



# **Report of the Project Inception Workshop: Climate Change Adaptation, Water and Food Security in Pakistan**

**held on May 25-27, 2012**

**at**

**Islamabad, Pakistan**



**Hosted by: Pakistan Institute of Development Economics, Islamabad**

**Sponsored by: International Development Research Centre, Canada**

**(July 2012)**

## **About the Host**

The workshop was hosted by Pakistan Institute of Development Economics (PIDE), Islamabad. PIDE is an autonomous university-level institution dedicated to the generation, acquisition, and propagation of knowledge about Economics and other social sciences, with a special focus on Pakistan. It has fulfilled many educational and research requirements of the country and served as a knowledge resource for the government, private sector organizations, and the academic community in Pakistan and abroad. The institute also serves as a research arm of the Planning Commission and a think tank to the Government of Pakistan. In addition to in-house research agenda, the institute conducts research in collaboration with renowned international organizations including Canada's International Development Research Centre (IDRC); World Bank, Asian Development Bank (ADB), International Food Policy Research Institute (IFPRI), Economic and Social Commission for Asia and Pacific (ESCAP), Food and Agriculture Organization of the UN (FAO), and other international organizations and institutions.

Currently, PIDE is an important research partner in IDRC's recent research initiative on "Climate Change Adaptation, Water and Food Security in Pakistan" and is conducting a three-year research study on "Climate Change, Agriculture, and Food Security in Pakistan: Adaptation Options and Strategies".

## **About the Donor**

Canada's International Development Research Centre (IDRC) supports research in developing countries to promote growth and development. IDRC's Climate Change and Water Program (CCW) helps developing country researchers to understand the consequences of climate change on water resources and water-related natural hazards. It seeks ways to improve the ability of citizens, communities, and governments to adapt to the changing environment. IDRC's Agriculture and Food Security Program (AFS) works to enhance food security through small-scale farming and environmentally sustainable food production. Since 1977, IDRC has provided generous technical and financial support to research efforts in Pakistan especially in the fields of healthcare, education, farming, poverty, and other economic and environmental issues including its recent initiative on "Climate Change Adaptation, Water and Food security in Pakistan".

## **About Other Research Partners**

The project gets technical and financial support from Canada's International Development Research Centre (IDRC). The research partners include Pakistan Institute of Development Economics (PIDE), Lahore University of Management Sciences (LUMS), and Social Policy Development Centre (SPDC), Karachi. The former has been introduced as the host. The introduction to the later two follows.

## LUMS, Lahore

Founded in 1986, the Lahore University of Management Sciences (LUMS) is a national university established by the support of Pakistan's leading private and public sector corporations. It stands among Pakistan's most esteemed institutions and imparts quality education and learning at the undergraduate, graduate, and post graduate levels in social sciences, law, and engineering. The LUMS is well linked with the national and international institutions through its collaborative research programme. Under IDRC's technical and financial support LUMS' study on "The Determinants, Impact and Cost Effectiveness of Climate Adaptation in Indus Eco-region" is just another example of research collaboration.

## SPDC, Karachi

Social Policy and Development Centre (SPDC) is a non-profit, policy research center established in April 1995 as a limited company based in Karachi. It has made significant intellectual contribution in placing issues of pro-poor growth and social development on Pakistan's policy-making agenda. SPDC has established itself as one of the outstanding research policy institutions of Pakistan focusing on public policy analyses and social sector development. The research at the centre covers wide range of areas including poverty, inequality, governance, provincial finances, social sector policies, gender issues and macroeconomic policy issues. Being an independent and non-partisan research organization, SPDC collaborates and cooperates with organizations working on issues relevant to its mandate both at home and abroad. The centre is among the research partners of IDRC's project under discussion and is conducting research on "Gender and Social Vulnerability to Climate Change: A Study in Disaster Prone Areas in Sindh".



## Acknowledgments

We are indebted to Dr. Rashid Amjad, Vice Chancellor (PIDE) for his guidance and support provided during planning and holding of this workshop. We are extremely grateful to Dr. Nadeem Ul Haque, Deputy Chairman, Planning Commission for gracing the occasion as the Chief Guest and sharing his insight regarding the subject. The technical and financial support provided by IDRC for holding of this workshop is highly appreciated. We owe special thanks to Bhim Adhikari, Senior Program Specialist, IDRC, Canada and Sara Ahmed, Senior Program Specialist, IDRC, New Delhi for their valuable instructions, timely help, and being fulltime with us during course of the workshop.

We are grateful to Dr. Salvatore Di Falco, Senior Lecturer, London School of Economics for delivering a comprehensive lecture direct from London through Skype. We are thankful to Fawad Khan from ISET-Pk) and Ali Dehlavi from WWF-P for their wonderful lectures regarding assessment of vulnerability and Economics of Climate Change respectively. We express our sincere appreciation to the researchers from PIDE, LUMS, WWF-P and SPDC for their cooperation, active participation, excellent presentations, and valuable discussions during the workshop.

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## Project Introduction

The devastating July 2010 floods in the Indus Basin posed a number of challenges to Pakistan's citizens, political and administrative structures as well as research institutes assessing the emerging threats posed by environmental change. A combination of severe rainfall and an unanticipated increase in river flow initially, was then compounded by multiple institutional failures in managing the response. While the Indus Basin is home to the largest contiguous irrigation system in the world, with the total length of the distribution canal system being 35,000 miles, the dominant engineering doctrine of 'taming' the river has paid little attention to social vulnerabilities or underlying systems that perpetuate economic marginalization. Pakistan's agricultural and economic growth is dependent on water from the Indus River and it is clear that the impacts of climatic variability are going to necessitate new approaches to water management and trans-boundary governance.

Recognizing the need for a comprehensive and contextualized understanding of vulnerability and adaptation to climate change impacts, Canada's International Development Research Centre (IDRC) supported a small scoping project in March 2011 to map key actors and institutions engaged in post-floods relief and reconstruction efforts, assess the science behind climate uncertainty at local levels, and look at who was impacted by the floods and why along a transect in the Indus Basin.

Emerging findings from the project suggest further research on; i) the links between environmental degradation, land-use zoning and water-related disasters, ii) efficient and equitable water and irrigation management and governance systems, iii) livelihood diversification alternatives for households at risk to climate variability, iv) the relationship between social capital/networks and adaptive capacity, v) the impacts of climate variability and uncertainty on food security, vi) the role of conflict in social and economic marginalization, and vii) the gendered dimensions of climate change impacts and adaptation policies and programs.

The other priority areas of climatic research identified in Pakistan include formal and informal institutional mechanisms that support disaster risk reduction in a changing climate; relationship between climate change and nutritional security; risk mitigation and social protection mechanisms that reduce economic vulnerability; and the role of information and communication technologies in supporting adaptive capacity.

The International Development Research Centre (IDRC) Canada sent a **closed competitive call** for proposals (on the subject) to certain institutions in Pakistan. In total three independent research proposals submitted by PIDE, LUMS, and SPDC were accepted for funding by the IDRC. These research proposals being prepared independently had some overlaps and special features (focuses) in scope, methodologies and study areas (ecologies). With this backdrop, the project inception workshop was held to facilitate a direct interaction among the research partners, IDRC, policymakers, and academia in order to fine tune the overall objectives of the proposed studies, select research sites, and finalize research methodologies.

## Aim of the Inception Workshop

The inception workshop aimed at providing an opportunity to directly interact through presentations, invited lecture by the renowned expert (remote lecturing through Skype), and thematic group discussions. The overall goal of the workshop was to develop a cohesive understanding of the scope of the project, specific objective, methodologies, project location and expected outcomes. The donor presence and presentations was a special feature of the workshop for further elaboration and clarification of implementation mechanism, monitoring and evaluation, technical reporting, and financial procedures. The following details further explain the more specific focus of the workshop:

- Understanding of the project specific goals, objectives, outcomes and expectations from different partners.
- Agreement on the approaches, procedures and implementation plan of the projects including criteria used for site selection and sampling etc.
- Critical analysis of the different milestones and indicators of successful implementation of project components.
- Practicable work-plan of the project and related budget details, in particular for the first 6-12 months.
- Discussions on methodological issues for the different components/objectives of the project, with special emphasis on relevant information gathering and analytical frameworks.
- Project summary documentation related to outcomes, indicators, targets, impact pathways, and M&E plans of the project.
- Finalization of project governance and management issues, clarity of roles and responsibilities of research partners and scientists/teams involved for delivery of various project outputs.

## Session 1: Inauguration/Launching of the Project

The inaugural session was held at the Serena Hotel, Islamabad on May 25, 2012. The occasion was graced with the presence of Dr. Nadeem-Ul-Haque, Deputy Chairman Planning Commission as the chief guest. Dr. Rashid Amjad, Vice Chancellor, PIDE chaired the session. The launching ceremony was attended by over 100 participants representing institutions like Planning Commission of Pakistan, IDRC, PIDE, LUMS, SPDC, Ministry of Climate Change, Pakistan Agricultural Research Council, National Agricultural Research Centre, Quaid-i-Azam University, Ministry of Food Security and Research, Provincial Agricultural Ministries, UN Agencies, diplomats, civil society organizations, regional organizations, academia, NGOs, and electronic and print media.

Dr. Munir, Director Food Security Centre (PIDE) and Project leader welcomed the conference participants, emphasized the importance of climate change adaptation for food security in Pakistan, and highlighted the objectives of the inception workshop. He pointed precipitation, humidity concentrations out that changing temperature, erratic and frequently





occurring extreme weather events are adversely affecting agriculture, water, coasts, livelihood, human health, and food security in Pakistan. He expected that workshop would provide an opportunity to the research partners to interact directly with each other and with the experts and academia working in national and international organizations and institutions to benefit from their experiences and technical skills.

Dr. Sara Ahmed, Senior Programme Specialist, IDRC, New Delhi introduced the IDRC's Climate Change and Water Programme and the Pakistan Portfolio on Climate adaptation. She expressed the hope that the research would feed into local and national plans of action in climate change adaptation strategies.



The Chief Guest in his address emphasized the need for exploring relationship between climate change, environmental dynamics and economic growth processes in Pakistan. He stated that high economic growth would trickle down to the general masses and would help in adaptations to the climatic events. He stressed that economy must grow at a faster rate to meet the challenges imposed by climate change. The lack of resource would constrain ability to adapt and undertake mitigating measures.



Dr Adil Najam, Vice Chancellor, LUMS presented the Keynote Address “The Determinants, Impact and Cost Effectiveness of Climate Adaptation in the Indus Eco-region”. He emphasized that the climate change is global issues and adaptation is local phenomenon therefore the happening of the climate change may be uncertain, but the adaptation measures at local level are required to be addressed



Dr. Munir Ahmad, Director Food Security Centre, PIDE presented the project on “Climate Change, Agriculture, and Food Security in Pakistan: Adaptation Option and Strategies”. He emphasized that changing temperature, erratic precipitation, humidity concentrations and frequently occurring extreme weather events are adversely affecting agriculture, water, coasts, livelihood, human health, and food security in Pakistan. Highlighting the overall objectives he stated that the main aim of the project is to contribute to the formulation of policies, programmes and action plans to adapt to and mitigate the adverse impact of climate change and ensure that government's objective of moving the Pakistan economy to a high, sustainable and inclusive growth is realized.



Dr. Khalida Ghaus, Managing Director, Social Policy Development Centre (SPDC), Karachi introduced the project titled “Gender and Social Vulnerability to Climate Change: A study in Disaster Prone Areas in Sindh”. She said climate change is

linked with various factors including social development and gender based adaptations and the research project of SPDC will focus on such linkages. The study will investigate gender dimensions of socio-economic vulnerability to climate change and assess the adaptive capacity of men and women at community level and the social capital available to them in three districts of Sindh.



Dr. Rashid Amjad in his concluding remarks said that despite reasonable growth of agricultural output in the country, Pakistan is still ‘food insecure’ and facing high level of ‘hunger and malnutrition’. He remarked that climate change is a real threat and being most vulnerable country Pakistan needs to build resilience by adaptation and educating communities in this regard. He appreciated the IDRC for initiating a project of great import for the developing countries like Pakistan.



## Session 2: Technical Session—Detailed Project Overviews

**Chair: Bhim Adhikari**

**LUMS-WWF** focused on the overall goals of the project, deliverables, and research methodology -- site selection, sampling, data collection, analytical tools for the study. The presentation elaborated the segregated work structure of LUMS and WWF-P. All the field level work and related econometric analysis would be performed by WWF-P. The LUMS would focus on the institution/political dimension of climate change. They presented the overview of the possible study sites in the Indus eco-region, the livelihood of the coastal/inland farmers, extrapolated poverty line, and different adaptation climate change strategies so far adapted by the villagers. The households involved in farming activities in Indus Eco-region of Sind (costal farmers as well as inland farmers) and in Punjab province are the subject of this study. The researchers are still to decide on sample size, selection of districts for study in Punjab province, and econometric specification of the model(s).



The study would involve estimating adaptation impacts and identifying determinants and constraints to adaptation through: control for a selection on observables through

Matching, Propensity Score (PS) and matching Regression based on household level data. Potential instrumental variables will be drawn from the village level (and certain household level) data in order to control for potential selection on unobservables using regression Discontinuity and Endogenous Switching Regression. Under the capacity building for Climate Change Adaptation in Pakistan LUMS plans: to arrange a consultation on sample design and a training workshop on data management tool-advanced techniques in STATA 12 in 2012.

**PIDE's** presentation encompassed the main objectives, methodology and analytical framework, and outputs of the study. The research will use panel data (district level data over time) as well as cross-section data (household survey data) to study the impact of climate change. The use of district level panel data would allow capturing of impact on inter-temporal and inter-spatial variations in the yields, climatic data, and district level characteristics and technology on yields. The farm household survey data will be collected from various cropping systems in Punjab, Sind, and Pakhtunkhwa provinces and will be used to examine that how the decision to adapt or not to adapt to climate change affects agricultural productivity by accommodating the household specific rainfall and temperature data along with other important variables. For analysis of the farm level data a methodology similar to that used by Falco, et al. (2011) would be closely followed. Under the capacity building component of the project PIDE will provide technical and financial support (for specified period) to two PhD and two MPhil degree candidates during their thesis research.

**SPDC's** study focuses on the gender dimensions of socio-economic vulnerability to climate change and will assess the adaptive capacity of men and women at community level and the social capital available to them. The research shall formulate a set of gender specific policy recommendations for inclusion in disaster management and climate change adaptation strategies and plans at provincial and district levels. The study will involve primary data to be collected through survey of 1500 households in Badin, Dadu, and Tharparkar districts of Sindh province. The study area was selected based on the facts that these districts are inhabited mainly by rural population (about 80% or more in Badin and Dadu) or agro-pastorals (in Tharpakar) and show a high incidence of poverty with agriculture and livestock as major source of livelihood of rural population. Situational analysis based on historical trends of climate variability and its relationship with agricultural yields and cropping etc will be performed. To measure vulnerability, the composite vulnerability and capacities indices (VCI) developed by ISET-Pk will be modified by incorporating gender component to it. SPDC was still working on methodology for performing cost benefit analysis of the adaptation strategies.

## **Discussions and Recommendations**

After some deliberations climate change related aspects, consensus was developed that climate change is a reality that need to be analyzed for determining local implication under global climate change scenarios. It was pointed out that 10-year data is not sufficient to analyze climate change impact. It was suggested that data for more than 10 year say 30-year, 40-year or even for longer period may be considered. It was agreed that debate on precise definition of climate change is ongoing process however research partners may agree on a common definition for initiated rigorous work for

identifying factors determining climate change phenomenon and devising coping strategies.

Rapid changes in the agriculture sector are happening at the international and national level which has direct and indirect implication on local communities. Many factors like economic crisis, trade distortions, shifting cultivations, natural resource degradation, and technological advances are affecting agricultural productivity and wellbeing of the rural communities. The key challenge is the isolation of the impact of climate change related adaptation measures from other factors.

The tailoring of the climate change terminologies (used in literature) with the local languages is very important and it required serious consideration in this discourse. For example in Urdu language, one word “Mosum” is used to mean season, weather, and climate.

The PIDE study comes under discussion on the basis of the very comprehensive activities and outputs. It was suggested that the study should focused on specific objectives otherwise it would dilute the impacts and outcomes. In addition it was also suggested that in describing the basis for selection of sample districts the study should report updated benchmark population density data instead of 1998 Population Census data, which is too old.

The SPDC presented methodology mainly incorporating qualitative analysis. It was recommended that experts from Global change Impact Study Centre (SCISC), Quaid-i-Azam University, Islamabad should be consulted in order to underscore the importance of the scientific models and understand that how GCISC scientific models can be benefited for SPDC study. It was also recommended that to improve on methodology the gender and social dimensions may be discussed with ISET, Islamabad. It was pointed out that the word gender is very contextual and research work may rather focus on social equity.

Similarly, the participants were interested in LUMS part of the study e.g. required the clarity in political dimension of climate change.

In addition to the above-mentioned recommendations, the chair concluded that we require more clear and quantifiable objectives and improvement in methodologies. The Vulnerability Composite Index (VCI) needs further development and should be shared with the project partners. It was emphasized that the nature and structure of the agronomics models and Global Circulation Models (GCM) need to be elaborated for proper understanding. The group collaboration among the partner organizations was emphasized for coherence among the methodologies and policies/recommendations.

## Session 3: Methods for Understanding Vulnerability and Adaptation to Climate Change

### Chair: SPDC

**ISET-Pakistan** presented the Indus Flood Scoping research study, vulnerability assessment for adaptation. In 970s similar flood flows affected 5 million people as against 20 million people affected as a result of 2010 floods. The number of effected people increased alarmingly with increase in population (73 million in 1976 Vs 175 million in 2010). The flow was not unprecedented but damages were. The major reasons are the annual deviation of river flow, inability to control development in riverbed, the intensity of North-South water flow and changing weather pattern are further inundating the situation. The resilient strategies should, identify critical services that differentiate between adapted and vulnerable, identify possible agents for those services, assess the fragility of systems that they offer and invest in the most cost effective options. The availability of credit and saving services, land title, sanitation, education and social capital, and development interventions can be prioritized to build resilience.

The concept of vulnerability is complex and difficult to be measured. The basic problems in measurements are subjective narratives, not comparable across different situations, static not dynamic, inherent not conditional, no idea as how to build resilience. The current theory of vulnerability is limited to material, institutional, and attitudinal. A measure of vulnerability that consider, why is one vulnerable and not who is vulnerable, does not describe vulnerability but provides diagnosis, tells us about the actions and the actors and reduces largest vulnerabilities in the local condition.

**WWF-Pakistan** presented the valuation of recreational services using the travel cost method to estimate the value visitors place on recreation in Keenjhar lake, Pakistan's largest freshwater lake. The recreational use value associated with Keenjhar lake to be PKR 3.46 billion (or USD 42.2 million). This estimate is based on an annualized mean consumer surplus per visit of PKR 9,500 (or USD 116) and assumes average daily visits of 1,000.

## Session 4: Methods for Understanding Vulnerability and Adaptation to Climate Change (continued)

**Invited Video Lecture by Salvatore Di Falco** focused on the adaptation strategies to climate change and food security in Ethiopia. The study focused on food productivity at the subsistence farms as it is important determinant of food availability and to some extent the access of food (both crucial aspects of food security). The study use survey data collected from 1000 households and investigates how farm households' decision to adapt in response to climatic change affects food crop productivity in Ethiopia. A simultaneous equations model was estimated with endogenous switching to account for the heterogeneity in the decision to adapt or not to adopt, and for unobservable characteristics of farmers and their farm. Food growers' access to credit, extension,

and information mainly determine adaptation. It was found that adaptation enhances food productivity.

## Discussions and Recommendations

Quantifying the behavior of the community and differentiating between the adaptor and non-adaptor is very difficult. The vulnerability assessment is good in isolated places e.g. internally having homogenous characteristics and external factors influence is low. The discussion engulfed the possibility of the distinguishing the changing cropping pattern due to adaptation or any other factors. It has been recommended to thoroughly discuss these matters before kick off the study.

The farmers mostly adopt the autonomous adaptation strategies looking towards the economic rate of return. The examples are the Bt Cotton, growing of potatoes and strawberries etc. This is where the researchers need to put their efforts to differentiate between the autonomous and planned adaptation strategies.

The analysis of dynamic vulnerability is more complex therefore today's snap shot is very important than tomorrow's. Moreover, vulnerability assessments do not incorporate the initial level of vulnerability. It may be possible some communities belong to imperialistic society which may have more vulnerability than the communities having independent status. It is crucial to have some counterfactual for vulnerability assessments.

The latitude matters the countries with low latitudes but very high temperature as further warming pushes these countries away from optimal temperature. Hence for the countries which have lower net revenues per cropped hectare and are more prone to temperature rise adaptation is very crucial.

The questions like does adaptation to climate change provide food security? Were very well addressed by the presenter by defining that food security is very elusive it encapsulates the availability, access and utilization of food. The study focused on food productivity as it is important determinant of food availability and to some extent the access of food (aspects of food security) in case of dominantly subsistence farming in Ethiopia. Similarly, other questions like what are the driving forces behind the farmers' decision to adapt to climate change and the factors affecting the probability of the adaptation comes under discussion. It was revealed that the agriculture productivity is one of the driving forces behind the farmers' decision to adapt to climate change and access to credit, extension, and information are the other main determinants of adaptation. The property rights, market access, tenure security, social networks also play important role in adaptation and hence be given attention in analysis of spatial adaptation.



## Session 5: Group Works of Project Methods

The whole session was devoted to group work in order to figure out the following:

- uniqueness of the project with respect to projects of other research partner organizations;
- common elements among projects of research partners;
- area of collaboration with partners organizations; and
- time line for the activities to be undertaken in first year of the study execution.

The team members of each of the project/institution specific groups deliberated together for the rest of day and developed a concise presentation in line with the above guidelines. Each group presented their work in the first session on the next day of the workshop.

## Session 6: Presentation of the Group Works

**Chair: Sara Ahmed**

The exercise was aimed at identifying opportunities of collaborations among research partners to avoid overlapping and having harmony in recommendations based on the research results. The collaboration among the institutions is also required to overcome the scarcity of professionals. It is very important to look into the cross considerations among the studies to develop at some level of cohesiveness.

## SPDC Group Work Presentation

### Uniqueness of the project

- The study have sharp focus on gender dimensions of vulnerability and adaptive capacity

- Considering the devolution of social services as a results of 18<sup>th</sup> Constitutional amendment, the study will focus on policy interventions at lower tiers of government — provincial and district government
- Knowledge sharing with the communities (findings of the research)
- Relatively more qualitative

### Common Elements

#### PIDE

- Investigate the factors affecting the farmers' decisions related to adaptations
- Identify indigenously developed best-practices (adaptive strategies) by the communities and assess their potential to be scaled up
- Data collection regarding climate variables, agricultural resources base, resource use, production and yields

#### LUMS-WWF

- Cost-effectiveness of adaptation interventions

### Possibility of Collaboration

#### PIDE

- Secondary data collection for districts of Badin and Tharparker
- Sharing of preliminary findings regarding adaptation and best practices

#### LUMS-WWF

- Secondary data on climate variables
- Training of enumerators
- Development of questionnaires

### Time Lines

April 2012	Research team finalized
April 2012	Workshop on social vulnerability framework held
July 2012	Literature review completed
Oct. 2012	Secondary data collected
June 2012	Project advisory committee constituted and first meeting held
July 2012	Initial meeting held with local partner organizations
Oct. 2012	Methodological framework for social vulnerability assessment and research protocol developed
Nov. 2012	Hiring and training of field researchers and enumerators completed
Dec. 2012	Consultation workshop with local communities and key stakeholders held
Jan. 2013	Field survey designed and initiated

### PIDE Group Work Presentation

### Uniqueness of the Study



- Covering important agro-ecological zones of Sindh, Punjab and Khyber Pakhtunkhawa
- Experimental data in addition to district level secondary agriculture and meteorological data, and survey data
- Institutional review for policy recommendations
- Impact of climate change on agricultural productivity and food security

### Common Elements

- Analysis of determinants of adaptation
- Gender vulnerability
- Household surveys

### Possibility of Collaboration

- Meteorological data
- Survey design

### Time Lines

First Technical Progress Report: by Nov. 2012

#### Covering Evidence on:

- Steering/Monitoring Committee formed
- Research staff recruited
- Project inception workshop held
- Institutions relevant to mitigating climate change impacts reviewed
- District level time series data collection and data entry initiated

Second Technical Report: by May 2013

#### Covering Evidence on:

- District level time series data collection and data entry completed
- Draft Report on review of environmental policy and institutions submitted
- Rapid Rural Appraisal conducted and sample of households selected
- Survey questionnaires developed
- Enumerators and supervisors hired and their training held

First Financial Report Covering First 12 Months Submitted

### LUMS-WWF Group Work Presentation

#### Uniqueness of the Study

- Index: many crops (PIDE)
- Coastal Crops (WWF)
- Institutions & agents that HH come into contact with

### Common Elements

- Staff/Student Capacity Building
- Methodological Approach (micro-econometric model & CBA)

- Sindh Sites

### Possibility of Collaboration

- Climate data: variability in data at sub-district level
- Secondary data: areas, yields, productivity
- Primary data: questionnaire design
- Sampling

### Time Lines

July 2014	Micro-econometric study
Nov.2 014	Political economy study
Jan. 2015	Synthesis policy report
2013-14	Farmer field school curriculum, manual, exposure visits
2013-15	Student assisted faculty papers
2012	Technical advisory group
2012-13	2 national consultations (sampling, methods)
Feb. 2015	High level conference on climate change and food security

### The common among three projects

PIDE-SPDC	Gender Dimension of the Climate Change
PIDE-SPDC	Sindh Sites and Scientific Models
PIDE-WWF-LUMS	Methodological Approach, Econometrics/Quantitative Techniques

## Session 7: The Donors Guidance on Technical and Financial Reporting

### Technical and Financial Reporting Requirements (IDRC)

IDRC requires that a minimum standard of accountability be met because it is directly responsible to the taxpayers and agencies that provide the funds it uses to support research. The research partners are required to submit a number of interim technical reports marking six monthly technical progress of the project and annual financial reports. All research partners will also have to submit final technical and financial reports as a condition for receiving the final payment from IDRC after your project is completed.

The interim technical report prepared using IDRS guidelines and format should explain what was achieved with the money and time spent on a project during the time period (six months) covered by the report. It enables the IDRC officers responsible for the grant to determine the progress of the work for approving release of further funds. The concerned officer can reject the incomplete or unclear interim report.

In an interim (or progress) report, recipients should provide a concise description of the activities that were planned and completed during the period covered by the report. Clearly specify the exact time period that the report covers, and for each project objective provide details of the work carried out, the results obtained, the activities planned for the next period, an evaluation or assessment of the progress

made, and an outline of any problems that were encountered and the actions you plan to solve them.

The report should also brief about administrative aspects such as changes in staffing, organizational changes in the institution, the status of any trainees supported by the project, and future training requirements. The report should be an opportunity to reflect on the management of the project from various perspectives: technical, administrative, and financial. The interim report represents the best opportunity to request and discuss changes or amendments to any aspect of the project.

Depending on the size and complexity of a project, the interim reports may vary in length from two-to-three single-spaced pages, to up to 15 or 20. The interim report and accompanying documents should be submitted in electronic form. If not possible, two hard copies of the report should be sent by mail with a diskette containing the electronic file.

Each research partner must submit annual financial reports using IDRC form for this purpose. It should be in the currency used in the budget attached to the grant agreements. The final financial report is due on or before the planned completion date of your project (if expenditures take place up to the completion date of your project, IDRC will accept submission of the financial report within 60 days of project completion).

The financial report must provide enough details for assessment of the project's financial situation by IDRC as well as for self assessment. Interim financial reports must outline both the actual and forecast expenditures (for interim reports) of your project. Before rolling up the expenditures into the eight IDRC budget categories, you must itemize your expenditures in the financial report following the format used in the budget that was included with the grant agreement sent to you by IDRC.

The forms designed by IDRC makes it easier and faster for you to prepare your financial reports. Each form (FR1 through FR5) captures specific financial information. All financial reports submitted to IDRC must be signed by both the project leader and the chief financial officer (or his/her authorized representative) of the recipient institution. Failure to include both signatures will result in significant delays in project payments.

In the case your project is funded by several donors you should itemize in your financial report to IDRC the level of resources received from each donor (form FR5) or format of the budget found in Attachment C of your grant agreement in the case if global project reporting is used (i.e., when funds are used and reported without regard to donor source).

Further grant payments are triggered by the satisfactory achievement of the milestones in Attachment B of your grant agreement. These milestones can be based either on events or reports. IDRC analyzes the technical and financial reports

that you submit to determine their technical and financial accuracy and completeness. Because these documents are a condition for further advances of funds or for the final project payment, missing or insufficient documentation will lead to delays in project payments.

The technical report is reviewed in detail by the responsible officer identified in the grant agreement. This officer assesses the progress that the project is making in achieving its stated objectives and determines whether satisfactory progress has been made to justify making additional project payments from a research perspective.

IDRC's analysis of financial reports focuses on three different aspects (grant receipts and exchange rates; variances in actual and forecast expenditures and explanations of these variances; and cash flow) to determine the amount of the next payment.

If questions are raised in either of these IDRC reviews, either the responsible officer or the administrative contact person will seek clarification from you. After you have provided all missing information, IDRC's analysis will be completed and the next payment processed, if warranted.

**Programme of the Inception Workshop**  
**Climate Change Adaptation, Water and Food Security in Pakistan**

**May 25, 2012: Day 1**

Venue: Serena Hotel, Islamabad

09:30am-09:55am	IDRC, LUMS, PIDE, and SPDC (partners) pre-launching meeting and registration of participants + Guests take their seats
09:55am	Arrival of the Chief Guest, Dr. Nadeem Ul Haque, Chancellor PIDE and Deputy Chairman, Planning Commission of Pakistan
<b>Session I:</b>	Chair: Dr. Rashid Amjad, Vice Chancellor, PIDE
10:00am-10:05am	Recitation from the Holy Quran
10:05am-10:15am	Welcome Address – Dr. Rashid Amjad, Vice Chancellor, PIDE
10:15am-10:25am	Introduction to IDRC's Climate Change and Water Program and the Pakistan Portfolio on Climate Adaptation. Sara Ahmed, Senior Program Specialist, IDRC, New Delhi
10:25am-10:40am	Adapting to Climate Change in the Indus Basin: Emerging Research Results. Fawad Khan, Director, ISET-Pakistan
10:40am-10:50am	Introduction to project on "Climate Change, Agriculture, and Food Security in Pakistan: Adaptation Option and Strategies". Dr. Munir Ahmad, Director, Food Security Centre, PIDE
10:50am-11:00am	Introduction to project on "Gender and Social Vulnerability to Climate Change: A study in Disaster Prone Areas in Sindh". Dr. Khalida Ghaus, Director, SPDC, Karachi
11:00am-11:20am	Keynote Address and Introduction to project on "The Determinants, Impact and Cost Effectiveness of Climate Adaptation in the Indus Eco-region". Dr. Adil Najam, Vice Chancellor, LUMS
11:20am-11:40am	Discussion/QA
11:40am-12:00pm	Address by the Chief Guest
12:00pm- 01:00pm	LUNCH BREAK
01:00pm-02:30pm	FRIDAY PRAYER BREAK

**Session II: TECHNICAL SESSION--Detailed Project Overviews**

	Chair: Bhim Adhikari, Senior Program Specialist, IDRC, Canada
02:30pm to 03:15pm	The Determinants, Impact and Cost Effectiveness of Climate Adaptation in the Indus Eco-region by Dr. Adil Najam, Vice Chancellor, LUMS
03:15pm to 04:00pm	Climate Change, Agriculture, and Food Security in Pakistan: Adaptation Option and Strategies by Dr. Munir Ahmad, Director, Food Security Centre, PIDE
04:00pm to 04:25pm	TEA/COFFEE BREAK
04:25pm to 05:10pm	Gender and Social Vulnerability to Climate Change: A study in Disaster Prone Areas in Sindh by Dr. Khalida Ghaus, Director, SPDC, Karachi
Rapporteurs	Ghulam Samad and Khushbakhat Zahid

**May 26, 2012: Day 2**

**Inception workshop continued**

Venue: Marriot, Islamabad

**Session III: Methods for understanding vulnerability and adaption to climate change**

Chair: Sara Ahmed, Senior Program Specialist, IDRC, New Delhi

09:30am – 10:30am Assessing vulnerability – Fawad Khan / Daanish Mustafa (ISET-Pk)

10:30am – 11:30am The Economics of Climate Change – Ali Dehlavi (WWF-P)

Rapporteurs Dr. M. Iqbal and Khushbakhat Zahid

11:30am-12:00pm TEA/COFFEE BREAK

**Session IV:**

Chair: Sara Ahmed, Senior Program Specialist, IDRC, New Delhi

12:00pm- 01:00pm Does Adaptation to Climate Change Provide Food Security? Salvatore Di Falco (presentation through Skype /Videoconferencing)

Rapporteurs Dr. Munir Ahmad and Ghulam Samad

01:00pm to 02:00pm LUNCH and PRAYER BREAK

**Session V:**

Chair: Sara Ahmed, Senior Program Specialist, IDRC, New Delhi

02:00pm to 03:00pm Group work on cross project methods, sampling, and site selection (these will be project / institution specific groups)

03:00pm to 04:00pm Discussion on project milestones, work plans – (plenary presentations from group work above to kick off discussions)

04:00pm – 4:30pm Open discussion over tea

Rapporteurs Ghulam Samad and Khushbakhat Zahid

**May 27, 2012: Day 3**

Inception workshop continued

Venue: Marriot, Islamabad

**Session VI:**

Chair: Bhim Adhikari, Senior Program Specialist, IDRC, Canada

09:00am to 09:45am Capacity Building/Training: (Identification of MSc, MPhil, & PhD research topics and team training needs)

09:45am to 10:30am Clarification of Roles/Responsibilities of Researchers/Experts/Consultants for Delivery and Coordination of Various Project Outputs

Rapporteurs Dr. M. Iqbal and Dr. M. Azeem Khan

10:30am - 11:00am TEA/COFFEE BREAK

**Session VII:**

Chair: Bhim Adhikari Senior Program Specialist, IDRC, Canada

11:00am - 11:30am Discussion on Monitoring and Evaluation Strategy (IDRC)

11:30am - 12:00pm Technical and Financial Reporting Requirements (IDRC)

12:00pm - 12:30pm Publications and Communication Strategy (IDRC)

12:00pm - 01:00pm Wrap-up

01:00pm - 02:00pm LUNCH and PRAYER BREAK (delegates depart)

Rapporteurs Ghulam Samad and Khushbakhsh Zahid

## Workshop Organizing Committees

### Overall Supervisory Committee

1. Dr. Rashid Amjad  
Vice Chancellor
2. Dr. Munir Ahmad  
Project Leader
3. Dr. Muhammad Iqbal  
Chief of Research
4. Mr. Ghulam Samad  
Research Economist
5. Ms. Khushbakht Zahid  
PhD Fellow
6. Ms. Khushbakht Zahid  
PhD Fellow
7. Mr. Hameed Ahmed  
Administrative Secretary

### Secretary

1. Dr. Sofia Ahmed,  
Staff Economist

### Reception Committee

1. Dr. Durr-e-Nayab  
Chief of Research
2. Ms. Nabeela Arshad  
Senior System Analyst
3. Dr. Anwar Hussain  
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4. Ms. Uzma Zia  
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**LIST OF PARTICIPANTS IN  
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