



**United States Agency for International Development  
Greenhouse Gas Pollution Prevention Project  
Climate Change Supplement  
(GEP – CCS)**

**Fostering Climate Change Initiative for Sustainable Development**

**Task 1B**

**Building Sustainable Climate Change Center  
(Development Alternatives)**

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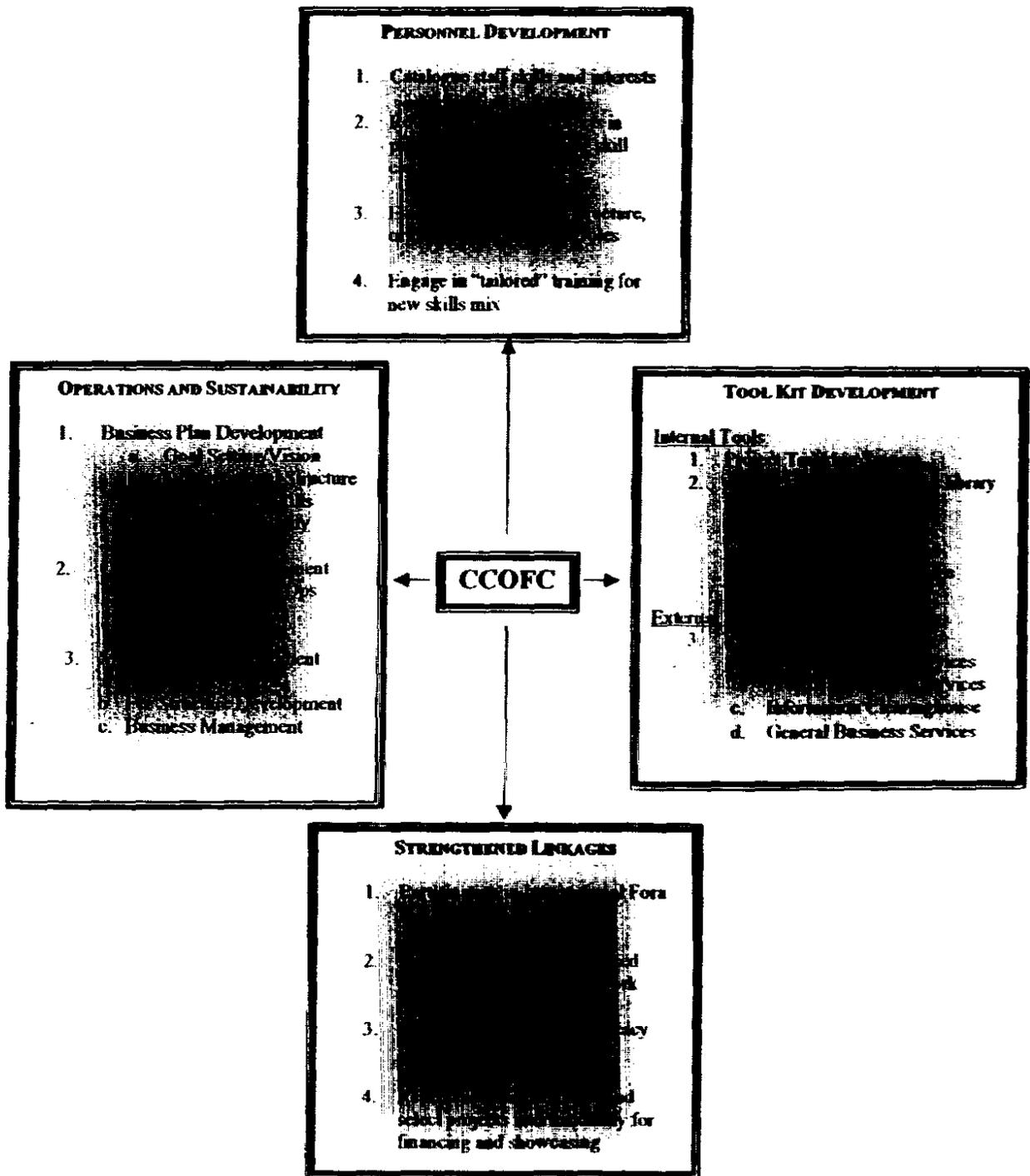


- Further develop its niche service area and identify other potential (and financially viable) service areas for its clientele.

Several of the specific actions suggested for each target area can be undertaken simultaneously to ensure that the CCOFC builds capacity in a timely and cost-effective manner. Where appropriate, USAID and GEP will assist DA in identifying training resources and partners to ensure its success.

The mission team believes the environment for climate change initiatives will be favorable for project development over the next several years. Based on its existing strengths, DA has ample opportunity to build the CCOFC into a viable program for spearheading these efforts for small, dispersed rural projects, and possibly for other market areas as well.

### Summary of Prioritized Recommendations



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## **SECTION II. METHODOLOGY**

### **Methodology for TNA**

The following procedure was utilized by the GEP mission team to produce this TNA report.

- Conduct a site visit to DA to interview staff about the current practices and future plans for CCOFC, facilitate and lead a self-assessment to identify needs, and assess the CCOFC capabilities with respect to the goals for the overall USAID climate change program.
- Review information concerning the structure of DA and CCOFC, including their website, printed brochures and program material, reference materials, training resources, proposed projects, business plans, and other information provided by USAID India.
- Based on the site visits and review of available information, conduct a detailed analysis of CCOFC focusing on identifying its strengths, weaknesses/obstacles, opportunities, impending changes and potential new directions of international climate change initiatives.
- Based on the analysis, develop an action plan and schedule of activities for CCOFC capacity building, focusing on those actions that will allow it to meet its goals quickly and cost-effectively.
- Generate ideas and a plan to build partnerships and linkages with organizations, programs, and projects within USAID, GEP, and private firms in the U.S. and elsewhere so that CCOFC can learn from or leverage these programs to meet its training needs, and to increase its visibility in the domestic and international climate change community.

### **SECTION III. SETTING THE "STAGE:" UNDERSTANDING THE TNA MISSION**

#### **Background**

The success of international climate change mitigation through market-based mechanisms will depend to a large extent on full involvement and participation of developing countries in Asia, because most estimates indicate that the largest growth of GHG emissions will be from this region. India, like other developing countries, will be in a position to participate in GHG emissions reduction efforts with the developed world using the various flexibility mechanisms only if the local institutions develop the legal, institutional, and financial skills to implement such instruments.

USAID's energy- and industry-related activities in India include promoting clean energy development, efficient energy use, and pollution reduction in key industries, especially with regard to GHG emissions. USAID seeks to strengthen incentives for the adoption of clean energy technologies and practices and certified environmental management systems that are climate friendly.

In its promotion of clean energy practices, the USAID program is consistent with the goals of sustainable development defined by the Bruntland Commission as "development that meets our current needs without compromising the capacity of future generations to meet theirs." Sustainable energy development involves the application of these principles to the energy field. Energy, and in particular electric energy, could be a key sector in the global quest for sustainable development given its positive impact on reduction of greenhouse gases.

USAID's Greenhouse Gas Pollution Prevention program (GEP) is designed to combine the strengths of Indian industry with the technological prowess of the U.S. to reduce GHG emissions. The newest Climate Change Supplement to the Greenhouse Gas Pollution Prevention Project (GEP-CCS) is designed to address climate change by focusing heavily on the power generation, transportation, and general industrial sectors. As part of the GEP program, USAID is providing support to Development Alternatives to strengthen its ability to interface with industrial clients and funding entities to bring both investment and sustainable energy technologies into India. To achieve this objective, it is necessary to assess the current status of



the CCOFC, training needs, and the structure and associated resources of Development Alternatives in relation to both ongoing and projected project activities. Based on the assessment, an action plan and schedule was created and is presented in Section VI of this report.

### **Introduction to Development Alternatives**

Development Alternatives (DA) is a non-profit research, development and consultancy organization established in 1983 to foster interactions needed to attain sustainable development. It is a global organization with headquarters in New Delhi, and is an integral component of the Development Alternatives Group, which also includes TARA (Technology and Action for Rural Advancement) and People First.

Development Alternatives has three main branches: Technology Systems, Environment Systems and Institutional Systems. The Environment Systems Branch, which designs environment and development management strategies at various geographic scales and levels of detail, includes the Global Environment Systems Group Climate Change Program. This program was created with support from USAID to address various facets of climate change including problem identification, impact assessment and formulation of response strategies. The Group is actively engaged in assessing the impact of climate change on agriculture, health and hydrology. Their research also focuses on sequestration of carbon dioxide by forests and other vegetation.

As part of the USAID "Climate Change Outreach and Awareness" activity, Sub-Task 1.1.1 Institutional Strengthening of Selected Indian Institutions on Climate Change Issues (CLIN 01) helped established a climate change center at Development Alternatives (DA), with the primary function of becoming an information and facilitation center for DA constituents on climate change issues. The Climate Change Center at DA focuses on rural and decentralized energy areas for greenhouse gas emissions reduction, and is called the Climate Change Outreach and Facilitation Center, or CCOFC.

### **The TNA Approach**

The mission team undertook a comprehensive review of DA's current operations and an evaluation of the institutional infrastructure needed to support the second phase of the GEP project, which is designed to further strengthen the institution and support its evolution into an efficient information and facilitation center. In order for the Mission team to assess DA's capacity building and training needs, it was necessary to examine their current mandate and training initiatives. This was completed through:

- Review of DA documentation provided through USAID India
- Review of DA's web site
- Site visit to DA to discuss current and projected program development initiatives
- Assessment of DA physical plant, reference materials and training resources
- Initial inventory of potential U.S.-based and key international counterpart institutions
- Post-mission discussions with USAID

As recommended by LBG/GEP, the mission team also examined CCOFC's attributes to establish a baseline from which an action plan could be tailored. The assessment focused on identifying CCOFC's internal strengths and weaknesses, its potential opportunities for growth, and impending changes foreseen in the climate change community. The conclusions and recommendations contained in this report are based on the approach outlined in this section.

### **Participants and Collaborators**

On Tuesday, 8<sup>th</sup> of August 2000 the Mission team visited the DA office in New Delhi, India. At this meeting USAID was represented by Ms. Kavita Sinha. Staff of DA present at the meeting included George C. Varughese (Vice President), Dr. K. Vijaya Lakshmi (Manager, Environment Systems Branch) and Dr. Vivek Kumar (Environmental Scientist).

The visit started with an overview of DA's activities by Mr. Varughese, and a review by Ms. Sinha of USAID's rationale for supporting DA's activities. This was followed by a general discussion with DA technical staff focusing on the relationship of emerging energy and climate change issues to DA's project development approach, training needs and overall objectives. The

mission team was given copies of DA's systems approach to Environmental Management along with the Perspective Framework, which contains a three-year projected budget and capacity-building goals. The Mission team continued to interact with DA as this TNA report was developed.



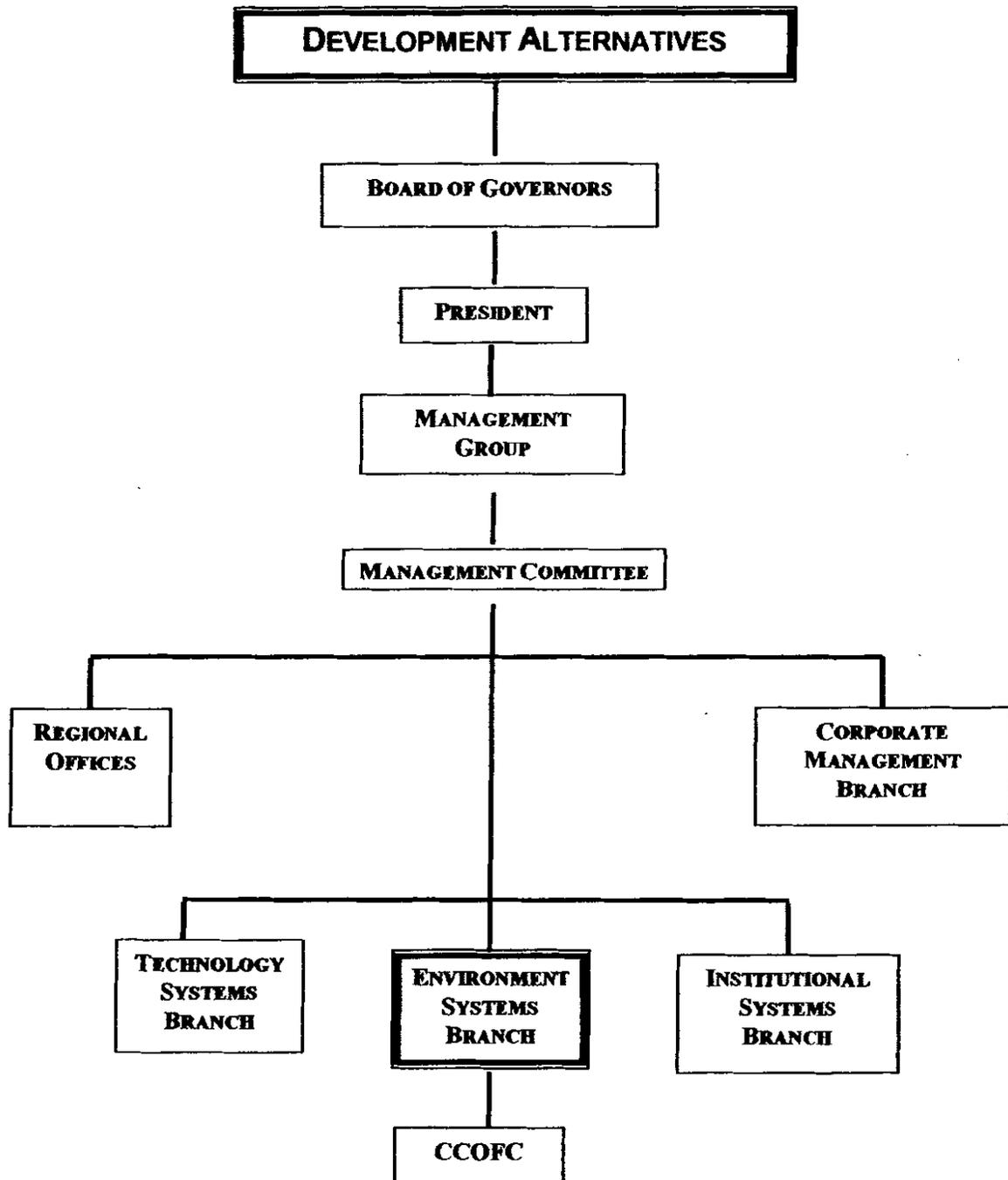
## **SECTION IV. TNA ANALYSIS**

### **DA Organization Structure - General**

The DA staff includes approximately 50 professionals in New Delhi, and 50 staff members in Bangalore, India. Graphic 1 depicts DA's organizational structure. It shows the three main branches of DA: Technology Systems, Environment Systems, and Institutional Systems. The Corporate Management Branch and Regional Offices support the others.



Graphic 1: DA Organizational Structure



Each staff member in DA is assigned to project development on a mission-specific basis, based on a combination of personal interest, technical background and availability. There is considerable flexibility in assigning staff to ongoing projects. There does not appear to be a systematic procedure or mechanism for assembling project teams. Therefore, it is not possible to assess the strengths and weaknesses of the current approach. This ad hoc approach has allowed DA to maintain flexibility and high utilization of its staff, but it may pose difficulties when projecting future needs of the organization in specific technical areas, such as those required for GHG emission reduction, technical energy systems consulting, or market-based mechanism project development.

#### **The Climate Change Outreach and Facilitation Center (CCOFC) of the Environmental Systems Branch of DA**

**Structure:** The CCOFC currently has a core staff of four professionals and one support person. The CCOFC has been highly dependent on support provided by other branches of DA, particularly the Institutions Systems Branch (ISB), which includes the *Development Alternatives Information Network (DAINET)* for information services, *The Training Systems Unit* for training, the *Communications Unit* for outreach and awareness building, and the *Computer Systems Unit*.

The CCOFC divides its services into four functional categories:

- *Outreach and Clearinghouse* - includes database on expertise, technology database, and servicing information needs (includes host country parties and investing country parties);
- *Brokerage and Advisory Services* – including identification of partners and technologies, providing linkages to reduce transaction costs, and assisting in negotiations and project formulation and approval processes;

- *Research* – defined as development of methodologies, analysis and estimation of baselines, analysis and documentation of climate change experience worldwide, and quantified indicators of sustainability for CDM projects; and

- *Capacity Building* - including training and institutional design.

### **Clientele**

DA's Climate Change Constituents (i.e. potential clients) can be divided into two major groups. The first group consists of those willing and able to pay for services – primarily large and medium companies adapting their businesses to accommodate climate change concerns. The second group comprises those without resources to pay – for example, farming communities, small entrepreneurs and similar stakeholders trying to accommodate climate change concerns with few resources.

The second category of potential clients is of particular interest because it includes projects that involve relatively small, dispersed systems. However, the mission team did not find information regarding a specific protocol or paradigm that DA is using for developing these projects, indicating it could be a new potential market niche.

CCOFC has identified eighteen projects they feel are suitable for development. However, the mission team was informed that no independent evaluation of these project proposals has been conducted.

### **CCOFC Articulates Its Needs**

DA has been proactively examining the requirements that must be met for CCOFC to become successful and sustainable. The mission team drew on two primary sources of information to examine the needs of the CCOFC. First, the team reviewed existing documents, and then facilitated a lengthy discussion with DA staff members to further articulate needs in brainstorming session.

DA provided the team with a report called "Perspective Framework" for the CCOFC, found in Annex A of this report (in full). In it, the DA staff identified three broad areas where capacity development is required to strengthen the CCOFC. These are summarized below:

1. *People – Expertise Development*: Develop skills of CCOFC staff through national and international training, exposure and exchange programs to broaden understanding on climate change issues, its implications as perceived by various stakeholders and sharpening of skills to develop a climate change program center that meets the needs of its constituency.
2. *Improvements in operational systems – efficiency*: A range of databases, check lists, operation manuals, and the like should be developed for climate change projects based on the experiences in other nations in light of India's needs. Climate change concerns also need to reach a wider audience of stakeholders in India. Therefore, a variety of outreach materials such as brochures, newsletters, videos, television capsules, and web sites should be developed. This will support various levels of workshops, meetings and conferences organized in different parts of the country as required.

Operational protocols and manuals for the CCOFC itself need to be developed and implemented. The first step in the process would be to formulate a business plan and strategy to cover the cost of providing services to those clients that have the potential to significantly reduce their GHG emissions, but lack the ability to pay for the services.

3. *Upgraded infrastructure and facilities*: A relatively small portion of resources (estimated as less than 10 percent) is required for upgrading DA's infrastructure and facilities such as computers, peripherals, and workshop equipment to improve the efficiency of the CCOFC.

The team also led a discussion on what specific capacity building requirements might exist for CCOFC, as seen by the DA staff. The following list was generated and during a brainstorming session divided in two general categories of (1) Upgrading staff expertise, and (2) upgrading physical infrastructure.

**Requirements for Upgrading Staff Expertise:**

- Increase knowledge of technical evaluation of CCMPs
- Decide on baseline and additionality for existing projects
- Develop knowledge of carbon valuing and accounting
- Gather case studies of existing projects, CCMP designs from other developing or Annex I countries
- Take study tours and attend seminars and conferences for training and to strengthen linkages & seminars/conferences
- Develop databases on funding agencies worldwide
- Design of certifying, M&V Agencies
- Develop rating system for CCMPs
- Create project identification and approval manual
- Assess methodologies for methane collection from landfills, including visits to projects utilizing these technologies

**Upgrading Infrastructure of Center:**

- Specialized software
- Efficient hardware
- Exclusive internet connection
- Information tools (brochures, manuals, CD-ROMS) for servicing client needs
- Efficient network and technical support

Other ideas included focusing on renewable energy, more closely monitoring CDM and its evolution, sustainability of the CCOFC in general, and working with farmers on methane generation issues. Based on these needs, DA submitted a projected budget found in Annex B.

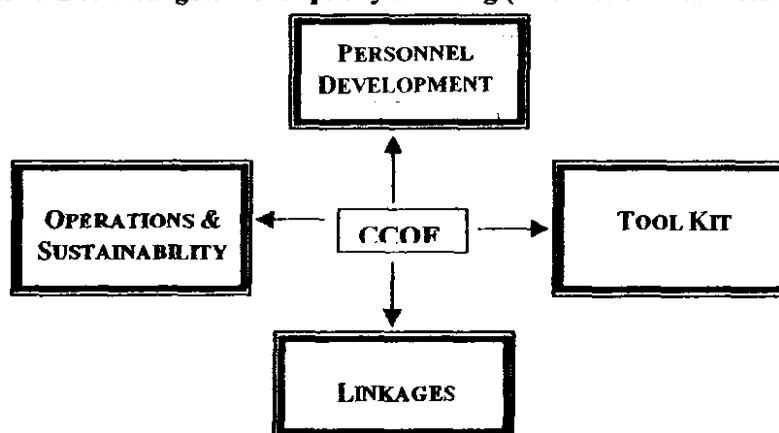
Graphic 2: SWOT Analysis Summary: CCOFC's Attributes and Baseline

<p>... internal resources for ... evaluation ... resources on project- ... small, dispersed rural ... with governmental ... with local clients</p> <ul style="list-style-type: none"> <li>• Primary mode of DA is community-driven, rather than globally-based</li> <li>• Sustainable development charter allows more politically acceptable project development than what may be perceived under the rubric of greenhouse gas mitigation or climate change</li> </ul>	<p><b>WEAKNESSES/OBSTACLES</b></p> <ul style="list-style-type: none"> <li>• No apparent project development</li> <li>• Difficulty in small, dispersed</li> <li>• Lack of accurate information</li> <li>• No systematic plan</li> <li>• Lack of knowledge of funding agency/organization requirements</li> <li>• Minimal or no evaluation of projects previously developed but currently unfunded</li> <li>• Historical reliance on individual 'person-to-person' contacts and skills rather than organizational capacity</li> </ul>
<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Increased opportunities to liaise with both domestic and international experts and counterpart organizations</li> <li>• Availability of project management and tracking software can reduce staff resource requirements</li> <li>• Teaching-training resources</li> <li>• Training</li> <li>• Exchange of knowledge</li> <li>• Software and related tools can</li> <li>• Increase DA institutional memory</li> </ul>	<p><b>IMPENDING CHANGE &amp; NEW DIRECTIONS</b></p> <ul style="list-style-type: none"> <li>• Increased international access through Internet will be possible and ultimately imperative</li> <li>• New carbon-based funding mechanisms and markets are likely to be established</li> <li>• Potential energy sector pricing reforms will assist market penetration of both renewable and efficient conventional energy systems</li> <li>• International protocols carbon-based initiatives demand for energy services</li> <li>• Emerging E-Commerce business transactions negotiation and project</li> </ul>

### Framework for Analysis and Action Plans

In an effort to better organize the analysis and action plan, the mission team developed a model based on four distinct categories or targets for capacity building at DA: 1) Personnel Development, 2) An Expanded "Toolkit," 3) Increased Linkages, and 4) An Operations and Sustainability Plan and System. Within each of these areas, priority actions have been identified, and together the activities encompass the requirements to build the capacity of the CCOFC. Graphic 3 presents the four categories by which the analysis and plan was developed.

**Graphic 3: Four Targets for Capacity Building (The Action Plan Framework)**



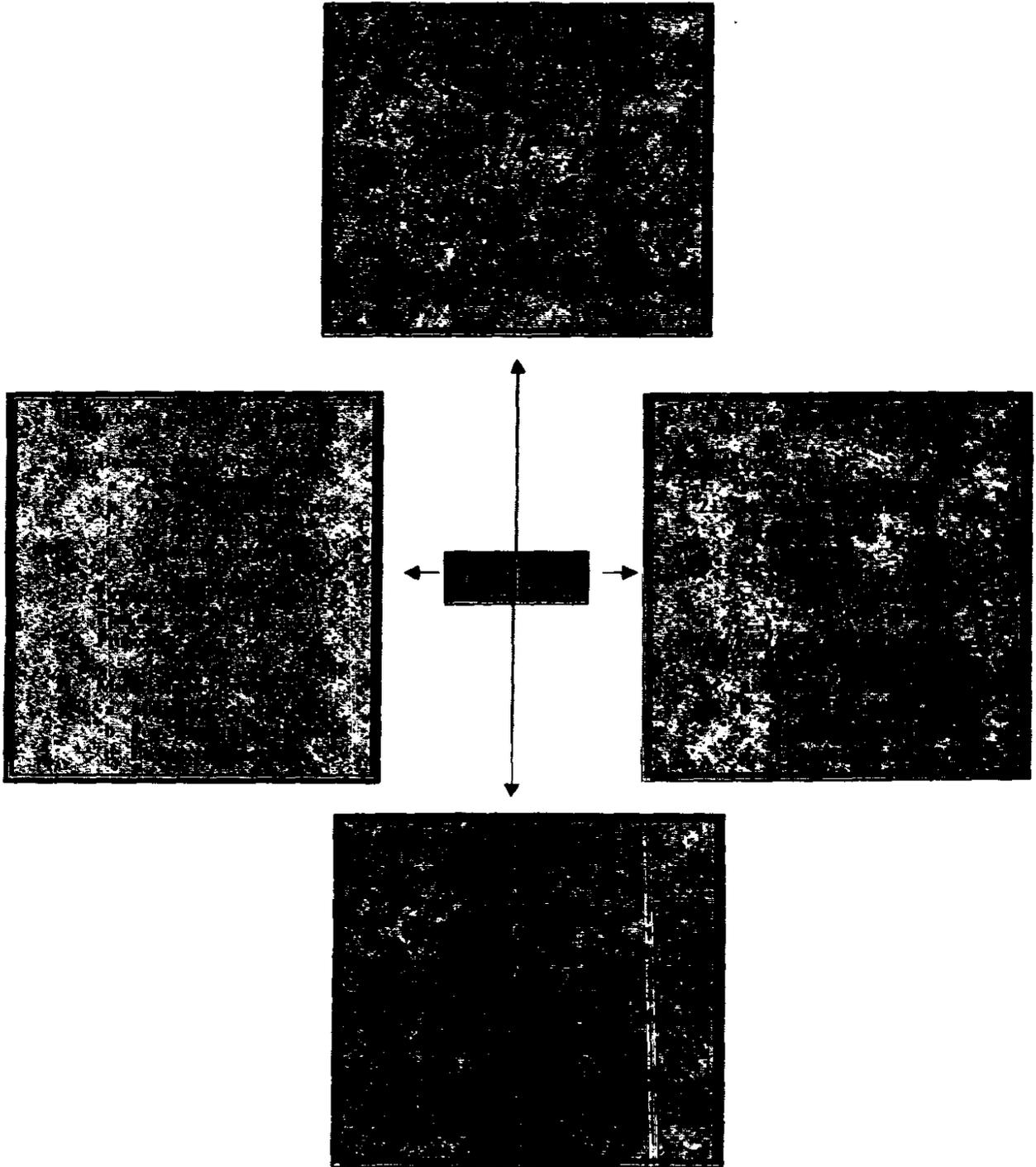
**Personnel Development:** This category includes all necessary capacity building activities for CCOFC and its staff. Under the plan, the skills needed by CCOFC staff to meet the needs of their clients will be enumerated.

**Tool Kit:** Under the toolkit category, the team presents additional "tools" or services needed for CCOFC to become a viable climate change center.

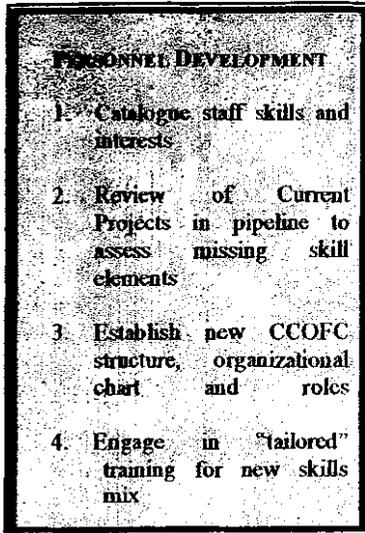
**Linkages:** This category prioritizes activities that DA should undertake to increase its access and network to the international and national leaders in climate change. These linkages also include expansion of DA's own client network.

**Operations and Sustainability:** This category contains the actions required to build the DA standard operating procedure for the CCOFC and its subsequent systems for all client services and fee collections.

**Graphic 4: Summary of Prioritized Recommendations**



**Target Area I: Personnel Development**



The team recommends that four primary activities be undertaken over the next few years to the mix of skills required to sustain the CCOFC. Each is elaborated upon below.

**1. Catalogue Skills and Interests:** Considerable importance should be placed on cataloging the experience and interests of DA's employees. This could be done through a personnel survey mechanism for the entire DA staff or just CCOFC staff. Because teams are brought together on an ad hoc basis for most DA projects it is doubtful this approach is suited to address the very technical requirements associated with the

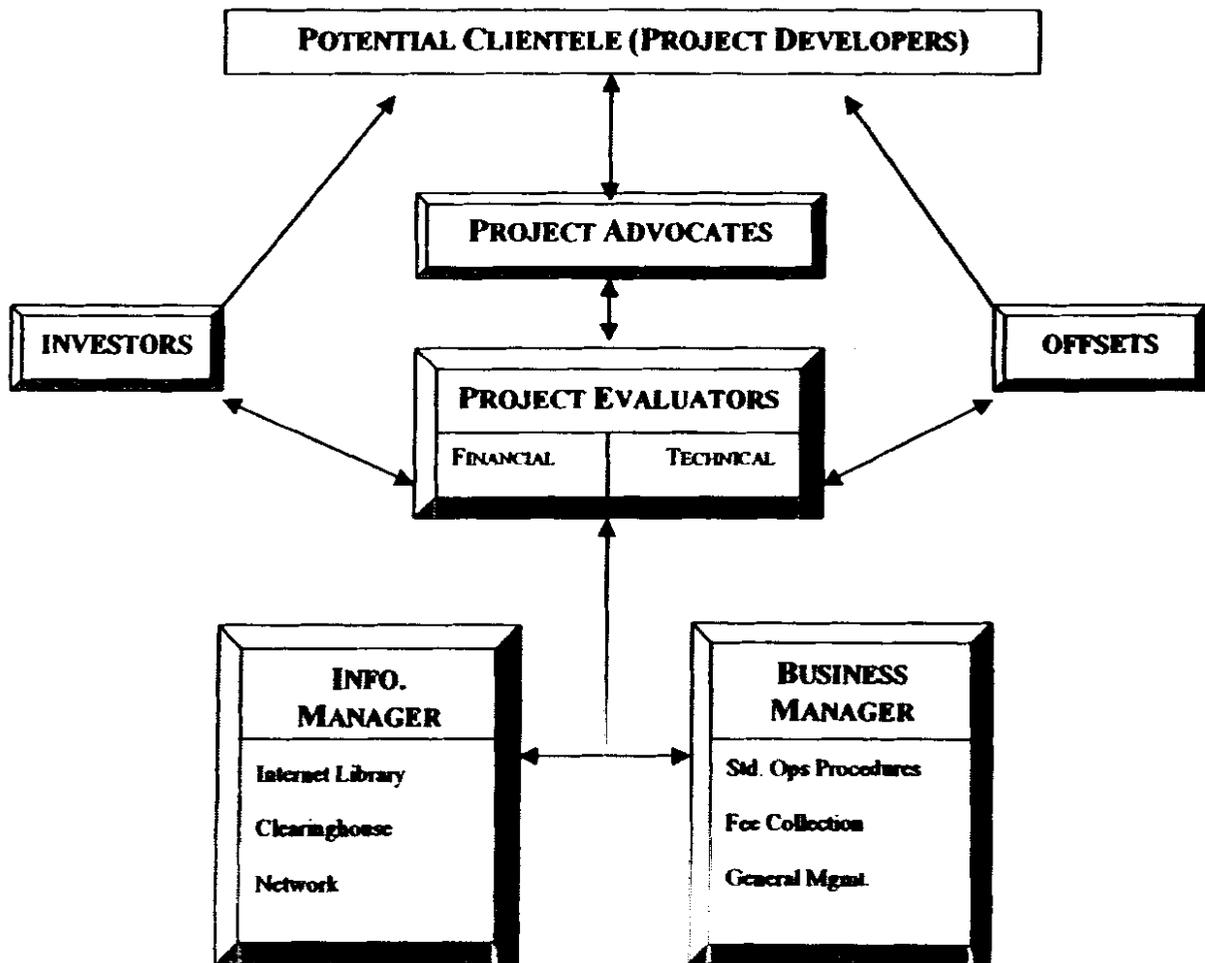
anticipated activities of the CCOFC. Therefore, the cataloguing will help narrow the number of personnel involved in these projects, with the goal of improving project management and efficiency. In addition to using the inventory as the basis for subsequent staff training, the information can be used to market DA capabilities to both potential clients and investors.

**2. Review of Current Proposed Projects and Requirements:** As earlier noted, DA has identified eighteen projects they believe to be suitable for development, although they have not been funded. The proposals developed to date should be systematically evaluated. The mission team recommends that an independent evaluation be conducted of these projects, based on established criteria of financial and technical acceptability for funding. The results of the evaluation will be instrumental in identifying the training requirements and areas of needed capacity building among the CCOFC staff. Additionally, project evaluation can help build the CCOFC toolkit by identifying required in-house expertise, and will help to establish future DA project evaluation and funding criteria.



4. **Establish New CCOFC Organizational Structure and Roles:** From a programmatic standpoint, four functional positions should be developed for the CCOFC: Project Advocates, Project Evaluators, Information Manager, and Business Manager. These positions should be filled by upgrading current staff capabilities or recruiting new staff. Graphic 5 illustrates a proposed model for consideration. However, the final organizational structure should be developed by DA, using outside expertise as required. Regardless of the structure chosen, the mission team recommends including a set of structured and complementary jobs that could promote specialization and skill development.

**Graphic 5: Illustrative Organizational Model for CCOFC**



Based on the proposed model, the job descriptions are as follows.

**PROJECT ADVOCATES:**

The Project Advocates would be the main advisors and primary interface with project developers. They would act as liaisons between the client and the DA technical team (Project Evaluators) and would synthesize information. The responsibilities associated with this position primarily include assisting clients in identifying and preparing future grant proposals. This position requires excellent communication skills as well as up-to-date knowledge of the increasingly complex requirements of climate change projects.

It is important that clients understand as early as possible both technical and financial requirements, as well as the project funding cycle, to minimize unreasonable expectations of project approval. Many of DA's potential clients will be focused on small, distributed projects, which present a unique set of problems in both project development and oversight. The Project Advocates should receive special training in this area addressing such issues as client coordination and use of project evaluation tools.

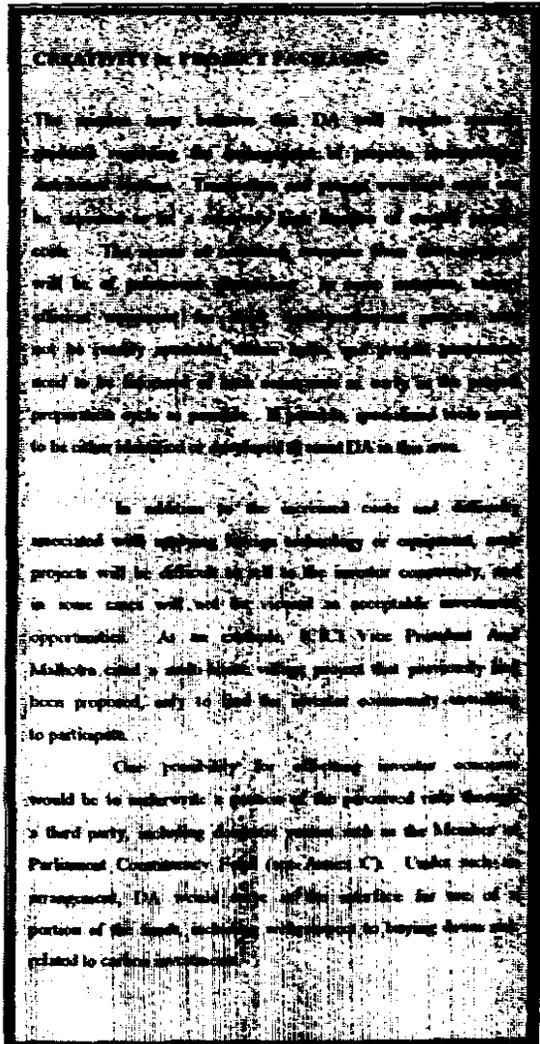
The mission team also recommends that two staff members be trained for the position of Project Advocate and that training would consist of several tailored workshop-like sessions. At a minimum, the Project Advocates should participate in a study tour within Asia that would focus on developing a sister program with another climate change service organization, preferably an NGO. For instance, the Philippines is a notable example of a country with an active and coordinated NGO alliance focused on sustainable development. Other programs may be identified through discussions between USAID India and USAID Washington.

ensure the detailed requirements for investors are complete and technically feasible. Project Evaluators could also specialize their skills, focusing on either financial or technical issues.

For financial specialists, a complete understanding of the requirements private investor community is needed so that those requirements would be properly reflected in CCOFC's project proposals. To develop this capability, the financial Project Evaluators would require training in financial analysis, market mechanisms, and investor requirements. They may also need training directly from investors themselves. These specialists will play a critical role in negotiations with the investor community.

One possible domestic resource to assist in preparing investor-related tools is Capital Fortunes Limited (CFL), based at Hyderabad, India (<http://www.capitalfortunes.com>). CFL is a Business and Project Advisory services company providing a range of financial services including in specialist areas such as infrastructure, privatization, overseas trade and technology collaborations. The Company has mobilized more than 8 billion Rupees in the past five years (182 Million US\$) in financial products. The company is active in the areas of Corporate and Project Advisory Services, Joint Venture and Foreign Collaborations, Mergers and Acquisitions, Restructuring and Turnarounds, and in Merchant Banking. The company's special areas of expertise include both the power and mining industries.

The skills needed for Technical Project Evaluators are slightly different. These evaluators will be required to identify the environmental benefits of projects, quantify GHG reduction, and



investigate social and non-financial benefits. This will be important when writing proposals that purport to promote energy efficiency and reduce greenhouse gases, particularly where the numeraires for identifying and quantifying social benefits and costs of projects often require a different set of tools than those employed for strictly financial measures. For example, the Global Environmental Facility (GEF) stresses projects where benefit-cost ratios, net present value (NPV) or internal rate of return (IRR) values are not favorable enough to attract investors employing conventional investment criteria, but where the environmental benefits exceed a basic threshold cost and where the removal of institutional barriers is a prime consideration. The DA Technical Project Evaluators can and must assure that the requisite benefits are properly determined and in the proper format to support the proposal development.

The Project Evaluators ideally would be drawn from the current DA staff, possibly as a result of the recommended staff evaluation. A training program would be developed to complement the skill mix of the rest of the CCOFC team. The training topics listed below as necessary should be integral elements in the program:

- Grants Opportunities and Requirements [Study Tour]
- Multilateral venues (e.g., GEF, World Bank, Asian Development Bank)
- Bilateral venues (e.g., US, UK, Netherlands)
- Domestic venues (e.g., Capital Fortunes Ltd.)
- Preparing Successful Grant Proposals [Workshop]
- Preparation of Grants Procedure Materials [Workshop]
- Conducting Briefing Workshops for Potential Clients [Workshop]
- Automating the Grant Proposal Process [Workshop]

An immediate venue for training one or more technical evaluators is the Second Annual Renewable Energy Finance Forum, organized by Euromoney Energy Events, which will take place in London from December 4-5, 2000. The Conference will bring together banks, utilities, energy companies, lawyers and consultants. This international conference is dedicated to exploring financial solutions for the renewable energy industry, and provides a unique platform not only to network with leading experts in the field, but also to obtain an update on the latest

technological breakthroughs in the global energy market place. If attendance cannot be coordinated, the proceedings and attendees list can be utilized as networking data, at a minimum.

Additionally, the Project Evaluators will investigate and research mechanisms that could be standardized for project development. Over time, these mechanisms could be automated for proposal development and included in the CCOFC tool kit. Topics might include analysis and estimation of baselines, analysis and documentation of climate change experience worldwide, or worksheets to quantify indicators of sustainability for CDM projects.

The mission team has identified professional and academic resources for training the Project Evaluators (see Annex D).

#### **INFORMATION MANAGERS:**

The Information Manager keeps abreast of all new and emerging developments in the area of climate change, and acts as the in-house research librarian. The Information Manager will also play a critical role in linking the CCOFC to the international community through web-based dialogue and data sharing. The Information Manager supports the work requirements of the Project Advocators and Project Evaluators, and might also field calls from clients who wish to gain information from the clearinghouse.

#### **BUSINESS MANAGER:**

The Business Manager for the CCOFC maintains the all accounts and management systems required to successfully run the center. This would include leading a DA team in the establishment of all standard operating procedures, the business plan, development of a viable fee schedule and collection method, and staff and personnel maintenance. The Business Manager might also provide consulting services, if appropriate, to small enterprises seeking guidance on general business management.

established, whose purpose would be to maintain highly qualified staff by addressing ongoing training needs of the institution.

**Target Area II: Toolkit Development**

**TOOL KIT DEVELOPMENT**

**Internal Tools:**

1. Project Tracking System
2. Internet-based information library and clearinghouse
  - a. Technical
  - b. Financial
  - c. General Climate Change

**External Tool Kits (Client Services):**

1. Establish Areas of Service
  - a. Project Advocate Services
  - b. Project Evaluation Services
  - c. Information Clearinghouse
  - d. General Business Services

The mission team recommends the creation of a tool kit for the CCOFC. The tool kit would comprise *internal tools* that promote good management practices, project and lead tracking and evaluation tools, and a system to maintain a strong resource library so that technical information is current and relevant. Tools should also be established for the CCOFC clients seeking assistance in climate change related projects (*external tools*). For this, the team recommends that the CCOFC finalize its areas of service and consulting, and subsequently create tools for each. Annex E contains additional ideas for tool kit generation.

1. *Internal Tools:* There are two primary areas that require immediate strengthening. The first area is a Climate Change project tracking system, which is currently under development as part of the LBG/GEP contract. Once the system is designed, it will be pilot tested and modified by staff at both the CCOFC and C4. The second area is the development of the information clearinghouse library and requisite technical and financial linkages. The design requirements and implementation for the latter will likely be led by the Information Manager with input from CCOFC staff and outside experts.

2. *External Toolkit:* The CCOFC will likely want to provide a variety of services to its clientele that would include data to help advise and develop GHG reduction projects. Potential tools for instance, worksheets, on-line tutorials, books and technical papers will be important tools to offer to CCOFC clients. The mission team recommends that DA complete an informal listing of the

biggest needs of the potential project developers and create its external tool kit based upon those needs. Ideas for tools within the toolkit might include: On-line tutorial on GHG Reduction Project Development; How to Conduct a Baseline Assessment; Worksheet on Calculating GHG Impacts through Technological Change, Carbon Costs & Process Modification Accounting Worksheets, Investor Toolkits, Project Case Studies, Additionality Determination Worksheets, and How to Conduct Technical Risk Assessment.

It is important to note that often it is easier to *create* an information clearinghouse than to *maintain* one. Thus, it is essential that DA understand the potential costs and time associated with keeping the clearinghouse updated with current information. The mission team strongly recommends that the CCOFC link with existing information houses to ease the burden on data collection and management.

**Target Area III: Strengthened Linkages**

**STRENGTHENED LINKAGES**

1. Participation in international fora and continuing education & training
2. Establishment of a Web Based linking system and/or network
3. Increase visibility and advocacy services for climate change
4. Represent clientele, India, and select projects internationally for financing and showcasing

The mission team recommends four principal activities to help the CCOFC establish stronger linkages within the international community, on a national basis, and among local clientele.

*1. Participation in International Events:* The CCOFC should build and keep a calendar of international events related to climate change. This calendar would serve as the basis for tracking the extent of DA staff involvement. Once the CCOFC establishes a list of organizations

engaged in this topic, a point of contact within that organization should be established and maintained. Often, these personal relationships result in invitations to participate in or lead technical sessions at these conferences and dialogues. This type of exposure, interconnectedness, and technology transfer could great benefit the CCOFC.

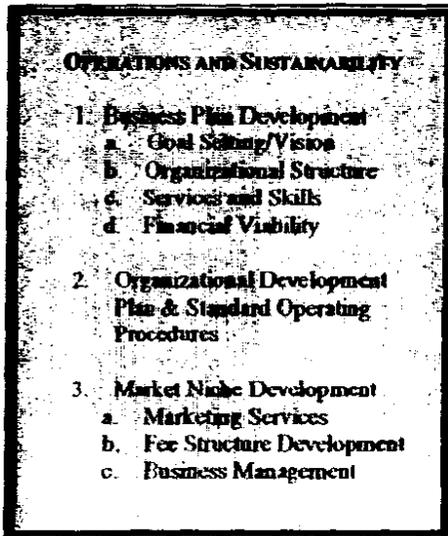


**2. Web-Based Linkages and Network:** Part of the CCOFC's mission should be to aggressively foster linkages via the internet. Several options exist for doing this, including hot linking to other organizations web sites, hosting a chat room or on-line dialogue on climate change issues, and/or maintaining an interactive CCOFC web site from which data, reports and worksheets could be downloaded. These activities are dependent on available computer equipment and internet connection, which are addressed in the next target area.

**3. Increased National Visibility and Advocacy Services:** The mission team believes it is important for the CCOFC to gain national visibility for its services. This will not only help to stimulate new project development, but will serve communities by increasing the level of awareness of climate change and the need for action. The team recommends that DA investigate a modest education / advertising campaign targeted at its niche market. Additionally, DA should seek linkages with other Indian organizations that promote environmental and social awareness, utilizing its already strong reputation in this field.

**4. Increased International Representation:** DA should actively seek opportunities to be "spotlighted" for its grassroots efforts on climate change. Some of the activities previously discussed will help establish the linkages necessary to participate in international events. However, the mission team recommends that the CCOFC staff make a concerted effort to share lessons learned from India on the international circuit of conferences, symposia, workshops and publications. Once several Indian projects have been financed, it is imperative that these case studies be fully documented and shared worldwide.

**Target Area IV: Operation and Sustainability Plan**



The mission team recommends that three major activities be undertaken by DA to strengthen its operations and sustainability efforts. These include creating a living business plan, memorializing the organizational development with a systematic planning document and standard operating procedure guidance, and finally, clearly articulating CCOFC's long term potential markets and short term target markets niche.

**1. The Business Plan:** The formulation of a dynamic business plan to serve as an ongoing template as the CCOFC grows and DA programs evolves. Although

broad areas of capacity development have been identified, DA has not yet developed a long-term, sequenced business plan. However, DA staff also recognize that they currently do not have the resources with which to establish such a plan. Mr. Varughese did provide the outline of a three-year staged business plan with accompanying budget to the mission team, and considerable time was spent discussing how to systematically build on this plan. A portion of this discussion is embodied in the following recommendation.

The mission team and DA staff recognize that external guidance is needed to develop a suitable business plan if the organization expects to be viewed as viable by clients, investors, as well and donor agencies. DA's Non-Governmental Organization (NGO) status has promoted a relatively ad hoc approach to project identification and oversight, and which may be a major factor in the lack of project approval to date. The mission team recommends that DA senior management study the organizational structure of select overseas NGOs engaged in sustainable energy development, facilitated by the GEP project team. In addition, providing external business planning expertise may be needed by DA to complete the plan in a timely manner.

**2. Organizational Development Plan and Standard Operating Procedures:** To the extent possible, the mission team recommends that DA document its plans for growth and development,



as well as its procedures for operation. To date, the ad-hoc project development system has afforded DA flexibility and creativity in addressing clients needs; however, the current system is not optimal for long-term growth, as it relies too heavily on individual talents rather than building organizational expertise. Creating a organizational development plan should incorporate the skills required by the market to grow and provide value-added services. It would assess both organizational needs and in-house skill requirements. Standard operating procedures will help to reduce the learning curve and capture institutional knowledge. The mission team believes that this type of standardization will be a powerful tool for growth of the CCOFC.

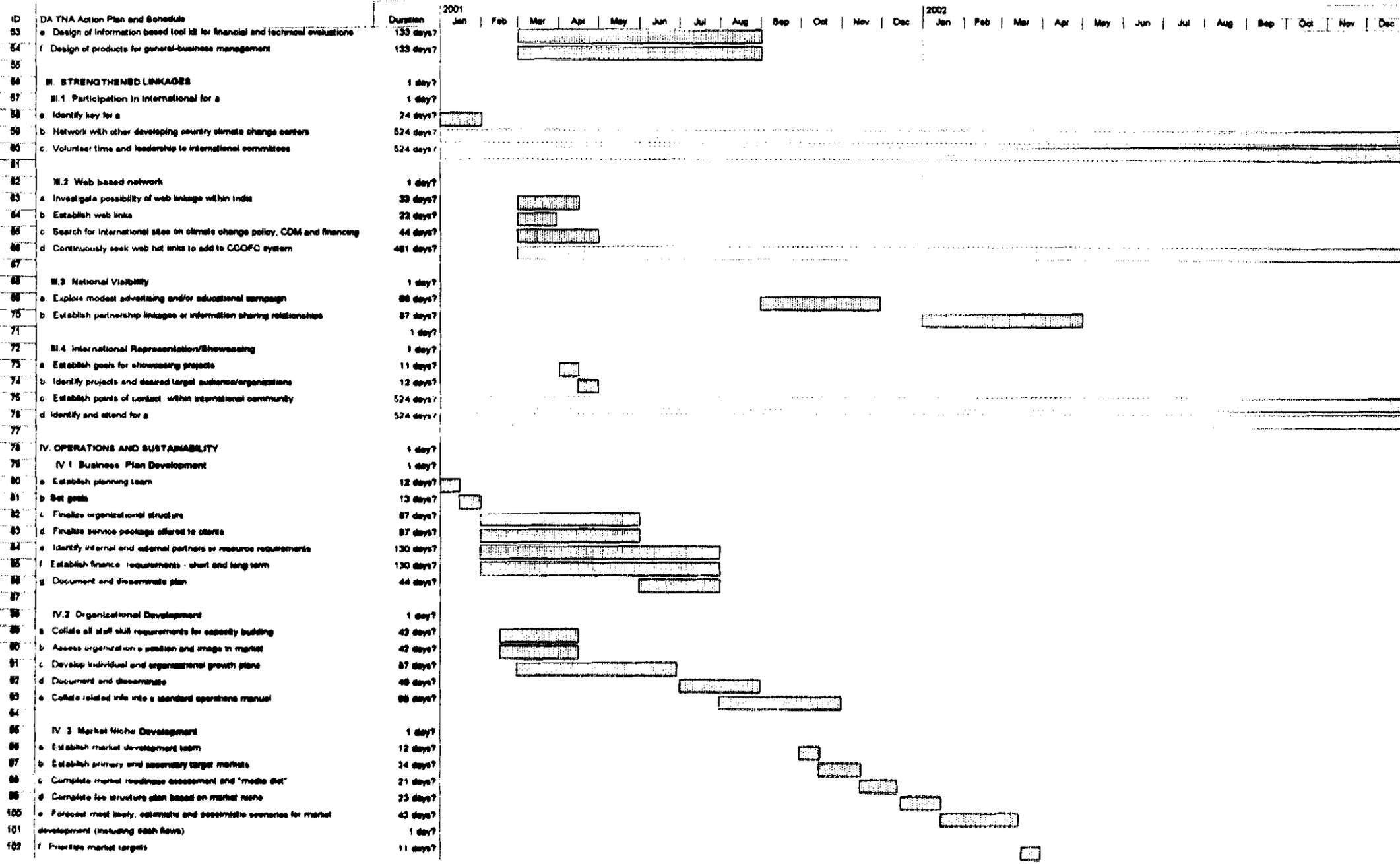
**3. Market Niche Development:** Finally, the mission team recommends that DA perform further analysis on identifying its market niche in the development of climate change projects. The mission team believes the most logical clientele consists of rural-based projects generally being developed by SMEs. However, further analysis may be necessary to ensure that the potential clients could sustain the CCOFC's operations over time. Thus, the mission team recommends that DA establish a market development team or committee that will identify two or more distinct market possibilities. Within each, analysis and data gathering will determine the viability of that market. DA should then determine a realistic payment structure for services within both markets, and project income forecasts (both optimistic and pessimistic). Based on this information, DA should choose its primary markets.

**SECTION VI: ACTION PLAN AND SCHEDULE**

The following section presents an action plan and schedule for all recommendations presented in this report.

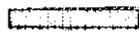




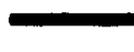


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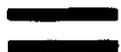
Task  
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Progress  
Milestones



Summary  
Project Summary



External Tasks  
External Milestones



Deadline

## Annex A: DA's "Perspective Framework"

### DEVELOPMENT ALTERNATIVES CLIMATE CHANGE OUTREACH AND FACILITATION CENTRE

#### PERSPECTIVE FRAMEWORK

##### Purpose:

- To facilitate various sections of society in India to reduce Green House Gas (GHC) emissions in their day to day operations through internalized action and global cooperation.

##### Evolution:

- Prior to 1995, Development Alternative was essentially working on the science of climate change issues focusing on understanding impacts of climate change on various activities in society and attempting to evolve appropriate response strategies.
- **Phase I – Initiation - January 1995 to December 1998**  
The idea of a CCOFC was born with the first JI Conference organized by Development Alternative in January 1995. Activities to establish a CCOFC was initiated.
- **Phase II – Pilot - January 1999 - May 2000**  
The CCOFC was formally set up in 1999 with support from the USAID, under the Climate Change Outreach and Awareness project. This project, which will continue till May 2000, has allowed for a test-run of the CCOFC before it can be meaningfully established with clear priorities.
- **Phase III – Establishment - June 2000 to May 2004**  
With the experience during Phase I and II, this phase will focus on establishing an efficient and market oriented CCOFC through substantive capacity building.

##### Clients Segments

Two broad client segments have been identified for the Development Alternatives CCOFC:

- Sections that have the capacity and willingness to pay for services that they require- primarily large and medium business sector adapting their business to climate change concerns.

- Sections that do not possess the resources to pay for the services provided to them-farming communities, small entrepreneurs and other similar stakeholders in society adapting to climate change concerns.

While the later will pay for a small part of expenses incurred on them, the balance will be partially cross subsidized through surpluses from the former and support from public funds, both national and international.

#### CAPACITY BUILDING OF THE CCOFC

- Structure up to Phase II
  - ◊ The CCOFC currently has a core staff of four professionals and one support staff.
  - ◊ On substantive issues, they are supported by subject area specialists drawn from the Environment Systems Branch (ESB) and the Technology Systems Branch (TSB) of Development Alternatives.
  - ◊ On logistical issues, they are supported by the institutions Systems Branch (ISB) which includes Development Alternative information Network (DAINET) for information services, the Training systems Unit for training, the Communications Unit for outreach and awareness building and the Computer Systems Unit.
- Build up in Phase III

Since the CCOFC has been in nascent stages, the core has been more dependent on the support provided by other units of Development Alternative. However, it is envisaged that while the core will still remain small (maximum up to six professionals by 2003), their capacity will be considerably enhanced to reduce dependents on supporting units and build synergies for efficiency and market orientation.

- The three broad areas where capacity development is required are:
  - ◊ People-expertise development
    - Essentially through national and international training, exposure and exchange programmes which broaden the understanding of the CCOFC personnel on climate change issues its implications (as perceived by various stakeholders) and sharpening of skills to operationalize response mechanisms.
  - ◊ Improvement in operational systems-efficiency
    - A whole range of databases, checklists, operational manuals, etc. need to be develop based on experiences in different parts of the world and critical research in the Indian context.
    - At the same time climate change concerns need to reach wider audience of stakeholder in India and also key global players. A variety of outreach materials including brochures, newsletters, videos, television capsules,

internet portal, etc. need to be developed. This will support various levels of workshops, meeting and conferences organized in different parts of the country from time to time.

- The operational protocols and manuals for the CCOFC itself would have to be developed and operationalized. The first step in the process would include formulation of a business plan and a fund raising strategy to cover costs involved in providing services to clients that are currently or potentially high GHG emitters but are not in a position to pay for the services.
- ◊ Upgraded infrastructure and facilities
  - A marginal amount of the resources (less than 10%) needs to be allocated for upgradation of infrastructure and facilities like computers, peripherals, critical workshop equipment, etc. to improve the efficiency of the CCOFC and bring it to an acceptable level of market competence.

#### Functions:

- **Outreach and Clearing House**
  - ◊ Database on expertise
  - ◊ Database on technologies
  - ◊ Servicing information needs
    - ⇒ Host country parties
    - ⇒ Investing country parties
- **Brokerage**
  - ◊ Identification of partners and technologies
  - ◊ Providing linkages to reduce transaction costs
  - ◊ Assisting in negotiations
- **Advisory Services**
  - ◊ Project formulation
  - ◊ Approval process
- **Research**
  - ◊ Development of methodologies
  - ◊ Analysis and estimation of baselines
  - ◊ Analysis and documentation of experience world-wide
  - ◊ Quantified indicators of sustainability for CDM projects
- **Capacity Building (external)**
  - ◊ Training
  - ◊ Institutional design

**ANNEX B: PROJECTED DEVELOPMENT ALTERNATIVES BUDGET****Table II: DA CCOFC Proposed Budget**

Financial Projections (in Lac Rupees)

	Year I	Year II	Year III	Year IV	Total
Total Costs	39.0	50.5	58.0	61.0	208.5
USAID Support	39.0	40.0	40.0	40.0	159.0
% of Support	100	79	69	66	76 (AV)
Revenue Generation	0	10.5	18.0	21.0	49.5
Infrastructure Needs	5.0	4.0	3.0	0	12.0

**ANNEX C: MP CONSTITUENCY FUND**

**MEMBER OF PARLIAMENT LOCAL AREA DEVELOPMENT SCHEME (MPLADS)**

The Members of Parliament Local Area Development Scheme (MPLADS) was created in December 1993 to allow members of Parliament to recommend capital works projects to be carried out in their constituencies. Under the Scheme, each Member of Lok Sabha (Lower House of the Parliament) is allowed to suggest, to the concerned District Collector, works of a limited financial level (initially Rs.1 crore per year) to be taken up in his/her constituency, from one or more district(s) from the State from which he / she has been elected. The nominated Members of Parliament from both Lok Sabha and Rajya Sabha (Council of States) may also select one or more district(s) but only within the State / Union Territory of their choice.

Eligible projects include private and joint sector infrastructure projects in coal, power, petroleum & natural gas sectors costing Rs.100 crores and above. The scope of these studies may relate to study of their existing capacity, capacity utilization, reasons for poor performance, conditions for better performance, aspects of linkages, related managerial and organizational issues and solutions, development of system dynamics and forecasting models for infrastructure development and management.

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## ANNEX E: TOOLKIT RESOURCES

It is not feasible to identify a 'correct' training program addressing issues such as baseline calculations for carbon credits or greenhouse gas reductions under any international convention until agreements have been established by the various stakeholders. However, some initiatives have been undertaken that seek to anticipate both established procedures and current uncertainties. These are described briefly below, and could form the basis for a more comprehensive baseline toolkit components when the market is established.

### Baseline Determinations

#### GHG Protocol Initiative

The initiative brings together many leading experts on greenhouse gas emissions. The participants, drawn from business, governments and non-governmental organizations are working in partnership to design, disseminate and promote the use of an international corporate protocol for measuring and reporting business greenhouse gas emissions. Success in this initiative will be characterized by the adoption of the protocol as it is a useful, practical, high-quality product developed through an open and collaborative process. The initiative's outputs will include a phased delivery of three modules: core operations, product life cycle and carbon sequestration, together with implementation tools and supporting guidance.

However, it is possible to indicate the various requirements for any such training tool with respect to carbon credit baseline determination. They include the following:

- utilization of the best available information (data, professional judgment and local knowledge);
- transparency (document data sources, assumptions and methods used);
- explicit treatment of uncertainty (see below) in the data required for defining an emission reduction or the methodology for determining the baseline;
- inclusion of both qualitative and quantitative information;

- information that is specific to the project type and/or sector;
- realistic scenario development for different baseline definitions;
- global consistency; and
- focus on the long term.

The project is developing three related modules to provide guidance on measuring and reporting greenhouse gases from a company's core operations, product life cycle and sequestration. The core operations module, to be released first, will provide over-arching guidance on boundary and reporting issues. It will include a web tool based on a flexible, but structured reporting framework which will offer guidance for estimating emissions from energy usage and transportation, as well as specific sectors. It will include an international database of default emissions factors for major fuel types and grid electricity.

The World Resources Institute will have a test draft of a core operations module of the GHG Protocol Initiative by the end of October 2000. The core operation module provides guidance on developing a corporate greenhouse gas inventory. It consists of guidance on establishing GHG accounting principles, planning an inventory, establishing reporting boundaries, setting and adjusting baselines, assessing inventory quality, and reporting. It also provides measurement protocols (guidance and worksheets) that guide the user through the task of measuring GHGs from sector specific sources such as cement, lime, adipic acid, aluminum, nitric acid, and ammonia manufacture. It also provides measurement guidance for measuring GHG emissions from cross sector sources (sources of GHG emissions that are common across sectors), e.g., stationary combustion, mobile combustion, HFCs from air conditioning and refrigeration, and solid waste). The WRJ approach focuses on compiling a company or corporate level inventory; differences in some of the issues pertaining to establishing baselines for projects (e.g. additionality, leakage, etc.) are not addressed.

#### International Finance Corporation (IFC)

The IFC, a member of the World Bank Group, has developed a software tool for tracking project based greenhouse gases. Their measurement tools are not as robust as the ones

developed by WRI, but their simplicity and tailoring to projects rather than companies might make them of interest to Development Alternatives. Mr. Akira Tanabe of IFC (phone 1-202 473 3873) indicated that peer reviewed of the draft version of the tool has been completed, and the final working version will be placed on the IFC website free of charge to all users as early as 1 December 2000.

### Investor Toolkit Options

The World Resources Institute (WRI) has identified a new method of assessing a company's prospective financial exposure to environmental risks that could give investors an edge when making investment decisions. WRI economists Robert Repetto and Duncan Austin in their new report, *Pure Profit: The Financial Implications of Environmental Performance*, "knowing ahead of time which companies are better positioned to deal with environmental issues could pay off handsomely in superior investment performance." Until this report, there has been no way of accurately assessing a company's prospective financial exposure to environmental risks and opportunities. A 1999 study by the United Nations Environment Programme, UNEP Financial Institutions Initiative Survey, says that the most significant obstacle to integrating environment issues into credit and investment analysis is translating environmental impacts into financial implications. The new method developed by WRI addresses this obstacle. It is forward-looking and makes use of scenarios regarding environmental developments. Fully consistent with established financial valuation techniques, it allows investors to translate environmental issues into the financial terms that they need to make sound investment choices. "Not only is the approach suitable as a tool for investment analysis, it could also be used to assess credit ratings and insurance risks," said Repetto and Austin. "The approach can also easily be adapted for use by company managers as an internal strategic planning tool."

### The Global Reporting Initiative

The Global Reporting Initiative was formed by CERES (Coalition for Environmentally Responsible Economies) as a coalition of social investors and environmental organizations. Its mission is to design globally applicable guidelines for preparing



enterprise-level sustainability reports. The GRI promotes international harmonization in the reporting of relevant and credible corporate environmental, social and economic performance information to enhance responsible decision-making. The GRI plans to release revised guidelines in June of this year. Also available on the GRI site are memos outlining the revision process and meeting information, as well as other documentation relating to GRI meetings and issues in the Documents and Feedback section. (<http://www.globalreporting.org/>)