

**BEFORE THE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH**

**NEW DELHI**

**Original Application No. 9 of 2014**

**and**

**M.A No. 79 of 2014, M.A 265 of 2014 and M.A 501 of 2014**

Safal Bharat Guru Parampara,

Through its Chairman,

P.K. Rana, having its registered office at S/12/14,

Centurion Mall, Nerul, Sector 18A,

Naveen Mumbai,

Having branch Office at 396 Kachha Taba,

Anant Street,

Near Primary School, Hoshiarpur, Punjab.

-----Applicant

Vs

1. State of Punjab,  
Through its Chief Secretary,  
Punjab Civil Secretariat, Chandigarh.
2. Principal secretary to Government of Punjab,  
Department of Irrigation,  
Punjab Mini Secretariat,  
Sector 9, Chandigarh.
3. Secretary to Government of Punjab,  
Department of Agriculture,  
Punjab Mini Secretariat,  
Sector 9, Chandigarh.
4. Chief Engineer,  
Water Resources,  
Department of Irrigation,  
Punjab Mini Secretariat,  
Sector 9, Chandigarh.
5. Secretary,  
Punjab State Electricity Board,  
The Mall, Patiala, Punjab.

6. Central Ground Water Authority,  
Through its Chairperson,  
West Block-11, Wing 3,  
Ground Floor,  
R. K. Puram,  
Sector 1, New Delhi -110066.

7. Ministry of Agriculture (Union of India),  
Through its Secretary,  
Krishi Bhavan,  
Dr. Rajendra Prasad Road,  
New Delhi 1.

8. Financial Commissioner,  
Department of Forest,  
Government of Punjab,  
Sector 68, Mohali,  
Punjab.

9. Secretary Power,  
State of Punjab,  
Mini Secretariat,  
Sector 9, Chandigarh.

10. The Indian Paper Manufacturers Association,  
PHB House,  
4<sup>th</sup> Floor, Opp. to Asian Games village,  
New Delhi 16.

----- Respondents

**Counsel for the Applicant**

Mr. Ajeya Bharadwaj  
M/s. Sangeeta Kaim Sigh

**Counsel for the Respondents**

1. Mr. Aggarwal, Advocate General, Punjab  
Mr. Jaskirat Singh Sidhu, Additional Adv. General, Punjab  
Mr. Devendra Singh - Respondent 1- 4 and Respondent 8 and 9
2. Mr. Jayant. K. Sud - Respondent 5
3. Mr. B. V. Niren- Respondent 6
4. Mr. A.K. Prasad - Respondent No 7
5. Mr. Sanjay Upadhyay - Respondent No 10

**CORAM:**

**HON'BLE JUSTICE DR. P. JYOTHIMANI (JUDICIAL MEMBER)**

**HON'BLE. PROF. A.R. YOUSUF (EXPERT MEMBER)**

## ORDER

**Delivered by Hon'ble Justice Dr. P. Jyothimani (Judicial Member) dated 20<sup>th</sup> July 2015**

- 1) Whether the judgement is allowed to be published on the internet ----- yes / no  
2) Whether the judgement is to be published in the All India NGT Report ----- yes / no

1. The original application is filed by the applicant association, whose legal character either as a society or otherwise is not mentioned anywhere in the application including in any of the representations made on behalf of the applicant, and there are no bye laws of the applicant filed, praying for a direction before this Tribunal to set aside the policy of the State of Punjab for providing free electricity to the farmers for agricultural purposes, to lay down certain concrete steps to check the amount of ground water pumped by the farmers of state of Punjab and order a complete ban on the plantation of eucalyptus trees in view of the fact that the said trees require huge amount of water.
2. According to the applicant, it is exposing the problems faced by the State of Punjab by extreme over utilisation of ground water and neglect of the State government and its authorities from formulating stringent policies and their complete inability to take steps to check the exploitation of ground water by the residents of State of Punjab. Even though the problem of water pollution, contamination and management of water sources is a global problem, in State of Punjab due to excess extraction of ground water, the water table in the ground has gone down and it is declining in 85% of the State as per the Newspaper Report quoting the Statement of the State Irrigation Minister. It is stated that out of 137 blocks in Punjab, 100 have already been listed as dark zones by the Central Ground Water Authority (CGWA) due to over exploitation. The said authority by a Public Notice No. 1 of 2012 has also declared 27 areas of State of Punjab as "over exploited area". According to the applicant one of the factors of ground water depletion is the practice of growing eucalyptus trees for commercial and industrial purposes and it is those trees which are consuming huge quantity of water, as pointed by the environmentalists. In fact the State of Karnataka has banned the said plantation in 2011. In view of the ground water withdrawal being more than

its replenishable limits resulting in decline in ground water levels and drying of wells, it is necessary to ban the growing of the said trees.

3. It is further the case of the applicant that in addition to that, the Government of Punjab has decided to provide free electricity to the farmers which is fatal to the existing water shortage, as the farmers are running the tube wells hours together wasting water and Government has not taken any steps to check the same. It was in those circumstances the applicant has made representations and reminders to the Chief Secretary, Principal Secretary and others on 11-04-2013, 23-08-2013, and on 7-10-2013. As there was no response, the present application came to be filed on the grounds that if no proper check of indiscriminate ground water use is made, the water level will go down, that the Government must be directed to make proper check of drawal of water and diversion of water for growing eucalyptus trees, that a check must be made that the farmers do not misuse the free availability of electricity for continuous over drawal and wastage of water.
4. Respondent no 2 and 4 namely the Department of Irrigation in the reply, while denying the allegations raised in the application have stated that in fact the State Government has taken various steps to check the decline in ground water level by construction of 13 Multipurpose Low Dams in Kandi area at the cost of Rs. 200 crores which would help in recharging ground water. The Government has also enacted the "Punjab State Preservation of Sub-Soil Water Act 2009" prohibiting sowing of nursery of paddy and transplanting of paddy before specific dates for minimisation of ground water exploitation. Further, by a notification dated 25-08-2010 the Government has directed the plot holders in urban areas to follow Roof Top Rain Water Harvesting and Ground Water Recharging method. A project on Artificial Recharge of Ground Water by using surplus canal water with the aid of NABARD is also being implemented in the State. In that regard, a Master Plan has been framed as approved by the Government of India and the Scheme costing to an extent Rs. 2244 Crores has been submitted for allocation of funds under 14<sup>th</sup> Finance Commission.
5. It is also stated that for saving use of irrigation water, Crop Diversification Scheme is being implemented. The Government has constituted five working groups in the meeting held on 02-04-2013 chaired by the Chief Secretary, to work out the

strategies for arresting decline of ground water and the strategies were also finalised in the meeting held on 21-01-2014. A Committee Constituted by the State Government called “State Level Committee on Ground Water Resource Estimation” headed by the Principal Secretary, Irrigation, with members from different fields like Agriculture, Pollution Control, Central Ground Water Board, by a notification dated 11- 12- 2004 is regularly monitoring the ground water situation in the State. That apart, by a notification of the State Government dated 24- 12- 2013, a State Level Water Quality Review Committee has been constituted to improve coordination among the Central and State agencies and also to review and monitor the process of assessment of quality of water. Therefore according to the said respondent, the State Government is taking serious steps to check the over exploitation of ground water. It is also the case of State Government that there is a general fall in the level of ground water in a part of Punjab, the south, west area of Punjab is facing acute problem of water logging due to rise in ground water level. Therefore it cannot be generalised that ground water is falling all over the state. Irrigation is the backbone of Punjab Agriculture which is not only the subsistence of its people, but Punjab is the Food Bowl of the Country. It is also stated that the notification of the Central Ground Water Authority in respect of different blocks of Punjab prohibiting extracting of ground water except for drinking purposes is not on the proper appreciation of merit. Punjab has alluvial Strata of multilayered aquifers which are not comparable with other aquifers in central and southern States of the Country. It has been intimated to the Government of India that depletion of water is a great concern in Punjab, as the farmers of Punjab who procure food security in the Country are suffering because of the extreme expenses involved in carrying on agricultural activities. By the directions of the Central Ground Water Authority in prohibiting extraction of ground water, the farmers with marginal to medium holdings exist in large numbers will be adversely affected on the economic conditions. On the other hand the implementation of the Punjab Preservation of Sub- Soil Water Act 2009 has been successful. Such measures along with the MSB policy of the Government of India to switch over to alternative less water intensive crops will encourage farmers to diversify from water crop wheat and paddy which is the main cause of exploitation.

6. Based on the directions of Central Ground Water Authority, the State Government has issued a ban on installation of new ground water abstraction structures for commercial, industrial and farmers with land holding above 4 hectares so as to enable the medium land holding farmers to sustain agricultural production without feeling the pinch of the burden of rising cost of inputs. With the above averments the respondents 2 and 4 have prayed for dismissal of the application.
7. The respondent no 3, the Department of Agriculture of the Government of Punjab, in the affidavit filed through the Director of Agriculture has stated that in his opinion, over exploitation of ground water resources in ground water of certain areas of the State has lead to depletion of ground water at an alarming rate. The paddy crop which consumes large quantity of water and its transplantation at an early stage has been curbed by enactment of “The Punjab Preservation of Sub- Soil Water Act 2009”, which prohibits sowing of nursery of paddy and transplantation of paddy not before the specified dates namely before 1<sup>st</sup> May of every agricultural year and before 10<sup>th</sup> June respectively. The Department of Agriculture, Punjab is implementing Crop Diversification Programme (CDP) motivating the farmers to cultivate maize, kharif pulses, oil seed, popular based agro forestry system. The CDP envisages diversification from paddy to alternate crops to improve soil fertility, arrest depletion of ground water and also enhance the farm income. The Department has taken steps to promote Resource Conservation Technology (RCT) in the State of Punjab by various techniques like Laser Land Levelling, Zero Tillage, Happy Seeder, Direct Seeded Rice and Promotion of Hybrid maize and its plant population. For using the above techniques the farmers are provided with subsidy which encourage water saving. Under the Crop Diversification Programme, the eucalyptus plantation is emphasized in water logged conditions only. It is also stated that in the State of Punjab, the Limited Rotational Power Supply is made available to the agriculture sector as per cropping season.
8. The Punjab State Electricity Board, the 5<sup>th</sup> respondent has stated in the reply that in respect of the release of tube well connections, while enacting the policy, the State Government has duly considered the conservation of ground water. According to the said respondent, the State Government for the purpose of checking the over

exploitation of ground water has taken various measures like Drip/Sprinkler system under NABARD Schemes and subsidy of Government of India at 50% for SC/ST, women farmers and small and marginal farmers and 35% to other farmers, Underground Pipeline System for irrigation, for optimum water management by giving 25% subsidy to the farmers, to conserve on-farm irrigation water through fine levelling of the fields by giving assistance of 50% of the cost, Scheme for providing treated sewage water to the farmers for irrigation, construction of 13 multipurpose Low Dams in Kandi area at the cost of Rs. 200 crores which helps to recharge the ground water, enactment of “the Punjab State Preservation of Sub-soil Water Act 2009” prohibiting sowing of nursery of paddy and transplanting paddy before specified date for minimisation of ground water exploitation, implementation of Roof Top Rain Water Harvesting and Ground Water Recharging by plot holders in urban area by a notification dated 25-08- 2010, Artificial Recharging of Ground Water using surplus canal water through injection wells and the Master Plan prepared by the State and approved by Government of India in respect of the said scheme costing Rs. 2244 crores pending release under the 14<sup>th</sup> Finance Commission, crop diversification for saving use of irrigation water etc., In respect of the free electricity to the farmers it is stated by the 5<sup>th</sup> respondent electricity Board that the Government of Punjab is providing free electricity to the farmers of the State compensating PSPCL by way of tariff compensation. This is due to the reason that the farmers are poor and farming is no longer a profit making business due to price rise and high inflation rates, high input cost and division of land in many generations in the last 6 decades. The subsidies provided include fertilizers, pesticides, electricity, soft loans for agriculture machinery which are to prevent farmers all over the Country from debt trap which often results in committing of suicide. Punjab has ushered the green revolution in India and made India self dependent in the food sector. The 5<sup>th</sup> respondent is taking steps to avoid misuse of electricity supply as well as over exploitation of ground water. The 5<sup>th</sup> respondent has segregated the feeders catering to agriculture tube well loan by which supply is given to agriculture consumers depending upon the cultivation of the particular crop, that is wheat, paddy, vegetables etc., and the duration of electricity under AP feeders is for fixed hours to different crops. A large

number of AP tube wells have been shifted from low tension lines to high tension at 11000 volts by installing individual transformers for each AP motor in order to avoid misuse or theft of electricity by way of kendi connections. As the supply under AP feeders is for specified times there is no chance of wastage of water. Further the farmers are aware that over irrigation of the field will result in hampering productivity of crop and sometimes damage the crop too. It is also stated that the enforcement agencies are also making frequent visits to the sites of tube well connections and as per the regulations, taking actions like disconnection in cases of misuse and also imposition of compensation.

9. It is the case of the 5<sup>th</sup> respondent that the State of Punjab is predominantly an agrarian state having 85% of its geographical area under cultivation with an average cropping intensity of 190%. Except water there are no other natural or other available resources in the State. It is stated that out of the total irrigated area of the State, 73% is irrigated by tube wells. Agriculture being the main source of income, the Government is socially and economically bound to provide irrigation facility to the farming community and in order to regulate the number of Agricultural Pump set (AP) the Government has framed guidelines as per the provisions of Supply Code & Related Matters Regulations, with the concurrence of the Punjab State Electricity Regulatory Commission (PSERC). It is also the case of the Electricity Board that various checks have been made to control the pumping out of the ground water. It is stated that nearly 4 lakhs tube well connection applications are pending for releasing electricity supply. The particulars provided in the affidavit show that in the year 2009-2010 there were 72670 connections released for agriculture, 4443 for industries and 249148 under general category which includes resident and non resident connections. Likewise in the year 2010-2011, 36087 connections were released for agriculture, while 4960 for industries and 409153 under general category. In the year 2011-12, 15201 connections released for agriculture, 5524 for industries and 315404 for general. In the year 2012-13, 21981 connections were released for agriculture, 4289 for industries and 321291 under general category. In the subsequent affidavit filed by 5<sup>th</sup> respondent on 5<sup>th</sup> august 2014, the Board has clearly stated that as per the status quo order passed by the Tribunal dated 05-03 -2014, no tube well connections

have been released from 05 -03- 2014 and there are nearly 125000 applications from farmers pending. The 5<sup>th</sup> respondent has also given category wise details about the pendency of applications. It is also stated that there are approximately 14 lakhs tube wells that are presently installed in the State, out of which 1216896, as on 31- 12- 2013 are operated with electricity connection of erstwhile Punjab State Electricity Board, now Punjab State Power Corporation limited (PSPCL). It is also stated by the 5<sup>th</sup> respondent in a subsequent affidavit dated 4<sup>th</sup> March 2014 that the AP connections released as per the policy of the Government were duly placed on the website for the knowledge of the general public and there was no secret dealing and everything has been done in a transparent manner.

10. In a subsequent affidavit dated 23rd August 2014 the 5<sup>th</sup> respondent has categorically stated that after the status quo order, no tube well connections were given, and also provided a table regarding the AP applications after 05 -03 -2014 pending zone wise. The Board has also given the statement of tender enquiries against the requirement for AP tube well connections. With all the above said averments the 5<sup>th</sup> respondent has prayed for dismissal of the application.
11. The 10<sup>th</sup> respondent which was subsequently impleaded, has filed its reply dated 17- 10-2014 restricting itself with the claims made by applicant in respect of eucalyptus plantations and the allegations made in respect thereof. According to the said respondent, the eucalyptus plantation has multiple benefits in the nature of relationship with farmers, livelihood impact, contribution to forest conservation apart from the fact that the said plantation as per the numerous scientific findings makes it environmentally desirable species. The said plantation forms a principal raw material in the paper and paper board production industry. The existing varieties of eucalyptus in India have come originally from Australia and said species are thriving in Australia even today where the rain fall is minimum. Therefore it may not be correct to say that because of the said plant there can be water shortage. It is also stated by the 10<sup>th</sup> respondent that the species are present in over 90 countries spread over 22 million hectares of land worldwide. The scientific studies establish that eucalyptus trees have enormous environmental significance in terms of efficient water usage, its sustainable growth which is conducive to biodiversity. The said species is more suitable for

producing pulp and the plantation can be done in the reduced planted area. It captures more CO<sub>2</sub> from the atmosphere. A High Power Committee appointed by the Government of India headed by the Additional Director General of Forest has opined that no permission is required for selling and transporting of eucalyptus raised under agro- forestry. It was established by the Forest Research Institute, Dehradun in the Article titled “Some Hydrological investigation on Blue Gum osmund (Nilgiris)”, that eucalyptus is not a water intensive species and does not drain waterlogged areas. It was also established that the study didn’t reveal any adverse effect of blue gum on the hydrological cycles in Nilgiris. The said plant has a habit of adapting in a dry or physiologically dry habitat to prevent water loss and it has also the ability to close up its leaves to reduce the evaporation transmission process during non rainy seasons. The plants continue to remain green as they shut off the stomas similar to the pores on human skin on their leaves and do not allow water to escape.

12. The 10<sup>th</sup> respondent would refer to various studies, national and international including a study made by Mr. Hassan Kutty who is associated with the Kerala Forest Department to show that the roots of eucalyptus tree use water very efficiently, more efficiently than the other species. 80% of the eucalyptus tree roots are in the upper 60cm of the soil. The studies also show that the said plantation can be used as an effective media to fight the battle against the environmental degradation. The report published by an eminent forest Scientist Mr. Vinayakrao Patil recognized by the Food and Agricultural Organisation of the United Nation Organisation, dispels the misconception about eucalyptus stating that it does not compete for ground water and other nutrients with crops in its vicinity, it does not need plenty of water and does not drain away subsoil water and it does not cause degradation of land or hamper soil fertility. The 21<sup>st</sup> International Congress on Irrigation and Drainage organised by the International Commission on Irrigation and Drainage (ICID) in Tehran, Iran shows that the plantation of eucalyptus must be used in afforestation programmes of Government lands, marginal lands and even fertile lands of individual farms. It further states that the species being a fast growing, remunerative and consistently demanded industrial wood has witnessed an unfettered support as a most desirable species worldwide. The 10<sup>th</sup> respondent has also produced the statistical and

empirical data given by J. Davidson regarding “*Eucalyptus tereticornis*” in the paper titled as “setting aside the idea that Eucalyptus are always bad” published in UNDP-FAO Publication, 1985 showing the result of the water use by plants through evapotranspiration which states that while Cotton/ Coffee /Banana use 3200 litres /Kg per total biomass with harvest index of 0.25 with 800 litres. /Kg of water use per harvested biomass, for sunflower 2400, 0.25, 600, for soya bean 1430, 0.35, 500, for potato 1000, 0.60,600 but for eucalyptus, it is 785, 0.65, 510 respectively. Such compliments have been given for eucalyptus trees by authors like M.S. Raquel Fernandez, Department of Economics, New York University, a report published in the World Forestry Update on the plantations of Brazil, article titled “Eucalyptus and Water use in South Africa” by Janine M Albough from the Department of Forestry and Environment Resources, North Carolina State University, Peter J Dye of the School of Animal, Plant and Environment sciences, University of Witwatersrand and John S. King from the Department of Forestry and Environment Resources, North Carolina State University, USA wherein it is stated that there is no evidence of eucalyptus plants having adverse impacts on ground water level or the quality of the soil of the region and in fact it was proved to be a profitable venture for the South African economy.

13. It is stated that a study titled “Is Eucalyptus Ecologically hazardous species” carried out by Tesfaye Teshome of the Wondo Genet College of Forestry, Debub University, Awassa, Ethiopia, has demolished the myths around eucalyptus regarding water consumption stating that eucalyptus planting is not harmful be it in ecological or financial terms. In China, a study reveals that eucalyptus is the most important forest plantation species with their current area estimated to be over 4.0 million hectares. The 10<sup>th</sup> respondent has quoted innumerable number of studies made in various parts of the world including the Forest Department of State of Karnataka, State Forest Research Institute, Jabalpur, Forest Research Institute, Dehradun, Kerala Forest Research Institute, Peechi, Jivrajbhai Agro Forestry Centre, Gujarat, Common Wealth Scientific and Industrial Research Organization, Forestry and Forest Products, Australia etc., Therefore according to the said respondent the studies revealed that consumption of eucalyptus species depends upon the availability of water in the soil.

When water is abundant its consumption is more and when there is scarcity, it is very economical. The plant is not a pump to siphon off ground water. The Haryana Forest Department has introduced eucalyptus and popular based agro forestry models in 1970 in Haryana which is primarily an agricultural State with only about 3.5% of its geographical area as natural forest and the model has been well received and it has become a economically viable activity leading to enormous development in the State with profitable venture to small and marginal farmers. By this development there has been significant increase in tree cover in Haryana apart from daily arrival of wood allowed its worth 3 lakhs US dollar which after value addition in the form of plywood production becomes worth 1.2 million US dollars. And this shows a sustainable forest management recognized by the Ministry of Environment, Forest and Climate change of the Government of India which has the basic idea of tree cover of 33% of nation's geographical area by 2025. It is also stated that worldwide, many environmental benefits have arisen out of eucalyptus plantation which are very efficient in capturing CO<sub>2</sub> fixing carbon and generating oxygen, reducing the risk of forest fires, and taking better advantage of water from fog owing to vertical position of the leaves.

14. The 10<sup>th</sup> respondent has also explained the Industrial utility of eucalyptus tree which are suitable for many tissue papers, craft pulping, chemical cellulose purposes apart from diverse products like sawn timber etc. It also supports biodiversity and wild life as opposed to popular myth. The 10<sup>th</sup> respondent has referred to an affidavit filed by Mr. S. Syam Sundar from Karnataka Forest Department in which it has been stated that after the eucalyptus trees were planted in large numbers there have been sightings of tigers and panthers in the forests apart from bees and bird nest. In India the eucalyptus plantation in forest area has been approved and legal sanctity has in fact been given in the Apex Court in the ongoing T. N. Godavarman Case and therefore the plantation of eucalyptus has been taken after proper scientific study, ground work and environmental assessment. The 10<sup>th</sup> respondent has referred about the instance of eucalyptus plantation for sustainable forest management practice in various States in India. Chattisgarh where in the plantation has been planned on the basis of minimum 3 rotations to build sustainable income generation activity and in the year 2011-12, 1320 hectares of degraded forest lands have been used for planting these species. That

is the case in Uttar Pradesh and West Bengal where the West Bengal Forest Corporation has approved 10 year project from 2010-11 to 2019-20 worth Rs. 6.57 Crores for raising eucalyptus quality and other pulp species. In Punjab, The Punjab Forest Department has been integrating with the farmers for tree crop animal components for sustenance and in course of time agricultural component received priority over woody elements. The Government of Andhra Pradesh through its Forest Corporation have planted eucalyptus in a total area of 44332 ha. Likewise in Karnataka the eucalyptus plantation have been raised from 2007 to 2012 in 66929 ha. of land and as per records, 2065 hectares have been raised per year in 33 years. The 10<sup>th</sup> respondent has also quoted a statistical report based on the study conducted by the National Bank for Agriculture and Rural Development (NABARD) which shows that while eucalyptus consume 0.48 litres of water to produce a gram of wood, siris, Shisham, jamun and kangi respectively have consumed 0.55, 0.77. 0.50 and 0.88 litres per gram and therefore eucalyptus is more water efficient than many indigenous species. The respondent has taken strong exception to the conduct of applicant in filing the application purely based on news paper article quoting some person who has no academic or professional expertise and without making any scientific proof and falsely stating that State of Karnataka has completely banned the eucalyptus Plantation. On the other hand State of Karnataka partially banned eucalyptus trees in dry, malnad and semi malnad areas. Therefore 10<sup>th</sup> respondent stated that the complete ban on eucalyptus would be catastrophic not only for the answering respondents, whose occupation depends upon the raw material generated by these trees but would present in disastrous ramifications of the forest of the Country. On the other hand the said respondent has produced scientific studies by authenticate authorities to show that eucalyptus is not a water intensive species, does not consume more water than any other tree, does not decrease the fertility of the soil and does not hamper biodiversity. With the above averments the 10<sup>th</sup> respondent has prayed for dismissal of the application in so far as it relates to the prayer for total ban of Eucalyptus trees.

15. The 6<sup>th</sup> respondent Central Ground Water Authority, in its original reply filed on 19-03-2014 has stated that it is subordinate to the Ministry of Water Resources,

Government of India and that the Board was constituted as an Authority under section 3(3) of the Environment (Protection) Act 1986. As per the direction of the Hon'ble Supreme Court of India dated 10- 12- 1996 made in Civil writ petition 4677 of 1984 the Authority is to regulate, control and manage the ground water resources of the Country and entitled to exercise powers conferred under various provisions of Environment ( Protection) Act 1986.

16. The Board carries out periodic studies and assessment of ground water resources in the Country and the last study on ground water resources made on 31- 03 -2009 revealed that out of 5842 assessment units in the Country, 802 fell in the category of "over exploited", 169 in the category of "critical", 523 in the category of "semi critical" and 4277 in the category of "safe". On 15- 11- 2011, the Board has framed "criteria for evaluation of proposals/ request for ground water abstraction" and notified 162 blocks/ taluks / areas in the Country in which the abstraction of ground water is impermissible for any purpose other than drinking water, while in non notified areas extraction is permitted subject to terms and conditions and the District Administration Head/ Municipality Head are appointed as "Authorised Officers" to issue NOC.

17. The Board has stated that in respect of State of Punjab, the studies/ investigation reveal:

- 1) That ground water is in a state of continuous and consistent decline in the State of Punjab where development/ extraction is over 170%.
- 2) Ground water is primary/ major source for drinking water in both urban and rural areas throughout the State. Similarly it contributes and provides for 71% of the water consumed/ required by the agricultural sector throughout the State. With the advent and success of green revolution the need and demand for ground water has increased manifold.
- 3) The water level during May 2013 compared to last 10 years has declined about 73% in the monitored 'observation well' that covers almost 82% of the entire State of Punjab.
- 4) In a report jointly prepared by the Water Resources and Environment Directorate, Irrigation Department of Punjab, Chandigarh and the Central

Ground Water Board, North Western Region, Chandigarh dated 31-03-2009 it is revealed that, of the 138 blocks assessed / investigated, about 110 blocks (80%) are classified as “over exploited”, 3 blocks (2%) as “critical” 2 blocks (1%) as “semi critical” 23 blocks(17%) as “safe” and that 45 blocks within the State of Punjab are declared as notified areas as per the guidelines. Therefore according to the 6<sup>th</sup> respondent, the above status shows the precarious and eminent need for preservation and protection of ground water in the State of Punjab.

Pursuant to a direction of the Tribunal dated 17- 02 -2015 to the 6<sup>th</sup> respondent to file the greater details regarding the categorization of blocks in State of Punjab, the 6<sup>th</sup> respondent has filed a further affidavit dated 18- 02- 2015. While reiterating the contents of earlier affidavit it is stated by the 6<sup>th</sup> respondent that it has issued direction to the Principal Secretary, Department of Irrigation and Power, Government of Punjab dated 24- 05- 2010 to regulate the ground water development and management. It has also imposed restriction on ground water abstraction structures on any project subject to guidelines envisaged from time to time. The Deputy Commissioner of Revenue District having jurisdiction has to ensure the rain water harvesting/ recharge to ground water in the notified areas/ blocks. It is stated that the Authorised Officers in the State Government are ensuring to stop energization of tube wells/ bore wells at present as per the direction of Central Ground Water authority. As the farmers in the State are involved in huge investments towards the construction of new ground water abstraction structures and energization, it will be desirable to have self regulation, community based development of ground water resources, use of 6 inches, 1 horse power motors for ground water extraction, use of water meters to check over exploitation of ground water resources by users and use of piezometers to measure ground water, installation of rain water harvesting/ recharge structures to conserve ground water, protection, preservation and creation of water bodies etc.,

18. It is also stated by the Central Ground Water Authority that blanket subsidy, free electricity and water will defeat the objective of regulation unless the same are checked through the appropriate policy of the Government. It is stated that in fact State Government has assured to take appropriate measures to preserve ground water

resources. It is also stated that while the Central Ground Water Authority is not anti-farmers but it is intended only to create awareness among the farmers about the necessity of preserving ground water and also instructing them of the importance of the principles of “Polluter pays” and “mandatory rain water harvesting by ground water user”. In the above background, the Central Ground Water Authority has prayed for issuance of appropriate directions in the interest of environment, welfare/ livelihood of farmers with a further direction to the Government to take proactive measures.

19. The learned Counsel appearing for the applicant has filed his written submission apart from making his oral arguments before us. Likewise the learned Advocate General of the State of Punjab as well as Additional Advocate General, the learned Counsel appearing for Central Ground water Authority and other learned counsel appearing for respondents have made their submissions.

20. At this point of time it is relevant to note certain factual events. By an order dated 05-03-2104 when the Principal Secretary Irrigation and the Chairman, Commissioner cum Managing Director of Punjab State Power Corporation Limited were present before the Tribunal consisting of four Hon’ble Members with the Hon’ble Judicial member presiding who is also the Judicial member herein, and taking note of the fact that it was submitted by the 5<sup>th</sup> respondent that certain newspaper publications were issued but it was not for giving fresh tube well connection but only demand notice to small farmers requesting them to pay the arrears of Rs.75000/- for clearing tube well connections and no further steps have been taken, we directed an order of status quo to be maintained as on the said date and the same stand continued even as on today. Regarding the planting of eucalyptus we have also directed status quo to be maintained. The original application was heard by a Bench of four Hon’ble Members including two judicial Members and two Expert Members on 15<sup>th</sup> April 2014 which was continued on 17<sup>th</sup> April 2014. In the mean time the applicant has filed M.A. 265 of 2014 under section 26 of National Green Tribunal Act 2010 to take action for not obeying the order of *Status quo*, alleging that electricity connections have been given even in the over exploited areas. Subsequently certain impleading application have been filed for impleading the Paper Manufacturers Association as 10<sup>th</sup> respondent

which was allowed on 26- 08- 2014. Bharatia Kissan Union, Punjab through its president has filed M.A. 634 of 2014 seeking permission to defend the cause of the farmers in a representative capacity, under order 1 rule 8 of Code of Civil Procedure 1908. On 17- 10- 2014 we directed the publication in two news papers one in English and other in local language. As the same was complied with, by an order dated 28<sup>th</sup> November 2014 the said M.A. 634/ 2014 was allowed permitting the Bharatia Kissan Union to intervene on behalf of farmers in Punjab. Subsequently the matter was heard on 17- 02 -2015 by a Bench of two Hon'ble Members including the Judicial Member who is also the Judicial Member herein along with Expert Member Mr. Ranjan Chatrejee. The argument was continued on 19<sup>th</sup> and subsequently on 9<sup>th</sup> March 2015 in the Bench consisting two Hon'ble Judicial Members. As it was felt that a larger Bench may decide the issue, we directed on 9<sup>th</sup> March 2015 to place the matter before the Hon'ble Chairperson for constituting a Special Bench. Accordingly as per the direction of Hon'ble Chairperson the matter was posted before Court No.1 of Principal Bench presided over by the Hon'ble Chairperson and the matter was heard on 19<sup>th</sup> March 2015 and subsequently on 16<sup>th</sup> April 2015 on which date, an elaborate order was passed by Hon'ble First Bench regarding two of the issues raised in this case about which we will discuss in course of time. Subsequently certain directions were given to the Punjab State power Corporation on 06 -05- 2015 regarding the number of tube well connections, nature of water consumption to be filed in the form of an affidavit and ultimately the matter came up for hearing again before the Hon'ble 1<sup>st</sup> Bench which also included the present Hon'ble Expert Member. It was directed to post the matter for final hearing on 5<sup>th</sup> June 2015, namely the first Vacation Court. It was on 5<sup>th</sup> June 2015 when both of us were sitting in the Vacation Bench at New Delhi and the matter was posted in the list for final hearing, a specific question was put as to whether both the Counsel who were present are agreeable to make their final arguments before the Bench. All the respective counsel consented for the same and accordingly with the consent of all the counsel the matter was heard at length and reserved for orders. The learned Counsel appearing for the applicant has agreed to file his written submission which was also subsequently received. It is in the above

circumstances this Bench has taken up the application, for final hearing and we proceed to give our final findings.

21. Mr. Ajeya Bharadwaj, learned Counsel appearing for the applicant has advanced his arguments only in respect of the prayer relating to pumping of ground water by the farmers of State of Punjab as it is also reflected in his written submission dated 17-06-2015. According to him the application is highlighting the issues of declining ground water at very high speed and unless certain immediate actions are taken the State of Punjab will become a desert. While pointing out that there has been interim order dated 5<sup>th</sup> March 2014, he has referred to the affidavit filed by the 6<sup>th</sup> respondent stating that there is a consistent and continuous decline of ground water. He has also referred to the said affidavit that more than 10 lakhs electrically operative tube well connections are in existence in over exploited areas in the State. According to him the Central Ground Water Authority confirmed that the entire State of Punjab is almost over exploited and critical and therefore there should not be any compromise and stern measures are required to be taken. He has also contended that the farmers in Punjab are spreading arsenic poison by pumping/abstracting water from bore wells in the areas where the ground water is very low and therefore it is a very serious situation. It has to be noted that the above said contention does not form part of the pleading of the applicant. However he submitted that the free power scheme has damaged the State by making the Government as debtor in respect of grant of subsidy and ground water level going down which cannot be redeemed. When the water level goes down the farmers are opting to go deeper by using free power establishing pump sets which will result in rapid depletion of ground water level. He also submitted that the direction given on 05-03-2014 and 17-03-2014 to provide details regarding the number of applications granting tube well connections so far and number of applications granting connection after status quo order apart from the nature of ground water profile and the same has never been complied with by the respondents. The directions given on 16-04-2014 to superimpose on the territorial map of the State have been cleverly evaded and in spite of the fact that the Tribunal has found that the details given by them are unsatisfactory they have failed to comply with the directions. There are no data furnished with regard to consumption by industrial

sector and unless all the directions are complied with there cannot be any comprehensive direction. He has also submitted that permitting abstraction of water in notified areas and critical areas will be illegal and against the larger interest of the people of the State. He has also submitted that plantation of eucalyptus is still going on in over exploited zone and the same has to be stopped. The Government should be directed to adopt method to improve this status. He has also stated that in spite of the order of status quo dated 05-03-2014 there has been tube well connections granted which is in violation of the order and in spite of the direction to the 5<sup>th</sup> respondent dated 08-08-2014 to furnish the list of connections given after the status quo order, no reply has been filed and therefore they are liable for punishment under section 26 and section 28 of the National Green Tribunal Act, 2010 as it is stated in the applicant filed in M.A. 265 of 2014.

22. Per Contra, it is the contention of Mr. Ashok Aggarwal, the learned Advocate General, State of Punjab and Additional Advocate General Mr. Jaskirat Singh Sidhu that the State of Punjab is an agrarian State, catering to the 60% need of the people of the Country in respect of providing rice and wheat. While granting subsidy either by free electricity supply or by other method is the policy of the Government which cannot be questioned in a Court of law unless there is a perversity taking away the Fundamental Right. The learned Advocate General would submit that the records would show adequately that the Government has considered all scientific and other data required before granting the concession. It is his submission that most of the farmers in the State are not getting any adequate monetary benefits by resorting to agriculture because of the cost factor which resulted in not only abandonment of the livelihood but also there has been reported cases of farmers ending their lives. It was in those circumstance, taking into consideration the sustainable development of the State which is agrarian and as a Constitutional duty that Government has provided free electricity to the farmers of poor category by fixing the extent of land holding which cannot be termed to be arbitrary by any stretch of imagination. In any event according to him except pointing out alarming ground water depletion, the applicant has not chosen to point out any arbitrariness or illegality in the policy of the Government. The Government has in fact taken prudent steps to avoid power theft by

providing separate connection with high voltage so that power theft may not be possible. Further close monitoring has also been effected against the misuse of electricity supply. It is his submission that even in the absence of grant of electricity supply, water has been drawn in these years for agricultural activities by the farmers through DG pump sets. By providing electricity supply, the DG sets are actually replaced which is environmental friendly and prevent pollution. It is his submission that because of the division of families in Punjab that in the event one family getting many connections, paddy being a short term crop even though requires abundant water, water supplied beyond the required quantity will only destroy the crops which is totally against the farmers and therefore even collectively a family cannot extract water more than what is required. He submitted that the farmers are not industrialists or manufactures for their commercial benefits but are producing grains for the benefit of the people of the Country for their very sustenance and therefore any subsidy granted to them cannot be termed as illegal or equal to any other benefit given to an industry. However he has fairly submitted that the State Government for the purpose of maintaining optimum ground water level, has to take adequate steps and also protect the crop patterns and follow new techniques like drip irrigation etc. The Government will enforce any directions given by the Tribunal with utmost sincerity. He admits that proper supervision and control is no doubt necessary in the development of agriculture itself.

23. The learned Counsel appearing for the Central Ground Water Authority while reiterating the contents of the affidavits filed, has submitted that in fact as per the direction of this Tribunal dated 06-05- 2015 the Central Ground Water Authority has given replies to all the queries in the affidavit dated 27- 05- 2015 and therefore it cannot be said that the Central Ground Water Authority has failed to obey the directions of the Tribunal. He has also submitted that by and large the quality of canal water which are provided for drinking through tube wells are good and that the Department of Water Supply and Sanitation, State of Punjab is regularly monitoring all ground water based schemes.

24. The President of Bharatia Kissan Union, Punjab who appeared in person and who was permitted by this Tribunal in the order dated 28<sup>th</sup> November 2014 to make his

submission at the time of hearing the main application, has also submitted supporting the cause of the farmers. He submitted that when the farmers are not able to get any benefit out of the agriculture it is improper for the applicant to state that electricity is being misused. He stated that by using DG sets for obtaining water for the agricultural operations which is their only source of livelihood, the farmers have to spend huge amount and ultimately they become debtors even though they provide food to large number of people of the Country. He has also submitted in the line of learned Advocate General that the farmers are starving for want of livelihood and by virtue of the interim order they are put to irreparable hardships since agricultural operations are virtually prevented.

25. We have heard the learned Counsel appearing for the applicant as well as the Advocate General, State of Punjab and Additional Advocate General of the State of Punjab and other learned Counsel elaborately, considered the contents of the pleading and various affidavits filed by the authorities from time to time apart from the reports submitted by the experts and applied our mind to the issues involved in this case. On an overall analysis of the entire matter and based on the original pleadings, we are of the view that the following issues that are raised and arise for our consideration:

- 1) Whether the policy of the State Government providing free electricity to the farmers for agriculture purposes is liable to be set aside on the ground that the same is being misused resulting in over extraction of ground water?
- 2) Whether there can be a complete ban on the eucalyptus trees in the State of Punjab?
- 3) What directions are necessary to check the ground water level in Punjab to retain its position?

26. In so far as it relates to the first issue, law is well settled that policy of the Government cannot be questioned in a court of law unless it is perverse and opposed to the Fundamental Rights guaranteed under the Constitution of India. Nowhere in the application, the applicant has stated anything about the same. Even otherwise the perversity or otherwise of the policy is not within the domain of this Tribunal which is constituted for specific purposes enumerated under the National Green Tribunal

Act 2010. In fact when the matter was heard on 16<sup>th</sup> April 2015 the learned Counsel appearing for the applicant has admitted that the said prayer does not fall within the jurisdiction of this Tribunal in terms of the provisions of the NGT Act 2010. Accordingly he has not pressed the said prayer and in the order dated 16- 04- 2015 this Tribunal has dismissed the application relating to the said prayer as not pressed. In view of the same there is no necessity for this Tribunal to pass any further order except reiterating the finding and consequently concluding that the issue cannot be decided in favour of the applicant.

27. In respect of the second issue regarding a complete ban on the plantation of eucalyptus, even this issue was taken up for consideration in the order dated 16<sup>th</sup> April 2015. The Tribunal has taken note of the contention raised by the applicant that the eucalyptus trees are consuming very large quantity of water and therefore growth of such plantations in the over exploited areas should be prohibited. The Tribunal has also taken note that the above said trees do consume water but are water efficient plants and in fact the Government was encouraging growing of the said plants in the water logged areas and where ground water level are safe and placed on record the studies that eucalyptus trees are water efficient plants. Having perused the entire records and heard the learned Counsel the Tribunal, in the order dated 16-04- 2015 held that the plantation of tree should not be totally banned in interest of either environment, ecology or public at large. However the Tribunal has made it clear that the State should encourage farmers to plant eucalyptus trees preferably in the water logged area or the areas which are declared as safe by the Central Ground Water Authority. The Tribunal has categorically found that plantation of eucalyptus would better serve environmental causes and it cannot be disputed that these trees yield more biomass and therefore more carbon sequestering trees as compared to other species of trees. Therefore the issue has been finally decided .While reiterating the same, and as a matter of addition and explanation we would like to add the following.

28. The applicant has placed on record an article published in Times of India dated 12- 03 -2004 indicating that Dr. Arunalok Chakrabarti of Department of Micro Biology, Post Graduate Institute of Medical Education and Rresearch, Chandigarh. 160012, has conducted certain research indicating that exposure to the five species of eucalyptus

namely E.blakelyi, E.camaldulensis, E.gomphocephala, E.rudis and E.teretiornis, certain human infections were diagnosed in the states of Punjab, Himachal Pradesh and Karnataka in India. The Tribunal has directed in its order dated 28<sup>th</sup> November 2014 the said Dr. Arunalok Chakabori to be present on the next date of hearing. Accordingly he was present before the Tribunal on 19th December 2014 and submitted his paper prepared by him on “Isolation of *Cryptococcus neoformans* var. *Gattii* from Eucalyptus camaldulensis in India”. The scientist in the article is reported to have collected 696 samples of eucalyptus trees and all isolates identified as *Cryptococcus neoformans* var. *Gattii* were tested for pathogenicity and found that they were pathogenic for maize and brain smears and infected maize show numerous encapsulated yeast cells. The said scientist who appeared in person before this Tribunal while explaining this, has stated that the said sort of fungi would also be available in some of old trees of other species apart from eucalyptus. He has also stated that in his experience, only a few number of cases were dealt with and nowhere in the world the growth is banned according to his knowledge. He has further stated that cases regarding persons affected by such plants were very meagre. In the light of such categorical statement made by the scientist before us we cannot come to a conclusion that the growth of eucalyptus is injurious to human.

29. As the learned Counsel appearing for the 10<sup>th</sup> respondent has pointed out, there are many studies which are placed before us out of which the study by John Davidson which is considered to be one of the earliest, made on “ecological impacts of eucalyptus plantation” in 1989 shows that water use per total biomass in respect of eucalyptus is 785litres /Kg and when it is compared to other plants like cotton, paddy, soya bean, potato etc., the utility of water by eucalyptus is not that much as focused by the applicant. In this regard the table annexed with said paper regarding the water used by plants through evapotranspiration can be reproduced for our better appreciation.

<b>Plant</b>	<b>Water use per total Biomass (Litres/Kg)</b>
Cotton/Coffee/Bananas	3200
Pongomia(T)	2600

Sunflower	2400
Field pea	2000
Paddy Rice	2000
Horse bean	1714
Cow Pea	1667
Conifers(T)	1538
Dalbergia(T)	1483
Soybean	1430
Acacia	1323
Syzygium	1017
Potato	1000
Sorghum	1000
Albizia(T)	967
Eucalyptus (T)	785
Finger Millet	592

30. The study further states that “in many cases products such as poles and fuel wood are chronically short in supply, while water resources for all competing uses, including food production and consumption by humans and livestock, usually are limiting also. A balance has to be struck between growing a large biomass quickly or alternatively, growing lesser biomass over much longer period of time. Rate of biomass production (and thus water consumption) can be adjusted through species choice, degree of fertilization, or withholding fertilizer or application of other cultural practices or by planting fast- growing trees farther apart, thus lowering water consumption per unit area of land. Given proper planning and management there is no need to exclude eucalyptus because of their perceived high rate of water consumption”. The study further proceeds “when compared with a range of crops the eucalyptus can achieve a high biomass production on a low nutrient uptake, as little as one-half to one tenth that of most agricultural and estate tree crops, that is, they can be successful on poor soils without fertilizer”. He has also stated that fast growing trees like eucalyptus

adapted to particularly harsh sites have important function in rehabilitation and conservation of land.

31. In the light of the above said recognized study when we consider the statistics which are made in the meeting for grant of licence to wood waste held on 02 -07- 2007 we can find that the availability of timber in respect of eucalyptus is large in Punjab and in fact wood based industries in the State of Haryana, Utter Pradesh and Punjab are the socio economic hub. Prof. Walter de Paula Lima ( Department of Forest Sciences, ESALQ/USP) in ‘The dialogue of the Brazilian forest’ published by the institute of Bio Atlantica, Rio Dejeneiro, Brazil in 2011 in the contents on “the myth surrounding the Eucalyptus”, comments that “paradoxically, the introduction planted forests and especially the recent expansion of the area of forest plantations, due to their growing economic importance- was accompanied by a widespread public belief that unlike natural forests, they would be detrimental to water resources. It includes a bit of everything, starting with a stigma associated with the word “eucalyptus: forest plantations consume too much water”, “they dry up the soil”, “their roots penetrate the water table”, “they inhibit cloud formation”, they destabilize the hydrologic cycle”, etc., Prof. Paula Lima further points out that “A classic popular belief involving the relationship between forest plantations and water can be summed up in the assertion that eucalyptus dries up the soil. It would be pertinent to address this matter, since it has frequently been used in defining public policies and restrictive legislation, as well as to incite heated but useless arguments, often characterised by strong emotional and ideological appeal. Clearly the vast majority of responses to this statement may be summarised as a resounding “no”, and it is easy to understand why. From the scientific stand point for instance, the numerous experimental results accumulated on the subject of water consumption by eucalyptus plantations, both in Brazil and abroad, are available to clarify the situation. And yet it endures, re-emerging here and there whenever the subject is brought up and, for that matter, every time certain segments of society express their apprehensions about issues that sometimes have nothing to do with this subject”. Prof. Paula Lima concludes that “it is therefore clear that the eucalyptus is after all merely part of the problem of the drying out of the soil, which can actually occur when management actions do not take

into account the concept of integrated catchment management. But the problem is really much more complex than this and must be dealt with through vital restoration of all the environmental and hydrological values discussed above, especially those related to the development and implementation of adequate planning for the occupation of the productive areas of the landscape for the agricultural or forest production. Throughout the landscape, there are areas that are suitable for production (of grains, fibres, wood, meat, milk, etc.) that society needs, but there are also areas that are clearly appropriate for environmental protection, whose preservation is necessary to provide the eco system services that society also needs to continue growing in a sustainable manner. The management of eucalyptus plantations has to take into account these peculiarities and ecological and hydrological limitations. For precisely the same reason, the management of soybean, sugar cane, oranges and cattle also carries the same social and environmental responsibilities. There is absolutely no point turning this crucial issue of the survival of all into disputes between ruralists and environmentalists". The above referred study, together with many others including those referred to in Para 11,12,13,14 and 29 above, would show in no uncertain terms that growing of eucalyptus is not anti environment per se. Nor is it disastrous for water table, if proper management of such crop is followed.

32. In view of the same while reiterating the findings of the Tribunal dated 16-04-2015 in respect of eucalyptus plants, we record the above said studies and hold that there cannot be a complete ban on eucalyptus plantation in the State of Punjab. However it is for the Forest department to evolve appropriate policy by regulating and restricting the growth of the said plantation in the water logged and safe areas by way of proper regulations and continuously monitoring of the same. Issue No. 2 is answered accordingly.

33. This leaves us to the only other contentious issue of steps to be taken regarding drawal of ground water through the tube well connections by the farmers in the State of Punjab. At the outset we have to state that in this case we are concerned with the drawal of ground water by farmers through tube wells for their agricultural activities and not about the Industrial and other uses. This is for the simple reason that admittedly the State of Punjab is an agrarian State and agricultural income is the main

source of revenue not only for the State but also the livelihood of majority of people who are the farmers. We must also understand that the activities of farmers can never be compared to an industrialist which is basically commercial. In case of farmers even though they depend up on the income from the agricultural yields one has to remember that the yield are given to the common people of the Country for their survival and therefore the income earned by the farmers cannot be compared to be a commercial income of an industrialist.

34. It is not as if the State Government has not taken any action taking note of the critical status of the ground water level in the State of Punjab. In fact the reply affidavit filed on behalf of the State as elicited above shows in clear terms that the State Government has taken various steps to check the decline in ground water. A few among them is the construction of 13 Multipurpose Low Dams in Kandi area, notification issued for Roof Top Rain Water Harvesting under the NABARD Scheme, preparation of Master Plan by the State as approved by the Government of India regarding the Artificial Recharge Scheme at the cost of Rs 2244crore which is to be released in the 14<sup>th</sup> Finance Commission by making allocation of fund and crop diversification for saving use of irrigated water. In addition to that working groups have been constituted for framing strategies to arrest decline of ground water and also a continuous and regular monitoring of ground water situation is being carried out.

35. One of the main allegations raised on behalf of the applicant is the multiplicity of tube well connections for which permissions were sought based on the division of families. The point raised by the applicant appears to be like this, namely, earlier, when there was a joint family consisted of 10 members along with their spouses and children, the family carrying on agricultural operations for example in 10 acres of land belonging to the joint family for which there was one tube well connection. In course of time when the joint family divided say in five groups each sharing 2 acres of land, each of the group has obtained individual tube well connection with the result what was one tube well connection for 10 acres originally has become 5 tube well connections and proportionately the drawal of ground water has increased enormously. This contention in our view is a myth and totally misconceived. Even though the total 10 acres have been divided into 5, each with 2 acres, ultimately for

agricultural purpose especially for paddy and wheat the total water requirement for 10 acres remains the same. The farmers are aware that the paddy crop being a short term crop which is grown in about 45 days in a year and even though it consumes enormous water for its germination and growth, the fact remains that water supplied to the said crops more than what is required will damage the entire crop of that year. Therefore either collectively for 10 acres or individually for 2 acres water cannot be used more than what is required for paddy or wheat crops. It is unfortunate for the applicant to presume that more and more water will be drawn unauthorised, but it is not explained as to where such excess water is being diverted. It is not the case of the applicant that these farmers are illegally selling water to any industries or any other persons after obtaining concession from the Government. In the absence of any averment to the effect we do not agree with the contention of the applicant that by division of joint family excess water will be drawn illegally.

36. Even in respect of the use of water for agricultural operations as stated by the 5<sup>th</sup> respondent, the Government has taken steps for preventing illegal trapping of power obtained by concession by the farmers and as a policy has decided to release power by AP connections with high tension supply which prevents illegal trapping of power. That apart, it is the case of the Government that concession regarding power supply is given to small farmers holding up to 4 acres of land. Moreover the permission to pump water through tube well is not for supply by 24 hrs. It is during 3 months period in a year which is the paddy season, water supply is made for 8 hrs a day and for the rest of the 9 months it is stated to be made for 4 hrs on alternate days. When that is the step taken by the Government we are unable to understand as to how the free supply of electricity for drawing water can at all be termed as unguided and unfettered privilege conferred on the beneficiaries. In fact this regulation and restriction in supply of controlled energy is as per the provisions of “The Punjab Preservation of Sub-Soil Water Act 2009”. The Act prohibits sowing of nursery of paddy and transplanting of paddy before specific dates.

37. The said Act under s 3(1) states:

“No farmer shall sow the nursery of paddy before 10<sup>th</sup>  
day of May of the agricultural year or such date as may

be notified by the State Government by notification in the official gazette for any local area”.

In case of violation which comes to the knowledge of the Authorised Officer, he is empowered to issue directions under section 5 of the Act to destroy the nursery of paddy which are transplanted before the notified date. Section 5 of the Act is as follows:

“The Authorised Officer, either suo moto or on information brought to his notice regarding the violation of any provision of this Act, shall be competent to issue directions to the farmer, who has violated any provision of the Act to destroy the nursery of paddy or sown or transplanted before the notified date”.

If in spite of such direction the same is not carried out, the Authorised Officer is empowered to destroy such illegally sown nursery of paddy or transplanted paddy at the expenses of the farmer, under section 6 of the Act which runs as follows:

“In case, a farmer does not act as per the directions of the Authorised Officer given under section 5, the Authorised Officer shall cause such nursery of paddy or sown or transplanted paddy as the case may be destroyed at the expenses of such farmer”.

This is intended to minimise the exploitation of ground water. When statutorily the crop pattern either relating to paddy or wheat is regularised by the Government there is no question of permitting over exploitation. It is however true that the spirit of the said Act must be truly implemented by the authorities competent so as to obtain the fruit of the noble aim of the Act. Mere improper implementation of the Act cannot be ground for anyone to suggest that the idea itself is wrong.

38. There is one other aspect which has been highlighted by the learned Counsel for the applicant namely that the respondents have not given the exact particulars as called from time to time especially relating to the number of applications pending for tube

well connections, number of connections granted after the status quo order passed by this Tribunal etc., and unless and until such particulars are given the Tribunal may not be in a position to give any comprehensive directions. This is again in our view a farce. The respondents, especially the 5<sup>th</sup> respondent have made it very clear in their affidavits as stated above that after the status quo order was passed on 5-03-2014, no fresh connections have been given and what was notified in news paper was relating to arrears payable by the farmers, of course to enable them to get the connections restored. In the absence of any material on record and in the light of the categorical statement made by the responsible officers of Government, there is nothing for this Tribunal to infer that breach would have been committed. We are unable to understand any reasoning behind the contention raised on behalf of the applicant that in the absence of the details, no comprehensive directions can be given. It is not known as to what is the need for such particulars when there is a categorical statement that no fresh connection has been given after the status quo order. In the affidavit of the 5<sup>th</sup> respondent particulars are available about the pendency of applications under various category of consumers for tube well connections. It has been clearly stated in the affidavit that in respect of general category applications having land holding above 1 acre upto 2.5 acre are pending to a large number of 82822. Likewise the applications in respect of persons having land holding above 2.5 acres up to 5 acres is 91841 and the land holding of more than 5 acres under general category 51716 applications are pending and it is the pending list as on 5-3-2014 and the total number of applications pending for tube well connections as on 5-03-2014 is 405604. The SE/ Sales- 1 of the 5<sup>th</sup> respondent, Punjab State Power Corporation Limited in his affidavit dated 7<sup>th</sup> May 2014 has clearly stated that “in compliance to the status quo order of NGT dated 5-03-2014 no connection has been released”. He has also stated that as per the categories pointed out by the Central Ground Water Authority the existing tube well connections electrically operated as on the said date category wise is given as follows:-

1. Safe	-	156093
2. Semi critical	-	1342
3. Critical	-	29174

4. Overexploited	-	1041036
5. And total tube well connections existing	-	12 26745

39. The Central Ground Water Authority has answered the various queries put by this Tribunal in the order dated 06 -05- 2015 and that is in the affidavit of the Administrator of the Central Ground Water Authority dated 27 -05- 2015. For the question put by this Tribunal which read as follows, “whether any study has been carried out to ascertain as to what would be effect of the level of the ground water, if approximately 1 lac 25 thousand pending application with the State Government for sanctioning of tube wells are sanctioned under the scheme”, in the reply by the Central Ground Water Authority it is stated, “It is submitted that as per the claim of the State Government all these 1lac 25 thousand tube-wells are the existing tube wells under operation drawing ground water with the help of generators at present and will continue to draw ground water with the help of electricity if permitted by the Hon’ble Tribunal. Therefore the answering respondents do not foresee any change in effect/impact unless there is any change in number of( pump) operating hours due to free electricity, power supply hours, change in pump capacity, ground water resources availability, rain fall etc, considerations. The State has submitted that limited electricity supply is given to agriculture consumers through these AP connections”. The 5<sup>th</sup> respondent while replying to the said query, even though has stated that no specific study has been carried out, has given the particular that there are approximately 14 lakh tube wells presently installed, out of which 12 lakhs are operated with electricity supply by the 5<sup>th</sup> respondent. In respect of the remaining, the farmers having tube wells but without electricity connection are running the tube wells by using diesel generators and one of the objects is to eradicate such operations using diesel generators by giving electricity connection, as the diesel generators are causing more harm to the environment by way of noise and air pollution. It is further submitted that it will in no way affect the existing ground water level as most of them are already extracting the ground water by using diesel generators without any regulation. But if these tube wells are electrified the water abstraction will be regulated based on the fixed hour supply.

40. In an another affidavit dated 10<sup>th</sup> April 2015, the 5<sup>th</sup> respondent has given the details of anticipated demand and availability of electricity from various sources for the year 2015-16 and also applied before the Punjab State Electricity Regulatory Commission (PSERC) for approval of the Annual Revenue Requirement (ARR). It is also stated that as per the ARR it is evident that primarily due to additional generational capacities added within the State and also from the share in the Central Sector Project, there would be surplus of electricity available to the 5<sup>th</sup> respondent during 2015-16 and it is expected that the power situation of the State during 2015-16 will be comfortable and no major power cuts are likely to be imposed on various categories of consumers.
41. While answering a query which is as follows “effect of the tube wells sanctioned in the notified area (the area where ground water extraction is permitted only for drinking water) for agricultural activity”, the reply by the Central Ground Water Authority runs as follows “in view of the submissions, by the State Government on fixed hours, limited electricity supply under their Agriculture Power Policy, through these existing generator operated bore wells, the effect of sanction under Agriculture Power Policy of the State Government may be negligible. Generators may cause noise pollution and air pollution”.
42. Taking into consideration the above particulars and also various details furnished by the Governmental authorities and submissions of the learned Advocate General of the State of Punjab, it is clear that 1.25 lacs of applications are pending. It is not as if the tube wells are not in existence, but they are very much in existence, not by electricity connection but by diesel generator sets. Therefore by providing electricity connection to them no altered situation is going to happen. But on the other hand by replacing generator sets to the electricity connection the atmosphere will be saved from pollution both air and noise. Moreover as per the power position of the State as elicited above, when the same is comfortable there is no harm in permitting the Government to go ahead to consider the applications however with various restrictions regarding the timing of power supply, sowing of paddy seeds as already in existence but also with further stringent conditions. As it is stated, the power supply to the poor farmers as per the opinion of State Government which is a matter of

policy, it shall be continued with restrictions regarding the supply during specified hours as exist in the State as on date namely the supply of 1 ½ months (42 days) is 8 hrs daily for paddy season, for the 10 1/2 months, 4hrs a day alternately night and day. The Government has to put it in the form of a straight formula so that it can be easy to implement. If such implementations are effected in true spirit, transformation of electricity for diesel generator set is certainly environment friendly, provided the Government strictly enforces that no farmers shall use generator set thereafter and in case of disobedience stringent measures must be taken including imposition of heavy amount on the violators on polluter pays principle.

43. Therefore for the reasons stated above and on the overall situation we are of the considered view that no useful purpose will be served in detaining the pending applications for tube well connections but the same must be processed and appropriate orders passed with certain mandatory conditions. Accordingly, we dispose the application as follows:-

1. The application stands dismissed in so far as it relates to the prayers relating to the issue no. 1&2.
2. The respondents shall be entitled to process the pending 1.2 lakh applications for electricity tube-well connections subject to the following conditions:-
  - a. The grant of tube well connections shall be subject to the restriction regarding the use of electricity and hours as to be specifically notified by the State Govt of Punjab.
  - b. On grant of tube well connections by electricity, no farmers in the State of Punjab availing the facility shall be permitted to use diesel generator sets for drawing underground water. In case it is brought to the notice of the Government either by the applicant or by any other source about the use of generator sets by such farmers, the authority concerned shall forthwith take appropriate actions in accordance with law and also impose payment of amount under the principle of “Polluter Pays” at the rate of Rs. 5000 per day for each of the diesel set used. However, the farmers, who do not come under the gamut of the “free electricity policy” are free to use diesel or any other generators

but strictly as per the norms prescribed by the CPCB and/or PSPCB for the purpose.

- c. The Government shall strictly implement the provisions of the Punjab Preservation of Sub-Soil Water Act 2009 and notifications issued thereunder from time to time strictly and shall take appropriate action under section 5 and 6 in cases of violation.
  - d. The above directions shall apply not only to the new connections to be issued from among 1.25 lakhs of applications but also in respect of the existing tube well connections through electricity throughout the State of Punjab.
3. The State Government shall make necessary notification regarding the restriction of power supply to the tube well connections along with the timings and eligible criteria for the beneficiaries in clear terms within a period of 30 days from the date of this order. After such notification the same shall be effectively implemented and it will be open to any one of the public including the applicant to bring any violations committed to the notice of the Government, in which event the authority concerned shall take immediate action. The affected party or any one among the public including the applicant can always move this Tribunal by filing fresh application. The State Government shall ensure that the water drawn with the pumps using free electric supply is not misused for any other purpose like industrial activity, building construction, water packaging and other commercial activities and in the event of such violations, the Government shall take all appropriate actions against the violator/s in the manner known to law.
4. The Government shall notify the categories of areas as critical, overexploited, exploited, safe etc., in the State of Punjab regarding the ground water level and impose restrictions regarding the use of ground water for agriculture and other purposes within a period of 30 days from the date of this order. We make it clear that in water abundant or safe areas the Government may permit growth of eucalyptus and under Crops Diversification Programme (CDP) subject to various conditions and restrictions as it may deem fit.

5. The Government shall ensure the drinking water supply to the people of the State without being affected by any contamination either by the growth of crop patterns etc., especially arresting the arsenic compounds beyond permissible limit due to the raising of rice crops.
6. The State Government shall take all proactive measures in advising the farmers to take steps on Rain Water Harvesting/ Recharge.
7. The State Government shall take steps to promote Resource Conservation Technology (RCT) by implementing various well established scientific techniques.
8. The State Government shall also take all earnest steps to implement the Limited Rotational Power Supply in the State which is the very object of the Punjab Preservation of Sub-Soil Act 2009.

With above directions the original application stands ordered. Consequently M. A. No. 501 of 2014 filed by the 5<sup>th</sup> respondent for modification of the order 05-03-2014 stands closed as the same is not necessary by virtue of the final order. Similarly M.A. No. 79 of 2014 filed by the applicant stands dismissed and the order of status quo dated 05-03-2014 shall stand modified in the above terms. M. A No. 265 of 2014 filed under section 26 of the NGT Act 2010 stands dismissed. There shall be no order as to the cost.

Order delivered by video conferencing

by the Hon'ble Judicial Member from

The National Green Tribunal, Southern Zone,

Chennai and simultaneously by the

Hon'ble Expert Member at the Principal Bench,

New Delhi on 20<sup>th</sup> July 2015.

Justice. Dr.P. Jyothimani (JM)

Prof. A.R. Yousuf (EM)