ANNEXURE -1

No. J-12011/1/2010-IA-I (Part)
Ministry of Environment, Forest & Climate Change
Government of India
(IA-I Division)

Indira Paryavan Bhavan
3rd Floor, Vayu Wing
Jor Bagh Road
New Delhi – 110 003

Date: 3rd April, 2017

To

The Chief Engineer
I & CAD Department,
Godavari Lift Irrigation Scheme,
KC Colony, Chinthagattu,
Warangal, Talangana -506 015.

Subject: P.V. Narasimha Rao Kanthanapally Sujala Sravathi Project (PVNRKSSP) in Warangal District of Telangana by Irrigation & CAD Department, Government of Telangana for Scoping/ToR clearance - regarding.

Sir,

This is with reference to your letter No. CE/GLIS/Wgl/DCE/OT1/TS-5/F-197/527 dated 22.2.2017 on the above mentioned subject.

2. The said proposal was appraised by the Environment Appraisal Committee (EAC) for River Valley and Hydro Electric Projects (RV&HEP) in its meetings held on 2-3rd March, 2017. The comments and observations of EAC may be seen in the minutes of the meeting which are available on the Ministry's web-site.

3. The project envisages construction of a 1132 m long barrage across Godavari river near Thupakulagudem on River Godavari, 3 km downstream of existing J. Chokka Rao Devadula Lift Irrigation Scheme. The proposed project will stabilize the existing Devadula LIS having command area of 2,51,310 ha and also provide irrigation facility for a command area of 3,04,000 ha of Sriram Sagar Project (SRSP) Stage I & II. 50 TMC of water will be utilized for stabilising the existing command area & 50 TMC utilized for drinking water purpose for enroute villages. Total land requirement is about 674.18 ha. Total submergence area is 580.18 ha which is in the river bed only. The project is at a distance of 2.5 km from boundary of Chattisgarh state. The estimated cost of the project is Rs. 2121 crores.

4. Based on recommendations of the EAC, the Ministry of Environment Forest & Climate Change hereby accords a Terms of Reference for pre-construction activities at the proposed site as per the provisions of the Environmental Impact Assessment Notification, 2006 and

subsequent amendment in 2009 along with the following conditions for preparation of EIA/EMP report:

(a) The EIA/EMP report should contain the information in accordance with provisions & stipulations as given in the **Annexure-I**.

(b) The Consultant engaged for preparation of EIA/EMP report has to be registered with Quality Council of India (QCI)/NABET under the scheme of Accreditation & Registration of MoEF. This is a pre-requisite.

(c) Consultants shall include a "Certificate" in EIA/EMP report regarding portion of EIA/EMP prepared by them and data provided by other organization(s)/ laboratories including status of approval of such laboratories.

(d) The draft EIA/EMP report prepared as per the **Annexure-I** should be submitted to the State Pollution Control Board Committee concerned for conducting Public Consultation as per the provisions stipulated in EIA Notification of 2006. Public Hearing which is a component of Public Consultation shall be held district wise at the site or in its closed proximity as prescribed in Appendix (IV) of EIA Notification, 2006. The draft EIA/EMP report is to be submitted to SPCB etc sufficiently before the expiry of the ToR validity so that necessary amendments in EIA/EMP can be undertaken based on public hearing and the same is submitted to MoEF &CC before expiry of validity.

(e) All issues discussed in the Public Hearing/Consultations should be addressed and incorporated in the EIA/EMP Report. Final EIA/EMP report should be submitted to the Ministry for Environmental Clearance only after incorporating these issues before the expiry of validity of ToR.

(f) The ToR will remain valid for a period of 4 years from the date of issue of this letter for submission of EIA/EMP report along with public consultation. The ToR will stand lapsed on completion of 4 years time in case final EIA/EMP is not submitted and the validity is not extended.

(g) In case of any change in the Scope of the Project such as capacity enhancement, shifting of dam site, change in submergence, etc., fresh scoping clearance has to be obtained by the project proponent.

(h) Approval of Forest Clearance Stage-I for the forest area involved in the project is one of the mandatory pre-requisites for grant of Environmental Clearance.

(i) The PP shall submit a copy of TEC of the DPR along with EIA/EMP report.

(j) Information pertaining to Corporate Environmental Responsibility and Environmental Policy shall be provided in the EIA/EMP Report as per this Ministry's OM No.J-11013/25/2014-IA-I dated 11.8.2014 (**Reference as Annexure-II**).

(k) The EIA/EMP Report must contain an Index showing details of compliance of all ToR conditions. The Index will comprise of page no., etc., vide which compliance of a specific ToR is available. It may be noted that without this index, EIA/EMP report will not be accepted.

(l) In case the validity is to be extended, necessary application is to be submitted to Regulatory Authority before expiry of validity period together with an updated form -I based on proper justification.

This has approval of the Competent Authority.

Yours faithfully,

(Dr S. Kerketta)
Director

Copy to:

1. The Secretary, Ministry of Water Resources, Shram Shakti Bhawan, Rafi Marg, New Delhi -1.
2. The Principal Secretary (Irrigation), Government of Telangana, Secretariat, Hyderabad - 500 001.
3. The Secretary, Department of Environment & Forests, Government of Telangana, Secretariat Hyderabad - 500 022.
4. The Chief Engineer, Project Appraisal Directorate, Central Water Commission, Sewa Bhawan, R. K. Puram, New Delhi - 110 066.
5. The Addl. PCCF (C), Ministry of Environment, Forest and Climate Change, Regional Office (SEZ), Pt and End Floor, Handloom Export Promotion Council, 34, Cathedral Garden Road, Nungambakkam, Chennai – 600034
6. The Member Secretary, Telangana State Pollution Control Board, Payavaran Bhawan, Industrial Estate, Sanath Nagar, Hyderabad.
7. NIC Cell - for upload on the MOEF website.
8. PPS to JS(GB)/Director(SKK)/Sci-C(SP)
7. Guard File.

(Dr. S. Kerketta)
Director

Annexure-1

TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR 'A' CATEGORY RIVER VALLEY PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

(1) Scope of EIA Studies

The EIA Report should identify the relevant environmental concerns and focus on potential impacts that may change due to the construction of proposed project. Based on the baseline data collected for three (3) seasons (Pre-monsoon, Monsoon and Winter seasons), the status of the existing environment in the area and capacity to bear the impact on this should be analyzed. Based on this analysis, the mitigation measures for minimizing the impact shall be suggested in the EIA/EMP study.

(2) Details of the Project and Site

- General introduction about the proposed project.
- Details of project and site giving L-sections of all u/s and d/s projects of River with all relevant maps and figures. Connect such information as to establish the total length of interference of Natural River and the committed unrestricted release from the site of diversion into the main river.
- A map of boundary of the project site giving details of protected areas in the vicinity of project location.
- Location details on a map of the project area with contours indicating main project features. The project layout shall be superimposed on a contour map of ground elevation showing main project features (viz. location of dam, Head works, main canal, branch canals, quarrying etc.) shall be depicted in a scaled map.
- Layout details and map of the project along with contours with project components clearly marked with proper scale maps of at least a 1:50,000 scale and printed at least on A3 scale for clarity.
- Existence of National Park, Sanctuary, Biosphere Reserve etc. in the study area, if any, should be detailed and presented on a map with distinct distances from the project components.
- Drainage pattern and map of the river catchment up to the proposed project site.
- Delineation of critically degraded areas in the directly draining catchment on the basis of silts Yield Index as per the methodology of All India Soil and Land Use Survey of India.
- Soil characteristics and map of the project area.
- Geological and seismo-tectonic details and maps of the area surrounding the proposed project site showing location of dam site and powerhouse site.
- Remote Sensing studies, interpretation of satellite imagery, topographic sheets along with ground verification shall be used to develop the land use/land cover pattern of the study using overlaying mapping techniques viz. Geographic Information System (GIS), False Color composite (FCC) generated from satellite data of project area.

- Land details including forests, private and other land.
- Demarcation of snow fed and rain fed areas for a realistic estimate of the water availability.

(3) Description of Environment and Baseline Data

To know the present status of environment in the area, baseline data with respect to environmental components air, water, noise, soil, land and biology & biodiversity (flora & fauna), wildlife, socio-economic status etc. should be collected with 10 km radius of the main components of the project/site i.e. dam site and power house site. The air quality and noise are to be monitored at such locations, which are environmentally & ecologically more sensitive in the study area. The baseline data should be collected for 3 seasons (Pre-Monsoon, Monsoon and Post-Monsoon). Flora-Fauna in the Catchment and command area should be documented. The study area should comprise of the following:

- Catchment area up-to the dam site.
- Submergence Area
- Project area or the direct impact area should comprise of area falling within 10 km radius from the periphery of reservoir, land coming under submergence and area downstream of dam upto the point where Tail Race Tunnel (TRT) meets the river.
- Downstream upto 10 km from tip of Tail Race Tunnel (TRT).

(4) Details of the Methodology

- The methodology followed for collection of base line data along with details of number of samples and their locations in the map should be included.
- Study area should be demarcated properly on the appropriate scale map.
- Sampling sites should be depicted on map for each parameter with proper legends.
- For forest classification, Champion and Seth (1968) classification should be followed.

(5) Methodology for collection of Biodiversity Data

- The number of sampling locations should be adequate to get a reasonable idea of the diversity and other attributes of flora and fauna. The guiding principles should be the size of the study area (larger area should have larger number of sampling locations) and inherent diversity at the location, as known from secondary sources (e.g. eastern Himalayan and low altitude sites should have a larger number of sampling locations owing to higher diversity).
- The entire area should be divided in grids of 5km X 5km preferably on a GIS domain. There after 25% of the grids should be randomly selected for sampling of which half should be in the directly affected area (grids including project components such as reservoir, dam, powerhouse, tunnel, canal etc.) and the remaining in the rest of the area (areas of influence in 10 km radius form project components). At such chosen location, the size and number of sampling units (e.g. quadrats in case of flora/transects in case of fauna) must be decided by species area curves and the

details of the same (graphs and cumulative number of species in a tabulated form) should be provided in the EIA report. Some of the grids on the edges may not be completely overlapping with the study area boundaries. However these should be counted and considered for selecting 25% of the grids. The number of grids to be surveyed may come out as a decimal number (i.e. it has an integral and a fractional part) which should be rounded to the next whole number.

- The conventional sampling is likely to miss the presence of rare, endangered and threatened (R.E.T.) species since they often occur in low densities and in case of faunal species are usually secretive in behaviour. Reaching the conclusion about the absence of such species in the study area based on such methodology is misleading. It is very important to document the status of such species owing to their high conservation value. Hence likely presence of such species should be ascertained from secondary sources by a proper literature survey for the said area including referring to field guides which are now available for many taxonomic groups in India. Even literature from studies/surveys in the larger land-scapes which include the study area for the concerned project must be referred to since most species from adjoining catchments is likely to be present in the catchments in question. In fact such literature form the entire state can be referred to. Once a listing of possible R.E.T. species form the said area is developed, species specific methodologies should be adopted to ascertain their presence in the study area which would be far more conclusive as compared to the conventional sampling. If the need be, modern methods like camera trapping can be resorted to, particularly for areas in the eastern Himalayas and for secretive/nocturnal species. A detailed listing of the literature referred to, for developing lists of R.E.T. species should be provided in the EIA reports.
- The R.E.T. species referred to in this point should include species listed in Schedule I and II of Wildlife (Protection) Act, 1972 and those listed in the red data books (BSI, ZSI and IUCN).

(6) Components of the EIA Study

Various aspects to be studied and provided in the EIA/EMP report are as follows:

A. Physical and Chemical Environment

(i) Geological & Geophysical Aspects and Seismo – Tectonics:

- Physical geography, Topography, Regional Geological aspects and structure of the Catchment.
- Tectonics, seismicity and history of past earthquakes in the area. A site-specific study of the earthquake parameters will be done. The results of the site-specific earthquake design shall be sent for approval of the NCSDP (National committee of Seismic Design Parameters, Central water commission, New Delhi for large dams.
- Landslide zone or area prone to landslide existing in the study area should be examined.
- Presence of important economic mineral deposit, if any.

- Justification for location & execution of the project in relation to structural components (dam height).
- Impact of project on geological environment.

(ii) Meteorology, Air and Noise:

- Meteorology (viz. Temperature, Relative humidity, wind speed/direction etc.) to be collected from nearest IMD station.
- Ambient Air Quality with parameters viz. Suspended Particulate Matter (SPM), Respirable Suspended Particulate Matter (RSPM) i.e. suspended particulate materials <10 microns, Sulphur Dioxide (SO_2) and Oxides of Nitrogen (NOx) in the study area at 6 locations.
- Existing noise levels and traffic density in the study area at 6 locations.

(iii) Soil Characteristics

- Soil classification, physical parameters (viz., texture, porosity, bulk density and water holding capacity) and chemical parameters (viz. pH, electrical conductivity, magnesium, calcium, total alkalinity, chlorides, sodium, potassium, organic carbon, available potassium, available phosphorus, SAR, nitrogen and salinity, etc.) (6 locations).

(iv) Remote sensing and GIS Studies

- Generation of thematic maps viz., slope map, drainage map, soil map, land use and land cover map, etc. Based on these, thematic maps, an erosion intensity map should be prepared.
- New configuration map to be given in the EIA Report.

(v) Water Quality

- History of the ground water table fluctuation in the study area.
- Water quality for both surface water and ground water for (i) Physical parameters (pH, temperature, electrical conductivity, TSS); (ii) Chemical parameters (Alkalinity, Hardness, BOD, COD, NO_2, PO_4, Cl, SO_4, Na, K, Ca, Mg, Silica, Oil & Grease, phenolic compounds, residual sodium carbonate); (iii) Bacteriological parameter (MPN, Total coliform) and (iv) Heavy Metals (Pb, As, Hg, Cd, Cr-6, total Cr, Cu, Zn, Fe) (35 locations).
- Delineation of sub and micro-watersheds, their locations and extent based on the All India Soil and Land Use Survey of India (AISLUS), Department of Agriculture, Government of India. Erosion levels in each micro-watershed and prioritization of micro-watershed through silt yield index (SYI) method of AISLUS.

B. Water Environment & Hydrology

- Hydro-Meteorology of the project viz. precipitation (snowfall, rainfall), temperature, relative humidity, etc. Hydro-meteorological studies in the catchment area should be established along-with real time telemetry and data acquisition system for inflows monitoring.
- Run off, discharge, water availability for the project, sedimentation rate, etc.
- Basin characteristics
- Catastrophic events like cloud bursts and flash floods, if any, should be documented.
- For estimation of Sedimentation Rate, direct sampling of river flow is to be done during the EIA study. The study should be conducted for minimum one year. Actual silt flow rate to be expressed in ha-m km^2 year-1.
- Sedimentation data available with CWC may be used to find out the loss in storage over the years.
- Set up a G&D monitoring station and a few rain gauge stations in the catchment area for collecting data during the investigation.
- Flow series, 10 daily with 90%, 75% and 50% dependable years discharges.
- A table of 10-daily water discharges corresponding to 90% dependable year showing the intercepted discharge at the barrage, the environmental flow to be released and the other flow releases downstream of the barrage and spills to be provided in hydrology section of EIA.
- Norms for release of Environmental flows, i.e. 30% in monsoon season, 20% in lean season and 25% in non-monsoon & non-lean season to be followed corresponding to 90% dependable year. A site specific study on minimum environment flow should be carried out.
- Hydrological studies/data as approved by CWC shall be utilized in the preparation of EIA/EMP report. Actual hydrological annual yield may also be given in the report.
- A minimum of 1 km distance from the tip of the reservoir to the tail race tunnel should be maintained between upstream and downstream projects.

C. Biological Environment

Besides primary studies, review of secondary data/literature published for project area on flora & fauna including RET species shall be reported in EIA/EMP report.

(i) Flora

- Characterization of forest types (as per Champion and Seth method) in the study area and extent of each forest type as per the Forest Working Plan.
- Documentation of all plant species i.e. Angiosperm, Gymnosperm, Pteriodophytes, Bryophytes, Lichens (all groups). All species list may be provided.
- General vegetation profile and floral diversity covering all groups of flora including lichens and orchids. A species wise list may be provided.

- Assessment of plant species with respect to dominance, density, frequency, abundance, diversity index, similarity index, importance value index (IVI) , Shannon Weiner index etc. of the species to be provided. Methodology used for calculating various diversity indices along with details of locations of quadrates, size of quadrates etc. to be reported within the study area in different ecosystems.
- Existence of National park, Sanctuary, Biosphere Reserve etc in the study area, if any, should be detailed.
- Economically important species like medicinal plants, timber, fuel wood etc.
- Details of endemic species found in the project area.
- Flora under RET categories should be documented using International Union for the Conservation of Nature and Natural Resources (IUCN) criteria and Botanical Survey of India's Red Data list along-with economic significance. Species diversity curve for RET species should be given.
- Biodiversity study, a sub-component of EIA study, is to be carried-out by associating a reputed organisation/institution as recommended by WII, Dehradun or by ICFRE, Dehradun. A list of such institutes is available on MoEF"s website.
- Cropping pattern and Horticultural Practices in the study area.

(ii) Fauna

- Fauna study and inventorization should be carried out for all groups of animals in the study area. Their present status along-with Schedule of the species.
- Documentation of fauna plankton (phyto and zooplankton), periphyton, benthos and fish should be done and analysed.
- Information (authenticated) on Avi-fauna and wildlife in the study area.
- Status of avifauna their resident/ migratory/ passage migrants etc.
- Documentation of butterflies, if any, found in the area.
- Details of endemic species found in the project area.
- RET species-voucher specimens should be collected along-with GPS readings to facilitate rehabilitation. RET faunal species to be classified as per IUCN Red Data list and as per different schedule of Indian Wildlife (Protection) Act, 1972.
- Existence of barriers and corridors, if any, for wild animals.
- Compensatory afforestation to compensate the green belt area that will be removed, if any, as part of the proposed project development and loss of biodiversity.
- Collection of primary data on agricultural activity, crop and their productivity and irrigation facilities components.

D. Aquatic Ecology

- Documentation of aquatic fauna like macro-invertebrates, zooplankton, phytoplanktons, benthos, etc.
- Fish and fisheries, their migration and breeding grounds.
- Fish diversity composition and maximum length & weight of the measured populations to be studies for estimation of environmental flow.
- Conservation status of aquatic fauna.

E. Socio-Economic

- Collection of baseline data on human settlements, health status of the community and existing infrastructure facilities for social welfare including sources of livelihood, job opportunities and safety and security of workers and surroundings population.
- Collection of information with respect to social awareness about the developmental activity in the area and social welfare measures existing and proposed by project proponent.
- Collection of information on sensitive habitat of historical, cultural and religious and ecological importance.
- The socio-economic survey/ profile within 10 km of the study area for demographic profile; Economic Structure; Developmental Profile; Agricultural Practices; Infrastructure, education facilities; health and sanitation facilities; available communication network etc.
- Documentation of demographic, Ethnographic, Economic Structure and development profile of the area.
- Information on Agricultural Practices, Cultural and aesthetic sites, Infrastructure facilities etc.
- Information on the dependence of the local people on minor forest produce and their cattle grazing rights in the forest land.
- List of all the Project Affected Families with their name, age, educational qualification, family size, sex, religion, caste, sources of income, land & house holdings, other properties, occupation, source of income, house/land to be acquired for the project and house/land left with the family, any other property, possession of cattle, type of house etc.
- In addition to socio-economic aspects of the study area, a separate chapter on socio-cultural aspects based upon study on Ethnography of the area should be provided.

(7) Impact Prediction and Mitigation Measures

The adverse impact due to the proposed project should be assessed and effective mitigation steps to abate these impacts should be described.

(i) Air Environment

- Changes in ambient and ground level concentrations due to total emissions from point, line and area sources.
- Effect on soil, material, vegetation and human health.
- Impact of emissions from DG set used for power during the construction, if any, on air environment.
- Pollution due to fuel combustion in equipments and vehicles
- Fugitive emissions from various sources
- Impact on micro-climate

(ii) Water Environment

- Changes in surface and ground water quality
- Steps to develop pisci-culture and recreational facilities
- Changes in hydraulic regime and downstream flow.
- Water pollution due to disposal of sewage
- Water pollution from labour colonies/ camps and washing equipment.

(iii) Land Environment

- Adverse impact on land stability, catchment of soil erosion, reservoir sedimentation and spring flow (if any) (a) due to considerable road construction / widening activity (b) interference of reservoir with the inflowing stream (c) blasting for commissioning of HRT, TRT and some other structures.
- Changes in land use / land cover and drainage pattern.
- Immigration of labour population.
- Quarrying operation and muck disposal.
- Changes in land quality including effects of waste disposal.
- River bank and their stability.
- Impact due to submergence.

(iv) Biological Environment

- Impact on forests, flora, fauna including wildlife, migratory avi-fauna, rare and endangered species, medicinal plants etc.
- Pressure on existing natural resources.
- Deforestation and disturbance to wildlife, habitat fragmentation and wild animal's migratory corridors.
- Compensatory afforestation-identification of suitable native tree species for compensatory afforestation and green belt.
- Impact on fish migration and habitat degradation due to decreased flow of water.
- Impact on breeding and nesting grounds of animals and fish.

(v) Socio-economic aspects

- Impact on local community including demographic profile.
- Impact on socio-economic status.
- Impact on economic status.
- Impact on human health due to water / vector borne disease
- Impact on increase traffic.
- Impact on Holy Places and Tourism.
- Impacts of blasting activity during project construction which generally destabilize the land mass and leads to landslides, damage to properties and drying up of natural springs and cause noise population will be studies. Proper record shall be maintained of the baseline information in the post project period.

- Positive and negative impacts likely to be accrued due to the project are listed.

(8) Environmental Management Plans

- **Catchment Area Treatment (CAT) Plan** should be prepared micro-watershed wise. Identification of free draining/ directly draining catchment based upon Remote Sensing and Geographical Information System (GIS) methodology and Sediment Yield Index (SYI) method of AISLUS, Deptt. of Agriculture, Govt. of India coupled with ground survey. Areas or watersheds falling under 'very severe' and 'severe' erosion categories should be provided and required to be treated. Both biological as well as engineering measures should be proposed in consultation with State Forest Department for areas requiring treatment. Year-wise schedule of work and monetary allocation should be provided. Mitigation measures to check shifting cultivation in the catchment area with provision for alternative and better agricultural practices should be included.

- **Command Area Development (CAD) Plan** giving details of implementation schedule with a sample CAD plan.

- **Compensatory Afforestation** shall be prepared by the State Forest Department in lieu of the forestland proposed to be diverted for construction of the project as per the Forest (Conservation) Act, 1980. Choice of plants for afforestation should include native and RET species, if any.

- **Biodiversity and Wildlife Conservation and Management Plan** for the conservation and preservation of rare, endangered or endemic floral/ faunal species or some National Park/Sanctuary/ Biosphere Reserve or other protected area is going to get affected directly or indirectly by construction of the project, then suitable conservation measures should be prepared in consultation with the State Forest Department.

- **Fisheries Conservation and Management Plan** – a specific fisheries management measures should be prepared for river and reservoir. If the construction of fish ladder/ fish-way etc. is not feasible then measures for reservoir fisheries will be proposed. The plan will detail out the number of hatcheries, nurseries, rearing ponds etc. proposed under the plan with proper drawings. If any migratory fish species is getting affected then the migratory routes, time/season of upstream and downstream migration, spawning grounds etc will be discussed in details.

- **Resettlement and Rehabilitation Plan** needed to be prepared on the basis of findings of the socio-economic survey coupled with the outcome of public consultation held. The R&R package shall be prepared after consultation with the representatives of the project affected families and the State Government. Detailed budgetary estimates are to be provided. Resettlements site should be identified. The plan will also incorporate community development strategies. *R&R Plan is to be formulated as per Land Acquisition, Rehabilitation and Resettlement Act, 2013 which came into force on 01.01.2014.*

- **Green Belt Development Plan** along the periphery of the reservoir, approach roads around the colonies and other project components, local plant species must be suggested with physical and financial details. Local plant species suitable for greenbelt should be selected.

- **Reservoir Rim Treatment Plan** for stabilization of land slide/ land slip zones, if any, around the reservoir periphery is to be prepared based on detailed survey of geology of the reservoir rim area. Suitable engineering and biological measures for treatment of identified slip zones to be suggested with physical and financial schedule.

- **Muck Disposal Plan** suitable sites for dumping of excavated materials should be identified in consultation with State Pollution Control Board and State Forest Department. All muck disposal sites should be minimum 30 in away from the HFL of river. Plan for rehabilitation of muck disposal sites should also be given. The L-section/cross section of muck disposal sites and approach roads should be given. The plan shall have physical and financial details of the measures proposed.

- **Restoration Plan for Quarry Sites and landscaping** of colony areas, working areas, roads etc. Details of the coarse/fine aggregate/clay etc. required for construction of the project and the rock/clay quarries/river shoal sites identified for the project should be discussed along-with the Engineering and Biological measures proposed for their restoration with physical and financial details. Layout map showing quarry sites vis-à-vis other project components, should be prepared.

- **Study of Design Earthquake Parameters:** A site specific study of earthquake parameters should be done. Results of the site specific earthquake design parameters should be approved by National Committee of Seismic Design Parameters, Central Water Commission (NCSDP), New Delhi.

- **Dam Break Analysis and Disaster Management Plan** The outputs of dam break model should be illustrated with appropriate graphs and maps clearly bringing out the impact of Dam Break scenario. The action plan will include Emergency Action and Management plan including measures like preventive action notification, warning procedure and action plan for co-ordination with various authorities.\

- **Water, Air and Noise Management Plans** to be implemented during construction and post-construction periods.

- Mitigating measures for **impacts due to Blasting** on the structures in the vicinity.

- **Ground Water Management Plan.**

- **Public Health Delivery Plan** including the provisions of drinking water supply for local community.

- **Labour Management Plan** for their Health and Safety.
- **Sanitation and Solid waste Management plan** for domestic waste from colonies and labour camps etc.
- **Local Area Development Plan** to be formulated in consultation with the Revenue Officials and village Panchayat. Local skill development schemes should be given. Details of various activities to be undertaken along with its financial out lay should be provided.
- Environmental safeguards during **construction activities including Road** Construction.
- **Energy Conservation Measures.**
- **Environmental Monitoring Programme** with physical & financial details covering all the aspects of EMP. A summary of Cost Estimates for all the plans, cost for implementing all the Environmental Management Plans.

(9) In the EMP, a sample CAD plan for a distributary outlet command is also included. Such a plan is to show the alignment of irrigation and drainage channels. The components of the On Farm Development (OFD) works to be undertaken may be clearly mentioned along with a time schedule for their completion vis-&-vis the progress of irrigation development.

(10) Additional Conditions:

- Recycle water be used/ utilized for industries and horticultural purpose.
- The irrigation efficiency should also be worked out during the study.
- The project envisages stabilization of existing Devadula LIS of command area of about 2.5 lakh ha by constructing a barrage across river Godavari near the confluence with river Indravati.
- The performance report of the LIS may also be prepared based on the ground realities.
- The solar power also may not be a cheaper alternative for running such high head LIS. This aspect may be looked into in details.
- The arguments, viz. need for providing employment to large number of people who are residing in rural areas and dependent on agriculture, overlooking the norms of benefit- cost ratio in light of erratic changes in the prices of agricultural produce, supplying water to agricultural lands at high altitudes, achieving self sufficiency to the state in food grains and so on in justification may not be tenable in the context of economic returns/improving the economy of the state. Water is not a solution everywhere.
- Land acquired for the project shall be suitably compensated in accordance with the law of the land with the prevailing guidelines.

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Annexure - 11

8

No.J-11013/25/2014-IA.I
Government of India
Ministry of Environment & Forests

Indira ParyavaranBhawan,
JorBagh Road, Ali Ganj,
New Delhi-11003

Dated the 11th August, 2014

OFFICE MEMORANDUM

Subject: Environment sustainability and CSR related issues-guidelines

The Environment Impact Assessment (EIA) Notification 2006, issued under the Environment (Protection) Act 1986, as amended from time to time, prescribes the process for granting prior environment clearance (EC) in respect of certain development projects / activities listed out in the Schedule to the notification.

2. Sustainable development has three components, viz., social, economic and environmental. All the three components are closely inter-related and mutually re-enforcing. Considering this, the general structure of EIA document, under Appendix-III to the notification, prescribes inter-alia public consultation, social impact assessment and R&R action plan besides environment management plan (EMP).

3. It is noticed that while there is clarity on the guidelines on EMP, as regards sustainability related issues, different formulations have been prescribed in the conditions in EC letters for the projects under different sectors listed out in Schedule to the EIA Notification, 2006. Thus, there is a need to issue guidelines on the subject.

4. Section 135 of the Companies Act, 2013 deals with corporate social responsibility and Schedule-VII of the Act lists out the activities which may be included by companies in their CSR Policies. The activities relating to "ensuring environmental sustainability", are listed in this schedule. Further, Ministry of Corporate Affairs has also notified the Companies (Corporate Social Responsibility Policy) Rules, 2014.

5. The concept of CSR as provided for in the Companies Act, 2013 and covered under the Companies (Corporate Social Responsibility Policy) Rules, 2014 comes into effect only in case of companies having operating projects and making net profit as also subject to other stipulations contained in the aforesaid Act and Rules. The environment clearance given to a project may involve a situation where the concerned company is yet to make any net profit and / or is not covered under the purview of the aforesaid Act and Rules. Obviously, in such cases, the provisions of aforesaid Act and Rules will not apply.

6. The matter has been further examined in the Ministry of Environment, Forests & Climate Change (MoEF&CC). It has been decided that in respect of valid concerns expressed during the public consultations, mitigation issues emerging from social impact assessment and R&R Plan, the project proponents, in EIA / EMP report will clearly state the activity-wise costs involved (both capital as well as recurring costs), the phasing of these activities along with costs and also as to how such expenditure would be met. The costs and the timelines for various activities as prepared by the project proponent may be looked into by the concerned Expert Appraisal Committee (EAC) for their reasonableness and appropriate recommendations in the matter reflected in the minutes of EAC meeting. In case these activities (or some of these activities) are proposed to be covered by the project proponent under CSR activities, the project proponent should commit providing for the same. In either case, the position regarding the agreed activities, their funding mechanism and the phasing should be clearly reflected in the EC letter.

7. The obligation on part of the project proponents, as mentioned in para5 above, should be stated at the TOR stage itself as one of the TORs for the project.

8. All Sectoral EACs will follow the aforesaid procedure on environment sustainability and CSR related issues while appraising the projects and do away with the existing practices being followed on the subject, if any.

9. These guidelines will apply mutatis mutandis to SEACs/SEIAAs.

10. This issues with the approval of the Component Authority.

(Dr. Satish C.Garkoti)
Scientist 'F'

To

1. All the Officers of IA Division
2. Chairpersons / Member Secretaries of all the SEIAAs / SEACs
3. Chairman, CPCB
4. Chairpersons / Member Secretaries of all SPCBs / UTPCCs

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