

(1991) 03 KL CK 0012
In the High Court Of Kerala
Case No : O.P. 9711/89

Environmental and Ecological Protection Samithy	APPELLANT
Vs	
The Executive Engineer and Others	RESPONDENT

Date of Decision : 22-03-1991

Acts Referred:

Constitution of India, 1950 — Article 21, 48A, 51A

Citation : (1991) 03 KL CK 0012

Hon'ble Judges : Chettur Sankaran Nair, J

Bench : Single Bench

Advocate : A.X. Varghese, for the Appellant; M.B. Kurup, for Respondent 2 and K.K. Raveendranath, Government Pleader for Respondents 1, 3 and 4, for the Respondent

Judgement

Chettur Sankaran Nair, J.—Petitioner is an unregistered association, said to be committed to the cause of environmental protection. They complain of indiscriminate felling of trees and destruction of vegetation, in the Eastern Attappadi region, turning a lush green landscape on the banks of river "Siruvani" into a barren region of and waste. Such indiscriminate felling of trees and destruction of greens, leads to soil erosion, landslide and related problems, according to Petitioner. They say that such activities have gone on for long. Their immediate concern relates to felling of bamboo clusters in the region. By Ext. R-2(b), the Government of Kerala invited tenders for sale of bamboo clusters situated in Survey Nos. 1318/4, 1343/3 & 1352/5 of the Agali Village along the banks of the river Siruvani. The second Respondent purchased the right to cut and remove bamboos, for a consideration of Rs. 4 lakhs. His bid was accepted and he has started felling operations—Petitioner states that cutting and removing of bomboo clusters will lead to an environmental disaster, and that the State Government has permitted second Respondent to cut the bamboo clusters, ignoring the directive principles in Articles 48-A and 51-A of the Constitution, and violating the provisions of the Forest (Conservation) Act, 1980. Though the pleading in the writ petition were sketchy, Counsel put his case on a large

canvass at the hearing, complaining of violation of Article 21. He submits that bamboo clusters now on the verge of extinction, are a useful form of vegetation, and that their destruction would upset ecological balance in the Attappadi valley. It was argued that landslide and soil erosion apart, ground water resources already on the wane, would be irretrievably affected. He would also submit that the area where felling is permitted, is riot clearly demarcated, and that this would enable the second Respondent to cause even greater depredation. In Ext. R-2(b), the extent or identity of the land is not clearly spelt out.

2. Respondents 1, 3 & 4 in their counter affidavits state that permission is granted to out bamboos only from 7.016 Hectares, and that this is not part of forest lands. It is also stated that a dam is being built across the Siruvani river at a cost of Rs. 42.50 Crores. When the dam is completed, hectares of land including the land where the bamboo clusters stand, would be submerged in water. It was also stated that these bamboo clusters flowered about 25 years back, and that regeneration is not likely. Second Respondent in his counter submits that Petitioner has no locus standi, and that it is not a registered body. According to him, the Government permitted felling of bamboos, only after careful consideration. Incidentally, the Government have no such case in their counter affidavit. Second Respondent would also submit that he has invested large sums of money, and that he will be put to irreparable loss, if he is not allowed to cut and remove the bamboos. Besides, the bamboos will deteriorate in quality by lapse of time.

3. The competing claims for preservation of ecology and exploitation of natural resources, have to be balanced. The needle of the balance is Article 21. The right to a healthy environment is recognised as a part of the multi-faceted Article 21. The right to life comprehends, inter alia, right to environment, right to health care and the right to an adequate health delivery system see Shri Sachidanand Pandey and Another Vs. The State of West Bengal and Others, , Rural Litigation and Entitlement Kendra Vs. State of U. P., , Vincent Panikulangara v. Union of India and Ors. AIR 1987 S.C. 990, Vikram Deo Singh Tomar Vs. State of Bihar, , M.C. Mehta and another (II) Vs. Union of India and others, . Environmental rights have received recognition, beyond national parameters. Today, it is a global concern and a human right. Nobel prize winner, Rene Cassin advocated the need to extend existing concept of human rights" protection, to include the right to healthy environment. The Stockholm Convention (June, 1972) recognized the right to environment, as a basic human right. So did the "U.N. Declaration of Human Rights, 1948". In 1984, the United Nations adopted a resolution:

All human beings have the fundamental right to an environment, adequate for their health and well-being.

While nature should be preserver, protected and nourished, exploitation of natural resources is necessary for the sustenance of the human race. But, such exploitation must be checkmated at the point where it causes environmental degradation.

4. Environmental deficit or degradation is caused largely by pollutants generated by industries. Carbon dioxide (CO₂), Oxides of Nitrogen (NO_x), Sulphur (SO_x), Chloro Fluro Carbons, Carbon Monoxide (Co), burnt fossil fuels, etc are some of the major pollutants, causing green house warming, Ozone depletion and related adverse, effects. These, in turn, make an impact on forests and vegetation. Studies reveal that emissions of Carbon Dioxide, Nitrogen Oxide, Hydro-carbons and other toxic emissions, cause acid rains. World Wild Life Fund (WWF) surveys indicate that 52 per cent of the forests in Germany and other European countries have been affected by acid rains. Man made deserts have come into existence in many parts of the world. In Karkova, hundreds of houses and monastries have been defiled. Stone Saints have become faceless, and chunks have fallen off from steeples, due to pollution from Silesia Coal Mines. Soil tests, in certain areas have revealed presence of Cadmium, Mercury, Lead and Zinc, far in excess of WH.O-standards.

5. Apart from the impact of industrial pollutants on eco system, a direct impact is caused by, deforestation. Climate, soil and water resources are affected by this. Norman, J. Rosenberg and William Easterling, in their studies noticed the effect of deforestation, on different eco-systems-Deforestation affects climatic systems, which involve interaction of Biota, air, sea and land components with solar system. Vegetation depends on climate and soil. Climate determines the growth on the soil. Green house warming can cause severe drought, due to increase of evaporation. The quantity of water stored in soil for support of crops, and the amount of run off to streams and reservoirs, will be determined by excess of precipitation over evaporation. Climatic changes will interact on agriculture, water supply and animal and human health. Deforestation will deplete water resources, the life blood of eco-system. The effects have been visible, according to Alan Grainger, and tropical montaine water sheds have been reduced considerably. Quality and quantity of fresh water sources, is of critical importance to eco-system, and fall in water resources will increase environmental costs of production. Water supply systems are vulnerable to climatic change. The I.P.C.C. (Inter Governmental Panel on Climate Change) estimates that there-will be a shortfall of drinking water in the next fifty years to the extent of 40 per cent. The great lakes of Canada may drop by 8 feet, and Meditaranian countries may turn semi-deserts. Each tree is a dam storing water. Green plants absorb water, and transpire it to atmosphere. Branched root system of trees, and grass cover hold soil and humus. Dispersal of rainfall, is determined by interception through canopy cover, and infiltration through forest litter. It will reduce the effect of rain on forest floor, and check soil erosion.

6. Lester Brown (State of the World 1988) observes:

Trees literally form the root of man and natural systems. When ecological integrity disintegrates, it leads to soil loss, disruption in production and floods.

Wild lands provide environmental services, like protecting soil, stabilising water flow pattern, breaking down pollutants, recycling wastes and ameliorating

climate. Wild lands are a kind of national capital, retaining water in the uplands and preventing soil erosion. During buffer peak flow, crop inundation is reduced (H. Vogelmann--Rain Making Forests). Forest land help to check erosion in river deltas and mangrove swamps, which provide food to fish, crustaceans and mollusks. In Indonesia alone, Mangrove swamps and coastal estuaries, support shrimps and fish valued at \$ 194 Million Dollars.

(William Knowland--Mangroves Biological Productivity).

Forests act as a carbon sink, and also fulfil the vital role of global recycling of carbons. They also act as a global thermostat.

7. According to Robert Good Land, Chief of Environment Division, World Bank, half of the tropical forests that were available in 1980 would vanish by A.D. 2000. The FAO and U.N. Economic Commission 1985, reports that 11.3 Million Hectares of forests are cleared every year, while only 1.1 Million Hectares of plantation is raised. Thus, Clearing vis-a-vis, plantation is in the ratio of 10:1. Latin American and Asian forests have suffered more damage than any other.

8. Deforestation will also degrade habitate affecting wild life and destroy insects who supply nutrients to earth, and act as pollents. It is interesting to note the role played by these seemingly insignificant creatures. Weevils, brought from Cameroon forests to Malaysia boosted fruiting in oil palms by 40 to 60 percent. The net economic gain from this was \$57 Million U.S. Dollars. Likewise, Englossine bees that visit flowers increase the growth of epihytic orchids. A species of rodents known as "Agoutri", which crack open hardnuts, have been considered responsible for germination of Brazil nuts Humming birds and other pollinator insects, also give a spurt to agricultural output. Thus, non-human species have their utility. They should be preserved. This ethical principle, is known as the "Noah Principle". Man should not exercise his power in the form of deforestation, to decimate these humble creatures, thus failing in his duty of earth's stewardship. The recognition of this principle is evident. Steps have been taken to prevent such genetic loss. Treaties and conventions have been made to protect migratory birds, marine mammals, whales and walruses.

9. Slopes rendered barren by deforestation, cannot protect low lands from floods and landslides. To cite an example, due to floods caused in Hans River, South Korea, many were drowned and about three lakh people were rendered homeless. The I.C.A.R. estimated loss of five million metric tonnes of soil, due to landslides. Landslides lead to sedimentation and silting, affecting irrigation canals and Hydel Projects. Silting is believed to have reduced the capacity of Nizam Sagaf Reservoir from 900 to 340 Million Cubic Metres. The Centre for Earth Science and Environment, New Delhi reports that flood prone area in India is 59 Million Hectares at present, while it was only 25 Million Hectares in 1960. Robert Good Land (World Bank) records that Hydel Projects in Columbia have suffered adverse effects due to silting. It is estimated that the life of the Ambuklab dam, in Philippines was reduced to 32 years, from 60 years, for the same reason.

10. An appreciation of earth's complex biological system is necessary and a new development ethos for integrated resource development is essential. A redefinition of issues is necessary to arrest socio-ecological bankruptcy. The earth and biosphere form one grand synthesis of a complex interactive system of Stroposphere, Hydrosphere and Lithosphere. The international environment movement is the expression of a fundamental change in the perception of life on earth. The Biosphere concept advocated by Lamarck of France (18th Century) has gained ground. Recognition of this is found in the 1909 Paris Convention, 1927 Geneva Convention and the 1968 UNESCO Biosphere Conference. This evolution of thought has been described by the U.N.E.P. Report on Environment (1982) as a movement belonging to a larger transformation which may be likened to a second Coperniean revolution. The first moved the earth from the Centre of the Universe. The second moves man from the Centre of Biosphere. A new relation between human society and Biosphere is inevitable. A Biosphere--Geosphere related strategy is necessary, and every component of the eco-system must be preserved with utmost care.

11. The required level of awareness and concern is lacking in most of the countries. The "World Watch Survey" in 60 countries, reveals that only two per cent of the national budget is set apart for forest development (Sandra Postel-Vice President, World Watch Institute).

12. However, in many countries, there is evidence of growing concern in this regard. Policy makers have begun to appreciate the larger dimensions of environmental protection, and changing attitudes and priorities have come to prevail. A new environmental paradigm exists today. Efforts in this direction are seen in legislative enactments. For example, the United States enacted the "Food Security Act 1985", creating conservation reserves, under which sixteen million hectares have been taken out of crop land and planted with trees and grass. "International Non-Governmental Organisation" has orchestrated successful reforestation projects. Groups like the "CARE" in U.S. and "OXFAM" in U.K., IUCN (International Union for Conservation of Nature and Natural Resources), and ICSU (International Council for Science Union) have also made progress in this direction with public participation. The Swedish Congress has made a declaration of principles and recommendations for action. In South Korea, Village Committees consisting largely of teenagers have been formed and they have replanted one million acres of waste land with chestnuts.

13. In this context, it is necessary to examine the states of forests in India. The Central Forestry Commission, reports that the total forest cover in 1980 was only 22.7 per cent of the land area. Satellite mappings show that in ten years, nine million hectares of forest lands have been denuded. The National Remote Sensing Agency found that there were only 46.35 Million Hectares of forest land in 1981. According to them, the loss of forest area is to the extent of 1.5 Million Hectares every year (see Agarwal and Garg, and Report of Central Forestry Commission, 1981). The Seventh Plan Document noticed that forests are fast

diminishing. While there were 65 Million Hectares of forest land during the first plan period, it came down to 25 Million Hectares during the Seventh Plan period. By world standards also, the forest land available in India is meagre, as can be seen from the following figures:

Per capita forest cover

World Average	1.04 Hectares	U.S.S.R.	3.60 Hectares	Canada	20 Hectares
U.S.A.	1.40 Hectares	India	0.13 Hectares		

It is estimated that 4-3 Million Hectares of forest land has been developed for irrigation, industries and power projects. Dr. Jayal predicts that unless massive afforestation is undertaken, the Gangetic plain will soon come under sub saharan conditions."

14. Having noticed the effects of deforestation on environment in general, the specific question whether cutting of bamboo clusters in the Agali Village, causes consequences warranting interference by this Court, has to be examined in detail.

15. An expert committee consisting of Shri V.R. Krishnan Nair, K.C. Chacko and K.G. Narayana Pillai, was constituted by the State Government, to report on the environmental and ecological impact of cutting bamboos and reed forests in eastern Attappady, on the banks of Siruvani river, the area concerned in this petition. The Committee inspected the site, a narrow strip of 3000 metres in length and 25 metres in width, which forms the river margin. Bamboo clumps were seen in an area, 2000 metres long. The northern end of this area showed evidence of cutting bamboos. The Committee noticed other species of trees also, identified as:

- (1) *Dalbergia latifolia* (rose wood).
- (2) *Lager stroemia micro-corpa* (venteak).
- (3) *Stereospermum personantum* (pooparuthi).
- (4) *Grewiatilifolia* (Chadachi).
- (5) *Sleichera oleosa* (poovam).
- (6) *Terminalia bellerica* (thanni).
- (7) *Anthocephalus cadamba* (kadambu).
- (8) *Mitragyna Parviflora* (rose kadambu).
- (9) *Machilus macrantha* (kulamamavu).

The under-growth was ever-green with *strobilanthus*, and other species. The committee considers this to be only rich natural vegetation left in the area. They found a major part of the forest land denuded. The forest department informed the committee that clear felling of bamboos, which had reached full growth was permitted, since vegetation would be submerged when a dam was built. The

committee records that no work connected with the dam had been done. It is of the view that chances of constructing a dam are bleak. This view is based on the pro forma report on Attappady Valley Irrigation Project, prepared by the Project Wing of the Public Works Department. That report states:

The Central Water Commission informed that clearance of the project, was pending for want of agreement on Cauvery waters.... The project stands deleted from the pending list of projects received.... Concurrence of Tamil Nadu and Karnataka for utilisation of Cauvery water has not been received....

(emphasis supplied)

The Siruvani river is a tributary of river Bhavani, which itself is a tributary of river Cauvery, an interstate river.

16. The Committee noticed further, that the species "Bambusa arundinacea" flower only once in its life time, which is between 32 to 34 years. The fall out of seeds, raise the next generation. On enquiries, the Committee found that the bamboo clumps in question will flower, only after another seven years. For this reason, they are of opinion that there is no justification for cutting the bamboos now. They stated in their report, Ext. C-1:

Clear felling of the bamboo clumps will adversely affect the ecological and environmental conditions and will result in a big opening of the area attended with all its adverse effects, the most conspicuous of which will be soil erosion. The soil of this area is highly erodable and will be easily washed away by the first rain after the clearance. Besides, the micro climate will also be adversely affected which may not be easily perceptible now. The impact of this can be far reaching and will be experienced in course of time. Similar clearance made elsewhere in the State stand testimony to the adverse effects on the ecological balance.... The upper reaches of the catchment also have to be well protected to ensure the life of the perennial Siruvani river.

(emphasis supplied)

17. The report shows that the two reasons advocated for cutting and removing the bamboo clusters", are not tenable. The first reason is that the land where the bamboo clusters stand will be submerged when the dam is constructed. There is no immediate prospect of that, since construction of the dam is a remote, if not uncertain event. The source of water is an interstate river, and an unresolved water dispute exists. For a fact, no construction has been made. The other reason put forward by the Forest Department is that the bamboos which flower" only once, have flowered and thus lost their utility. The Committee found that the bamboo clusters have not reached full growth, and that they are likely to flower only after seven years. If they are cut now, that will annihilate the species. Even the life of the perennial river depends on vegetation, such as bamboo clusters. Not only the bamboos will be lost, but the perennial river--one of the few remaining sources of water, will be lost. The report of the Committee consisting

of qualified personnel, who made a field survey and detailed study, commends acceptance. The Respondents did not point out any reason for rejecting the report. On a careful examination of the matter, I find the report acceptable and I accept it.

18. The views of the Committee regarding the vital functions of bamboo clumps, gain corroborative support from the deliberations of "The International Workshop on Bamboos, Cochin" (1982) organised by the Kerala Forest Research Institute and sponsored by the International Development Research Centre, Canada.

19. The report of the joint committee set up by the Government of India and Government of Kerala to study "the ecological" aspects of the Silent Valley" also (Ext. G-2) sheds light on issues, relevant for an appreciation of the question raised in this petition and provides vital information. The Ten Member Committee, chaired by Professor M.G.K. Menon, including six Professors and Scientists from different disciplines, and two Administrators, made an elaborate study of related aspects to determine the desirability of undertaking developmental activities and Hydroelectric Generation Projects in the area. The Committee invited the views of several Scientists and examined various reports on the subject, including a report made by Dr. M.S. Swaminathan in 1979. According to the Committee, the Silent Valley represents a relatively inaccessible Eco System with a significant riparian regime, of rich and diverse flora & fauna, superior to any other in the Western Ghats. This tropical evergreen forest decimated over a century, still represents rich biological communities in terms of productivity and variety. It is one of the precious tracts of evergreen forests, left in Peninsular India today. In the Biogeographical sense, the silent valley represents ecological islands, rich in plants and in grassland insect species. The Committee found it imperative to arrest vegetation loss, erosion of soil, species' loss and fragmentation of forests.

20. The Reports of these two Committees show--not to say positively establish--that cutting of trees/bamboos in the area would lead to an ecological disaster or ecocide. One may ask, whether preservation of flora and fauna, in a comparatively small strip of land--7.016 Hectares--will make all that difference. One may even ask, whether precise information is available on the interaction of cutting a few trees or clumps of bamboos, on the eco-system of the region. It is not the area of land, but the consequences of the act that matters. So many small tracts, add up to vast expanses. The effect of destruction of vegetation on ecology, is no longer a hypothetical issue. It is a well validated theory supported by scientific information, and empirical data. I have made extensive reference to authentic material, only to seek assurance on considerations, relevant for deciding the issues raised.

21. History, which is a fair summary of experience, stands witness to the effects of over exploitation of nature. Barren stretches of mountains, parched earth cracked under heat, dying rivers and smogs, that have replaced the green valleys, perennial rivers and misty dawns of yester years, not to speak of human

beings and animals thirsting for water, are living examples of the folly of an age. It is not a matter of articulating shadowy images of thought, but a matter of hard reality. If yesterday is the historian of today, it tells us that today is what counts. If you do not heed-there may be no tomorrow.

22. Whether these are matters of policy for the Executive Government, is also a question to be considered. I am not unaware of the caution administered by Justice Burroughs, that public policy is like an unruly horse that is apt to run away with the rider, or the Counsel of Lord Denning, that it is for the rider to harness the wild horse. Matters such as these, are longer matters of policy alone committed to the Executive Government. Rights in these regions have been upgraded to constitutional protections, under Article 21. The directive principles contained in Article 48A, and that magnificent Article-Article 51-A-provide perspectives. Changing times and a materialistic society throw up new challenges. The Courts must meet them, to protect the rights of the citizens under Article 21. "The Inn that shelters for the night, is not the end of the journey. Law-like the traveller, must be ready for tomorrow" (Benjamin Cardozo). That is the core thought in *Rural Litigation and Entitlement Kendra Vs. State of U. P.*, also.

23. Thus viewed-and viewed with great anxiety I am of opinion that this is a case meriting intervention. The material considered, particularly Exts. C-1 & C-2, show that a species of vegetation, essential for sustaining the life of a perennial river-Siruvani and the ecology of the region, has been over exploited, when it has not even reached its full growth, imperilling the progeny, riparian habitat and flora and fauna. The justifications put forward for cutting the bamboo clusters, namely that they have reached full growth and that they are likely to be submerged, are proved to be untenable.

24. Ext. R-2(b) suffers from the vice of vagueness also, as the area is not demarcated, and as large scale degradation can take place under its cover.

25. For these reasons, the Respondents are directed to forbear from cutting and removing bamboo clusters and other vegetation standing on Survey Nos. 1318/4, 1343/3 and 1352/5 of the Agali Village on the banks of Siruvani. Ext. R-2(b) is quashed.

Original Petition is allowed. Parties will suffer their costs.