

PROPOSAL FOR CAPACITY BUILDING OF EPCO IN CDM WORK AREAS UNDER THE ONGOING EPCO-DFID PROJECT

Environmental Planning and Coordination organization (EPCO) is a State level advisory body established by the Housing and Environment Department of the Government of Madhya Pradesh (GoMP). The organization was set up in the year 1981 with the mandate of assisting the State government in all issues pertaining to environment sector.

With the vision of building organizational as well as individual capacities of EPCO the Department for International Development (DFID), UK has funded a project on “*Strengthening and Repositioning of EPCO for Mainstreaming of Environment*”. This EPCO-DFID project is currently underway and is slated to complete in another 10 months by March 2007.

During one of the recent review meeting held by GoMP for reviewing all externally aided projects that are currently under implementation stage in the State including EPCO-DFID project, GoMP advised EPCO to build capacity of the organisation in Clean Development Mechanism (CDM) related work areas by including it as one of the areas for capacity building in the ongoing EPCO-DFID project. This advice is pertinent in view of the fact that GoMP has identified EPCO as the State Nodal Agency in CDM related work areas in the State.

This proposal note to include a sub-component on capacity building of EPCO in CDM related work areas within the scope of one of the relevant component of the ongoing EPCO-DFID project has been prepared in view of the suggestions received from GoMP. The proposal note is laid out as below:

- Role expected of a State Nodal Agency in CDM related work areas and the need to build capacity of EPCO;
- Emerging CDM business opportunities in the State of MP and the possible role EPCO could play; and
- Proposal to include organisational capacity building in CDM work areas within the ongoing EPCO-DFID project

1.1

EPCO AS STATE LEVEL NODAL AGENCY IN CDM WORK AREAS

Currently, Madhya Pradesh State Pollution Control Board (MPPCB) – a regulatory authority in environment sector - is the State Nodal Agency for Clean Development Mechanism (CDM) related works in the State. However, considering the role EPCO has played in the field of environment in Madhya Pradesh, Principal Secretary of Housing and Environment (H&E) Department, GoMP through an order dated 10th January 2006 has designated EPCO as the nodal agency for CDM related works in the State.

As per the order, EPCO is in the process of taking over the role of State Nodal Agency for CDM related works from MPPCB and is currently engaged with Ministry of Environment and Forests (MoEF), GoI – the National Nodal Agency for CDM to complete the contractual formalities.

As a State Nodal agency, the potential for business opportunities through CDM and the role expected of a nodal agency is presented in the following sub-sections.

1.1.1 *Emerging Climate Change Business Opportunities in MP*

Climate change business is about purposefully undertaking certain measures to reduce green house gas (GHG) emissions from various sector activities. Carbon-di-oxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), Per fluoro carbons (PFC), Hydro fluoro carbon (HFC), Sulfur hexa fluoride (SF₆) etc are the ones which have been identified as green house gases.

Undertaking intentional control measures in varied sector activities that would either consume these green house gases in the process or abate the generation of green house gases from the operational processes would earn Certified Emission Reduction (CER) credits. One CER is equivalent to abatement of one metric tonne of CO₂ equivalent GHG emission.

The project proponent who has implemented the intentional GHG control measures from developing countries such as India can sell these CERs to buyers in developed countries through an international institutional mechanism formulated for this purpose which is popularly known as Clean Development Mechanism (CDM).

In the State government, agencies/ departments such as urban local bodies, forest department, power generation utility companies, transport department etc are some of the major ones which can benefit immensely from the climate change business through CDM. Some of the potential CDM projects in the State of MP are presented in *Table 1.1*.

Table 1.1 Potential CDM Projects in MP

Sector	Potential Projects
Forest	<ul style="list-style-type: none"> • Forestation on barren land • Energy forestation and supply to fossil fuel based power plants
Urban Dev./Municipal Corporation	<ul style="list-style-type: none"> • Municipal Pumping Efficiency Improvement • Municipal Solid waste (MSW) utilisation in power generation, methane heat recovery • Processing and selling MSW to cement kilns • Lighting replacement (bulbs to CFL) in households with the help of technology supplier
Agriculture and Irrigation	<ul style="list-style-type: none"> • Pumping efficiency improvement in agriculture and irrigation pump sets • Replacement of fertiliser with organic manure • Cultivation of jatropa/juliflora for producing bio-diesel
Energy/MPUVN/MPCB	<ul style="list-style-type: none"> • Developing renewable energy power projects (based on biomass, wind, solar etc) • Developing biogas plants in rural areas to avoid methane emission in rural sector • Landfill methane capture/Developing incinerators to burn organic substances emitting methane
Transport	<ul style="list-style-type: none"> • Use of CNG in vehicles • Fuel cell based technology

Sector	Potential Projects
MPEB	<ul style="list-style-type: none"> • Using Super critical boilers (240-300 kg/sqcm (g)) and increasing efficiency • IGCC technology to tap the potential 10% improvement in efficiency • New generation turbines/blade modification with 3D twisted blades • Chimney modification • All volatile treatment in boiler to reduce blow-down losses • Compressed air cooling in place of steam cooling in burners of pulverised coal boiler • Power cycle efficiency improvements • State of the art technology to reduce transmission and distribution losses • Recycle of waste gas in GTG • GTG cooling by steam in place of air • Other energy efficient measures to reduce auxiliary load such as HT variable speed drives, improving coal crushing and pulverisation technologies etc.
Coal	<ul style="list-style-type: none"> • Coal bed methane • Coal mine methane

Source: Presentation prepared by Ernst & Young on Climate Change Business Opportunities for Madhya Pradesh

The size of the climate change business market in the State of MP is yet to be explored. If the potential of all the major stakeholders in the State such as State government department, agencies, municipal corporations, public sector undertakings and private sector is taken into account, it is a million dollar business opportunity for the State of MP. It is precisely for this, the role of EPCO as a State Nodal Agency, becomes significant as on one hand building awareness about the business opportunity that is emerging in the global market is necessary among various stakeholders and on the other hand it is necessary to estimate the size of the market opportunity available to MP to help policy makers in the State to institutionalise and strategise the opportunity.

1.1.2 *Role of State Nodal Agency*

The major role of a state nodal agency for CDM related works could include the following:

- Generating awareness on an ongoing and sustained manner about emerging CDM business opportunities in government, public and private sector organisations, departments, institutions, entities etc;
- Assess the sector-wise potential for CDM projects in the State of MP for various stakeholders viz. government line department, PSUs and private sector organisations;
- Prepare a sector-wise strategic action plan covering short-term (1 year), medium term (1-3 years) and long term (3-5 years) for implementing CDM projects and realise the full potential in various sectors;
- Revise and update the sector-wise potential for CDM projects in the State of MP for various stakeholders in a periodic manner, say after every 5 years;
- Revise and update the sector-wise strategic action plans periodically after successful completion of the plan period;
- Evolve institutional mechanisms in GoMP to manage and monitor the implementation of agreed sector-wise strategic action plan in a focussed and sustained manner;

- Facilitate stakeholders from the State in preparing good quality CDM proposals, approaching appropriate authorities/agencies for approval/verification and avail carbon credits through CERs; and
- Co-ordinate and work together with National nodal agency i.e Ministry of Environment and Forests, GoI.

The nodal agency is expected to work in a focussed and sustained manner as the business opportunity currently emerging for developing countries like India is expected to be around the region of US \$ 1.5 billion and is expected to grow quite impressively in the coming years.

1.1.3 *EPCO's Potential in CDM Related Work Areas*

EPCO has been traditionally strong in various areas of environmental planning, assessment, management and co-ordination. Climate change related business opportunities emerging through CDM is a new area for EPCO in which it has little or no experience.

However, as an autonomous organisation of the State government that is managed by Director General and Executive Director who are part of GoMP administrative set-up, EPCO enjoys easy access to all government stakeholders and PSUs in the State in order to facilitate and co-ordinate CDM related projects in the State. Besides, under the ongoing EPCO-DFID project, EPCO is in the process of strengthening and re-establishing its network among state, district, block and village level governance structures and line departments. Thus, EPCO has immense potential to play an effective role as State Nodal Agency in CDM related work areas.

Hence, it is imperative to build capacity of EPCO in CDM related works as well under the ongoing EPCO-DFID project

1.2 *OPTIONS TO INCLUDE CDM RELATED CAPACITY BUILDING COMPONENT IN EPCO-DFID PROJECT*

EPCO-DFID project is being implemented in a mission mode having defined goals, objectives, purpose, outcome and physical deliverables as summarised in *Table 1.2*.

Table 1.2 Mission of EPCO-DFID Project

Mission Elements	Features
Goals	<ul style="list-style-type: none"> • Inculcate a culture of integrating the principles of sustainable development in GoMP policies and programmes there by halting the process of environment of degradation. (<i>Target 9 MDGs</i>)
Purpose	<ul style="list-style-type: none"> • Ensure environmental sustainability in GoMPs development programme. • Reposition EPCO by redefining the mission statement and making organization's structural changes. • Enable EPCO to emerge as an instrument for mainstreaming environment and sustainable development in MP.

Mission Elements	Features
Objectives	<ul style="list-style-type: none"> • Activate State Environment Policy. • Mainstream environmental concerns in the district planning process and sector programmes. • Involve range of stakeholders of Madhya Pradesh in the exercise of setting environmental priorities, • Improve understanding of environmental problems and their underlying causes.
Outcome	<ul style="list-style-type: none"> • Organizational repositioning of EPCO for mainstreaming of environmental concerns through capacity building and restructuring • Training and orientation of EPCO personnel • District specific State of Environment Reports • Thematic position paper on Water, Energy, Health, Agriculture and Bio-diversity issues • Development of State specific training and educational material • Training and Orientation of officials at district and Panchayat level • Formal networking and linkages with National/ International and leading concerned agencies and line departments of GoMP/GoI • Infrastructure up-gradation of the organization • Better equipped to address the emerging needs of environmental development • Increased self sustainability; less dependence on Government funds • Better monitoring of State environmental policy
Deliverables	<ul style="list-style-type: none"> • Preparation of select District specific State of Environment Reports • Thematic position papers/studies on WEHAB • Development of Training and Education Material • Delivery of training at District, Block and Village level for PRIs, Line Departments, Local Bodies, NGOs etc. • Development of Marketing Tools and strengthening the information resource base

Capacity building of EPCO in CDM related work areas within the EPCO-DFID project would meet the goals, purpose and objectives of the project framework presented in the above table. Formulating and implementing a short-term, outcome oriented, pilot activity in specific areas has been the one of the prime strategies that has been adopted in the ongoing EPCO-DFID project to build capacity of the organisation as well as the individuals in those intended specific areas.

Adopting the same strategy, a separate pilot activity in CDM related work areas or adding to the scope of one of the ongoing pilot activity components to include building capacity in CDM related work areas could be an ideal strategy to build capacity of EPCO and its employees.

Formulating and mounting a separate pilot activity in CDM related work areas at mid-way of the project might warrant detailed review and approval at GoI and GoMP levels as it would have contractual and legal implications. But, adding to the scope of one of the ongoing pilot activities would have no such implications and is the best option considering the time constraints.

Under the pilot activity component, following are the pilot activities that are currently underway as part of the organisational capacity building strategy:

- Preparation of District specific State of Environment (SoE) Reports in selected 10 districts across the State;

- Thematic position papers/studies on WEHAB;
- Development of district-specific training material and delivering training workshops at all districts with an objective to include environmental concerns of that district in the corresponding district planning process; and
- Development of Marketing Tools and strengthening the information resource base

Upon review of various pilot activities mentioned above, pilot activity on analysing and preparing theme papers on WEHAB issues in the State of MP is an appropriate activity whose scope can be expanded to include CDM work areas. The major reasons for such a proposal include the following:

- There is immense business potential through CDM in WEHAB sectors in the State of MP;
- It is necessary for some agency in GoMP to assess the business potential through CDM in WEHAB sectors and formulate a long term strategy for integrating the same in the respective sector policies, programmes and developmental projects; and
- It is necessary to build awareness at various levels among the WEHAB sector stakeholders regarding the business opportunities through CDM.

Hence, it is proposed to expand the scope of WEHAB pilot activity component to include capacity building in CDM related work areas.

1.2.1 *Current Budget Allocation*

Expanding the scope of WEHAB pilot activity would warrant internal re-appropriation of the budget such that this proposal can be implemented. The current budget allocation as per the EPCO-DFID project memorandum is presented in *Table 1.3*

Table 1.3 *Original Budget Allocation for Pilot Activities under EPCO-DFID Project*

Budget heads	Total INR (Lakh.)	Type of Support
Preparation of select District specific State of Environment Reports leading to SEA	125.00	Financial Assistance (FA)
Thematic position papers/studies on WEHAB	50.00	FA
Development of Training and Education Material and delivering training at districts across the State	170.00	FA
Development of Marketing Tools and strengthening the information resource base	30.00	FA
Total - Activity Support	435.00	FA

WEHAB pilot activity has been provided with a budget of INR 50 lakhs (INR 5 million). The approach and methodology, work plan and budgetary estimates finalised for the WEHAB activity indicates that any expansion in scope would require additional funds through internal re-appropriation of budget from other components or activities within EPCO-DFID project.

1.2.2 *Re-Appropriation of Budget*

Presently, Training and awareness programmes as a pilot activity is proposed to be undertaken in all 48 districts of the State. Also, State of Environment (SoE) reporting and stakeholder consultation/disclosure workshops are proposed as another pilot activity in 10 districts of the State. In these 10 districts, both the pilot activities will result in duplication of efforts as for as consultation with and awareness building of district stakeholders are concerned. Hence, to avoid duplication of efforts and wasteful expenditure, it is proposed to drop 10 districts from the scope of training related pilot activity.

Based on the manpower and remaining project time available for undertaking training related activity, it is proposed to undertake training and awareness in 32 districts of the State. As SoE pilot project will cover another 10 districts of the State, extensive training and consultation with district stakeholders will be undertaken at 42 districts of the State which will be a substantial project footprint among the 48 districts of the State.

The budget provided for undertaking training and awareness in 48 districts can now be proportionately reduced to 32 districts and the extra budget available from this proposal can be re-appropriated to WEHAB activity for including CDM related capacity-building within its scope. If the budget is proportionately reduced and re-allocated, a sum of INR 56 lakhs (INR 5.6 million) can be re-appropriated from Training pilot activity to WEHAB and other such activities to dovetail this proposal on CDM related capacity building.

1.3 *BUILDING CAPACITY OF EPCO IN CDM WORK AREAS*

EPCO is contemplating to formulate a CDM cell to deliver the responsibilities entrusted on it as the State Level Nodal Agency for CDM work areas by GoMP. Internal capacity building in CDM related work areas is a precursor to start working in CDM work areas. Taking advantage of the ongoing EPCO-DFID project, it is proposed to build capacity of EPCO in CDM related work areas as part of the WEHAB pilot activity by expanding its scope of work under the project. The salient features of the proposal are presented in the following sections.

1.3.1 *Logical Framework for Capacity Building in CDM*

	Narrative Summary	Objectively verifiable indicators (OVI)	Means of Verification (MOV)	Assumptions
Goal	Build Capacity of EPCO such that it can effectively play the role of State Level Nodal Agency and facilitate accrual of multifarious benefits through CDM to the State of MP.	<ul style="list-style-type: none"> EPCO staff leading the consultation meeting and awareness programmes on Climate Change Business in MP 	<ul style="list-style-type: none"> Consultation meeting with stakeholders in GoMP 	<ul style="list-style-type: none"> Approval for including CDM pilot activity is obtained before 31st May'06

Goal (contd..)		<ul style="list-style-type: none"> • Co-ordinating one CDM proposal from line departments, agencies, PSUs of MP 	<ul style="list-style-type: none"> • One Climate Change Awareness Programme organised by EPCO in MP • Strategy paper on CDM cell at EPCO 	<ul style="list-style-type: none"> • As above
Purpose	Leverage financial incentive available through CDM for sustainable environment development, create livelihood opportunities to poor and optimal resource management for the overall benefit of the State and its people.	<ul style="list-style-type: none"> • Voluntary interest to invest in sustainable and cleaner technologies by line departments, agencies and PSUs • Voluntary interest to integrate livelihood opportunities for local community in CDM project proposals 	<ul style="list-style-type: none"> • One CDM proposal comprehensively covering GHG reduction, cleaner production, optimal resource utilisation, creating livelihood opportunities to poor and local community as the project benefits. 	<ul style="list-style-type: none"> • Line Departments show earnest interest to prepare projects that bring wider benefits than focussed only on GHG reduction.
Output	<ul style="list-style-type: none"> • Building capacity of a dedicated team at EPCO • Collaborating with National & International Organisations • Consultations and awareness programme for Stakeholders in MP • Action Plan to form a CDM cell in EPCO • Assessment of potential for CDM projects in WEHAB sector • Formulating a 5 year strategic action plan to implement CDM projects in WEHAB sector 	<ul style="list-style-type: none"> • A team of EPCO staff assigned responsibility to work in CDM related areas • Consultation and Awareness programmes with line departments, agencies and PSUs in MP • Defined potential for business opportunities in WEHAB sector through CDM • Stakeholder approved, agreed and owned Strategic Action Plan to implement CDM projects in WEHAB sector 	<ul style="list-style-type: none"> • Strategy Paper defining the mandate, structure, systems, resources etc to formulate CDM cell at EPCO • Completing Consultation and Awareness Programme during EPCO-DFID project with stakeholders in GoMP • Report on Assessment of Business Opportunities in WEHAB sector through CDM • A final document on Strategic Action Plan to implement CDM projects in WEHAB sector 	<ul style="list-style-type: none"> • Re-appropriation of budget within EPCO-DFID project is made to execute CDM related activity by 31st May'06
Activities	<ul style="list-style-type: none"> • Identify a dedicated team at EPCO • Build capacity of the team through national training • Networking with National and International Organisations working in CDM 	Milestone as specified in pilot activity work plan	<p>Consultation meetings with Stakeholders in MP</p> <p>Launch pilot awareness programme</p> <p>Physical verification.</p>	<p>Approval and re-appropriation of funds from ongoing EPCO-DFID project.</p> <p>Assumptions mentioned in above three rows.</p>

Activities (Contd.)	<ul style="list-style-type: none"> • Consultations with Stakeholders in MP • Launch pilot programme to build awareness on CDM among WEHAB stakeholders at all levels 	Milestone as specified in pilot activity work plan	Physical verification.	As above
Activities (Contd.)	<ul style="list-style-type: none"> • Prepare a strategy paper to launch a CDM cell at EPCO • Assessment of potential for CDM projects in WEHAB sector • Formulating a 5 year strategic action plan to implement CDM projects in WEHAB sector 	Milestone as specified in pilot activity work plan	Physical verification.	As above

1.3.2 *Resources Required Under EPCO-DFID Project*

Manpower

Executive Director of EPCO shall, with the help of Project Co-ordination Committee (PCC), identify one team leader and one associate from EPCO scientific and technical staff for leading this pilot activity.

The team leader and the associate shall preferably have preliminary knowledge about CDM related works, Climate change related protocols, conventions, global developments over the last two decades etc in order to understand the scope of team's role in the pilot activity and understand the requirements as specified in the logical framework outlined in the previous section.

The CDM related work would warrant the team to interact in a sustained manner with National Nodal agency (MoEF), State administration, various stakeholders in GoMP, national organisations etc and follow-up effectively the various commitments and actions allocated to the team. Hence the team leader and the associate member shall have good communication and basic computing skills to deliver the responsibilities effectively.

The team shall be provided with one temporary project employee hired outside EPCO with appropriate qualifications and experience as desired by the pilot team. The project fellow shall be recruited as per the prevailing rules of EPCO and for specified project duration.

The team shall also be supported by a national expert consultancy organisation or individual subject experts who are experienced in the field of CDM.

Material

The pilot activity team on CDM related works would require the following material resources:

- One laptop computer with broadband internet connection
- Network terminal to access and use resources in EPCO office
- Two cell phone connections (*one each for the team members*) with handset with an upper limit on phone expenses and for project duration
- LCD projector and other training equipments
- One vehicle for local transport as and when required
- Meeting room facilities at EPCO or at other venues in Bhopal for conducting stakeholder consultation meetings
- Training facilities at EPCO or at other venues in Bhopal for conducting pilot awareness programme on CDM for stakeholders in GoMP

Financial

The tentative budgetary estimates for undertaking the Pilot Project on CDM Work Areas, is presented in Table 1.4

Table 1.4 Budgetary Proposal for Pilot Project on CDM Work Area, in Indian Rupees

<i>Pilot Project Activities</i>	<i>Remuneration</i>	<i>Reimbursable</i>	<i>Miscellaneous</i>	<i>Key Assumptions</i>
Build capacity of the team through national training	100000	250000	25000	3 national training programs in India
Networking with National and International Organisations working in CDM	150000	-	10000	Team members spending about 50 days and project fellow another 50 days
Consultations with Stakeholders in MP	260000	125000	50000	5 major meetings held at Bhopal
Launch pilot programme on building awareness in CDM	350000	500000	100000	One major programme at Bhopal
Prepare a strategy paper to launch a CDM cell at EPCO	100000	-	10000	Consultations with PAC and PCC
Assessment of potential for CDM projects in WEHAB sector and formulation strategic action plan	1500000	500000	100000	Hiring one national expert organisation or individuals for a period of not less than 6 months
TOTAL EXPENSES	2460000	500000	295000	3255000

Adding administration and other incidental expenses, a sum of **INR 35,00,000** would be required to undertake the pilot activity on CDM related works with

an objective to build capacity of EPCO in CDM work areas in line with EPCO-DFID project framework.

Time

EPCO-DFID project is slated for completion by March 2007. Hence, a time period of 10 months from June 2006 to March 2007 can be allocated for executing this capacity building component on CDM.