



Knowledge and Capacity Building Products (KCP) Proposal

Research & Development

I. General Information

KCP Title:

Support to the design of large-scale adaptation investments

OPUS Number:

Date of Proposal:

Linked to project: 1) Colombia: Adaptation to climate impacts in water regulation and supply for the area of Chingaza-Sumapaz-Guerrero (GEF-SCCF, approved for work program 2012); 2) Argentina: Adaptation to climate change consequences on the hydrological cycle of Cuyo (GEF-SCCF, to be presented to next work program); 3) Bolivia: Climate resilience program for the water and sanitation systems of the metropolitan area of La Paz and El Alto (PPCR, sent for PPCR sub-committee endorsement); 4) Peru: Adaptation to the impacts of climate change on the Humboldt current system dynamics and its dependent fisheries (AF, under formulation); 5) Mexico: Adaptation program to climate change consequences in the provision of services provided by the Grijalva watershed (IDB investment project, under formulation).

RG-T2059

9/7/2011

Team Leader / Unit:

GRUNWALDT, ALFRED HANS - INE/ECC

Peer Reviewer 1:

NETTO DE A. C. SCHNEIDER, MARIA E.

Peer Reviewer 2:

BOULET, EMMANUEL ANDRE

Joint Proposal:

Proposed amount, without counterpart in USD equivalent (enter whole number only): USD 900,000
Must match total of budget table on section VI, and of OPUS

Proposed amount including counterpart (if applicable) in USD equivalent: USD 900,000

Proposed Fund:

Sustainable Energy and Climate Change Fund

Unit of Technical Responsibility:

INE/ECC

Unit of Disbursement Responsibility:

INE

Execution:

Bank

Letters of Request available (or equivalent)

No

Doc# (IDBdocs):

Non-objection available:

No

Doc# (IDBdocs):

Execution period: 24 months

Disbursement period: 30 months

Required Start Date: 10/3/2011

Please provide justification why the Bank is the Executing Agency:

This KCP will facilitate the development of large-scale adaptation projects currently being in preparation by the Bank in the Region. In order to support and oversight the operations efficiently it is important to establish a more centralized management of this product throughout the Bank. Furthermore, the knowledge to be gained from this KCP will be very valuable for future adaptation projects financed by the Bank across operational sectors.

Beneficiary Countries:

ARGENTINA, BOLIVIA, COLOMBIA, MEXICO, PERU

Beneficiary entity: Sectoral ministries and local communities where large-scale adaptation projects will dev.

II. KCP Type

Origination

Originated in client: KCP is the result of clients' demands.

The client may require to address a current public discussion, an advice to draft a law or a regulation, support for policy analysis and formulation, a capacity improvement for the execution of a recently approved program, an analysis of a public policy or private sector problem, or generate consensus around a specific issue.

Scope

Forward-looking purpose:

Demand for this KCP serves a longer-term, forward-looking purpose that may require the accumulation of new knowledge and experience. These products usually require a longer deployment time.

III. Alignment of the KCP proposal with IDB's Institutional Priorities (GCI9).

5. Protecting the Environment and Responding to Climate Change Environment

3.1 Explain how the knowledge produced with this KCP will be used (policy advice, operations, as input for programming and strategy documents, input for other KCPs:

The proposed program will help the preparation of large-scale adaptation projects through the generation of specific information on baseline, climate impacts, vulnerability assessment, detail design of adaptation measures as well as consultations with local stakeholders and capacity building programs. The large-scale adaptation projects are currently under preparation in Peru, Colombia, Argentina, Mexico and Bolivia; and are to be presented to international sources of funding such as Global Environmental Facility (GEF), Adaptation Fund, Climate Investment Funds' Pilot Program for Climate Resilience (PPCR), among others.

3.2 Explain the strategy and resources that will be devoted to promoting the use of the knowledge produced :

The INE/ECC unit will be responsible for the execution of the activities and dissemination of the results of this KCP, in close collaboration with RND and WSA divisions as well as with the countries' counterparts. In order to assure an effective cross fertilization and dissemination of the adaptation studies financed by the proposed R&D, these will be lead by a specialist from the sector in which the large-scale grant was generated with the co-lead of other sector specialists in the specific topic. The lead specialist will: (i) lead the operational process within the bank including procurement actions required for the viability of specific studies; (ii) lead discussions with the government in coordination with team members as required and (ii) be the main author of studies' TORs counting on the technical support from the team members for their revision.

The initial group of large-scale adaptation projects presented in the link section of this document are currently under formulation and their respective approval timeframes vary depending on each fund own cycle. In the case that any of the referenced large-scale adaptation proposals were not approved, financial space within this R&D should be kept to allocate other adaptation projects under formulation by each of the sectors that are present in this proposal.

Given the vulnerability to climate change of the areas/sectors where the activities of this KCP will be focused, the knowledge generated will serve as a basis for the preparation of the large-scale adaptation projects mentioned in previous section. To promote the effective use of the knowledge produced, this KCP will include the organization of workshops and awareness raising activities with local stakeholders. In these workshops, an evaluation system will be in place for participants to measure their knowledge on the subject matter before and after the workshops and provide feedback on their quality.

IV. OBJECTIVES, EXPECTED RESULTS AND ACTIVITIES (Maximum 4 pages)

4.1 Describe the knowledge gap that this KCP intends to close:

The proposed KCP aims at tackling the information, data and technical capacity gaps related to the vulnerability to climate change of the areas and sectors where large-scale adaptation projects are currently being prepared by the Bank. Large-scale adaptation projects are currently being prepared using a variety of international funds and own Bank resources. Specifically, Colombia:

Adaptation to climate impacts in water regulation and supply for the area of Chingaza-Sumapaz-Guerrero (GEF-SCCF, approved for work program 2012); 2) Argentina: Adaptation to climate change consequences on the hydrological cycle of Cuyo (GEF-SCCF, to be presented to next work program); 3) Bolivia: Climate resilience program for the water and sanitation systems of the metropolitan area of La Paz and El Alto (PPCR, sent for PPCR sub-committee endorsement); 4) Peru: Adaptation to the impacts of climate change on the Humboldt current system dynamics and its dependent fisheries (AF, under formulation); 5) Mexico: Adaptation program to climate change consequences in the provision of services provided by the Grijalva watershed (IDB investment project, under formulation).

Large Scale Adaptation Programs presented to international funds such as GEF-SCCF, AF and the PPCR are also linked and will benefit IDB development project as part of their baseline. In the case of Colombia, *the Water and sanitation services for rural and semi-urban areas program (CO-L 1105)*, for Argentina, *the Provincial Agricultural Services program (PROSAP) (AR-L1120)*, for Bolivia *the Periurban water and sanitation program for la Paz and El Alto (BO-L1034)*, *the Short term pluvial drainage program for la Paz AND El Alto (BO-L1028)*.

Filling above mentioned gaps is a necessary step to better understand the issues faced by these areas/sectors in the context of climate change and the possible necessary adaptation measures. Additionally, for the areas where these projects will take place, there are deficiencies in the availability of technical baseline studies, such as climate related analyses, topographic maps, as well as readily available hydrometeorological and socio-economic data and vulnerability assessments.

Furthermore, having such analyses and data will improve the technical quality of the documentation that is required to access international funding that could finance these large-scale adaptation projects.

4.2 Describe how the question(s) asked relate to earlier literature on this subject (including any lessons learned from previous similar KCPs):

Recent evaluations (GEF, 2011) of the performance of climate-related funds such as the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), have concluded that the experiences gained and lessons learned from the adaptation projects financed by these sources are in many cases not being taken into consideration in the preparation of new projects. Also, it is widely known that a major challenge for the preparation of climate change adaptation projects is the limited amount of high quality baseline data and technical capacity at the local level. The proposed KCP intends to address the abovementioned issues for the areas/sectors of study.

4.3 State the KCP objectives:

The main development objective of the proposed program is to facilitate the development of large-scale adaptation projects in the region. Specifically, the proposed KCP aims to support countries to: a) increase the understanding of the impacts of climate change in priority sectors/areas and the possible adaptation measures, b) increase their technical capacity to better prepare and implement large-scale adaptation projects; c) identify a portfolio of responses to climate consequences affecting their natural resources; and d) support the cost/benefit analysis of alternative adaptation approaches; and e) develop tools to prioritize adaptation measures and support sound risk management practices..

4.4 State the KCP expected results:

At the end of the proposed KCP, the following results are expected: 1) Increased understanding of the impacts of climate change in priority sectors/areas and their implications; 2) Increased knowledge of experiences and lessons learned around the world and locally related to the assessment of climate change impacts on relevant sectors/areas and possible adaptation measures to address those impacts; 3) Access to relevant socio-economic and hydrometeorological data as well as baseline studies necessary for the preparation of technically sound large-scale adaptation measures; 4) Increased awareness of local stakeholders of the impacts of climate change in relevant sectors/areas and possible adaptation measures; 5) identification and formulation of cost effective adaptation responses to climate change consequences; and 6) Tools developed for the prioritization of adaptation measures and sound risk management.

4.5 Provide a description of the main outputs and related activities expected to be carried out:

Component 1

Activities:

- i) Analysis of information available worldwide of climate change impacts on sectors/areas relevant to the large-scale programs in preparation, as well as adaptation measures and lessons learned;
- ii) Analysis and synthesis of progress in the local knowledge of climate change vulnerability of the systems part of the large scale projects. Additionally, this activity includes the analysis of existing gaps in information and knowledge;
- iii) Collection and analysis of key hydrometeorological and socio-economic data necessary for the development of vulnerability assessments in the areas of study;
- iv) Basic technical studies necessary for the preparation of vulnerability assessments and design of adaptation measures.

Products:

- i) Documents synthesizing the most relevant information of studies and projects around the world related to the impacts of climate change in areas and sectors relevant for the large-scale adaptation projects that are currently being prepared;
- ii) Documents analyzing the state of knowledge at the local level with respect to vulnerability to climate change of relevant areas/sectors, as well as identifying knowledge and information gaps;
- iii) Databases of key hydro-meteorological and socio-economic data
- iv) Products include topographic maps, bathymetry maps, water balance studies, studies of surface area of relevant water bodies, among others.

Component 2

Activities:

- i) Consultation and awareness raising process with local stakeholders of the large-scale adaptation projects. Awareness raising on the impacts of climate change and potential adaptation measures for the respective areas;
- ii) Training activities for local governments and communities about the impacts of climate change on the areas of study and on tools for vulnerability analysis of priority sectors/areas to climate change.

Products:

- i) Workshops and meetings with local and national relevant stakeholders. A document summarizing the main topics discussed and agreements reached during meetings will be produced.

Component 3

Activities:

- i) Analysis of impacts of climate change
- ii) Vulnerability assessments
- iii) Identification of adaptation measures in response to climate change impacts
- iv) Analysis of environmental and social impacts associated with the implementation of adaptation measures
- v) Cost-benefit analysis of alternative adaptation approaches
- vi) Risk identification and management associated with implementation of adaptation measures

Products:

- i) Documents analyzing the main impacts of climate change on selected areas/sectors and the vulnerability of the areas/sectors to these impacts
- ii) Documents outlining possible adaptation measures in response to climate change impacts
- iii) Documents outlining main environmental and social impacts associated with the implementation of adaptation measures as well as technical and institutional arrangements to address these impacts
- iv) Technical and financial assessments of adaptation measures including respective costs and benefits
- v) Documents outlining main risks associated with the implementation of adaptation measures and management strategies to address these risks

Component 4

Activities:

- i) Peer review of the large-scale adaptation programs under preparation;
- ii) Identification of key indicators to be used for monitoring the vulnerability reduction impacts of the large-scale adaptation programs;
- iii) Acquisition of equipment and monitoring tools and data;
- iv) Monitoring and evaluation of the activities developed under this KCP.

Products:

- i) Documents providing feedback to the objective, activities and products of the large-scale adaptation projects under preparation
- ii) Documents summarizing main variables that should be monitored throughout the lifetime of the large-scale adaptation projects to assess the effectiveness of the measures to reduce vulnerability to climate change of the specific sectors/areas of work
- iii) Observational and monitoring equipment (e.g. hydrometeorological stations, satellite data, etc.)
- iv) Document evaluating the execution and effectiveness of the activities carried out under this KCP

4.6 Describe the methodological approach to be used in the development of the activities and the type of data sources which might be used. Be as specific as possible.

Component 1: The first 2 activities under this component will be carried out through literature reviews, field visits including structured and unstructured interviews with local stakeholders and government officials. Data collection will include hydrometeorological data collected in-situ which could be obtained from meteorological offices (such as IDEAM in Colombia, SENMAHI in Peru, etc.), satellite data which could be obtained from international scientific organizations (such as JAXA, NASA, NCAR, NOAA, etc.). Additionally, socio-economic data needed could be obtained from ministries of planning, census, statistical institutes, etc. or through field studies. Methodological approach of baseline technical studies will vary depending on the study required. For the topographic and bathymetric studies, collection of data through instrumentation such as lidar may be required.

Component 2: Capacity building and awareness raising activities will be carried out through workshops and documentation such as leaflets. The possibility of using participatory games for learning and managing complex ideas (such as those developed by the Red Cross and Oxfam on index based insurances and risk pooling) will be assessed.

Component 3: Activities will include field surveys, cost-benefit analyses, technical, environmental and risk assessments.

Component 4: Activities will include literature review and expert consultation. Acquisition of equipment will be prioritized through expert consultation and consultative prioritization process.

4.7 Identify the main audience or expected users of knowledge generated or disseminated by this KCP

Communities where the large-scale adaptation projects are going to be implemented, ministries of planning, environment, water, agriculture, fisheries and hydrometeorological institutes of respective countries, among others.

4.8 Specify provisions for quality peer review of this KCP (ex. anonymous reviewers, Studies Committee)

Component 4 of this KCP includes resources specifically budgeted to hire external expert reviewers of the activities to be carried out as part of this KCP and of the design of the large-scale adaptation projects. Peer reviewers will be selected according to recognized expertise in subject matter, and in coordination with local authorities.

4.9 Additional technical information

If necessary, in an appendix please provide further technical details that you consider relevant to evaluate the technical quality of this KCP. Appendix Doc#(IDBDocs): [36392341](#)

V. KCPs RESULTS FRAMEWORK. Main Outcomes and Outputs.

5.1 Results Matrix:

Please, in the first column fill in each outcome indicator with the relevant outputs. You can use the table of indicators here attached.

Results Matrix									
	Unit	Baseline		Year 1		Year 2		Expected Completion Date	Data Source
		Value	Year	Planned	Actual	Planned	Actual		
Comp. 1: Local stakeholders and the Bank have access to baseline information necessary to understand the impacts of climate change in									

priority areas and prepare the respective adaptation measures									
• Worldwide peer reviewed papers and technical documentation revised per large-scale adaptation project	# of papers	0	2011	5				5/31/2012	Journals, websites of relevant institutions
• Local/national technical documentation revised per large-scale adaptation project	# of papers	0	2011	5				8/31/2012	Publications, UNFCCC communication, interviews
• Local/national stakeholders interviewed per large-scale adaptation project	# of people	0	2011	5				8/31/2012	Publications, UNFCCC communications, interviews
• Databases created with analyzed hydromet and socio-economic data for each large-scale adaptation project	# of databases	0	2011	1		1		8/31/2012	Field work, technical studies, hydromet offices
• Technical baseline study for each large-scale adaptation project (topographic maps, bathymetry maps, water balance, vulnerability assessments)	# of technical baseline studies	0	2011	1				1/31/2013	Hydromet offices, geological services, Ministries
Comp. 2: Local stakeholders participated in training and consultations related to the climate change impacts on relevant sectors/areas and possible adaptation measures to address those impacts									
• Workshops carried out per project	# of workshops	0	2011	2		1		5/31/2013	Participants list
• People trained and consulted per project	# of people trained and consulted	0	2011	20		40		5/31/2013	Participants list
Comp. 3: Cost effective adaptation measures have been identified									
• Main impacts of climate change on projects/areas assessed	# of CC of impact assessments carried out	0	2011	1		2		1/31/2013	Field work, technical studies
• Adaptation measures identified for each project	# of measures identified	0	2011	2		2		3/31/2013	Field work, technical studies
• Cost benefit analysis of measures carried out	# of cost benefit analyses carried out	0	2011	1		2		5/31/2013	Field work, technical studies
Comp. 4: Key variables to assess effectiveness of adaptation projects are monitored									
• Large-scale adaptation projects documentation revised by peer-reviewer	# of documents revised	0	2011	2		4		5/31/2013	Technical studies
• Monitoring equipment purchased	# of instruments	0	2011	1		4		5/31/2013	Receipts of purchase, invoices

Note: Please note that this outcome and output indicators will be the input for the PMR and will be monitored in the Quarterly Business Review.

VI. BUDGET (*):

6.1 Budget should be presented by outputs or groups of outputs (for example: three publications, three conferences, seminars or workshops; one database; one survey; two training courses), and the relevant activities. Total available funds from counterpart sources should be reported. Use whole numbers only.

Costs	Project Cost – IDB Financing					Counter- part Resources	Other Financing
	Year 1		Year 2	Total request			
	Consult.	Travel (consultants only)	Other				
Component 1	160,000	20,000	15,000	115,000	310,000	62,000	0
• Documents synthesizing the most relevant informati	30,000				30,000	6,000	
• Docs. analyzing state/local knowledge and gap	30,000				30,000	6,000	
• Databases hydro-meteorological/socioeco nomic data	20,000		5,000	25,000	50,000	10,000	
• Topographic/bathymetr y maps, relevant studies	80,000	20,000	10,000	90,000	200,000	40,000	
Component 2	15,000	11,000	14,000	40,000	80,000	16,000	0
• Training workshops	10,000	10,000	10,000	30,000	60,000	12,000	
• Consultations	5,000	1,000	4,000	10,000	20,000	4,000	
Component 3	55,000	13,000	7,000	135,000	210,000	42,000	0
• Climate change Impact on selected area/sector docs	35,000	5,000		30,000	70,000	14,000	
• Possible adaptation measures response CChange Docs	10,000	3,000	2,000	15,000	30,000	6,000	
• Adaptation measures/costs and benefits assessments	10,000	5,000	5,000	70,000	90,000	18,000	
• Risks implementation of adapt. measures/mgt.Doc.				20,000	20,000	4,000	

Component 4	30,000	5,500	90,000	154,500	280,000	56,000	0
• Peer-review	10,000			40,000	50,000	10,000	
• Assessment of monitoring needs	10,000	2,500		17,500	30,000	6,000	
• Procurement of monitoring equipment	10,000	3,000	90,000	97,000	200,000	40,000	
Sub-total	260,000	49,500	126,000	444,500	880,000	176,000	0
	Monitoring and evaluation				20,000		
Total	260,000	49,500	126,000	444,500	900,000	176,000	0

Approximate value of in-kind counterpart 176,000

(*) More details may be required by donors (e.g. consultant cost per day);

6.2 Describe the source and type of counterpart resources

In kind resources such as data, time of local personnel, logistics support, among others. Counterpart resources will be provided by the respective Government's Technical Entity for each large-scale adaptation project (e.g. for the Colombian project counterpart resources will be provided by the Ministry of Environment, in Peru it would be *Instituto del Mar de Perú - IMARPE*)

6.3 Types of Consultants: Firms or individuals and main activities/outputs:

Type: Individual or Firm (if available)	Nationality (if available)	Estimated Cost	Main Activities / Outputs
Individual	TBC	200,000	Activities related to components 1 & 4
Firm	TBC	600,000	Activities related to components 1, 2 & 3

Most of the individual consultants/firms will be hired through Quality and Cost Based Selection (QCBS). In a few, and exceptional, instances and where contract budget is small (less than \$30,000) single source selection may be used.

VII. Bank costs:

For the Bank's internal purposes, please provide information in Bank costs associated with the execution of this KCP:

7.1 Bank staff participation in KCP:

Staff Name	Bank Unit	FTEs
MIRALLES-WILHELM, FERNANDO R. (lead WSA)	INE/WSA	0.08
QUIROGA, RICARDO E. (lead RND)	INE/CAR	0.08
GRUNWALDT, ALFRED HANS (lead ECC)	INE/ECC	0.08
JARAMILLO, CAROLINA	INE/RND	0.01
QUIJANDRIA ACOSTA, GABRIEL	INE/ECC	0.01
FERREIRA, INES PIRES ARAUJO	INE/ECC	0.02
DEEB, ALEJANDRO	INE/ECC	0.01
VON TEICHMAN, KORINNA	INE/ECC	0.02
TOLMOS LEON, ALFONSO	RND/CPE	0.01

ESMERAL BERRIO, ROBERTO MARIO	INE/ECC	0.01
LEMAY, MICHELE H.	INE/RND	0.01
ANGEL GOMEZ, ANGELO EDUARDO	INE/ECC	0.02
ESCHOYEZ, GUILLERMO ANTONIO	LEG/SGO	0.01

VIII. Risks:

Fill-out the KCP's Environmental Screening and Classification using this link to the [Environmental Screening and Classification Toolkit](#). Then save it in IDBDOCS and record its number in the box below (*):

36392355- Safeguard Screening Form; 36392354-Safeguard Policy Report

8.1 Implementation Risks:

Risks of implementation are low. The IDB project team does not anticipate any major risks that could impair the execution of the KCP. The project team will be directly involved in the project implementation and will oversee the work developed by the consultants. Risks regarding quality of materials will be overcome by continuous peer review and monitoring and evaluation during their preparation. In some cases, data availability might be an issue in some of the countries selected for particular studies. Therefore, risks related to the accomplishment of goals on proposed tasks will take this limitation into consideration. Additionally, this KCP will include an activity to fill in hydrometeorological data gaps in countries such as Bolivia by creating a complete data base for the project areas through a technique called reanalysis.

8.2 Please identify key environmental and social risks and impacts, and the strategy to address them:

There are no environmental or social impacts anticipated from this KCP. On the contrary the products from this KCP will contribute to reducing the negative impacts caused by climate change.

IX. Coordination with other MDBs

9.1 Summarize collaboration or coordination with other MDBs, donors and other strategic partners (if any):

Activities will be coordinated with other MDBs working in project areas. In Bolivia, for instance, activities will be closely coordinated with the World Bank and UNDP, and other donors, who are also involved in PPCR. In Colombia, activities are being closely coordinated with Conservation International and the World Bank, who carried out the first part of the project.

X. Monitoring and evaluation plan.

Fill-out the KCP's Development Effectiveness Matrix (DEM) using this link to the [R&D DEM template](#). Then save it in IDBDOCS and record its number (*): 36392321

10.1 Summarize the basic elements of the Monitoring and Evaluation plan, including key activities and associated budget:

INE/ECC will have the responsibility for the monitoring of the proposed KCP. The following are the main evaluation and monitoring activities:

- (i) Main products developed under this KCP will be peer-reviewed by recognized international experts;
- (ii) Evaluations forms will be used to seek feedback from participants in workshop and other events; and,
- (iii) The project team will continuously monitor work undertaken and will make reports of the KCP activities every 6 months, including an assessment of the delivery of products against the agreed delivery schedule.

If required, during the execution of the KCP, administrative and technical missions will take place with the purpose of evaluating development and use of outputs, and events. A total of \$20,000 have been allocated specifically to overall activities for monitoring and evaluation, but in addition \$50,000 have been allocated for the peer-review processes.

10.2 Exceptions to Bank policies:

none

10.3 Contractual Clauses:

n/a

Terms of Reference Doc#(IDBDocs): 36392323

Development Effectiveness Matrix (DEM) for KCPs
The DEM is a Yes/No checklist of analytical and informational requirements for KCPs

Instructions:

- 1 Fill the white cells of the "Yes/No column" with "Yes" if the KCP fulfills the criterion. If the KCP doesn't fulfill the criterion, leave the cell blank.
- 2 In those cells where you are requested to fill in information, please provide the requested information by writing it in the same cell. Fill the "Yes/No column" with "Yes" if you provided the information.

KCP Number and Name: RG-T2059 Support to the design of large-scale adaptation investments			
KCP Type: Research & Development		Information & References	Yes/No
Criterion			SCORE
Section 1. IDB Strategic Development Objectives			
Country Diversification			10.0
Target 1: Country Group			6.0
C&D Countries			3.0
A&B Countries		yes	3.0
Target 2: Sub-Region C&D		yes	3.0
Caribbean			
Central America		no	
South America		yes	3.0
Relation to IDB's Institutional Priorities		yes	3.0
Social policy for equity and productivity			
Infrastructure for competitiveness and social welfare			
Institutions for growth and social welfare			
Competitive regional and global international integration			3.0
Protecting the environment, responding to climate change, promoting renewable energy, and enhancing food security			
Entity Responsible for Execution		yes	
Recipient-executed			1.0
Bank-executed		yes	1.0
Section 2. KCP Intervention Logic			
Diagnosis			10.0
The knowledge gap that the KCP intends to close is clearly identified			3.0
The need to close this knowledge gap clearly justified		yes	1.0
The potential users of this knowledge are identified		yes	0.5
Previous attempts by the Bank or others to close the knowledge gap are documented		yes	0.5
		see reference to GEF evaluation report in section 4.2	

Relevant lessons learned from previous similar interventions have been taken into consideration	see reference to GEF evaluation report in section 4.2	yes	0.5
Results Framework Quality			
Vertical Logic			7.0
			3.0
Outputs/Products are clearly stated Outputs: KCP "deliverables," or what the KCP is contractually accountable for		yes	0.5
Outcomes are clearly stated Outcomes: direct effects of the intervention to be observed in the short and medium term. Outcomes should describe what is expected to be different as a consequence of the delivery of KCP outputs and not the activities or the outputs themselves		yes	0.5
The outcomes and outputs are clearly linked to the knowledge gap the KCP intends to close		yes	1.0
Each level of the result matrix logically contributes to the next higher level. That is, KCP outputs contribute to achieving outcomes		yes	1.0
Indicators			3.0
At least one indicator is identified for each outcome			
Indicators are the selected metrics by which it is verified if the desired change is taking place		yes	0.5
At least one indicator is identified for each output		yes	0.5
Indicators are SMART (Specific, Measurable, Achievable, Realistic and Timely)		yes	0.5
Every indicator has a baseline value or a predetermined starting point for subsequent comparison of performance.		yes	0.5
Every indicator has a target value. A target is a predetermined level of success that is expected within a specific timeframe		yes	0.5
Every indicator has one source of data, or a clear plan for collecting it		yes	0.5
Costs			1.0
Estimated total cost of each KCP output is identified		yes	
The sum of the total estimated costs for all outputs is equivalent to the total KCP amount (including counterpart)		yes	1.0
Costs are specified by year		yes	

Section 3. Monitoring			5.5
Plan for Implementation of Quality Measurements			0.0
KCP has a plan to develop and implement quality measurements at completion with a timeline for key activities, person/institution responsible for implementation and budget	Since KCP will support the preparation of several (at least 3) large-scale adaptation projects that are currently being presented to international sources of funding. Specific products to support each large-scale project as well as timeline for the products will be defined once funding is confirmed and further	no	0.0
Quality Measurements at Completion			5.5
Quality review			1.0

There are provisions for quality review of the KCP by peers (at least two anonymous	Budget has been allocated for peer-	yes	1.0
Relevance			3.0
There are provisions to measure KCP's relevance to policy advice			0.0
There are provisions to measure KCP's relevance for operations	KCP will support preparation of large-scale adaptation projects	yes	1.0
There are provisions to measure KCP's relevance for other KCPs	KCP will support preparation of large-scale adaptation projects, some which will include additional KCPs to	yes	1.0
There are provisions to measure KCP's relevance for input to programming and strategy			0.0
There are provisions to measure KCP's relevance to interpret new economic and social phenomena in the region			0.0
The KCP is part of a long term capacity building strategy targeted at key institutional actors in the Region	KCP includes capacity building for both key national climate change actors and local communities in selected countries	yes	1.0
Innovation			0.5
There are provisions to measure KCP's contribution to innovation and identification of new priorities for the Region and the Bank	peer-review process and assessments of similar work already done worldwide will contribute to innovation. Cost-benefit analyses will support the identification of priority investments	yes	0.5
Risk Management			1.0
Risks are properly identified		yes	0.5
Measures to mitigate those risks are properly defined		yes	0.5
Replicability			0.0
For KCPs involving testing of pilot activities/interventions, there are provisions to replicate or scaling up			0.0

Consultoría: Generación de datos meteorológicos de alta resolución espacial y temporal en Bolivia para ser usados en estudios de modelaje hidrológico

1. Introducción

Datos meteorológicos como temperatura y precipitación son relativamente escasos en Bolivia. La gran extensión del territorio boliviano, el fuerte gradiente altitudinal (con las características del clima de micro-escala asociadas a este hecho) así como restricciones técnicas han impedido hasta ahora contar con observaciones de superficie de largo plazo y con la densidad adecuada para diversos estudios relacionados con el clima del país. Estudios hidrológicos, por ejemplo, requieren información meteorológica a alta resolución espacial y de forma diaria desde el punto de vista temporal.

Desde 1996 se ha puesto a disposición de la comunidad científica datos del denominado re-análisis (ver por ejemplo, Kalnay et al., 1996; Kistler et al, 2001). Estos “datos” son una combinación de datos observacionales de diferente procedencia (satelitales, radiosondas, boyas, etc.) con un modelo numérico del tiempo a través de una técnica denominada *asimilación de datos*. Este modelo se mantiene “congelado” para el periodo de análisis para evitar sesgos espurios que podrían aparecer por solo modificar el modelo. Una característica interesante de este set de datos es que el método proporciona un conjunto grande de parámetros atmosféricos y, más importante, coherente. Los primeros datos del re-análisis, sin embargo, aunque tenían una buena resolución temporal (6 horas) tenían una resolución espacial muy pobre (2.5° lat x 2.5° lon) que, para los fines mencionados arriba, no eran suficientes. A pesar de eso esto se han logrado utilizar algunos de estos sets de datos conjuntamente con información de superficie (típicamente estaciones meteorológicas) para analizar el comportamiento de estas últimas. A la fecha, se ha producido una segunda generación de datos del reanálisis en las que se ha logrado mejorar la física del modelo meteorológico usado, la resolución espacial del mismo así como la resolución temporal. En este sentido se cuentan ahora con datos del orden de 50 km de resolución espacial y 3 horas de resolución temporal.

Otro set de datos ampliamente usado en el área de ciencias de la atmósfera es el producido por las misiones TRMM (Tropical Rainfall Measuring Mission) a través de radares e instrumentos que trabajan en el rango de las microondas a bordo de satélites desde el año 1997. Estos datos, como prácticamente todos los producidos por instrumentos satelitales, deben ser contrastados con información de superficie para poder proporcionar una información correcta. Uno de los productos basados en datos de TRMM es la estimación de precipitación a nivel cuasi-global (50N-50S) a una resolución espacial de 0.25° x 0.25° . Datos acumulados cada 3 horas están disponibles en este caso.

2. Objetivo de la consultoría

Producir un set de datos de temperatura y precipitación a una resolución espacial igual o menor a 0.25° lat x 0.25° lon y a nivel diario desde el punto de vista temporal. Estos datos serán producidos para tres cuencas: una en el área del Altiplano, una en la zona de valles y otra en tierras bajas.

3. Método

A fin de producir la información mencionada en el punto 2) se propone utilizar datos de los nuevos re-análisis CFSR (Climate Forecast System Reanalysis) de NCEP (National Centers for Environmental Prediction) y MERRA (Modern Era Retrospective-analysis for Research and Applications) de la National Administration Space Agency (NASA). Estos datos están disponibles para el periodo 1979-2010 a una resolución aproximada de 25 km de resolución espacial cada 6 horas. El primer paso será comparar estos datos con información observacional obtenidos de estaciones de superficie. En base a este análisis se decidirá cual de los dos reanálisis funciona mejor en las zonas de interés. Estos datos, a su vez, servirán para definir el comportamiento diario de las variables meteorológicas objeto del estudio.

Después, con ayuda de los datos satelitales provenientes de TRMM (Tropical Rainfall Measuring Mission) que tienen una resolución aproximada de 25 km, se establecerá el comportamiento climatológico de la precipitación en las regiones de estudio. Esta climatología se comparará con climatologías provenientes de datos de superficie. Los datos diarios de TRMM servirán para hacer un *downscaling* a los datos del reanálisis a fin de obtener la mayor cantidad de datos dentro de las cuencas de interés. Se realizará un estudio estadístico a fin de definir la mejor manera de realizar este proceso. Finalmente, se generarán datos para zonas fuera de las regiones de interés. Estos datos se confrontarán con observaciones, no usadas en el proceso mencionado anteriormente, para evaluar la bondad del proceso de downscaling usado.

En el caso de la temperatura el proceso de downscaling tomará en cuenta la altura de superficie pues este es, en muchos casos, el factor determinante de variación de este parámetro.

Dado que los instrumentos TRMM están operativos desde 1997 solamente, datos anteriores deberán ser inferidos de los procesos estadísticos solamente.

4. Productos a entregarse

Datos diarios de precipitación y temperatura y otros relevantes (como evaporación) a una resolución no mayor a 0.25° para el periodo 1979-2010. Estos datos serán proporcionados en rejilla.

Los datos comprenderán la región relacionada con sistema de agua que abastece las ciudades de La Paz y El Alto.

5. Supuestos importantes

- Existen datos de superficie (usualmente provenientes del Servicio nacional de Meteorología e Hidrología de Bolivia) disponibles para las cuencas de interés.
- Esos datos pasaron controles de calidad

6. Cronograma

	Primer		Segundo		Tercer		Cuarto	
Recolectar información (reanálisis, TRMM, superficie)								
Comparación de reanálisis con datos de superficie								
Análisis climatológico de TRMM								
Análisis estadístico reanálisis-TRMM								
Downscaling								
Análisis de bondad de proceso								
Producción final de datos en el área de interés								

7. Presupuesto

- Un consultor experto en Ciencias Atmosféricas (4 meses): \$us 17000.-
- Un consultor junior por tres meses (soporte para obtención de información y procesos de análisis repetitivos): \$us 3000
- Discos duros: \$us 300.
- Servicio Internet: \$ 450

TOTAL: \$us 20750.-

SAFEGUARD SCREENING FORM

This Report provides a summary of the project classification process and is consistent with Safeguard Screening Form requirements. The printed Report should be attached as an annex to the PP (or equivalent) and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	INE/ECC
	Type of Operation	Technical Cooperation
	Additional Operation Details	
	Country	Regional
	Project Status	
	Investment Checklist	Institutional Development Investment
	Team Leader	Alfred Grunwaldt
	Project Title	Toolkit: Support Large Scale Adaptation Projects
	Project Number	RG-T2059
	Safeguard Screening Assessor(s)	Angel Gomez, Angelo Eduardo (ANGELOA@Contractual.iadb.org)
	Assessment Date	2011-08-26
	Additional Comments	

PROJECT CLASSIFICATION SUMMARY	Project Category: C	Override Rating:	Override Justification:
	Conditions/ Recommendations	Comments: <ul style="list-style-type: none"> • No environmental assessment studies or consultations are required for Category "C" operations. • Some Category "C" operations may require specific safeguard or monitoring requirements (Policy Directive B.3). Where relevant, these operations will establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.). • The Project Team must send the PP (or equivalent) 	

		containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports.
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SUMMARY OF IMPACTS/RISKS AND POTENTIAL SOLUTIONS	Identified Impacts/Risks	Potential Solutions

ASSESSOR DETAILS	Name of person who completed screening:	Angel Gomez, Angelo Eduardo (ANGELOA@Contractual.iadb.org)
	Title:	
	Date:	2011-08-26

SAFEGUARD POLICY FILTER REPORT

This Report provides guidance for project teams on safeguard policy triggers and should be attached as an annex to the PP (or equivalent) together with the Safeguard Screening Form, and sent to ESR.

1. Save as a Word document. 2. Enter additional information in the spaces provided, where applicable. 3. Save new changes.

PROJECT DETAILS	IDB Sector	INE/ECC
	Type of Operation	Technical Cooperation
	Additional Operation Details	
	Investment Checklist	Institutional Development Investment
	Team Leader	Alfred Grunwaldt
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	Project Number	RG-T2059
	Safeguard Screening Assessor(s)	Angel Gomez, Angelo Eduardo (ANGELOA@Contractual.iadb.org)
	Assessment Date	2011-08-26
	Additional Comments	

SAFEGUARD POLICY FILTER RESULTS	Type of Operation	[Not Set]	
	Safeguard Policy Items Identified (Yes)	The operation is in compliance with environmental, specific women's rights, gender, and indigenous laws and regulations of the country where the operation is being implemented (including national obligations established under ratified Multilateral Environmental Agreements).	(B.02)
		The operation (including associated facilities) is screened and classified according to their potential environmental impacts.	(B.03)
		The Bank will monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the	(B.07)

		loan agreement and project operating or credit regulations.	
		Suitable safeguard provisions for procurement of goods and services in Bank financed projects may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.	(B.17)
	Potential Safeguard Policy Items(?)	No potential issues identified	
	Recommended Action:	Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.	
	Additional Comments:		

ASSESSOR DETAILS	Name of person who completed screening:	Angel Gomez, Angelo Eduardo (ANGELOA@Contractual.iadb.org)
	Title:	
	Date:	2011-08-26



Knowledge and Capacity Building Products (KCP) Proposal

Research & Development

I. General Information

KCP Title:

Support to the design of large-scale adaptation investments

OPUS Number:

RG-T2059

Date of Proposal:

9/7/2011

Linked to project:

J.

Team Leader / Unit:

GRUNWALDT, ALFRED HANS - INE/ECC

Peer Reviewer 1:

NETTO DE A. C. SCHNEIDER, MARIA E.

Adaptación?

Peer Reviewer 2:

BOULET, EMMANUEL ANDRE

Joint Proposal:

Proposed amount, without counterpart in USD equivalent (enter whole number only): USD 900,000
Must match total of budget table on section VI, and of OPUS

Proposed amount including counterpart (if applicable) in USD equivalent: USD 900,000

Proposed Fund:

Sustainable Energy and Climate Change Fund

Unit of Technical Responsibility:

INE/ECC

Unit of Disbursement Responsibility:

INE

Execution:

Bank

Letters of Request available (or equivalent)

No

Doc# (IDBdocs):

Non-objection available:

No

Doc# (IDBdocs):

Execution period: 24 months Disbursement period: 30 months Required Start Date: 10/3/2011

Please provide justification why the Bank is the Executing Agency:

This KCP will facilitate the development of large-scale adaptation projects currently being in preparation by the Bank in the Region. In order to support and oversight the operations efficiently it is important to establish a more centralized management of this product throughout the Bank. Furthermore, the knowledge to be gained from this KCP will be very valuable for future adaptation projects financed by the Bank.

Beneficiary Countries:

ARGENTINA, BOLIVIA, COLOMBIA, COSTA RICA, PERU

Beneficiary entity: Sectoral ministries and local communities where large-scale adaptation projects will dev.

Sector: ENVIRONMENT AND NATURAL DISASTERS

II. KCP Type

Origination

Originated in client: KCP is the result of clients' demands.

The client may require to address a current public discussion, an advice to draft a law or a regulation, support for policy analysis and formulation, a capacity improvement for the execution of a recently approved program, an analysis of a public policy or private sector problem, or generate consensus around a specific issue.

Scope

Forward-looking purpose:

Demand for this KCP serves a longer-term, forward-looking purpose that may require the accumulation of new knowledge and experience. These products usually require a longer deployment time.

III. Alignment of the KCP proposal with IDB's Institutional Priorities (GCI9).

5. Protecting the Environment and Responding to Climate Change Environment

3.1 Explain how the knowledge produced with this KCP will be used (policy advice, operations, as input for programming and strategy documents, input for other KCPs:

The proposed program will help the preparation of large-scale adaptation projects through the generation of specific information on baseline, climate impacts, vulnerability assessment, detail design of adaptation measures as well as consultations with local stakeholders and capacity building programs. The large-scale adaptation projects are currently under preparation in Peru, Colombia, Argentina, Costa Rica and Bolivia; and are to be presented to international sources of funding such as Global Environmental Facility (GEF), Adaptation Fund, Climate Investment Funds' Pilot Program for Climate Resilience (PPCR), among others.

3.2 Explain the strategy and resources that will be devoted to promoting the use of the knowledge produced :

The INE/ECC unit will be responsible for the execution of the activities and dissemination of the results of this KCP, in close collaboration with RND and WSA divisions as well as with the countries' counterparts. Given the vulnerability to climate change of the areas/sectors where the activities of this KCP will be focused, the knowledge generated will serve as a basis for the preparation of the large-scale adaptation projects mentioned in previous section.

To promote the effective use of the knowledge produced, this KCP will include the organization of workshops and awareness raising activities with local stakeholders. In these workshops, an evaluation system will be in place for participants to measure their knowledge on the subject matter before and after the workshops and provide feedback on their quality.

IV. OBJECTIVES, EXPECTED RESULTS AND ACTIVITIES (Maximum 4 pages)

4.1 Describe the knowledge gap that this KCP intends to close:

The proposed KCP aims at tackling the information, data and technical capacity gaps related to the vulnerability to climate change of the areas and sectors where large-scale adaptation projects are currently being prepared by the Bank. Large-scale adaptation projects are currently being prepared in Peru, Colombia, Argentina, Costa Rica and Bolivia to address the impacts of climate change in fresh and potable water resources, fisheries, coastal zones, food security, and biodiversity, among others. Filling these gaps is a necessary step to better understand the issues faced by these areas/sectors in the context of climate change and the possible necessary adaptation measures. Additionally, for the areas where these projects will take place, there are deficiencies in the availability of technical baseline studies, such as climate related analyses, topographic maps, as well as readily available hydrometeorological and socio-economic data and vulnerability assessments.

Furthermore, having such analyses and data will improve the technical quality of the documentation that is required to access international funding that could finance these large-scale adaptation projects.

4.2 Describe how the question(s) asked relate to earlier literature on this subject (including any lessons learned from previous similar KCPs):

Recent evaluations (GEF, 2011) of the performance of climate-related funds such as the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF), have concluded that the experiences gained and lessons learned from the adaptation projects financed by these sources are in many cases not being taken into consideration in the preparation of new projects. Also, it is widely known that a major challenge for the preparation of climate change adaptation projects is the limited amount of high quality baseline data and technical capacity at the local level. The proposed KCP intends to address the abovementioned issues for the areas/sectors of study.

4.3 State the KCP objectives:

The main development objective of the proposed program is to facilitate the development of large-scale adaptation projects in the region. Specifically, the proposed KCP aims to support countries to: a) increase the understanding of the impacts of climate change in priority sectors/areas and the possible adaptation measures, b) increase their technical capacity to better prepare and implement large-scale adaptation projects; c) identify a portfolio of responses to climate consequences affecting their natural resources; and d) support the cost/benefit analysis of alternative adaptation approaches; and e) develop tools to prioritize adaptation measures and support sound risk management practices..

4.4 State the KCP expected results:

At the end of the proposed KCP, the following results are expected: 1) Increased understanding of the impacts of climate change in priority sectors/areas and their implications; 2) Increased knowledge of experiences and lessons learned around the world and locally related to the assessment of climate change impacts on relevant sectors/areas and possible adaptation measures to address those impacts; 3) Access to relevant socio-economic and hydrometeorological data as well as baseline studies necessary for the preparation of technically sound large-scale adaptation measures; 4) Increased awareness of local stakeholders of the impacts of climate change in relevant sectors/areas and possible adaptation measures; 5) Identification and formulation of cost effective adaptation responses to climate change consequences; and 6) Tools developed for the prioritization of adaptation measures and sound risk management.

4.5 Provide a description of the main outputs and related activities expected to be carried out:

Component 1

Activities:

- i) Analysis of information available worldwide of climate change impacts on sectors/areas relevant to the large-scale programs in preparation, as well as adaptation measures and lessons learned;
- ii) Analysis and synthesis of progress in the local knowledge of climate change vulnerability of the systems part of the large scale projects. Additionally, this activity includes the analysis of existing gaps in information and knowledge;
- iii) Collection and analysis of key hydrometeorological and socio-economic data necessary for the development of vulnerability assessments in the areas of study;
- iv) Basic technical studies necessary for the preparation of vulnerability assessments and design of adaptation measures.

Products:

- i) Documents synthesizing the most relevant information of studies and projects around the world related to the impacts of climate change in areas and sectors relevant for the large-scale adaptation projects that are currently being prepared;
- ii) Documents analyzing the state of knowledge at the local level with respect to vulnerability to climate change of relevant areas/sectors, as well as identifying knowledge and information gaps;
- iii) Databases of key hydro-meteorological and socio-economic data
- iv) Products include topographic maps, bathymetry maps, water balance studies, studies of surface area of relevant water bodies, among others.

Component 2

Activities:

- i) Consultation and awareness raising process with local stakeholders of the large-scale adaptation projects. Awareness raising on the impacts of climate change and potential adaptation measures for the respective areas;
- ii) Training activities for local governments and communities about the impacts of climate change on the areas of study and on tools for vulnerability analysis of priority sectors/areas to climate change.

Products:

- i) Workshops and meetings with local and national relevant stakeholders. A document summarizing the main topics discussed and agreements reached during meetings will be produced.

Component 3

Activities:

- i) Analysis of impacts of climate change
- ii) Vulnerability assessments

- iii) Identification of adaptation measures in response to climate change impacts
- iv) Analysis of environmental and social impacts associated with the implementation of adaptation measures
- v) Cost-benefit analysis of alternative adaptation approaches
- vi) Risk identification and management associated with implementation of adaptation measures

Products:

- i) Documents analyzing the main impacts of climate change on selected areas/sectors and the vulnerability of the areas/sectors to these impacts
- ii) Documents outlining possible adaptation measures in response to climate change impacts
- iii) Documents outlining main environmental and social impacts associated with the implementation of adaptation measures as well as technical and institutional arrangements to address these impacts
- iv) Technical and financial assessments of adaptation measures including respective costs and benefits
- v) Documents outlining main risks associated with the implementation of adaptation measures and management strategies to address these risks

Component 4

Activities:

- i) Peer review of the large-scale adaptation programs under preparation;
- ii) Identification of key indicators to be used for monitoring the vulnerability reduction impacts of the large-scale adaptation programs;
- iii) Acquisition of equipment and monitoring tools and data;
- iv) Monitoring and evaluation of the activities developed under this KCP.

Products:

- i) Documents providing feedback to the objective, activities and products of the large-scale adaptation projects under preparation
- ii) Documents summarizing main variables that should be monitored throughout the lifetime of the large-scale adaptation projects to assess the effectiveness of the measures to reduce vulnerability to climate change of the specific sectors/areas of work
- iii) Observational and monitoring equipment (e.g. hydrometeorological stations, satellite data, etc.)
- iv) Document evaluating the execution and effectiveness of the activities carried out under this KCP

4.6 Describe the methodological approach to be used in the development of the activities and the type of data sources which might be used. Be as specific as possible.

Component 1: The first 2 activities under this component will be carried out through literature reviews, field visits including structured and unstructured interviews with local stakeholders and government officials. Data collection will include hydrometeorological data collected in-situ which could be obtained from meteorological offices (such as IDEAM in Colombia, SENMAH in Peru, etc.), satellite data which could be obtained from international scientific organizations (such as JAXA, NASA, NCAR, NOAA, etc.). Additionally, socio-economic data needed could be obtained from ministries of planning, census, statistical institutes, etc. or through field studies. Methodological approach of baseline technical studies will vary depending on the study required. For the topographic and bathymetric studies, collection of data through instrumentation such as lidar may be required.

Component 2: Capacity building and awareness raising activities will be carried out through workshops and documentation such as leaflets. The possibility of using participatory games for learning and managing complex ideas (such as those developed by the Red Cross and Oxfam on index based insurances and risk pooling) will be assessed.

Component 3: Activities will include field surveys, cost-benefit analyses, technical, environmental and risk assessments.

Component 4: Activities will include literature review and expert consultation. Acquisition of equipment will be prioritized through expert consultation and consultative prioritization process.

4.7 Identify the main audience or expected users of knowledge generated or disseminated by this KCP

Communities where the large-scale adaptation projects are going to be implemented, ministries of planning, environment, water, agriculture, fisheries and hydrometeorological institutes of respective countries, among others.

4.8 Specify provisions for quality peer review of this KCP (ex. anonymous reviewers, Studies Committee)

Component 4 of this KCP includes resources specifically budgeted to hire external expert reviewers of the activities to be carried out as part of this KCP and of the design of the large-scale adaptation projects. Peer reviewers will be selected according to recognized expertise in subject matter, and in coordination with local authorities.

4.9 Additional technical information

If necessary, in an appendix please provide further technical details that you consider relevant to evaluate the technical quality of this KCP. Appendix Doc#(IDBDocs): [36392341](#)

V. KCPs RESULTS FRAMEWORK. Main Outcomes and Outputs.

5.1 Results Matrix:

Please, in the first column fill in each outcome indicator with the relevant outputs. You can use the table of indicators here attached.

Results Matrix									
	Unit	Baseline		Year 1		Year 2		Expected Completion Date	Data Source
		Value	Year	Planned	Actual	Planned	Actual		
Comp. 1: Local stakeholders and the Bank have access to baseline information necessary to understand the impacts of climate change in priority areas and prepare the respective adaptation measures									
• Worldwide peer reviewed papers and technical documentation revised per large-scale adaptation project	# of papers	0	2011	5				5/31/2012	Journals, websites of relevant institutions
• Local/national technical documentation revised per large-scale adaptation project	# of papers	0	2011	5				8/31/2012	Publications, UNFCCC communication, interviews
• Local/national stakeholders interviewed per large-scale adaptation project	# of people	0	2011	5				8/31/2012	Publications, UNFCCC communication, interviews
• Databases created with analyzed hydromet and socio-economic data for each large-scale adaptation project	# of databases	0	2011	1		1		8/31/2012	Field work, technical studies, hydromet offices
• Technical baseline study for each large-scale adaptation project (topographic maps, bathymetry maps, water balance, vulnerability assessments)	# of technical baseline studies	0	2011	1				1/31/2013	Hydromet offices, geological services, Ministries
Comp. 2: Local stakeholders participated in training and consultations related to the climate change impacts on relevant sectors/areas and possible adaptation measures to address those impacts									
• Workshops carried out per project	# of workshops	0	2011	2		1		5/31/2013	Participants list
• People trained and	# of people	0	2011	20		40		5/31/2013	Participants

consulted per project	trained and consulted							list
Comp. 3: Cost effective adaptation measures have been identified								
• Main impacts of climate change on projects/areas assessed	# of CC of impact assessments carried out	0	2011	1		2	1/31/2013	Field work, technical studies
• Adaptation measures identified for each project	# of measures identified	0	2011	2		2	3/31/2013	Field work, technical studies
• Cost benefit analysis of measures carried out	# of cost benefit analyses carried out	0	2011	1		2	5/31/2013	Field work, technical studies
Comp. 4: Key variables to assess effectiveness of adaptation projects are monitored								
• Large-scale adaptation projects documentation revised by peer-reviewer	# of documents revised	0	2011	2		4	5/31/2013	Technical studies
• Monitoring equipment purchased	# of instruments	0	2011	1		4	5/31/2013	Receipts of purchase, invoices

Note: Please note that this outcome and output indicators will be the input for the PMR and will be monitored in the Quarterly Business Review.

VI. BUDGET (*):

6.1 Budget should be presented by outputs or groups of outputs (for example: three publications, three conferences, seminars or workshops; one database; one survey; two training courses), and the relevant activities. Total available funds from counterpart sources should be reported. Use whole numbers only.

Costs	Project Cost – IDB Financing					Counter- part Resources	Other Financing
	Year 1			Year 2	Total request		
	Consult.	Travel (consultants only)	Other				
Component 1	160,000	20,000	15,000	115,000	310,000	62,000	0
• Documents synthesizing the most relevant informati	30,000				30,000	6,000	
• Docs. analyzing state/local knowledge and gap	30,000				30,000	6,000	
• Databases hydro- meteorological/socioeco nomic data	20,000		5,000	25,000	50,000	10,000	
• Topographic/bathymetr y maps, relevant	80,000	20,000	10,000	90,000	200,000	40,000	

studies							
Component 2	15,000	11,000	14,000	40,000	80,000	16,000	0
• Training workshops	10,000	10,000	10,000	30,000	60,000	12,000	
• Consultations	5,000	1,000	4,000	10,000	20,000	4,000	
Component 3	55,000	13,000	7,000	135,000	210,000	42,000	0
• Climate change Impact on selected area/sector docs	35,000	5,000		30,000	70,000	14,000	
• Possible adaptation measures response CChange Docs	10,000	3,000	2,000	15,000	30,000	6,000	
• Adaptation measures/costs and benefits assessments	10,000	5,000	5,000	70,000	90,000	18,000	
• Risks implementation of adapt. measures/mgt.Doc.				20,000	20,000	4,000	
Component 4	30,000	5,500	90,000	154,500	280,000	56,000	0
• Peer-review	10,000			40,000	50,000	10,000	
• Assessment of monitoring needs	10,000	2,500		17,500	30,000	6,000	
• Procurement of monitoring equipment	10,000	3,000	90,000	97,000	200,000	40,000	
Sub-total	260,000	49,500	126,000	444,500	880,000	176,000	0
	Monitoring and evaluation				20,000		
Total	260,000	49,500	126,000	444,500	900,000	176,000	0

Approximate value of in-kind counterpart 176,000

(*) More details may be required by donors (e.g. consultant cost per day);

6.2 Describe the source and type of counterpart resources

In kind resources such as data, time of local personnel, logistics support, among others. Counterpart resources will be provided by the respective Government's Technical Entity for each large-scale adaptation project (e.g. for the Colombian project counterpart resources will be provided by the Ministry of Environment, in Peru it would be *Instituto del Mar de Perú - IMARPE*)

6.3 Types of Consultants: Firms or individuals and main activities/outputs:

Type: Individual or Firm (if available)	Nationality (if available)	Estimated Cost	Main Activities / Outputs
Individual	TBC	200,000	Activities related to components 1 & 4

Firm	TBC	600,000	Activities related to components 1, 2 & 3
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Most of the individual consultants/firms will be hired through Quality and Cost Based Selection (QCBS). In a few, and exceptional, instances and where contract budget is small (less than \$30,000) single source selection may be used.

VII. Bank costs:

For the Bank's internal purposes, please provide information in Bank costs associated with the execution of this KCP:

7.1 Bank staff participation in KCP:

Staff Name	Bank Unit	FTEs
LEMAY, MICHELE H.	INE/RND	0.01
VALENCIA MOSQUERA, SANDRA CRISTINA	INE/ECC	0.04
GRUNWALDT, ALFRED HANS	INE/ECC	0.08
JARAMILLO, CAROLINA	INE/RND	0.01
QUIJANDRIA ACOSTA, GABRIEL	INE/ECC	0.01
FERREIRA, INES PIRES ARAUJO	INE/ECC	0.02
DEEB, ALEJANDRO	INE/ECC	0.01
VON TEICHMAN, KORINNA	INE/ECC	0.02
TOLMOS LEON, ALFONSO	RND/CPE	0.01
ESMERAL BERRIO, ROBERTO MARIO	INE/ECC	0.01
MIRALLES-WILHELM, FERNANDO R.	INE/WSA	0.01
QUIROGA, RICARDO E.	RND/CAR	0.01
ANGEL GOMEZ, ANGELO EDUARDO	INE/ECC	0.02
ESCHOYEZ, GUILLERMO ANTONIO	LEG/SGO	0.01

VIII. Risks:

Fill-out the KCP's Environmental Screening and Classification using this link to the [Environmental Screening and Classification Toolkit](#). Then save it in IDBDOCS and record its number in the box below (*):

36392355- Safeguard Screening Form; 36392354-Safeguard Policy Report

8.1 Implementation Risks:

Risks of implementation are low. The IDB project team does not anticipate any major risks that could impair the execution of the KCP. The project team will be directly involved in the project implementation and will oversee the work developed by the consultants. Risks regarding quality of materials will be overcome by continuous peer review and monitoring and evaluation during their preparation. In some cases, data availability might be an issue in some of the countries selected for particular studies. Therefore, risks related to the accomplishment of goals on proposed tasks will take this limitation into consideration. Additionally, this KCP will include an activity to fill in hydrometeorological data gaps in countries such as Bolivia by creating a complete data base for the project areas through a technique called reanalysis.

8.2 Please identify key environmental and social risks and impacts, and the strategy to address them:

There are no environmental or social impacts anticipated from this KCP. On the contrary the products from this KCP will contribute to reducing the negative impacts caused by climate change.

IX. Coordination with other MDBs

9.1 Summarize collaboration or coordination with other MDBs, donors and other strategic partners (if any):

Activities will be coordinated with other MDBs working in project areas. In Bolivia, for instance, activities will be closely coordinated with the World Bank and UNDP, and other donors, who are also involved in PPCR. In Colombia, activities are being closely coordinated with Conservation International and the World Bank, who carried out the first part of the project.

X. Monitoring and evaluation plan.

Fill-out the KCP's Development Effectiveness Matrix (DEM) using this link to the R&D [DEM template](#). Then save it in IDBDOCS and record its number (*):[36392321](#)

10.1 Summarize the basic elements of the Monitoring and Evaluation plan, including key activities and associated budget:

INE/ECC will have the responsibility for the monitoring of the proposed KCP. The following are the main evaluation and monitoring activities:

- (i) Main products developed under this KCP will be peer-reviewed by recognized international experts;
- (ii) Evaluations forms will be used to seek feedback from participants in workshop and other events; and,
- (iii) The project team will continuously monitor work undertaken and will make reports of the KCP activities every 6 months, including an assessment of the delivery of products against the agreed delivery schedule.

If required, during the execution of the KCP, administrative and technical missions will take place with the purpose of evaluating development and use of outputs, and events. A total of \$20,000 have been allocated specifically to overall activities for monitoring and evaluation, but in addition \$50,000 have been allocated for the peer-review processes.

10.2 Exceptions to Bank policies:

none

10.3 Contractual Clauses:

n/a

Terms of Reference Doc# (IDBDocs): [36392323](#)

(*) All documents saved in IDBDocs must have read permissions granted to the group DOCS Users