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2003 Energy Sector TAs								
Guide: (PPTA)=Project Preparatory Technical Assistance, (AOTA)=Advisory and Operational Technical Assistance, (RETA)=Regional Technical Assistance, (ADTA)=Advisory Technical Assistance								
New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.	
Energy	Hydropower Generation	PPTA	37734	LAO	GMS Nam Theun 2 Hydropower Development Project The objective of the TA is to undertake the first phase of the preparatory work for the project, by preparing the cumulative impact assessment (CIA) study; strengthening government institutional capacity to implement hydropower development projects effectively - particularly social and	700 000,00	4213	
Energy	Transmission & Distribution	PPTA	37078	AFG	Feasibility Study for Power Transmission and Distribution Project The TA will support the Government's strategy for poverty reduction through economic growth by helping prepare a power transmission and distribution project. The project will ensure a sufficient and stable power supply for Kabul and other major cities.	750 000,00	4160	
Energy	Transmission & Distribution	PPTA	34390	CAM	Power Distribution and Greater Mekong Subregion Transmission Project (formerly Provincial Power & Transmission Project) (formerly Provincial Power & Transmission Project) The scope of the TA is to prepare a project for the rehabilitation/expansion of the generating/distribution facilities in about 5 provincial towns. This project will include medium and low voltage networks and the construction of a 220 kV transmission line from the Vietnamese border to Phnom Penh with distribution substations at Takeo and west Phnom Penh. The TA also drafts Terms of Reference for consultants who will be engaged under the loan, to prepare bid documents to develop	730 000,00	4078	
Energy	Transmission & Distribution	PPTA	36556	INO	Local Grids Development Sector Project The TA was expected to prepare project cost estimates and financing plans, develop procurement plans (package list, bidding documents, schedule for inviting bids, bid evaluation, and finalizing contracts); and obtain statutory clearances and approvals, as applicable, for environmental and social matters.	993 000,00	4286	
Energy	Energy Sector Development	PPTA	36321	IND	Urban Clean Fuel Project The TA will study the conditions required for private sector participation and the bulk use of natural gas/CNG as support to the Project's goals to reduce emissions from vehicular, indoor and industrial sources.	995 000,00	4182	
Energy	Energy Sector Development	PPTA	34323	SRI	Rural Electrification and Network Expansion Project (formerly Rural Electrification) The TA will establish the technical, economic, and social feasibility of the rural electrification and network expansion project. It will provide the new distribution companies with capacity for preparing similar projects for external financing. The TA will carry out socioeconomic household surveys, an engineering feasibility study, a financial feasibility study, and a socioeconomic analysis to determine the most viable projects with the largest poverty reduction impact.	600 000,00	4262	
Energy	Renewable Energy	AOTA	36561	PHI	Rehabilitation and Renewable Energy Projects for Rural Electrification and Livelihood Development	450 000,00	4174	

						<p>The expected impact of the TA was to reduce poverty through the provision and efficient use of NRE supply that supported livelihood systems. To be sustainable, the NRE system had to operate within a framework of public-private-civil society partnerships. The expected outcome of the TA was to demonstrate the efficacy of NRE projects through pilot testing the rehabilitation of unsuccessful NRE projects.</p>		
Energy	Renewable Energy	AOTA	37300	PRC	Renewable Energy for Poverty Reduction	600 000,00	4309	
					<p>The TA impact was to advance the sustainable development by expanding the use of energy efficiency and RE in small towns, villages and poor rural areas of Gansu province.</p>			
Energy	Renewable Energy	AOTA	37107	UZB	Off-Grid Renewable Energy Development (formerly "Sustainable Energy Sector Dev't in Small Towns")	350 000,00	4173	
					<p>The TA expected to promote renewable energy initiatives in rural areas and small towns in Uzbekistan, examine examine renewable energy options and develop pilot projects with or without demand side management.</p>			
Energy	Transmission & Distribution	AOTA	36248	BHU	Capacity Building of Bhutan Energy Authority	400 000,00	4188	
					<p>This is part of a series of TAs to support the efforts of the Royal Government of Bhutan to reform the power sector. The specific objective of this TA was to undertake capacity building of the Bhutan Electricity Authority, the country's electricity regulator.</p>			
Energy	Transmission & Distribution	AOTA	36250	BHU	Establishment of Druk Hydro Power Corporation	500 000,00	4189	
					<p>The establishment of the Druk Hydro Power Corporation (DHPC) is part of the Royal Government of Bhutan's reformation of their power sector. The TA is a critical step towards improvement of the sector efficiency by promoting economies of scale to integrate the hydropower generation companies and streamline their operations.</p>			
Energy	Transmission & Distribution	AOTA	37293	CAM	Capacity Building for Electricity Authority of Cambodia	240 000,00	4169	
					<p>The purpose of the TA was to strengthen EAC's capacity to discharge its tariff-setting responsibilities mandated in the Electricity Law and function as an effective independent regulator of electricity supply in Cambodia.</p>			
Energy	Transmission & Distribution	AOTA	34325	PAK	Institutional Capacity Building of the National Transmission and Despatch Co. Ltd. (NTDC)	600 000,00	4130	
					<p>The main objective of the TA was to undertake institutional capacity building of NTDC with the intent of preparing NTDC to professionally manage the power transmission, dispatch, and trading activities stipulated in its license in order to result in a more efficient and transparent power sector.</p>			
Energy	Energy Sector Development	AOTA	36289	AFG	Energy Sector Review and Gas Development Master Plan	950 000,00	4088	
					<p>This TA will provide for the review of the energy sector and the preparation of a gas development master plan for Afghanistan's gas infrastructure over the next 10 years.</p>			
Energy	Energy Sector Development	AOTA	36323	IND	Building the Capacity of Assam Electricity Regulatory Commission	500 000,00	4083	
					<p>The main objective of the TA is to assist AERC to develop its operational standards and procedures, and build its institutional capacity to handle regulatory matters effectively and efficiently so as to promote the power sector reforms.</p>			
Energy	Energy Sector Development	AOTA	36326	IND	Reorganization of Assam State Electricity Board(formerly Restructuring of Assam State Electricity Board)	1 000 000,00	4241	

					The TA was designed to enhance the operational efficiency and governance of the power sector by establishing a commercial and competitive business environment while improving the financial viability of the sector. A design for the financial restructuring and functional unbundling of ASEB was recommended to achieve these impacts.		
Energy	Energy Sector Development	AOTA	36326	IND	Institutional Development for Rural Electrification (Assam)	400 000,00	4242
					The TA's impact was to provide affordable and reliable power supply in rural areas and expand the coverage of rural electrification in Assam through community based operative models.		
Energy	Energy Sector Development	AOTA	36326	IND	Policy and Legal Support for Power Sector Reforms (Assam)	100 000,00	4243
Energy	Energy Sector Development	AOTA	30546	PHI	Institutional Strengthening for the Development of the Natural Gas Industry	800 000,00	4198
					The expected impact of the TA was to assist sustained economic growth and poverty reduction by improving the quality, reliability, security and affordability of energy supply.		
Energy	Energy Sector Development	AOTA	36554	PHI	Promoting Good Governance in the Restructured Power Sector	800 000,00	4151
					With a long-term goal of ensuring the quality, security, and affordability of electricity in the Philippines, the TA works to strengthen DOE in order to fulfill its new mandate in the restructured power sector. It also supports the preparation of the Missionary Electrification Development Plan.		
Energy	Energy Sector Development	AOTA	31252	PRC	Power Pricing Strategy: Tariff Setting and Regulation	500 000,00	4117
					The objective of the TA was to help SERC optimize power operation and development through a proper pricing strategy and promote sustainable power sector growth in the PRC by formulating a reform action plan focusing on tariff setting and tariff regulation.		
Energy	Energy Sector Development	AOTA	36177	SRI	Energy Sector Masterplan	500 000,00	4113
					The TA was provided to develop an integrated energy sector master plan that will cover all the energy subsections in Sri Lanka.		
Energy	Energy Sector Development	AOTA	37040	TAJ	Improvement of the Accounting and Financial Management System of the Subsidiaries of Barki Tajik	400 000,00	4232
					The TA was designed to improve the standards of transparency in financial disclosures of BT's 31 subsidiaries by establishing a training centre to strengthen and modernize the accounting, financial management, and reporting procedures and systems in line with IAS/IFRS. It also implemented a computerized and automated system for financial reporting by enabling subsidiaries to closely monitor and facilitate maintaining accounts receivables and inventories at optimal levels.		
Energy	Conventional Energy	RETA	37018	REG	Turkmenistan-Afghanistan-Pakistan Natural Gas Pipeline (Phase II)	700 000,00	6153
					As an integral part to the preparation of the Pipeline, the TA aims to ensure security of supply and mitigate risks associated with possible supply disruptions or shortages during peak demand by evaluating and locating the most suitable reservoirs for storage of natural gas in Pakistan.		

Energy	Energy Sector Development	RETA	36259	REG	Renewable Energy and Energy Efficiency Program for the Pacific (REEP)	600 000,00	6102
					The purpose of the TA is to help create an environment that will enable the development of a market-based rural energy sector, in which mature renewable energy and energy efficiency applications play a key and increasing role. The TA will also facilitate mobilization of external financing by building a pipeline of potential renewable energy and energy efficiency projects for funding/cofinancing by ADB, GEF, and/or other sources.		
Energy	Energy Sector Development	RETA	36035	REG	Study on Regional Power Trade Operating Agreement (ADTA)	850 000,00	6100
					The TA was expected to enhance power trade in the GMS so as to provide reliable and economical supply of electricity to consumers, develop sustainable energy resources, and extend economic cooperation in the GMS. The output of the TA was to help GMS members prepare a regional PTOA.		
Energy	Energy Sector Development	RETA	36044	REG	GMS Power Interconnection Project Phase I	800 000,00	6147
					The TA supports GMS members' strategy for promoting regional power exchange among members by assisting in the preparation of a feasibility study for the proposed 190 kilometers of the 500 kV power transmission line and ancillary facilities between the Lao PDR and Viet Nam. This takes into account other planned transmission lines so as to interconnect the grids of Thailand and Viet Nam, thereby extending economic cooperation among Lao PDR, Thailand, and Viet Nam.		
Total						16 808 000,00	
2004 Energy Sector TAs							
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New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
Energy	Hydropower Generation	PPTA	37734	LAO	GMS Nam Theun 2 Hydropower Development Project - Phase II	1 000 000,00	4323
					The objectives of the phase II TA are to confirm specific aspects of the technical, economic, and financial viability of the proposed Project not covered under the World Bank work and ensure that social and environmental impacts have been properly identified. It will enable the Government of Lao PDR to manage complex hydropower development projects in an environmentally and socially sustainable manner in the future.		
Energy	Hydropower Generation	PPTA	36352	VIE	Phase I of the PPPTA: Song Bung 4 Hydropower Project	150 000,00	4475
					The objective of the PPTA Phase I is to identify the major environmental and social issues associated with the project and review the water usage pattern and the institutional framework for water resource management in the river basin.		
Energy	Renewable Energy	PPTA	34339	PAK	Renewable Energy Development	550 000,00	4425
					The proposed TA will evaluate the measures required for the development of renewable sources primarily the wind energy, solar, thermal heating system for domestic and industrial use, bagasse co-generation of power and possible the biomass energy sources.		
Energy	Transmission & Distribution	PPTA	37118	AFG	Preparing the National Power Transmission Grid Project	750 000,00	4318
					The proposed Project will enable reduction of investments in power generation to maintain the reserve for peak demand, improve operational efficiency, promote economic regional power trade and cooperation, and provide a more reliable supply of electricity from an interconnected network.		

Energy	Transmission & Distribution	PPTA	36563	INO	Gas Transportation Project Through Public-Private Partnership	910 000,00	4360
					The TA aims to support the Government of Indonesia's strategy for promoting the domestic use of natural gas in the interest of sustainable economic growth.		
Energy	Transmission & Distribution	PPTA	35349	NEP	Rural Electrification and Renewable Energy Project	600 000,00	4493
					The TA will help identify a technically, financially, and economically viable on-grid rural electrification project to provide affordable electricity supply in selected rural areas. This will help raise rural standards of living, and create income generating opportunities to support sustainable economic growth in rural areas.		
Energy	Transmission & Distribution	PPTA	38196	VIE	Northern Power Transmission Expansion Project	500 000,00	4470
					The TA supports the Government's power sector investment program in the northern region by assisting in the preparation of a power transmission expansion project to ensure a sufficient and stable power supply to consumers.		
Energy	Energy Sector Development	PPTA	35242	BAN	Gas Sector Development Project	480 000,00	4332
					The purpose of the TA is to help the Government prepare a gas sector development project.		
Energy	Energy Sector Development	PPTA	36107	BAN	Power Sector Development Program II	840 000,00	4379
					The objective of the TA is to assist concerned agencies in the preparation of the proposed Power Sector Development Program II. The Program is expected to address issues constraining sector development through continuing policy reform and restructuring of the sector and complementary		
Energy	Energy Sector Development	PPTA	37139	IND	Uttaranchal Power Sector Development Program	150 000,00	4380
					The objective of the TA is to strengthen existing feasibility, environmental, and social impact studies to prepare a project on the expansion of high-voltage transmission system including 790 km of 400 kV lines, 100 km of 220 kV lines, and 60 km of 132 kV lines, associated substations, and ancillary systems. This project also includes small hydropower development and rehabilitation of existing mini-hydropower facilities along with institutional strengthening.		
Energy	Energy Sector Development	PPTA	38584	IND	North-East Power Development Project	750 000,00	4498
					The TA will assist the Government to prepare a project that supports the "power for all" program by promoting clean energy in the North Eastern region using locally available resources such as small to medium hydropower and other renewable energy sources.		
Energy	Renewable Energy	AOTA	38044	AFG	Poverty Reduction and Rural Renewable Energy Development	745 000,00	4461
					The goal of the pilot project is to establish the necessary conditions for pre-electrification of remote areas using solar power. The long-term objective is to lay the foundations for sustainable dissemination and use of solar systems in those rural areas that cannot be accessed by the planned national grid in the near and medium term.		
Energy	Renewable Energy	AOTA	36557	INO	Gas Generation from Waste	500 000,00	4333
					The purpose of the TA is to improve integrated waste management practices in the palm oil industry and evaluate the potential of POM waste as a renewable and commercially viable source of clean energy.		
Energy	Renewable Energy	AOTA	38585	PAK	Capacity Building for Alternative Energy Development Board	150 000,00	4500

						The purpose of the TA is to provide strategic support for greater use of indigenous energy sources through Coordination and technical review of RE initiatives; and assist in the development and implementation of an outreach program.		
Energy	Renewable Energy	AOTA	38095	PRC		Support for Environmental Legislation	400 000,00	4553
						The TA will provide assistance covering the two possible laws on (i) nature reserve zones, and (ii) soil protection.		
Energy	Renewable Energy	AOTA	38179	TAJ		Community Based Micro-Hydropower Development in Remote Rural Areas of Tajikistan	800 000,00	4423
						The identified pilot sites, Kalandak and Dushohazamin Micro-Hydropower Projects, have been completed and commissioned. These two schemes will supply electricity to four villages and will be owned, operated and maintained by Electricity Users Association, a community based organization legally formed and registered by the Ministry of Justice of Tajikistan.		
Energy	Energy Sector Development	AOTA	37117	AFG		Establishing a Gas Regulatory Framework	750 000,00	4354
						The purpose of the TA is to design an effective regulatory system for the gas subsector in Afghanistan. Output will include a detailed examination on the existing and likely future network development, and an analysis of the alternative organizational structures that the subsector can adopt and their related issues.		
Energy	Energy Sector Development	AOTA	36268	BAN		Promoting Private Sector Participation in the Energy Sector	500 000,00	4528
						The TA will address issues constraining sector development through continuing policy reform, institutional restructuring and priority investments that would facilitate private sector participation. The TA will help the Government in promoting private-sector participation and assuring sustainable development in the gas sector.		
Energy	Energy Sector Development	AOTA	38496	IND		Capacity Building for the Clean Development Mechanism in India	700 000,00	4496
						The proposed TA aims to provide broad-based institutional and training support to build capacity in the area of CDM in India.		
Energy	Energy Sector Development	AOTA	36562	INO		Institutionalizing the Clean Development Mechanism	750 000,00	4501
						The goal of the TA is to achieve lower GHG emissions and support sustainable development. The purpose of the TA is to maximize benefits from CDM and to develop institutional capacity to process/promote CDM projects.		
Energy	Energy Sector Development	AOTA	37196	NEP		Restructuring of Nepal Electricity Authority	400 000,00	4492
						The TA will help the Government launch the reform process by establishing NEPGRID.		
Energy	Energy Sector Development	AOTA	37752	PHI		Technical Assistance for Institutional Strengthening of Energy Regulatory Commission and Privatization of NPC.	1 200 000,00	4557
						The purpose of the TA is to gain investors confidence by enhancing ERC's efficiency and independence, and provide the necessary financial and technical advice for the privatization of NPC.		
Energy	Energy Sector Development	AOTA	38509	PRC		Capacity Strengthening of Power Planning Process	500 000,00	4416

						The TA will help SGC improve network development to optimize the use of existing power generation capacity and accommodate future power generation development by strengthening its grid system planning capacity and identifying a priority list of least-cost projects for the 11FYP.		
Energy	Energy Sector Development	AOTA	36471	PRC		Waste Coal Utilization Study	400 000,00	4389
						The TA's objective is to help the GSP mitigate the environmental impact of waste coal and conserve energy by assessing waste coal utilization options and developing a waste coal utilization strategy and action plan. The TA will also develop a framework for medium- and longterm cooperation between the GSP and ADB for sustainable energy development.		
Energy	Energy Sector Development	AOTA	37617	PRC		Heating Supply for the Urban Poor in Liaoning Province	500 000,00	4402
						The TA objective is to help the GLP provide adequate, affordable heating for the urban poor by helping the GLP implement pro-poor national heating tariff guidelines and improve heating tariff collection; design heating assistance programs for the poor; and develop an effective monitoring, supervision, and evaluation system at the provincial and local levels.		
Total							14 975 000,00	

2005 Energy Sector TAs

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New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
Energy	Hydropower Generation	PPTA	39078	AFG	Small to Medium-Sized Hydropower Development Project	800 000,00	4662
					This will assist the Ministry of Energy and Water (MEW) in undertaking a feasibility studies on a cross section of small to medium-sized hydropower plants and analytical work required for the project, aims to provide much needed electric power to off-grid and isolated areas of rural Afghanistan.		
Energy	Hydropower Generation	PPTA	39598	UZB	Rural Renewable Energy Development	300 000,00	4709
					The TA will prepare a loan project for developing 5 small hydropower plants on existing irrigation canals and dams that will result in economic development of rural areas through provision of reliable and environmentally clean energy.		
Energy	Hydropower Generation	PPTA	36352	VIE	Phase II of PPTA: Song Bung 4 Hydropower Project	1 575 000,00	4625
					The PPTA will analyze in detail the economic and financial viability of the Project and the commercial sustainability of the power sector in Vietnam. This includes studying the hydrology of the river system, soil and geotechnical conditions of the dam site and tunnels, as well as resettlement plans and mitigation and livelihood improvement measures for project affected people.		
Energy	Renewable Energy	PPTA	39622	AZE	Renewable Energy Development	700 000,00	4726
					The Project will reduce regional imbalance of economic growth through provision of reliable and environmentally clean energy.		
Energy	Renewable Energy	PPTA	34515	TAJ	Power Rehabilitation, Phase II	500 000,00	4596

						The project preparatory TA will prepare the ensuing investment Project, which will aim to rehabilitate and uprate the existing facilities in southern Tajikistan, covering generation, transmission, and distribution. The TA will also review the power sector and propose a sector development plan, to insure the investment's long-term sustainability.		
Energy	Transmission & Distribution	PPTA	37192	PAK		Power Transmission Enhancement	500 000,00	4665
						The purpose of the PPTA is to support the Government's strategy of increasing electricity supply to its urban and rural population. It will do this by preparing a power transmission enhancement project to ensure the transmission system delivers a sufficient and stable power supply.		
Energy	Transmission & Distribution	PPTA	39584	PNG		PNG Gas Project	1 000 000,00	4710
						The TA objective was to develop a design for the PNG Gas Project which would contribute to local and national economic and social development.		
Energy	Energy Sector Development	PPTA	37085	AFG		Natural Gas Development Project	995 000,00	4666
						The TA will identify and prepare a project for upstream natural gas development. The ensuing project is expected to include rehabilitation of existing gas wells and pipeline network.		
Energy	Energy Sector Development	PPTA	39019	PRC		Inner Mongolia Environment Improvement	500 000,00	4584
						The long-term goal of the Project is to support environmental improvement in Inner Mongolia Autonomous Region. The main objectives of the Project are: improvement in efficiency and reliability of gas and central heating supply to the poor and closure of small coal-fired boilers, and promoting the utilization of clean fuel.		
Energy	Conventional Energy Generation (other than hydropower)	AOTA	39595	VIE		Mong Duong Thermal Power Generation Project	550 000,00	4670
						The main impact of the TA is to confirm the technical and economic viability for developing the Mong Duong thermal power generation project as EVN's least cost generation plan. The TA will prepare a comprehensive plan to develop the project in public and private components, with each sector contributing up to 1000MW.		
Energy	Hydropower Generation	AOTA	39106	IND		Uttaranchal Power Sector Capacity Building Project	500 000,00	4630
						The TA will accelerate project readiness, and improve project management and implementation capabilities. Consulting services will build the capacity of the PMO, PIUs, EA, and IAs during the first year of project implementation.		
Energy	Renewable Energy	AOTA	37633	PRC		Alternative Energy Supply for Rural Poor in Remote Areas	500 000,00	4649
						The impact of the TA will be improved economic development and better living standards in remote rural areas of IMAR. The outcome will be to assist GIMAR in formulating a strategy for expansion of alternative energy-based electrification in remote rural areas, including a strategy to improve sustainability of existing decentralized installations.		
Energy	Transmission & Distribution	AOTA	39387	VIE		Strengthening Institutional Capacity of Local Stakeholders for Implementation of Son La Livelihood and Resettlement Plan	1 000 000,00	4690
						The long-term impact of the TA will be sustainable livelihood development programs for the affected people of SLHPP and HQHPP. The outcome of the TA will be increased capacity of the national, provincial, and district resettlement authorities, as well as grassroots stakeholders, for developing appropriate livelihood programs for the affected people, including ethnic minorities.		

Energy	Energy Sector Development	AOTA	37082	AFG	Capacity Building for the Power Sector	750 000,00	4579
					The TA will help improve skills that will increase the overall efficiency of operations in MEW. It will improve customer service delivery and overall safety standards, and daily operations and technical and financial record keeping.		
Energy	Energy Sector Development	AOTA	39141	BAN	Corporatization of Bangladesh Power Development Board	800 000,00	4626
					The TA will assist the Government and BPDB to corporatize BPDB as a holding company, and to introduce appropriate financial and management systems in the new company, and integrate the new company into the power sector network.		
Energy	Energy Sector Development	AOTA	37398	BHU	Capacity Building for Bhutan Power Corporation	400 000,00	4599
					This TA will strengthen the institutional capacity of BPC. Improve operational management, adopt best practices, and set up a suitable financial framework in order to improve the delivery of electricity in Bhutan.		
Energy	Energy Sector Development	AOTA	39072	NAU	Reform of the Nauru Phosphate Corporation	375 000,00	4590
					The TA will help the Government in the restructuring of NPC by advising on viable institutional, technical, and financial options for providing water and electricity services to the people of Nauru.		
Energy	Energy Sector Development	AOTA	39353	PAK	Operational Support to the Office of the Energy Advisor	150 000,00	4610
					The purpose of the TA is to strengthen the institutional capacity and technical capability of the OEA to enable it to perform its functions effectively. The result will be an expedited restructuring of the energy sector with an appropriate division of responsibilities between the ministries, regulators, and public and private sector entities.		
Energy	Energy Sector Development	AOTA	37616	PRC	Poverty Reduction in Coal Mine Areas (related to Coalmine Methane Demonstration Project)	500 000,00	4566
					The purpose of the TA is to assist Shanxi provincial government with the development of a model socioeconomic and environmental mitigation program that will focus on supporting miners and poor communities following the closure of large numbers of small coal mines.		
Energy	Energy Sector Development	AOTA	37618	PRC	Alternative Livelihood Options to Facilitate Coal Sector Restructuring (formerly Impact of Closure of Coal Mines in Poverty Areas & Options for Job Creation)	300 000,00	4680
					The expected impact of the TA was the development of alternative economic activities, and mitigation of social and environmental impacts of closure of small coal mines in a city with decreasing coal reserves.		
Energy	Energy Sector Development	AOTA	39020	PRC	Energy Conservation and Resource Management Project	600 000,00	4706
					The objective of the TA is to assist NDRC in identifying various options and corresponding requirements for the development of an appropriate policy and regulatory framework to promote and implement EPP projects.		
Energy	Energy Sector Development	AOTA	39379	VIE	Benefit Sharing Mechanisms for People Affected by Power Projects in Viet Nam	150 000,00	4689

					The TA supports the creation of comprehensive guidelines on benefit sharing mechanisms for power generation projects within the Vietnamese context are endorsed by the Government.		
Energy	Energy Sector Development	AOTA	39536	VIE	Capacity Building in Strategic Environmental Assessment of Hydropower Sector	475 000,00	4713
					Expected outputs from the Project include guidelines for summary environmental assessment (SEA) in the hydropower sector, training materials for SEA practitioners, and comprehensive SEA report for hydropower developments in the Vu Gia- Thu Bon River Basin.		
Energy	Energy Sector Development	AOTA	39537	VIE	Environmental Management Plan Improvement and Implementation and Downstream Impacts Management for Son La Hydro Power Project	800 000,00	4711
					The expected impact of this TA is the development of environmentally-sensitive power generation with an emphasis on sustainable development. The outcome will be EVN's adoption of an EMP in line with best practices.		
Energy	Energy Sector Development	RETA	39083	REG	Establishment of the CAREC Members' Electricity Regulatory Forum	500 000,00	6267
					Improved regulatory capacity in the selected focus areas, due to better understanding of the economic incentives created by regulatory decisions.		
Energy	Energy Sector Development	RETA	39578	REG	REG: Energy Efficiency Initiative Consultation Workshop	150 000,00	6261
					The impact of the initiative is to increase energy efficiency in DMCs through ADB operations. The overall outcome will be an expansion and closer integration of EE projects in ADB operations.		
Total						8 500 000,00	

2006 Energy Sector TAs

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New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
Energy	Conventional Energy Generation (other than hydropower)	PPTA	40081	VIE	Support for Public-Private Development of the O Mon Thermal Power Complex Project The TA will comprise two components: it will support the development of O Mon IV by EVN and, along with it, strengthen the performance of the overall O Mon power complex project (i.e., the technical, contractual, environmental, and social performance). And it will support MOI in undertaking the tender process for O Mon II as a build-operate-own or build-operate-own-transfer project by an independent power producer.	1 700 000,00	4845
Energy	Hydropower Generation	PPTA	39652	PRC	Gansu Heihe Hydropower Development The Project will include development of 2 hydropower subprojects at Erlongshan and Dagushan sites for a total of 110 megawatt (MW) capacity; annual electricity generation of 450 giga watt-hour (GWh).	500 000,00	4783
Energy	Renewable Energy	PPTA	39521	FIJ	Preparing the Renewable Power Sector Development Project The TA supports the power sector expansion in Fiji through the preparation of a least cost expansion program comprising renewable and indigenous resources and upgrades to the transmission and distribution networks to ensure sufficient and reliable electricity services to end-consumers.	650 000,00	4764
Energy	Transmission & Distribution	PPTA	38628	LAO	GMS Northern Power Transmission The project's impact is to provide more reliable and environmentally sustainable power supply to northern Lao PDR and northeastern Thailand. The TA's outcome will be a feasibility study and project design agreed to by ADB and the Government.	800 000,00	4816
Energy	Transmission & Distribution	PPTA	38456	PAK	Preparing the Power Distribution Enhancement Multitranchise Financing Facility The purpose of the PPTA is to support the Government's strategy for continued poverty reduction through sustained economic growth by assisting in the preparation of a power distribution enhancement project to ensure a sufficient and stable power supply through the distribution system in Pakistan.	900 000,00	4876
Energy	Energy Sector Development	PPTA	39653	PRC	Energy Conservation and Resource Management The project preparatory TA will help the EA, the Government of Guangdong Province, to prepare an energy conservation and resource management project in Guangdong Province. The project preparatory TA outcome will be an agreement with the EA and central Government on project design, detailed feasibility report, and implementation arrangements for the Project.	300 000,00	4819
Energy	Energy Sector Development	PPTA	38183	SAM	Preparing the Power Sector Expansion Program (formerly "Preparing the Power Sector Development Program" and "Supporting Energy Sector Reforms") Successful implementation of this TA is envisaged to lead to efficient and reliable electricity services to end consumers and to an ensuing loan that would support the power system expansion program.	750 000,00	4791
Energy	Renewable Energy	AOTA	34339	PAK	Renewable Energy Policy Formulation and Capacity Development of the Alternate Energy Development Board	800 000,00	4881

					The TA will prepare a project to develop indigenous, nonpolluting, and renewable sources of energy to help meet Pakistan's power shortage and improve the quality and reliability of the power system, especially in rural areas.		
Energy	Transmission & Distribution	AOTA	40622	AFG	Improving Capacity of Afghanistan Electricity Authority	1 200 000,00	4909
					The TA supports setting up long-term training courses for DABM's current staff and future employees for long-term sustainability of the Project.		
Energy	Transmission & Distribution	AOTA	40623	TAJ	Strengthening Corporate Management of Barki Tajik	1 500 000,00	4908
					The TA supports the appointment of management contractor, or other contractor as deemed appropriate, with the task to strengthen and improve internal management and customer responsiveness and reliability of BT.		
Energy	Energy Sector Development	AOTA	40276	BAN	Promotion of Private Sector Participation in the Power Sector	600 000,00	4898
					This TA supports removal or reduction of constraints and bottlenecks to realize private sector led power sector development at policy formulation and project modeling level. It will apply best practices of PPP initiatives at operation level to the entire distribution sector.		
Energy	Energy Sector Development	AOTA	39236	BHU	Accelerated Rural Electrification	700 000,00	4766
					The TA is designed to improve the overall efficiency of the power sector and expand the coverage of rural electrification. It will achieve this goal by developing new approaches to accelerating RE through the involvement of other government agencies, the private sector, and communities and pilot-testing private sector or community-based models for RE, among other interventions.		
Energy	Energy Sector Development	AOTA	40079	CAM	Institutional Strengthening of the Cambodian National Petroleum Authority (Formerly Oil and Gas Regulatory Framework)	1 000 000,00	4901
					The main impact of the TA will be optimum exploitation of oil and gas resources in Cambodia through efficient management of field development and the production stages of petroleum operations. This will be achieved by strengthening the institutional, policy making, and regulatory capacity of the CNPA and preparing plans for developing essential physical infrastructure.		
Energy	Energy Sector Development	AOTA	40569	PAK	Formulation of Strategy for Development and Utilization of Coal Reserves at Thar and Badin	150 000,00	4852
					The TA will assist the government in setting the priorities and preparation of a roadmap that can be adopted to expedite the development and utilization of coal reserves in Thar and Badin.		
Energy	Energy Sector Development	AOTA	40576	PAK	Establishment and Commencement of Operations for the Central Power Purchasing Agency	950 000,00	4870
					The TA impact would be for improved efficiency in the power sector to lower the cost of electricity. The outcome is for a sustainable trading system in electricity to be established and operate. Establishing CPPA and its commencing operations will be the first steps toward the final goal of a multi-buyer and multi-seller trading system.		
Energy	Energy Sector Development	AOTA	39657	PRC	Coalmine Safety Study	600 000,00	4849
					The TA will strategize on how to enhance the prevention and control of accidents, strengthen safety management in coal mines and promote policy reforms, and how to reduce the release of methane gas into the environment. The outcome will be a strategy on coal mine safety for adoption and implementation.		

Energy	Energy Sector Development	AOTA	34352	VIE	Power Market Design TA	500 000,00	4768
					The main outcome of the TA would be a series of technical papers addressing these issues in the context of Viet Nam's specific circumstances and current Government policy for the sector.		
Energy	Energy Sector Development	RETA	39028	REG	Mitigation of Trans-Boundary Air Pollution from Coal-Fired Power Plants in Northeast Asia (formerly North East Asia Acid Rain Control)	900 000,00	6371
					The outcome of the TA will be enhanced environmental cooperation among countries of North-East Asia relating to transboundary air pollution, increased technical capacity and knowledge transfer regarding prevention and management of such pollution.		
Energy	Energy Sector Development	RETA	39327	REG	Energy Sector Strategy and Development	1 000 000,00	6322
					The intended outcome of this TA is to develop and recommend strategies that ADB needs to adopt in its lending operations to further enhance the effectiveness of its energy sector assistance to DMCs along the four priority areas highlighted in the 2000 Review.		
Energy	Energy Sector Development	RETA	40498	REG	Supporting the Inception of the Energy Efficiency Initiative in Developing Member Countries	600 000,00	6346
					The impact of the RETA will be to decrease the rate of climate change through increased use of sustainable energy and energy efficiency through the ADB's Energy Efficiency Initiative.		
Energy	Energy Sector Development	RETA	40541	REG	Preparing the Regional Technical Assistance on Energy Sector Dialogue and South Asian Association for Regional Cooperation (SAARC) Energy Center Capacity Development Project	1 000 000,00	6368
					The TA will comprise three main components: undertaking the SAARC Regional Energy Trade Study (SRETS); capacity development of SEC; and technical and logistical support by ADB		
Energy	Energy Sector Development	RETA	39594	REG	GMS Regional Power Trade Coordination and Development	1 200 000,00	6304
					The TA will focus on developing institutions and building capacity that will lead to the creation of an efficient and competitive GMS power market.		
Energy	Energy Sector Development	RETA	39002	REG	Developing the Greater Mekong Subregion Energy Sector Strategy	900 000,00	6301
					The TA aims to develop a regional strategy to expand cooperation among the member countries to meet rising energy needs and help develop a robust regional energy market.		
Energy	Energy Sector Development	ADTA	39656	PRC	Establishment of Clean Development Mechanism Fund	600 000,00	4812
					The impact of the TA will be sustainable development in the PRC and support for international efforts to address climate change. The TA will help the Government establish the CDM Fund, with an appropriately designed governance structure and initial operational capacity, in further pursuit of this development goal.		
Total						19 800 000,00	

2007 Energy Sector TAs

Guide: (PPTA)=Project Preparatory Technical Assistance, (AOTA)=Advisory and Operational Technical Assistance, (RETA)=Regional Technical Assistance, (ADTA)=Advisory Technical Assistance

New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
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Energy	Conventional Energy Generation (other than hydropower)	PPTA	41008	VIE	Preparing the Support for the Public-Private Development of the O Mon Gas Pipeline Project	975 000,00	4923
					The purpose of the PPTA is to prepare for the construction of a 381 km gas pipeline to provide natural gas from the off-shore gas field to the power plants under construction at the O Mon Power Complex. The Project will not only ensure reliable supply of natural gas for power generation but also ensures electricity generation in an environmentally benign manner.		
Energy	Conventional Energy Generation (other than hydropower)	PPTA	41120	VIE	Vinh Tan 3 Thermal Power Generation Project	1 000 000,00	4996
					The PPTA will undertake the necessary technical, financial, social, and environmental analysis to determine the feasibility of Vinh Tan Thermal Power Generation Project. Based on the outcome of the PPTA, ADB financing of the project will be considered in 2010.		
Energy	Hydropower Generation	PPTA	41593	IND	Jammu and Kashmir Clean Power Development Investment Program	800 000,00	7039
					The TA will examine the technical feasibility of proposed project components, including selected hydropower development options.		
Energy	Hydropower Generation	PPTA	40514	LAO	Preparing the Cumulative Impact Assessment for the Nam Ngum 3 Hydropower Project	983 000,00	4921
					The purpose of the TA is to undertake project preparatory work for the Nam Ngum 3 Hydropower Project (Project). Specifically, the TA will conduct a cumulative impact assessment (CIA) study for the Project consistent with the National Policy of Environmental and Social Sustainability of the Hydropower Sector in Lao People's Democratic Republic and the ADB policies and guidelines.		
Energy	Hydropower Generation	PPTA	41055	NEP	Preparing the West Seti Hydroelectric Project	300 000,00	4985
					The TA will conduct the assessments, identify and design appropriate fiscal governance measures, carry out the economic and financial due diligence and prepare a local area development program.		
Energy	Renewable Energy	PPTA	39521	FIJ	Renewable Power Sector Development Project (Supplementary)	250 000,00	4764
					The TA supports the power sector expansion in Fiji through the preparation of a least cost expansion program comprising renewable and indigenous resources, and upgrades of the transmission and		
Energy	Renewable Energy	PPTA	34515	TAJ	Power Rehabilitation, Phase II	11 057,00	4596
					Increase in TA amount by \$11,057 to provide funding for currency fluctuations for the undisbursed contract amounts.		
Energy	Transmission & Distribution	PPTA	37399	BHU	Preparing the Bhutan Power Development	1 600 000,00	4916
					The TA is designed to expand the nationwide power supply and extend electricity to remote rural households, and enhance nationwide energy efficiency and cross-border economic cooperation.		
Energy	Transmission & Distribution	PPTA	40939	KAZ	Almaty Power Substation Project	60 000,00	4937

						The impact of the TA will be an efficient and expeditious negotiation of financial assistance between ADB, other co-lenders and APC for meeting a part of its financing needs for its distribution up gradation project. The expected outcome will be a balanced financing structure and loan documentation.		
Energy	Transmission & Distribution	PPTA	41689	LAO		Na Bong-Udon Thani Power Transmission Project	760 000,00	7026
						The impact of the PPTA will be to promote the economic growth of the country and region by helping Lao PDR to develop its hydroelectric power resource in an environmentally and socially sustainable manner. It will also promote power trade in the GMS.		
Energy	Transmission & Distribution	PPTA	41067	PHI		Rural Electric Cooperatives Development Project	550 000,00	7012
						As part of climate change mitigation strategy, the proposed project aims at reducing system losses of ECs in the Philippines by upgrading and rehabilitation of electricity distribution systems and promote renewable energy by installing net-metering and connection facilities for renewable energy.		
Energy	Transmission & Distribution	PPTA	40634	PRC		Inner Mongolia Autonomous Region Environment Improvement Project (Phase II)	800 000,00	4951
						The Project is to promote efficient district heating and gas supply to households in about 14 urban areas. It will provide substantial environmental and health benefits in selected urban centers of IMAR. The environmental benefits include lower coal consumption (both indoors and outdoors) which will result in reduced emissions of TSP, SO ₂ , NO _x , and CO ₂ .		
Energy	Energy Sector Development	PPTA	38164	BAN		Gas Sector Development Program	575 000,00	4952
						The purpose of the TA is to help the Government prepare a gas sector development program. The program will include: a policy agenda, priority investments and an institutional strengthening component.		
Energy	Energy Sector Development	PPTA	39653	PRC		Energy Conservation and Resource Management - Supplementary	320 000,00	4819
						The project preparatory TA will help the EA, the Government of Guandong Province, to prepare an energy conservation and resource management project in guandong Province. the project preparatory TA outcome will be an agreement with the EA and central Government on project design, detailed feasibility report, and implementation arrangements for the Project.		
Energy	Conventional Energy Generation (other than hydropower)	AOTA	41125	BAN		Tendering Process for Independent Power Producer (IPP) Plants	600 000,00	4953
						The outcome of the proposed TA will be development of the 450 MW Sirajganj clean-fuel combined cycle power generating plant and 450 MW Meghnaghat Phase-3 combined cycle power generating		
Energy	Hydropower Generation	AOTA	41025	NEP		Promoting Private Sector Participation in the Power Sector	600 000,00	4997
						The TA will assist the Government in formulating investor-friendly PSP policy, enforceable regulations that will be tailored to the market's needs, and building capacity to design and appraise PSP. As a result, increased PSP in the power sector will facilitate efficient sector development.		
Energy	Renewable Energy	AOTA	40635	PRC		Gansu Rural Clean Energy Development Project	800 000,00	4935
						The impact of the TA will be increased use of clean energy in rural areas of Gansu. The outcome of the TA will be enhanced capacity in planning and management of clean energy development in Gansu.		

Energy	Renewable Energy	AOTA	40637	PRC	Development of Biomass Power Generation in Rural Areas	600 000,00	7006
					The impact of the TA will be the improvement of environmental conditions in rural areas, and the outcome will be increased biomass power generation in the province of Heilongjiang.		
Energy	Renewable Energy	AOTA	41089	PRC	Utilization of Renewable Shallow-Ground Geo-Energy	150 000,00	4975
					The goal of the small-scale technical assistance will be to reduce greenhouse gas emissions from energy use for space heating and cooling. Most parts of the study will be internet-based desk studies and would only collect and analyze information from existing sources and expert consultations.		
Energy	Renewable Energy	AOTA	41662	SRI	Building the Capacity of the Sustainable Energy Authority	600 000,00	7011
					The purpose of the TA is to strengthen the institutional capacity and technical capability of SEA to facilitate and coordinate the Government's efforts to promote the sustainable development of renewable energy sources.		
Energy	Energy Sector Development	AOTA	39402	AFG	Inter-Ministerial Commission for Energy	2 000 000,00	4918
					The planned impact of the TA is improved energy supply for Afghanistan. ICE will assist the Government in the strategic approach to how Afghanistan will optimize its energy resource use and management to provide power and energy to its people, businesses, Government, and industry.		
Energy	Energy Sector Development	AOTA	41139	IND	Energy Efficiency Enhancement in the Power Generation Sector	1 000 000,00	4992
					The TA aims to assist state utilities in preparing CDM-eligible energy efficiency projects in the thermal and hydro power generation sector, which will enhance efficiency rates and reduce GHG emission of the existing power plants; and in replacing old units with more efficient new units. In addition, the TA will provide assistance to non-CDM R&M and replacement projects.		
Energy	Energy Sector Development	AOTA	41129	PAK	Integrated Energy Model	2 000 000,00	4982
					The TA will support optimal energy sector development that will facilitate economic growth. The outcome will be a functioning energy planning unit producing regular integrated analysis of strategic energy options. A trained energy planning team will be established.		
Energy	Energy Sector Development	AOTA	40174	PNG	Power Sector Development Plan	500 000,00	4932
					The long-term objective of the TA is to increase the availability of a reliable and sustainable power supply at reasonable cost. This is in order to assist the Government to examine issues and options to promote and facilitate the provision of reliable, safe and affordable access to an efficient electrical power supply for PNG.		
Energy	Energy Sector Development	AOTA	40638	PRC	Promoting Resource Conservation and Energy Efficiency	400 000,00	4948
					The impact of the TA will be more efficient use of resources, i.e., raw materials, water, and energy. Its outcome will be enhanced capacity to measure and evaluate energy conservation and reduction in energy used per unit of GDP.		

Energy	Energy Sector Development	AOTA	38183	SAM	Implementing the Samoa National Energy Policy	1 850 000,00	4994
					The TA will develop a power sector reform program to encourage private sector participation, including options for regulation and prepare a least-cost power sector investment plan to diversify energy resources, meet future load growth, and reduce the burden of diesel imports.		
Energy	Energy Sector Development	AOTA	40208	VIE	Capacity Building on Environmental Management to Power Sector	600 000,00	4966
					The purpose of the TA is to assist EVN and Quang Ninh Provincial DONRE in building their capacity to manage and mitigate environmental risks associated with thermal power projects in Viet Nam.		
Energy	Energy Sector Development	AOTA	41077	VIE	Supporting the Energy Efficiency Program Implementation Project	925 000,00	7024
					The TA will promote energy conservation in the industry sector in Viet Nam so as to substantially reduce energy consumption while delivering a higher level of energy services to the sector.		
Energy	Renewable Energy	RETA	40620	REG	SSTA for Establishing Renewable Energy, Energy Efficiency and Greenhouse Gas Mitigation Investment Funds	150 000,00	6384
Energy	Energy Sector Development	RETA	40537	REG	Central Asia South Asia Regional Electricity Market Project	3 000 000,00	6383
					The purpose of the PPTA is to enhance the electricity trade and optimize the region's power resources. It will prepare the Project, which will export 1,000 MW of electricity from Tajikistan and the Kyrgyz Republic to Pakistan and Afghanistan.		
Energy	Energy Sector Development	RETA	41001	REG	CAREC Members Electricity Regulators Forum (CMERF)	500 000,00	6389
					The TA will enable energy regulators to make professional and objective regulatory decisions. The key outputs will be strengthened capacity of regulatory bodies and improved professional skills and knowledge of regulators. This will be achieved through customized training programs for regulators on selected focus areas, which enhance understanding of the economic incentives created by regulatory decisions.		
Energy	Energy Sector Development	RETA	40293	REG	Energy Sector Strategy and Development Program (2007)	400 000,00	6387
					The main impact of this regional TA will be improved sustainable supply of energy. The intended outcome of this TA will be increased support for ADB's energy sector operations from a range of stakeholders and experts.		
Energy	Energy Sector Development	RETA	41597	REG	Supporting the Implementation of the Energy Efficiency Initiative in Developing Member Countries	2 300 000,00	6392
					This RETA will help to decrease the rate of climate change and improve energy security in DMCs in the Asia and Pacific region through greater use of clean energy. The outcomes will be an expansion of ADB's clean energy program, greater capacity to develop clean energy projects in ADB's operations departments, and new and innovative financing instruments for clean energy investments.		
Energy	Energy Sector Development	RETA	41018	REG	Facilitating Regional Power Trading and Environmentally Sustainable Development of Electricity Infrastructure in the Greater Mekong Subregion	5 000 000,00	6440

The objectives of the proposed RETA are to establish a competitive and efficient regional power market, and to ensure proper control of environmental impacts while developing power projects for regional power interconnection and trading. The expected outcomes will be an expanded, fair, and mutually beneficial cross-border power exchange among GMS countries.

Energy	Energy Sector Development	RETA	39002	REG	Developing the Greater Mekong Subregion Energy Sector Strategy (Supplementary)	150 000,00	6301
The implementation of the GMS energy strategy is ongoing. The core of the strategy is an energy planning optimization model that examines options and their cost.							
Total						33 109 057,00	

2008 Energy Sector TAs

Guide: (PPTA)=Project Preparatory Technical Assistance, (AOTA)=Advisory and Operational Technical Assistance, (RETA)=Regional Technical Assistance, (ADTA)=Advisory Technical Assistance

New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
Energy	Transmission & Distribution	PPTA	42085	AZE	Power Transmission Enhancement Azerenergy conducted a feasibility study on the Government of Azerbaijan's plans to construct a double-circuit 220 kV transmission line from Mingechaur hydropower plant to Absheron substation to replace the existing one that has been used for about 60 years.	150 000,00	7069
Energy	Renewable Energy	PPTA	41613	IND	Integrated Renewable Energy Development Project The impact of the TA will be to strengthen energy security especially energy access to rural areas and in the areas where reliable grid power and conventional mode of power are either inadequate or are just not available.	1 400 000,00	7099
Energy	Energy Efficiency and Conservation	PPTA	41614	IND	Energy Efficiency Enhancement Project in Assam The impact of the TA will be to implement low carbon power sector development in Assam, by technical loss reduction and physical capacity expansion of transmission and distribution network, and promoting demand side management with segregation of rural and urban distribution circles.	1 000 000,00	7096
Energy	Transmission & Distribution	PPTA	42119	NEP	Transmission and Distribution Project The TA will conduct a technical assessment on additional proposed transmission and distribution subprojects, and carry out financial due diligence. Consultants will review the feasibility studies for Far East, Trishuli 3A corridor, Arun Valley/Dud Koshi corridors, Kabeli-A-Damak transmission system, and second circuit conductor stringing on existing transmission line between Butwan and Ataria.	150 000,00	7076
Energy	Transmission & Distribution	PPTA	40553	NEP	Preparing Electricity Connectivity and Energy Efficiency Project I The impact of the TA will be increased transmission and distribution network capacity, reduced network losses, increased use of energy efficient lighting, use of solar-powered street-lighting and private sector participation in distribution.	150 000,00	7176
Energy	Energy Efficiency and Conservation	PPTA	42051	PAK	Sustainable Energy Efficiency Development Program Establishing a dynamic energy efficiency policy and business environment, while financing priority investment projects, is an essential component of Pakistan's energy policy and energy security strategy. The TA will support the Government in developing a comprehensive energy efficiency investment program for Pakistan.	600 000,00	7060
Transport & Communications	Urban Transport	PPTA	40573	PAK	Lahore Rapid Mass Transit System The Punjab provincial government has undertaken extensive preparatory work to assess the feasibility of the rapid mass transit system using a public-private partnership approach, which encompasses a long-term plan to finance, construct, and operate four mass rail lines interconnected to multimodal transport. The TA will assist the government in coordinating with potential bidders to facilitate outsourcing and implementation of the transaction advisory work.	150 000,00	7068
Energy	Renewable Energy	PPTA	42128	PHI	Pasuquin East Wind Farm Development Project	200 000,00	7097

					The TA project will be provided to Energy Logics Philippines, Inc. (ELPI) to complete the technical and design phase of the feasibility study to determine the viability of commercial operations of wind energy, which may include the generation of carbon credits.		
Energy	Conventional Energy	PPTA	41504	PNG	Power Sector Development Project	1 200 000,00	7113
					The assistance will increase the availability of reliable and sustainable power supply at reasonable cost. The assistance will result in a power sector development project design agreed between the Government of PNG and ADB.		
Energy	Large Hydropower	PPTA	42152	SAM	Preparing the Afulilo Environmental Enhancement Project	1 200 000,00	7121
					The first phase of the assistance is a diagnostic of the existing issues and concerns of the Afulilo Hydropower Project. This will be followed by a 2-month government review and decision period. Based on the outputs, findings from Phase 1 and decision by Government, the second phase will commence preparation of the due diligence and bid documentation for a proposed project.		
Energy	Conventional Energy	PPTA	40081	VIE	Support for Public-Private Development of the O Mon Thermal Power Complex Project (Supplementary)	740 000,00	4845
					The main impacts of the TA will be the development of the 750 MW O Mon IV thermal power plant by EVN for commissioning by 2010 and the development of the 750 MW O Mon II thermal power plant by a private sector investor under the build-operate-transfer framework.		
Transport & Communications	Urban Transport	PPTA	39500	VIE	Ho Chi Minh City Metro Rail System Project (Second Supplementary)	200 000,00	4862
Transport & Communications	Urban Transport	PPTA	39500	VIE	Ho Chi Minh City Metro Rail System Project (3rd Supplementary)	300 000,00	4862
					The PPTA will advise HCMC People's Committee on the integrated development of the first two MRT lines in HCMC. The goal of the MRT is to provide convenient, comfortable, safe, affordable, and clean urban travel that improves the quality of urban living and reduces reliance on private modes of travel.		
Energy	Renewable Energy	AOTA	42472	AFG	Development of Wind Energy	160 000,00	7168
					The small-scale policy and advisory technical assistance will assist in developing the indigenous wind resources in Afghanistan by demonstrating that sufficient wind potential exists to attract commercial investment for subsequent development.		
Energy	Renewable Energy	AOTA	37399	BHU	Promotion of Clean Power Export Development	1 488 000,00	7157
					The assistance aims to develop capacity (e.g. risk management and project structuring function, and private participation promotion) for Dept of Energy, Druk Green Power Corporation and Dagachhu Hydro Power Corporation; provide a financing structuring study for medium-size power export projects, and prepare project design documents for accessing CDM funding sources.		
Energy	Energy Sector Development	AOTA	41611	IND	Capacity Building for Himachal Pradesh Power Sector Agencies	900 000,00	7181
					The technical assistance will come up with a comprehensive power system master plan that will provide the blueprint for development of the power sector in Himachal Pradesh; and come up with specifications for an RMIS and a reporting framework for the power sector entities.		
Energy	Energy Efficiency and Conservation	AOTA	41681	IND	Facilitating the Operations of the Energy Conservation Fund "Energy Smart" in Madhya Pradesh	1 700 000,00	7172

					The TA will facilitate the energy efficiency program of Madhya Pradesh by financially supporting initial stage operational activities of the ECF. The TA will enable the ECF to be financially stable in the first 5 years and self-sustaining thereafter.		
Energy	Energy Sector Development	AOTA	42054	IND	Developing the Power System Master Plan for Bihar	600 000,00	7073
					The outcome of the TA will be a comprehensive power system master plan to provide the blueprint for development of the power system in Bihar. The master plan will coordinate generation, transmission, and distribution expansion to ensure with confidence that all proposed capital investments are not ad hoc and are instead part of a long-term, structured plan.		
Energy	Large Hydropower	AOTA	37734	LAO	Greater Mekong Subregion Nam Theun 2 Hydroelectric Project - Social Safeguards Monitoring	400 000,00	7094
					The technical assistance is to ensure that the Project is implemented in accordance with its envisaged design as a world-class model, not only producing electricity for meeting the needs in the Lao PDR and Thailand but also doing so in a socially sustainable inclusive manner.		
Energy	Large Hydropower	AOTA	42117	PRC	Small-scale Technical Assistance for Capacity Strengthening in Planning and Implementation of Integrated Gasification Combined Cycle Plant	200 000,00	7146
					The assistance will result in a commercially operating integrated gasification combined cycle (IGCC) power plant in PRC and enhanced capacity in planning and implementation of IGCC projects.		
Energy	Energy Efficiency and Conservation	AOTA	42056	PRC	Design of the National Sulfur Dioxide Emission Trading System	500 000,00	7191
					The technical assistance will help improve environmental conditions through reduced SO2 emissions, as well as establish a national SO2 trading system.		
Energy	Energy Efficiency and Conservation	AOTA	42057	PRC	China Clean Development Mechanism Fund Capacity Development	800 000,00	7212
					The impact of the TA will be the reduction of greenhouse gas emissions from the PRC and mitigation of global climate change impacts. The outcome will be a strengthened capacity of the CCDMF for promoting and supporting climate change-related projects.		
Energy	Energy Efficiency and Conservation	AOTA	42058	PRC	Utilization of Foreign Capital to Promote Energy Conservation and Energy-Efficient Power Generation Scheduling	1 500 000,00	7202
					The impact of the TA will be greater energy conservation and pollution reduction by the industry and power sectors. The outcome will be enhanced institutional capacity for planning, financing, and implementing measures to improve the efficiency of energy supply and use.		
Energy	Energy Efficiency and Conservation	AOTA	41326	THA	Mainstreaming Energy Efficiency Measures in Thai Municipalities	1 000 000,00	7194
					The TA is designed to improve Thailand's energy security and decrease the rate of greenhouse gas emissions by promoting energy efficiency initiatives in Thai municipalities. A key outcome will be the strengthened capacity of PEA and municipalities to identify, design, finance, and implement energy efficiency measures.		
Energy	Energy Sector Development	AOTA	42497	VIE	Capacity Building of the National Power Transmission Corporation in a Competitive Power Market Environment	225 000,00	7222
					The small-scale TA will support Government efforts to introduce a competitive electricity market in Viet Nam by providing capacity building to the newly incorporated transmission entity, the National Power Transmission Corporation (NPT).		
Energy	Transmission & Distribution	RETA	41450	REG	Preparing the Ban Sok-Pleiku Power Transmission Project in the Greater Mekong Subregion	1 000 000,00	6481

					The impact of the TA will be to allow the export of 1,000 MW of electricity from the Lao PDR to Viet Nam. The outcome of the TA will be to formulate the proposed project's financing program, and to prepare two loans which are structured and scheduled to suit the commercial operation schedule of the hydropower developers.		
Energy	Energy Sector Development	RETA	42097	REG	Small-scale Technical Assistance for Developing a Computable General Equilibrium Modeling Framework for Analyzing the Impacts of Power Trading Between Mongolia and the People's Republic of China The outputs are an examination of economy-wide and distributional implications of the investments in mining and power industries, and recommendations for suitable policies and investment strategies to distribute the benefits of export growth.	150 000,00	6494
Energy	Energy Efficiency and Conservation	RETA	42078	REG	Promoting Energy Efficiency in the Pacific The goal is to improve energy security in the participating PICs (Cook Islands, PNG, Samoa, Tonga, and Vanuatu) and develop sound models of energy efficiency policy and project implementation that all the PICs can follow. The RETA will provide direct assistance for the development of the required policy, legal, and institutional framework.	1 200 000,00	6485
Energy	Energy Sector Development	RETA	41574	REG	Implementation of the Seed Capital Assistance Facility The SCAF will provide technical assistance to private equity fund managers and local entrepreneurs in order to develop sustainable clean energy funds and early-stage funding windows and encourage taking on higher risk portfolios through a seed capital return enhancement offered on a project by project basis. The impact of the RETA is to reduce energy-related CO2 in ADB's DMCs by promoting RE and EE projects.	4 200 000,00	6442
Energy	Energy Sector Development	RETA	40293	REG	Energy Sector Strategy and Development 2007 (Supplementary) The main impact of this regional TA will be improved sustainable supply of energy. The intended outcome of this TA will be increased support for ADB's energy sector operations from a range of stakeholders and experts. In addition, the TA will provide stakeholders with comprehensive updates on recent energy issues, policy requirements, and energy outlook for the region.	1 000 000,00	6387
Energy	Energy Sector Development	RETA	40629	REG	Energy for All Initiative The TA will improve the economic, environmental, and health conditions of the poor by increasing their access to modern forms of energy. The outcomes will be improved overall efficiency and effectiveness of energy access delivery mechanisms in participating DMCs, and new approaches and methodologies for providing energy access for the poor.	2 300 000,00	6443
Energy	Energy Sector Development	RETA	41279	REG	Expanding the Implementation of the Energy Efficiency Initiative in Developing Member Countries This RETA will help decrease the rate of greenhouse gas emissions and improve energy security in selected DMCs in the Asia and Pacific region through greater use of clean energy. The outcome will be an expansion of ADB clean energy loan and TA operations to cover DMCs that were not prioritized under EEI phase II.	3 000 000,00	6501
Energy	Energy Efficiency and Conservation	ADTA	39379	VIE	Developing Benefit Sharing Mechanisms for People Adversely Affected by Power Generation Project (Supplementary) The project supports the preparation and pilot testing of guidelines to introduce benefit sharing mechanisms on hydropower projects in Viet Nam.	240 000,00	4689
Total						30 003 000,00	

2009 Energy Sector Tas

Guide: (PPTA)=Project Preparatory Technical Assistance, (AOTA)=Advisory and Operational Technical Assistance, (RETA)=Regional Technical Assistance, (ADTA)=Advisory Technical Assistance

New Sector	New Subsector	TA Type	Project No.	Country	Project Name	Total Amount	Approval No.
Agriculture and Natural Resources	Renewable Energy	PPTA	40682	PRC	Integrated Renewable Biomass Energy Development (Supplementary) The technical assistance will prepare a project to meet PRC's goals of improving ecological agriculture, and promoting renewable energy through the establishment of rural medium- and large-sized biogas digesters that will use agricultural and farm animal waste.	210 000,00	4939
Energy	Large Hydropower	PPTA	42320	LAO	Small and Mini Hydroelectric Development This technical assistance will lead to the project design, with CDM registration, of one or two small or mini hydroelectric power plants to be used as demonstration projects for further small-scale hydropower development leading to increased use of clean energy.	1 000 000,00	7227
Energy	Energy Sector Development	PPTA	37113	BAN	Power System Efficiency Improvement The technical assistance will develop a power sector energy efficiency program to be adopted by the Government of Bangladesh.	1 200 000,00	7242
Energy	Transmission & Distribution	PPTA	42401	AZE	Power Distribution Development Investment Program This technical assistance seeks to assess the country's power sector and map its distribution system in preparation for the expanding and upgrading of power distribution facilities.	1 000 000,00	7253
Energy	Transmission & Distribution	PPTA	42094	AFG	Kabul Distribution Network Rehabilitation This TA seeks to develop a feasibility study on the rehabilitation of Kabul's distribution network. This will lead to the development of a larger and more cost-effective energy supply network to promote sustainable economic development in the Afghani capital.	225 000,00	7289
Energy	Energy Efficiency and Conservation	PPTA	40524	PRC	Energy Efficiency and Emission Reduction in Shandong Province The TA seeks to deliver an improved financing mechanism for developing EE projects, based on the lessons learned from ADB's ongoing Guangdong EPP program towards an Energy Efficiency and Emission Reduction Project that will benefit Shandong Province.	700 000,00	7295
Energy	Energy Efficiency and Conservation	PPTA	43176	REG	Establishment of a Market Place for Transfer of Low Carbon Technologies to Asia and Pacific The TA will develop a feasibility study report on the creation of a market place for low carbon technologies in order to facilitate their diffusion to the region.	225 000,00	7304
Energy	Renewable Energy	PPTA	42252	BHU	Rural Renewable Energy Development This TA will assess the electrification project components covering on-grid and off-grid, as well as generation possibilities for wind power and biogas.	900 000,00	7318
Energy	Renewable Energy	PATA	42525	IND	Study on Cross-Sectoral Implications of Biofuel Production and Use The technical assistance will develop appropriate bio-energy interventions in support of improved energy security and low carbon energy sector development.	500 000,00	7250

Energy	Renewable Energy	PATA	39421	VIE	Strengthening Project Management and Developing Strategies and Options for Biogas Development Program Expansion The technical assistance will support the development of an investment program for the expansion of biogas development in Viet Nam. This seeks the integration of livestock waste management with clean energy production and increased agro-product safety and reduced health hazards.	1 500 000,00	7251
Energy	Energy Efficiency and Conservation	PATA	43116	REG	Carbon Dioxide Capture and Storage Demonstration In Developing Member Countries - Analysis Of Key Policy Issues and Barriers The technical assistance seeks to develop a framework for financing CCS demonstration in developing countries along with enabling a set of policy and incentive mechanisms and the preparation of a financing road map prepared for CCS demonstration in developing countries.	350 000,00	7278
Energy	Renewable Energy	CDTA	43026	PRC	Improving Corporate Governance and Enhancing Institutional Capacity Of Environmental And Social Management The technical assistance is for improving corporate governance and enhancing institutional capacity of environmental and social management for Sanchuan, a developer of small hydropower plants.	700 000,00	7225
Energy	Renewable Energy	CDTA	42182	VIE	Capacity Building of Renewable Energy Development This TA seeks policy reform related to the country's Renewable Energy Law and related decrees and will also build capacity for mini-hydropower plant development.	2 500 000,00	7262
Energy	Transmission & Distribution	CDTA	39419	SRI	Capacity Development for Power Sector Regulation The TA will aim to establish a competitive, commercially managed, financially viable, and efficient power sector by helping to functionalize a new sector regulatory framework through capacity building.	1 000 000,00	7265
Energy	Transmission & Distribution	CDTA	39419	SRI	Rural Household Connection This technical assistance seeks to develop a plan towards improved energy efficiency and access to electricity in rural areas of Sri Lanka.	2 000 000,00	7266
Energy	Transmission & Distribution	CDTA	39419	SRI	Demand-Side Management for Municipal Street Lighting This TA deals with the establishment of internal ESCO units within which escrow accounts will be established to accumulate energy savings gains in municipal street lighting.	800 000,00	7267
Energy	Energy Sector Development	CDTA	42478	BAN	Supporting Implementation of the Bangladesh Climate Change Strategy and Action Plan (Subproject 1) This TA will facilitate the implementation of the Bangladesh Climate Change Strategy and Action Plan which will create low carbon inclusive economic growth and climate resilient development while ensuring food and energy security in Bangladesh.	680 000,00	7273
Energy	Energy Efficiency and Conservation	CDTA		PRC	Carbon Dioxide Capture and Storage Demonstration-Strategic Analysis and Capacity Strengthening The TA will aid in the formulation of a strategy for CCS deployment in the PRC. It seeks to influence enabling policies and regulatory framework to support CCS.	1 250 000,00	7286
Energy	Energy Sector Development	CDTA		BAN	Supporting Implementation of the Bangladesh Climate Change Strategy and Action Plan	2 000 000,00	0001

					This TA will facilitate the implementation of the Bangladesh Climate Change Strategy and Action Plan which will create low carbon inclusive economic growth and climate resilient development while ensuring food and energy security in Bangladesh.		
Energy	Energy Efficiency and Conservation	RETA	41138	REG	Implementation of the Technical Support Facility under the Carbon Market Initiative (Supplementary)	1 000 000,00	6438
					This regional technical assistance aims to operationalize the technical support facility (TSF) of ADB's Carbon Market Initiative. The TSF will help ADB's operations departments assess the eligibility of ADB-supported projects for receiving carbon revenues.		
					Total	19 740 000,00	

In preparing any country program or strategy, financing any project, or by making any designation of, or reference to, a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.