



**SIGNATURE PAGE**

Country: Islamic Republic of Pakistan

UNDAF Outcome(s)/Indicator(s): Improved living conditions through environmental Management for sustainable development

Expected Outcome(s)/Indicator (s): A comprehensive approach integrating environmentally sustainable development and global environmental concerns and commitments in national development planning with emphasis on poverty reduction and quality gender analysis

Expected Output(s)/Indicator(s): Commitments under global conventions on biodiversity, climate change and land degradation being implemented, with adequate attention to gender issues.

Implementing Partner Aga Khan Planning and Building Services, Pakistan

(Designated institution/Executing agency) Ministry of Environment Government of Pakistan

Other Partners: Relevant provincial departments, Line agencies, Local NGOs and local committees.

Programme Period: 4 years  
 Programme Component: Environment  
 Programme Title: Promotion of Energy Efficient Cooking, Heating and Housing Technologies  
 Project ID: 00048996 (PAK10)

Total budget: USD 2,463,500  
 Allocated resources:  
 • GEF 975,000  
 • UNDP 150,000  
 • In kind contributions 1338,500

Agreed by Economic Affairs Division (EAD):

Signature

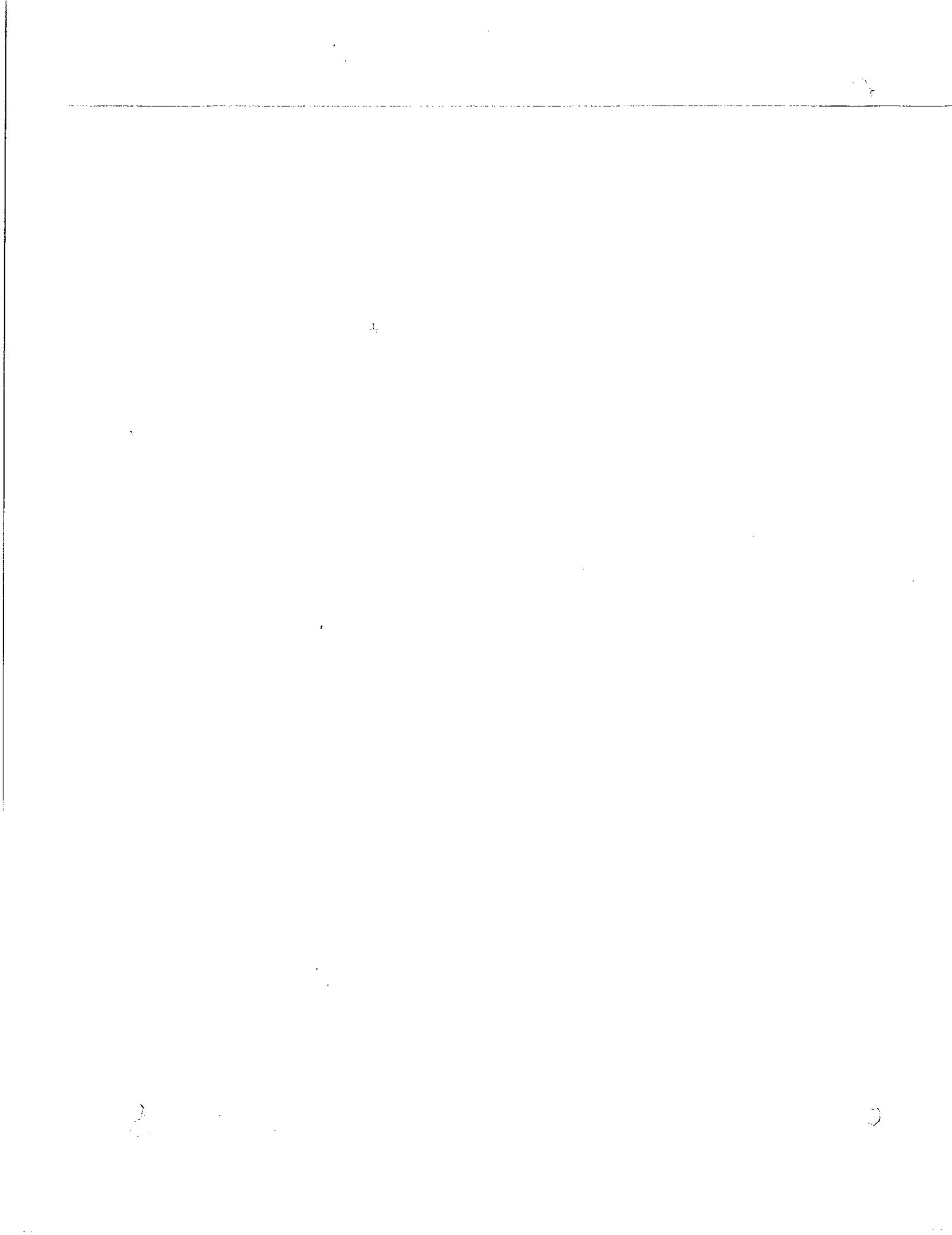
Name and Title  
**FARRAKH QAYYUM**  
 Secretary  
 Economic Affairs Division  
 Government of Pakistan  
 Islamabad

Agreed by Aga Khan Planning And Building Services, Pakistan.

**ASIF MERCHANT**  
 CHIEF EXECUTIVE OFFICER  
 Acting Country Director  
 United Nations Development Programme  
 Islamabad, Pakistan

Agreed by UNDP:

2/1/09





UNDP Project Document

**UNDP-GEF Medium-Size Project (MSP)**

Government of Pakistan

United Nations Development Programme

Inline Agencies

Executing Agency-AKF/AKPBSF

Partners-GoNA /GoNWFP/ AKCSP/ AKRSP/WWF/ CBRM/ ADPC/ SKAT/ local Communities

**GEFSEC PROJECT ID: 2526**

**Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)**

**Brief Description**

The project intends to curb degradation of the Northern Areas and Chitral forest and decrease the CO<sub>2</sub> emissions resulting from excessive use of timber and fuel wood for house construction and household energy use. This aim will be achieved through promotion and assistance to local communities to reduce dependence on forests products by installing and adopting energy efficient housing and technological (EE & HI) products, such as fuel efficient stoves, water warming facility, floor insulation, roof-hatch window, etc. in improving their built environmental and socio-economic conditions. Development of market -support mechanisms and a policy enabling environment to facilitate broad-based opportunity of installation and use of these EE & HI products, specially at the regional level, will also be a part of the project intervention for long terms social and environmental sustainability and reduction of GHGs, thereby reducing pressure on forest resources, maintaining and enhancing carbon sinks, and improving the forest productivity, ecological services and biodiversity. With a four year duration, experiences gained and lessons learned would be shared for possible replication in other similar areas in the Asia to help address such issues in the larger Asia region.

### Abbreviations and Acronyms

ADPC	Asian Disaster Preparedness Centre
AKDN	Aga Khan Development Network
AKF	Aga Khan Foundation
AKPBSP	Aga Khan Planning and Building Service, Pakistan
AKRSP	Aga Khan Rural Support Programme
AKCSP	Aga Khan Culture Service, Pakistan
APR	Annual Project Report
ARI	Acute Respiratory Illness
AWP	Annual Work Plan
BACIP	Building and Construction Improvement Program
BAP	Bio-diversity Action Plan
CBD	Convention on Biological Diversity
CDBRM	Community Based Resource management
CBO	Community Based Organizations
CCD	Climate Change and Desertification
CC	Conveying Committee
CDM	Clean Development Mechanism
CFM	Collaborative Forest Management
CO2	Carbon Dioxide
CPAP	Country Program Action Plan
EE	Energy Efficient
FMFB	First Micro Finance Bank
GHC	Green House Gases
GEF	Global Environmental Facility
GHG	Green House Gases
GoNWFP	Government of North West Frontier Province
GOP	Government of Pakistan
HDGI	Hot Dipped Galvanised Iron
HDIP	Hydro Carbon Development Institute of Pakistan
HID	Human and Institutional Development
IA	Inline Agency
IW	Inception Workshop
MACP	Mountain Areas Conservancy Project
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MTR	Mid-Term Review
NA	Northern Areas
NCS	National Conservation Strategy
NEQS	National Environment Quality Standards
NEAP	National Environmental Action Plan
NGO	Non-Governmental Organization
NIP	National Implementation Plan
NRM	Natural Resource Management
NWFP	North West Frontier Province
PAC	Project Advisory Committee
P&DD	Planning and Development Department
PDF -A	Project Development Fund Block A
ECRET	Pakistan Council for Renewable Energy and Technology
PEECH	Promotion of Energy Efficient Cooking Heating and Housing Technologies

PEPA	Pakistan Environment Protection Act
PIR	Project Implementation Review
RCU	Regional Coordinating Unit
SGP	Small Grants Program
SKAT	Swiss Resource Centre and Consultancies for Development
SP	Support Program
SPSC	Sarhad Provincial Conservation Strategy
TPR	Tripartite Review
TR	Terminal Report
TTR	Terminal Tripartite Review
UNDP	United Nations Development Program
UNDP-P	United Nations Development Program in Pakistan
UNDAF	United Nations Development Assistance Framework
UNFCCC	United Nations Framework Convention on Climatic Change
USAID	United States Agency for International Development
VO	Village Organizations
WWF	World Wide Fund for Nature



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## SECTION I: Elaboration of the Narrative

### PART I: Situation Analysis

According to a recent study conducted by BACIP-World Wildlife Fund (WWF-P), up to 95% of all households in the NAs and Chitral use timber as the main material for house constructions, where 6-8 mature trees are used for this purpose per household, especially for the house columns and beams. Approximately 4.5% of new housing stock (about 1,000 housing units per year) is needed to be reconstructed/ refurbished annually to cater for the growing requirement of shelter. This is in addition to an increase in new houses (2.8 % per year), or approximately 3,000 new houses being built per annum as of year 2004. Up to 86% of the NA households use biomass as the main fuel with an average household utilizing 5.5 tons of fuel wood in the winter season (6 months). With an estimated 10,000 households in the NAs, the annual amount of fuel wood burnt in winters in these areas alone is about 55,000 tons. About 45% of the NAs and Chitral households purchase fuel wood, spending approximately RS 3,000-4,000/month during the winter season. The rest of the households use collected fuel wood.

There is potential for realizing energy savings and CO2 emissions reduction in these areas through application of energy conservation and energy efficiency that will have multiple potential benefits across focal areas and the socioeconomic area of interest, such as reduction in biomass consumption for heating and cooking, reduction in GHG emissions, and reduction in health related disease incidences, with corresponding savings in household expenditure. This project builds upon previous and ongoing research & development work under the Building and Construction Improvement Program (BACIP) of the Aga Khan Planning and Building Services Pakistan (AKPBSP). The project is meant to bring the initial R&D experience towards a push for full market development. This will be promoted through addressing the key remaining barriers with regards to; low level of awareness, limited local entrepreneurial capacities, access to micro-finance, the absence of an enabling environment conducive to investments in energy efficient cooking, heating and housing construction and technology, the lack of a comprehensive supply-demand structure-related to the development of supply chain structures essential to ensure the provision of EE products and technologies in residential units and finally the lack of an easily accessible information and technical repository for reference. (For further elaboration Ref Section IV Part 1 Approved PIF Part 1-Project).

### PART II: Strategy

The goal of the project is the reduction of the GHG emissions from unsustainable uses of wood for building and energy purposes in the Northern Areas and Chitral in Pakistan. The project objective is improved household economies and health in the Northern Areas and Chitral through efficient use of wood products, together with reduced emissions of local and global pollutants. This main objective will be achieved through: (1) Improving local awareness and capacity for installing energy efficient cooking, heating and housing products and technologies; (2) Institutional capacity building and support to mainstreaming energy efficient products and technologies into local and national level building codes and standards, together with relevant support measures, as well as rural and regional development plans, strategies and programs; and, (3) Enhancing the growth of rural enterprise and income generation from community service providers through the replication of integrated EE products and technology application packages. In line with the above the project has been designed to assist the communities living within and around the forests to actively participate in conservation of forest resources, and to help reduce CO2 emissions. This is possible only through reducing the mountain communities' dependence on forests and forest products in housing construction and heating, thereby reducing the extent and level of pressure on natural resources responsible for excessive resource degradation and contribution to climate change through increase in CO2 emissions.

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This project will assist Government of Pakistan in meeting the Millennium Development Goals (MDGs) by contributing towards achieving environmental sustainability and integrating the principles of sustainable development at local levels. The project specifically addresses MDG-1 (Poverty alleviation) and MDG 4-6 (Health). The project would support Government of Pakistan's efforts in meeting its commitments under the global conventions, including UN Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD). Pakistan, as a signatory to the UNFCCC, and with ratification of the Kyoto protocol, is committed to address urgent environmental problems, such as climate change that impact both at the local and global levels. Additionally, Pakistan has taken various steps in the past to address and alleviate the long-term effects of environmental problems in the country, such as, adoption of the Pakistan Environment Protection Act (PEPA); National Environment Quality Standards (NEQS); National Conservation Strategy (NCS); and, National Environmental Action Plan (NEAP). With the overall project cost of US \$ 2.46 Million, of which GEF project grant will be US \$ 1.0 million, the project will directly augment all these initiatives. (For further elaboration Ref Section IV Part 1 Approved PIF Part 1-Institutional Coordination and Support sec A)

### **PART III: Management Arrangements**

AKPBSP as the Executing Agency of the GEF Medium Sized Project grant will undertake all management, administrative and operational issues related to the project. The project will institutionally be housed with in the AKPBSP-BACIP program. Aga Khan Foundation, Pakistan will be the grant recipient for AKPBSP, and will also be responsible for managing institutional relationships between project partners, donor liaison, and reporting.

AKPBSP will execute the project according to the rules and procedures established by the UNDP. AKPBSP as the executing Agency will be accountable to UNDP for the quality, timeliness for the delivery of outputs utilizing funds. This would include (but not limited to):

- Accounting and funds management, according to the approved budget of project budget and work plan;
- Recruiting and fielding personnel for work in the project sites (in consultation with UNDP)
- Executing MOUs with partner agencies providing co-financing for implementation of the alternative strategy and monitoring delivery agency support during the implementation phase of the project.
- Entering into sub-contracts with agencies with specific technical expertise required for the implementation of selected project activities as per UNDP procedures
- Micro planning, scheduling and organization of activities and task;
- Preparing operational work plans for delivering the outputs;
- Developing Terms of Partnership with local communities setting out the respective obligations of communities and the project;
- Monitoring and reporting to UNDP, GEF Operational Focal Point and Regional and Local Governments on the progress of implementation.
- Providing Secretariat to the Project Advisory Committee
- Providing coordination support to the Convening committee
- Maintaining liaison with all relevant stakeholders, UNDP, government departments, Ministry of Environment and related EPA's, and donors for project implementation
- Coordinating all external visits and related briefing of the project



## **AKPBSP Capacity**

### **i) Managerial Capacity**

AKPBSP has more than two decades of experience in successfully undertaking built environment related infrastructure projects and development programmes, at the national and international level, supported by AKPBS, P CEO and the Management Board. The AKPBSP BACIP Program has its core management team comprising of program and finance staff. Management support is also provided to BACIP through AKPBS when needed.

### **ii) Technical capacity**

AKPBS has over 120 staff dedicated to dealing with build-environment related aspects throughout the country. BACIP has its own core team of 25 professionals located at Gilgit and Chitral. AKPBSP-BACIP professional staff consists of engineers, architects, social scientists, communication experts, construction experts and applied researchers. Besides, BACIP has an in-house facility of computer based technical designing and application, MIS applications, modeling, marketing outreach, research and development, and monitoring and evaluation

### **Project Manager (PM)**

AKPBSP will appoint a Project Manager who will be responsible for the organization and management of the project activities. The Project Manager will be responsible for programmatic, technical and financial implementation of the project. The project manager will be supported by other technical/ management staff under the project to assist project delivery.

### **Project Manager-Brief TORs**

- Provide Secretariat to the Project Advisory Committee
- Maintain liaison with all relevant stakeholders, UNDP, government departments, Ministry of Environment and related EPA's, and donors for project implementation related matters
- Implement project activities according to the approved budgets and work plans.
- Prepare and submit project financial, work plans, technical and narrative reports to donor in consultation with AKPBSP HO.

### **Project Advisory Committee (PAC)**

A 14-member PAC will be constituted to provide technical guidance and strategic monitoring of the project with representation from donors, GOP, NA government, NWFP government, Implementation Agency, Executing agency (i.e. AKPBSP) and other select stakeholders. A PAC Conveying Committee (CC) will support PAC. Major responsibilities of the PAC will include, ensure continuing policy support from the related local government and GOP for achievement of project objectives, budgets/ work plans and progress reviews, and strategic advice. PAC is expected to meet at least once a year during the project lifetime.

### **PAC Terms of Reference- Brief**

- Ensure continuing policy support from the related local government and GOP for achievement project results

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- Facilitate project team in its efforts to address policy and institutional level decisions with the government/ NGO sectors
- Facilitate the project in developing national and international linkages related to global climate change initiatives
- Provide necessary guidance for developing linkages with local partner organizations and institutions for greater energy use reduction impact
- Review Annual work plans / budgets/ reports provide necessary guidance and inputs
- Receive and review regular six monthly progress reports and provide technical /critical analysis.

(For further elaboration Ref Section IV Part 1 Approved PIF Part 1-Institutional Coordination and Support sec C-Project Implementation Arrangements)

#### **PART IV: Monitoring and Evaluation Plan and Budget**

Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Pakistan Country Office (UNDP-P) with support from UNDP/GEF. The Logical Framework Matrix (Ref Section IV Part 1 Approved PIF Sec 3-B) provides performance and impact indicators for project implementation along with their corresponding means of verification. These will form the basis on which the project's Monitoring and Evaluation system will be built.

The Project Manager in conjunction with the UNDP-GEF extended team will be responsible for the preparation and submission of the following reports that form part of the monitoring process. The Inception Report, Annual Project Report, Project Implementation Review, Quarterly Progress Reports, Periodic Thematic Reports, and Project Terminal Report are related to monitoring, while the Technical Reports and Project Publications have a broader function and the frequency and nature will be refined throughout implementation. Documentation of Lessons learnt and Best practices will be a key M&E program work. Results from the project will be disseminated within and beyond the project intervention zone through various existing information-sharing networks and forums.

The project will be subjected to at least two independent external evaluations in the form of a Mid-Term Evaluation and a Final Evaluation. The Executing Agency will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP-P (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. A commercial auditor engaged by the Executing Agency will conduct the Audit, annually. The project M&E Plan will be presented and finalized at the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities. For further detailed description of project M& E and Corresponding Budget (Ref Section IV Part 1 Approved PIF Sec 3-F).

#### **PART V: Legal Context**

The legal context for UNDP-assisted program and projects in Pakistan is established by two major agreements: 1) the Convention on the Privileges and Immunities of the United Nations, given effect by Act XX of 1948 of the Pakistan Constituent Assembly (Legislative) and assented to on June 16, 1948; and 2) the agreement between the Government of the Islamic Republic of Pakistan and the United Nations Development Program concerning assistance under the Special Fund Sector of the United Nations Development Program, signed by the parties on February 25, 1960.

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This Project Document shall be the instrument (therein referred to as a Plan of Operation) envisaged in Article 1, Paragraph 2 of the agreement between the Government of the Islamic Republic of Pakistan and the United Nations Development Programme concerning assistance under the Special Fund Sector of the United Nations Development Programme.

UNDP-assisted programmes and projects for Pakistan are planned and executed in accordance with the global UNDP Financial Rules and Regulations and the Project Cycle Operations Manual for Pakistan.

The following types of revisions may be made to this project document with the signature of the UNDP resident representative only, provided he or she is assured that the other signatories of the project document have no objections to the proposed changes: a) Revisions in, or addition of, any of the annexes of the project document; b) Revisions which do not involve significant changes in the immediate objectives, outputs or activities of a project, but are caused by the rearrangement of inputs already agreed to or by cost increases due to inflation; and, c) Mandatory annual revisions which re-phase the delivery of agreed project inputs or increased expert or other costs due to inflation or take into account agency expenditure flexibility.

The Executing Agency will provide the Resident Representative based in Islamabad, Pakistan with certified periodic financial statements, and with an annual audit of the financial statements relating to status of UNDP (including GEF) funds according to the established procedures set out in the UNDP programming and Finance manuals.

## **SECTION II: STRATEGIC RESULTS FRAMEWORK, SRF AND GEF INCREMENT**

For SRF/ Project Results Framework (Ref Section IV Part I Approved PIF Sec 3-B)



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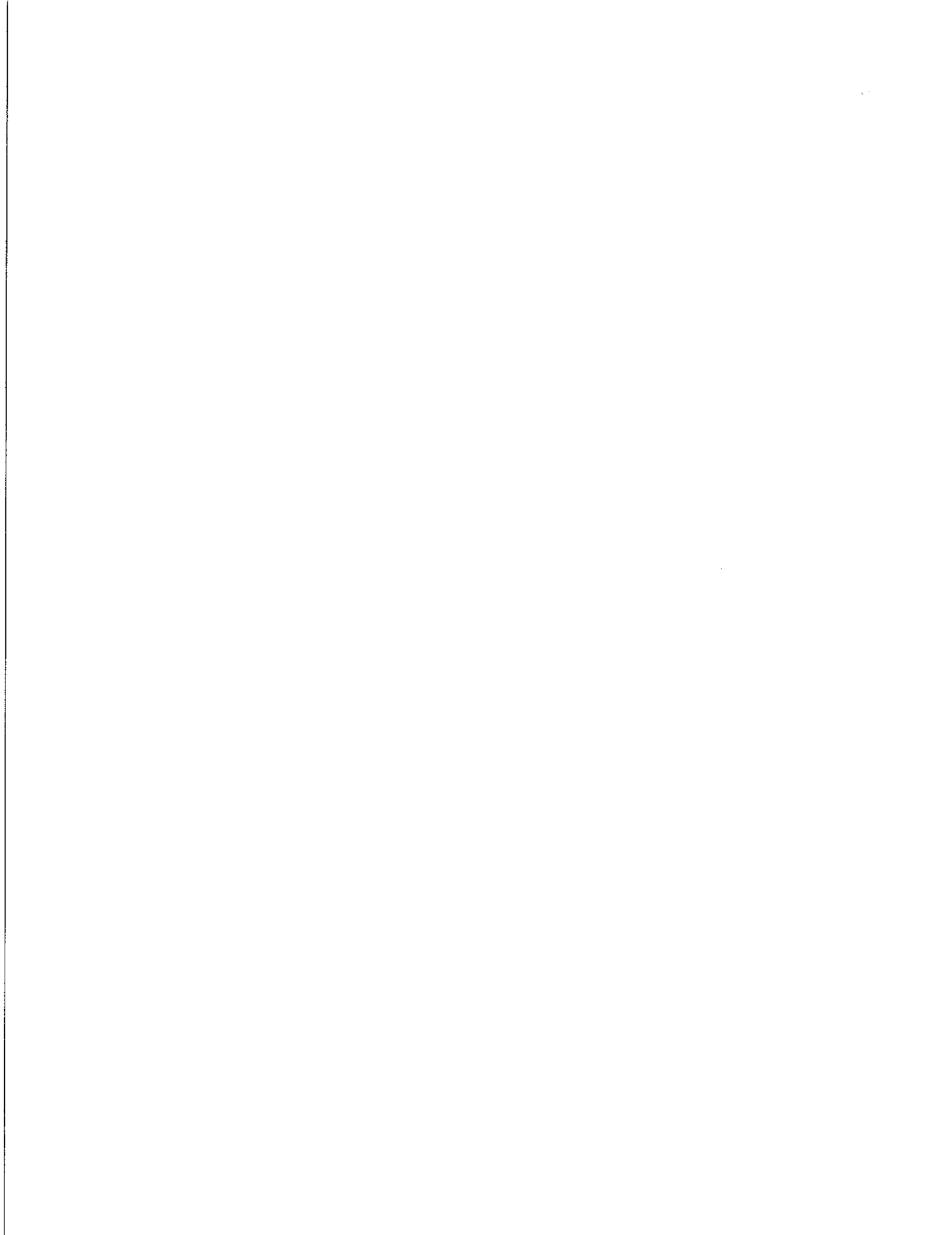
### SECTION III : Total Budget and Workplan

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<b>Award ID:</b>	00036784
<b>Award Title:</b>	PIMS 3110 Pakistan Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)
<b>Business Unit:</b>	PAK10
<b>Project Title:</b>	PIMS 3110 Pakistan Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)
<b>Implementing Agency</b>	<b>Partner</b>
(Executing Agency)	Aga Khan Planning and Building Service, Pakistan (AKPBSP)

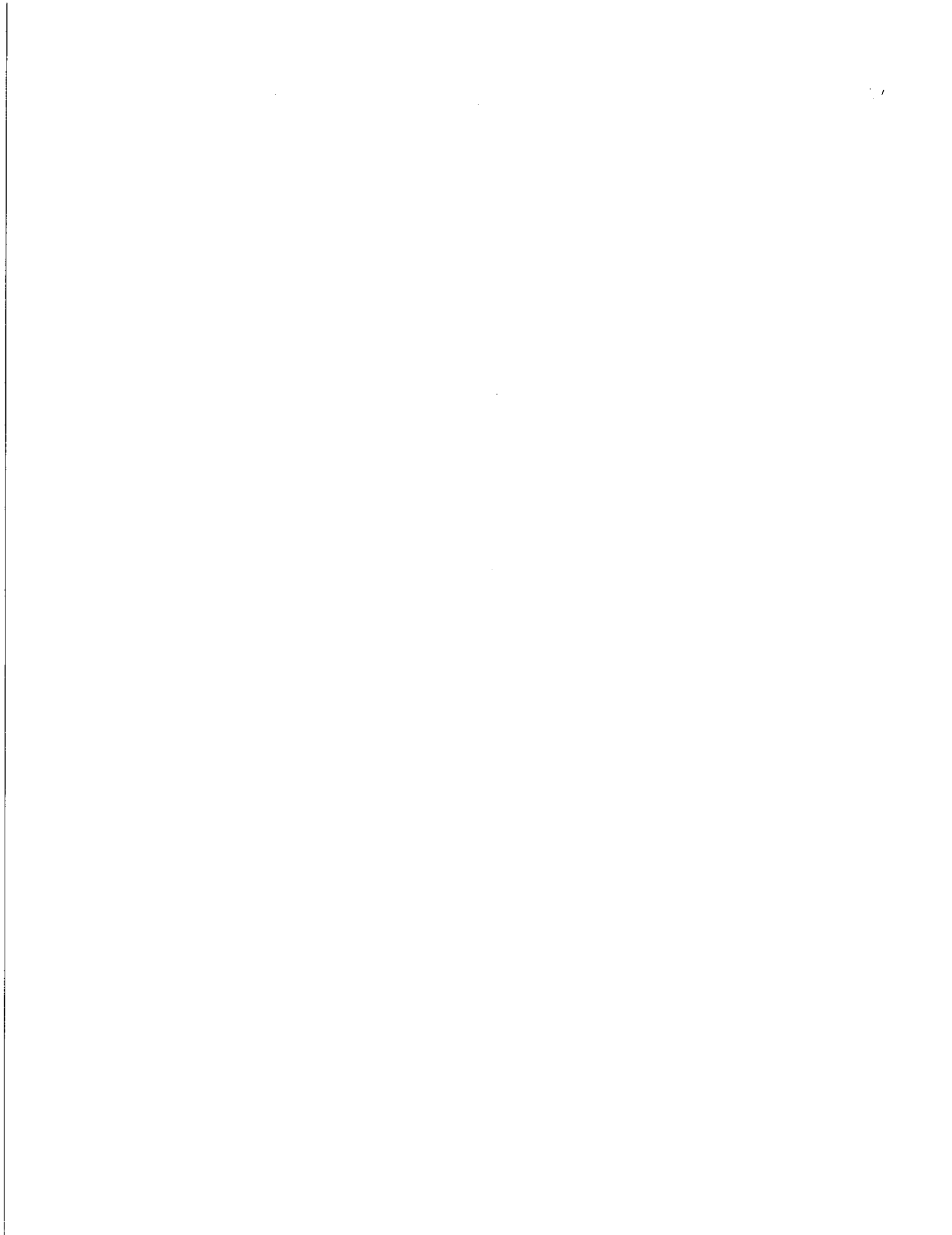
GEF Outcome/Atlas Activity	Responsible Party / Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total in cash(USD)	Total In-kind	
<b>OUTCOME 1:</b> Technical Capacity Building on EE Cooking, Heating & Housing Products & Technologies	UNDP	62000	GEF and UNDP	72100	Service Contracts / TA and Training for EE	55,028	55,028	55,028	55,028	220,112		
				72300	Materials & Goods	4,500	3,800	5,250	6,300	19,850		
				74100	Professional Services/Capacity Development	16,000	14,000	29,000	16,000	75,000		
				74500	Misc	1,334	1,334	1,334	1,336	5,338		
					<b>Total Outcome 1</b>	<b>76,862</b>	<b>74,162</b>	<b>90,612</b>	<b>78,664</b>	<b>320,300</b>	<b>150,000</b>	
<b>OUTCOME 2:</b> Policy Support & Institutional Capacity Building	UNDP	62000	GEF and UNDP	72125	Service Contracts for Building Codes and rural policy integration	49,495	49,495	49,495	49,495	197,980		
				74500	Public Consultations & Hearings	4,000	4,000	2,000	1,000	11,000		
				74500	Misc	2,305	2,305	2,305	2,305	9,220		
					<b>Total Outcome 2</b>	<b>55,800</b>	<b>55,800</b>	<b>53,800</b>	<b>52,800</b>	<b>218,200</b>	<b>172,500</b>	
				72120	Business Services	57,000	54,500	57,000	54,500	223,000		
<b>OUTCOME 3:</b> EE Service Market Development & Financing	UNDP	62000	GEF and UNDP	72300	Materials & Goods	28,775	28,775	28,775	28,775	1,15,100		
					Professional Services / Capacity Assessment	7,500	7,500	7,500	7,500	30,000		
				74120	Misc	2,225	1,225	3,225	1,225	7,900		
					<b>Total Outcome 3</b>	<b>95,500</b>	<b>92,000</b>	<b>96,500</b>	<b>92,000</b>	<b>376,000</b>	<b>738,100</b>	
				71200	International Consultants	10,666	10,666	10,668	48,000	80,000		
<b>OUTCOME 4:</b> MONITORING	UNDP	62000	GEF and UNDP									

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LEARNING & EVALUATION				71300	Local Consultants	7,100	7,100	6,900	21,900	43,000	
	<b>UNDP</b>				<b>Total Outcome 4</b>	<b>17,766</b>	<b>17,766</b>	<b>17,568</b>	<b>69,900</b>	<b>123,000</b>	<b>92,000</b>
				71200	International Consultants	0	0	0	0	0	
				71300	Local Consultants	5,875	5,875	5,875	5,875	23,500	
				71600	Travel	10,000	10,000	10,000	10,000	40,000	
		<b>62000</b>		72500	Office Supplies	2,000	2,000	2,000	2,000	8,000	
	<b>PMU</b>			72200	Equipment & Furniture	3,250	3,250	3,250	3,250	13,000	
				74500	Misc	750	750	750	750	3,000	
					<b>Total Management</b>	<b>21,875</b>	<b>21,875</b>	<b>21,875</b>	<b>21,875</b>	<b>87,500</b>	<b>185,900</b>
<b>PROJECT TOTAL</b>						<b>232,803</b>	<b>226,603</b>	<b>235,355</b>	<b>280,239</b>	<b>1,125,000</b>	<b>1,338,500</b>
<b>Grand Total</b>											<b>2,463,500</b>







**SECTION IV: ADDITIONAL INFORMATION**

**1- Approved MSP PIF**



**GEF**

**MEDIUM-SIZED PROJECT PROPOSAL  
REQUEST FOR FUNDING UNDER**

GEFSEC PROJECT ID: 2526  
 IA/ExA PROJECT ID: 3110  
 COUNTRY: Pakistan  
 PROJECT TITLE: Promotion of Energy Efficient  
 Cooking, Heating and Housing Technologies  
 (PEECH)  
 GEF IA/ExA: UNDP  
 OTHER PROJECT EXECUTING AGENCY(IES):  
 DURATION: 4 years  
 GEF FOCAL AREA: Climate Change  
 GEF STRATEGIC OBJECTIVES: Energy efficient buildings and appliances  
 GEF OPERATIONAL PROGRAM: OP-5  
 IA/ExA FEE: USD 100,000

Financing Plan (\$)		
PROPOSAL	PPG	Project*
GEF Total	25,000	975,000
Co-financing	(provide details in Section b: Co-financing)	
GEF IA/ExA		150,000
UNDP		
Government		
Others (In-kind)		1,338,500
Co-financing Total		1,488,500
<b>Total</b>	<b>25,000</b>	<b>2,463,500</b>
Financing for Associated Activities If Any:		

CONTRIBUTION TO KEY INDICATORS IDENTIFIED IN THE FOCAL AREA STRATEGIES: Total estimated direct avoided GHG emissions on an annual basis is 11,088 tons of CO2 and the indirect avoided GHG emissions is 158,400 tons of CO2 per year.

\* If project is multi-focal, indicate agreed split between focal area allocations

\*Terminal Evaluation/Project Completion Report

MILESTONES	DATES
PIF APPROVAL	June 2004
PPG APPROVAL	June 2004
MSP EFFECTIVENESS	Sept. 2007
MSP START	Dec. 2007
MSP CLOSING	Nov. 2011
TE/PC REPORT*	Nov. 2011

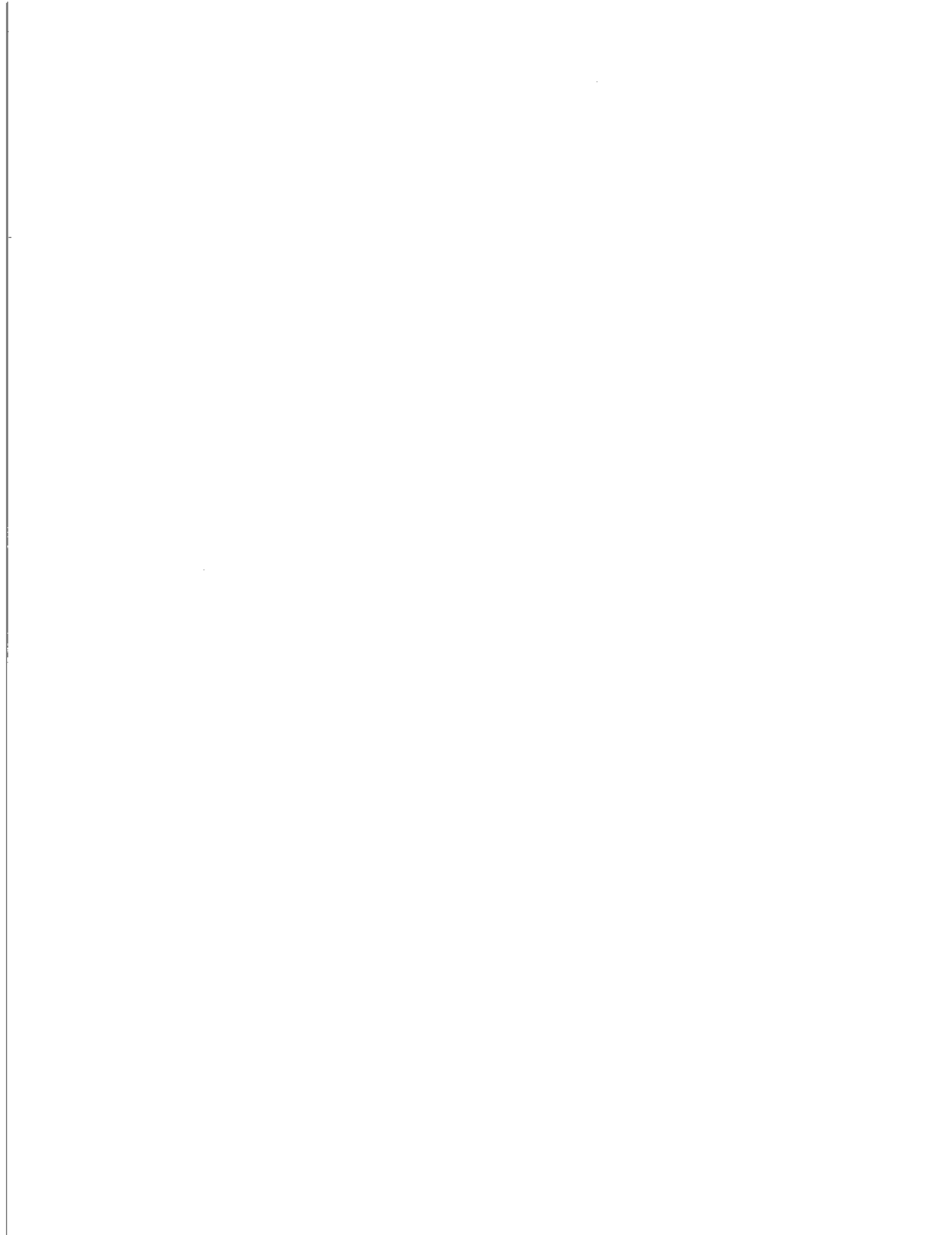
Approved on behalf of the *UNDP*. This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the Review Criteria for GEF Medium-sized Projects.

Yannick Glemarec  
 IA/ExA Coordinator

Project Contact Person  
 Martin Krause  
 Regional Technical Advisor Climate Change  
 Tel. and email: +6622882722; martin.krause@undp.org

Date: 31 July 2007





## **PART I - Project**

### **1. PROJECT SUMMARY**

#### **a) PROJECT RATIONALE, OBJECTIVES, OUTCOMES/OUTPUTS, AND ACTIVITIES**

This proposed project builds upon previous and ongoing research & development work under the Building and Construction Improvement Program (BACIP) of the Aga Khan Planning and Building Services Pakistan (AKPBS-P). The project is meant to bring the initial R&D experience towards a push for full market development. This will be promoted through addressing the key remaining barriers with regards to: low level of awareness, limited local entrepreneurial capacities, access to micro-finance, the absence of an enabling environment conducive to investments in energy efficient cooking, heating and housing construction and technology, the lack of a comprehensive supply-demand structure-related to the development of supply chain structures essential to ensure the provision of EE products and technologies in residential units and finally the lack of an easily accessible information and technical repository for reference.

The goal of the project is the reduction of the GHG emissions from unsustainable uses of wood for building and energy purposes in the Northern Areas and Chitral in Pakistan. The project objective is improved household economies and health in the Northern Areas and Chitral through efficient use of wood products, together with reduced emissions of local and global pollutants. This main objective will be achieved through: (1) Improving local awareness and capacity for installing energy efficient cooking, heating and housing products and technologies; (2) Institutional capacity building and support to mainstreaming energy efficient products and technologies into local and national level building codes and standards, together with relevant support measures, as well as rural and regional development plans, strategies and programs; and, (3) Enhancing the growth of rural enterprise and income generation from community service providers through the replication of integrated EE products and technology application packages.

#### **b) KEY INDICATORS, ASSUMPTIONS, AND RISKS**

Key indicators are described as follows:

- Annual CO2 emissions reduction of 116,160 tons from pilot households (22,000 HHs)
- Annual CO2 emissions of 53,328 tons from replications (10,100 HHs), compared to the business as usual scenario.
- HH expenditures on fuel wood in pilot villages of the Northern areas and Chitral, reduced by US\$160 per season
- Reduced average HH health expenditures (reduced incidence of ARI, pneumonia, and other diseases) in pilot villages of the Northern areas and Chitral, by 3,500 RS/annum

The following risks have been identified:

- Low community participation
- Low private sector involvement
- Lack of public sector interest

Risk mitigation measures are described in section 3.b)

### **2. COUNTRY OWNERSHIP**

#### **A. COUNTRY ELIGIBILITY**

Pakistan ratified the UNFCCC in June 1994.

## B. COUNTRY DRIVEN-NESS

Pakistan has taken various steps in the past and present to address and alleviate the long-term effects of environmental problems in the country, such as the Pakistan Environment Protection Act (PEPA) of 1997 providing the legal regulatory and punitive framework and the establishment of National Environment Quality Standards (NEQS); the National Conservation Strategy (NCS) 1994 providing an overall national environmental policy; and the National Environmental Action Plan (NEAP) with four core areas of Clean air, Clean Water, Solid Waste Management, and Eco-system management.

The proposed project compliments the Northern Areas, Planning and Development Department (P&DD), and the NWFP-P&DD plans under NEAP for developing measures and strategies for reducing use of biomass (forests/fuel wood use), and related CO<sub>2</sub> emissions for reducing impacts on climate change; and driving the communities for the sustainable use of natural wood resources (for fuel and industrial use). Besides, PEPA 1997 already extended to the NWFP, and now being extended to the Northern Areas (NAs), also includes suggestions for the conservation of biodiversity, habitats and renewable energy resource.

### 3. PROGRAM AND POLICY CONFORMITY

#### a) PROGRAM DESIGNATION AND CONFORMITY

The proposed project contributes to meeting the objectives of the GEF Operational Program No. OP-5 "Removal of Barriers to Energy Efficiency and Energy Conservation" and Strategic Priority No. CC-1 "Transformation of Markets for High Volume Products and Processes"

#### b) PROJECT DESIGN (INCLUDING LOGFRAME AND INCREMENTAL REASONING)

##### a) Current Situation/Context

According to a recent study conducted by BACIP-World Wildlife Fund (WWF-P), up to 95% of all households in the NAs and Chitral use timber as the main material for house constructions, where 6-8 mature trees are used for this purpose per household, especially for the house columns and beams. Approximately 4.5% of new housing stock (about 1,000 housing units per year) is needed to be reconstructed/ refurbished annually to cater for the growing requirement of shelter. This is in addition to an increase in new houses (2.8 % per year), or approximately 3,000<sup>1</sup> new houses being built per annum as of year 2004. Up to 86% of the NA households use biomass as the main fuel with an average household utilizing 5.5 tons of fuel wood in the winter season (6 months)<sup>2</sup>. With an estimated 10,000 households in the NAs, the annual amount of fuel wood burnt in winters in these areas alone is about 55,000 tons. About 45% of the NAs and Chitral households purchase fuel wood, spending approximately RS 3,000-4,000/month during the winter season. The rest of the households use collected fuel wood<sup>3</sup>.

<sup>1</sup> Of these around 2,000 are being constructed with timber reinforcement by using at least 25-30 trees (timber logs). Within the proposed project and the pilot villages, new houses will instead be constructed utilizing GI wire and composite beams for reinforcement, thus replacing the use of timber.

<sup>2</sup> "Fuel wood consumption practices, Interventions for fuel wood conservation at the domestic household and relative impact on conservation of forests and wood resources in the Northern Areas of Pakistan, a joint study by WWF-P and AKPBS, P by Fakhar, Irshad and Abdul Khaliq Chaudry from PFI, 20001.

<sup>3</sup> As cattle dung and artimisia are scarce in the NAs, fuel wood consumed hence mostly comprises of natural forest wood (30%) and the rest collected from farmland and communal forest trees. Local communities, in some

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There are indeed potentials for realizing energy savings and CO<sub>2</sub> emissions reduction in these areas through the application of energy conservation and energy efficiency, and will have multiple potential benefits across focal areas and the socioeconomic area of interest. A BACIP impact assessment study (2001-2002) has concluded that when properly applied, the proposed EE techniques and products package can on average, reduce biomass consumption of up to 60% (3.3 tons/month approx., or RS 1,800-2,200/month) at the domestic household level. Such biomass savings link directly to reducing pressure on natural resources and reducing GHG emissions. Also, another BACIP study (2001) concluded that incidence of ARI, pneumonia and other health related disease in women and children are reduced by up to 50% (especially during winters) in houses using energy efficient products, thereby increasing income earning potential<sup>4</sup>. Corresponding savings in health related household expenditure amounts to approximately RS 3,500/annum (approx. 25% of annual medical bills) in houses that employed energy efficient technology.

There are, however, several impediments in making these energy efficient cooking, heating and housing technologies widely available and promote adoption by local communities at large<sup>5</sup>. Many of these impediments are structural, thereby impinging upon various operational factors that may control the large-scale adoption, and adaptation of these energy efficient housing and technologies. These barriers specifically relate to:

- Lack of awareness in the aspects of production of EE products, lack of technical backstopping in the utilization and employment of EE techniques, and absence of mechanisms that would promote and support the marketability<sup>6</sup> of energy efficient products and technologies.
- Lack of local efforts to develop and support entrepreneurs that are interested in venturing in energy service business, and for institutions providing microfinance to address the need for EE products by every household.
- Absence of enabling environment conducive to project developers and investors venturing into EE housing construction and technology application. This relates to issues about the absence of EE policies of local governments, obsolete building codes, and mechanism to mainstream energy and environment considerations in the local government development planning processes
- Current usage of wood for construction and firewood is a mix of harvesting without any cash outlays (however time spent collecting is involved), and cash being paid. This therefore constitutes a barrier that could endanger the introduction of more EE techniques and products if capacity to make cash payments are limited.
- Weak civil society institutions to provide technical backstopping and continuous social support activities such as dialogues, training, awareness-raising, joint research and joint promotion of EE technologies with various development organizations for outreach, replication and adoption.
- Lack of a comprehensive supply-demand structure. This relates to development of supply chain structures essential to ensuring provision of EE products and technologies at local level, training of sales persons, as well as facilitating SMEs on EE products sales and distribution systems

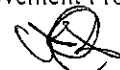
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cases, also cut Juniper and Birch trees from the shoulders and surroundings of glaciers to cater for house construction and heating needs especially in bitter cold.

4 "Impact of BACIP interventions on health and housing", a joint study of AKHSP and AKPBS by Noha Sedky and Dr. Abid, 2001

5 "A Socio-Economic Analysis of the Constraints and Potential for Greater Replication of Ten BACIP Home Improvement Products", S. Akbar Zaidi, October 2001.

6 "Marketing of Appropriate Housing Technologies in the Northern Areas, Pakistan", a partnership study between AKRSP-Enterprise Development Program and AKPBS, P-BACIP, July 2001 and "A Socio-Economic Analysis of the Constraints and Potential for Greater Replication of Ten BACIP Home Improvement Products". S. Akbar Zaidi, October 2001.



- Lack of easily accessible information and technical repository for reference, documentation and application. This relates to the generation and dissemination of BACIP EE products and technologies for socio-economic and environmental benefits targeting stakeholders such as local communities, government, NGOs, International regional and sub-regional partners, for maximum exposure and large scale benefits.

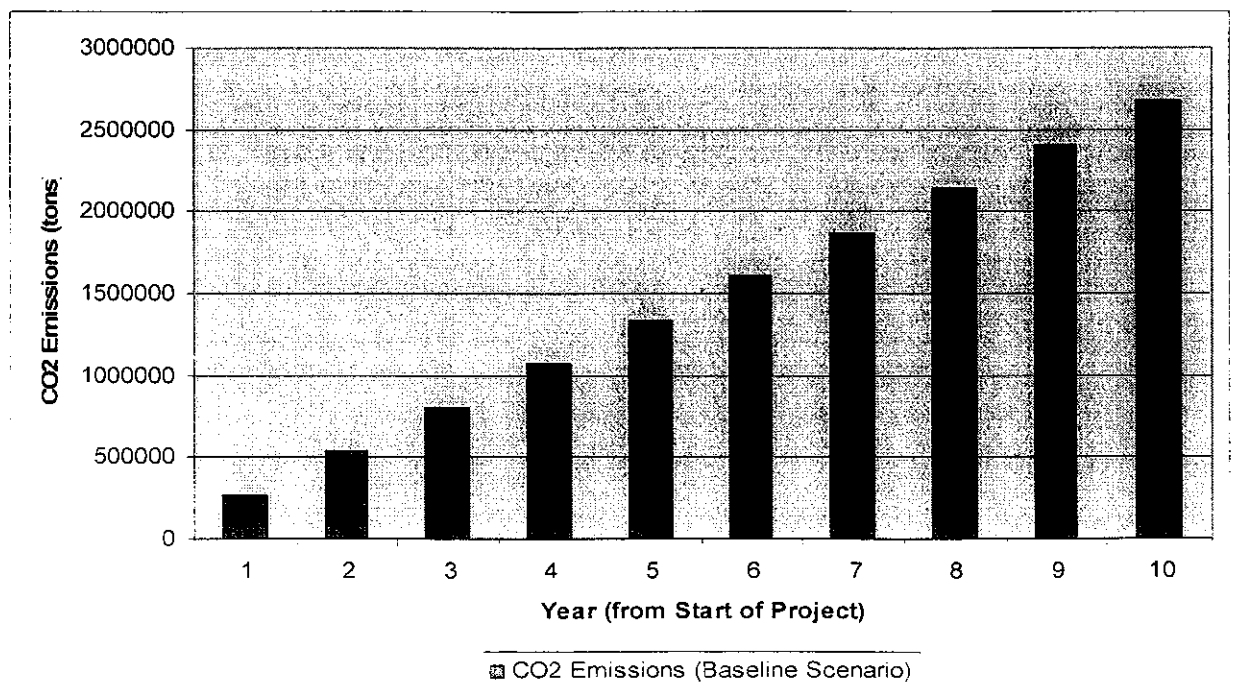
b) Baseline Scenario

BACIP has successfully implemented application demonstrations of a variety of EE products and technologies in both the Northern areas of Pakistan as well as in other regions on a small scale in the partnership with the UNDP-GEF SGP, USAID, and other development agencies. Without the proposed GEF project, only the continuation of basic awareness raising activities and training on a selected basis, as well as limited EE technology demonstrations will be carried out in the country, but not necessarily in the Northern region and Chitral.

Under a business-as-usual (BAU) scenario, BACIP would continue the cooperation with related programs and institutions such as the WWF in their efforts to reduce the deforestation and illegal logging and utilization of natural resources in the Northern region, together with some expanded awareness-raising activities. What will clearly be missing is a comprehensive approach to introduce sustainable access to financing, develop regional level local business and entrepreneurial capacities to promote and deliver EE services, EE products/technologies, mainstreaming of EE approaches into regional and national level codes and standards and development plans and programs with budget and support mechanisms. As such the potential for wider replication of the EE techniques and products will remain limited since several key barriers will remain intact.

Currently in areas in the Northern region and Chitral, the fuel wood consumption for single household is on the average 27 kg/day, which is considered relatively energy inefficient. This is around 810 kg/month or 4.8 tons/year. If this trend will continue, the forecast trend of cumulative CO2 emissions from fuel wood utilization for the next 10 years is shown below:

**Fig. 1: Baseline Cumulative CO2 Emissions (Northern Region & Chitral)**



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### c) GEF Alternative Scenario

An alternative scenario to the above is characterized by the existence of an enabling environment that could be facilitated through the removal of the current barriers to widespread application of energy conservation and energy efficiency (EC&EE), particularly in the residential sector in the Northern region and Chitral. This alternative scenario will also include the reorientation and expansion of the current baseline activities of the BACIP and the leveraging of additional financing.

The proposed project, which will facilitate the envisioned alternative scenario, will build upon the initial successful technology research and demonstration activities funded by the BACIP, CIDA-USAID and UNDP-SGP both in the Northern areas and in other parts of Pakistan. With the removal of the current barriers, it is envisioned that implementation of a highly replicable integrated energy efficient cooking, heating and housing construction program will be carried out. Such program is expected to serve as a model for how to reduce the pressures on globally significant mountain forest ecosystems found in the northern areas of Pakistan.

The project focus is on reduction of use of firewood in cooking, heating and house construction. There is a need for an integrated approach where both the efficiency of the thermal energy utilization from fuel wood and the use of wood for construction are included. The BACIP program of the Aga Khan Planning and Building Service has developed the important technological elements of such a program, and this project will facilitate the implementation of this integrated program in the Northern areas of Pakistan.

BACIP EE product and technologies address both the reduction in fuel wood use in heating/cooking and construction, and address alternate/renewable fuel utilization such as solar heating and cooking. The Northern Area of Pakistan is spread over 74,000 km<sup>2</sup> and is left with only 4.5% of natural forests cover, whereas consumption demand of fuel wood for heating and cooking alone is about 1 million m<sup>3</sup> per year. It is estimated that at this rate of consumption, the Northern Area will lose its entire vegetation cover within the span of this decade. BACIP EE products also contribute in reducing pressure on forests for their fuel wood and timber.

Over the past 5 years or so, BACIP has researched, developed and tested over 60 such EE housing products and technologies to improve the thermal efficiency and reduce biomass consumption by 60% and some 100% as renewable energies. (None of these products are 'new' to be developed and tested). These BACIP-developed products and technologies have been tested and tried in the field and have been validated for their impacts. Some of the energy efficient technologies for cooking, heating and housing & living conditions improvement that will be demonstrated and promoted under the project are:

- Roof hatch window: A triangular hatch window made of wood, oblique sun facing glass and steel shutter for covering & conserving heat from the open roof hole of rural houses. It has openable side shutters for ventilation and a shutter to cover the glass top at night and during snow fall.
- House insulations: The wall, roof, and floor of cold mountain houses are insulated with different low cost insulation materials like dried straw, PE foam, dried grass, plywood, willow strips, foam sheets with metal mesh etc . The windows are also made double glazed for improved insulation.
- Fuel efficient stoves: Metal stoves in circular, triangular, drum & box shape with heat retaining steel plates inside and with chimney pipes and *feri-feri* for reducing/controlling smoke blowback.
- Water warming facility: A water storage drum is attached through iron pipes (circulating heat exchanger mechanism) with the fuel efficient stoves (in a circular or triangular manner).
- Solar cookers: These are box and triangular type cookers with transparent glass lid on top and angular sunlight glass reflectors. The lower casing is insulated from the inside with blackened steel body and direct sunlight absorbed is turned into heat for cooking.



- Solar geysers: Water storage drums attached through heat resistant pipes with a metal radiator panel (with steel pipes in a spring manner covered by transparent glass for direct sunlight).
- Solar vegetable/fruit drier: Fruit is dried on a wire mesh plate (3 x 3 ft) placed between two metal plates (top & bottom to absorb passive sunlight) with open sides for airing and moisture release.
- HDGI wire wall reinforcement: GI wire mesh is used instead of timber "Biomass" for wall reinforcement and is earthquake resistant.
- Light roofs, bow string and Composite beams: (combination of GI sheet, GI wire and small wood strips) for house construction. Reduces 70% use of hard timber wood for construction

The proposed project, Promoting Energy Efficient Cooking, Heating and Housing Technologies (PEECH), will make use of a holistic approach to EE application in the villages, through the promotion, product installation and entrepreneur training, linked with support to micro finance institutions<sup>7</sup> to offer their financing services for EE products procurement. The local and regional manufacturing and artisan capacities will be strengthened using various support models such as on the job training, host exchange training where new artisans are placed with more experienced manufacturers as interns and workshops within the offices. Furthermore there will be a specific effort and component to enhance the institutional capacity for policy development and implementation and awareness of the socioeconomic importance and benefits of EE technologies among key local, state and national policy makers, planners and managers, civil society and the private sector.

The goal of the PEECH Project is the reduction of the GHG emissions from unsustainable uses of wood for building and energy purposes in the Northern Areas and Chitral in Pakistan. Household CO<sub>2</sub> emissions from wood use for fuel, house building and repairs in the Northern areas and Chitral, is expected to reduce by 60 % per pilot households (22,000 HHs) on an annual basis, resulting in direct annual reduction of 116,160 tons CO<sub>2</sub> and indirect (10,100 HHs) annual reductions of up to 53,328 tons CO<sub>2</sub>, compared to the business as usual scenario. Figure 2 shows the comparison of the forecast trends of cumulative CO<sub>2</sub> emissions in the baseline and alternative scenarios:

The objective of the PEECH project is improved household economies and health in the Northern Areas and Chitral through efficient use of fuel wood and EE housing construction technologies. The following are the proposed indicators in gauging the success in achieving the project objective:

- HH expenditures on fuel wood in pilot villages of the Northern areas and Chitral, reduced by 160 USD per season<sup>8</sup>
- Reduced average HH health expenditures (reduced incidence of ARI, pneumonia, and other diseases) in pilot villages of the Northern areas and Chitral, by 3,500 RS/annum

To achieve the project purpose, and address the barriers to the widespread application of EC&EE in the Northern region & Chitral, the project will carry out 3 major components:

**Component 1: Technical Capacity Building on EE Cooking, Heating and Housing Products and Technologies**

**Component 2: Policy Support and Institutional Capacity Building**

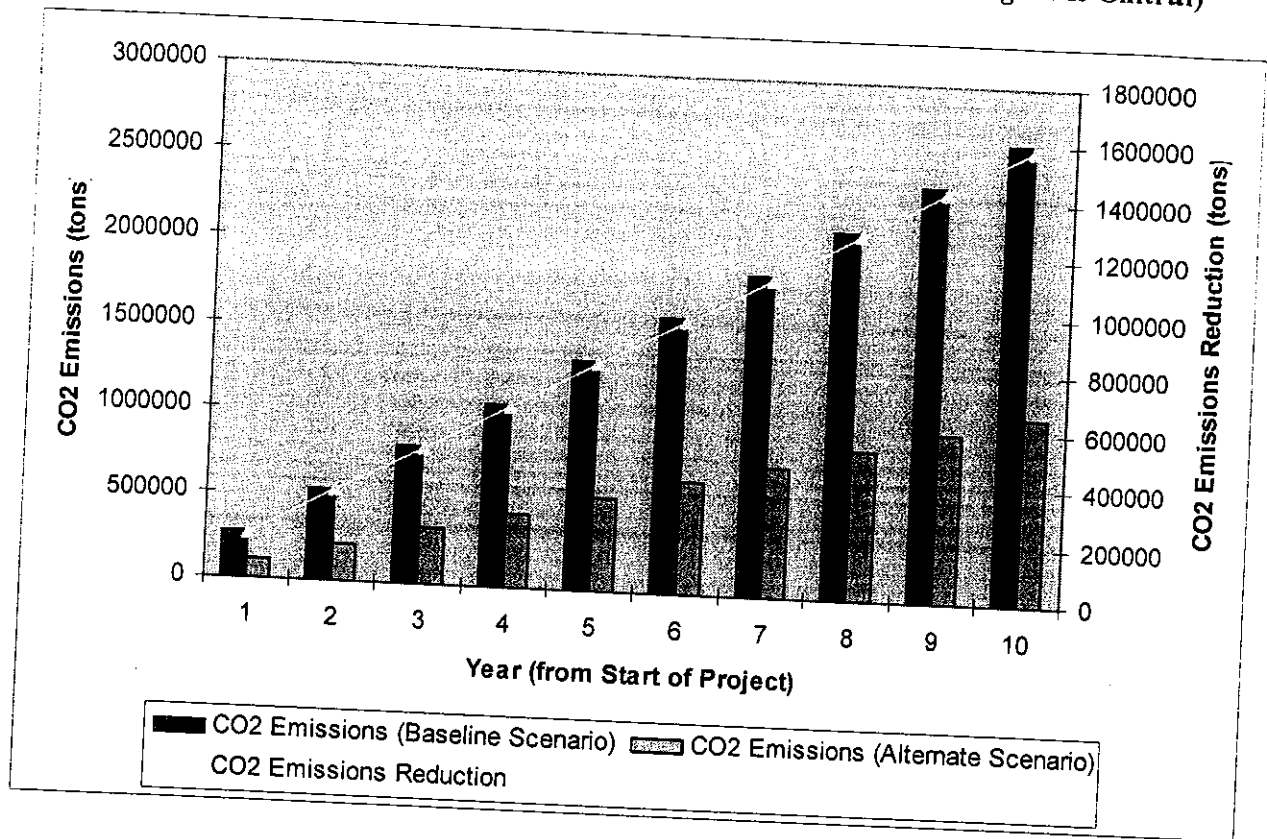
**Component 3: EE Service Market Development and Financing**

<sup>7</sup> A specific pilot partnership will be confirmed with the First Micro Finance Bank of Pakistan, but this may be extended to involve also other MF institutions as deemed competitive and necessary.

<sup>8</sup> Assumes a 60% reduction in fuel wood consumption (from 5 tons to 2.2 tons), and an average cost of 52 USD per ton of fuel wood.



**Fig. 2: Baseline and Alternative Cumulative CO2 Emissions (Northern Region & Chitral)**



### **Component 1: Technical Capacity Building on EE Cooking, Heating and Housing Products and Technologies**

Indicators:

- EE awareness-raising and communication strategy developed and successfully implemented by Year 2.
- Training program for local technical personnel, end users and other stakeholders developed and institutionalized in at least 2 to 3 key teaching institutions in Northern Pakistan, together with a pilot training program with a minimum of 20 people trained, starting Year 2.
- At least 5 local entrepreneurs engaged in the installation of EE systems for cooking, heating and housing construction by Year 2.

This component will involve the design of a comprehensive communications and awareness strategy that will target differentiated project interventions and activities specifically for the local and regional level of the Northern Areas and Chitral. As part of the awareness-raising activity, different types of technical and non technical publications and newsletters will be prepared, and these will be utilized when doing radio shows, road shows, bussing, neighborhood promotion, exchange programs/visits at household, community, regional and national levels. These are all intended to promote the widespread knowledge of EE products and technologies and their proper mainstreaming and applications. As part of this effort, the project will build upon the work already done by the BACIP (several technical studies exists as well as user and preliminary market studies on certain elements of EE housing options and potential demand), and establish a database with web access for easy utilization and distribution, where such information can

be accessed and updated on an ongoing basis under the auspices of the BACIP and with support from the wider Aga Khan network itself.

Furthermore a capacity building program will be developed and implemented, focusing on the establishment and strengthening of local skilled people (focusing on basic construction, electrician, plumbing, masonry and carpentry capacities), that can deliver services linked to the installation, maintenance and continued operations of EE products promoted through this project. As possible this program and the efforts will build upon existing local schools/colleges and their technical training courses, to mainstream the proposed training and capacity building module into their curricula and institutionalize it for ongoing existence and provision of such capacities locally in the Northern regions of Pakistan.

Apart from the technical personnel, large parts of the awareness activities relating to advocacy, communications, and information provision are built in to the project design. The public sector, private sector, local communities, and other development organizations will be targeted for acceptance and use of energy efficient home improvement products and technologies. Some of these activities include development of comprehensive communications and awareness strategy, assimilation/information seminars on energy efficient technologies' impact on natural environment, development and distribution of awareness literature, development and maintenance of energy efficient tools, technologies and products database.

## **Component 2: Policy Support and Institutional Capacity Building**

### Indicators:

- Proposal for new building codes and standards adapted specifically for rural conditions such as in the Northern areas of Pakistan, together with a draft support program to facilitate implementation developed by Year 3.
- At least 20 new buildings/houses built based on the new building codes and standards by end of project.
- Strategy for policy and policy support activities developed for the integration of EE product and technology applications in local (basically rural) development plans, strategies and programs completed by Year 3.

This component is intended to result in improved institutional capacity and frameworks principally at the local and state government levels, but will also target specific capacity building measures and policy reform actions at the national level. It involves showcasing (in the pilot demonstrations) how EC&EE principles and EE products and technology measures can be integrated into the existing building codes and standards, together with specific support and/or enabling policy frameworks. This is for the widespread utilization of such options in a cost-effective way beneficial to all parties concerned. The strategy and action plan for the full-scale implementation of such measures will also be developed and suggested to the appropriate decision making channels within the Government of Pakistan at its different levels.

To effectively achieve the project objective, an analysis of the existing and future national frameworks, strategies, plans and programs for regional and rural development will be carried out. This will identify ways to effectively integrate the EC&EE principles and the application of EE products and technologies. This effort will entail both intra-, and inter-ministerial and institutional coordination and facilitation. Lead agencies on both the local, regional and national level will be identified early in the process.

### **Component 3: EE Service Market Development and Financing**

#### Indicators:

- At least 15 local enterprises profitably engaged in the EE activity by the end of project
- At least 1 micro-finance institutions offering sustained micro-credit facilities for EE housing improvement projects in the Northern areas-Chitral, by the end of the project
- At least 32,100 households, including 22,000 directly and 10,100 indirectly, showcasing EE cooking, heating and housing improvement technologies and products by end of project.

This component will focus on the development of the required business skills (sales, product marketing & promotion, basic accounting, community mobilization) and entrepreneurial capacities necessary in order to facilitate local enterprises/businesses (with gender adapted modules to promote gender equality and participation) to become viable after the project implementation. It will include conduct of studies/analyses to identify and facilitate access to selected micro-finance institutions and provision of technical support in designing/developing financial instruments such as adjusted credit and savings for the pilot villages and in general for the Northern areas and Chitral, in order to enable a greater number of households avail of the EE products and technologies promoted through this project. The idea is not to create new channels of micro-finance. Rather, existing institutions and channels will be utilized as far as possible, perhaps enhanced by specific support mechanisms (e.g., guarantees that could enable expanded services in a cost efficient and effective way) that will be designed and develop under this project component.

Another activity under this project component is the preparation of specific designs and construction of the demonstrations for piloting EE cooking and heating products, as well as housing products and technologies in the selected communities. This will also involve demonstration site technical analyses (e.g., preliminary earthquake vulnerability risk assessments) and village integrated land use planning assessments (in pilot villages). Also included is the preparation of proposals for the rehabilitation of community physical infrastructures to support the villages. It will also develop guidelines and tools for calculating and assessing CO2 emissions at the household and community levels.

Under this component, work will be done to facilitate financing assistance to households that would need to buy EE products. This also extends to entrepreneurs planning to manufacture and sell EE products. Where availability of ready cash is a major constraint for outright purchase or working capital for entrepreneurs, access to micro-credit will be facilitated to the community through the recently established First Micro Finance Bank (FMFB). This bank provides small loans to entrepreneurs/individuals in urban and rural areas, as working capital with a short pay back period.

It should be noted that the PEECH project itself will not be providing micro-finance. The project will instead help develop systems and processes with the FMFB and with relevant MF institutions as they are interested, to facilitate the link between the local communities/households and entrepreneurs with the MF institutions for access to micro-finance for EE home improvement products, establishing means and mechanism support to FMFB in establishing relevant loan rules and procedures, and community social collateral process. This initiative once institutionalized and the mechanisms established, is expected to develop and sustain a market support mechanism through micro-credit and entrepreneurs development to take over the supply and demand chain of this intervention. The bulk of the financing for the EE installations will come from these mechanisms.

Further to the explanation of credit scale and magnitude requirement, it should be noted that an average EE housing product costs about RS 1,000-2,000 and saves at least RS 5,000 per winter season to the user. Thus the payback time of an EE product is within the first year of use. The typical average product life is 6-8 years. Micro-credit will also be available to people engaged in the crafts industry who acquire basic



skills from the project and wish to continue working as skilled workers, but requires working capital. The activities that will be carried out under this project component will contribute to increased income opportunities and poverty alleviation.

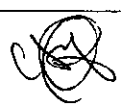
**Risks:**

<i>Type of Risk</i>	<i>Measures to Mitigate Risk</i>
<i>Low community participation</i>	<i>Community dialogue, demonstration of EE&amp;HI products within houses, and community awareness of tangible socio-economic benefits, etc. as part of the program intervention approach</i>
<i>Production of sub-standard home improvement products</i>	<i>Detailed and comprehensive training program including a certification process and technical back-up support to entrepreneurs/ artisans as part of the program delivery approach</i>
<i>Low private sector involvement</i>	<i>Private sector involvement will actively be encouraged particularly in enterprise development, micro-credit promoting for energy efficient products and technologies, and supply and use of alternates of fuel wood. Business will also be provided orientation and training on improving revenues through EE &amp; HI products and technologies</i>
<i>Lack of public sector interest</i>	<i>Public sector organisations, both at the local and the regional level have been involved in project conceptualisation, and will be involved during project planning implementation to observe the links and influence policy development accordingly</i>
<i>Non-availability of local women resource persons</i>	<i>As part of the community selection process, only those communities/ villages will be selected for program intervention as requisite where the local community organization agree to support women resource person in their respective communities for EE&amp;HI products promotion</i>

**Project Logical Framework**

<b>Project Strategy</b>	<b>Objectively Verifiable Indicator</b>	<b>Means of Verification</b>	<b>Risks and Assumptions</b>
<b>GOAL: Reduction of the GHG emissions from unsustainable uses of wood for building and energy purposes in the Northern Areas and Chitral in Pakistan.</b>	<ul style="list-style-type: none"> <li>• Annual CO2 emissions reduction = 116,160 tons from pilot households (22,000 HHs) (Baseline: ~ 11 tons CO2 Equivalent per household / year)</li> <li>• Annual CO2 emissions reductions = 53,328 tons from (at least 10,100 HHs), compared to the business as usual scenario. (Baseline: ~ 316,800 tons CO2 equivalent from 30,000 HH per / year)</li> </ul>	<ul style="list-style-type: none"> <li>• Documentation of fuel wood consumption and savings in the pilot households, and the corresponding carbon/CO2 emissions reduction</li> <li>• Documentation of number of households replicating BACIP fuel wood consumption reducing products.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring and evaluation activities planned under the project are fully supported and implemented</li> <li>• Socio-economic context remain conducive for replication of BACIP interventions</li> <li>•</li> </ul>
<b>OBJECTIVE: Improved household economies and health in the Northern Areas and Chitral through efficient use of fuel wood and EE housing construction technologies.</b>	<ul style="list-style-type: none"> <li>• HH expenditures on fuel wood in pilot villages of the Northern areas and Chitral, reduced by US\$160 per season (Baseline: ~ US\$ 300 per season/ household)</li> <li>• Reduced average HH health expenditures (reduced incidence of ARI, pneumonia, and other diseases) in pilot villages of the Northern areas</li> </ul>	<ul style="list-style-type: none"> <li>• Documentation of the fuel wood consumption and savings in the pilot households</li> <li>• Survey of households in the Northern areas and Chitral</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring and evaluation activities planned under the project are fully supported and implemented.</li> <li>• Full cooperation of survey respondents is ensured.</li> <li>• Fuel wood remains the primary source of domestic energy in the region</li> </ul>

Project Strategy	Objectively Verifiable Indicator	Means of Verification	Risks and Assumptions
	and Chitral, by 3,500 RS/annum (Baseline: ~ RS 14,000 per year / household)		
<b>OUTCOMES</b>			
<p><b>Component 1: Technical Capacity Building on EE Cooking, Heating and Housing Products and Technologies</b></p> <p>Improved local awareness and capacity for installing energy efficient cooking, heating and housing products and technologies</p>	<ul style="list-style-type: none"> <li>• EE awareness raising increased in at least 50 percent of target valleys ( Baseline ~ 0 percent awareness in target valleys) and communication strategy developed ( Baseline ~ No existing strategy) and successfully implemented starting Year 2</li> <li>• Training program for local technical personnel, end users and other stakeholders developed and institutionalized in at least 2 to 3 key teaching institutions in Northern Pakistan, together with a pilot training program with a minimum of 20 people trained, starting Year 2</li> <li>• At least 5 local entrepreneurs engaged in the installation of EE systems for cooking, heating and housing construction by Year 2</li> </ul>	<ul style="list-style-type: none"> <li>• Documentation of the approved EE awareness-raising program, and the program implementation results and evaluation</li> <li>• Documentation of the training program, the training materials, and program implementation results and evaluation.</li> <li>• Survey reports on sales of EE household products</li> </ul>	<ul style="list-style-type: none"> <li>• Relevant stakeholders and target groups are interested in participating and cooperating in the design, development and implementation of program</li> <li>• Relevant personnel are interested and willing to participate in the training and in applying the knowledge/know-how they learn.</li> <li>• High community participation</li> <li>• Relevant information are made available</li> <li>• Sales data are made available by relevant entities</li> </ul>
<p><b>Component 2: Policy Support and Institutional Capacity Building</b></p> <p>Enhanced institutional capacity and support to mainstream energy efficient products and technologies into local and national level building codes and standards, together with relevant support measures, as well as rural and regional development plans, strategies and programs</p>	<ul style="list-style-type: none"> <li>• Proposal for new building codes and standards adapted specifically for rural conditions such as in the Northern areas of Pakistan, together with a draft support program to facilitate implementation, developed, completed and implemented by Year 3</li> <li>• At least 20 new buildings/houses built based on the new building codes and standards by end of project</li> <li>• Strategy for policy and policy support activities for the integration of EE product and technology applications in local (basically – rural) development plans, strategies and programs completed by Year 2</li> </ul>	<ul style="list-style-type: none"> <li>• Documentation of the new EE building codes and standards</li> <li>• Documentation of the implementing rules and regulations for the new EE building codes and standards</li> <li>• Documentation of new building projects and building retrofit projects designed based on the new EE building codes and standards</li> <li>• Documentation of policies and programs that are in support of integrating EE considerations in rural development plans</li> <li>• Documentation of energy-integrated development plans in local government units in the Northern areas &amp;</li> </ul>	<ul style="list-style-type: none"> <li>• Implementing rules and regulations are enforced</li> <li>• Data on building construction and/or retrofit permits are made available</li> <li>• Local government understand the need to integrate energy &amp; energy efficiency in development planning</li> <li>• Public sector interest</li> </ul>



Project Strategy	Objectively Verifiable Indicator	Means of Verification	Risks and Assumptions
<p><b>Component 3: EE Service Market Development and Financing</b></p> <p>Significant growth of rural enterprise and income generation from community service providers, enhanced through the replication of integrated EE products and technique packages</p>	<ul style="list-style-type: none"> <li>• At least 15 local enterprises engaged in the EE activity by the end of project</li> <li>• At least 1 micro-finance institutions offering sustained micro-credit facilities for EE housing improvement projects by the end of the project<sup>9</sup></li> <li>• At least 32,100 households including 22,000 directly and 10,100 indirectly showcasing EE cooking, heating and housing improvement technologies and products by end of project.<sup>10</sup></li> </ul>	<p>Chitral</p> <ul style="list-style-type: none"> <li>• Documentation of micro-financing agreements</li> <li>• Survey of MFI and households that avail of micro-credit for EE product installations</li> <li>• Documentation of EE product installation projects influenced by the pilot demonstrations under the PEECH project.</li> </ul>	<ul style="list-style-type: none"> <li>• Relevant information about local companies are made available, including data on annual revenues and profits</li> <li>• Full cooperation of survey respondents is ensured.</li> <li>• Non-availability of local women resource persons</li> <li>• Low private sector involvement</li> </ul>

**c) SUSTAINABILITY (INCLUDING FINANCIAL SUSTAINABILITY)**

The prime sustaining mechanism of the interventions that will be carried out under the PEECH project are derived from the expected tangible benefits such as reduced fuel wood consumption (and the corresponding CO2 emissions reduction, increased living standard of the community in general and household disposable income, improved local housing and household infrastructure, improved health of women, children, men and the elderly for increased gender equity, and decreased incidence of poverty, and a market economy for sale of fuel efficient housing products and technology.

The set of interventions that will be carried out under the PEECH project (e.g., capacity building, institutional support and facilitation, demonstration, and awareness raising of entrepreneurs, CBOs, NGOs and the local communities, entrepreneurs and artisans, for manufacturing and installation of housing improvement products of socio-economic benefits) is meant for sustainability. The project design takes sustainability as one of its key premises; and benefits of the project are therefore expected to extend far beyond the lifetime of the project. The successful introduction of appropriate productive applications to the Northern areas and Chitral can provide ongoing livelihood benefits. As successes are replicated and more local people pursue the production of EE housing products, there may even be opportunities to invest in expanded manufacturing enterprises. New skills in production and marketing will be valuable to local people, even as they shift means of livelihood over the years. Moreover, this process will be reinforced through facilitation of micro-finance availability to entrepreneurs and community households to finance the demand and supply of EE housing improvement products, and this will directly address the financial sustainability issue of the EE interventions and their wider replication in the Northern areas and Chitral.

The involvement of government line agencies for policy level advocacy, and women from the communities as advocates at the household level will further strengthen the sustainability of the interventions that will be carried out under this project. Also, networking with other institutions that

<sup>9</sup> Community based mechanism will be introduced in the project by AKPBS,P to provide interest free loans to the community members .

<sup>10</sup> At the inception planning stage, the Project would reassess the target for number of EE and HI product installation in local households. Efforts will be made to cover at least 50,000 households with EE & HI products for demonstration and installation purpose.

implement similar interventions for wide scale replication will also contribute to the long-term sustainability of the project interventions.

**d) RELIABILITY**

The project activities present strong potential for repeating lessons learned and transferring experiences elsewhere. For example, the demand-supply chain management system of energy efficient housing construction and technology is something that can be replicated in other Asian countries with similar remote forested mountain areas. Work on EE product and technology applications may provide useful experiences, in terms of both specific applications and general models, to be replicated elsewhere.

With a focus on demonstrating the application and manufacturing of EE housing products and technologies, the EE service industry and market development is essentially designed for replication in Pakistan and in similar areas in other countries.

To ensure replicability of the project approaches, learning and exchange of experience between regions in the country, and different Asian countries will be carried out to discuss best practices, successes, and constraints. This is will take place through exchange visits of communities and stakeholders to other regions, national and international workshops and seminars and printing and acquisition of literature of own and related projects for dissemination of processes, technologies and systems .

The project's approach can also be tested in a geographically, climatically, and socially different area in another region of Pakistan. The project replicated in other areas will help identify and analyze key aspects of the local living environment. The project experience will help develop a range of appropriate interventions that will have a direct and tangible impact on reducing poverty and contributing to improvement in living conditions within those areas.

**e) STAKEHOLDER INVOLVEMENT**

The project proposal has been developed through a robust process of participatory planning involving local communities of Chitral and the Northern Areas, GoNA and GoNWFP line agencies, local NGOs, CBOs, and development organizations such as AKDN organizations, WWF, IUCN, etc. Two comprehensive consultative workshops of wider constituency including the representatives of almost all stakeholders and communities were held at Gilgit and Chitral to brief them on the PEECH project planning, design and development. The workshops were carried out to discuss issues related to forests degradation in the NAs and Chitral, the increasing household energy consumption and the socio-economic degradation associated with these issues.

The AKPBSB is the designated Executing Agency of the proposed project. As such, it will be responsible for all management, administrative and operational issues related to the project implementation. The project will institutionally be housed with in the AKPBSB-BACIP program. It will also be responsible for managing institutional relationships between project partners, donor liaison, and reporting.

AKPBSB will execute the project according to the rules and procedures established by the UNDP. It is accountable to UNDP for the quality, timeliness for the delivery of outputs utilizing funds. Among its responsibilities are, but not limited to:

- Accounting and funds management, according to the approved budget of project budget and work plan;
- Recruiting and fielding personnel for work in the project sites (in consultation with UNDP)

- Executing MOUs with partner agencies providing co-financing for implementation of the alternative strategy and monitoring delivery agency support during the implementation phase of the project.
- Entering into sub-contracts with agencies with specific technical expertise required for the implementation of selected project activities as per UNDP procedures
- Micro planning, scheduling and organization of activities and task;
- Preparing operational work plans for delivering the outputs;
- Developing Terms of Partnership with local communities setting out the respective obligations of communities and the project;
- Monitoring and reporting to UNDP, GEF Operational Focal Point and Regional and Local Governments on the progress of implementation.
- Providing Secretariat to the Project Advisory Committee
- Providing coordination support to the Convening committee
- Maintaining liaison with all relevant stakeholders, UNDP, government departments, Ministry of Environment and related EPA's, and donors for project implementation
- Coordinating all external visits and related briefing of the project

#### **Other Project Stakeholders: Roles and Responsibilities**

The PEECH project made use of the opinions/views provided by other stakeholders on EE issues related to environment, health, economic and gender related impacts. At the policy, managerial, and grassroots level, initial formal and informal collaborations with stakeholders such as, Pakistan Council for Renewable Energy and Technology (PCRET), Hydro Carbon Development Institute of Pakistan (HDIP), and The Lund University, Sweden, Housing and Settlement Research Center etc, were made. These stakeholders are also expected to be involved during the project implementation.

Generally, the roles/ responsibilities of the major stakeholders are as follows:

- Govt. of Pakistan - facilitate and support the project at the national level and provide policy Support.
- Govt. of Northern Areas - facilitate project implementation at the NA level and provide guidance and support
- Govt. of NWFP - facilitate project implementation at the NWFP and Chitral level and provide guidance and support.
- UNDP-Pakistan - Implementing Agency for this project and will implement standards GEF project implementation rules and procedures
- AKF - coordinate and maintain institutional linkages and donor liaison
- AKP BSP - Designated executing agency for the project and undertake project-defined activities and outputs
- AKCSP – carry out select project activities within the project life under its own management
- AKRSP – carry out select project activities within the project life under its own management
- WWF – carry out select project activities within the project life under its own management
- CBRM – carry out select project activities within the project life under its own management
- ADPC - provide specialized technical assistance on planning and assessment to the project
- SKAT - provide specialized technical assistance on products and technology development and refinement
- Local Communities - actively involved in project on-ground activities at the community level

Private sector involvement will actively be encouraged particularly in enterprise development, micro-credit promoting for energy efficient products and technologies, and supply and use of alternates of fuel wood. Community organizations' management and technical capacity to undertake project-related



activities at the village level will be built. These organizations will be assisted in preparing their community land use and infrastructure development/ management plans, as part of the project activities. They will also identify appropriate persons to be provided training and support at the village level. Women and children will be involved in local decision making as most project activities impact women and children.

#### f) MONITORING AND EVALUATION

Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and UNDP-Pakistan with support from UNDP/GEF. As executing agency, AKP BSP will take overall responsibility for project establishment, operation and monitoring and evaluation. The Monitoring and Evaluation (M&E) strategy and plan shown in Annex 2B will be implemented to track the progress and results of the activities, as well as in tracking impacts after the end of the project. In addition, AKP BSP will carry out continuous self-monitoring, based on the success indicators and means of verification for each activity that will be carried out under this project. In order to ensure coherent, coordinated and timely implementation of project activities, appropriate practical mechanisms, M&E procedures and implementation arrangements will be developed.

The Project Logical Framework is based on the preliminary stakeholder consultations that came up with the project design. This log frame will be further refined during the inception workshop (to be held 3 months after the project document has been signed), to finalize and confirm the various activities, the delineation of responsibilities, inputs and target outputs for each of activity.

A Project Inception Workshop will be conducted with the full project team, relevant government officials, co-financing partners, the UNDP-Pakistan, and representation from the UNDP-GEF RCU in Bangkok, as well as UNDP-GEF (NY) as appropriate. A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan and elaboration of the project's output-activity level log frame matrix. A detailed schedule of project review meetings will be developed by the project management, in consultation with project partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for Tripartite Reviews, Project Advisory Committee (PAC) Meetings, and (ii) project related Monitoring and Evaluation activities.

The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. The Inception Report, Annual Project Report, Project Implementation Review, Quarterly Progress Reports, Periodic Thematic Reports, and Project Terminal Report are related to monitoring, while the Technical Reports and Project Publications have a broader function and the frequency and nature will be refined throughout implementation.

Within the overall M&E process, a CO<sub>2</sub> emissions reduction monitoring process will be set up, based on the actual number of installed products and the amount of reduction in fuel wood use for heating, cooking and construction at the household level. This process will be set-up at the select community level on a sample basis where communities will be provided guidelines, training, and tools such as weighing scales and record sheets etc. to note the number of products installed and reduction in fuel wood use etc., over a period of time. The information gathered will then feed into a project level data base where number of products installed and reduction of fuel wood for the entire project area will be aggregated, at the project level, to enable the estimation of the overall carbon emission reductions attributed to the project.

The project will be subjected to at least one independent external evaluation. The Executing Agency will provide UNDP-Pakistan with certified periodic financial statements, and with an annual audit of the

financial statements relating to the status of the project funds (TRAC and GEF) according to the established procedures set out in the UNDP Finance and Programming manuals. A commercial auditor engaged by the Executing Agency will conduct the audits. Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums.

### Indicative Project Monitoring and Evaluation Plan & Corresponding Budget

Type of M&E Activity	Responsible Parties	Budget US\$ (excluding project team staff time)	Time frame
Inception Workshop (IW)	Project Director Project Manager UNDP-Pakistan UNDP-GEF A&P RCU	\$ 6,000	Within first two months of project start up
Inception Report	PEECH PMO UNDP-Pakistan	\$ 1,000	Immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost \$ 34,000	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance (measured on an annual basis)	Oversight by Project GEF Technical Advisor and Project Manager Measurements by regional field officers and local IAs	To be determined as part of the Annual Work Plan's preparation. Indicative cost \$25,000	Annually prior to APR/PIR and to the definition of annual work plans
APR and PIR	PEECH PMO UNDP-Pakistan UNDP-GEF A&P RCU	None	Annually
TPR and TPR report	Government Counterparts UNDP-Pakistan PEECH PMO UNDP-GEF A&P RCU	None	Every year, upon receipt of APR
Project Advisory Committee Meetings	Project Manager UNDP-Pakistan	\$ 2,000	Following Project IW and subsequently at least once a year
Periodic status reports	PEECH PMO	None	To be determined by Project team and UNDP-Pakistan
Technical reports	PEECH PMO Hired consultants as needed	\$ 5,000	To be determined by Project Team and UNDP-Pakistan
Mid-term External Evaluation	PEECH PMO UNDP-Pakistan UNDP-GEF A&P RCU	\$ 10,000	At the mid-point of project implementation.

Type of M&E Activity	Responsible Parties	Budget US\$ (excluding project team staff time)	Time frame
	External Consultants (i.e. evaluation team)		
Final External Evaluation	PEECH PMO UNDP-Pakistan UNDP-GEF A&P RCU External Consultants (i.e. evaluation team)	\$ 15,000	At the end of project implementation
Terminal Report	PEECH PMO UNDP-Pakistan External Consultant	\$ 5,000	At least one month before the end of the project
Lessons learned	PEECH PMO UNDP-GEF A&P RCU (suggested formats for documenting best practices, etc)	\$ 5,000 (average 2,000 per year)	Yearly
Audit	UNDP-Pakistan PEECH PMO	\$ 10,000 (average \$2000 per year)	Yearly
Visits to field sites (UNDP staff travel costs to be charged to IA fees)	UNDP-Pakistan UNDP-GEF A&P RCU (as appropriate) Government representatives	\$ 5,000 (average one visit per year)	Yearly
<b>TOTAL Indicative COST</b> (excluding project team staff time and UNDP staff and travel expenses)		US\$ 123,000	

#### 4. FINANCING (for all tables, expand or narrow table lines as necessary)

##### FINANCING PLAN, COST EFFECTIVENESS, CO-FINANCING, CO-FINANCIERS

##### 1) FINANCING PLAN

The total project cost is US\$ 2,463,500. The GEF is requested to provide US\$ 975,000 that constitutes mainly the costs related to incremental market studies, assessments, development of business skills, facilitation of micro finance mechanisms and overall awareness raising and information dissemination, together with capacity building and technical assistance. UNDP will contribute US\$ 150,000 in cash, and AKPBS and other co financing sources will contribute a total of US\$ 1,338,500 to be given in a combination of in cash and in kind contributions.

##### 2) COST EFFECTIVENESS

The estimated total cost of the proposed project is considered reasonable enough for realizing the expected energy and environment benefits. The project will pursue activities that will contribute to further bring down the corresponding cost of each ton of GHG reduced through direct and/or indirect means. It is believed that the proposed project activities are expected to contribute to the realization of the anticipated reduction in fuel wood consumption in the target areas.

By addressing the barriers in an integrated manner, the actions taken is considered more comprehensive and in the end more cost-effective compared to the modest but obviously limited work done through

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BACIP. In essence, most of the problems/constraints encountered so far will also be experienced in future separately-planned and funded interventions to address the energy needs in other regions, particularly rural areas, in Pakistan. Under the PEECH Project, the selected approach of addressing the removal of the barriers would benefit these ongoing and planned and future rural development projects in the country.

Considering the projected CO2 emissions reduction that will result directly and indirectly from the PEECH Project by project's end (i.e., end Year 4), the estimated unit abatement cost is about US\$ 1.54/ton CO2. Moreover, the project proponents believe that the project is worth the effort as it has important links towards overall rural human development strategies, reduced deforestation and vulnerability/resilience of communities and households.

**a) PROJECT COSTS**

Project Components/Outcomes	Co-financing (\$)	GEF and UNDP \$	Total (\$)
1. Technical Capacity Building on EE Cooking, Heating and Housing Products & Technologies	150,000	320,300	461,300
2. Policy Support & Institutional Capacity Building	172,500	218,200	390,700
3. EE Service Market Development & Financing	738,100	376,000	1,094,100
4. Monitoring, Learning, & Evaluation	92,000	123,000	215,000
5. Project management budget/cost*	185,900	87,500	302,400
<b>Total project costs</b>	<b>1,338,500</b>	<b>1,125,000</b>	<b>2,463,500</b>

\* This item is an aggregate cost of project management; breakdown of this aggregate amount should be presented in the table b) below.

**b) PROJECT MANAGEMENT BUDGET/COST**

Component	Estimated staffweeks	GEF (\$)	Other sources (\$)	Project total (\$)
Personnel*	0	0	0	0
Local consultants*	416	23,500	66,500	90,000
International consultants*	0	0	0	0
Office facilities, equipment, vehicles and communications		21,000	128,400	149,400
Travel		40,000	10,000	50,000
Miscellaneous		3,000	10,000	13,000
<b>Total</b>	<b>416</b>	<b>87,500</b>	<b>214,900</b>	<b>302,400</b>

\* Local and international consultants in this table are those who are hired for functions related to the management of project. For those consultants who are hired to do a special task, they would be referred to as consultants providing technical assistance. For these consultants, please provide details of their services in c) below:

**c) CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Estimated staffweeks	GEF (\$)	Other sources (\$)	Project total (\$)
Personnel	-	-	-	-
Local consultants	176	43,000	221,465	264,465
International consultants	131	80,000	312,585	392,585

Total	334	123,000	534,050	657,050
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**d) CO-FINANCING SOURCES<sup>11</sup>** (expand the table line items as necessary)

<b>Co-financing Sources</b>					
Name of co-financier (source)	Classification	Type	Amount (\$)	Status	
				Confirmed	unconfirmed
UNDP	Implementing Agency	Cash	150,000	150,000	
AKPBSP	NGO	Cash & In-kind	488,500	488,500	-
AKF	NGO	Cash & In-kind	100,000	100,000	-
AKCSP	NGO	In-kind	150,000	150,000	-
AKRSP	NGO	In-kind	200,000	200,000	-
WWF	NGO	In-kind	350,000	350,000	-
CBRM	NGO	In-kind	50,000	50,000	-
<b>Sub-total co-financing</b>			<b>1,488,500</b>	<b>1,488,500</b>	

**Budget Notes**

**Project Management Budget**

**a) Local Consultants**

8 person years (=416 staff weeks) are needed to manage the project over 4 years of which 4 person years are calculated at the rate of a senior professional contracted long term (USD 15,000 per person year) and 4 person years at the rate of an assistant (USD 7,500 per person year). Here is the equation:  $4 \times 15,000 + 4 \times 7,500 = 90,000$ . GEF is contributing USD 23,500 towards this amount.

**b) Office facilities, equipment, vehicles and communications**

Total costs over the 4 year period are approx. USD 149,400 of which GEF would pay USD 21,000 which is less than 20% and the co-financing partners would finance 80% of the costs. The breakdown of the GEF contribution of USD 21,000 is calculated as follows:

Equipment and Communication: USD 21,000 broken down as follows: Equipment: USD 4000 for 2 laptops; USD 2000.- for a photocopy and printer; USD 5000.- for printer cartridges/ toner, accessories such as cables, mouse and eventual repair/ upgrade of the equipment (i.e. memory card); USD 3000 for multimedia projector; USD 500 for digital camera and accessories; USD 500.- for a cell phone (+ subscription). Communications: USD 6,000- for internet access fees, local communication, and fax and telephone bills.

**c) Travel**

Extensive travel for face to face interactions with local stakeholders (villagers) is considered essential for project success. The extremely remote Northern Areas valleys are spread out and require long travel times. Effective implementation of this project cannot happen without sufficient fund allocation for mobility. If the project cannot be implemented effectively GHG emission reductions will not materialize. Mainly the travel budget will be used to rent vehicles to travel to the remote villages. A total budget of USD 50,000 (including co-financing) is contemplated for travel under the management budget.

**d) Miscellaneous**

Approximately 4% of the project management budget is reserved for miscellaneous expenses that may be encountered during the project lifetime.

**Technical Assistance Consultancy Budget****a) Local Consultants**

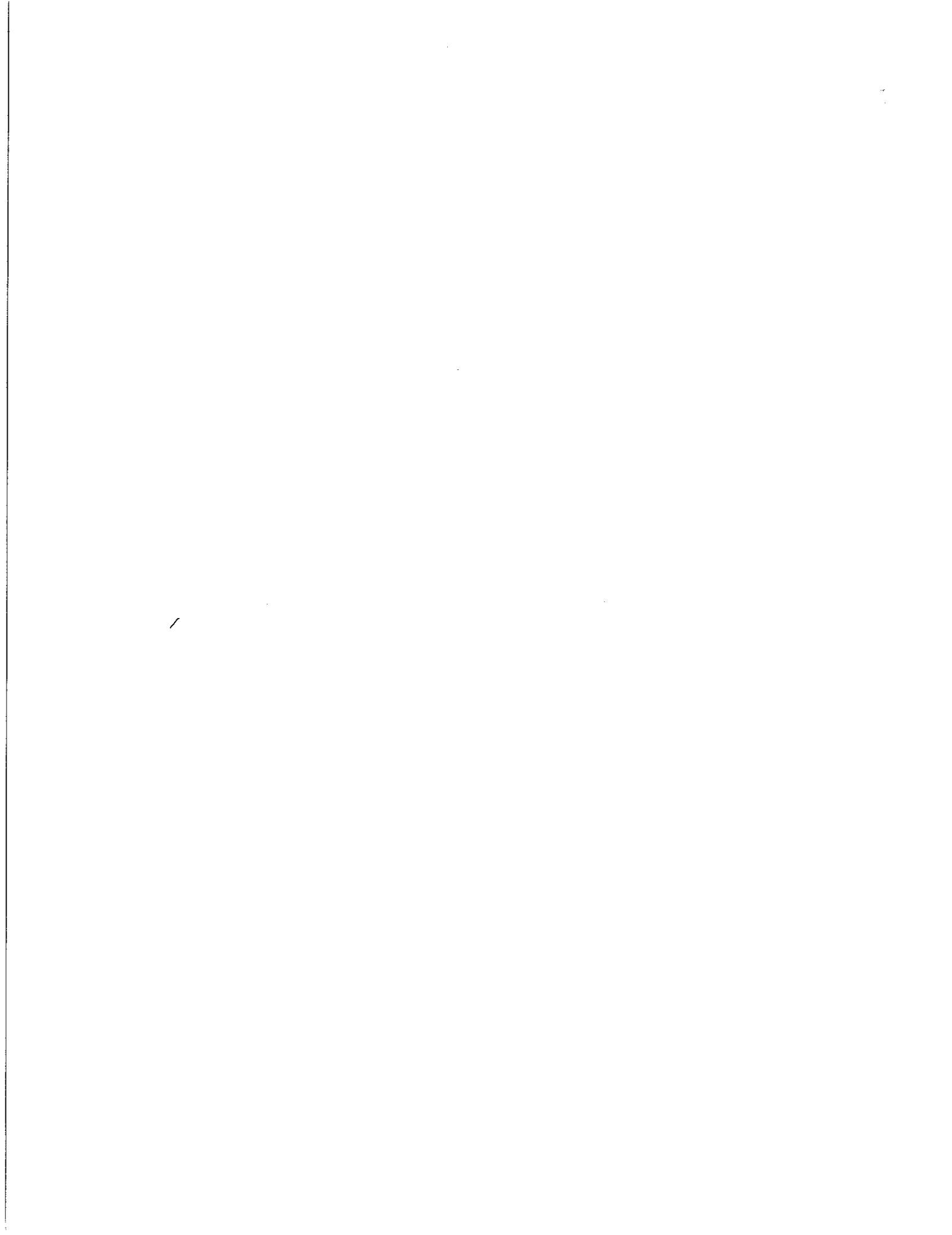
176 staff weeks are estimated for local consultants providing technical inputs. Most of these will be short term consultancies at a rate of USD 300/day resulting in a staff week cost of USD 1,500. Here is the equation:  $1,500 \times 176 = 264,000$ . GEF will contribute 43,000 to the total costs of 264,000.

**b) International Consultants**

131 staff weeks are estimated for international consultants providing technical inputs. Most of these will be short term consultancies at a rate of USD 600/day resulting in a staff week cost of USD 3,000. Here is the equation:  $3,000 \times 131 = 393,000$ . GEF will contribute 80,000 to the total costs of 393,000.

**Description of major contracts/ consultancies**

<b>Consultancy</b>	<b>Description</b>	<b>Estimated Cost (GEF contribution)</b>
<b>Project Management</b>	A project manager and an assistant will be contracted to manage the project, which includes: leading and guiding the project team, contracting and supervising all technical consultancies, administrative and financial management, liaison with UNDP office and so on. Combined, 8 person years (4 for the project manager, and 4 for the assistant) are allocated for the 4 year project.	\$23,500
<b>Service Contracts/ TA and Training for EE</b>	Service contracts for TA and training will be awarded to support the project team with regard to: Developing and Implementing an EE awareness-raising and communication strategy; Developing and Institutionalizing a training program for local technical personnel, end users and other stakeholders in 2 to 3 key teaching institutions in Northern Pakistan; Implementing a pilot training program; Hands-on training for local entrepreneurs engaged in the installation of EE systems for cooking, heating and housing construction.	\$220,112
<b>Service Contracts for Building Codes and rural policy integration</b>	Service contracts for developing building codes and standards and integrating EE policies and measures into rural development plans will be awarded to support the project team with regard to: Developing a proposal for new building codes and standards adapted specifically for rural conditions such as in the Northern areas of Pakistan, together with a draft support program to facilitate implementation; Developing a strategy for policy support activities for the integration of EE product and technology applications in local (basically rural) development plans, strategies and programs	\$197,980
<b>Business Service Contracts: EE Market Development &amp; Financing</b>	Business service contracts will be awarded to support the project team with regard to: Engaging local enterprises in the EE activities of project; Working with micro-finance institutions offering sustained micro-credit facilities for EE housing improvement projects in the Northern areas-Chitral; facilitating the replication of usage of EE cooking, heating and housing technologies and products.	\$223,000
<b>Monitoring, Learning, &amp; Evaluation</b>	Approx. six local and international consultants will be contracted for 56 weeks (29 weeks for national and 27 weeks for international consultants) over the 4 year period. These consultants would support the project team with regard to: conducting the mid-term and final evaluation (2 consultants each, one national and one international); exposure visits to project sites; an annual experience sharing workshop featuring all stake holders; video documentation; presentations on project achievements in various forums and other tasks as relevant to this component.	\$123,000

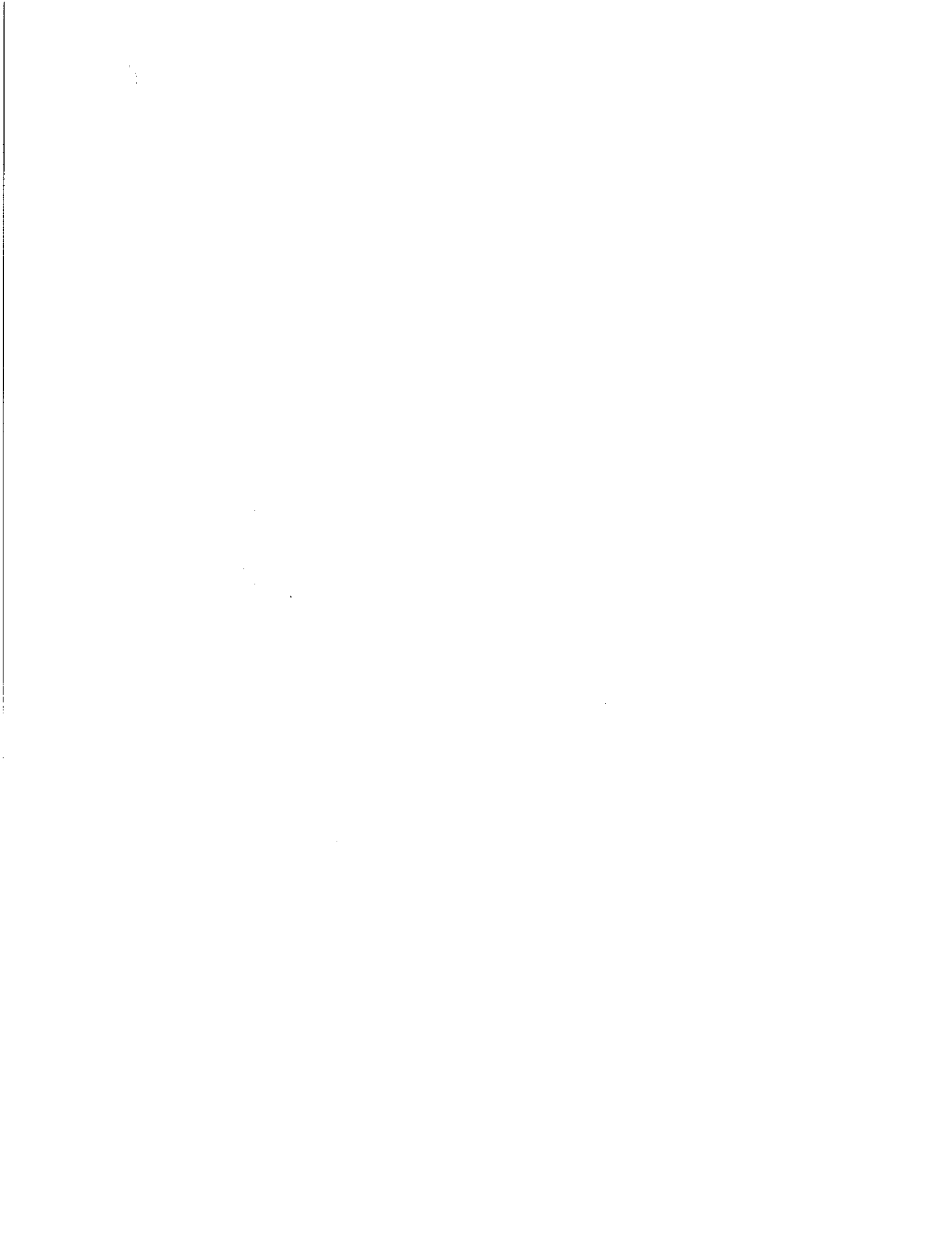




## Total Budget and Work Plan

Award ID:	00036784
Award Title:	PIMS 3110 Pakistan Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)
Business Unit:	PAK10
Project Title:	PIMS 3110 Pakistan Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)
Implementing Partner:	Aga Khan Planning and Building Service, Pakistan (AKPBS)
(Executing Agency)	

GEF Outcome/Atlas Activity	Responsible Party / Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total in cash (USD)	Total In-kind	
<b>OUTCOME 1:</b> Technical Capacity Building on EE Cooking, Heating & Housing Products & Technologies	UNDP	62000	GEF	72100	Service Contracts / TA and Training for EE	55,028	55,028	55,028	55,028	220,112		
				72300	Materials & Goods	4,500	3,800	5,250	6,300	19,850		
				74100	Professional Services/Capacity Development	16,000	14,000	29,000	16,000	75,000		
				74500	Misc	1,334	1,334	1,334	1,336	5,338		
					<b>Total Outcome 1</b>	<b>66,862</b>	<b>64,162</b>	<b>70,612</b>	<b>68,664</b>	<b>320,300</b>	<b>150,000</b>	
<b>OUTCOME 2:</b> Policy Support & Institutional Capacity Building	UNDP	62000	GEF	72125	Service Contracts for Building Codes and rural policy integration	49,495	49,495	49,495	49,495	197,980		
				74500	Public Consultations & Hearings	4,000	4,000	2,000	1,000	11,000		
				74500	Misc	2,305	2,305	2,305	2,305	9,220		
					<b>Total Outcome 2</b>	<b>55,800</b>	<b>55,800</b>	<b>53,800</b>	<b>52,800</b>	<b>218,200</b>	<b>172,500</b>	
				72300	Business Services	57,000	54,500	57,000	54,500	223,000		
<b>OUTCOME 3:</b> EE Service Market Development & Financing	UNDP	62000	GEF	74120	Materials & Goods	28,775	28,775	28,775	28,775	1,151,00		
				74120	Professional Services / Capacity Assessment	7,500	7,500	7,500	7,500	30,000		
				74500	Misc	2,225	1,225	3,225	1,225	7,900		
	<b>Total Outcome 3</b>	<b>95,500</b>	<b>92,000</b>	<b>92,000</b>	<b>92,000</b>	<b>376,000</b>	<b>738,100</b>					
<b>OUTCOME 4:</b> MONITORING	UNDP	62000	GEF	71200	International Consultants	10,666	10,666	10,668	48,000	80,000		



Summary of Funds: 12

LEARNING & EVALUATION	PMU	62000	GEF	Year					Total
				1	2	3	4		
			GEF	In cash	232,803	226,603	235,355	280,239	975,000
			UNDP	In cash	28,500	48,960	45,540	27,000	150,000
			AKPBPSP	Cash & In-kind	73,275	165,226	171,839	78,160	488,500
			AKF	Cash & In-kind	13,000	40,500	34,500	12,000	100,000
			AKCSP	In-kind	33,000	39,000	39,000	39,000	150,000
			AKRSP	In-kind	28,000	70,500	70,500	31,000	200,000
			WWF	In-kind	66,500	134,200	91,340	57,960	350,000
			CBRM	In-kind	6,100	15,460	22,640	5,800	50,000
			<b>TOTAL</b>		<b>481,178</b>	<b>740,449</b>	<b>710,714</b>	<b>531,159</b>	<b>2,463,500</b>
			71300	Local Consultants	7,100	7,100	6,900	21,900	43,000
				<b>Total Outcome 4</b>	<b>17,766</b>	<b>17,766</b>	<b>17,568</b>	<b>69,900</b>	<b>123,000</b>
			71200	International Consultants	0	0	0	0	0
			71300	Local Consultants	5,875	5,875	5,875	5,875	23,500
			71600	Travel	10,000	10,000	10,000	10,000	40,000
			72500	Office Supplies	2,000	2,000	2,000	2,000	8,000
			72200	Equipment & Furniture	3,250	3,250	3,250	3,250	13,000
			74500	Misc	750	750	750	750	3,000
				<b>Total Management</b>	<b>21,875</b>	<b>21,875</b>	<b>21,875</b>	<b>21,875</b>	<b>87,500</b>
			<b>PROJECT TOTAL</b>		<b>232,803</b>	<b>226,603</b>	<b>235,355</b>	<b>280,239</b>	<b>1,125,000</b>
			<b>Grand Total</b>		<b>2,463,500</b>	<b>2,463,500</b>	<b>2,463,500</b>	<b>2,463,500</b>	<b>1,338,500</b>

Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc. etc





## INSTITUTIONAL COORDINATION AND SUPPORT

### a) CORE COMMITMENTS AND LINKAGES

#### a) Project linkage to national priorities, action plans, and programs

Pakistan, as a signatory to the United Nations Framework Convention on Climatic Change (UNFCCC) adopted in 1992, is committed to address urgent environmental problems, such as climate change facing the humanity globally and locally. The Kyoto Protocol (1997) to which GoP is also considering being a signatory to, provides legally binding constraints on greenhouse gas emissions and innovative 'mechanisms', such as Clean Development Mechanism (CDM) etc., aimed cutting the cost of curbing emissions. Additionally, Pakistan has taken various steps in past and present to address and alleviate the long-term effects of environmental problems in the country, such enactment of the Pakistan Environment Protection Act (PEPA) of 1997 providing the legal regulatory and punitive framework and establishment of National Environment Quality Standards (NEQS); the National Conservation Strategy (NCS) 1994 providing an overall national environmental policy; and the National Environmental Action Plan (NEAP) with four core areas of Clean air, Clean Water, Solid Waste Management, and Eco-system management. The project is directly linked with the at least 4 NCS core programs areas of: (1) Protecting watersheds; (2) Supporting forestry and plantations; (3) Conserving bio-diversity; (4) Supporting institutions for common resources; and, (5) Increasing Energy Efficiency.

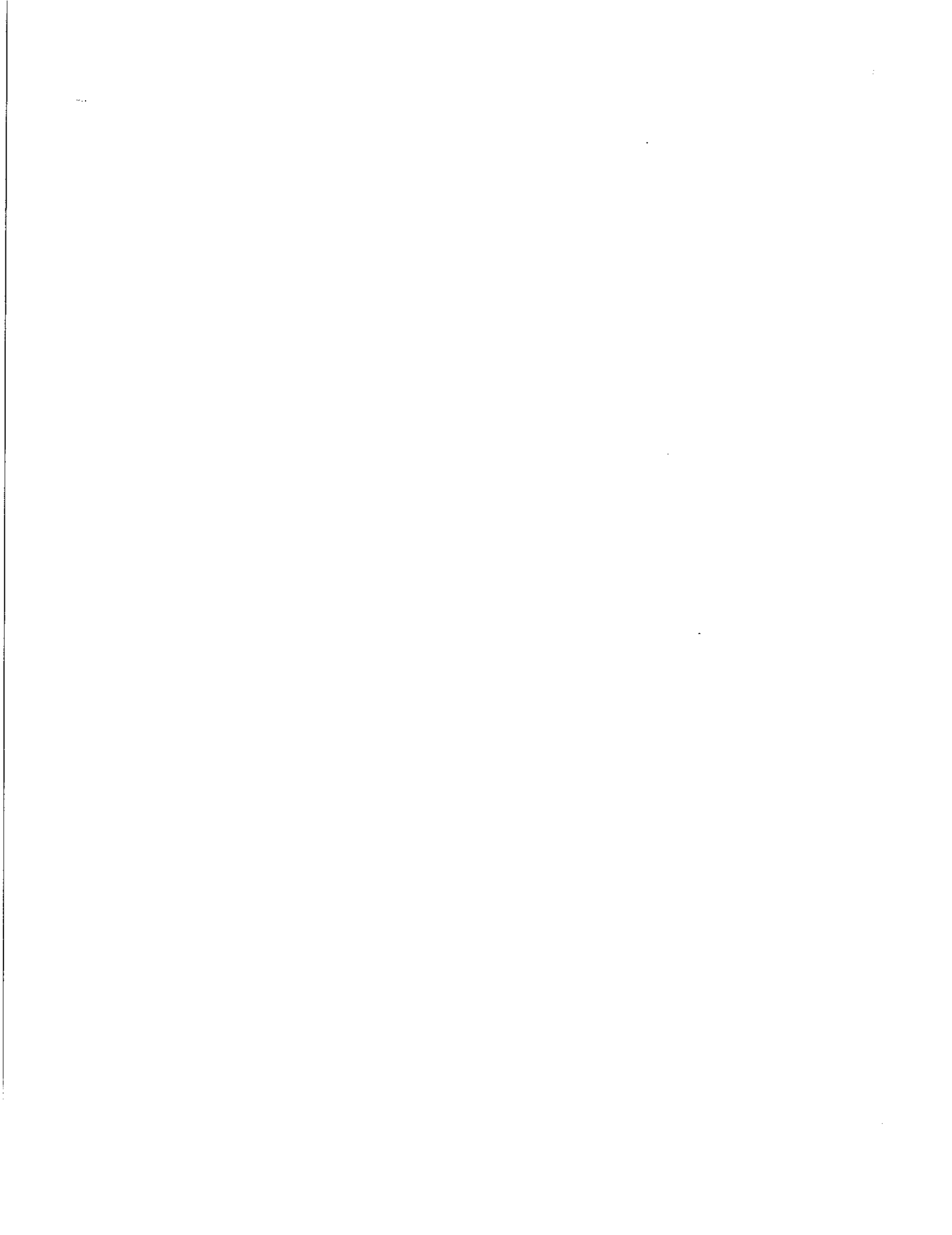
The proposed project will directly compliment and provide parallel policy and programmatic inputs for meeting the country's obligations and responsibilities under various Multilateral Environment Agreements. These include mechanisms such the Montreal protocol, which includes preparation of National Implementation Plans (NIP) of converting the proposed measures into effective action planning and implementation.

In line with the above principles the project has been designed to assist the communities living within and around the forests to actively participate in conservation and sustainable management of these resources, and to help reduce CO<sub>2</sub> emissions. This is possible only through reducing the mountain communities' dependence on forests and forest products in housing construction and heating, thereby reducing the extent and level of pressure on natural resources responsible for excessive resource degradation and contribution to climate change through increase in CO<sub>2</sub> emissions.

The project activities compliment the Northern Areas, Planning and Development Department (P&DD), and the NWFP-P&DD plans under NEAP, and for developing measures and strategies for reducing use of biomass (forests / fuel wood use), and related CO<sub>2</sub> emissions for reducing impacts on climate change; and driving the communities for the sustainable use of natural wood resources (for fuel and industrial use). Besides, PEPA 1997 already extended to the NWFP, and now being extended to NAs, also includes suggestions for the conservation of biodiversity, habitats and renewable energy resources.

#### b) Project linkage to Implementing Agency program(s)

The Country Program Action Plan (CPAP) (2004-08) agreed by the Government of Pakistan and approved by the Executive Board of UNDP, provides support to address the "poverty-environment nexus" at two levels: 'firstly, to cater to the national needs, and secondly, in response to 'global environmental concerns'. The program and projects currently under implementation reflect the areas, recognizing, and environment as a crosscutting theme. UNDP is funding projects to improve the urban & peri-urban environment, as well as supporting the implementation of the Montreal Protocol to phase out Ozone Depleting Substances. In augmenting the capacity of the GOP to meet its commitments under the UNFCCC, UNDP-Pakistan is actively involved for the stabilization of greenhouse gases (GHGs) in the atmosphere with its Fuel Efficiency in the Road Transport Sector and Wind Energy projects. The UNDP Country Program for Pakistan (2004-2008) also lays out its commitment to strengthen the capacity of institutions, dealing with policy formulation and legal and regulatory frameworks under global conventions, to meet national commitments. The outlined development agenda will integrate



environmental concerns and build capacity to implement integrated umbrella programs that responds to the needs of the poor such as NEAP.

UNDP is providing strategic support and policy advice to the Ministry of Environment towards the implementation of the Conventions on Biodiversity, Climate Change and Desertification (CCD). In order to meet GOP's commitments under the Convention on Biological Diversity (CBD), in-situ measures are being implemented in fragile and threatened eco-systems of the country by mobilizing resources from global mechanisms, partner donors and the private sector etc. Two such projects with in-situ conservation currently underway include areas comprising the Northern areas of Pakistan. These projects are the Pakistan Wetlands Project with "Northwest Alpine Wetlands Complex" being part of the project area. Similarly, the Mountain Areas Conservancy Project (MACP) has two of its four conservancies located in the Northern Areas.

Also, based on the experiences and lessons learned and in order to address the issues related to poverty and the environment, UNDP, in partnership with the Government of Pakistan, is assisting in the implementation of National Environmental Action Plan (NEAP) by using the program-approach. The main purpose of the NEAP Support Program is to complement GOP's on-going efforts aimed at mobilizing technical and financial assistance required to meet its environmental management and natural resources conservation targets. NEAP being an umbrella action plan has the potential to coordinate all the initiatives that are linked to environment. GEF initiatives in Pakistan address the following six sub-programs of NEAP-SP: (1) Policy Coordination and Environmental Governance; (2) Pollution Control; (3) Eco-System Management and Natural Resource Conservation; (4) Energy Conservation and Renewable Energy Utilization; (5) Dry Land Management & Water Conservation; and, (6) Grassroots Initiatives.

**b) CONSULTATION, COORDINATION AND COLLABORATION BETWEEN IAS, AND IAS AND ExAs, IF APPROPRIATE.**

The designated executing agency - AKPBS, has been carrying research and extension work since 1997, which have either direct or indirect links to the PEECH Project. Among these are the development, testing and selected pilots of a total of 60 different technologies and practices related to energy efficient housing, cooking and heating together with sustainable livelihood options that could directly impact on energy conservation. In this regard, AKPCSP and UNDP-Pakistan will ensure coordination across these ongoing project activities during the PEECH project implementation.

The proposed project has been conceptualized based on consultations with, and involvement of, institutions at the national and local levels that either have a mandate, or are currently working in the areas of rural development, environment, energy, i.e., sustainable development, particularly in the Northern areas, including UNDP-GEF SGP-funded projects. The project is also based on review of all previous EC&EE projects in the country such as those funded by USAID. Key members of some of these projects were consulted and will be further involved in the project development and design, and will be considered for membership in the Project Advisory Committee (PAC). The establishment of links with these projects has helped in identifying the relevant activities that build on their achievements. The project was conceptualized in close cooperation with both local stakeholders as well as with the UNDP-GEF Regional Coordination Unit in Bangkok. The UNDP office in Islamabad will be fully involved in project development through its participation in the planned stakeholder and co-financing consultation meetings. Consultations will also be carried out with UNDP-GEF, New York during project development.

**c) PROJECT IMPLEMENTATION ARRANGEMENT**

A 14-member PAC, headed by the Ministry of Environment will be constituted to provide technical guidance and strategic monitoring of the project with representation from donors, GOP, NA government, WFP government, UNDP-Pakistan, AKPBS, and other select stakeholders. A Conveying Committee (CC) will support PAC. Among the major responsibilities of the PAC are ensuring continuous policy

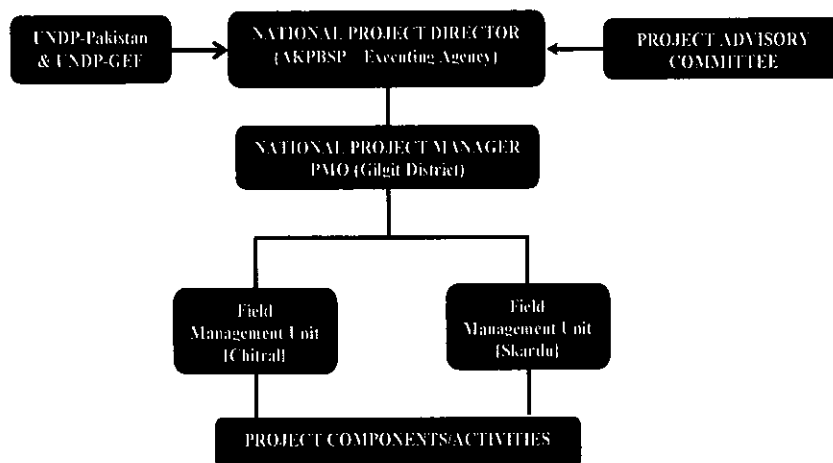
support from the related local government and GOP for achievement of project objectives, budgets/work plans and progress reviews, and provision of strategic advice. The PAC is expected to meet at least once a year during the project lifetime. AKPBSB being the executing agency will provide secretariat support to the PSC and the Project Manager will act as member secretary.

UNDP Pakistan will carry out project implementation oversight as per NGO execution guidelines. A specific MOU between the AKPBSB and UNDP-Pakistan will be developed and agreed and will be incorporated as an integral part of the project document, which will be prepared after the GEF approval of this MSP Brief.

AKPBSB will set up a project team headed by a Project Manager. There will be two field management units, one for the project area in Chitral, and one for the project area in Skardu District. Gilgit district activities will be managed by the AKPBSB regional office in Gilgit. The two field management units will operate from AKPBSB sub-regional offices of Chitral and Skardu. The Program Manager will be working out of the Gilgit office. AKPBSB will set up a project office in Gilgit and will undertake implementation in collaboration with the relevant government agencies, NGOs/CBOs, local communities and other stakeholders.

AKPBSB will engage the government line agencies, NGOs/CBOs and local communities and stakeholders for various activities (through a formal MOU where required) as called for an effective project implementation. Potential partner organizations, such as AKDN, WWF, IUCN, etc, may be engaged to conduct some of the project-related activities on the project's behalf. AKPBSB will undertake social mobilization itself where required. Based on socio-economic and ecological criteria, certain sites and dependent communities will be selected for social organization purposes. Community organizations' management and technical capacity to undertake project-related activities at the village level will be built. COs will be assisted in preparing their community land use and infrastructure development/ management plans. COs will also identify appropriate persons to be provided project activities related training and support at the village level. Women and children will be involved in local decision making as most project activities impact women and children.

The proposed project management structure is shown below:





## Section IV- Additional Information Part 1 – 2 Other Agreements



### Global Environment Facility

1818 H Street, NW  
Washington, DC 20433 USA  
Tel: 202.473-0508  
Fax: 202.522.3240/3245  
Internet: www.theGEF.org

October 15, 2007

Mr. Yannick Glemarec  
GEF Executive Coordinator  
United Nations Development Programme  
One United Nations Plaza  
New York, NY 10017

Dear Mr. Glemarec:

I am pleased to inform you that I am approving the medium-sized project proposal entitled *Pakistan: Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)*, for \$975,000 in financing from the GEF Trust Fund. I understand that this project proposal will be submitted for approval in accordance with the UNDP procedures. I note that a project preparation grant of US\$25,000 was previously approved for preparation of this project and that a report on the completion of activities of this grant has been submitted to the GEF Secretariat. Taking into account the project preparation funds, the total GEF grant for the project is US\$1,000,000.

I am also approving the fee of \$100,000 representing 10.00% of the project allocation for implementation services.

I am approving this project on the understanding that the project will meet the following milestones:

- (i) the grant agreement will be signed no later than December 2007;
- (ii) the closing date of the project grant will be no later than November 2011 and a terminal evaluation/project completion report will be submitted to the GEF Secretariat within 6 months of such closing date.

You are requested to ensure that the GEF Secretariat is informed when each of these milestones is met. If any milestone is not achieved, and after consultations with your agency, I may agree to revised milestones or recommend cancellation, termination, or suspension of the project, and I will communicate to the beneficiary country and your agency the basis for such a recommendation.

Please ensure that your grant agreements continue including a closing date and providing for your agency's right of cancellation, suspension or termination upon my recommendation to that effect.

I am attaching a copy of the project tracking sheet for your records.

Sincerely,

  
Monique Barbé  
Chief Executive Officer and Chairperson

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Climate Change  
OP: 5

PMIS Project ID : 2526  
UNDP

GEF Project Tracking System  
Medium-Sized Project Clearance/Approval

**Pakistan: Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)**



**PPG Review**                      \$25,000                      \$31,500

Program Manager

Recommendation

Zhihong Zhang

Recommendation

Team Leader

Clearance

Richard Hosier

CEO

Approval

Monique Barbut

**MSP Review**                      \$1,000,000                      \$2,488,500

Program Manager

Recommendation

Zhihong Zhang

Recommendation

Team Leader

Clearance

Richard Hosier

CEO

Letter to Council

**MSP Approval**                      \$1,000,000                      \$2,488,500

IA Fee                      \$100,000

Program Manager

Recommendation

Zhihong Zhang

Recommendation

Team Leader

Clearance

Richard Hosier

CEO

Approval

Monique Barbut

Project Preparation Grant (if used)

## STATUS REPORT



GEF

### PROJECT TITLE

... Housing Technologies  
... Lighting and Construction  
... Planning and Building

... Change - Removing  
... Agency

... MARCH 2005  
... MARCH 2005

	Date
... Environment Focal Point	March 13, 2007



**LINKAGE INDUSTRY**

**Expenditures and commitments**

	Co-finance	Staff weeks	Committed	
			GEF financing	Co-finance
	3,500	lumpsum	10,250	1,500
	1,000	lumpsum	3,500	1,000
	1,000	lumpsum	3,000	1,000
	500	lumpsum	3,750	500
		lumpsum	3,500	
	500	lumpsum	1,000	500
	6,500		25,000	6,500

... disbursed at time of operational closure as  
 ... there will be unspent PDE/PPG funds at the time  
 ... of actual disbursement from what was

	Type	Amount	
		Expected (\$)	Actual (\$)
		1,500	1,500
5,000	5,000		
		6,500	6,500

... There were no unspent balances from project funds. Ce-  
 ... through approval phase of the project  
 ... deviations from what was planned.

1392

Tel: 92-51-9202558  
Fax: 92-51-9206051

D.O. No. 1-49/2006-NCS-11  
GOVERNMENT OF PAKISTAN  
MINISTRY OF ENVIRONMENT  
CDA, Block No. 4, Civic Centre,  
G-6, Islamabad



Islamabad, the 14<sup>th</sup> September, 2006

*Joint Secretary (International Cooperation) /  
GEF Operational Focal Point*

Subject:- IMPLEMENTATION OF RESOURCE ALLOCATION FRAMEWORK  
(RAF) OF GEF

Dear Chief Executive Officer and Chairperson,

Kindly refer to your letter of 4<sup>th</sup> May 2006 on the above subject.

2. I am enclosing two initial lists of project concepts pertaining to focal areas of "Bio-diversity" and "Climate Change" which are proposed to be funded from indicative allocations for Pakistan under RAF. The lists will be updated during the GEF-4 period.

3. I look forward to working closely with the GEF Secretariat while the RAF is implemented in the months and years ahead.

Yours sincerely,

  
(Khizar Hayat)

Ms. Monique Barbut,  
Chief Executive Officer & Chairperson,  
Global Environment Facility,  
1818 H Street NW,  
Washington DC 20433 USA

**Strategic Planning Table for**  
**GEF under Resource Allocation Framework (2006-2010)**  
**Climate Change Projects**

Total Allocation (US \$ Million)	11.89	
<b>Project title</b>		<b>GEF Contribution</b>
<b>Medium Size Projects</b>		
1. Productive use of Renewable Energy Project		0.950
2. Promotion of Energy Efficient Cooking, Heating and Housing Technologies (PEECH)		0.975
3. Barrier Removal to the Cost effective Development and implementation of energy Efficiency standards and Labeling Project (BRESL)		0.500
<b>Full-size Project</b>		
1. Sustainable Transport Project		5.000
2. Utility Scale Wind Power Production (Phase-II)		2.000
3. Future Projects to be developed		1.465
GEF Small Grants Programme (Climate Change)		1.000
	<b>Total</b>	<b>11.890</b>

394

Tel: +92-51 9202574  
Fax: +92-51 9202211



UNDP ISLAMABAD	
FILE	
12 JAN 2004	
ACTION	INFO
<i>For Unit</i>	

No.F. 1(50)/2003-Tech-I  
Government of Pakistan  
Ministry of Environment

→ RN  
PR. open new  
file. (PK/2004  
BACIP)  
and further  
loc.  
Zaid  
JP

Islamabad, the 1<sup>st</sup> January, 2004

Subject: Concept Paper for BACIP's Project "Reducing Pressure on Forest Resources and CO2 Emissions through Provision and Promotion of Energy Efficient Housing Technologies"  
Dear Sir

The enclosed Project entitled "Reducing Pressure on Forest Resources and CO2 Emissions through Provision and Promotion of Energy Efficient Housing Technologies" was received in the Ministry through Agha Khan Foundation, Pakistan for its endorsement and onward transmission to GEF Coordinator UNDP, Islamabad Office, Islamabad.

2 The project activities compliment the measures and strategies of the Northern Areas, Planning and Development Department (P&DD), and the NWFP Planning and Development Department (P&DD) plans under National Environmental Action Plan (NEAP) to reduce the use of biomass (forests / fuel wood use), and related CO2 emissions aimed at reducing impacts on climate change. The project is aimed at driving the local communities to make sustainable use of natural wood resources (for fuel and industrial use) Besides, the Pakistan Environmental Protection Act (1997) already extended to the NWFP and now being extended to NAs, also includes suggestions for the conservation of biodiversity, habitats and renewable energy resources. In addition, the Project will provide Pakistan with a high profile clean development mechanism project and build local capacity in developing and implementing projects of similar nature. The project falls under Climate Change and Biodiversity GEF focal areas and Pakistan is a Party to the UNFCCC, 1994 and Convention on Biological Diversity, 1994. It has therefore been decided to endorse the enclosed project for GEF financing.

3 I, the undersigned, in the capacity of GEF Operational Focal Point, endorse the project brief. It is, therefore, requested that the project may be taken up with GEF for financing and this Ministry be kept informed of approval and its subsequent developments.

With profound regards

Yours truly,  
  
(Jawed Ali Khan)  
GEF Operational Focal Point

M. Omer Yusef, Resident Representative  
UNDP, Islamabad Office, Islamabad, Fax: 2800031

Copy to  
Dr. Qayyum Noorani, Program Officer Health,  
Agha Khan Foundation Pakistan, Islamabad.,  
Main Office 12-Street/84 G-6/4 Islamabad, Fax: 2276815





Aga Khan Planning and Building Service, Pakistan

(Set up under a licence from the Securities & Exchange Commission of Pakistan under section 42 of the Companies Ordinance, 1984)

6<sup>th</sup> June, 2005

Mr. Arif Allauddin  
Assistant Resident Representative  
Chief, Environment Unit  
UNDP  
Islamabad, Pakistan

**Subject: Reducing Pressure on Forest Resources and CO<sub>2</sub> Emission through Provision and Promotion of Energy Efficient Housing Technologies (BACIP) AKPBSF**

Dear Sir,

This is with reference to our programme proposal for promoting energy efficient housing technologies with the objective of reducing pressure on forest resources and CO<sub>2</sub> emission in various regions of Pakistan, both directly and indirectly.

In continuation of our earlier letter dated 11<sup>th</sup> March, 2005 on the subject, AKPBSF is pleased to add another US\$ 50,000 (cash and kind) contribution to our already committed contribution of US \$ 488,500, bring the overall AKPBSF contribution to the programme to US \$ 538,500. This financing would add to the already committed co-financing amount by us, and our other partners and associates, to help fulfill the overall resources required to implement the programme.

We look forward to your continuous support towards the achievement of our common objective of sustainable environment development leading to poverty reduction and livelihood improvement in the country.

With best regards

Yours sincerely,

  
Asif Merchant  
Chief Executive

Registered Office: 300/2, off Britto Road, Garden East, Karachi-74550, Pakistan  
Telephone: (92-21) 2253797-2225574-2250765, Fax: (92-21) 2225572, E mail: akpbsp.k@akpbsp.org



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MEMORANDUM OF UNDERSTANDING

between

Aga Khan Planning and Building Service, Pakistan  
(Buildings and Construction Improvement Programme-BACIP)

and

THE AGA KHAN RURAL SUPPORT PROGRAMME

Aga Khan Planning and Building Service, Pakistan through its country office in Pakistan, hereinafter referred to as "AKPBS.P" has agreed to collaborate for implementation of the project entitled "Reducing pressure on forest resources and CO2 emissions through provision and promotion of energy efficient housing technologies". The project is funded by the United Nations Development Programme (UNDP) from the Global Environment Facility (GEF). AKPBS.P has been given the role of grant recipient and implementation of the project through its integral programme "Building and Construction Improvement Programme" hereinafter called as BACIP in Northern Pakistan and Chitral (NWFP) and has established programme offices in the two areas.

The Aga Khan Rural Support Programme, hereinafter called as "AKRSP" has a mandate to improve the living conditions of people living in the Northern Areas and Chitral (NWFP) of Pakistan and to support the conservation of natural resources. In order to achieve these objectives, AKRSP has organized rural communities in the Northern Areas and Chitral into Village Organizations (VOs) and Women's Organizations (WOs) for collective management of resources. Since the objectives of the GEF funded project as titled "Reducing pressure on forest resources and CO2 emissions through provision and promotion of energy efficient housing technologies" hereinafter called as fuel efficient housing project, fall within the scope of the Natural Resource Management programme of AKRSP, and it is to be implemented through community participation, this BACIP energy efficient housing technologies is also of major interest to AKRSP.

In consideration of the above; and

Aware of the importance of the environment and resource conservation for climate change in sustainable development for ensuring the continuous well-being of the people of the Northern Areas and Chitral region of Pakistan,

Recognizing the close and satisfactory co-operation between AKPBS.P (BACIP) and AKRSP, during the pilot phase of the project, and the consensus that concentrated efforts are required between all development organizations working in the area to provide comprehensive and relevant support to rural communities in the conservation of natural resources for sustainable development and global efforts for climate change;

Considering the desire of UNDP/GEF and GoP to develop a model of climate change conservation through community participation,

Cognizant of the opportunity to further the collaboration between AKPBS.P (BACIP) and AKRSP for supporting the development efforts of the people of Northern Areas and Chitral (NWFP)

AKPBS.P (BACIP) and AKRSP, as parties to this Memorandum of Understanding, agree in the following:

1. AKRSP shall:
3. assist in initial planning of social organization strategies and awareness in the proposed target villages for the promotion of energy efficient housing technologies for natural resource conservation and climate change based on previous and current work by AKRSP in areas related to Natural resource management (NRM). For this purpose, the AKPBS,P (BACIP) staff will liaise with the concerned Regional Programme Officer (RPO) and Field Programme Managers;
- b. facilitate linkages of AKPBS,P(BACIP) staff and VCOs to new project sites to initiate a dialogue between AKPBS,P (BACIP) and the communities and to ensure that all interventions compliment AKRSP's work in these areas.
- c. provide AKPBS,P (BACIP) with any baseline information for areas where AKRSP has already initiated social organization work; (Related to environmental conservation, natural resource management, agriculture, rural development and other complementing activities - all GREEN impact activities;
- d. assist, together with the UNDP/ GEF funded BACIP Project Team, communities in the preparation, implementation and monitoring of activity plans where such activity is part of both AKRSP's and AKPBS,P (BACIP)'s programme;
- e. advice AKPBS,P (BACIP) on the design and administration of Village Conservation Committees and the related activities proposed under fuel efficient housing project;
- f. agree to be represented on the Project Steering Committee, the Project Management Committee and the District Conservation Committees to provide policy and management guidance for implementation of the fuel efficient housing project, in particular, and conservation of natural resources, in general;
- g. assist fuel efficient housing project in other matters related to project implementation where AKRSP has the necessary expertise. However, if any activity demands significant amount of time of AKRSP staff, AKPBS,P will pay for technical assistance on the basis of charges, which shall be mutually agreed upon by AKRSP and AKPBS,P (BACIP) on a case to case basis; and
- h. regularly share with AKPBS,P general progress (NRM related activities) and related routine reports produced by AKRSP and give due credit for contributions made by AKPBS,P (BACIP) towards conservation and Natural Resource Management initiatives.
- i. AKRSP shall compliment and facilitate AKPBS,P (BACIP) for promoting the fuel efficient technologies in Northern Areas under the points chartered above. Additionally, AKRSP will also bridge AKPBS,P (BACIP) efforts with other local partners within the target region.
- j. AKRSP will be committed to activities mentioned above within the framework of its integral development programmes in general and its Natural resource management programme in particular where AKRSP intends to invest and spend US\$ 300,000 (during the period from year 2005 to year 2008 under its own i.e. AKRSP's ) management and



implementation capacities for activities mentioned above and related to NRM research and development and Conservation for in situ conservation and ex-situ conservation along with initiatives of community mobilization for awareness raising and participation in conservation activities for complementing climate change and biodiversity related activities of AKPBS.P (BACIP).

1. Advise and provide necessary technical assistance in AKPBS.P (BACIP) staff in micro-credit facilitation and enterprise development concepts (Where AKRSP has great experience) . AKPBS.P (BACIP) will bear the costs then within the project umbrella for few selected trainings for its staff and entrepreneurs where ever some additional costs are incurred in addition to AKRSP assistance not covered within their programmatic frame work.


AKPBS.P (BACIP) shall:

1. select pilot demo target villages (VO's and WO's) for energy efficient housing activities in consultation with the concerned Regional Programme Manager (RPM) and Field Management Unit (FMU) of AKRSP;
2. draft the terms of partnership (ToP) to be signed with the VO/WOs in consultation with AKRSP to make sure that the provisions of the ToP are not incompatible with the norms of social organization, or conflict with the approach and programmes of AKRSP;
3. work to promote a supportive policy, legal and institutional framework that will facilitate community involvement in energy efficient housing technology projects;
4. build capacity of AKRSP staff in climate change conservation and natural resources, particularly fuel wood and forests.
5. provide technical assistance to AKRSP in the promotion of energy efficient housing technologies for climate change and sustainable use of fuel wood and forests and measuring CO2 emissions and related impacts to target communities within the proposed conservancies and in other AKRSP NRM sites as required and subject to available resources; and
6. regularly submit to AKRSP annual/quarterly progress and other technical reports produced by MACP and give due credit for contributions of AKRSP in the reports and publications that AKPBS.P (BACIP) may produce as part of the project.
7. In areas where AKRSP-sponsored NRM sites lie within the boundaries of the proposed pilot demo sites of energy efficient housing technologies, AKRSP and AKPBS.P (BACIP) will work to clearly identify roles and responsibilities of the two organizations and functions to be carried out at their respective locations. This is essential to ensure better coordination between the two organizations and would help to avoid possible duplication in activities and functions.
8. The parties to this agreement may, by mutual consent, add, modify, amend or delete any word, phrase, sentence or article to this Memorandum of Understanding.

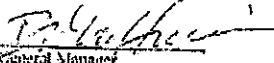


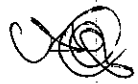
5. This MOU shall become effective after it has been signed by the Chief executive officer (CEO) of AKPBS.P and the General Manager (AKRSP) on the dates attested herein. It will cover the proposed 4-year period of energy efficient housing technology project. The duration of the project may be modified, shortened or extended by mutual agreement of the parties concerned. And is subject to the final approval of the proposal by UNDP/GEF.
6. In the spirit of co-operation, AKPBS.P (BACIP) and AKRSP personnel shall avoid conflicts, and will resolve them through mutual dialogue and understanding where they do arise. In the event of persisting disagreement(s), each party will have the right to refer the matter for resolution to the Regional Offices of AKRSP and AKPBS.P (BACIP). If the matter remains unresolved, it will then be referred to senior management of the two organizations.

For AKPBS.P (BACIP)

  
 Chief Executive Officer  
 Name: ASIF MERCHANT  
 Date: 5<sup>th</sup> MAY, 2005

For AKRSP

  
 General Manager  
 Name: IZHAR ALI HANZA  
 Date: 5<sup>th</sup> MAY 2005



400

**MEMORANDUM OF UNDERSTANDING**  
 between  
**Aga Khan Planning and Building Service, Pakistan**  
*(Buildings and Construction Improvement Programme-BACIP)*  
 and  
**The Aga Khan Cultural Service Pakistan**

UNDP COMMUNICATION UNIT	
FILE	
16 MAY 2005	
ACTION	INFO
PCN	

Aga Khan Planning and Building Service, Pakistan through its country office in Pakistan, hereinafter referred to as "AKPBS,P" has agreed to collaborate for implementation of the project entitled "Reducing pressure on forest resources and CO2 emissions through provision and promotion of energy efficient housing technologies". The project is funded by the United Nations Development Programme (UNDP) from the Global Environment Facility (GEF). AKPBS,P has been given the role of grant recipient and implementation of the project through its integral programme "Building and Construction Improvement Programme" hereinafter called as BACIP. In Northern Pakistan and Chitral (NWFP) and has established programme offices in the two areas.

The Aga Khan Cultural Service Pakistan (AKCSP), hereinafter called as "AKCSP" is engaged in cultural heritage conservation activities in the Northern Areas & Chitral regions and undertakes built environment improvement related activities in the form of infrastructure re-habilitation and improvement, which also includes capacity building, training and demonstration of fuel efficient housing technologies and related socio-economic development and environmental conservation. In order to achieve these objectives, AKCSP has organized rural communities in the Northern Areas and Chitral for collective development initiatives. Since the objectives of the proposed GEF funded project as titled "Reducing pressure on forest resources and CO2 emissions through provision and promotion of energy efficient housing technologies" hereinafter called as fuel efficient housing project, fall within the scope of the AKCSP, and it is to be implemented through community participation, thus BACIP energy efficient housing technologies is also of major interest to AKCSP.

In consideration of the above; and,

Recognizing the close and satisfactory co-operation between AKPBS,P (BACIP) and AKCSP, during the past phase of the BACIP project, and the consensus that concentrated efforts are required between all development organizations working in the area to provide comprehensive and relevant support to rural communities for economic development and the conservation of natural resources for sustainable development and overall global environmental concerns.

AKCSP and AKPBS,P as parties to this Memorandum of Understanding, agree to the following:

- AKCSP shall:
- i. assist in initial planning of social organization strategies and awareness in the proposed target villages (Heritage conservation projects) for the promotion of energy efficient housing technologies for environment friendly built environment.
- ii. facilitate linkages of AKPBS,P(BACIP) staff and AKCSP's target communities in new project sites to initiate a dialogue between AKPBS,P (BACIP) to ensure that all interventions compliment AKCSP's work in these areas;

- 7
- c. provide AKPBS,P (BACIP) with any baseline information for areas where AKCSP has already initiated social organization work; (Related to heritage conservation, inclusive of fuel efficient housing technologies for environment friendly infrastructure, which in turn will enhance efforts and impacts on natural forest resources in the region).
  - d. assist, together with the UNDP/ GEF funded BACIP Project Team, communities in the preparation, implementation and monitoring of activity plans where such activity is part of both AKCSP's and AKPBS,P (BACIP)'s programme;
  - e. advise AKPBS,P (BACIP) on the design and administration of Village / Town Committees and the related activities proposed under fuel efficient housing project;
  - f. agree to be represented on the Project Steering Committee, the Project Management Committee and the District Conservation Committees to provide policy and management guidance for implementation of the fuel efficient housing project, in particular, and conservation of natural resources, in general;
  - g. assist fuel efficient housing project in other matters related to project implementation where AKCSP has the necessary expertise. However, if any activity demands significant amount of time of AKCSP staff, AKPBS,P will pay for technical assistance on the basis of charges, which shall be mutually agreed upon by AKCS-P and AKPBS,P (BACIP) on a case to case basis; and
  - h. AKCSP will be committed to activities mentioned above within the framework of its integral development programmes in general and the introduction of fuel efficient housing products in particular where AKCS-P intends to invest and spend US\$ 150,000 (during the period from year 2003 to year 2008 under its own (i.e AKCSP's ) management and implementation capacities for activities mentioned above).

**2. AKPBS,P (BACIP) shall:**

- a. select pilot demo target villages (AKCSP's project site) for energy efficient housing activities in consultation with AKCSP's staff.
- b. draft the terms of partnership (ToP) to be signed with the community organization in consultation with AKCS-P to make sure that the provisions of the ToP are not incompatible with the norms of social organization, or conflict with the approach and programmes of AKCSP;
- c. work to promote a supportive policy, legal and institutional framework that will facilitate community involvement in energy efficient housing technology project;
- d. build capacity of AKCSP staff in fuel efficient housing technologies impacting climate change and natural resource, particularly fuel wood and forests.
- e. provide technical assistance to AKCS-P in the promotion of energy efficient housing technologies for climate change and sustainable use of fuel wood and forests; and

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regularly submit to AKCSP, annual/quarterly progress and other technical reports produced by AKPBS,P (BACIP) and give due credit for contributions of AKCSP in the reports and publications that AKPBS,P (BACIP) may produce as part of the project.

The parties to this agreement may, by mutual consent, add, modify, amend or delete any word, phrase, sentence or article to this Memorandum of Understanding.

This MOU shall become effective after it has been signed by the Chief executive officer (CEO) of AKPBS,P and the CEO (AKCSP) on the dates affixed hereto. It will cover the proposed 4 -year period of energy efficient housing technology project. The duration of the project may be modified, shortened or extended by mutual agreement of the parties concerned, and is subject to the final approval of the proposal by UNDP/ GEF .

In the spirit of co-operation, AKPBS,P (BACIP) and AKCSP personnel shall avoid conflicts, and will resolve them through mutual dialogue and understanding where they do arise. In the event of persisting disagreement(s), each party will have the right to refer the matter for resolution to the Project Offices of AKCS-P and AKPBS,P (BACIP). If the matter remains unresolved, it will then be referred to senior management of the two organizations.

For AKPBS,P (BACIP)

For AKCSP

  
Chief Executive Officer

  
Chief Executive Officer

Name: ASE MERCHANT

Name: SALMAN BEK

Date: 4<sup>th</sup> May, 2005

Date: 7<sup>th</sup> May 2005



**MEMORANDUM OF UNDERSTANDING**  
Between  
**World Wide Fund For Nature, Pakistan (WWF-P)**  
and  
**Aga Khan Planning and Building Service, Pakistan**  
(Buildings and Construction Improvement Programme-BACIP)

Aga Khan Planning and Building Service, Pakistan through its country office in Pakistan, hereinafter referred to as AKPBS, P has agreed to collaborate for implementation of the project entitled "Reducing pressure on forest resources and CO<sub>2</sub> emissions through provision and promotion of energy efficient housing technologies". The project is funded by the United Nations Development Programme (UNDP) from the Global Environment Facility (GEF). AKPBS, P has been given the role of grant recipient and implementation of the project through its integral programme "Building and Construction Improvement Programme" hereinafter called as BACIP in Northern Pakistan and Chitral (NWFP) and has established programme offices in the two areas.

The World Wide Fund For Nature, Pakistan (WWF-P) has a mandate for environment, conservation and development worldwide and has its offices in Pakistan and also working in Northern Areas and Chitral regions of Pakistan and has established its offices in NAC to support the conservation of natural resources and other development activities. In order to achieve these objectives, WWF-P has organized rural communities in the Northern Areas and Chitral for conservation, environmental impacts and collective management of resources. Since the objectives of the GEF funded project is titled "Reducing pressure on forest resources and CO<sub>2</sub> emissions through provision and promotion of energy efficient housing technologies" hereinafter called as fuel efficient housing project, fall within the scope of the overall mandate of WWF-P, and it is to be implemented through community participation, thus BACIP energy efficient housing technologies is also of major interest to WWF-P.

in consideration of the above; and,

Aware of the importance of the environment and resource conservation for climate change in sustainable development for ensuring the continuous well-being of the people of the Northern Areas and Chitral region of Pakistan.

Recognizing the close and satisfactory co-operation between AKPBS, P (BACIP) and WWF-P, during the pilot phase of the project, and the consensus that concentrated efforts are required between all development organizations working in the area to provide comprehensive and relevant support to rural communities in the conservation of natural resources for sustainable development and global efforts for climate change;

Considering the desire of UNDP/GEF and GoP to develop a model of climate change conservation through community participation,

*[Handwritten signature]*

*[Handwritten signature]*

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Recognizing the opportunity to further the collaboration between AKPBS,P (BACIP) and WWF-P for supporting the development efforts of the people of Northern Areas and Central (NWFP)

AKPBS,P and WWF-P, as parties to this Memorandum of Understanding, agree to the following:

1. WWF-P shall: (For Northern Areas)

- a. assist in initial planning of social organization strategies and awareness in the proposed target villages for the promotion of energy efficient housing technologies for natural resource conservation and climate change based on previous and current work by WWF-P in areas related to their project mandate. For this purpose, the AKPBS,P (BACIP) staff will liaise with the concerned Regional Programme Officer (RPO) and Field Programme Managers of WWF-P;
- b. facilitate linkages of AKPBS,P(BACIP) staff and VO/WO in new project sites to initiate a dialogue between AKPBS,P (BACIP) and the communities and to ensure that all interventions compliment WWF-P work in these areas;
- c. Will directly participate in identifying and promoting alternate and renewable energy housing products (Developed by BACIP) in their project areas.
- d. provide AKPBS,P (BACIP) with any baseline information for areas where WWFP has already initiated conservation efforts; (Related to environmental conservation, natural resources management, agriculture, rural development and other complementing activities - all GREEN impact activities)
  - a. Will work for Advocacy and public awareness on fuel-efficient housing technologies.
  - f. Will share the experience on National and International level.
  - g. Will participate in the efforts of BACIP in developing systems for developing CO2 emission monitoring.
  - h. Will directly demonstrate and install demo fuel-efficient housing products in their project areas in N/A.C. (wherever applicable and feasible).
- e. assist, together with the UNDP/ GEF funded BACIP Project Team, communities in the preparation, implementation and monitoring of activity plans where such activity is part of both WWF-P and AKPBS,P (BACIP)'s programme;
- f. advise AKPBS,P (BACIP) on the design and administration of Village Conservation Committees of WWF-P and the related activities proposed under fuel efficient housing project;
- g. agree to be represented on the Project Steering Committee, the Project Management Committee and the District Conservation Committees to provide policy and management guidance for implementation of the fuel efficient housing project, in particular, and conservation of natural resources, in general;
- h. WWF-P will spend under its own management and ownership an estimated amount of US\$356,000 for activities mentioned above between 2005 to 2008 in

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Northern Areas and Chitral region within its programme domain for the activities mentioned above subject to approval of its Forest Programme.

2. AKPBS.P (BACIP) shall:

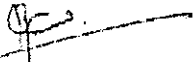
- a. select pilot demo target villages for energy efficient housing activities in consultation with the concerned WWF-P representative in Northern Areas;
  - b. draft the terms of partnership (ToP) to be signed with the Conservation committees in consultation with WWF-P to make sure that the provisions of the ToP are not incompatible with the norms of social organization, or conflict with the approach and programmes of WWF-P;
  - c. work to promote a supportive policy, legal and institutional framework that will facilitate community involvement in energy efficient housing technology project;
  - d. provide technical assistance to WWF-P in the promotion of energy efficient housing technologies for subsequent sustainable use of fuel wood and forests within the proposed conservancies and in other WWF-P sites as required and subject to available resources; and
  - e. build capacity of WWF-P staff in environment friendly and energy saving technologies particularly fuel wood and timber saving.
3. In areas where WWF-P sponsored sites lie within the boundaries of the proposed pilot demo sites of energy efficient housing technologies, WWF-P and AKPBS.P (BACIP) will work to clearly identify roles and responsibilities of the two organizations and functions to be carried out at their respective locations. This is essential to ensure better coordination between the two organizations and would help to avoid possible duplication in activities and functions.
4. The parties to this agreement may, by mutual consent, add, modify, amend or delete any word, phrase, sentence or article to this Memorandum of Understanding.
5. This MOU shall become effective after it has been signed by the representative of AKPBS.P and the representative of WWF-P on the dates affixed hereto. It will cover the proposed 4-year period of energy efficient housing technology project. The duration of the project may be modified, shortened or extended by mutual agreement of the parties concerned and is subject to the final approval of the proposal by UNDP/GEP.
6. In the spirit of co-operation, AKPBS.P (BACIP) and WWF-P personnel shall avoid conflicts, and will resolve them through mutual dialogue and understanding where they do arise. In the event of persisting disagreement(s), each party will have the right to refer the matter for resolution to the Regional Offices of WWF-P.



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and AKPBS, P (BACIP). If the matter remains unresolved, it will then be referred to senior management of the two organizations.

For WWF-P

  
Director Environmental education and Northern Areas

Name: Dr. Ghulam Akbar

Date: November 11, 2004

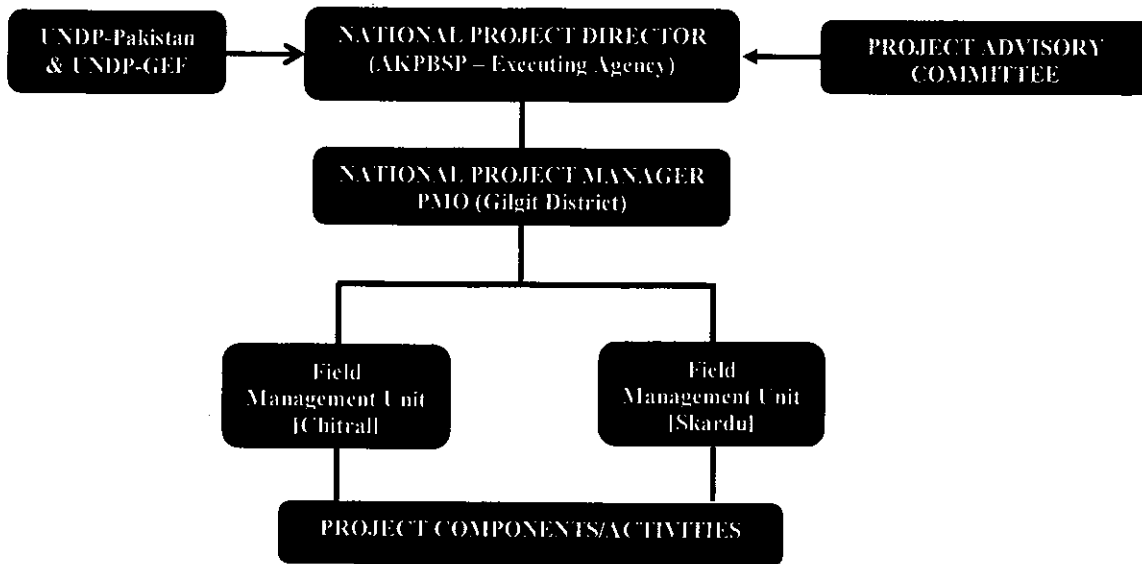
For AKPBS, P

  
National Programme Manager (BACIP)

Name: Syed Fakhar Ahmed

Date: Nov 11, 2004

**PART II : Organogram of Project**



**PART III : Terms of References for key project staff and main sub-contracts**

For detailed Terms of Reference for key staff and main sub contracts (Ref Section IV Part 1 Approved PIF Sec 4 – Financing: 2 cost effectiveness) and (Ref Section IV Part 1 Approved PIF-Part 111- Response to Project Reviews)



