CONGRESS AND CONSERVATION
--A Look at the NPC Reports

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(Received 29 April 2004; revised 3 August 2004)

This paper seeks to study the attitude and approach of the Indian National Congress towards the problems of conservation and environment before Independence, with reference particularly to the National Planning Committee (NPC). NPC was constituted by the Congress in 1938 to prepare a ten-year plan for national reconstruction for an independent India. The Committee worked through the Second World War and published its reports during 1945-49. Except for its sub-committee on soil conservation, the National Committee had not appointed any exclusive committee on the subject, yet many of its sub-committees were concerned in the matter. If we look at their reports, we can find out a fairly coherent body of thought on the issues of conservation and environment—deliberating on their problems under the colonial rule and their prospects for independent India.

As the National Committee was headed by Jawaharlal Nehru and scores of top brains in various fields of the national life, including a sizable number of scientists, worked on its various sub-committees, the subject of conservation and ecology did not escape their attention. No wonder, the whole scheme of their planning was based on a scientific and holistic approach taking into consideration the natural resources and environment in relation to the socio-economic progress. Needless to say, the NPC reports later served as a basis for the early steps of the Interim Government after Independence in 1947 and of the National Government when it embarked on its massive programmes of national reconstruction after 1950. The River Valley Projects and nationalisation of the mineral and other natural resources were some of the outcomes with significant implications for ecology and conservation.

This paper will, therefore, try to find out the main features of the NPC's approach in the matter, its recommendations and their relevance for that time and the times to come, in the light of imperialism, nationalism and socio-economic reconstruction in India.


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The Indian National Congress, apart from its political agenda, was interested in almost anything that had resulted from the colonial rule and intervention, which could facilitate the party’s fight for freedom. For, the nationalist leadership had perceived from the beginning that colonialism was all-pervasive and so, any effort to end it could not be a piecemeal affair. This is why what literally started as a war against the foreign rule, concluded as a cultural confrontation with unique tools of truth and non-violence under the leadership of Mahatma Gandhi. Of the many things that came in between, the finesse of the nationalist discourse on man and nature in terms of imperialism and nationalism is noteworthy. It is from this angle that this paper seeks to examine the concern of the Congress for conservation and environment, with reference particularly to the endeavours of its National Planning Committee (NPC), in the last decade of the colonial rule in India.

To begin with, the Congress focused on the economic problems and tried to promote technical education; later, scientific and technical services attracted its attention. The question of industrialisation came on its agenda with the rise of Swadeshism (urge to use things indigenous); and by the outbreak of the First World War, its leaders like Madan Mohan Malaviya presented elaborate nationalist discourse on it. Mahatma Gandhi gave a new orientation to the Congress programme, in which nature and environment assumed significance in relation to social progress and political freedom. However, the rising young leadership, within the Congress and outside it, interpreted his ideas as an ambiguous ideology bereft of any direct relevance to the problems of the country. With their background of western education and liking for western way of life, they came forward with new ideas and new solutions based on western science and technology. In order to realise their dream, the Congress constituted a National Planning Committee in October 1938, for drawing a ten-year plan for developing India as soon as she would be free. While making this plan, the NPC also took into account the question of conservation, environment and ecology. The issue was taken up also by other organs and forums of the Congress, including its individual members and sympathisers.
**THE GENESIS**

The genesis of the Congress' concern for conservation and environment may be traced to Gandhi's *Hind Swarāj* written in 1908. In this book, Gandhi presented his views not only against imperialism and material culture of the west but also on the holistic approach of the Indian culture, in which nature occupied a pivotal position. The Mahatma raised the discourse to a higher level where human wellbeing and happiness on the one hand and nature on the other were seen in a mutually inextricable relation. His philosophy of 'truth' and 'non-violence' was not confined to politics alone; it had deep implications for conservation in the widest possible sense. Initially and for many decades to come, however, Gandhi's exposition was read as an ambiguous and abstract philosophy—retrogressive in concept and impractical to follow.

Obviously, this was sure to have no takers in the colonial corridors; for many in the Congress and outside it, it was of no use either. Even Jawaharlal Nehru, a favourite of Gandhi, did not subscribe to the Mahatma's views; so was the case with M.N. Saha, the rising leader of the Indian scientific community. Yet, the ideas of the Mahatma were never rejected outright. On the contrary, he had already found some likeminded thinkers in personalities like Anand K Coomarswamy and Rabindranath Tagore, among others. However, the Congress did not promote Gandhi's ideas until he came at the helm of affairs in the early 1920s.

From this time onwards, his philosophy was begun to be translated through rural reconstruction, which once again brought the issues of nature and environment in the limelight. The programme envisaged promotion of small-scale cottage industries and emphasised sanitation and natural life, which was reflected in Gandhi's preference for naturopathy and indigenous medicine. The problems of poverty and backwardness bothered many others too; but the issues on their agenda and the means of solutions differed from those of the Mahatma. For M. Visesvaraya, the noted engineer and technocrat, the panacea for India's problems lay in large-scale industrialisation on the capitalist lines; noted scientist M.N. Saha, too, wanted large-scale industrialisation but on the Soviet model. He pleaded for a wholesale transformation of the national life with the help of modern science and technology, with a meticulous management of the natural resources of the country. In this way, both of them were addressing in
some way the problems of natural resources and environment; yet their means and the ultimate goals were different from each other as well as from those of Gandhi. This predicament was bound to influence the Congress policy and the national concern on the subject at large in the years to come. By mid 1930s, the young leadership within the party came out with similar ideas for national reconstruction, which, once again, brought the question of management of the natural resources, hence of environment and ecology to the fore.11

NPC on Conservation

After the call for Pūrna Swarāj (complete self-rule) in 1930 and the colonial effort to placate the demand leading to the grant of Provincial Autonomy in 1935, things changed fast. With the elections in the provinces and formation of popular ministries there, the nationalist leadership felt emboldened to look ahead to the approaching independence. The Congress felt so enthused that it constituted in 1938 the National Planning Committee to plan for the development of a free India. The NPC was directed to prepare a ten-year plan for national reconstruction with the help of modern science and technology to be implemented by the national government after independence. The National Committee worked through 29 Sub-Committees dealing with the various aspects of the national life. It was chaired by Jawaharlal Nehru and hundreds of top Indian experts worked on its different sub-committees.12

While defining a National Plan in a Note for the guidance of its Sub-Committees, the NPC stated that:

'The different sectors of the Plan have necessarily to be co-ordinated. The essence of planning is an advance on all fronts. There must be agricultural planning, the object being that the country should be at least self-sufficient as regards foodstuffs measured in terms of the food index given above, and as regards the quantity of raw material this should be raised by a pre-determined percentage. Soil Conservation, afforestation, grass land management, flood control and river management, and improvement of inland navigation and transport, improvement of livestock and fodder supply, are items in the planned programme which have not yet been taken up systematically. Power development of coal and other kinds of fuel for industrial power also demand planning. More important is the planning of different kinds and types of industries, large, medium and cottage, which alone may effectively mitigate the present pressure of population on the soil. Within a decade the aim should be to produce a balanced economic structure in which half the population would depend on agriculture.'13
Going by the above guidelines of the NPC and its views expressed elsewhere, it is clear that though its main concern was planning and development and not conservation or environment, it was very much aware of the latter's crucial role in the national reconstruction, and so, many of its sub-committees addressed the subject again and again. In fact, it appointed an exclusive sub-committee on soil conservation and afforestation\textsuperscript{14} and many of its other sub-committees also took note of the subject, at times in greater detail, in their respective fields, such as those dealing with River Training and Irrigation, Mining and Metallurgy, Health, Population, Power and Fuel, Crop Planning and Production, and Transport and Communications.\textsuperscript{15}

Initially, the concern for conservation arose in the context of exploitation of the natural resources for development of the country. As expected, these committees began with queries and surveys in order to understand the condition in their respective fields so that they could suggest ways and means to solve the problems and contribute to development in the future. For this, detailed questionnaires were circulated widely. The data and information received revealed disturbing facts: lack of information, dangerous equation among various aspects of environment and society, lack of coordination among the various official agencies concerned, and indifference or faulty approach of the government in the matter. All these facts were discussed and analysed, and finally reports with recommendations were submitted to the parent body, the NPC, which, in turn, passed its own recommendations, generally agreeing with the views and recommendations of the Sub-Committees.\textsuperscript{16}

\textbf{Soil and Landmass Use:} This subject was taken up in a detail and directly by the Sub-Committee on Soil Conservation and Afforestation.\textsuperscript{17} The terms of reference of the inquiry were: (1) Protection against erosion, floods and other detrimental factors affecting the soil; (2) treating it with manure and fertilizers; (3) providing drainage and other facilities needed to guard against water-logging, weeds, etc.; (4) planting of new forests in areas denuded of forests; (5) care of existing forest and sylviculture; (6) development of forest produce and establishment or development of industries founded upon them; (7) provision of transport facilities needed to develop forests; and (8) reclamation of land and such other things relevant to the subject.\textsuperscript{18}
Thus, the committee took a wider view of the subject. However, it was soon faced, as most of its sister committees, with the problem of the lack of information and data. It, therefore, also drew upon the knowledge of individual members of the committee and its collaborators but an attempt was made ‘to avoid individual bias or predilection’. Whatever information was, thus, culled in was full of distressing facts. There was no state machinery to deal with the subject properly; and the existing ones lacked in mutual coordination. But what was most disconcerting was the serious imbalance among the various contenders of land mass use. Its use by the population was faulty; the forest cover was not adequate, and whatever existed of it was maldistributed. While looking into the problem, the sub-committee took into consideration several factors, such as volume and distribution of population, factors responsible for the soil erosion, agricultural and cultural practices, impact of war, land relations and India’s climate. In this connection, it remarked that ‘The most apparent feature of the present maladjustment in relation to soil conservation is the small proportion of the total area devoted to village or minor forests, fodder crops, pastures, hit trees and other trees e.g. for fuel, timber etc.’ It also took note of the disastrous consequences in this regard of the cash crops and uncoordinated expansion of the railways, both of which were an outcome of the colonial rule in the country.

Apart from suggesting various administrative measures and considerably enhanced initiative by the state, the sub-committee underlined the ‘importance of coordination of policy, research, efforts and programmes of land use’. It put special emphasis on R&D and propagation of new knowledge and skill. It underlined the necessity of village planning and wanted it to be accorded importance along with drainage, water supply, communications and such other matters in connection with future plans for rural reconstruction.

After the final deliberation on the subject, the National Committee resolved: ‘Soil and Forests constitute a national heritage. On their successful conservation, depend the present and the future of the nation. The State, must, therefore, step in and accept responsibility for their conservation.’ It further wanted that the problems of conservation of soil and forests be treated as a whole after the closest investigation. For the control of the management and use of land, it proposed the establishment of a Land Development Board, both at the Centre and in the Provinces and the States. The Provincial and the State organisations were to look after the local aspects and the organisation at the
Centre would take up matters of interest to more than one Province. This was expected to serve the purpose of coordinating all efforts for conservation of soils and forests and enable the problems to be visualised and grappled as a whole. The Central Land Development Board was expected to deal with soil conservation including soil surveys, soil maps, soil fertility and land reclamation; anti-erosion measures; afforestation, reafforestation and improvement of existing forests; and land utilisation and coordination.

Other connected subjects like irrigation and drainage, crop production, grass lands and pasture, industrial utilisation of agricultural and forest produce, and marketing of produce from the land, should be dealt with in consultation and cooperation with corresponding organisations. The whole area in a Province or State was to be divided into physigraphic units, each of which would have a research station. A Central Institute for the study of soil was proposed for the whole country. It also resolved that adequate facilities should be provided for training in forestry and agriculture in the universities and technical institutes, especially with a view to making the results available to the public.

While the 'State must accept the responsibility for soil conservation and take all necessary measures to overcome these limitation and work out plans for conservation,' remarked J. N. Mukherjee, Chairman of the Subcommittee, "Public cooperation must be obtained and it is therefore necessary to rouse public conscience and create soil and tree sense in our people and more especially in our politicians and administrators.'

**Forest & Wild Life:** Directing attention to the existing problems of land mass and its use, such as utterly inadequate forest cover, soil erosion and infertility of land, this Sub-Committee on Soil Conservation and Afforestation recommended several remedial measures, including afforestation, control over shifting agriculture and reclamation. Giving a very special importance to forest, the NPC resolved: 'Forest must be preserved as a national heritage, and Forestry should be judged by the long-term financial results rather than the immediate surplus.' Therefore, it suggested several remedial measures for improvement, including creating organisation bodies in the provinces and the States, control of grazing and fire, contour trenching and gully plugging. Finding the general condition of privately owned forests unsatisfactory, it recommended that they
should be acquired by the State or strictly controlled by it in the public interest. Forests were to be developed and worked with a view to produce raw materials for various industries, including the cottage industries.\textsuperscript{29}

The NPC showed a deep concern for the depletion of the wildlife, and hence recommended a ban or organised large-scale hunting. For the protection and preservation of wild life in the jungles, it suggested the creation of national parks and sanctuaries in the various parts of the country. Finally, it highlighted the urgency of developing suitable means of transport and communications to enhance accessibility to the forests so that they could be developed and exploited properly.\textsuperscript{30}

**Livestock:** The Sub-Committee on Soil Conservation and Afforestation was prompt to note the ‘deplorable condition of livestock’ in the country. It attributed it to ‘insufficient production of fodder crops, bad conditions of grazing grounds, unmanageable numbers of cattle and the neglect of proper methods of breeding.’\textsuperscript{31} It went into the details of these and other factors connected with the subject.

But it was the Sub-Committee on Animal Husbandry and Dairying that delved deep into the subject. It studied the problems and prospects of various types of animals used in economic activities, for transportation and for food.\textsuperscript{32} To begin with, it took stock of all types of livestock available in the country at the time, and of the colonial measures, the initiative by the newly-formed Congress Ministry in Bombay in the matter, and trends abroad. The Sub-Committee noted that India had the largest number of cattle in the world (more than 31\% of the world cattle population), but qualitatively it was ‘perhaps the poorest’.\textsuperscript{33} Therefore, it placed special emphasis on improving their food supply, health and breeding. It discussed in detail the problems of fodder and suggested increased emphasis on nutritional research.\textsuperscript{34} Preventive measures to control the diseases were emphasised, and the value of R&D at every level and of veterinary education was underlined.\textsuperscript{35} With a view to maintain a harmony between the cattle population, their natural food supply and the volume of demands by the society, it was suggested to keep a control over their population through sterilisation and slaughtering, which was to be supervised by veterinary experts.\textsuperscript{36}

Veterinary science was a privileged sector under the British rule though essentially for military purposes.\textsuperscript{37} The NPC report differed in that it pleaded
for promoting it for wider use. It placed special emphasis on veterinary education making it an integral part of the national education system, and wanted to take the knowledge and skill generated by both of them to the village and the actual farmer. Secondly, it acknowledged, unlike most of the British, India’s great indigenous tradition in the field of animal husbandry and the good quality of the local breeds, which could be made use beneficially with the help of modern knowledge. Its emphasis on reviving and conserving the indigenous pedigree animals is particularly significant from the view point of conservation. It also studied smaller animals such as sheep, goat, and poultry that supplemented the economy of the poorer section of the Indian society, and made appropriate recommendations for their improvement.

Apart from calling for creating a system for intelligence gathering on the subject, the NPC stressed the necessity of pedigree reproduction, conservation of the indigenous livestock (milk, draught and others) and maintenance of general health and utility of the existing ones. It showed concern, at the same time, for maintaining a balance between the cattle population, and the natural and social environment. It also discussed the problems affecting sanitation on account of animal husbandry and dairying and suggested to locate their establishments away from towns and human habitations. The subject was discussed also by other sub-committees like that on soil conservation and afforestation.

Aquatic life: The NPC also paid its attention to the aquatic life in the country. A separate Sub-Committee examined the various aspects of fisheries as a prospective industry and made recommendations in this regard. What is, however, important from our point of view is the emphasis on R&D, as the subject had been badly neglected during the colonial rule. This was so in spite of the fact that fishes and other aquatic animals were an important source of protein and other vital nutrients for a sizable section of the poor throughout the country. Moreover, India had a large number of rivers and varieties of other water bodies besides possessing one of the longest coastline thriving with marine life in the world. No wonder, her ecological balance was crucially dependent on them. Yet the fact that the colonial government neglected the subject amply speaks of the official indifference to the basic interests of the local people.
**Water Resources:** The Sub-committee on River Training and Irrigation was one of the first and most important bodies to deliberate on conservation and ecology directly. One of its important members, M.N. Saha, had by now made the problems of flood and urgency of managing rivers an important issue in relation to the socio-economic development of the country. This committee considered the rivers as an important natural asset of the country; and so it made detailed recommendations as to how to train them to control flooding and devastation, and harness their waters for irrigation, power generation and transportation. In this connection, it also examined the problems of soil erosion and landmass—population ratio. After discussing the recommendations of the sub-committee, the National Committee made its recommendations.

It suggested for creating a Water Resources Board for obtaining a high degree of coordination and correlation of efforts for conservation and utilisation of water resources in the country. It wanted to have a thorough study and evaluation of the water resources—both surface and underground—for which it asked for creating a Department of Hydrographic Survey and advised to have a section on Hydrology attached to the Meteorological Department. It considered river water a major aspect of the subject that deserved meticulous and holistic approach. Instead of haphazard building of flood banks here and there, it advised to maintaining the natural river systems in a scientifically managed manner. It recommended careful training of rivers through reservoir system and other appropriate measures, and emphasised the importance of taking into consideration all factors affecting the society, economy and environment of the whole basin of the rivers. As such, besides flood control and irrigation, it pleaded for making use of river water also for transport and power generation. All this was to be achieved through development of integrated river valley projects on the model of Tennessee Valley Authority (TV A) of the USA.

A separate Sub-Committee on Power and Fuel examined the question of power generation from alternative sources. Both the Sub-Committee and the National Committee emphasized the necessity of developing and exploiting the vast resources of hydroelectricity in the country. For this, they recommended the constitution of a Hydro-Electric Survey of India, like the Royal Water Power Board of Sweden, or the Federal Hydro-dynamical Survey of Canada, as a permanent body with the same status as the Trigonometrical and Geological
Survey of India. It was to work in cooperation with the National Water Power Resources Commission, and the survey was to be undertaken according to the natural hydrological divisions of India (e.g., Ganga Basin, Indus Basin, Western Ghats and Deccan Plateau), in a comprehensive manner laid down by the World Power Conference. It was in the field of water resources that the NPC recommendations were the first to be translated into practice. In the very first session of the Dominion of India Parliament, in November-December 1947, a Bill was introduced to establish the Damodar Valley Authority, a Statutory Corporation, and the Damodar Valley Corporation (DVC) came into being in 1949. This was soon followed by other river valley projects like Kosi and Gandak Projects in Bihar and others elsewhere.

Minerals: Concurring with the report of the Sub-Committee on Mining and Metallurgy, the National Committee accepted the vital importance of the mineral wealth of the country, and since it belonged to the community collectively, the Sub-Committee wanted it to be carried on as public enterprise. It suggested: ‘Restriction should be imposed on the export of ores of national importance, such as manganese, mica, limonite, etc. A definite policy should be laid down in respect of minerals of which India has a virtual monopoly, or of which she has supply in excess of her requirements.’ It wanted that the Central Geological Survey Department should carry out a thorough and complete survey of the mineral resources of the country, and should, for this purpose, be extended and adequately strengthened with expert staff. Taking a serious view of the problem of waste in the mining process, it wanted it to be investigated by experts and stopped wherever possible. It found the existing rules and regulations regarding mining and prospecting highly unsatisfactory and so desired them to be revised. Besides, it advised Indian nationals to be trained in sufficient numbers for all types of work, to replace the then employed foreign experts at the earliest possible.

The Sub-Committee on Power and Fuel also examined the minerals connected with energy generation. In its report, the NPC called for a definite National Power and Fuel Policy treating the power and fuel resources of the country ‘as a national property, which should be fully conserved, scientifically developed and utilised’. In view of the limited reserves of coal, which could not be replenished, and its very wasteful mining, processing and supply, the NPC wanted to have a ‘very strict State control’ on the coal industry. Moreover,
in order to conserve coal, it advised to encourage exploitation of alternative sources like hydro-electricity.\textsuperscript{58}

Realising the vital importance of minerals for the country, the sub-committee on minerals and metallurgy enquired in detail into their existing condition, their mining and the laws governing them, etc.\textsuperscript{59} In view of the poor endowment of mineral resources of the country, it regretted that even the known or available mineral resources of the country had not been developed with the intensity they deserved, if the objective of national self-sufficiency in the matter of industries was to be attained. On the contrary, the matter had been made worse because of the negative colonial policy allowing uncontrolled, haphazard mining and inroads of foreign firms in the sector. They, therefore, warned against the growing oil imperialism and of the phenomenon later perceived as neo-colonialism.\textsuperscript{60}

Here again, the recommendations of the sub-committee were executed as soon as the national leadership assumed powers of governance. A Fuel Research Institute (FRI) was established at Dhanbad, which was followed by the nationalisation of the mineral resources of the country.\textsuperscript{61}

**Human Resources:** While the human resources drew attention of other subcommittees, too, it was directly dealt with by the sub-committees on population,\textsuperscript{62} health,\textsuperscript{63} and education.\textsuperscript{64} A separate Sub-Committee on Population examined the problems of the number and quality of population, its co-relation with the means of subsistence and the remedial measures against over-population. It discussed the question of redistribution of population both within the country and outside it, and several other factors affecting its quality and growth.\textsuperscript{65} Some of its findings with regard to population growth were revealing and disturbing. While confirming the steady growth in the Indian population, it noted certain trends not only hostile to the progress and wellbeing of the nation but also tending to create liabilities in terms of increase in the enhanced demand for food, healthcare and education.\textsuperscript{66}

The Committee highlighted the special characteristics of the population structure in India. In the country's 'population pyramid', it found heavier piling up at the base and shrinking in the middle and violent fluctuations relatively common at every level. Such a structure suggested an abundance of unproductive population (children), shortage of productive population (mature adults) and presence of an element of uncertainty due to fluctuations in the growth of various age groups, sex and regional distribution—a condition unfavourable for proper
planning and growth. These characteristics were not common for the population pyramid in the west. Showing concern for the declining ratio of the upper middle-aged group (40-45) from 100.4 in 1891 to 96.8 in 1931, the Committee did not fail to notice that everywhere in the world this group showed lowest mortality and that the best leadership came from it. The decline in India in the proportion of this group, already one of the lowest in the world, did not augur well for social progress in the near future.

The committee, therefore, placed emphasis on quality of the population as it considered population an important factor in the developmental process. The question of number did not bother it much at that time, though it was not altogether indifferent to it. For improving and maintaining the quality of population—its health, and its mental and physical capacity, the committee accorded importance to two factors: first, adequate food supply and proper means of subsistence, and, second, health, both of which, in turn, involved several other factors including nutritional planning and eugenic innovations for better human reproduction.

The committee pleaded for a planned food policy. This entailed extension of cultivation through reclamation of wasteland. It advocated a scientific policy with emphasis on production of more nutritive cereals, pulses and beans, and root vegetables and fruits. In addition, it underlined the importance of enhanced production of animal protein and dairy products. It felt that planned crop production in adjustment to the nutritional needs of the rural masses could be promoted only by setting up in each province a special Department of Applied Botany and Ecology, and suggested close cooperation between Nutrition Research Laboratories and agricultural and other departments connected with food supply. In order to support its views the committee pointed out that this was one of the major recommendations of the Inter-Governmental Conference of Far Eastern Countries on Rural Hygiene, and, further, that Indians could not grapple with the problems of food supply until they brought about a 'marriage between agriculture and public health'.

The National Committee felt that the prevalent under-nutrition and malnutrition should be tackled by a systematic crop planning oriented particularly towards producing heavy-yielding energy-producing and protective foodstuffs. It recommended in this connection establishment of a Central Nutrition Board with regional branches, for developing a nutritional policy in coordination with
the Departments of Agriculture and Public Health. Concurring with the views of the sub-committee, the National Committee resolved that the existing food resources should be more effectively utilised and supplemented, particularly by vegetables or animal proteins, so as to give a more balanced diet, and an attempt should be made to improve the food habits and methods of food preparation, aiming at obtaining more nutrition from the foods consumed. On most of these questions, the Committee’s approach was scientific and dynamic, and clearly reflected an attitude marked by concern for public welfare which was grossly lacking in the colonial policy.

Since matters concerning health were dealt with by a separate sub-committee, the Sub-Committee on Population kept itself confined mainly to such matters as reproduction and birth control, malnutrition and impairment of functional capacity, and maladjustment of certain individuals or groups in the society. As regards human reproduction, the committee studied in detail its various technical aspects including fertility patterns of the different regions, race and social groups in the country. It stressed the need of eugenic innovations aimed at better selection for reproduction and elimination of mentally and physically handicapped and defectives. For the latter, it recommended sterilisation of persons suffering from transmissible diseases of serious nature such as insanity and epilepsy, and legal restriction on the marriage of lepers. This, indeed, was a revolutionary idea far ahead of its time.

However, the NPC was concerned not only with the section which was useful for the society but also with that which was not. Its initiative and understanding in the matter are significant in that NPC’s was probably the first effort, at the all-India level, to look into the problems of the handicapped and disadvantaged, with a very rational and humanitarian approach. Its treatment of the subject is based broadly on three levels: prevention and cure, pragmatism in dealing with the existing realities, and resort to eugenic measures.

The Committee was concerned also with imbalance in the different sections of society and the consequent trend of ‘mispopulation.’ So, to check this malady they suggested both the birth control measures as well as the eugenic measures referred to above. The population that was bound to exist in any case, needed to be provided with suitable employment. The NPC, therefore, paid its attention to that also. Industrialisation was a paramount issue before the national leadership by then, which the committee considered as a priority
sector from the viewpoint of employment. It, therefore, pleaded for promoting agriculture as a full-time industry so that employment could be provided to the vast multitude of people engaged in it. Until the goal of full-scale employment was achieved, it suggested certain other measures like unemployment insurance and relief to industrially unemployed.77

In connection with managing the vast population of the country, the Sub-Committee Report initiated a discussion on a global approach to the problem and underlined the need for an officially coordinated and controlled redistribution of population within the country as well as outside it. In this connection, it pleaded for a rationally coordinated migration of population from one country to another in order to achieve a balance between the local resources and the population subsisting on it. It considered the anti-immigration policy of countries like the USA, Africa and Australia, based on nationality, race or colour, a menace to world peace, and called for international action in the matter.78 Here again, the thinking of the NPC was far ahead of its time.

Referring to the articles of the Atlantic Charter providing for freedom of movement for everybody all over the world, the Sub-Committee emphasised that only a theoretical right of this sort ‘will not suffice to solve the grave problem of extremely unequal distribution of population in the several countries of the world, as viewed particularly, in comparison with the available food supply’ that led to intense international rivalries resulting ultimately in global wars.79 It, therefore, concluded:

‘Unless the conscience of the whole world is roused, and a world-wide movement is adopted to redistribute by concerted action the entire population of the Globe, with a view to adjust the man power to the material resources in every corner of the earth, the Population problem of countries like India and China would be all but impossible to solve.’80

A separate Sub-Committee on Health looked into the problems of health and sanitation in the country. It tried to cover virtually every conceivable aspect of the subject: the existing state of affairs, major shortcomings, and suggestions for improvement. To begin with, the committee came out with startling facts—unreliable data in certain cases and total absence of data in others, disturbing statistics on health (high mortality rate, short average life span, rampant malnutrition and diseases prevalent on endemic level, and abysmal facilities of public health).
Concurring with the Sub-Committee, the National Committee called for raising the dietary standards substantially and in the light of the recommendations of the League of Nations. It wanted the state to be responsible for the preservation and maintenance of health of the people. It underlined the necessity of research in public health, elaborate organisational infrastructure equipped with local experts and personnel, and self-sufficiency in the production of drugs. The elaborate coverage of rural health in the report reflects the colonial neglect in the matter.

After taking stock of the public health and the services concerned, the committee made detailed recommendations for creating appropriate infrastructure for management of public health and research, staffed by adequately trained Indians, with special emphasis on rural health, food and nutrition, and health of the mother and child. It is also emphasized the necessity of self-sufficiency in drug manufacture indigenously, and of creating a system for maintaining vital statistics, for which it provided elaborate guidelines. Moreover, for all this, the National Committee joined its sub-committee to call upon the state to take initiative and share responsibilities in a big way. Problems of public health, sanitation and environment were taken up also by other sub-committees like those dealing with housing and industry.

Meanwhile, the Government of India appointed, in 1943, a high power committee under Joseph Bhore to examine and advise on the problems of health, subsequently known as the Bhore Committee. The fact that most of the NPC concerns about health, hygiene and sanitation were incorporated in the Bhore Committee report and the elaborate suggestions made about them suggests that the NPC’s concerns were taken note of by the official bodies. Needless to say, the Bhore Committee recommendations were widely welcomed in the country and they, together with the recommendations of the NPC, served as a basis of the national health programme soon after Independence.

The Sub-Committee on Education looked into its subject from the viewpoint of all-round development of both the individual as an useful citizen and the society as a whole. It studied the problems of education at all levels: Primary, Secondary and Higher. The Committee gave utmost importance to the elimination of illiteracy (90% of population at the time) as the first step towards educational reconstruction. Technical education was needed to solve the problems of unemployment, and higher education was expected to be oriented
towards research addressing the immediate problems of the country. It may be recalled that the Chairman of the Sub-Committee was M.N. Saha who had started a crusade against the recurring floods and sort of a movement for training the rivers for integrated development. Conservation and development of the natural resources for the national reconstruction was his life-long mission. Needless to say, wherever he worked, as on the Power and Fuel Sub-committee, his understanding of the subject naturally permeated his views and recommendations. From the viewpoint of enriching the cultural qualities of human resources, the Committee's emphasis on introducing cultural subjects in technical courses, 'if necessary at the sacrifice of some amount of technical knowledge' merits special attention.

**Transport:** Apart from their crucial role in the economic and social progress of the country, we have seen in the preceding pages that transport and communications were considered important also for conservation, development and judicious exploitation of the natural resources, for health and hygiene, housing, and for movement of population and the necessities of life like food and medicine. For this and other reasons, separate sub-committees dealt with transport and communications as a major component of the national reconstruction. In this connection the Sub-Committee on Transport Services made a detailed study of the existing transport facilities in the country. While it noted the gross neglect of the prime modes of movement in India—roads and waterways, it found the impressive growth of railways unbalanced in view of the local needs. We may like to point out that by this time even the government was worried about the adverse environmental effects of the railways.

But more important for our subject, the Sub-Committee also took stock of the draught animals of the country as a means of transportation. Looking at a statistical data of 1942, which counted horses at 16,30,708, mules at 65,470, donkeys at 14,67,593 and camels at 5,26,674 in 1937-38, it highlighted the importance of these animals as a means of transport especially in the inaccessible areas and of haulage of goods, which it estimated at not less than Rs. 1,000 crores per annum. However, it was intrigued at the absence of the elephant in the list, and expressed its concern at the depletion of this 'mighty monarch of the forest' through 'uncontrolled hunting' and 'indiscriminate entertainment for distinguished visitors by such devices as Kheda.'
While discussing the future needs of transportation, the Sub-Committee pleaded, among others, for greater exploitation of waterways—inland and sea, and adequate consideration of the topography and geography of the country, both of which had significant implications for environment. In this connection, it also looked at the possibility of interconnecting certain river systems of the country, idea which has been entertained from time to time by the successive governments since Independence but without any results.

**A Critique**

At the end of this discussion, one may, however, like to ask: What is the significance of the NPC exercise? Since it was only an exploratory and advisory body without any executive powers, did it really have any significant consequences—short- or long-term—for the environment and ecology of the country? The answer is definitely ‘Yes’. First of all, the NPC enquiry exposed the poor conditions and state of affairs prevailing in different areas of environment and ecology in India, and the obvious responsibility of the colonial government in this regard. Its findings presented disturbing data, even at the minimum standard of international parameters, especially with regard to soil conservation and landmass use, public health and sanitation, and depletion of natural resources including minerals, flora and fauna. What it suggested in the circumstances was representative of the nationalist aspirations.

Equally important was the timing and nature of the NPC initiative. Its period—late 1930s and 40s—was one of political and social upheavals which was made worse by a severe famine in the country and of a global war to which India was compelled to be a party. All these events were sure to disturb the ecology and environment of the Indian subcontinent. Of course, as the NPC laboured under subjugation, it could not do anything directly in this regard, but its indirect influences were unmistakable. We may recall that after the national leaders were sent to jail during the Quit India movement, the agenda of the national reconstruction of the Congress, including that of the NPC, were virtually taken over by the Indian scientists and social scientists many of whom were members of the NPC, too. The Indian scientists in particular deliberated on the reconstruction agenda at their professional forums like the Science News Association and its mouthpiece, the famous journal *Science and Culture*.102
The subject was discussed also at the National Institute of Sciences of India and still larger all-India forum, the Science Congress Association.\textsuperscript{103} Everywhere, while discussing the national reconstruction in their scientific and technical context, natural resources, environment and ecology always came up for discussion in a big way. Some of the most profound discourses on the subject appeared at these forums.\textsuperscript{104}

This helped prepare a public opinion on a range of subjects and garnered a wide support for India's development and independence. Interestingly, such support came also from the intellectual fraternity in Britain.\textsuperscript{105} In fact, the local pressure, coupled with the exigencies of the World War, compelled the Government of India to seek scientific advice from the Royal Society, London, on how to organise and promote science and technology for developing India, which culminated in the visit to India of A.V. Hill, one of its Secretaries and a Nobel Laureate, in 1944. Unlike the colonial emphasis on industrialisation in the past, Hill shifted top priority to agriculture, health, population, management and development of natural resources, and transport and communications in this connection.\textsuperscript{106} This was widely welcomed by the Indian scientists and others concerned, adding weight to Hill's advice, who persuaded the Government of India to speed up the officially sponsored reconstruction programme on a line closer to the local interest and welfare that was full of environmental and ecological components.

Soon, a Department of Planning and Development was created by the Government of India to chart out and coordinate the reconstruction programme. This had both short and long-term consequences for conservation and ecology. Meanwhile, Indian scientists, especially the Science and Culture Group who were closely associated with the NPC, pressurised the government in the same direction.\textsuperscript{107} The Council of Scientific and Industrial Research (CSIR) had been created in 1942; under the increased exigencies of the war and pressure for post-war reconstruction, scores of its sub-committees enquired into various industries and natural resources, many of which had close relations with environment of the country.\textsuperscript{108} The creation of the Damodar Valley Corporation (DVC) as an integrated river valley development project in 1949 was one of the first outcomes. Establishment of wildlife sanctuaries and National Parks soon after Independence amply exhibited the environmental concerns of the national government.\textsuperscript{109}
These reports of the CSIR panels and those of the NPC served as a base for the massive programme of national reconstruction after India became free. In the absence of any routine data on the subject, the NPC survey yielded a huge volume of information that must have been utilized by the national leadership in this exercise; more so, because many of the members of the NPC were engaged also in formulating the plans and policies of the Interim Government and, later, of the National Government from 1950.\textsuperscript{110} It is worth remembering that the chairman of the NPC, Nehru, was now the architect of national reconstruction, and M.N. Saha, once instrumental behind the constitution of the NPC and subsequently one of its most important members, was a moving force behind the reconstruction programme after the World War and Independence.\textsuperscript{111}

Needless to say, the NPC reports came to serve as a guide and framework for the newly launched national reconstruction programme whose focus on the scientific management of natural resources of the country, industry, agriculture, health, and transport and communications was unmistakable. The constant attention to rural reconstruction and appeal for village planning as the lowest but crucial unit of the national life and environment by several of the NPC's sub-committees was soon manifested in the all-India Community Development Project initiated by the Government of India after Independence.\textsuperscript{112}

One is, however, disappointed at the failure of the NPC to make efforts to harness the indigenous knowledge and skill in the proposed reconstruction endeavour, for India did have great achievements in the past in the fields of health care, farming and animal husbandry, and water management, which was still being used in the 1930s and 40s.\textsuperscript{113} There was a traditional respect for nature and environment, not only as a social practice but also as a matter of philosophy of life in the country, which is amply demonstrated by the views and efforts of Gandhi and Rabindranath Tagore around this time.\textsuperscript{114} The occasional references by some members of the sub-committee to subjects like indigenous system of medicine and absent of any serious deliberation in the report clearly demonstrates NPC's indifference in the matter.\textsuperscript{115} Such indifference to the indigenous knowledge and skill can be partly explained by the uprooting effects of imperialism on the Indian society and culture.

Likewise, the NPC is generally silent on the impact of the Second World War on India's ecology and environment. But this is probably mainly on account of absence of information and varieties of war-time restrictions.
CONCLUSION

NPC’s concern for conservation and its views and recommendations in the matter must have been one of the earliest endeavours in this sphere in the world. It was also among the earliest attempts to comprehend and elaborate upon the consequences of imperialism and capitalism on environment and ecology. The effort coming from a subject nation, it showed how the colonised nations responded in the situation both to the consequences of subjugation and to the problems of environment at large. In that, it showed India’s sensitivity to environmental issues and her concern for the depletion of her natural wealth and environment. It was all the more so, because India was traditionally and culturally inclined to respect nature and maintain a harmonious relation with environment. As a prelude to the NPC thinking, Gandhi’s thoughts on politics, man and nature offered a new vision of progress that was all-inclusive and global in approach. As his views have survived over time with growing appreciation, it is difficult to believe that they did not contribute to the NPC’s holistic approach in the matter. In that, while the NPC called for planning the Indian villages as the lowest units of the national life and environment, it also pleaded for redistribution of the natural resources of the earth among the nations in an equitable manner and a scientific reordering of the planet for the welfare of all living on it. It is indeed reassuring to note that a global concern on these lines is being realised through concrete measures in the recent years; but one feels dismayed at why, even after half-a-century since the NPC’s call, India is yet to plan her villages for all-round progress!

ACKNOWLEDGEMENT

For initially encouraging me to take interest in the science policy of the Indian National Congress, I wish to express my gratitude to late Shree D P Singh, Supreme Court Lawer and Congress M.P., and Shree P. N. Haksar, bureaucrat and diplomat, both closely associated with the Congress and its leader Indira Gandhi.
NOTES AND REFERENCES

1. For the views of the Indian National Congress on science and of those closer to the theme of this inquiry, see Jagdish N Sinha, 'Science an the Indian National Congress,' in Deepak Kumar, Science and Empire, Anamika, New Delhi, 1991, pp.161-81.


5. 'Science and Culture,'editorial in Science and Culture, 1.1 (1935) 1-3.


15. Reference details to the reports of these committees would be provided when we return to them for detailed discussion.

16. For working of the NPC and the contemporary situation, see Handbook of National Planning Committee, 1946.


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20. Ibid., p. 39.

21. Ibid., p. 43.

22. Ibid., p. 38 and other pages.

23. Ibid., p. 187.


25. Ibid., p. 188.

26. Ibid.

27. Ibid.

28. Ibid., p. 188-89.

29. Ibid., p. 189.

30. Ibid., p. 190.

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33. Ibid., p. 17.

34. Ibid., p. 48-53.


36. Ibid., p. 23.


39. Ibid., pp. 34-35, 38-39, 90, 102-

40. Ibid., pp. 63-70, 105.

41. Ibid., pp. 102-05.

42. Ibid., p. 104.

43. Ibid., pp. 115-48.


50. Ibid., p.115.


52. Ibid., pp. 128-30.

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55. Ibid., p. 102.

56. Ibid., p. 103.


58. Ibid., p. 129.


60. Ibid., pp. 20-21; also see *Power and Fuel*, 1947.


68. Ibid., pp. 32-34.

69. Ibid., pp. 40-52.

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71. Ibid., pp. 52.

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73. Ibid., pp. 66, 87-88, 133-35, 145.
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76. Ibid., also p. 145.
77. Ibid., pp. 68-78, 132.
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80. Ibid., pp. 14.
82. Ibid., pp. 224-26
83. Ibid., for example, pp. 81-118, 176-89.
84. Ibid., pp. 17-36.
85. Ibid., pp. 47-9, Appendix II.
86. Ibid., Appendix III
87. Ibid., pp. 218-23.
88. Ibid., Appendix IV.
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90. Ibid., Appendix IX.
91. See Handbook of National Planning Committee, 1946.
93. For the post-Independence developments refer to India 1980 (Publication Dvn, Govt. of India, 1980). chap. 8.
95. Ibid., pp. 139-43.
97. Education, 1948, p. 149.
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100. Transport, 1949, pp. 28-29. Kheda is a traditional method of trapping elephants in India.
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102. For scores of articles on the subject, see the contemporary issues of the Science and Culture.


104. Ibid.; also see Proceedings of the National Institute of Sciences of India, especially on ‘Symposium on Post-War Reconstruction of Scientific Research in India’ September 27-28, 1943.


106. A. V. Hill, Scientific Research in India, 1944, Govt. of India, Simla, 1945.

107. For a detailed discussion, see Sinha, 1994, especially Chap. IV.

108. As for example, Report on the Panel on Sugar; Alcohol & Food Yeast Industries, issued by the Dept. of Planning and Development, Govt. of India, 1946; Report of the Panel on Paper, Pulp, Board and Chemical Cotton Industries, issued by the Dept. of Industries and Supplies, Govt. of India, n.d.; Report on the Panel on Wooden Industry, Govt. of India, n.d.

109. For developments after Independence in these areas, see India 1980 (Publication Divn., Govt. of India, 1980), esp. chapters 8, 9, 14,15, 29ff. Also see R. S. Bisht, National Parks of India, New Delhi, Publication Division, 1995.

110. See The Advisory Planning Board, New Delhi, 1947 (a printed volume without much publication details, probably meant for official circulation); also see the Govt. of India proceedings on the Five Year Plans.

111. Later, he gradually fell out of Nehru’s association and thus out of the planning for the national development, too. Also refer to Santimay Chatterjee, 1984; idem, 1986.

112. For example, in NPC Series, National Housing, Vora, Bombay, 1948.; National Health, 1948; Population, 1947; Rural Marketing and Finance; Crops-Planning and Production, Vora, Bombay, 1948.

