

Item No. 01

Court No. 1

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

M.A. No. 29/2023

In

Original Application No. 237(THC)/2013

Court on its own Motion

Applicant

Versus

State of H.P. & Ors.

Respondent(s)

Him Anchal Taxi Union .... ..

Applicant

Date of hearing: 25.04.2023

**CORAM: HON'BLE MR. JUSTICE ADARSH KUMAR GOEL, CHAIRPERSON  
HON'BLE MR. JUSTICE SUDHIR AGARWAL, JUDICIAL MEMBER  
HON'BLE DR. A. SENTHIL VEL, EXPERT MEMBER**

Applicant: Ms. Bhakti Pasrija, Adv. for Applicant in M.A 29/2023

**ORDER**

1. This application has been filed for modification of orders dated 09.05.2016 and 30.08.2017 passed by the Tribunal restricting the number of vehicles on road from Manali and Rohtang pass in Himachal Pradesh considering expert reports about adverse impact on glacier, air quality, climate change and flora and fauna on fragile eco system of the area.

2. Before dealing with the application, brief reference may be made to the proceedings leading to the orders sought to be modified. As the record will show, proceedings commenced on the basis of a letter addressed to the Chief Justice, Himachal Pradesh with the grievance that 4000-5000 vehicles were making round trips from Manali to Rohtang Pass resulting in huge pollution and damage to the environment. Vide order dated

21.10.2010, a Division Bench of Himachal Pradesh High Court directed the Chief Secretary, H.P. to come up with an appropriate proposal in the matter to control the vehicular movement. Proceedings remained pending in the High Court for about three years till 15.07.2013 when the matter was transferred to this Tribunal for further consideration. During pendency of the proceedings before the High Court, an expert opinion was taken from NEERI, Nagpur about the carrying capacity of the area. The area was divided into five segments and regulatory directions were issued inter alia to restrict movement of traffic based on the recommendations of the NEERI.

3. The Tribunal sought status report from the State Authorities and dealt with the matter vide detailed order dated 06.02.2014. The Tribunal noted that Rohtang Pass is at a height of 13,500 feet above the sea level. The satellite spots of major tourist destination at Manali in the north-western Himalayas are mostly spread in snow environment and include Rohtang Pass, Marhi, Kothi, Salang Nala apart from other spots. Heavy unregulated tourism in the area was resulting in degradation of environment. Extent of tourism was noted to be 11 lakhs visitors annually. It was further noted that:

“xxx.....xxx.....xxx

*3.....The major ecological components are the cleanliness condition, amount and quality of water in the streams, land’s proneness to erosion, physical load bearing capacity of the land surface and the state of flora and fauna etc. While the atmospheric components are ambient air quality status, diurnal and seasonal fluctuations in the atmosphere, rainfall and snowfall conditions ultimately, in a collective form, influence the atmosphere as well as the agriculture and water resources based activities throughout this valley. **As per the report of the Expert Committee constituted by the High Court of Himachal Pradesh, vide order dated 12th October, 2010, nearly 10,000 persons visit this tourist spot and nearly 3600 (75% taxis) go to the Rohtang Pass per day in the months of May and June, every year, which number is***

*continuously increasing. The available amenities and facilities for tourists within the township are becoming insufficient and thus, the carrying capacity of these amenities and facilities have virtually crossed its physical and ecological limits. Over-construction, increased vehicular traffic and associated air pollution and its impact on snow caps owing to unregulated tourism remain the notable impacts. As per the available data, the highest construction rate was recorded during 1980-85 at 2850 per cent followed by 161.1 per cent during 1990-95. It has also been reported that nearly 87.3 per cent of the total vehicles plying on Rohtang Pass belong to tourists. ....It needs to be noticed that the only entrance to Lahaul Valley is the Rohtang Pass.....The ambient air quality, due to high number of vehicles on the top of these mountains, also gets polluted and traffic congestion adds to it. The two snow points in the Himalaya, Rohtang Pass (3938 m) in the north-western Himalaya and the famous Hindu shrine-Badrinath (3133 m) in the central Himalaya are the headwater regions which can be approached directly by road. The snow cover is a source of recreation for the visitors. However, as an adverse impact of heavy tourism, there has been a considerable fall in the amount of snowfall received by the region. It is reported that snow recorded at Kaylong (3064 m.) in Lahaul & Spiti district in the northwestern Himalaya, which is ahead of Rohtang, is reduced by 357 per cent, i.e. from 685 cm in 1990 to 150 cm in 2000. The Parbati Glacier in the Kullu Valley of Himachal Pradesh has been receding at the rate of 52 metres per year based on a study from 1990 to 2001. Based on another study conducted by the Indian Institute of Technology, Kanpur, Black Carbon, mostly produced by burning of agricultural waste and vehicles, is being seen as the major causative factor for rapid melting of glacier in the Himalayan region. Black Carbon is primarily unburnt fuel that travels from warmer to colder areas through air, settles on glaciers and makes them melt and is believed to be the biggest contributor to global warming after Carbon Dioxide.*

*4.....The increasing congestion in the form of mass tourism in and around Rohtang Pass affects the topographic fragility and ecological delicacy of this area. It affects the ambient air pollution levels in and around that area. The **Total Suspended Particulate (TSP) Matter below 100  $\mu$  in size, particulate matter (PM10) below 10  $\mu$  in size, particulate matter (PM2.5) below 2.5  $\mu$  in size, Black Carbon (about 0.5  $\mu$  in size) monitored at Kothi village, on the way to Rohtang Pass for the period 2010-2012 suggests that highest ever TSP was observed to be 388.0  $\mu\text{g m}^{-3}$  on June 6, 2010 followed by 382.8  $\mu\text{g m}^{-3}$  on July 8, 2009 which indicates that during certain time, TSP level remains above permissible limit. This could be either due to high***

***influx of vehicles or outside transported aerosols. The monthly maximum average value of TSP at Kothi was 138.4  $\mu\text{g m}^{-3}$  in May 2011 indicating above permissible limit in the month again which coincides with tourist influx period. The highest ever value recorded for PM10 was 62.4  $\mu\text{g m}^{-3}$  in May 2011 indicating that it is within permissible limit. While analyzing ionic components, anions like  $\text{Cl}^-$  (24%) were observed to be maximum followed by  $\text{SO}_4^{2-}$  (20%) and  $\text{NO}_3^-$  (18%) indicating their source to be of nonmarine origin or local source. But among cations,  $\text{Na}^+$  (22%) was highest followed by  $\text{Ca}^{+2}$  (6%) and  $\text{K}^+$  (5%) indicating mainly their crustal source. Among transitional metals,  $\text{Zn}^{2+}$  stood to be at top in PM10 followed by  $\text{Cu}^{+2}$ ,  $\text{Cd}^{+2}$  and  $\text{Co}^{+2}$  indicating again local source through mainly forest fires, biomass burning, and fossil fuel.***

5. The monthly mean maximum concentration of PM2.5 at Kothi was 40.4  $\mu\text{g m}^{-3}$  in March 2009 indicating a predominance of finer size particles due to anthropogenic activities mainly. As far as its monthly mean concentration is concerned during January 2009 - December 2012, its value was again low i.e. 22.5  $\mu\text{g m}^{-3}$ .

6.....xxx.....xxx.....xxx

7. ***Considerable increase in vehicular traffic in Himachal Pradesh, particularly, in this part, has resulted in blackening/browning of snow cover in mountains, especially emissions of unburnt hydrocarbon and carbon soot. The air pollution problem has aggravated in the recent years due to tremendous increase in the number of trucks and other vehicles for tourists and local population, being plied on these routes. Another serious impact of increased vehicular traffic in these areas is on the wild animals living along the traffic routes. These include walking or running away from vehicles. Many wild animals including birds show “high response” to vehicles. Increase in number of vehicles coincides with decrease in walking activity and vice versa. The vehicles are interfering with the animal activity and their mobility in particular. In some sections, even survival of the animals is affected. Curiosity on the part of tourists to approach the animals too closely is another additional factor interfering with their other activities such as searching for prey, mating and seeking cover. Vehicular noise may disturb many animals in their routine activities including breeding behaviour, which may affect the sustenance of ecosystem.***

8.....Bhopal, the economic value of the ecosystem services provided by forests of Himachal Pradesh is Rs.106664 crores per annum in terms of direct and indirect value.

xxx.....xxx.....xxx

DISCUSSION ON POLLUTANT-CONTENTS AND REMEDIES:

20. ***It is indisputable that the glacier of Rohtang Pass is facing serious pollution issues and with the passage of time, is being degraded environmentally, ecologically and aesthetically. The time has come when not only the State Government, the authorities concerned but even the citizens must realize their responsibility towards restoring the degraded environment of one of the most beautiful zones of the country as well as preventing further damage.***

21. ***There are various factors which are responsible for degradation of environment and ecology in this eco-sensitive area. Vehicular emission is one of the major contributors to pollution. The impacts of vehicular pollution would seriously affect the ambient air quality due to the emission of high carbon content, Black Carbon, nitrogen oxide (NOx) and Suspended Particulate Matter (SPM). All these are polluting the clean and healthy air in that area. Vehicular pollution also adversely affects the glacier, effects of which are evident in blackening of snow, melting of glacier and other ecological disturbances in the glacier. The diesel, commercial and transport vehicles, which are over-loaded and even other vehicles – public and private – including two-wheelers which go to the glacier or pass through the glacier en route to further destinations, are damaging the glacier.***

xxx.....xxx.....xxx

31. ***Global warming has a direct impact on environment and ecology of any zone. Global warming, a succession of hot summers through the 1980s seemed to bear out the conservationist's warning that the earth's climate was warming up. This global warming, if it is indeed the case, is a consequence of the large quantities of carbon dioxide released into the atmosphere by industries, power stations and motor vehicles. The earth's temperature will rise, the polar caps will melt, raising sea levels and causing catastrophic flooding in low-lying areas and large areas of productive land will become desert. This global warming – heat – has affected various countries in the world. The glaciers on the Mount Blanc were melting causing slush; the impact of what keeps on happening in the solar atmosphere and the sun directly affects our planet, hence, there is a need to tackle global warming. Environmentalists present a grim picture of the effects of global warming with the mean temperature of the***

**earth increased by about 1.6 degree celcius. This is a declaration made at a Conference of Parties to the Framework Convention on Climatic Changes. Global warming represents the increase in the average temperature of earth's near-surface air and oceans. (Ref: "Environmental and Pollution Laws in India", 2nd Edition, supra)**

**32. According to a statistical report from the World Meteorological Organisation, global temperature has registered an increase of more than 0.60 celcius in the past 100 years. In the near future, contamination of underground and surface fresh water supplies is likely near coastal areas (Ref: Law Relating to Environmental Pollution & Protection, 5th Edition, Vol.I, by Dr. N. Maheshwara Swamy).**

**33. Global warming has its impacts in other parts of the world, as in the Indian sub-continent. It is likely to affect the glaciers. There will be early and untimely melting of ice resulting in various environmental issues. Rohtang Pass being one of the eco-sensitive and fragile areas of the glacier, is likely to get affected more than other areas. Thus, there is a need for evolving schemes and mechanism to take greater care of the glacier in the interest of environmental and ecological balance."**

4. As a follow up of order dated 06.02.2014, the Tribunal took up the matter on 27.03.2014 and noted the stand of State of H.P. that the Government has taken decision to implement the said judgment and the Committee has been constituted to monitor its compliance. Vide order dated 23.04.2015, the Tribunal held that number and nature of vehicles were required to be regulated and directed as follows:-

**"1. The ban on Diesel and Petrol Tourist Vehicles would be kept in abeyance for the period of three months from 15th May, 2015 to 14th August, 2015 as prayed, however, subject to strict compliance with all the directions contained hereinafter:-**

- a. State shall forthwith post team of Transport Department, Police and other concerned departments at Vashist and Gulaba with complete infrastructure and machinery forthwith.
- b. Every vehicle passing through either of these check posts would be subjected to online pollution check which shall be in any case computerized at the site itself. The vehicle permitted to pass

*through Rohtang Pass to ultimate destination and beyond, shall satisfy emission standards prescribed and it shall not be permitted to carry load in excess of permissible load. Entry records in this regard shall be online and computerised and same shall be produced before the Tribunal.*

- c. Number of vehicles allowed to go to Rohtang Pass for tourism purposes shall be restricted to 1000 vehicles per day on first come and first serve basis.**
- d. Out of 1000 vehicles allowed to pass every day as aforesaid, 600 would be Petrol while 400 would be Diesel Vehicles.**
- e. All these vehicles would be subjected to pollution check and would qualify for issuance of a certificate at the check post for compliance of BS-IV standards. If emissions are found to be beyond the aforesaid permissible limits such vehicle will not be permitted to go to Rohtang Pass.*
- f. Each of vehicle which is permitted to Rohtang Pass for tourism purpose shall pay environmental compensation at the rate of Rs. 1000/- for Petrol vehicle and Rs. 2500/- for Diesel vehicle. Amount so collected shall be kept in the account under a separate head by the State Government and shall be utilized only for the purpose of restoration of ecology and environment in the said eco-sensitive area as per the directions of the Tribunal.*
- g. Each vehicle which carries more than six passengers would be liable to pay compensation of Rs. 5000/- as environmental compensation. These charges are payable for single entry.*
- h. State Government shall make proper arrangement and deploy appropriate staff enroute Vashist to Rohtang Pass to ensure that there is no traffic congestion.*
- i. Supply of Gas in cascades through tankers will be provided at Nangal-Manali through the workable arrangement mutually agreed between GAIL and state of Himachal Pradesh. We have no doubt that both the State and Corporation would ensure its implementation.*
- j. We direct State of Himachal Pradesh to take up the issue of devising methodology for providing BS-IV fuel in the State of Himachal Pradesh with Ministry of Petroleum.”*

5. Thereafter, in M.A. No. 583/2015 filed by the Taxi Operators Association, seeking modification of above order, the Tribunal declined to modify the said order and disposed of the application vide order dated 29.05.2015 as follows:-

*“The Learned Counsel appearing on behalf of Applicant submits that she has legitimate grievances about directions (c), (d), (f) and (g) in order dated 05th May, 2015 passed for keeping in abeyance the ban on diesel and petrol vehicle imposed by virtue of order dated 06th February, 2014. She submits that the Applicant No. 1 Him Aanchal Taxi Operators Union have 1621 members, most of whom are running 1600 vehicles-predominantly diesel vehicles approximately. As regard the Applicant No. 2, she submits that it has 190 members running Mini-Cabs/Luxury Coaches each meant to commute six to ten passenger at a time. According to her all these taxis Mini-Cabs and Luxury coach operators are the residents of Manali and make living by conducting their business as taxi men or taxi Luxury Coach operators on seasonal basis in Manali and Rohtang Pass area. According to her, this restriction on number of vehicles has deleterious effects on the business of plying vehicles to-and-fro Rohtang Pass on daily basis for tourists which is the main stay for living of these persons.*

*She further submits that this is not an adversarial litigation and in that sense she has no quarrel with the premise that there is deposition of black carbon in snow at Rohtang Pass due to anthropogenic activity such as forest fire, vehicular emission etc*

*However, she points out from the para 4 of the order dated 06th February, 2014 that there would be many reasons for deposition of black carbon in snow which ultimately gives rise to adverse environmental impacts. It is for this reason she submits that only the vehicle operators may not be held responsible for contributing to black carbon menace, especially when they are found compliant on PUC check.*

*According to her, in the given circumstances there should be a relaxation in number of tourist vehicles visiting Rohtang Pass, and 2000 vehicles per day may be allowed to visit Rohtang Pass instead of 1000 vehicles per day for the tourism purposes. As regards the imposition of environmental compensation she submits that vehicles have already been taxed in terms of payment towards Green Tax fund and congestion charges as mentioned in order dated 06th February, 2015. Inviting our attention to the judgment of the Hon’ble Apex Court Municipal Corporation, Amritsar Vs. Senior Superintendent of Post Offices, Amritsar Division and Another, she submits that imposition of this Environmental compensation charges as per clause (f) (g) of the order dated 05th May, 2015 is not only inappropriate but illegal and the tourist vehicle passing PUC Check ought not to have been made to pay taxes for the alleged ‘pollution’ as such vehicles cannot be said to have contributed to the pollution. She also invites our attention to the order of the Hon’ble Apex Court staying the direction requiring compliance with BS-IV standards vide order dated 26th May, 2015 in Civil Appeal No. 4864/2015. According to her, once a vehicle passes PUC check it shall not be said to emit pollutants to the levels contributing to the pollution and as such no charge can be recovered from the vehicle towards the payment of compensation in respect of alleged pollution.*



*The Learned Counsel appearing on behalf of State submits that the state in light of the public demand is of the view that there should be relaxation in number of vehicles visiting Rohtang Pass every day as well as the payment to be made towards Environment compensation vide order dated 05th May, 2015 and 2000 tourist vehicles may be permitted to be passed through the check barrier on way to Rohtang Pass each day.*

*We have heard the parties at length. **We do find from the reading of the order dated 06th February, 2014 that there is grave menace of black carbon adversely impacting the environment at Rohtang Pass in particular and environment generally world-wide as a result of such impact in terms of climate change etc. We have passed order dated 05th May, 2015 restricting number of vehicles, keeping in view the pollution load that the vehicles running on petrol and diesel would impose on already fragile environment at Rohtang Pass.** We, therefore, do not find any reason to relax condition as regards the number of tourist vehicles allowed to pass everyday.....”*

6. The matter was further considered on 06.07.2015. On interaction with the Scientists of G.B. Pant Institute of Himalayan, Environment and Development, the Expert opinion was noted as follows:-

*“Dr. J.C. Kuniyal, Scientist-E and Mr. Kireet Kumar, Scientist-G are present in furtherance to the order of the Tribunal. We have made queries to them in relation to Rohtang Pass and nearby glaciers. Both these officers are from the G. B. Pant Institute of Himalayan Environment and Development. One of these officers, namely, Dr. J.C. Kuniyal, Scientist-E is posted at Kullu district. **What they have answered in response to the queries of the Tribunal can be summed up as under:***

- 1. The base of Rohtang Pass from where the mountain can be stated to have started is at 2500 meter above sea level at or near kothi. The peak of Rohtang Pass is nearly 4000 meters above sea level.**
- 2. The main sources of pollution in that area are vehicular traffic, fuel burning, open burning of waste, forest fires and pollution caused by human interference and activities in addition to the waste that is thrown in this area indiscriminately.**
- 3. Glaciers around Rohtang Pass have been receding at the rate of 19 - 20 meters per year which has been estimated on the basis of studies carried out by Institute with satellite images from the year 1986.**
- 4. There is erratic flow of rivers may be because of greater melting of glaciers. In comparative terms, the rivers have less flow in the winter and more in summer**

*season in comparison with the record of past years lets say 15 years before.*

5. ***Black carbon and aerosol optical depth have been found to be high.***
6. ***PM 2.5 was found to be beyond prescribed limit in 2012, particularly during tourist season.***
7. ***There is heavy increase in the tourism. Mass tourism has its own adverse impact upon the environment and ecology. High pollutants also have adverse impacts upon these eco-sensitive areas.***
8. ***The recession rate of glaciers is increasing with the passage of time.”***

xxx.....xxx.....xxx

*.....The orders of the Tribunal are being abused at their will. Prima facie, we have no hesitation in coming to the conclusion that the State has failed to carry out directions issued by the Tribunal and maintain the assurance given to the Tribunal from time to time. **There is complete chaos at the Rohtang Pass and its adjacent glaciers, which, as per the statement made by the experts afore referred to, are reducing by 19 - 20 meters per year. They are required to be protected. The snow at Solang, Rohtang Pass and Bias Kund is being blackened. The black carbon and other pollutants are found to be higher.....”***

7. In light of above, the Tribunal issued further directions for compliance of orders already passed.

8. **It was in above background that further order dated 09.05.2016 was passed** as follows:-

*“8. Persistent degradation of environment and ecology and damage to the glacier and its surroundings compels us to pass appropriate directions in consonance with the main judgment of the Tribunal. Furthermore, the traffic hazards and serious emissions is causing reduction of the glaciers. It is necessary to protect the environment and ecology of that area, for which we pass the following directions:*

- I. ***The State of Himachal Pradesh has prayed for relaxation in certain directions issued by the Tribunal, more particularly relating to operation of paragliding, snow scooters and other activities which according to them are non-polluting as well as number of vehicles. We do not find merit in all the contentions raised on behalf of the State of Himachal Pradesh in relation to the activities but some of them could be permitted to be started in restricted areas***

**with an object to examine if the State Government and its authorities are able to maintain proper check and balances and carry on the activity without causing any pollution of the area in question. As far as Rohtang is concerned, we are completely unsatisfied with the proposals made as it is an extremely eco-sensitive area and cannot be subjected to further degradation on the mere assurance that the State Government would take appropriate steps. It will be appropriate to permit some activities to the State Administration at lower levels and thereby observe the consequences thereof upon the environment and ecology. The eco-friendly market at Marhi has not been made operational fully despite the fact that more than 2 years has passed since passing of the Judgment by the Tribunal. It is a partial attempt being made by the State. The State claims that it has identified the zones where Paragliding and snow scooters would be permitted. After considering the assurance given by the State in its affidavit and reports, we permit the following limited activities for a limited period, subject to filing of the report by the Local Commissioners that would be appointed in this order.**

A to G.....xxx.....xxx.....xxx

**H. We permit 800 petrol vehicles to go to Rohtang per day instead of the 600 provided in the main judgment. We particularly deny any increase in the diesel vehicles which would be maintained at 400. All these vehicles which have maintained emission standards would be permitted to go to Rohtang. All these vehicles would operate as per the terms and conditions imposed by the authorities and the orders passed by the Tribunal earlier.**

xxx.....xxx.....xxx”

9. Order dated 09.05.2016 was modified on 19.06.2017 as follows:-

“xxx.....xxx.....xxx”

**3. We hereby permit 100 more cars out of which 60% would be petrol cars and 40% diesel cars. The applicants under this category will be only the tourists driving their own vehicles from Himachal Pradesh and other parts of the country. 75% of such applications would be granted permit under outside tourist category i.e. the tourist driving their own vehicles from outside Himachal Pradesh. The remaining 25% would be the tourist from other districts of State of Himachal Pradesh.....”**

10. Second order sought to be modified dated 30.08.2017 by which only modification was that weekly turn of vehicles was increased to three.

11. It may be further noted that compliance status was also reviewed by the Tribunal on 22.12.2021 in continuation of earlier proceedings and proceedings were closed without prejudice to any surviving grievance being re-agitated, as and when, required.

**Consideration today**

12. We now take up for consideration the application for modification. According to the said application, Civil Appeal No. 5255 of 2016 was filed before the Hon'ble Supreme Court against orders dated 9.5.2016 and 23.05.2017 which have been disposed of vide order dated 12.01.2023 as follows:-

“Civil Appeal Nos.5253/2016, 5254/2016 & 5256/2016:

*Learned counsel appearing on behalf of the appellants states that on account of subsequent events, these appeals have been rendered infructuous.*

*In view of the above, the Civil Appeals are disposed of as infructuous.*

Civil Appeal No.5255/2016:

***After arguing the case for some time, learned counsel appearing for the appellants seeks and is granted permission to withdraw the Appeal with liberty to move appropriate application before the National Green Tribunal, New Delhi for modification of the impugned Order.***

***With liberty afore-mentioned, the Appeal is dismissed as withdrawn.***

***It is clarified that we have not expressed any views on the merits of the case.”***

13. Reasons mentioned in the application for seeking modification are completion of Rohtang/Atal Tunnel on 03.10.2020 and availability of more parking spaces at Gulaba, Marhi and Rohtang pass. It is stated that due to increased tourism activities, the number of vehicles permitted by

this Tribunal was inadequate and was required to be increased to 5000 vehicles per day between Manali and Rohtang for tourism.

14. We have given due consideration to the whole issue. The background already noted above shows the reasons for which the number of vehicles was restricted by this Tribunal and restrictions were reiterated declining prayers for modification in view of adverse impact on glacier, climate change and the environment. Carrying capacity of the area did not permit relaxation. Data of air quality merely because of restricted number of vehicles situation is better cannot be ground to presume that increased number of vehicles will be sustainable. The opening of Atal Tunnel or availability of parking space does not change the situation which led to passing of earlier orders by this Tribunal. Opinion of some expert relied upon can not be treated as conclusive to revisit the orders passed on consideration of entirety of material based on reports of experts and on due consideration, after contest between the parties. Hon'ble Supreme Court has not expressed any contra view on merits.

15. We thus, do not find any reason to accept the prayers in the Misc. Application. The application is dismissed.

Adarsh Kumar Goel, CP

Sudhir Agarwal, JM

Dr. A. Senthil Vel, EM

April 25, 2023  
M.A. No. 29/2023 In  
Original Application No. 237(THC)/2013  
SN