ADAPT ASIA-PACIFIC

Deliverables: Project Preparation Approach Paper (Task Four)

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PROJECT PREPARATION APPROACH PAPER (TASK FOUR)

1. BACKGROUND: ORIGINAL PROGRAM SCOPE

The U.S. Agency for International Development (USAID) Request for Proposals states that one of the key outputs for the climate change adaptation financing program will be: "facilitation of the successful access to climate change adaptation financing for a minimum of 10 climate change adaptation projects during the course of the project representing investments in total of over USD 500 million."

It was clarified that the Performance Management Plan (PMP) targets are outputs of the project, while the USD 500 million in project commitments is beyond the manageable interest of the contractor and is therefore listed as an outcome. Furthermore, it is expected that the projects supported will cover a broad geographic area and several of the selected countries. In addition the request for proposal stipulated that projects supported should result in "over 100 million people in the region living in districts with increased adaptive capacity as a result of the adaptation investment projects."

In the AECOM/IGES proposal, 25 climate change adaptation projects were initially selected as PMP indicators and targets. These were chosen because they are approved (or in the pipeline) and have facilitated access to finance. Moreover, an estimated 220,000 people will benefit from these projects. The leveraged investment of these projects was targeted at USD 362 million.

2. RATIONALE: REQUIREMENT TO DEFINE THE ADAPT ASIA-PACIFIC APPROACH

In the Asia-Pacific region there is a high concentration of people living in vulnerable coastal areas and river basins, which makes them highly vulnerable to the impacts of climate change and related natural disasters. Climate variability is projected to increasingly the region, with many countries already facing intensifying extreme and unpredictable climate events such as increased flooding and drought. Many of these observed effects may be attributed to climate change. Developing economies in the region are particularly vulnerable to the impact of climate change on economic sectors and livelihoods.

Globally, the financing requirement for climate change adaptation in developing countries for 2010-2050 is estimated at USD100 billion per year. As part of the Copenhagen Accord of 2009, Parties to the United Nations Framework Convention on Climate Change agreed to provide new and additional "fast-start" financing amounting to USD 30 billion for 2010-2012. The Parties also agreed to set a goal to mobilize USD 100 billion per year by 2020.[1] Developing countries, however, face major capacity challenges in preparing successful project proposals to access these funds.

USAID's Regional Development Mission for Asia (RDMA) established ADAPT Asia-Pacific to enable developing countries in the Asia-Pacific region develop the necessary capacity to access climate adaptation financing. ADAPT Asia-Pacific is a regional project preparation facility to help bridge capacity gaps and promote access to finance for adaptation projects. From a regional office in

[1] "In the context of meaningful mitigation actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion dollars a year by 2020 to address the needs of developing countries. This funding will come from a wide variety of sources, public and private, bilateral and multilateral, including alternative sources of finance. New multilateral funding for adaptation will be delivered through effective and efficient fund arrangements, with a governance structure providing for equal representation of developed and developing countries. A significant portion of such funding should flow through the Copenhagen Green Climate Fund. Copenhagen Accord 2009, United Nations Framework Convention on Climate Change.

Bangkok, Thailand, ADAPT Asia-Pacific operates across the Asia-Pacific region to share information on climate funds and their application requirements. The objective is to help developing country governments accelerate their access to the existing pool of international climate change adaptation financing.

ADAPT Asia-Pacific target countries in Asia include: Bangladesh, Cambodia, India, Indonesia, Lao PDR, Maldives, Mongolia, Nepal, Philippines, Sri Lanka, Thailand, Timor-Leste, and Viet Nam. The following Pacific Island countries were subsequently added to the project: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu.[2] These Pacific Island countries are not analyzed in this Project Preparation Approach Paper, since formal approval for these additional countries had not been received during its preparation.

3. APPROACH TO ASSESSING THE ADAPTATION PROJECT ENVIRONMENT

All 13 Asian countries which were identified as priority countries for ADAPT Asia-Pacific involvement have some form of climate change action plan. The purpose of this document is to highlight the variety of projects which have already been identified by each country and by major donors, to examine the extent of readiness (availability of concept papers, costing, pre-feasibility studies, implementing agency, source of funding etc.), to identify the most promising points of entry (i.e. countries that are "project ready") as well as to indicate the possible capacity-building requirements. Based on this analysis, the criteria for assessing possible ADAPT Asia-Pacific involvement will be proposed.

The ADAPT Asia-Pacific evolving approach commences with analysis of the adaptation project environment, as follows:

(i) Are there sufficient adaptation projects identified by the selected countries that are still not funded?
(ii) Can the countries directly access external financing? In which case, ADAPT Asia-Pacific can work directly with the project implementing agencies to improve the project proposals and facilitate access to the relevant adaptation funds.
(iii) If direct access is not possible, can ADAPT Asia-Pacific work with financial intermediaries, such as the UN agencies and multilateral development banks, to assist the countries in accessing adaptation funds?
(iv) If the specialized adaptation funds are not sufficient or not available, are there other financing options that can be considered?
(v) If there is a surplus of both projects and financing sources, what criteria should we use to prioritize project selection?

3.1. Adaptation Project Progress

The first step in the analysis was to examine the national action plans and to determine the extent to which specific adaptation projects had been prepared. The archetypical approach is represented by the National Adaptation Programmes of Action (NAPAs) prepared by each least developed country. Some countries, such as India, have progressed beyond national plans and have begun to prepare sector (mission) adaptation action plans as well as state government level action plans, but this tends to be the exception. In general, the analysis of national action plans confirms USAID's contention that countries are not yet well equipped to prepare suitable projects for adaptation financing. Moreover, without exception in this region, there are no certified national implementing entities enabled to directly access climate change adaptation funds.

[2] A separate approach paper for the Pacific region has been prepared subsequently.

3.2. Accreditation Process

No national implementing entity (NIE) has been accredited in Asia so far. Therefore ADAPT Asia-Pacific will work with a small number of countries to assist their accreditation process. To date, Indonesia, Mongolia and the Philippines have requested assistance with accreditation.

4. ENGAGEMENT WITH FINANCIAL INTERMEDIARIES

Since there is no current direct access, the strategy of ADAPT Asia-Pacific is to engage in the initial stages of this project with financial intermediaries, which access adaptation funds on behalf of the selected countries.

These financial intermediaries include agencies such as the United Nations Development Programme (UNDP), which assists least developed countries to access the Least Developed Country Fund (LDCF) under the Global Environment Facility. These LDCF projects, and the available funds, while important in their own right, tend to be small-scale. Therefore they are unlikely to attract the attention of Ministries of Finance and / or Departments of Planning and Investment. To date, UNDP has requested assistance with its ongoing capacity-building work and for specific LDCF projects in Lao PDR, Nepal and Tuvalu.

4.1. Multilateral Development Banks

ADAPT Asia-Pacific considers that the UN agencies are unlikely to deliver sufficient projects to meet the overall targets. Therefore, ADAPT Asia-Pacific has identified the multilateral development banks as the likely major source of adaptation projects and as the major access pathway to the larger adaptation funds expected to come on-stream in the next few years.

The Asian Development Bank (ADB) has been identified as the primary funding source for adaptation projects in this region[3], either as; (i) an intermediary for an existing specialized adaptation fund, (ii) a user of bilateral trust funds (such as the Nordic Development Fund, Japan Fund for Poverty Reduction, or UK DFID's "fast-start" funding), or (iii) provider of its own core resources.

The project ranking undertaken focused on ADB pipeline projects for the next three years. Importantly, ADB acts not only as an intermediary to the relatively small amounts of funding available from existing specialized adaptation funds, but is an "adaptation fund" in its own right. For example, in 2009, ADB created a USD 40 million Special Climate Fund (SCF) from its own internal resources to prepare climate-related projects. Many projects assisted by the SCF are now ready for capital investment. Where countries are prepared to incorporate an adaptation project or as a component of a larger project, ADB can source the necessary funds, drawing on the existing adaptation fund, bilateral trust funds earmarked for climate change projects, or funds from the concessional Asian Development Fund (ADF) window (for less developed countries, and in some cases as grants) or from its Ordinary Capital Resources (OCR). Recent discussions which have taken place with donor countries on replenishment of the ADB's ADF resources have included the need to fund large numbers of adaptation projects.

To identify points of entry for ADAPT Asia-Pacific and evaluate their relevance to the objectives of the program, an appropriate categorization of ADB projects is needed. This is shown in Table 1. This categorization was used to identify possible short- and medium-term engagement with ADB and their relevant national counterparts.

Table 1 Accessing Country Capacity-Building through the Asian Development Bank (ADB)

Categorization of Adaptation	Potential ADAPT Asia-Pacific	Connection to Country Capacity-

[3] Discussions with senior management in ADB suggest that the bank is looking to develop a USD 1 billion portfolio of adaptation projects over the next few years, and that staff are taking this target seriously.

Projects in ADB	Role	Building
Pilot Program for Climate Resilience (PPCR) – Climate Investment Fund (Nepal, Bangladesh, and Cambodia only). PPCR projects are standalone adaptation projects adequately supplied with project preparation financing. In addition, ADB receives implementation supervision funds.	ADAPT Asia-Pacific could participate in PPCR preparation missions and identify scope for specific project preparation activities during implementation. There may be occasional opportunities for niche preparation activities not covered by the PPCR preparation financing.	Allows contact with the Designated National Authority (DNA) and national climate change task force. May allow work with sector agencies to prepare bankable projects under PPCR mainstreaming adaptation into development planning projects.
Other Adaptation Funds – e.g. Adaptation Fund Currently ADB acts as a multi-lateral implementing entity (MIE) for such funds. Generally these funds are used for a grant-component for co-financing an ADB investment project which requires some incremental financing for adaptation. Governments are not generally willing to borrow for this co-financing.	ADAPT Asia-Pacific can provide short-term consultant input to project preparatory technical assistance (PPTA), fill in any gaps once the PPTA is completed, or assist in drafting the RRP, prior to Board consideration.	Through working with the ADB team, ADAPT Asia-Pacific staff, or short-term consultants, can link with climate change staff at the national level and / or sector agency staff who need to be more aware of adaptation funding opportunities. This would help to identify specific capacity-building needs, climate change "champions", and potential for capacity-building at the national level.
Adaptation Projects or Components using ordinary capital resources (OCR) or Asian Development Fund (ADF) funds or bilateral co-financing The principal difference with this form of adaptation financing is that it may not be recognized as tapping into an "adaptation fund" and in project "tagging" may not even indicate that it is for climate change adaptation (as the primary project objective has to be environment).	With other adaptation funds, ADAPT Asia-Pacific can provide short-term consultant input for fact-finding missions for the technical assistance (TA), assist with preparation of the TA paper, form part of the PPTA team, fill in any gaps once the PPTA is completed, or assist in drafting the RRP, prior to Board consideration.	Considering other adaptation funds; essentially governments do not distinguish between different sources of adaptation funds provided by an intermediary such as ADB (provided that there is no interest rate penalty), and much of the project preparation work is the same, regardless of the source of funds.
Sector loans integrating adaptation components Typically sector loans are prepared with 2-3 sample projects that are approved in principle when the loan is approved by the ADB Board of Directors. Subsequently, the government needs to prepare additional projects qualified for funding under the sector loan.	Although not originally envisaged as part of the project, it would be possible for ADAPT Asia-Pacific to work with the relevant sector and finance agencies at the national level to prepare the sub-projects to the standard required by ADB. This experience would help to build national capacity and prepare the national agencies for future adaptation funding opportunities.	This arrangement would allow ADAPT Asia-Pacific to work directly with national agencies on preparation of adaptation components or adaptation sub-projects. While the ultimate source of financing may not be an adaptation fund *per se* the preparation requirements will be very similar.
Policy loans (budget support) for climate change adaptation Policy loans are essentially	ADAPT Asia-Pacific could participate in project preparation missions and help to draft the policy matrix.	The fact-finding missions for policy loans often involve contact with the highest levels of government, as ADB wants to ensure that there is strong

budget support facilities in exchange for new policies, generally requiring some form of policy matrix and agreed follow up actions by the government concerned.	Unless the follow-up activities require specific projects to be implemented, however, this may not assist the government to develop additional capacity to prepare "bankable" adaptation projects.	political commitment for implementation of the policies contained in the policy matrix. This may open high-level contacts for ADAPT Asia-Pacific but may not be the most effective way to build capacity.
Knowledge products e.g., guidelines for climate proofing road sector projects. ADB uses its advisory TA resources (mainly financed by loan reflows and bilateral trust funds) to prepare a wide range of knowledge products, including manuals, guidelines, training modules, and other products that can be used across a wide range of projects, as well as for capacity building (often piggy-backed to loans, where implementation capacity is inadequate).	ADAPT Asia-Pacific could work with TA teams by providing specialist input and help to improve the utility of the knowledge product to assist developing country practitioners working in the field of climate change adaptation. These knowledge products could be used in subsequent capacity building programs and help to build capacity to access climate change adaptation financing. Alternatively, ADAPT Asia-Pacific could add resources to selected capacity building TAs focused on adaptation.	Often these knowledge products are completed without much input from national agency staff, although local consultants or academics may be employed. The main contact may come through pilot projects or trials of the methodologies developed under the advisory TAs. Specific opportunities may arise where ADB TAs are used to assist countries to develop their national adaptation plans, one of the outcomes of the recent conference of the parties for the United Nations Framework Convention on Climate Change (UNFCCC).

In addition to the categorization of project types listed in Table 1, ADAPT Asia-Pacific could also participate in other parts of the project processing cycle, as shown below in Figure 1.

For example, an adaptation specialist could join country programming missions and identify where adaptation components or projects could be incorporated. ADAPT Asia-Pacific personnel could also work with ADB project managers and government officials to develop project concept papers for subsequent approval by the ADB and/or incorporation into the country partnership strategy.

The most likely ADB pipeline projects have been categorized according to the schema in Figure 1, then identified and ranked (high, moderate, low) in terms of the potential for ADAPT Asia-Pacific to add or contribute to a significant adaptation component.

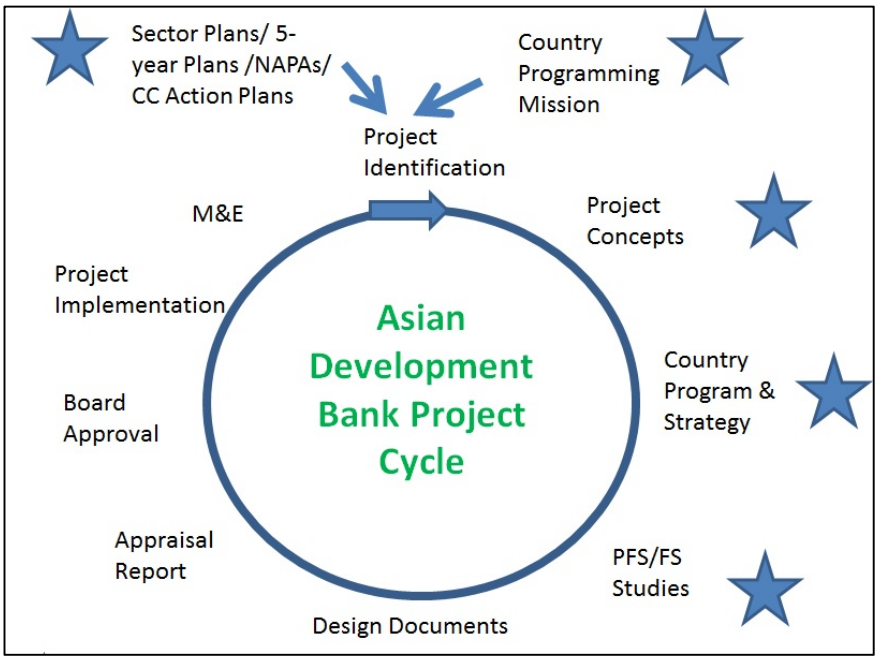

Figure 1 ADB Processing Cycle and Possible Entry Points

Possible Inputs by ADAPT Asia-Pacific

Projects ranked as “high” include those with climate change or sustainable development mentioned in their title, and those involving infrastructure which typically needs climate-proofing, and have a PPTA in the pipeline to which ADAPT Asia-Pacific could contribute (see Table 2). In addition, possible adaptation components are identified for subsequent discussion with ADB task managers.

Projects ranked as “medium” typically have one or two of the foregoing factors but not the full complement. Those ranked as “low” could potentially consider an adaptation component but are not typically identified for adaptation funding.

The potential sources of adaptation funding for most of these projects have not been identified since ADB has multiple sources to call on and would need to make a decision on which funds might best suit the project during the project preparation phase. Pipeline projects that were not ranked are believed not to be suitable for adaptation funding.

Table 2 Examples of Contributions to Project Processing Stages by ADAPT Asia-Pacific

ADB Processing stage	Potential issues	ADAPT Asia-Pacific technical assistance facility	Examples
PPTA fact-finding	Sometimes during the pre-PPTA fact-finding discussions, issues may arise vis-à-vis climate change, which require specialized expertise. But staff consultant funds might not be available to recruit an additional member to join the PPTA fact-finding mission. Possibly the best regional expertise might be already identifiable within the ADAPT Asia-Pacific team.	The ADAPT Asia-Pacific facility would be able to provide an expert to participate in the mission and address the issue. Likely input would be about 1 person-month, utilized in the same manner as a staff consultant, added to the ADB fact-finding team (which is often only 1 or 2 staff).	What modifications to EIA should be made to ensure climate change issues are captured in the assessment? How should the terms of reference be drafted to ensure a probabilistic risk assessment is done that can differentiate the increases in expected annual losses due to climate? What information is available on likely climate changes in the project area?
PPTA	During the approval stages of the PPTA, additional assessments may be identified that should have been completed as be part of the PPTA but the PPTA budget is inadequate to undertake the work.	The ADAPT Asia-Pacific facility could field small teams to conduct such assessments, at costs ranging from USD 50,000 to USD 100,000 depending on the work requirements and the size of the loan / climate fund investment. This could be tracked as parallel financing, and would count towards funds leveraged by ADB.	The gender strategy that has been developed does not adequately address the unique challenges facing women and children in the context of increasing climate variability, including household food security, access to safe water and sanitation, or safety and shelter during disasters.
1. Loan fact finding; pre-appraisal 2. Appraisal; 3. Post-	Issues unresolved during the PPTA stage may need to be addressed prior to Board consideration. These	The ADAPT Asia-Pacific facility would be able to provide expert(s) to participate on the mission and address the issue.	Updated vulnerability assessment, urban land use planning guidelines, building code revision guidelines, strengthened

appraisal and pre-Board consideration of the draft Report and Recommend-ations of the President (RRP).	may be generated by informal discussion with Board members. These issues frequently require inputs beyond the budgeted staff consultant funds or sometimes a small scale TA, which could delay appraisal as small scale TA resources may take some time to be approved.	Likely input 1 to 3 person-months, utilized similar to a staff consultant. For larger issues, the ADAPT Asia-Pacific facility could mobilize small teams, at costs ranging from USD 50,000 to USD 100,000 depending on the work requirements and the size of the investment. Again, this could be tracked as parallel financing, and would count towards funds leveraged by ADB.	financial and accounting standards to allow tracking and monitoring of climate change funds separately from ODA, compilation of downscaled climate data for the project area, etc. Sometimes the co-financing climate change fund may have some special requirements that need to be accomplished prior to their approval, such as monitoring indicators.

4.2. Other Financing Sources

Other possible sources of project funding include the World Bank and the Pilot Program for Climate Resilience (PPCR) (which only applies to Bangladesh, Cambodia and Nepal in the Asian region). These have not been systematically ranked at this stage, although some priority PPCR projects have been identified for follow up with the ADB. World Bank contacts have expressed interest in ecosystem-based and community-based adaptation, rather than climate-proofing infrastructure. Various options are being explored.

5. SUMMARY OF ANALYSIS

There is a clear mismatch between country aspirations on adaptation and the currently available funding. At least USD 20-30 billion of investment in climate change adaptation projects has been proposed by the governments of the selected 13 countries, although in some cases countries have not reached the stage of costing their adaptation plans. There is, however, little evidence of economic or financial analysis of most projects in the national or sub-national plans.

Over 900 activities were identified in the plans reviewed, varying from 9 in Nepal to 229 in India (Table 3). The sectoral breakdown is as follows:

- Agriculture / Fisheries / Food Security – 22.5%
- Forestry / Wetlands / Biodiversity – 14.3%
- Water Resources – 25.0%
- Infrastructure / Urban – 9.8%
- Health / Disaster Risk Reduction - 10.4%
- Capacity Building / Other - 15.0%

While there is an understandable emphasis on water resources and food security related sectors, the number of projects / activities proposed for infrastructure and urban planning and development appears low. This may be an area where ADAPT Asia-Pacific could have significant influence by suggesting that adaptation components be added to planned infrastructure investments. For example, ADB's Sustainable Infrastructure report suggests that between 2007-2030 about USD 7 trillion needs to be invested in energy alone, yet very few of the national adaptation plans identified the energy sector as a candidate sector for adaptation projects.

Some common project types were reflected in the plans reviewed, perhaps in part due to the guidance provided by UNDP for the NAPAs prepared for least developed countries (See Table 3).

Table 3 Number of Projects / Activities Identified by Adaptation Sector

Country (number of activities)	Adaptation Sector					
	Agriculture/ Fisheries/ Food Security	Forestry/ Wetlands/ Biodiversity	Water Resources	Infra-structure/ Urban	Health/ Disaster Risk Reduction	Capacity Building/ Other
Bangladesh (37)	6 (16%)	2 (5.4%)	9 (24.3%)	2 (5.4%)	7 (18.9%)	11 (29.8%)
Cambodia (20)	4 (20.0%)	2 (10.0%)	9 (45.0%)	1 (5.0%)	3 (15.0%)	1 (5.0%)
India (229)	44 (19.2%)	46 (20.1%)	90 (39.3%)	8 (3.5%)	23 (10.0%)	18 (7.9%)
Indonesia (89)	31 (34.8%)	9 (10.1%)	21 (23.6%)	9 (10.1%)	13 (14.6%)	6 (6.7%)
Lao PDR (45)	11 (24.4%)	14 (31.1%)	13 (28.9%)	1 (2.2%)	6 (13.3%)	0 (0.0%)
Maldives (62)	17 (27.4%)	7 (11.3%)	8 (12.9%)	19 (30.6%)	8 (12.9%)	3 (4.8%)
Mongolia (141)	71 (50.4%)	9 (6.4%)	45 (31.9%)	1 (0.8%)	8 (5.7%)	7 (5.0%)
Nepal (9)	1 (11.1%)	3 (33.3%)	2 (22.2%)	1 (11.1%)	2 (22.2%)	0 (0.0%)
Philippines (29)	3 (10.3%)	2 (6.9%)	5 (17.2%)	7 (24.1%)	4 (13.8%)	8 (27.6%)
Sri Lanka (140)	33 (23.6%)	24 (17.1%)	16 (11.4%)	16 (11.4%)	9 (6.4%)	42 (30.0%)
Thailand (51)	3 (5.9%)	6 (11.8%)	3 (5.9%)	16 (31.4%)	1 (2.0%)	22 (43.1%)
Timor Leste (29)	4 (13.8%)	5 (17.2%)	4 (13.8%)	6 (20.7%)	9 (31.0%)	1 (3.4%)
Viet Nam (30)	4 (13.3%)	1 (3.3%)	3 (10%)	2 (6.7%)	2 (6.7%)	18 (60.0%)
Total (911)	232 (25.5%)	130 (14.3%)	228 (25.0%)	89 (9.8%)	95 (10.4%)	137 (15.0%)

5.1. Potential Adaptation Project Interventions by Sector

5.1.1. Agriculture / Fisheries / Food Security

- Research on drought, flood and saline tolerant crops, fish species and livestock, including research on use of biotechnology.
- Development and improvement of community-based irrigation systems, micro-irrigation, and community farm ponds.
- Agricultural and weather insurance systems.
- Development of more sustainable soil, water, and crop management practices, including rehabilitation of degraded areas.
- Use of better spatial planning, such as drought maps and early warning systems.
- Change of planting season dates to accommodate shifts in climate patterns.

5.1.2. Forestry / Wetlands / Biodiversity

- Coastal afforestation and mangrove planting using community participation.
- Monitoring and research on the impacts of climate change on forests and biodiversity.

- Conducting inventories of wetlands and improving regulatory regime to ensure sustainable use.
- Improvement of forest fire management.
- In situ and ex situ conservation of genetic resources, especially for threatened flora and fauna.
- Mapping vulnerable eco-regions and hotspots
- Plantation management and improvement of riparian vegetation along rivers and other water bodies.
- Improved watershed management, rehabilitation and reforestation.

5.1.3. Water Resources

- Construction of flood shelters and early warning systems.
- Incorporation of climate change considerations in planning and design of water-related infrastructure, as well as repair and rehabilitation of existing infrastructure.
- Provision of safe drinking water supplies to coastal communities affected by saline intrusion due to sea level rise.
- Modeling of hydrologic impacts of climate change to determine future discharge levels and design criteria for flood protection embankments, dams, and other water-related infrastructure.
- Mapping of areas likely to experience increase in flooding, and devising appropriate protection measures.

5.1.4. Infrastructure / Urban

- Modification of standard design criteria for infrastructure, as well as adapting operating and maintenance procedures.
- Development of resilient infrastructure system and spatial plans to accommodate increasing climate variability.
- Conduct an inventory of structures in coastal zones potentially vulnerable to sea level rise and storm surges.
- Improve drainage systems and slope stability for road construction, especially in vulnerable areas.
- Improve land use planning in hazard prone areas.

5.1.5. Health / Disaster Risk Reduction

- Research linkages between climate change and health, to identify the most effective interventions
- Increase resilience of vulnerable groups, through community-based adaptation, livelihood diversification, access to social services and basic infrastructure, and access to social safety nets, such as insurance schemes.
- Implement surveillance systems for existing and emergent disease risks which are resulting from climate change, to strengthen health systems to met future needs.
- Implement safe drinking water and sanitation programs in at-risk areas (such as coastal zones, flood-prone and drought-prone areas).
- Strengthen cyclone, storm surge and flood early warning systems.
- Strengthen government and civil society capacity to manage natural disasters.

5.1.6. Capacity-Building / Other

- Review and revise government policies to ensure that they take full account of future climate change impacts.
- Build the capacity of key government agencies.
- Mainstream climate change into national, sectoral, and spatial development planning.
- Improve the capacity of governments and communities to access climate funds.
- Develop inventory and build on traditional and indigenous knowledge of adaptation.

The above list above indicates that most of the projects at country level are conceived as standalone adaptation projects. Only in rare cases are they seen as adaptations of an existing development project (such as climate-proofing a coastal road). As funding for standalone adaptation projects is severely constrained, a more innovative approach to accessing finance is needed.

5.2. Adaptation Opportunities Within Investment Projects

The next step in this assessment process was to review the main investment projects for the 13 countries (generally funded externally, but not in every case) to see whether there is potential for significant adaptation opportunities which are being missed, due to this emphasis on standalone projects.

This analysis was undertaken through examination of the country strategies and programs for the 13 countries prepared by the ADB (and to a lesser extent the World Bank). These institutions generally make pipelines of projects publicly available. For other institutions (such as bilateral aid funding), ADAPT Asia-Pacific may have to approach finance and planning ministries in each country to examine national investment pipelines.

The ADB analysis shows that there has been a recent shift towards funding climate change projects and technical assistance although there is less evidence that "traditional" infrastructure projects are routinely being "climate-proofed" (See Table 4).

Table 4 Summary of ADB pipeline projects suitable for integrating adaptation measures

Country	Low Suitability		Moderate Suitability		High Suitability	
	Number of Projects	Amount (USD million)	Number of Projects	Amount (USD 'million)	Number of Projects	Amount (USD million)
Bangladesh	1	5	8	502.0	5	398.7
Cambodia	1	8	6	172.4	3	89.0
India	3	1,000	18	4,003.1	6	256.6
Indonesia	0	0	7	681.5	4[4]	621.5
Lao PDR	0	0	8	133.6	3	57.4
Maldives	0	0	1	TBD	0	0
Mongolia	0	0	3	40.6	0	0
Nepal	0	0	9	221.8	5	293.9
Philippines	1	70	4	221.0	4	198.4
Sri Lanka	1	6	3	230.0	2	132.0
Thailand	1	243	1	120.0	0	0
Timor Leste	0	0	2	21.2	0	0
Viet Nam	2	869	9	1,486.8	13	2,936.2
Total	10	2,201	79	7,834	45	4,984

A total of 134 projects were identified for the 13 selected countries[5] amounting to nearly USD 15 billion in capital investment. Assuming that adaptation measures could add up to 5% of the total investment amount[6], adaptation funding totaling about USD 750 million would need to be sourced. As ADB plans on reaching USD 1 billion in adaptation funding over the next 5 years, this appears to be a realistic assessment, since not all ADB regions are covered by ADAPT Asia-Pacific.

[4] Recently Indonesia decided not to proceed with two large policy loans for climate change, so this number may need to be reduced.

[5] The recent decision to incorporate the following Pacific Island countries into ADAPT Asia-Pacific: Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Papua New Guinea, Marshall Islands, Samoa, Solomon Islands, Tonga, and Vanuatu would add numerous small projects, as almost all Pacific Islands are vulnerable to climate change.

[6] The World Bank uses an indicative 6% to calculate the likely adaptation funding needed.

Countries that appear to offer the greatest prospect for ADAPT Asia-Pacific input include Bangladesh, Cambodia, India, Indonesia, Nepal, Philippines, Sri Lanka, and Viet Nam. These countries account for over 90% of the high-ranked projects, and are among the most vulnerable countries in the Asian region. Typical projects that are suitable for adaptation components include:

- Road Infrastructure (especially in mountainous, deltaic, or coastal areas).
- Water Resources Development (especially in areas subject to drought or flood risks).
- Urban Development (in coastal zones, river valleys, mountainous areas).
- Energy infrastructure (renewable energy sources, such as biomass or hydropower);
- Health and Sanitation Projects (especially where disease vectors and water-borne diseases remain major causes).
- Railway Sector Projects (through mountainous or flood-prone areas, and possibility of heat impacts).
- Agriculture and Livestock Projects (heat sensitive crops and livestock, flood and drought impacts, disease vectors, carbon dioxide concentration impacts).
- Biodiversity Conservation

The next step in the analysis of the identified ADB projects was to contact the individual task managers to inquire further into the terms or reference or results of the project preparatory technical assistance (PPTA) to determine if the projects have already anticipated the need for climate change adaptation. Where there is no built-in climate change adaptation considerations, there may be the opportunity for ADAPT Asia-Pacific to offer assistance to the task manager, with the country's acquiescence, to either add a small component to the PPTA or conduct a follow-up assessment to assist in the project preparation stage.

Moreover, ADAPT Asia-Pacific may work on one or more knowledge product projects to develop a generic output, such as an Adaptation Design Manual for water resource development, which could be used across many similar projects in multiple countries.

Following this analysis, the priority projects for discussion with ADB for possible intervention in 2012 were identified and can be seen in Table 5 below. Additional projects were also raised by the ADB staff, as not all planned projects are listed in the COBPs.

Table 5 Priority Projects for Discussion with ADB

Country	Project	Status (as at February 2012)
Bangladesh	Climate resilient rural infrastructure improvement – USD 20 million (2012 firm) – PPTA (2011) plus USD 30 million co-financing.	PPTA underway – need to wait until the PPTA is finished to see if there are any gaps.
Cambodia	Mainstreaming climate resilience into development planning of key vulnerable sectors – PPCR – USD 7 million (2012).	Fact-finding mission planned for 19-30 March, with ADAPT Asia-Pacific invited to join the wrap up meeting, and possibly fund feasibility assessments of NAPA priority projects.
India	Climate adaptation through sub-basin development (MFF) – USD 187.5 million (2013) – no PPTA scheduled.	Two follow up projects to an earlier TA (Sutlej / Punjab and Cauvery Delta / Tamil Nadu) are being planned. Further discussion with India Resident Mission is needed.
India	Climate change adaptation support to the National Water Mission (PATA) – USD 0.6 million (2012).	A small scale scoping mission (USD 150,000) is planned.
Indonesia	Climate change program loan II – USD 200 million (2012 firm) – no PPTA.	Indonesia has declined an earlier tranche of this program approved in

		2011, so this seems unlikely to proceed.
Lao PDR	Climate resilient water resource management for food security – USD 25.10 million (2013) – PPTA (2012).	ADB plans to access the Adaptation Fund for this project but there is a hold up due to unacceptable conditions being imposed on MIEs.
Nepal	Building climate resilience of watersheds in mountain eco-regions – USD 40.1 million (2012 Climate Investment Fund standby) – PPTA (2011).	PPTA has just started, so need to wait until completion of TA to see if any gaps emerge.
Philippines	Disaster risk financing project – USD 70 million (2013 firm) – PPTA (2012).	Project scope is mainly on earthquakes and associated risks and project is likely to be postponed to 2014.
Viet Nam	Low carbon agriculture support – USD 197 million (2012 firm) – no PPTA.	Project focuses on biogas digesters, so links to adaptation are very tenuous.
Viet Nam	GMS flood and drought risk management and mitigation – USD 64 million (2012 firm) – PPTA (2008).	PPTA nearly finished. May be more scope for involvement in the Thailand component.
Viet Nam	Promoting low-carbon climate resilient economies in the GMS – USD 33.33 million (2013 firm) – PPTA (2012).	Suggestion that ADAPT Asia-Pacific could take on preparation of one city, but further discussion is needed.
Viet Nam	Urban environment and climate change adaptation investment program (MFF USD 1.0 billion – PFR1) – USD 222 million (2014 firm) – PPTA (2012).	Need further details as the PPTA is developed.

6. CONCLUSIONS

Considering the various points of entry for ADAPT Asia-Pacific, the following conclusions may be drawn:

6.1. PPCR Projects

Since there are only three countries eligible, most of the funds have already been allocated, and each project is well funded for preparation and implementation, this avenue is more problematic than a casual examination would suggest. There may be some niche areas where ADAPT Asia-Pacific could become involved in Bangladesh, Cambodia, and Nepal, but these are relatively scarce.

It may be better to focus on a generic weakness of PPCR projects, such as incorporation of climate change into Initial Environmental Examinations or Environmental Impact Assessments, which could be used in multiple projects. This will require further discussion with the World Bank and ADB.

Nevertheless, the priority PPCR projects for discussion with ADB for possible intervention in 2012 were as follows:

6.1.1. Bangladesh

Coastal climate resilient water supply, sanitation, and infrastructure improvement – USD 286.4 million – for further discussion with the project manager as PPTA is underway.

6.1.2. Cambodia

Promoting climate-resilient agriculture, forestry, water supply and coastal resources in Koh Kong and Mondulkiri provinces – USD 28.4 million – for further discussion with the project manager and also

the TA on “mainstreaming climate resilience into development planning in key vulnerable sectors” – USD 7 million (where agreement has been reached with ADB and the Government to contribute extra resources for feasibility studies for NAPA projects).

6.1.3. Nepal

Building Climate Resilience of Watersheds in Mountain Eco-Regions – USD 41 million plus co-financing – may be possible to link this project with the UNDP LDCF project on glacial lake outburst floods.

6.1.4. Other Adaptation Funds

The other major adaptation fund available to the ADB is the Adaptation Fund which sources revenue from 2% of the sales of carbon emission reductions under the Clean Development Mechanism of the Kyoto Protocol. As this fund is relatively poorly resourced (about USD 293 million globally) and its Executive Board is requiring unacceptable conditions of MIEs, there are few such projects in the ADB pipeline, and this appears not to be a significant source of project involvement.

6.1.5. ADB and Bilateral Trust Funds

The greatest potential for ADAPT Asia-Pacific involvement appears to be the USD 1 billion in adaptation projects that ADB has set as a medium- term target, which will be financed by various mixes of OCR and ADF loans, ADF grants, bilateral trust funds, TA funds and other specialized funds available to project officers. However, timing, limited resources, and concerns over co-financing delaying project processing may limit opportunities for ADAPT Asia-Pacific from this source. Identifying “champions” within the ADB and working closely with them over an extended period of time seems to be the best strategy.

6.1.6. Sector Loans

While ADAPT Asia-Pacific will not focus on project implementation, one intriguing possibility is to work with government agencies to prepare sub-project proposals under a sector loan (OCR or ADF). As sector loans usually require only two or three sub-projects to be appraised at the time of Board approval, subsequent sub-projects must meet ADB requirements, including environmental and social safeguards. Working directly with the government agencies implementing the sector loans may be a suitable strategy provided USAID agrees with this approach and the selected government agencies are prepared to integrate adaptation into the sub-project designs.

6.1.7. Policy Loans

The recent experience with the Indonesia climate change policy loan may deter ADB from investing too much in this approach. At the moment there are no other similar policy loans in the pipeline, so no opportunity for ADAPT Asia-Pacific involvement.

6.1.8. Knowledge Products

In theory, working on knowledge products that could be applied to a wide variety of ADB projects and national capacity strengthening programs is an attractive entry point for ADAPT Asia-Pacific intervention. To date, however, a priority topic that could be dealt with under limited funding has not been identified. However, this is an area that should remain open for further discussion with ADB as needs arise. A similar analytical approach for the World Bank group may be somewhat more difficult, since the country assistance strategies are not all up to date and many of the planned projects do not appear on the World Bank’s database of pipeline projects. Nevertheless, it would appear to be relatively easy to identify 50-100 potential projects where it is worthwhile to include an adaptation component.

6.2. Selection Criteria

Finally, in total, there appears to be more than 1,000 potential adaptation projects in the 13 Asian countries covered here (plus additional projects if the 14 Pacific Island countries are included).

Moreover, there is significantly more financing available from other sources, not just the specialized adaptation funds alone. Clearly, as ADAPT Asia-Pacific progresses there will be a need to develop a more systematic approach to screening and selecting which countries and / or projects to focus on, and which financing sources to target.

Some possible criteria, which should be discussed with potential funding agencies, include the following:

(i) Extent to which adaptation action plans have been mainstreamed into national economic development plans or sector plans;
(ii) Level of country support to integrate adaptation into project design, especially for infrastructure projects;
(iii) Capacity needs at the country level in relation to project preparation and adaptation components and willingness to engage in on-the-job training;
(iv) Compelling support for a project proposal from a USG agency, particularly the USAID bilateral mission, as part of broader priority USG program in the country;
(v) Level of project preparation funds and the source of those funds (which will dictate certain design elements to be incorporated);
(vi) Extent to which task managers and responsible government officials are keen to have an adaptation component, especially in infrastructure projects; and
(vii) Likelihood that the adaptation component will be able to attract relevant adaptation funding, whether from an existing (or new) adaptation fund or from multilateral or bilateral official development assistance.

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