



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

THE SPECIAL CLIMATE CHANGE FUND (SCCF) ¹

Submission date: 09 April 2009

GEFSEC PROJECT ID²:

GEF AGENCY PROJECT ID:

COUNTRY(IES): Pakistan

PROJECT TITLE: Rural Livelihoods Climate Change Adaptation Support Programme

GEF AGENCY(IES): IFAD

OTHER EXECUTING PARTNER(S): Ministry of Environment

GEF FOCAL AREA: Climate Change Adaptation (SCCF)

INDICATIVE CALENDAR (mm/dd/yy)	
Milestones	Expected Dates
Work Program (for FSP)	JUN09
CEO Endorsement/Approval	SEPT10
Agency Approval Date	OCT10
Implementation Start	OCT11
Mid-term Review (if planned)	APR13
Project Closing	OCT14

A. PROJECT FRAMEWORK

Project Objective: To address and reduce the additional stresses and associated costs posed by climate change to the Pakistani agricultural production system.

Project Components	Inv, TA, or STA ^b	Expected Outcomes	Expected Outputs	Indicative SCCF Financing ^a		Indicative Co-Financing ^a		Total (\$) c = a+b
				(\$ a)	%	(\$ b)	%	
1. Promotion of agricultural adaptation, including through technology-based solutions	Inv.	<ul style="list-style-type: none"> - Agricultural production system's resilience to climate change impact increased - Farmers' economic vulnerability to climate change reduced - Innovative technology-based adaptation options tested - Traditional water management knowledge and irrigation techniques suitable for climate change adaptation strengthened/restored 	<ul style="list-style-type: none"> - Efficiency of irrigation systems increased to prevent impact of CC-induced increased drought through testing solar powered drip irrigation systems (pilot in 4 districts) - Basic weather forecast systems introduced in extension service - Improved/drought resistant crop varieties introduced and tested in two different contexts (irrigated and semi-arid areas) - Economic vulnerability of rural livelihoods (possible decrease in farmers' income) lessened due to reduced risk of crop failure. - Rehabilitation of <i>rutkoi</i> system of irrigation (spate irrigation), <i>karazes</i>, etc 	1,900,000	16	10,000,000	84	11,900,000

¹ This template is for the use of SCCF Adaptation projects only. For other SCCF projects under Technology Transfer, Sectors and Economic Diversification windows, other templates will be provided.

² Project ID number will be assigned by GEFSEC. If a PIF has already been submitted, use the same ID number as PIF.

2. Capacity building for Climate Change Adaptation mainstreaming	TA	<ul style="list-style-type: none"> - Government capacity to mainstream adaptation into sectoral planning increased - Farmers' awareness of climate change impacts increased - Improved understanding of climate change impact and assessment of adaptation measures conducted 	<ul style="list-style-type: none"> - National and local officers trained on integration of climate change adaptation into sectoral planning - Farmers' organizations in 4 provinces targeted by adaptation awareness raising campaigns - Lessons learned and good practices, including traditional practices are collected, documented and disseminated - Targeted studies on climate change impact and adaptation 	464,300	15.7	2,500,000	84.3	2,964,300
3. Project management and M&E				262,700	23.6	850,000	76.4	1,112,700
Total project costs				2,627,000	16.4	13,350,000	83.6	15,977,000

^a List the \$ by project components. The percentage is the share of SCCF and Co-financing respectively to the total amount for the component.

^b TA = Technical Assistance; STA = Scientific & Technical Analysis

B. INDICATIVE CO-FINANCING FOR PROJECT BY SOURCE AND BY NAME (in parenthesis) if available, (\$)

Sources of Co-financing	Type of Co-financing	Project
Project Government Contribution	In-kind	150,000
GEF Agency(ies)	Loan	13,200,000
Total co-financing		13,350,000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Previous Project Preparation Amount (a) ³	Project (b)	Total c = a + b	Agency Fee
SCCF financing *		2,627,000	2,627,000	262,700
Co-financing		13,350,000	13,350,000	
Total	0	15,977,000	15,977,000	262,700

* Total SCCF financing including PPG (100,000 USD) and Agency fees (10%) is 2,999,700 USD.

³ Include project preparation funds that were previously approved but exclude PPGs that are waiting for approval.

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED:

A.1. Background. Agriculture is still the mainstay of Pakistan's economy. It accounts for 23 percent of GDP, employs 43 percent of the labor force, and contributes 60 percent of export earnings. Arable crops provide 65 percent of agricultural GDP, livestock 31 percent, and fishing and forestry 4 percent. Irrigated land produces 90 percent of total farm output. Over 65 percent of the population lives in the rural areas. There are over 4 million family farms, with an average farm size of 4.7 ha. Today 50 percent of farmers are owner operators, and 26 percent are pure tenants; however, the size of the landless (wage labor) class is not accurately known. Irrigation water is critical for agriculture in most of the country. Nearly 80 percent of the cropped area is irrigated, and agriculture is by far the largest user of water, consuming on average about 95 percent of Pakistan's available water resources. Despite the large area of irrigation, the sector is still quite vulnerable to climatic factors and pest attacks.

The government's agricultural policy is aimed at enhancing farm profitability and competitiveness through realizing the existing productivity potential of crop and livestock production. Key challenges pertinent to the agriculture sector include: (i) stagnating yields, (ii) wide yield gaps between progressive farmers and average farmers, (iii) inadequate supply and inefficient use of available water, (iv) poor quality and inadequate availability of inputs, (v) in-efficient research and extension services, (vi) poor rural infrastructure, (vii) frequent insect and pest attacks, (viii) high incidence of crop and livestock diseases, (ix) lack of capital and financial resources, and (x) lack of international competitiveness of some agricultural commodities like fruits, vegetables and flowers in particular grown by farmers.

A.2. Rationale for intervention. Climate change is increasing production risks in many farming systems and reducing the ability of farmers and rural communities to manage these risks on their own. Agriculture is vital for current and future food security. As noted in the Initial National Communication (INC) of Pakistan to the UNFCCC, agriculture is particularly vulnerable to climate change, especially rainfed agriculture. This may represent a serious threat to the achievement of rural development objectives in the country. According to the IPCC AR4, Pakistan is experiencing decreasing trends in annual precipitation. Water scarcity is already a big problem in Pakistan. Increasing temperatures coupled with changes in rainfall patterns are increasing the vulnerability of crops and consequently decreasing their productivity potential, particularly in rainfed agricultural production areas. Water resources are particularly sensitive to climatic changes. Droughts in 1999 and 2000 have caused sharp declines in water tables and dried up wetlands, severely degrading ecosystems. Increase in temperature and decrease in rainfall are expected to increase the net irrigation water requirements of crops, forcing farmers to make changes in the existing cropping patterns. Climatic changes in Pakistan would likely exacerbate current environmental problems, increasing land degradation and shortfalls in food production, and would determine other socio-economic problems such as increased rural poverty and migration. These problems will affect both irrigated agriculture and rainfed agriculture, resulting more aggravated in arid and semi-arid areas.

Water resources are identified in the Pakistan INC as a critical sector of intervention for climate change adaptation. Adaptation measures need to be undertaken in this sector to ensure that the Pakistani agricultural production system is more resilient to climate change. Also, developing resilience to climate change impact will help poor rural people to sustain their livelihood systems. In particular, as indicated in the INC, challenges to be addressed are:

- expected increase (by 29% according to the INC) in the net irrigation water requirement for crops that may force farmers to make changes in the existing cropping patterns, including a shift to low water demanding crop varieties;
- changes in water availability that will require the adoption of a sustainable and more efficient water use and management;
- reduced availability of water resources for agricultural purposes that may increase the use of poor quality groundwater, increasing the risk of salinization.

A.3 Proposed project approach

Project objective. The proposed adaptation alternative has the objective of addressing and reducing the additional stresses and associated costs posed by climate change to the Pakistani agricultural production system. Particular attention is given to water resources, as a critical factor to sustain agricultural production in a context of increased climate variability.

Targeting. The project's target group will be poor rural inhabitants, including small landowners, tenants, landless and women. In terms of area, the project will target the poorest districts in the provinces of Punjab, Sindh, Balochistan and North West Frontier Province (NWFP). The project will focus on irrigated areas, but will also target arid and semi-arid areas to the extent possible, acknowledging that dry land areas in these four provinces are facing increasing desertification challenges under increased climatic stresses.

Short project description. The project will be articulated around the following three components.

Component 1. Promotion of agricultural adaptation, including through technology-based solutions.

Climate change will increasingly affect agricultural production in Pakistan, particularly by reducing water availability. Current agricultural techniques and water management practices may be no longer suitable under changed climatic conditions. This will require adjusting agricultural production systems both in irrigated and arid/semiarid areas to make it more resistant and less vulnerable to climatic shocks. The proposed IFAD/SCCF intervention will support investments in agriculture-related climate change adaptation through the adoption of both traditional and technological solutions, the last one being promoted on a pilot base. The promotion of adaptation solutions for the agricultural sector will have the twofold objective of:

- improving water management and irrigation systems necessary to sustain agricultural production in a context of increased climate variability;
- increasing resistance to drought and salinity of crop varieties, making them more suitable in conditions of reduced water availability.

This component will entail the implementation of adaptation measures promoting water-saving and water efficient irrigation technologies and practices, building on experiences and lessons learned in the country, as well as other countries⁴. In particular, with regard to technological solutions this project component will promote the adoption of irrigation technologies such as solar-powered drip irrigation systems and hydroponic systems that are proven to be (i) effective in contexts of drought and limited water supply, and (ii) suitable for micro application at the community level. In addition, the introduction of improved crop varieties more resistant to drought combined with the promotion of intercropping production systems will allow farmers to reduce exposure to crop failure through improved resistance to climatic stresses, while at the same time reducing their economic vulnerability to climate change by increasing yields for consumption or for sale. Technologies such as basic weather forecast systems may be included in extension system. Also, traditional knowledge on water management practices and techniques such as *rutkoi* irrigation systems (spate irrigation) and *karazes*⁵ will be strengthened and/or re-introduced in the project area. The introduction of these measures will allow farmers to better manage water resources in a context of increased drought as a consequence of climate change and will help maintaining agricultural production even in presence of deteriorated environmental conditions (higher temperatures and increased drought) in irrigated areas, but also in semi-arid areas (where possible and proven cost-effective). Possible approaches to transfer technologies include the FAO-developed farmers fields school (FFS), based on "learning by doing" which allows for communities to take ownership of actions. It also provides a platform to the farming communities for sharing experiences and knowledge, and consequently improving their existing agricultural practices with new techniques more responsive to climate change threats.

⁴ Examples are the Pintadas Solar project in Brazil and the Thardeep Rural Development Programme (TRDP) in Pakistan supported by the Pakistan Poverty Alleviation Fund.

⁵ Karez is an indigenous method of irrigation in which groundwater is tapped by a tunnel. Karez is an old and stable irrigation system of Pakistan. It is a community enterprise managed by tribal tradition and run by social control.

Component 2. Capacity building for Climate Change Adaptation mainstreaming. The project will support the creation of an enabling environment for sustainable management of land and water resources by mainstreaming climate change adaptation into medium and long term sectoral planning, as well as by raising awareness on climate change at the community level. The SCCF/IFAD component will focus on increasing stakeholders' capacity to better address climate change impacts, understanding climate change impact on local agricultural production and mainstreaming climate change adaptation into agricultural sector-related operations and planning, to ensure that climate change impact is effectively addressed and taken into account. For this purpose, the project will support training activities for officials at the national and local level, as well as the preparation of targeted studies on climate change impact and adaptation measures. Local knowledge promotion and awareness rising campaigns on climate change impact on water resources and agriculture will be carried out at the community level; also, information related to traditional practices for sustainable land management and water conservation will be documented and disseminated; farmers and their organizations will be trained on adaptation to drought and use of irrigation technologies.

Component 3: Project management. This component will entail the project management activities. Also, an M&E system will be established under this component. Lessons learned will be disseminated through IFAD's regional knowledge network and other knowledge vehicles, thereby assuring regional coverage. This would contribute at up-scaling and replicating successful experiences in other regions. A database for climate change adaptation related issues could be established and linked to the GEF Programme in Pakistan website⁶.

Overall project implementation will be under the Ministry of Environment (MoE) in close collaboration with the Ministry of Food, Agriculture & Livestock (MINFA) to ensure proper linkages with the associated CMSP. A high powered Project Steering Committee will be established at the MoE, chaired by the Secretary Ministry of Environment. The Ministries of Agriculture, Irrigation, Science and Technology, leading research institutions and other key stakeholders will be also represented.

A.4 Expected adaptation benefits. The project is expected to deliver tangible adaptation benefits, through its investment-oriented approach. Adaptation is expected to take place both in the short term by helping farmers to cope with current rainfall variability and in the long run to better adapt to future climate change impact. The use of renewable energy technologies also offers the possibility to promote a more ecological and carbon neutral rural development path through the use of clean and resource-efficient technologies. Specific benefits include:

- Improved micro irrigation system performance.
- Use of more efficient water technologies at farm level.
- Reduced vulnerability of agricultural production face to decreased water availability.
- Minimized exposure of rural livelihood to climatic stresses.
- Increased capacity of farmers to better cope with climate change-induced impacts.

The proposed approach will not only produce adaptation benefits to the agricultural production system; it will also contribute to increasing integration between agricultural and environmental policy and operations and it is also expected to help creating new green job opportunities, contributing to economic diversification and poverty alleviation by boosting the local economy and reducing migration.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL/REGIONAL PRIORITIES/PLANS: Pakistan is committed to environment protection and has been an active negotiator in several environmental conventions, including the UNFCCC, the UNCBD and the UNCCD, leading the G-77 and China discussions. Pakistan ratified the UNFCCC in June 1994 (signed in 1992) and its Kyoto protocol in January 2005 (signed in 1997). The development of the present project proposal is based on the indications contained in the Pakistan Initial National Communication to the UNFCCC that identifies agriculture and water as particularly vulnerable sectors in the country. The project approach is consistent with the Pakistan National Environmental Action Plan (NEAP) based on the poverty-environment nexus, focusing on making existing poverty alleviation programs environmentally-sound and to prevent long-term impacts on the poor. In particular, the proposed SCCF/IFAD intervention aims to integrate the climate change adaptation dimension into rural development planning and

⁶ <http://www.gefpak.gov.pk/>

implementation. Also, the project is consistent with the Pakistan National Environmental Policy (2005) that, inter alia, indicates the use of renewable energies as a means to support sustainable development; promotes the use of appropriate technologies for more efficient water management in rural (as well as urban) areas and supports the development of new technologies, scientific methods of farming and improved management interventions. Being linked to the IFAD-supported Crop Maximization Support Project (CMSP), the proposed project indirectly support the GoP's existing Crop Maximisation Project (CMP) that represents MINFAL's primary vehicle for addressing increased productivity and food security. The link with IFAD's baseline also ensures alignment with the Mid Term Development Framework (2005-2010) target for poverty reduction on the basis of the Poverty Reduction Strategy Paper (PRSP), which is to reduce the proportion of population below the poverty line to 20 percent by 2010.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

The project proposal respects the principle of country ownership having been developed in consultation with national stakeholders. Also, the project proposal responds to the priority activities identified by the Government of Pakistan in its Initial National Communication to the UNFCCC and it has been developed with the aim of ensuring cost-effectiveness and sustainability also after the project completion. The project design criteria have been respected by including a list and description of the project components as well as by describing the added value of the SCCF intervention (additionality). This is proven to be satisfied because the SCCF component is linked to the planned IFAD-supported CMSP, therefore coupling the climate change dimension into current rural development efforts sustained by the Government. The proposed activities take into account other existing projects in the country carried out by different actors, in order to avoid duplications and ensure synergies with other activities undertaken in the same area of the proposed project.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES: Pakistan launched several projects and initiatives to address environmental challenges, including GEF-funded projects in the areas of climate change, biodiversity and desertification. The present proposal will benefit from lessons learned and will ensure coordination with projects such as the UNDP/GEF-funded Sustainable Land Management for combating Desertification project in the LD focal area that includes intervention on water scarcity, drought mitigation, rainfed agriculture, range management, dry afforestation and integrated natural resources management; the Thardeep Rural Development Programme (TRDP) supported by the Pakistan Poverty Alleviation Fund that promote the use of solar energy for drip irrigation and the World Bank Balochistan Small-scale Irrigation Project (BSSIP) that supports efforts by the Government of Balochistan to improve the management of scarce water resources in the Pishin Lora Basin (PLB). Other irrigation projects in the country have focused on hard and large-scale infrastructures that are not the focus of this project. However, the present proposal will take into account the lessons learned from these projects with regard to water management. Also, the project will ensure coordination with the Government's Special Programme for Food Security and Productivity Enhancement of Small Farmers in 1,012 Villages (Crop Maximization Project-II), a 5 year programme initiated in 2008 under the Ministry of Food Agriculture and Livestock (MINFAL). The programmes incorporate a range of elements designed to provide small farmers with the requirements for significantly improving agricultural production, including improved access to production credit at lower cost, technology packages involving improved seed quality, more targeted agrochemical and fertilizer usage, expanded mechanization to increase the timeliness of land preparation and planting and financing of small scale income diversification initiatives.

E. DESCRIBE ADDITIONAL COST REASONING:

E.1. Baseline. Acknowledging that adaptation to climate change is not a stand alone process, but needs to be mainstreamed and undertaken in conjunction with ongoing sectoral development efforts, the project will be developed synergistically with current rural development activities in the country. In particular, the proposed project will be aligned to the GoP's Crop Maximisation Project and will be linked to the IFAD's current contribution to the programme through the Crop Maximization Support Project (CMSP). The goal of the project is to rapidly contribute to food security and poverty reduction through productivity enhancement of small farmers and rural families in the context of recent major increases in food prices. The specific objectives are: (a)

increased crop production in the target districts through improved input supply financing; (b) enhanced food security for the rural poor through increased production and income generation; (c) empowerment of small farmers and other villagers through support to self managed community organizations that enable them to manage their resources more efficiently and gain greater market access; and (d) a sharper focus on gender and poverty mainstreaming to ensure direct benefits to women and the landless. IFAD's baseline project is articulated around three components: (i) a revolving fund to finance farmer purchases of inputs supplies; (ii) community social mobilisation and gender mainstreaming; (iii) project management. In more detail, the baseline activities are articulated on the following:

- establishment of a fund for seasonal crop production loans to finance farmer purchases of input supplies. A portion of the activities will also support income diversification activities;
- capacity building activities of main stakeholders within the Crop Maximization Project to effectively manage financial services and to promote full participation of women and landless in direct project activities.

While the baseline activities support the GoP call to deal with the food crisis, the SCCF alternative will reinforce these activities and build on them to specifically address the additional threats posed by climate change to food security in the country that in the business as usual scenario are not taken into account.

E.2 Adaptation alternative. The proposed adaptation alternative has been developed to address and reduce the additional stresses and associated costs posed by climate change to the Pakistani agricultural production system. Particular attention is given to water resources, as a critical factor to sustain agricultural production in a context of increased climate variability.

The project is articulated around three components:

1. Promotion of agricultural adaptation, including through technology-based solutions.
2. Capacity Building for Climate Change Adaptation mainstreaming.
3. Project management.

Component 1. Promotion of agricultural adaptation, including through technology-based solutions. While baseline activities will contribute to sustain the production of food crops – primarily wheat and rice – and cotton through the provision of loans that will allow farmers to access inputs supplies, the SCCF alternative will support investments that will contribute at improving the performance of water management and irrigation systems necessary to sustain agricultural production in a context of increased climate variability. While baseline activities will concentrate on irrigated areas, the GEF alternative will target also arid and/or semi-arid areas, where possible and proven cost-effective. As climate change is expected to result in increased drought and reduced water availability, adaptation options promoted under this component will aim to increase the resilience of the agricultural production by making irrigation systems more efficient in a context of increased climate variability and by introducing other measures such as drought resistant varieties and the use of basic weather forecast systems in extension service. The focus on technological solutions relies on the consideration that adaptation is not carbon-neutral and that also the UNFCCC calls for supporting technology transfer. Solar-powered drip irrigation systems have proven to be effective and suitable in context of droughts and for application at the community level to sustain agricultural production even in presence of reduced water availability. These systems allow delivering water precisely to the plants and to save water consumption, therefore increasing the efficiency of water use. Hydroponic systems allow farmers that have little access to water to produce basic subsistence production in an environmentally friendly way, and this also represents an incentive for income diversification. This component will also contribute to introducing drought- and salinity-resistant crop varieties that are more suitable in conditions of reduced water availability. This will be combined with the promotion of mixed or intercropping systems that allow for reducing the risk of crop failure. In addition, traditional knowledge on water management practices and techniques such as *rukoi* irrigation systems (spate irrigation) and *karazes*⁷ will be strengthened and/or re-introduced in the project area. As a result of these activities, the targeted agricultural systems and areas will result more responsive to climatic stresses and better adapted to climate change impact. The adaptation alternative will generate multiple adaptation benefits in terms of improved farming practices, more resilient agricultural production, reduced economic vulnerability to climate

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change, and indirect socio-economic benefits such as reduced poverty and reduced migration that in turn contribute to increase the resilience of rural communities to vulnerability.

Component 2. Capacity building for Climate Change Adaptation mainstreaming. While baseline activities in the CMSP will focus on training project stakeholders on how to effectively manage financial services and to promote gender mainstreaming in the CMP activities, the SCCF/IFAD component will focus on increasing stakeholders' capacity to better address climate change impacts, understanding climate change impact on local agricultural production and mainstreaming climate change adaptation into agricultural sector-related operations and planning, to ensure that climate change impact is effectively addressed and taken into account. At the Government level, the project will support the creation of an enabling environment for mainstreaming climate change into medium and long term agricultural planning. Targeted studies on and assessments of climate change impact and adaptation measures will be carried out. Local knowledge promotion and awareness rising campaigns on the climate change impact on agriculture and particularly water resources will be carried out at the community level; also, lessons learned and good practices, including information related to traditional practices for sustainable land management and water conservation will be documented and disseminated; farmers and their organizations will be trained on ways to better adapt to drought, including by using innovative irrigation technologies, as those tested in component one. The adaptation benefits generated by this project component consist mainly in the creation of an enabling environment for a better understanding of climate change impact, knowledge of suitable adaptation options and increased capacity to respond to climate-induced stresses on agricultural production that otherwise would be not considered in baseline activities. The focus on gender in the baseline activities will be maintained also in the GEF alternative, creating a synergistic approach for empowering women.

The table below summarizes the scenarios without and with SCCF intervention, respectively.

	CC-induced threats to baseline objectives	Proposed adaptation measures
COMPONENT 1.	<ul style="list-style-type: none"> - Expected decrease in crop productivity (increased risk of crop productivity failure) and quality due to climate change impact on water resources and lower resistance of crops to increased climatic stresses - Changes/deterioration of farming conditions due to changed environmental conditions sustaining agricultural production - Reduced capacity of rural livelihoods to cope with climate change impact and increased socio-economic costs of climate change impact (increased food insecurity, reduced farmers' income, increased migration) - Increased salinization due to a decrease in water quality for irrigation - Increased irrigation requirements do to a decrease in available water tables 	<ul style="list-style-type: none"> - Introduce changes in farming systems to make agricultural production more resilient to climatic stress - Increase water use efficiency by promoting water-saving and drip irrigation systems that use suitable innovative technological solutions (e.g. solar-powered drip irrigation, basic weather forecast systems in extension service, but also cropping systems more suitable to address climate change) - Strengthen/rehabilitate traditional water management practices and irrigation techniques that are suitable for climate change adaptation - Promotion and provision of suitable climate-and drought resilient/improved crop seeds as agricultural input - Mainstreaming adaptation in agricultural/water management planning
COMPONENT 2.	<ul style="list-style-type: none"> - Lack of knowledge to mainstream climate change adaptation into sectoral planning - Lack of awareness on climate change impact at the local level. - Lack of coordination for adaptation planning and implementation. 	<ul style="list-style-type: none"> - Promotion of local knowledge and awareness rising campaigns at the community level on climate change impact on agriculture and water resources. . - Documentation and dissemination of information related to traditional practices for water conservation. - Increased capacity of farmers and their organizations to address adaptation to drought and use innovative options and technologies to improve irrigation in a context of climatic change. - Preparation of targeted studies/assessments on climate change impact and adaptation response strategies.

- F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:** The success of this IFAD/SCCF operation is highly dependent on the quality of the staff deployed in the field teams and the provision of adequate incentives. Land owners may resist to diversification of crops or the promotion of new irrigation techniques. Some risks could be related to the willingness of communities to contribute, as required, to the cost of the investment with a sustained involvement of farmer groups in the implementation of the project activities. Risks will be mitigated through the adoption of participatory approaches and empowerment of local communities (targeting women and marginal groups in particular) coupled with a strong effort on awareness raising that would help in initiating and sustaining farmer's interest in the adaptation activities proposed under this SCCF project. Some forms of incentives could be developed by the project to encourage highly performing farmers or successful implementation of innovations in relation to water resource management, sustainable land management or pertinent local knowledge. Full assessment of risks will be undertaken during project preparation.
- G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:** The project is mainly investment-oriented with a view to maximize the impact per SCCF dollar. Project management costs are maintained at the lowest possible level while coupling the IFAD-CMSP project with the proposed project, to reduce transaction costs. Investments in an area/sector that is significantly affected by drought and climate change through innovative techniques and well targeted investments would lead to increased cost-effectiveness. Reduced cost in relation to community organization and engagement (due to the blended nature of the operation) will further reduce the share of "soft activities" leading to stronger investment and higher return. Cost-effectiveness will be further analyzed during project preparation.
- H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:** Since 1978 IFAD has supported 22 projects in Pakistan with loans for a total of US\$422.6 million. The total estimated cost of the projects is US\$2,083.0 million. The projects have directly benefited approximately 1.7 million households in rural Pakistan, working to improve the livelihoods and productivity of rural poor people. They reach the most disadvantaged communities across the country and address a range of development issues, from community management of resources to introduction of credit systems and development of irrigation and agriculture.
- IFAD's strategy in Pakistan focuses on poor communities in rural areas, especially herders, landless people and smallholders. Increasingly, programmes and projects target the most disadvantaged regions, particularly tribal areas and semi-arid, mountainous and environmentally-sensitive areas. An important aspect of IFAD's work in Pakistan has been the development of rainfed agriculture, previously neglected in favour of the irrigated sector.
- IFAD's main objective is to reduce rural poverty by boosting productivity and raising incomes. It supports efforts to introduce technological improvements in livestock, agriculture, irrigation and mechanization. IFAD-funded programmes and projects help make credit and markets more accessible, and help communities organize groups to manage finances and disseminate training and knowledge. At the policy and institutional level, IFAD's programmes and projects work to secure long-term access to land and water resources for rural poor people.
- IFAD has a comparative advantage in water management throughout its whole Asia portfolio. This focuses on better use of existing water resources (soil water management, green water, integrated natural resource management, etc.). This was showcased in the 5th World Water Forum (WWF5) in Istanbul in March 2009.
- IFAD's engagement on climate change adaptation stands by the premise that poor rural people should be empowered to adapt to climate change in line with sustainable development goals. Its main focus is community-driven adaptation and sustainability of rural development in the long term, in a context of increased climate variability. IFAD's approach for implementing agriculture-related adaptation priorities is mostly investment-oriented and community-based.

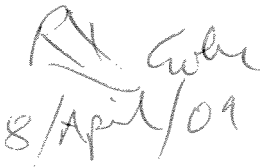
PART III: APPROVAL/ENDORSEMENT BY OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT:

(Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
ELAHI, Imtiaz Inayat	Additional Secretary	Ministry of Environment, Local Government and Rural Development	APRIL 9, 2009

B. AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with SCCF policies and procedures and meets the SCCF criteria for project identification and preparation.				
Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Email Address Telephone
Dr Rodney Cooke Acting Coordinator Global Environment & Climate Change (GECC) Unit Programme Management Department (PMD) IFAD	 8/April/09		Mr Jesús Quintana Programme Manager GECC Unit PMD, IFAD	j.quintana@ifad.org Tel: +390654592210
<i>Please do not forget to copy the IFAD/GECC Registry on official communications, GECCRegistry@ifad.org</i>				