia's land reserves and the intensification of crop farming).

Sharing Fredrick Engels' view that the fertility of land can be increased by the investment of capital, labor, and science, he wrote that "to explain the aggravation of the workers' conditions by argument that nature reducing her gifts can mean only that one has become a bourgeois apologist."5

Relating Environment and Society, he believes that it must be based on the laws of social development and laws of nature. According to him "laws of the external world... are the bases of man's purposive activity."6

He believed in modernization and for working towards it. His slogan was "Electrification of the whole country."7 There were fifteen decrees related to nature. These included the Laws on nationalizing Land and Forests, Laws on Hunting and Fishing, and Legislation pertaining to Mineral Resources and Irrigation. Several themes, which were established in this period, have carried over into the present time.

5 Ibid., p. 111.
The utilization of natural wealth and protection of the environment in the USSR were laid by the decree on Land adopted by the Second All-Russian Congress of Soviets on November 8th, 1917 and was drafted by Lenin. The Nationalization of land, mineral, water, forests, animal, and other natural resources, which became public property, provided the legal foundation for implementing wide scale government measures to preserve and improve the environment.

A large spruce was felled by the orders of E.La Vever, director of the workers' rest home that had recently opened there, on 14th July 1920. This was 40 kms. from Moscow on Gorky government estate. On the same day a protocol against illegal felling drawn by A. Belenkii, the commander of Lenin's personal guard, was noticed by Lenin. He ordered for Vever's arrest for one month. This incident was quite famous and an example of the concern of the socialist government and of Lenin personally, for the preservation of nature.

Under the ownership and social control overall natural resources, individuals were allowed to use natural wealth of the country for personal needs. (e.g., collecting firewood) but refrained most forms of private gains. Apart from this not much was done in Lenin's period. He died in 1924.

**STALIN 1925-53**

Joseph Stalin introduced the First Five-year plan in 1928. He launched a massive drive to industrialize the Soviet Union at any cost, due to this value of environment and its preservation was fully ignored. For example, the construction of White Sea- Baltic Sea Canal in early 1930s. At the cost of
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Stalin’s plan for transformation of nature in the USSR in late 1940s focuses two things:

a) To transfer part of the Northerly streams flow Southward to the arid regions of Central Asia and Southern Russia,

b) To plant massive wind breaks and shelter belts of trees in the Steppe regions of European Russia.\(^10\)

The Stalinist planned economy had all rewards and no penalties. This led to the ruthless exploitation of natural resources. In 1949, the USSR Council of Ministers passed a resolution “On Measures in the Struggle against Pollution of the Atmosphere and on improving the Sanitary- Hygienic conditions of Populated Areas.” This law prohibited the construction or renovation of an

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entire range of industries that did not make provision for the purification of waste gases. The Ministry of Higher Education was instructed to develop courses on gas and dust trapping. Other Ministries were to work on purification methods in their institutes and laboratories. Finally, resolution set up a State Sanitary Inspectorate attached to the USSR Ministry of Health to monitor harmful emissions.

**KHRUSHCHEV 1953-1964**

Khrushchev's period is popularly known as the era of planned and ecologically damaging reforms in industry and agriculture. During his eleven years of reign, he was unable to save the deterioration of the environment.

Several laws were passed, which shows that he was aware of the problem of environmental degradation and worked on to preserve them. Between 1957 and 1963, the fifteen Union Republics passed some form of nature protection law.

Most important was the Conservation law enacted by the Russian Soviet Federative Socialist Republic in late 1960s.\(^ {11} \) It was based on the conservation rather than environmental protection. It was made for more efficient use of natural resources necessary for Soviet Economic development. For example, the law states that measures for land conservation were primarily aimed at preventing soil erosion and ensuring maximum agricultural output. The interest in water conservation demonstrated recognition of the increasing demands that expanding industry and population were making on European Russia's water

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supplies. Mineral resources, forests, and natural vegetation were likewise to be protected for their economic value.

Commission on Protection of Nature by the USSR Academy of Sciences was established in 1955 and the recognition of nature conservation as a geographical problem by the Third Congress of the USSR Geographical Society took place in 1959.\(^\text{12}\)

The rigidity of the plan, waste of natural resources, strains on the economy and investment funds were recognized by a CPSU Central Committee Plenary Session meeting in December 1956, which revised the 6th Five year plan. After that the ministerial system was recognized into a system of "Sovnarkhozy" (Regional Economic Council) designed to end the waste and inefficiency of ministerial independence and factionalism.

Article 16 of the Russian Republic law proclaimed that "Conservation is the concern of all the people" and urged the participation of public organizations and voluntary societies in conservation efforts. Khrushchev's advocacy was "all-people-state." However, his policy was unclear, though it created to certain extent new and closer ties with the masses.\(^\text{13}\)

The final two years of Khrushchev's term were marked by a declining interest in conservation issues.

Soviet legislation since Khrushchev's time has encouraged average citizen to get involved in defending the natural environment but they were


\(^{13}\) For details refer to G.W. Breslauer, \textit{Khrushchev and Brezhnev as Leaders: Building Authority in Soviet Politics} (London: George Allen & Unwin, 1982).
controlled by the direction of the party and government and were not involved in policy areas of foreign policy, industrial organization and administrative reforms. In 1957 Estonia enacted a comprehensive nature protection law.

**BREZHNEV 1964-1984**

In the Brezhnev period, a large amount of legislation was passed on environmental matters also. The implementation of these laws was ineffective. Apart from bureaucratic resistance from the more powerful productive ministries, the old economic structures and mechanisms were presented major obstacles for ineffective implementation.

Nature conservation occupied an important place with the motive of increasing the effectiveness of social production. The state allocated eleven billion rubles for nature conservation measures in the eighth five-year plan. In socialist government the largest industrial enterprises were accountable only to the central government, i.e., Moscow, and laws of the republic where it is located were not binding on it. For example, the Estonian shale industry was subordinate to a Moscow administrative board and hence the local authority cannot demand that the mines threat the water and air, as it required by Estonian laws on environmental protection. They can only observe the carrying out of those environmental measures for which the mines get funds from the authorities in the Moscow. As a result the rivers in shale basin are the most polluted in all Estonia. Most of the enterprises, heavy, chemical, mining,

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15 Komarov, n. 9, p. 64.
power were in the same administrative situation. As a rule the laws of the Union republics were disregarded even in the planning stage.

By extension of the constitution of the USSR, the USSR Supreme Soviet approves basic legislation known as Fundamental Laws of the USSR. Several legislation were promulgated in his period.

**Fundamentals of Legislation on Land 1968:**

Under this, all land in the USSR is designated as part of a single land fund, divided into six broad categories to be disposed off by the national government. Center (Moscow) establishes the basic provisions for land use and land reclamation, develops long range plan for agriculture and other uses of land and makes basic provisions for preventing salinisation, erosion and other harmful effects. The central government has final supervisory power over land use and is responsible for developing a state land cadastre (register). A number of decrees by national and republican bodies provide for special operations as part of control of soil erosion by water and wind. For example, the decision of the CPSU Central Committee and the USSR Council of Ministers of 1967; the decisions of the Council of Ministers of Russian Federation of 1967 etc.

**The Law on Water use, 1968:**

It charges the national government with establishing Union-wide norms for water quality and land use, planning measures for integrated water utilization and conservation, protecting USSR water resources from depletion and pollution and establishing a comprehensive record-keeping system and state cadaster for water resources.
Fundamentals of Legislation on Public Health, 1969:

It covers a broad range of measures to protect and improve the natural environment. They envisage guarantees for the sanitary welfare of the population and safeguards against epidemics based on recommendations for the planning and building of populated communities, cleaning and neutralizing industrial effluents, community wastes and sewage, preventing and eliminating noise, observing the rules of maintenance of residential and productive buildings, supervising the production, application, storage and transportation of radioactive and toxic agents and potent drugs, implementing measures to prevent and eradicate infectious diseases, coordinating on a compulsory basis the standards and technical conditions of civil and industrial construction with public health agencies.\(^{16}\)

Principles of Water Legislation, 1970:

This law made available water free of charge to the state cooperatives and public organizations, enterprises, citizens and institutions in most of the cases. Users were required to use water rationally and were obliged to take steps towards the complete cessation of pollutant discharge into bodies of water. Violators were held criminally or administratively liable in accordance with the relevant legislation. In 1979, inadequacy in this law was recognized in Joint Resolution of the CPSU Central Committee and the Council of Ministers. This resolution introduced water charges for industrial enterprises at a certain rate per

cubic meter up to a ceiling established by regulatory agencies of the Ministry of Land Reclamation and Water Resources.\textsuperscript{17}

Water use above the norm incurs a 400% surcharge for most enterprises. Thermal power stations that use water to cool operating units are granted a reduced rate for water use both above and below the norms. Total revenue from this system of water charges is estimated to be 500 million rubles per year.\textsuperscript{18}

Several factors inhibit the effectiveness of this arrangement:

a) Industrial enterprises account for less than half of the water used in the Soviet Union and agricultural enterprises which account for approximately half of the usage, are not required to pay fees under 1979 resolution. Moreover, it is estimated that nearly half of the water used for agricultural irrigation is wasted.\textsuperscript{19}

b) Water charges have no economic incentives for users. Organizations, those who supply water do not operate based on economic accountability and are assured of their planned allocations of funds regardless of their efforts to conserve water.\textsuperscript{20}

c) Residential water users have to pay fixed amount with the rent (indirect payment). That is why, water usage in urban areas of the Soviet Union is among the highest in the world i.e., 25 liters per day per household is the consumption rate? About half of this is wasted, in large part because water distribution

\textsuperscript{17} C.Ziegler, \textit{Environmental Policy in the USSR} (Amherst: The University of Massachusetts Press, 1987), p. 83.


\textsuperscript{20} Ziegler, n. 17, p. 85.
agencies are assigned higher delivery quotas in the same manner that production enterprises have their quotas raised each year.  

The law obliges all organizations to take measures to end disposal of industrial effluents by means of improving and revising production processes and introducing effective disposal system.  

**Federal Law of 1972**

This law was passed to centralize the environmental protection drive. Several agencies and organizations were instructed to expand and improve their monitoring efforts in the area of environmental protection. Gosplan and other appropriate ministries were urged to increase production of purification equipment. In the fourth session of the USSR Supreme Soviet in September 1972, improving the protection of the natural environment and of making more effective use of natural wealth was discussed.  

**Resolution of 1973**

Joint resolution of the Central Committee and the Council of Ministers, in 1973, instructed the Union Republic Central Committees and Council of Ministers and other regional and local government officials to intensify supervision and to establish systematic control over the implementation of environmental protection measures. The Hydrometeorological service, an organization attached to the Council of Ministers, was instructed to organize a nation-wide monitoring and control system for levels of air, water and soil.

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21 Ibid., p. 86.  
22 Shirokov, n. 16, p. 99.  
23 Il'cv. n. 14, p. 5.
pollution. The USSR State Committee for Science and Technology was given the responsibility for coordinating research on conservation and the rational utilization of natural resources.

A chief administration for the development and production of Gas Purifying and Dust Trapping Equipment was formed under the aegis of the USSR Ministry of Chemistry and Petroleum and Machine Building for supervising the operation of purification equipment.

**Principles of Mineral Legislation, 1975:**

Under this legislation, the state cooperatives and public organizations, institutions, enterprises, and citizens were assigned to use earth's interior free of charge. Since land is a free good, users were free to move anywhere they wished, for better exploitation options, better accessible areas, better location instead of continue working in a partially exploited site. Furthermore, the enterprise pays only about 40% of the geological prospecting costs; the state picks up the rest. Both the factors provide an incentive to mine inefficiently, and thus waste natural resources. Incentives to conserve do exist in the form of material incentive and legal sanctions.

**Law of 1977**

The 1977 Soviet Constitution and Soviet Legislation guarantee citizens the right to a clean environment. Soviet citizen also has corresponding duties, which obligate them to assume a responsible attitude toward the natural environment.
Article 18 of the 1977 USSR Resolution constitute: “In the interest of present and future generations the necessary steps taken to protect and make scientifically rational use of the land and its mineral and water resources, and flora and fauna, to preserve the purity of air and water, ensure reproduction of natural wealth, and improve the human environment.”

Other general principles of environmental protection expressed in ambitious terms are fixed in Constitutional Article 11, 16, 42, 73 and others.\textsuperscript{24}

The 1977 legislation on forests stated “Soviet forest legislation is called upon actively to promote the scientifically substantiated and comprehensive utilization of forests and their planned reproduction in the interests of the present and future generations, and to foster in Soviet people a spirit of high responsibility for a zealous, proprietary relationship toward forests as an important component of our homeland’s ‘natural resources’.\textsuperscript{25}

This illustrates the conflicting demands placed on individuals by Soviet Law, they are expected to maximize production and utilize the nations wealth, but at the same time are legally obligated to take measures to prevent pollution and the waste of natural resources. It shows their economic and bureaucratic self-interest.

Resolution of the CPSU Central Committee and the USSR Council of Ministers, 1978:

It elevated the Hydrometeorological service to a State Committee on Hydrometeorological and the environment (\textit{GIDROMET}) and granted it

\textsuperscript{24} Lisitsyn, n.1, p. 134.
autonomy from the ministerial systems (Gidromet was formerly under the control of the Ministry of Health). The responsibilities were to organize a monitoring system for the natural environment, to regulate air use in urban and industrial centers and to monitor the siting of facilities in order to prevent atmospheric pollution. Its new additional job was to check on the observance by enterprises, institutes, organizations, construction projects, and other facilities, regardless of their departmental affiliation, of norms and rules in the field of atmospheric protection.

Earlier Gidromet was assigned responsibility for air pollution. Legal responsibility for water pollution rests largely with the Sanitary Epidemiological service of the Ministry of Health, although this responsibility is shared with Ministry of Land Reclamation and water resources, the Ministry of Agriculture and the Ministry of Fish, Industry and others.

**Law on Air Quality and Animal World, 1980:**

This Legislation went into effect on January 1, 1981. This law establishes a system of standardized norms throughout the USSR for maximum permissible concentrations of pollutants. Enterprises, institutions, and citizens that violate air quality legislation were obligated to compensate the state for any damages caused through their negligence. All national legislation for the protection and use of the animal world seeks to preserve adversity of species of wildlife containing provisions for protecting habitats and migration routes, provides for regulating the number of wild animals and in general, mandates a 'scientifically substantiated' approach to wildlife.
The law on Air quality has about thirty articles. The Soviet state gave importance for maintaining good air quality. The general provisions were discussed in seven articles of this law. The aim of the Soviet legislation on air quality, USSR and Union Republic legislation on air quality, the jurisdiction of the USSR in the field of regulating relations with respect to air quality, participation of public organization and citizens were the important aspects of these law.\textsuperscript{26}

There was a separate body of environmental policy composed of Fundamental or Codes of legislation concerning protection of various natural or environmental "objects." For example, the USSR Fundamentals of Water Protection Act (1970) provided priority in water protection measures to be placed on drinking and household water. However, without a sound economic backing, these fundamentals were extremely inefficient. In almost every city in the USSR one of the greatest problems was water purification.\textsuperscript{27}

\textbf{Lake Baikal's problem:}

After the Lake Baikal's pollution, the need for environmental protection was widely publicized. Lake Baikal's ecosystem is threatened by the construction of cellulose plants in the basin, which was first announced in 1958, in Khrushchev's era. Due to widespread attention to the potential harm, this development might cause the lake, the construction was not mobilized until the


\textsuperscript{27} Lisitsyn, n 1, p. 135.
mid-1960s. In 1964-65, soon after Brezhnev's assumption into power, the planned construction on the lake was widely criticized by various departments.

The government and Party eventually responding to the calls for anti-pollution measures for Baikal passed two resolutions to protect the lake:

a) The resolution of the USSR Council of Ministers handed down in 1969 declared the Baikal basin as a protected zone, thus restricting the exploitation of water, timber, and other natural resources in the area.28

b) Issued jointly by the Council of Ministers and the Central Committee of the Party in 1971, which imposed stringent requirements on the cellulose plants for the purification of wastewater and ordered improvements in cutting and transporting timber in the basin.29

However, the Baikal and Selenga mills continued to discharge insufficiently treated effluent into the lake, and additional wastes were contributed by the Ulan-Ude industrial center in the Selenga basin. Dust and gases from the Baikal basin have contributed to the lake's pollution, as has leaching from timber rafting. Galazi noted the massive destruction of epishura, the zooplanktons necessary to purify Baikal's water and a crucial link in the food chain.30

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Brezhnev in 1976 pledged that the trend toward increasing allocations for environmental protection would continue. Soviet republics often find themselves at a disadvantage in dealing with polluting industries. Many of the largest industries—defense, chemicals and petroleum, steel, coal mining and metallurgy—are administered directly from Moscow. The bulk of economic Ministries in the USSR are All-Union Ministries, they have no republican equivalent to act at an intermediate-level authority. Meeting quantitative norms

Table 2: State Capital Investment in Measures for the Protection and Rational Utilization of Natural Resources (in Million Rubles):

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Water</th>
<th>Air</th>
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<tbody>
<tr>
<td>1973</td>
<td>1143</td>
<td>917</td>
<td>116</td>
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<tr>
<td>1974</td>
<td>1528</td>
<td>1242</td>
<td>152</td>
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<td>1975</td>
<td>2084</td>
<td>1387</td>
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<td>1976</td>
<td>1887</td>
<td>1430</td>
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<td>1977</td>
<td>1783</td>
<td>1390</td>
<td>174</td>
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<tr>
<td>1978</td>
<td>3713</td>
<td>2865</td>
<td>332</td>
</tr>
<tr>
<td>1979</td>
<td>9281</td>
<td>7102</td>
<td>837</td>
</tr>
<tr>
<td>1981</td>
<td>1845</td>
<td>1362</td>
<td>141</td>
</tr>
<tr>
<td>1982</td>
<td>1854</td>
<td>1365</td>
<td>145</td>
</tr>
<tr>
<td>1983</td>
<td>1764</td>
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<td>123</td>
</tr>
<tr>
<td>1984</td>
<td>2285</td>
<td>1684</td>
<td>202</td>
</tr>
</tbody>
</table>

Source: Narodnoe Khoziaistvo SSR v 1985 p63.

constitutes the single most important criterion of success for ministry and development officials, factory managers, and ordinary people workers. Laws, national, or republican will conveniently be ignored when economic interests are at stake.

The economy was in crisis. There was wasteful and inefficient use of resources, bureaucratically muscle bound in efforts to innovate technologically and institutionally, and scandalously, callous and inept in meeting the Soviet population's need. Soviet GNP growth has generally been decelerating in the year since the second world war: it was 6 - 7% in the 1950s and 5% in the 1960s, declining to 4% and then 3% in 1970s. Investment on natural resource protection was almost doubled in eleven years, from 1143 million rubles in 1973 to 2285 million rubles in 1984. There was substantial increase in water resources protection. Approximately, 72% of the total investment allocated to the protection of water resources in 1984 (table 2).

The inter-basin transfer to the south was one of the most debatable issue till Brezhnev's period. The water transfer plan was based on the fact that there is a surplus of moisture in tundra and taiga zones of the USSR, and the deficit in the steppe, semi desert and desert. One of the first proposal for an inter basin transfer was made in the 19th century by a Russian engineer named Demchemko. In the 20th century there were further proposals. By the mid of the 20th century Soviet Union elaborated a unified program for the use of water resources and started construction of reservoirs on its large rivers. An on all these plans, the

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Figure 1: Flow of Administrative and planning Functions in the USSR.

rate of evaporation and the rate of infiltration of the diverted river were not taken into consideration. The proposal offered for the European part of the USSR envisage the tapping of the water either from natural lakes or from reservoirs to be created from the north flowing rivers. The partial diversion of the water from the north is designed to improve the water supply for industrial cities, provide irrigation water for agriculture and help support the water level of the Caspian Sea. These proposal were not accepted by the Soviet policy makers till early 1980s. in the twenty-sixth party Congress in February 1981, Brezhnev did not mention the issue of water resource distribution in his speeches. Whereas at the 25th CPSU Congress in 1976, the Prime Minister Aleksey N. Kosygin mentioned it. 33

The causes of Soviet weakness in scientific creativity and innovation include overly centralized planning and control, which tend to stifle initiatives, the limits of bureaucracy places upon creativity; the separation of research and development from production process; the institutions of producers from the suppliers and consumers who might push them to innovate; a price and incentive system which discourages innovations. 34

**GORBACHEV 1985-91:**

The first five years of Gorbachev’s leadership have witnessed the failure of many of the attempts at restructuring the economy, although they have been very successful in terms of democratic changes. Same thing applies for

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34 Campbell, n. 32, p. 29.
environmental policies also. Because of the increased openness and restructuring
the old policy structure in the USSR government policy towards environmental
protection was expected to change.

During the first half of 1985, at the beginning of Mr. Gorbachev's "
perestroika" (economic and social restructuring), the national economy
administered through a Central Planned System, which had its origins in the
early 1930s and is now called an "administrative command system."

Main factors governing environmental policy were:
- Conservation of energy and natural resources
- Economy in the use of labor, resources and capital

Eradication of a general conflict of interests between development and
environmental protection. The various proposals for change can be stated in
terms of the implementation of two key concepts: intensification and the
acceleration (uskoreniye) of scientific technical progress. Uskoreniye, also dealt
with the modernization of equipment and protection processes through out
Soviet industry and stresses the more effective translation of research and
development findings into actual practice. These activities were called as
Machine Building and Metalworking (MBMW), and received double the
amount as investment in the twelfth five year plan (40% of the investment).

Several legal enactment have been put into effect since 1985. Most
important was the January 1988 resolution of the CPSU Central Committee and

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no. 7, September 1987, p. 492.
Council of Ministers on restructuring state environmental organs creating 'Goskompriroda.'

State Committee on Environment/ Nature Protection law, 1988:

It was created in 1988, but it could not fulfill its prescribed functions, because to do so, the country needed, first of all, an effective economic mechanism: (i) to prevent the irrational use of natural resources, and, (ii) to halt the continuing pollution of the environment, rather than a completely new organizational infrastructure. In 1991, the State Council of Environmental Protection (SCEP) was transformed into the USSR Ministry on Environmental Protection and use of Natural Resources.

A new stage of environmental protection administration in the USSR started in the beginning of 1988 with the adoption by the USSR Councils of Ministers of Decree in number 32, on "Radical reconstruction of Nature Protection activity in the country." As stated in this decree the main idea behind a new structure was to vest, "all the responsibility for nature protection and rational use of natural resources in the newly created SCEP and the USSR Council of Ministers, and the Constituent Republics." A general trend was started towards institutional or organizational restructuring rather than towards consolidating environmental law and improving its efficiency.

In the beginning of April 1989, the most powerful "opponent" of a "rational" trend in environmental protection in the country was abolished, i.e., the USSR State Committee on Agricultural Production (Gosagroprom), whose functions were then transferred to the republican agricultural ministries.
However, most of the sectoral interests have survived in the other economic departments; and are at variance with the aims of nature protection and environmental quality.

The legislation framework for Union Treaty (proclaiming "a Union of Sovereign States" between center and republics) was prepared in the first half of 1990: the new USSR law "On delineation of Competence between the Union and Federation Subjects" adopted on 26th April and was effective from 3rd May, 1990. This law should be regarded as an additional instrument to "General Principles..." adopted in the summer 1989, with one notable exception, i.e., the law established a referendum-type procedure for republics in the USSR wishing to secede from the Union.

The change in the law provided some evidences on the practical implementation of new ideas on "separation of powers" underlying the USSR's environmental policy, in which environmental protection and use of natural resources, although being substantially separated, were treated together. There was "a working" Ecological Committee in the USSR parliament which was the legislative branch in national environmental problems, all previous committees being merely bureaucratic; there was also a Commission on Natural Resources in the executive branch; and a newly created "special body" in one of the judicial branches (i.e., the one consisting of national courts and procurator's offices).
The legislation system was consisted of: (i) Pan-Union Fundamental Principles of Legislation concerning Land, Minerals, Waters and Forests; (ii) The USSR laws on the Protection and Use of Wild Flora and Fauna, on the Protection of the Atmosphere; (iii) Codes within the Union Republics on Land, Minerals, Water and Forests; (iv) Republican Laws on the Protection and use of Fauna, Atmosphere and Nature Conservation. According to Soviet environmentalists, there were about 4 - 5 thousands Acts which may be regarded as sources of environmental law in the USSR. 36

There were two distinct major trends in the process of environmental legislation and law in the Soviet Union. The first was concerned with the content of environmental law per se, that is, with certain legislative developments within the norms on land, mining, water, air, forests, other natural resources and nature conservation laws. The second was the Soviet law consists of numerous branches including State law, constitutional law, administrative law, air law, mining law, land, law, etc., which all worked parallel to one another causing undue legislative duplication.

Land use and Protection:

Land legislation was reflected in various laws and norms. Regulation aimed at:

(i) Land protection, (ii) Land restoration, and (iii) Land improvement. The rational use of land and its protection from pollution was a constitutional

principle, which was relevant to all kinds of land use (Article 12, the 1977 USSR Constitution).37

Most active land use legislative efforts were oriented towards various measures of soil/land erosion control. The cost of erosion is very great in the USSR, as various forms of water and wind erosion threaten about 50% of arable land. But all the measures for erosion control have so far, proved inefficient: per capita arable land is in the USSR is steadily decreasing and is now about 0.8 hectare, compared to more than a hectare 10 years ago. Since the 1917 revolution, productive arable land has only increased by 70 million hectares, whereas the country’s population has grown by 100 million. Land is lost through salinisation, changes in the water table, dust, and salt storms.

One major reason why the USSR “Law on Land” has been a complete failure is that the Soviet Legislature did not introduce on important concept into the law i.e., of private land ownership. During the first five year of restructuring period, USSR legislative activity has been aimed, generally, at transforming the national economy from a bureaucratic and centrally planned economy into an incentive-oriented and efficient one. The “Law on Ownership” placed the question of natural resource management in the hands of the USSR Constituent republics, regions and local authorities, with the contradictory and obscure provision of ‘fulfilling public interests’.

The USSR State Committee for Nature Protection (USSR Goskompriroda) was created in 1988. Goskompriroda had fifty memebers including Ministers

37 Lisitsyn, n. 1. p. 189.
and Deputy Ministers. It meets twice or thrice a year to discuss environmental protection policy. The initial remit of this was to identify environmental regulatory functions carried out by other State Committees and government Ministries and to bring the dozen or so nature protection agencies under the umbrella of the State Committee. There are to be nine researches and scientific laboratories. The main one was called ‘Ecology’ is in Moscow. Others were to be located in Leningrad, Perm, Novosibirsk, Irkutsk, Khabarovsk, Vladivostok, Noril’sk, and Petropavlovsk-Kamchatski. From 1987 to 1990, all over the USSR, plants were closed due to pressure from the public on ecological grounds, particularly chemicals, pharmaceuticals, energy and timber sectors.

One of the main features of the economic reforms was the mandate to increase the return on investment capital.

‘Intensification’ as the concept has been termed, has special consequences for environmental protection and resources conservation as the priority has been placed on upgrading existing factories, limiting new industrial construction and improving the infrastructure serving factories, workers and farms. The most important aspect of the economic reorganization was the assessment of the enterprises on the basis of their efficiency. This was called ‘Khozraschet.’

Under the heading of ‘pollution controls,’ there were several activities like:
- Reduce and treat the gaseous, liquid and solid wastes generated by industry, which present dangers to human, animal and other life
- Treat municipal and household sewage and manage solid waste disposal

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Figure 2: The Structure of Goskompriroda:


"Goskompriroda"

- Advisory Council
- Chairman of the State Committee
- First deputy chairman (2)
- Deputy Chairman (4)
- Operating Divisions (8)

* Main Division Economics & Organization of the Use of Nature
* Main Division Scientific-Technical Progress & Ecological Standard
* Main Division International Cooperation
* Main Division Propaganda on Ecological Information
* Main Division Regulation & Inspection
* Main Division Capital, Construction & Material-technical Supplies
* Main Division Ecological Expertise
* Personnel Department


- Rationalize the use of agricultural chemicals, irrigation, and drainage technologies
- Clean up polluted areas and manage toxic and hazardous waste disposal.

The scope of water management problem in the Soviet Union is huge. The average annual flow of nearly 3 million rivers, streams, and tributaries is estimated to be around 4700 cubic kilometers, although some 80% occur in 36 large rivers such as the Volga, the Don, the Ob, the Amur Darya and the Syr Darya. Additionally, there are numerous fresh water lakes having a total
capacity of about 25.2 cubic kilometers. Exploitable ground water resources are further 378 cubic kilometers in volume. 19

The main environmental concern was the protection of fresh water resources. Such a priority was spelled out in the 12th Five-Year plan (1985-1990). However, great economic gains could have been achieved with enhanced attention to air pollution controls. Activities undertaken to prevent water pollution were two folds: (i) Enterprises were required to install additional industrial waste water treatment capacity and water recycling technologies; (ii) Localities were being urged to construct municipal sanitation systems.

Table 3: Toxic emissions into the air from stationary sources for selected cities (in thousand metric tons):

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>1987</th>
<th>1988</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barnaul</td>
<td>208.5</td>
<td>183.7</td>
<td>183.6</td>
</tr>
<tr>
<td>Krasnoyarsk</td>
<td>341.8</td>
<td>291.0</td>
<td>258.6</td>
</tr>
<tr>
<td>Krivoy Rog</td>
<td>1314.2</td>
<td>1290.0</td>
<td>1252.7</td>
</tr>
<tr>
<td>Moscow</td>
<td>411.0</td>
<td>369.1</td>
<td>311.8</td>
</tr>
<tr>
<td>Novokuznetsk</td>
<td>1001.9</td>
<td>892.9</td>
<td>833.0</td>
</tr>
<tr>
<td>Novosibirsk</td>
<td>232.1</td>
<td>228.4</td>
<td>235.0</td>
</tr>
<tr>
<td>Total USSR</td>
<td>68344.9</td>
<td>64295.7</td>
<td>61716.0</td>
</tr>
</tbody>
</table>


According to soviet authorities, the level of air pollution from stationary sources has shown a declining trend from 1985 to 1988. This was the period of increasing economic growth and industrial output.

In urban areas, fresh water was supplied for drinking, municipal operations, industries, and private gardens. Soviet industry was frequently encouraged to provide its own water supply and waste water treatment facilities, especially in cases where most of it was used in cooling systems and is

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19 Lisitsyn, n. 1, p. 193.
subsequently discharged untreated. Industrial processes, which consume large volumes of water and have significant volumes of effluent requiring treatment prior to release, are often located in cities, those of particular concern being the food products, pulp and paper, chemicals, oil and gas, and metallurgical sectors. Urban sewage treatment operations although some enterprises may require only intermittent services. In 1988, recycled water totaled 274 cubic kms. in all the sectors. Most of the reported recycled water was used by industries. Water recycling expanded by 3320 cubic kms. from 1985 - 88 for all sectors of the economy. The data for municipal waste water treatment indicate that in 1988, 1905 cities of a total 2190 had sewerage systems and that 2132 of a total 4026 settlements of 'urban-type' were similarly provided. These systems totaled 77.7 thousands kms. in length.40

In the Soviet Union, the regulation governing mandatory cleansing of effluent was referred to as 'normative'. The normative covered a range of organic, toxicological, bacteriological and general sanitary factors that were developed because of implications of specific pollutants for human health. The formation of the USSR Union Republic State Agro-Industrial Committee (Gosagroprom) was announced in November 1985, with the explicit purpose of granting the agricultural sector sufficient power to influence the decisions of related Ministries e.g., Minvodkhoz. In April 1989, Gosagroprom was abolished. It is important to note that in establishing Gosagroprom, the Central Committee specifically stated that the new State Committee would assume some functions.

40 Ibid., p. 197.
previously exercised by Minvodkhoz. These included provision of expert review of designs and estimates; setting ceilings on capital investment and financing of amelioration work; and acceptance of completed construction.

President Gorbachev pursued a policy to restructure agricultural management, by promoting the creation of ‘Small Cooperatives’ and ‘Inheritable leaseholds.’ State and Collectives were assigned production targets for specific crops, but a complicating factor was sometimes reported when the natural conditions at a given site were unsuited for the designated produce. In effect, such decisions, reduced the farmer’s ability to maximize the use of ameliorated land, and would continue to do so, until on-site managers were allowed greater freedom to plant the crops they believe would show the greatest yield under local conditions.

Responsibilities of the State Irrigation Services and State and Collective Farms plus the organs of Minvodkhoz were provision of water intake and purification systems; maintenance of the distribution network; monitoring consumption; and wastewater treatment. Since Chernobyl there has been the additional factor of radio active contamination for which no solutions have appeared thus far; as farm land in the fall out zone continued to be planted and harvested, it was concluded that the surface and ground water affected by Chernobyl were similarly used. The Ukraine’s natural shortages of surface water combined with the intense irrigation of agriculture have resulted in severe groundwater contamination, although how much requires cleansing has not been reported.
The 1988 law on environmental protection envisaged that enterprises would be required to pay a penalty for polluting. Thus, an enterprise or an agricultural unit will be faced with payments for water consumed and for releases of untreated wastewater though there were certain reservations about the level of penalties and sanctions. The regulations for allowable concentrations of chemicals in agricultural water and on the soil primarily concerned the use of fertilizers, pesticides, and herbicides. 41

**Russia Under Yeltsin:**

Post Soviet Russia faces a host of intractable problems, from civil rebellion and economic breakdown to political turmoil and organized crime. In the long run however, the biggest of all making Russia a menace to the whole world – may be the ghastly environmental legacy of reckless Soviet industrialization and military build up.

**Table 4:** Russia Gross Domestic Product by sector of origin (Current Prices 1989 & 1994 in percentage):

<table>
<thead>
<tr>
<th>Sector</th>
<th>1989</th>
<th>1994</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>38.9</td>
<td>30.4</td>
</tr>
<tr>
<td>Agriculture &amp; Forestry</td>
<td>16.2</td>
<td>6.8</td>
</tr>
<tr>
<td>Construction</td>
<td>11.3</td>
<td>9.1</td>
</tr>
<tr>
<td>Transport &amp; Communication</td>
<td>9.1</td>
<td>9.5</td>
</tr>
<tr>
<td>Retail &amp; wholesale Trade</td>
<td>8.8</td>
<td>16.6</td>
</tr>
<tr>
<td>Others</td>
<td>20.1</td>
<td>27.7</td>
</tr>
</tbody>
</table>


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41 Lisitsyn, n. 1, p. 129.
The problems of environmental safety were reflected in a number of articles of the new constitution. In particular, the article 42 for the first time mentioned the right of the citizens of Russia to favorable environment, reliable information on its state and compensation for damages inflicted to the health or property by economic infringement was fixed. In the early 1990s, air pollution issues became a high priority for the Russian Republic. The Federal Environmental Fund allocated nearly a quarter of its budget to reduce air pollution in 1993. In 1993 the constitution of the Russian Federation was as follows:

Article 9, for the environment- it should be protected as a principle for the healthy life and work of the community.

Article 42.2 allows the citizen the right to reliable information on the state of the environment and for compensation for any harm to health or property through 'ecocrine' (damage to the environment).

On November 24th, 1993, the Council of Ministers, Government of the Russian Federation passed decision number 1229, on the formation of a Unified State System of Environment Monitoring (for details refer to appendix I). Its main purpose is to draw up programs of the study of the condition of the environment on the territory of Russia, measurement of environmental monitoring results. Furthermore, it also deals with the authenticity of the observed data, assessment of the environmental conditions, day to day control and precision measures of radioactive and chemical pollution caused by...

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accidents and disasters, elaboration and implementation of a unified research and technological policy in the field of environmental monitoring.

**Government programs:**

Government regulation of nature use and environmental protection by working out and implementing specific programs was one of the main lines of activity in 1993. The programs were divided into scientific and technical innovation, social, ecological, defense and other, and as a whole they represent a complex of research, production, social and economic, organizational and other measures which are specified in terms of resources, users and periods and offer an effective solution of arising problems. In 1993, a number of scientific and technical programs were launched. For example, "Ecological Safety of Russia", "Global Changes in the Environment and Climate", "Integral Research in Oceans, Arctic and Antarctic Seas" and "Safety of the Population and Production Facilities with Due Regard for the Risk of Natural and Technogenic Disasters."

"Conversion and Ecology," which was included in the 1993 Federal budget and in a draft budget for 1994 as part of the comprehensive conversion program was financed by the Ministry of Finance of Russia by granting soft loans directly to enterprises for the manufacture of definite products. The implementation of other federal ecological programs, such as "Forest restoration in Russia", "Anti-Fire Protection of Forests"(1992-97), "Improvement of Fertility of Russian Soils" (1992-95), "Land Monitoring in the Russian Federation" (1993-95), were expected to play a major role in the
forecasting of social and economic development of Russia in 1993. In 1993, 11.4 billion rubles were allocated for the implementation of the federal program "Forest Restoration in Russia," which were spent on restoration activities covering the area of 1,330,000 hectares, of which 400,000 hectares were restored with a long-term effect (planting and sowing).

The ministry has provided assistance in working out several dozens of programs for economic and social development of regions, territories and cities, for example: "Economic and Social Development of the Russian North", "Rebirth, Construction, Reconstruction and Restoration of Small and Medium-Sized Russian Towns of Historic Significance." Regional programs like: "Rehabilitation of Population and Social and Economic Development of the Altay Territory Districts Subjected to Radioactive Effect of Nuclear Tests in the Semipalatinsk Test Ground", "Social and Economic Development of the Republic of Sakha (Yakutia)", "Social and Economic Development of the Kuril Islands of the Sakhalin Region for 1994-95 and up to 2000" and others.

Environmental protection strategy in Russia:

Main principles of the long-term policy in the field of environmental protection were approved in Decree of the Russian Federation President, dated February 4, 1994 “State Strategy of the Russian Federation on Environmental Protection and Provision of Sustainable Development.”

In this case the primary attention was paid to:

- provision of environmentally safe and sustainable development in conditions of market relations,
• radiation safety of population;
• environmental protection of big cities and industrial centers and their removal from crisis environmental situation;
• sanitation and restoration of disturbed ecosystems of Russia;
• strengthening of recreational potential of the country, support of reserves and other specially protected territories.

With the purpose of necessary conditions creation for realization of these main principles the Plan on Environmental Protection Activities, dated May 18, 1994 for 1994 - 1995 was approved by the RF Government. In its creation, necessary legislative and normative base is provided (in particular, elaboration and approval of the package of 23 Federal Laws, governmental enactment and orders), preparation and realization of purpose-oriented and scientific-technical programs, other organizational-economic measures.

Contribution of Russia to the general balance of natural resources necessary for humanity life and activities can hardly be overestimated. Despite the availability of big megalopolis (Moscow, St.-Petersburg, Yekaterinburg, etc.) and districts of massive industrial building and development (Novosibirsk, Nizhniy Tagil, Magnitogorsk, Kuzbas, Norilsk, etc.) where negative processes of wasteful and uneffective nature management are taking place, Russia possesses recreation zones, which are the biggest in Europe and Asia.

Vast territories of the country in the north of the European part, West and East Siberia, Yakutiya and the Far East are covered with forest and preserved the lakes, rivers and swamped areas in the state of virgin cleanliness. Joint
actions are needed for preservation of plant and animal life, rational utilization of natural resources, elaboration of efficient processing technology, burial of radioactive and toxic waste, prevention and elimination of accidents after-effects, elemental calamities and other emergency situations.

The following goals are defined for the system currently under development in Russia:

- collect information about natural resources and the environment;
- provide up-to-date and reliable geo-referenced information by collating, processing, and storing data which in turn is distributed as information;
- supply systematically information about pollution of various components on environment;
- supply systematically information about amount of pollutants discharged to environment;
- predict consequences of pollution on the environment by making models from the existing information;
- collect information of processing occurring in the environment;
- analyze dynamics of change in the geographical environment caused by human activity;
- present and popularize the information to help bridge the gap between the scientific understanding of earth process and sound management of the environment;
- formulate conclusions and recommendations which should be taken under consideration in decision processes on all levels of management;
The system should be dynamic, which means it should be developed on a permanent basis but also be flexible so that changes within the system not will disturb its functioning. The regulatory agency *Gidromet* was founded subsequently. Initially, its main activity was to monitor and assess air pollution data. In 1988 the Environmental Protection Agency (*Goskompriroda*) was formed, as mentioned earlier. Despite the breakup of the Soviet Union and the replacement of the environmental protection agency by the Ministry of the Environment in 1991, the legal and regulatory framework for dealing with air emission has remained intact. City Councils have, in many cases taken increased responsibility protection by establishing their own special agencies or departments.

On 18th May 1994, for the planning of 1994-95, the creation of a necessary legislative and normative base was approved, preparation and realization of purpose oriented and scientific-technical program, other organizational-economic measures were also taken into consideration.

According to V.I.Danilov, the Minister of Environment and Natural Resources in 1995:

- The legal basis has been created for natural conservation.
- The vertical subordination system of the multi purpose regional nature conservation bodies has been formed. Among them ecological monitoring and inspection are the most important.
- The basis of the economic mechanism of environmental protection and a more efficient use of nature has been laid.
The instrument of state ecological programs has been put into practice. The main purpose of it is to combine the funds of the Federal budget, the budgets of the Federation Subjects, local budgets, ecological funds, enterprises and other sources for purposeful successive solution of ecological problems (regional, municipal and industrial).

- The mechanism of ecological expert examination has been started.
- The network of specially protected areas and mainly of preserves has been enlarged and developed.
- International cooperation in the sphere of environmental protection and ecological security has been extended fundamentally.
- Ecological monitoring has substantially developed.

Environment conservation was always present in the mind of the authorities in Russia. Since, they were propagating command economy, they never thought that environment is deteriorating. Earlier stages of economic development in Russia experienced heavy and ruthless exploitation of natural resources under Lenin and Stalin. The deterioration of Lake Baikal, Caspian Sea, the Chernobyl disaster etc. drew attention of not only the authorities but also the citizens of Russia and the world. Moscow made various rules, regulations and laws on the protection of the nature, pollution and fragile ecosystems. Environmental policy issues in the USSR have been always contradictory and divergent i.e., expressed legislative intentions have sounded rather optimistic in their approach to ecological problems but practical out comes have been disappointed. At the time of Gorbachev, the initial economic and social restructuring perestroika, was
influenced by the administrative command economy on which certain changes were done. His main factor of governing environmental policy was based on conservation of energy and natural resources. Today, after the disintegration command economy is transforming into market economy. It is a transition period. Its success and failure needs speculation for at least another five years or more. Along with the economic development environmental part is also been taken care of. Several laws and policies have been implemented and others are on papers.