

INDIA
CHATTISGARH
RAIGARH DISTRICT
KELO MAJOR IRRIGATION PROJECT

VOLUME - I

PART - I
ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

EXECUTIVE SUMMARY

I. INTRODUCTION

1. Rapid scientific advances in all spheres of life and the growing needs of the ever increasing population are causing serious concern in maintenance of pollution free environment. The post independence era paved way for construction of major irrigation projects for the livelihood of the growing population of the country on one hand and sustainable and improved crop production on the other hand. Thus, to obviate the problems of environment, the Government of India established an exclusive Ministry of Environment and Forests (MOEF) for preservation, conservation and regeneration of our natural wealth. At legal level, the [Environmental Protection Act](#) has also been enacted.

2. The Water Resources Department, Government of Chattisgarh has proposed the construction of Kelo irrigation Project in Raigarh District which is one of the backward regions and decided to have a detailed in-depth study of Environmental Impact Assessment (EIA) and formulation of a suitable environmental management plan for obtaining environmental clearance for the Project from MOEF, Government of India. The prime objective is to study the environmental impact of the project on land, water, flora and fauna climate including, air, soil and public health, etc. and formulate suitable environmental management

plan for minimizing the likely adverse impacts during as well as after the implementation of project. A suitable Resettlement and Economical Rehabilitation Plan to the benefit of the Project Affected People as per the latest policies has been prepared and this was approved by MOTA. All the technical directorates of the Central Water Commission has cleared the project proposal.

II. PROJECT AREA

3. The Kelo irrigation project is proposed in Raigarh district which is one of the drought prone districts in Chattisgarh state and is located in Mahanadi river main basin, on Kelo river which is a tributary of the former. The geographical location of the project is 21° 57'0" north latitude and 83° 23'20" East longitude. It also supplies water for drinking use to the urban settlements (Raigarh town) and for industrial requirements. The dam site is located near Danot village at 8 km North of Raigarh. The general climate of the command is characterised by hot summer and general dryness with moderate rainfall and very cool winter. May is the hottest month with a maximum day temperature 49°C. The average annual rainfall in the command area is 1373 mm and the annual rainfall fluctuation is wide due to climatic changes. Major crops currently grown in the proposed command are paddy, Kodo, kutki, sugarcane, wheat, pulses, oil seeds, vegetables and miscellaneous crops. Local paddy crop accounts for 83.90% of CCA.

4. The Project has an approach road from the Raigarh - Ambikapur state high way road. The scheme is designed to irrigate 22800 ha. kharif & 4000 ha. rabi thus annual irrigation of 26,800 ha. (117.54%) in Raigarh district in Raigarh, Pusour and kharsia and Dabhra block of Janjgir-Champa district, besides providing drinking water to Raigarh town and water for industries. A quantity of 4.44 M.cum of water has been proposed to meet the demands for drinking water of Raigarh township. A quantity of 4.44 M.cum was also proposed for industries such as Anjani Steels and Sunil Steels. The project envisages construction of earthen dam of 1270 m with two saddle dams and spill way dam. The maximum height of the earthen dam across the river is 24.22 m. Maximum height of spill way portion is 160 m. The length of main canal is 28.31 km and length of Jharmuda branch canal is 16.10

km. The reservoir receives runoff from 920.21 sq.km catchment area. The live capacity of the reservoir is 46.607 MCM. The water spread at FRL + 233.00 m is 1206.38 ha. The reservoir submerges 25 villages partially in Raigarh and Gharghoda Tahsil. Forest land of about 361.901 ha is likely to be submerged besides culturable lands of 750.399 ha and other lands. About 260.814 ha are also to be acquired for other purposes. Thus the total forest land to be acquired is 361.901 ha. Also the Ministry of Environment and Forests has in principle accepted for diversion of forests.

5. The study is focused at assessment of environmental impacts likely to occur due to construction of the Kelo irrigation project on land, water, biological, socio - economic environment, etc to plan for mitigative measures to overcome or minimise the negative impacts to ensure conducive environment.

6. The methodology comprises access to Remote Sensing Data and analysis of the same, ground truth verification, collection of primary and secondary data, group discussions, conduct of PRA, etc. The study covers land environment, water environment, biological environment, climate, public health and socio-economic environment. The data were processed through computers with suitably designed software. The Agricultural Finance Corporation Ltd. has constituted a team comprising experts drawn from various disciplines. The study report is divided in two volumes viz. Volume I: Environmental Impact Assessment and Environmental Management Plan and Volume - II Resettlement and Rehabilitation and preparation of Economic Rehabilitation Plan (PAFERP) for Project Affected Families.

III. LAND ENVIRONMENT

Geology

7. The Kelo irrigation project covers Kharisia, Pussore and Raigarh blocks of Raigarh district and Dabhara block of Janjgir-Champa district. The Kelo river valley represents the south-west extremity of the major Gondwana basin. The trend of the basin bears parallelism to the structural grain of the pre-cambrian basement rocks. Quartzite and

phyllitic shales belonging to Chandrapur series of Cuddapah age are resting on archean gneiss and amphibolites associated with quartzites and vein quartz. The archean rocks represented by granite gneisses are well exposed in isolated patches on both upstream and downstream of the axis along the dam (danote) upto a distance of 2 km.

Seismicity : The project area falls in zone-II as per seismological map of India. The GIS feels that the boundary faults and other gross faults may not be active in the present day period and local foundation treatments will suffice.

Topography

8. The Kelo dam on Kelo river in Raigarh district is in lower Mahanadi basin i.e., Kelo sub-basin. The river joins Mahanadi in Orissa 51 km down stream of the proposed dam site. The river is about 112 km long. It rises at an elevation of 710.36m. It enters plains after traversing 34.60 km from its origin. Exposure of coal in the sub-basin has been noted in many places and they will not harm mining safety. The area in general is characterized as moderately undulating land scape. General topography is gently sloping and partially hilly.

Slope characteristics

9. The catchment areas of the project is having generally gentle slopes. In case of command area nearly level area with less than 1 per cent slope is about 11 per cent, and 1 to 3 per cent area with very gentle slopes is 78 per cent. Area with slopes ranging from 3 to 5 per cent account for 11 percent.

Land use and land cover in study area

10. The gross command area is 38120.00 ha. The culturable command area is 24396.00 ha. Which is 64 % of gross command area. The irrigation proposed area for kharif 22800 ha. and rabi 4000 ha. The total annual irrigation proposed is 26800.00 ha.

Soils

11. The major soils in the command area are moderately deep to very deep clays, clay loams, sandy clays, silt loams and gravelly soils. The soils in general are moderately permissible. These five soil groups are falling under land capability classification 2 and 3 which are fit for irrigated agriculture. The majority of the soil types fall in land capability classification 2. About 45% of the command area falls under soil class A., 44% in class B and 11% under class C as per land irrigability classification. Class A represents very good soils, class B fairly good soil and class C moderately good soils as per land irrigability classification.

Drainage

12. The command area is steep and even, near its fall into Mahanadi river. The slope is about 0.66 mt per km and is interrupted by small drainage channels. The surface drainage is quick and efficient. Though there is sufficient gradient in the upland areas, canal and surface, field drains are required for sustained irrigation. Necessary provisions are made in the project estimate for the field drains.

Salinity and Waterlogging

13. There are no saline areas in the proposed command area which needs mitigative measures. As per the reports of Agriculture departments no salinity nor waterlogging is contemplated. Agricultural departments are promoting on farm development works through their guidance.

Cropping Pattern

14. The present cropping pattern includes 52 per cent of paddy besides other miscellaneous crops like Kodokutki, wheat, urad, oil seeds and vegetables. The proposed cropping pattern is for crop diversification towards commercial and ID crops in kharif and rabi.

Impact on land environment

15. The major impacts identified are i) pollution due to dust and other construction material, muck disposal, quarry sites, ii) soil erosion; iii) increase in flow of traffic and use of heavy machinery resulting in aerosols and noise pollution ; and iv) pollution due to human settlements, v) sedimentation due to transport from the catchment area ; and vi) land use and topography.

IV. WATER ENVIRONMENT

16. The geological formations of Kelo Irrigation project area are the major litho units ranging from pleistocene to archaean represented by laterites basalt, lime stones and stones, dolerite gneisses, schists, phyllicites quartzites, granite etc. The groundwater occurs in all the geological formations in the area to a moderate extent. The groundwater levels range between 3.2 m to 14.2 m below G.L. pre-monsoon and in 1.2m to 5.73 m below G.L. post-monsoon during the period from 2001 to 2007. The availability of groundwater potential is only moderate.

Quality of Water

17. The quality of ground water as generated by the water analysis laboratory of State Ground Water Department indicate that the quality of ground water is satisfactory for irrigation as well as for drinking purposes. Similarly, the quality of surface water is also fit for drinking purposes.

18. Pollution due to use of fertilizers and pesticides: The chemical analysis data generated by the state ground water laboratory indicated that the chloride levels are ranging from 270 mg/l to 310 during premonsoon and 300 mg/l to 700 mg / l in monsoon and 320 to 380 mg/l during post monsoon period and nitrate levels of 45 mg/l Thus pollution due to use of fertilisers is not observed. Pollution due to plant protection chemicals containing chlorides is also not observed.

V. CLIMATE AND RAINFALL

19. The general climate of the command is characterised by tropical climate summer and dryness. The maximum temperature is about 49.6° C and minimum of about 6.8° C. The average annual rainfall is 1373 mm. The south-west and north-east monsoon brings maximum rainfall from June to November of about 90 per cent. The maximum mean monthly humidity is about 86% in the monsoon and minimum will be about 23% in dry weather according to the seasonal variations. The average wind speed is around 5.88 kmph. Increase in flow of traffic due to vehicular movement and blasting operations during construction phase may create noise pollution as well as dust pollution. However, since most of the villages are situated far away from the construction site, the noise pollution due to traffic will be negligible. The noise levels are likely to increase due to the use of heavy machinery and equipment during construction, which may also cause air pollution.

VI. BIOLOGICAL ENVIRONMENT

20. The study indicated that 192.765 ha of forest land belonging to either Forest Department and 169.136 ha. area comes under revenue forest of revenue department is coming under submergence / acquisition due to the construction of the project besides other lands. The forest is classified into tropical dry deciduous type (5B/C-1 and 5B/C2)) and mainly of sal type. Almost about 27.7% of the project area is under forest cover. The present status of flora and fauna in the catchment, submergence and command area was studied. It is observed that there are no endangered species belonging to both flora and fauna in the entire project area consisting of catchment area, command area and submergence area. Height of dominant trees ranges from 6m to 12m in the areas other than reserved and protected forests. The density of forest varies for 0.5 to 0.8 in general. The observed diversity indices at various sites in the area are ranging from 0.7 to 1.03. The project area comprises sufficiently suitable feeding areas for the wild species and there is no indication that the area has corridor functions to other wildlife refuges. It is expected that there will be no impact on the wild life due to the afforestation programmes in progress as well as the proposed compensatory afforestation programmes in lieu of the submergence due

to the reservoir.

Fisheries

21. Due to change in water levels and currents may lead to adverse impacts on fishing community which needs mitigative measures.

Compensatory Afforestation

22. The construction of the project involves submersion / acquisition of 361.9 ha. in the forest area which is dry deciduous and partly with thorny scrubs. Endangered species of flora and fauna are not found in the area of submergence. Allotment of 724.0 ha of land for compensatory afforestation is (double) has been acquired in orange area. Necessary funds at the rate of Rs. 9.2 Lakh per ha. has been allocated towards compensatory afforestation.

VII PUBLIC HEALTH

23. The construction of a irrigation project initiates the incidence of diseases due to labour colonies during construction phase and water borne and vector borne diseases due to impoundment of water. The impoundment of water leads to multiplication of insect vectors which in turn increases the incidence of the water borne diseases. The district health data shows the negligible incidence of malaria in the command area.

24. Significant incidence of STD and increase in water borne diseases is also anticipated. Hence the strengthening of health infrastructure, improving sanitation facilities, providing safe drinking water are essential both during construction and post-construction phase.

I. INTRODUCTION

1. Environmental impacts on land , water , ecology , public health, climate, etc. are discussed in the previous part and identified the adverse impacts >if any= on the said areas in the EIA study of the project. The present part is focused on Environmental Management Plan (EMP) to mitigate the adverse impacts and improve the ecology and environment in the area.

II. CATCHMENT AREA TREATMENT

2. The Irrigation Development Projects constructed with huge investments require measures to reduce siltation into the reservoir from the upper catchment through provision of suitable catchment area treatment measures which is very crucial and an essential component of the irrigation projects to arrest sedimentation into the reservoir. The main objective of the catchment area treatment is focussed at prevention of further land degradation reducing the rate of soil erosion, arresting the accumulation of silt in the surface streams and maintain ecological balance in the catchment area through suitable measures. The present project has a storage reservoir comprising about 1206.38 ha of water spread area. The project is having a free catchment area of 920.21 sq.km. Forest area is about 34840 ha and other areas are 57181 ha besides submergence. Based on the slope and land use of the catchment, suitable treatment measures are proposed. The catchment has forest and non forest land. Most part of the catchment is with slope ranging from 0-5 per cent and above. Afforestation is proposed in the wasteland without scrubs. Treatment measures with graded bunds across the slope with waterways are proposed. The foreshore area is a gradually sloping terrain and gets submerged only for a few days during monsoon. The foreshore areas are better suited for plantations. Therefore, foreshore plantations are suggested along the periphery of submergence are for suitable width with tree plantations to prevent illegal encroachment, prevention of soil erosion and movement of silt towards reservoir bed from upper reaches. They would also provide fuel, fodder and timber to the weaker section population of the society besides ensuring ecological balance. Besides, reservoir rim treatment with suitable plants is also proposed to mitigate the sediment transportation.

3. The catchment area treatment measures in the prioritized sub-watersheds of the catchment include vegetative treatment measures with non-timber plantations, grasses/ shrubs, afforestation and horticulture plantations and developing greenbelt plantation in the reservoir periphery. Physical structures related to streams to prevent gully formation and graded bunds are also proposed. The total estimated cost for catchment area treatment is arrived at Rs. 1017.54 lakh for both biotic treatment and engineering gully control works. Out of the above, the beneficiaries share would be Rs 185.45 lakh in the cropped lands for the proposed vegetative bunds etc.

III. COMMAND AREA DEVELOPMENT

4. The **Kelo irrigation** project proposes to provide irrigation to 22,800 ha spread over three blocks in Raigarh district & one block in Janjgir-Champa district and water supply to enroute villages of the district . About 12 per cent of the command area is prone to slight soil erosion and 88 per cent of the command to moderate erosion. Based on the type of soils, gradient and rate of infiltration, on -farm development measures are suggested for development of bunds, field channels for irrigation and drainage in the command area. Conjunctive use of both ground and surface waters for improving the drainage and also main drains in the existing gullies with suitable strengthening measures and also development of field drains are suggested. Measures to improve the soil fertility have also been proposed. 60 per cent of the command area is proposed to be localised for kharif paddy crops besides 33.5% towards ID crops. 16.5 per cent of the area is proposed for rabi crops such as wheat, sunflower, groundnut, mustard and vegetables. Sugarcane accounts for 0.5% as perennial crop. The total cost of command area development is Rs. 1236 lakh over a period of five years.

IV. CONSERVATION OF BIO-DIVERSITY

5. The project area involves submersion / acquisition of forest area to the extent of 361.90 ha which needs compensatory afforestation.

6. The EMP also proposed development of 3 gardens at project site and at camp colony site to compensate loss of land scape.

7. The , EMP is proposed for compensatory afforestation, development of canal bank plantations / foreshore plantation and development reservoir fisheries at a total cost of Rs. 600.00 lakh.

V. PUBLIC HEALTH

8. The impoundment of water through construction of the project results in incidence of water borne and vector borne diseases in the project area due to increased in migration of labour during construction phase as well as impoundment of water after construction. The existing health delivery system need to be suitably strengthened to cope up with the anticipated increase of health hazards during construction phase and post-construction phase. Though, the water borne diseases like malaria, filaria and Japanese Encephalitis have not shown increased incidence in the command area mandals, it may accelerate with the construction of the project and need suitable mitigative measures. To meet the growing health hazards during construction and post-construction periods, spraying of insecticides, larvaecides, etc have been proposed. Provision for protected drinking water supply to the labour colonies malaria surveillance, construction of sanitary latrines, and improvement in health delivery system solid waste management, effluent treatment plants, have also been proposed. The total cost of health delivery system in the project area districts during the project period is estimated as Rs. 477.0 lakh.

VII. ENVIRONMENTAL MONITORING PROGRAMME

9. Environmental monitoring is an essential component for sustainability of any water resources project. Monitoring of critical parameters is essential in the project operation phase. The critical parameters include water quality, air quality and meteorology, noise and public health aspects. The analysis work can be conducted by a reputed external agency recognised by the State Pollution control Board in association with the project proponents. The total cost of the programme is estimated about Rs. 90 lakh.

VII RESETTLEMENT AND REHABILITATION

10. The Department of land resources (DLR), Ministry of Rural Development (MORD) , Government of India formulated a policy entitled A National Policy on R & R for PAF - 2003. The policy has ben modified in 31st October 2007. The cost of R & R plan as per the above policy and along with the Chattisgarh state Gazette notification of 2007 has been worked out. The cost of R & R and land acquisition worked at to Rs. 1685.43 lakh towards acquisition of private lands totaling to 750.395 ha. An average rate of Rs. 2,24,606 per ha has been adopted as obtained from the District Collector, Rayagarh.

VIII ORGANISATION AND MANAGEMENT

11. The study has reviewed the existing organisational structure at the state level, district level and the project level. At state level the Principal Secretary, WRD is responsible for overall implementation of Irrigation projects in the State. Similarly, the other line departments namely forestry, fisheries, agriculture, etc. each headed by a Principal Secretaries for implementation of the respective developmental programme are also responsible. At Department level Chief Engineer, Minimata Bango Project , Bilaspur, Commissioner Agriculture for Agriculture, Principal Chief Conservator of Forests for Forestry, etc. are the heads of respective departments. At district level, the District Collector as the head of District Administration has to ensure interaction and coordination between the different agencies involved in the project. He is supported by other line departments. At project level, Superintending Engineer, Kelo irrigation project is exclusively incharge of construction activities of the Irrigation project supported by Executive Engineers and Special Collector (LA) is responsible for R & R activities related to land acquisition, disbursal of compensation deals, identification and provision of alternative site for compensatory afforestation and resettlement colony.

12. Keeping the above organisational structure at different levels in the State, at project level the Chief Engineer (Projects), Minimata Bango project stationed at Bilaspur is the Principal Executive for implementation of the EMP. The line Departments Revenue, Forest, Fisheries, Agriculture, ITDA, SC Corporation, Medical and Health, Housing, DRDA, Electricity, Employment, Industry etc. would also be involved in implementation of the EMP. The District Lead Bank Officer arranges provision of credit to the Project Affected Persons in their annual District Credit Plans. The local Non-Governmental Organisations would also be involved in implementation of the various components of the EMP and in particular R & R. The grievance mechanism already designed under R & R policy of the State is applicable in the present context also.

IX. ENVIRONMENTAL MONITORING AND IMPLEMENTATION

13. In most of the developmental projects post project monitoring of Environmental Management Plan has been lacking in the absence of suitable organisation for monitoring the various components of the EMP mitigating the adverse impacts. Any neglect of minimising the adverse impacts would result in intensifying the adverse impacts in the area. Therefore, it calls for proper environmental monitoring of the EMP at different levels. With this in view, an exclusive Project Monitoring Unit at State Level has been proposed to monitor the implementation of various components of EMP. The study has also proposed a state level Environmental Monitoring Committee headed by Principal Secretary, WRD as Chairman and Secretary (Projects) as convener and heads of all line departments as its members. The State Level Monitoring Committee oversees the implementation of EMP and takes policy decisions for its successful implementation. At project level an exclusive Project Monitoring Committee has also been proposed headed by the District Collector as the Chairman and Superintending Engineer as the Convener and all the line Departments as its members including Project Directors of ITDA. The Project Monitoring Committee will meet on quarterly basis for reviewing the implementation and also undertakes Grievance Redressal on various environmental issues. Since the project involves displacing large number of households, an exclusive Special Collector (LA) as Rehabilitation Officer for the Project Affected Households for monitoring the implementation of land compensation, provision of R & R benefits besides undertaking capacity building measures for the affected people has been proposed. The financial allocations made in the R & R action plan would meet the financial requirements of the Project Rehabilitation office personnel.

X. IMPLEMENTATION SCHEDULE

14. The EMP is proposed to be implemented over a period of two years and six months and the schedule of implementation are also provided accordingly. The implementation of the EMP is as discussed in the earlier chapter.

XI. PROJECT COST

15. The EMP is focussed at negating the adverse impacts of the project on land, water, biological environments, archeology, mines and geology, public health, etc. The component-wise details are already furnished in the respective chapters. The EMP covered various components related to Catchment area treatment, command area development, development of flora and fauna, public health etc and the total cost of EMP is to the tune of Rs. 2553.00 lakh excluding farmers contribution of Rs. 185.45 lakh, while the cost of Project Affected Persons Economic Rehabilitation is Rs. 1685.43 lakh. In otherwords the overall total cost of EMP and PAFERP excluding compensatory afforestation is to the tune of Rs. 4239 lakh which includes the EMP cost of Rs. 2553.00 lakh and R & R cost of Rs. 1685.43 lakh. The EMP is programmed for 60 months.

**DETAILS OF PUBLIC HEARING FOR SANCTION OF
ENVIRONMENT OF KELO MAJOR IRRIGATION
PROJECT, VILL.- DANOT DISTRICT- RAIGARH
HELD ON DATED 14-5-08**

Public hearing for sanction of environment of Kelo Major Irrigation Project village Danot Distt.- Raigarh conducted at Primary school, Chhindbhauna Tah.- Tamnar, Distt.- Raigarh in the presidency of Upper District Magistrate Distt. Raigarh. Due to poor presence of affected peoples, the start of Public hearing is announced to be started at 11.30 A.M. in place of 11.00 A.M. Regional Officer, C.G. Pollution control Board Raigarh, Additional Superintendent of Police Raigarh, Sub Divisional Officer (Revenue) Gharghora & Raigarh were present. Villagers of Bhelwatikra, Barelia, Gerwani, Lakha, Bargaon, Kasdol, Devgaon,

Tamnar, Gorhi, Kachkoba, Amaghat, Taraimal & Some N.G.O's have also participated in public hearing. Firstly Regional Officer informed the provisions of EIA notification Dtd. 14-09.06 Nine applications were received in Regional Office of Pollution control board Raigarh 800, peoples were present during public hearing & 78 peoples signed in the attendance roll. Oral statement were written during hearing. Representative of Kelo Project Shri R.C. Dwevedi, Executive Engineer, Kelo Project presented the brief of Project at the start and Shri Dharma Reddy informed about EIA report.

Additional District Magistrate instructed to the representative of WRD to note down the objections, suggestions and the point wise reply may be submitted at the end of hearing.

34 people have submitted their suggestion/objection/ thoughts as noted below:-

- 1- Shri Raghuveer Pradhan – Ekta Parishad** – 175 villages will be irrigated by this project. The project should be started after getting proper compensation to the affected people in rehabilitation of submerged villages. It should be watched by the administrative authority for use of water by the industries. Irrigation facility to the cultivators should be the first priority of this project. I appealed to support the project
- 2- Shri Narayan Prasad:** - It is very pleasant that the Kelo Project is now started. I am submitting my written support.
- 3- Shri Laxmi Narayan Chowdhari:** - It is very sad that 35 years old project is now being started. None of Irrigation scheme were successful in this district. How will this major project will get success in small Kelo River ? I will support if

dam is proposed on Mand River. Anjani Steels Ltd. will demand compensation of Rs. 200 Crores as when dam will complete? why 4.44 Mcum water is proposed for industrial use ? Irrigation cost per Hact. comes out Rs. 1.36 Lakhs. This money should given to the cultivator for construction of small tank. Culturable land will be submerged. I am not in favour of this scheme.

- 4- Shri Daya Ram Thethwar:-** I am in support of this Kelo Project. I am thankful to the Govt., who decided to construct this project. Govt. will pay proper compensation to the farmers.
- 5- Shri Mumtaj Bharti:-** The positive and negative facts comes out after study of EIA reports. Proper arrangements will be provided to over come the negative effects. Proper compensation will be given to the affected peopels due to submergence. 26800 Hact. of land will be irrigated by this project. It is very big achievement. It will balance the environment. Demand of Kelo Project was 35 year old. To day it is sanctioned. It is beneficial to the local cultivators. I am in support of this project.
- 6- Shri Jayant Bahidar: -** The work of project should not be started before sanction of EIA report. This public hearing is invalid. It would be cancelled. Also it is not confidential. Please note my objections.
- 7- Shri Ram Pukar Singh:-** Irrespective of political and personal benefits, we should be support this scheme as large public welfares & benefits will be available.
- 8- Shri Vashudeo Sharma:-** This public hearing is different as compare to the previous public hearing due to its

benefits. Since 1988 this zone got polluted, water level going down. This project will stop the migration of peoples. I am in support of this project.

- 9- Shri Rajesh Tripathi:-**I am in support of this project. 175 villages will get irrigation facility. It is advised to keep proper watch on the Industrial wastes merging in the Kelo river & reservoir. Priority of Irrigation should be first.
- 10- Shri Radheshyam Sharma:-** I am in support of 31 year old proposed Kelo Project when Dam height was 6m higher than proposed one. EIA report said that water will be supplied only in rainy season. It is offence to start the work before public hearing. The capacity of Dam is very less. This Dam is constructed only for Industries. This project will not be beneficial to the cultivators. Industries in up stream of river should be shifted. Public hearing should be conducted for old proposed project.
- 11- Shri Panchand Gupta:-** It is well-known fact that water & Environment are complementary to each other. If height of Dam is increased, many of villages comes under submergence in place of present five villages. Water table in pussore block is going down. This will increase after irrigation of fields. It is advised that peoples should not oppose this project. I am in support of this project.
- 12- Shri Brajesh Kumar Gupta:-** I am thankful to all people those gave effort in sanction of this Kelo Project. Some people who are in opposition, they are not cultivators Real cultivator are happy & in support as their Economical condition will improve after construction of the Kelo Project I support the project.

- 13- Shri Vipin Kumar Dadsena:** - I am affected person my land is under submergence, even I did not get compensation till to day. Firstly compensation and rehabilitation policy will be clear then I am agree to give my land.
- 14- Shri Virendra Kumar Gupta:** - I am thankful to honorable Chief Minister who sanctioned this Kelo Project. The water level will increase. Cultivators will get benefits. The water from Dam will be supplied in distant place like Pussore. I am in support of this project.
- 15- Shri Ramesh Agrawal:** - To day's public hearing is like voting in support or opposition in place of discussion on environment affects. As per notification any of the project may not be started before sanction of EIA whether any action is taken against peoples who started the project ?. Whether this hearing is conducted after 45 days ? EIA report is rough & false. It did not have correct information. It has many of technical errors.
- 16- Shri Chait Ram Malakar Bhaigarhi:-** Whether this public hearing is a fight of Political parties ? Please inform about rate and time of compensation.
- 17- Shri Prakash Tripathi:-** I give respect to the supports of this Kelo Project. What management will be provided to the affected peoples of submergence ? Govt. said that Rs. 100 crores per year will get from this project, then whether royalty will be given to the affected peoples of submergence ? One job should be given to each affected family. Proper compensation will be given. I am in favour of this project.

- 18- Shri Ramkumar Agrawal Ex-M.L.A.:-** I am heartily pleased that this Kelo Project is now started after efforts of 35 year. A ray of development is seen after 60 years of freedom in this region. Panjab & Hariyana had no sources of water but after construction of one dam there is lot of cultural activities. Started Cultivators are rich, many of villages have pucca houses. In Raigarh region there are katcha houses of grass & wood in the village. The main reason is non availability of irrigation facilities. Good compensation will be given by the project authority as compare to industries. After construction of this project cultivators families will be prosperous. There will be a balance in the nature. Water table will rise. Hence I am requested to all of you to support this project. In future I will fight for proper compensation to the affected peoples. I am very much in favour of this Kelo Project.
- 19- Shri Amrit Sagar Jaiswal Gerwani:-** I am in apposition of this project. My fields are in submergence only my house is left. So where will we earn and eat? Please give proper information in this matter.
- 20- Shri Hem Sai Patel Danot:-** Our fields are in submergence but compensation is not known. We should get higher compensation.
- 21- Sushri Sushma Khalkho:-** I am thankful to Honorable Chief Minister Raman Singh Ji for sanction of this old project. Don't oppose the development. Cultivators will be benefited from this project. Compensation should be given without any delay.
- 22- Shri Vijay Agrawal M.L.A.:-** Kelo Dam project is fruitful

scheme of Raigarh Distract. As concerned to this project the credit goes to respected Ramkumar Ji Agrawal. Ex-M.L.A. Polluted water will not be merged in Kelo River by the industries. Local authorities are alert. Only 361 Ha. of forest land is submerging including 5 villages as compare to 12 villages in old proposed scheme. Irrigation facilities will be increased by this Project. 80% of water will be utilised in irrigation. 175 villages will be benefited. Drinking water to Raigarh city will be available for 50 years so I am requested to the peoples to support this Kelo Project.

- 23- Shri Basant Malakar Bhaisgarhi:-** There is no objection for Dam. All the village will get compensation at the same rate in submergence area. The work and employment would be available.
- 24- Shri khalil Ahamed Sidique:-** The dream of Kelo project is now coming true. Crops of tilhan and kharif paddy will be grown simultaneously. Irrigation area will be increased from 12% to 44% in this region. Water level will rise. Proper compensation should be given to the affected people in the submergence.
- 25- Shri Pyariram, Lakha:-** Our village is submerging but I have no objection. Whole water should be given to the cultivators.
- 26- Shri Satyendra Singh, Pussor:-** I am in favour of this Kelo Project. Genuine demands should be fulfilled.
- 27- Shri Puran patel, Bhuikurri:-** Water, forest and land are for peoples of the area. I support Kelo project.
- 28- Shri Degree lal Chauhan:-** We are in favour of Kelo Project.

- 29- Shri Suresh Sharma:-** I am in support of Kelo Project. Surely this project will be beneficial to all categories.
- 30- Shri Shobha Ram Malakar, Bhaigarhi:-** The proper information should be given about compensation.
- 31- Shri Indra Kumar Panda, Lakha:-** We are affected peoples of Hirakund Dam and here we are also affected. We should get the power to purchase ST's land. Stamp duty should not be levied.
- 32- Shri Bajrang Agrawal, Lakha:-** We have a soap factory in Lakha. What compensation and rehabilitation for me?
- 33- Shri Ganesh Sao, Baisgarhi:-** Proper compensation should be given.
- 34- Shri Rupnarayan Sidar, Danot:-** Proper and correct information should be given about submergence land compensation and counting of trees. Please do fast.

At the end of public hearing Shri R.C. Dwivedi, Executive Engineer, Kelo Project Raigarh submit the information about rehabilitation, compensation and environment on the basis of EIA report. Shri Dharma Reddy, of agriculture financial corporation Hyderabad said about the technical information of EIA. Videography of the whole Public hearing is recorded. 1144 written applications have received during public hearing on spot. The details of execution of meeting announced. Public hearing announced to end at 3.30 PM.

Sd/-
N.N. Ekka
Addition Collector & Addition District Magistrate
District – Raigarh (C.G.)

DETAILS OF PUBLIC HEARING FOR SANCTION OF ENVIRONMENT OF KELO MAJOR IRRIGATION PROJECT, VILL.- DANOT DISTRICT- RAIGARH. HELD ON DATED 17-05-08

Kelo Major Irrigation Project Village_– Danot, Distt.- Raigarh is applied for environment sanction in Chhattisgarh pollution control board. As per the provision of notification dated 14.09.06, the public hearing is conducted on dated 17.05.08, Saturday at 1.00 PM. in Primary school building Balpur, Tahsil-Dabhara, Distt.-Janjgir-Champa. As per the provisions, publication of information to submit the suggestions/opinion/objections within 30 days from affected public of this project is done in local news paper Haribhoomi and national news paper Dainik Jagaran New Delhi on dated 12-04-08. No objection/suggestion is received in the regional office in Chhattisgarh pollution control board Bilaspur. During public hearing, Representative of project submitted detailed information about environmental effects of the project. Following suggestion/objections are raised by the general public during public hearing:-

- 1- The water of Kelo project should not be given to Industries for this, there must be an agreement between farmers & the Government.
- 2- Canal work should be started after given proper compensation to peoples of which the lands are coming under submergence in the project.
- 3- Compensation should be given at correct rate in right time.
- 4- The water will be reached in the fields and farmers income will be increased on the commencement of Kelo Project. Welcome to this project.

- 5- The height of Dam is reduced to save to Anjani Industry. The left over villages should be connected for irrigation by increasing the length of canal.
- 6- The farmer will be happy due to this Dam, Economic condition will be improved and this area will become greenish lands by means of irrigation.
- 7- The environment will not be polluted due to construction of Dam, Water level will be raised and the migration of people will be stopped. Greenery will prevail.
- 8- The Industries of Raigarh will get benefit from this project. The construction of Dam has been started without prior information. The Janjgir Distt. will not get water. The construction work be stopped.
- 9- Kelo Project is a fraud, the water for irrigation will not be available. Dam should not be made.
- 10- The Rehabilitation policy made at national level should be implemented.
- 11- Kelo project must be made. This work be moved forward. But water should not be given to Industries. At the first water will be given to people & farmers, then after Industries to remaining water.
- 12- The command area will be increased by this project. The opportunity of self employment to people of this area will be increased.
- 13- The water will be reached or not up to Balpur village by the reduction of 6M height of Dam?. The Industrialists of the area will get benefit from the Dam.
- 14- The work in the project in being done without environment

clearance. Disobey of forest conservation Act has been done. Whether the water is drinkable & culturable or not? for this, the water testing is not done. What will be effect on Dam in presence of fly ash & poisonous material found in the river due to established sponge Iron Industries at the bank of Kelo river? opinions must be needed in this regards. How to save the Dam against pollution care should be taken in this matters. Environment report is a bunch of lie.

- 15- There will be no deforestation in this project. There will be balance in environment. The canal will be constructed. Due to construction of Dam, water table will be raised up in whole area. Problem of water will be stopped. The cultivators will be prosperous. There will be no problems of drinking water to Raigarh city up to coming 50 years.
- 16- There will be collection of fly ashes of Industries in Dam, water will not be suitable for cultivation. The provisions against stopping of fly ash be made in this project.

Objection/Opinions are recorded which are enclosed. 280 peoples were present in the public hearing. The public hearing is ended with thanks.

Sd/-
Regional Officer
C.G. Environment Control Board
Bilaspur (C.G.)

Sd/-
(Vijay Kumar Adiley)
Additional Collector
Collector Representative
Jajgir-Champa (C.G.)

**DETAILS OF PUBLIC HEARING FOR SANCTION OF
ENVIRONMENT OF KELO MAJOR IRRIGATION
PROJECT, VILL.- DANOT DISTRICT- RAIGARH.
HELD ON DATED 17-05-08 AT BALPUR VILLAGE
TAH.-DABHARA,
DISTRICT JANJGIR-CHAMPA (C.G.)**

S.No.	Name & Address	Statement of Peoples	Reply of project representative
1	2	3	4
1	Shri Raghuv Pradhan Ek Parishad Raigarh	We welcome to this multi purpose project. The water of Kelo Project should not be given to the industries. For this, there must be an agreement between farmers and Govt. Canal work should be started after distributing proper compensation. Peoples will not migrate from this region. Irrigation facility will be increased from 12% to 44%. I am in favour of this project	Kelo Dam Project has a capacity of 60 Mcum of water and it will irrigate 26800 hact. of land. 4.44 Mcum of water will be available for drinking water to Raigarh and 4.44 Mcum of water is proposed for industrial use. Govt. policy will be followed in this matter keeping in view, the benefits will be provided to cultivator at priority.
2	Shri Narayan Prasad Chhadimali, Raigarh	I am in support of Kelo Project. this project is successful. Proper compensation should be given to the affected people of submergence.	As per rule proper compensation will be given.
3	Shri Venu Dhar Nandi, Kalma Social worker	Small cultivators will be benefited from irrigation through canals. Proper compensation should be given to cultivators in due time. We are in favour of this project.	Compensation should be given well with in time.
4	Shri Daya Ram Thethwar Raigarh (Freedom fighter)	I belong to farmers family. Crop production will be increased by irrigation. This project will also help in control of pollution. I am in support of this project.	There is no bad effect on environment from this project.
5	Dr. Shakrajeet Nayak Hon. M.L.A Saria.	It is very pleasant that public hearing is conducted at Balpur Village. If, this	Compensation will be given as per Govt. rules Irrigation facilities will

S.No.	Name & Address	Statement of Peoples	Reply of project representative
1	2	3	4
		Dam was constructed some years ago, then we will earn about 100 Crores rupees by increasing production of crop. Difference of rate in compensation should be reduced. Irrigation facilities should be provided to 17 left villages. I am in full favour of Kelo Project.	be provided in proposed command area.
6	Khalif Ahmad Siddiquee Chhattisgarh pensioner welfare association Raigarh.	Irrigation will be provided in large area by constructing this Dam. Cultivators will prosperous. Migration of people will stop. This water should not be given to the industries. People compensation should be given to the affected peoples of Rehabilitation & resettlement. I am in support of Kelo Project.	Compensation for Rehabilitation & resettlement will be given as per Govt. policy. People will be displaced after providing basic facility & compensation.
7	Shri Vasudeo Sharma Advocate, Raigarh	If this project was constructed 35 years ago, the purchasing capacity of people would not be reduced. Water table is going down Environment conditions will improve. I am in favour of Project.	Water table raised in the area and there is no negative effect on environment.
8	Shri Jayant Bohidar, Raigarh	This public hearing is illegal. This project will be beneficial for the industries. The work of Project is started before public hearing. This public hearing should be cancelled.	Kelo Project is a major irrigation project. This project will not affect the environment in any way. Detailed report is prepared after study. Special Gram Sabha's were also conducted for the consent of project. Survey work of canal and rehabilitation are in progress. Camps at site will be constructed by the agencies.
9	Shri Bihari Lal Upadhyay, Raigarh	Cultivators will get benefits for this project. I am in favour of Kelo Project.	Project work will be completed soon.

S.No.	Name & Address	Statement of Peoples	Reply of project representative
1	2	3	4
10	Shri Laxmi Narayan Chowdhari, Tamnar	I am not in favour of this project. This is fraud. Water will not available for irrigation.	This is not fact. This comment has no investigation or report.
11	Shri Mumtaj Bharti, Raigarh	This dam will irrigate between the area of Kelo & Mahanadi River. National policy for rehabilitation & resettlement should be followed. I am in favour of this project.	The benefit to cultivator is the priority of Govt.
12	Shri Ganesh Kachwaha, Raigarh	This project a dream of Raigarh, which is to be fulfilled. We are in full favour of Kelo Project Water for industries should only be given if it remains from irrigation & drinking purpose. Proper compensation should be given.	Compensation will be given as per rules. The aim of Kelo Project is to provide irrigation and drinking water first.
13	Shri Deepak Tripathi, Sarangarh	This project should not affect the environment. Plantation should be done in this area water table will rise. Income level will increase & Irrigation area will also increase. I support the project.	By this Project this region will prosperous.
14	Shri Radheshyam Sharma	Compensation should be given at the rate of 50 Lakh per acre. It is beneficial it the dam is constructed as per previously proposed height. Water should only be given to the cultivators. No industries should be proposed in the periphery of 10 Km.	Proper compensation will be given as per Govt. Policy to the affected peoples height of Dam is fixed Keeping in view, the least submergence area. & villages with ultimate benefits.
15	Shri Ram Kumar Agrawal, Ex.- M.L.A.	175 villages will get irrigation facility. It is beneficial to cultivators. Compensation will be paid. I appeal to support the Kelo Project.	The Project work will be completed very soon & affected peoples will get their compensation at the earliest.
16	Shri Ramesh Agrawal, Jan	No one project is bad. Work of project should be	Kelo Irrigation project is a major scheme of C.G.

S.No.	Name & Address	Statement of Peoples	Reply of project representative
1	2	3	4
	Chetna, raigarh	started before public hearing. This public hearing is off the rule. EIA report also have some faults.	Govt Detailed report is prepared after investing the fact of environment. There is no damage in environment by this project.
17	Shri Krishna Kant Chandra, Malkharoda	Kelo Project is beneficial to the cultivators second crop will get. Greenery will be developed. Water table will rise I am in support. The work should be completed at the earliest.	The project work will be completed soon.
18	Shri Shiv Charan Pandey, Balpur	I support the project. Irrigation water will come to this village	Irrigation facility will be provided after completion of project at the earliest.
19	Shri Rajesh kashyap, Raigarh	I Support the project. It will not affect the environment. Stamp duty should not be levied on purchasing of land by affects peoples.	Proposal will be sent to govt. for the relax in stamp duty.
20	Shri Vijay Agrawal, M.L.A., Raigarh	Kelo Dam project is fruitful scheme of Raigarh Distract. As concerned to this project the credit goes to respected Ramkumar Ji Agrawal. Ex-M.L.A. Polluted water will not be merged in Kelo River by the industries. Local authorities are alert. Only 361 Ha. of forest land is submerging including 5 villages as compare to 12 villages in old proposed scheme. Irrigation facilities will be increased by this Project. 80% of water will be utilised in irrigation. 175 villages will be benefited. Drinking water to Raigarh city will be available for 50 years so I am requested to the peoples to support this Kelo Project.	Project work will be complete very soon.

S.No.	Name & Address	Statement of Peoples	Reply of project representative
1	2	3	4
21	Shri Rajesh Tripathi, Raigarh	I am not in opposition of project but irrigation water should reach upto Balpur village. Wastes of Industries will pollute the water of Dam. This should be checked. I am in favour of Project.	There is no chance of water pollution.

Sd/-
Regional Officer
C.G. Environment Control Board
Bilaspur (C.G.)

Additional