DEVELOPMENT • CLIMATE • AND FINANCE

Beyond the Sum of Its Parts

Combining Financial Instruments for Impact and Efficiency

June 2010

ISSUES BRIEF #3

The Global Environment Facility (GEF), carbon finance, and the Clean Technology Fund (CTF) constitute the bulk of dedicated funding for low-carbon development. To achieve the largest possible impact, practitioners must learn to combine these resources in the same project or program in order to both reduce transaction costs and maximize synergies. This *Issues Brief* considers six projects that are using resources from one or all of these sources in combination with development finance to advance low-carbon development. It lays out a conceptual basis for how GEF, carbon finance, and CTF resources can be fit together to make a wider range of mitigation projects financially and economically attractive.

THE WORLD BANK

SUPPORTING LOW-CARBON DEVELOPMENT FROM MULTIPLE SOURCES

Although the current level of dedicated funding available to support climate change mitigation continues to grow, its current level of about $8 billion per year covers only a fraction of developing countries' needs, which are estimated at $140–175 billion per year by 2030.[1] At present, there are three primary dedicated sources of financing for low-carbon development: the Clean Development Mechanism (CDM) and the carbon market, catalyzing low-carbon investment through revenue enhancement; the Clean Technology Fund (CTF), providing highly concessional investment capital; and the Global Environment Facility (GEF), serving as the largest provider of grants to address climate change for the past 20 years (see Table 1). These three instruments remain the largest and most commonly utilized sources of mitigation financing for developing countries even though other initiatives—some of which utilize new avenues and channels for funding—have recently emerged. This Issues Brief examines the World Bank Group's (WBG) ability to combine resources from these three established financial instruments; to maximize the value of that blending; and to overcome the

1 All amounts in U.S. dollars unless indicated otherwise.

obstacles to successful blending. Its message is that despite an increasingly fragmented climate financing landscape, development institutions can help client countries make use of all available resources to craft an efficient and effective response to the challenges posed by low-carbon development.

WHY COMBINE RESOURCES? THE RATIONALE FOR BLENDING

Small sums of money allocated across a large number of projects may achieve limited impacts, but they are also likely to result in gross inefficiencies. The efficient combination of resources can maximize both leverage from public and private sources and impact on low-carbon development. Combined financing can not only exploit the synergies among different financial instruments—each addressing a slightly different set of needs, risks, or barriers—but also reduce transaction costs.

The instruments listed in Table 1—the GEF, the CTF, and the Carbon Partnership Facility (CPF)—are designed to pay only the partial, incremental, or additional costs of low-carbon activities. World Bank financing—making use of International Bank for Reconstruction and Development (IBRD) or International Development Association (IDA) resources—must be combined with domestic public or private resources to provide the underlying development finance essential to make these instruments effective in helping countries meet their low-carbon development goals. Over the past decade, the fraction of the Bank's energy portfolio devoted to renewable energy and energy efficiency has risen from less than 10 percent to more than 30 percent, worth more than $3.1 billion in 2009. This increase has mirrored both leverage from the GEF, providing over $1.7 billion to low-carbon projects from inception to the present, and from carbon finance, providing over $400 million to low-carbon projects from 2001 to 2009. This trend also reflects the increasing awareness of climate change as a factor shaping world development.

TABLE 1 THREE MAJOR FINANCING INSTRUMENTS TO SUPPORT LOW-CARBON GROWTH

Attribute	GEF	CTF	CPF
Objective	To transform the market development paths of eligible countries into trajectories with lower greenhouse gas (GHG) emissions in the energy, industry, transport, and land-use sectors	To provide scaled-up financing to contribute to demonstration, deployment, and transfer of low-carbon technologies with a significant potential for long-term GHG emission savings	To target long-term emission reductions; scale up low-carbon interventions; and support strategic, transformational interventions in key sectors
Overall approach	Removing barriers for sustainable market development and growth through pilots and demonstration; includes reduction of risks and support to innovation	Scaling up low-carbon development through support to investments in 17 countries on a pilot basis	Increasing the scope and scale of verifiable GHG offsets and generation of carbon revenues by reducing GHG emissions through output-based approach
Determination of funding requirements	Initial resource allocation through resource allocation framework; incremental costs of each project, including costs of barrier removal	Financing gap necessary to make project viable	Payment made upon certification of emission reductions at pre-negotiated or prevailing market rates
Financial tools	Grants and limited non-grant instruments	Loans and risk mitigation instruments at concessional (IDA) rates; limited grants available	Emission reduction purchase agreements, typically with payment on delivery; pricing based on market prices for emission reductions
Scale of financing	$350 million per year over four years of GEF 5 (2010–14); cumulatively, $2.7 billion since inception	$4.4 billion over 4 years (2009–12), or $1.1 billion per year	CDM primary transactions in 2009 totaled $2.7 billion; cumulatively, $26 billion since 2002
Typical project size	From $5 million to $50 million GEF grant allocation per project, linked to larger Bank project (average size = $8 million)	Between $50– 200 million concessional loan, linked to larger client project utilizing Bank loan resources	CPF aims to scale up the size of the transactions significantly, typically at least 1 million emission reductions
Leverage on underlying finance	1: 6.3	1: 8.3	Up to 1: 9, depending on sector

As the largest GEF partner on climate change, the WBG has had extensive experience in blending GEF resources with its regular instruments to steer the transformation of larger projects toward more climate-friendly outcomes. This experience now helps inform programming by new funds like CTF, as well as shape new approaches linking carbon finance more closely to development finance. Given the relative scarcity of both development and climate finance and the multitude of urgent needs in developing countries, innovation must provide the basis for more effective utilization of the limited resources available.

Because of initial uncertainty regarding the legitimacy of combining carbon finance resources with GEF, only recently have resources from these two financing instruments been mixed in the same project or program. By the time the CTF was established, participants realized that combining resources from these different funds could increase both impact and efficiency as all financing instruments were seeking to reduce GHG concentrations in the atmosphere, consistent with the goals of the United Nations Framework Convention on Climate Change. Therefore, the CTF and the other programs under the Climate Investment Funds (CIF) have welcomed the opportunity to blend or mix resources with GEF and carbon finance in the same project or program. So long as the funds from each source are used in a manner consistent with the terms of that financial instrument, they can be woven together into projects and programs, so the impact is greater than might be expected solely on individual contributions. The GEF, the CTF, and carbon finance naturally complement one another. If carefully crafted, projects that combine these sources can create synergies, increasing their impact beyond what might be expected simply on the basis of adding together the resources being used (see Box 1).

THE ROLES OF DIFFERENT FINANCIAL INSTRUMENTS

A low-carbon development path frequently requires additional financial support to become financially and economically attractive. Climate financing instruments help to make these mitigation activities feasible by improving their economic and financial attractiveness. Each dedicated financial instrument serves a unique role in the stimulation of demand for low-carbon technologies and practices.

BOX 1 WHAT IS SYNERGY?

Resources from the GEF, the CTF, and the CPF can be used in a complementary way in the same country, the same program, and even the same project to improve the financial and economic attractiveness of low-carbon development activities. But using them in a complementary fashion is easier than using them to create synergies. Complementarity requires only that the resources not be used in a manner contradictory to, duplicative of, or inconsistent with one other; synergy requires that the resources interact in such a way that the whole becomes greater than the sum of the parts. Synergy refers to the creation of a larger process or a change in scope and/or scale resulting in further gains in low-carbon development beyond those whose costs were directly paid for by project resources. In other words, demonstrating complementarity requires that 2 + 2 not be less than 4; demonstrating synergy requires that 2 + 2 exceeds 4.

These unique niches must be kept in mind when combining resources into a project or program. On the one hand, combining the resources can increase overall program effectiveness. On the other, rather than blending together the resources in the sense of co-mingling, the projects may have to be designed as co-financing operations.

The GEF was established to provide piloting and support for innovation; it is risk-prone with respect to new technologies. GEF support is most appropriately used early in the market transformation process. CTF was established to take low-carbon technologies to scale by providing concessional financing to countries' low-carbon development projects. The CTF is designed to help innovation saturate the market quickly, bringing the market to maturity sooner. The CPF or carbon finance revenues provide an added payment for the carbon assets produced through a low-carbon development project (in the form of emission reductions). It improves the profitability of investments that are hovering on the border of viability. When used together, these three sources of funding can help accelerate the pace and increase the penetration of climate-friendly technologies in the market. Table 2 summarizes how these instruments can be used to meet needs in low-carbon development.

In the context of a single project, the different financial instruments will each play a slightly different role in

TABLE 2 RESOURCES AND INSTRUMENTS TO OVERCOME BARRIERS TO LOW-CARBON DEVELOPMENT

Barriers	Resources and instruments
Low awareness, capacity, and experience with low-carbon opportunities and with access to climate finance resources and instruments	**Building an appropriate enabling environment** • GEF • Trust funds, such as the Energy Sector Management Assistance Program (ESMAP) • Bilateral donor funds • Development policy operations
Misaligned, weak, or absent regulation and incentives, such as the absence of an adequate, long-term, and predictable price for carbon; subsidies that create adverse incentives; or the lack of a regulatory framework for renewable energy expansion	
Chronic lack of long-term funding, such as the high cost of capital or low liquidity in domestic financial markets	**Providing investment finance and leveraging further resources** • GEF • CTF • Carbon finance (revenue enhancement) • IBRD or IDA
High (perceived) risks, such as strategic, country, commodity price, technology, or operation risk	**Providing guarantees or risk coverage** • GEF (risks associated with operation and financing of new technologies) • CTF (partial risk guarantees focus on technological uptake) • Multilateral Investment Guarantee Agency (country risk) • WBG guarantees and structured finance

improving a project's profitability. Figure 1 presents the cash-flow profile for a typical baseline development project. The negative cash flows in the first years of the project are compensated by the higher positive cash flows in the later years. The later years can then be discounted back to cover the initial, up-front costs with money left over, resulting in a positive net present value. This profile is presented in its simplest form in Figure 1. In this case, it would represent a baseline, conventional energy project.

Figure 2 illustrates the profile of a baseline project that has been redesigned to be a low-carbon project, such as is the case when a fossil-fuel-based generation project is replaced by a renewable energy project. The cost structure of the project will change with higher up-front costs (reflecting the capital-intensive nature of renewable energy) and a different benefit structure. When the resources from the climate finance instruments are brought to bear, GEF resources are provided as a grant at the beginning of the project and are considered a benefit to the project. In conceptual terms, they are considered a reflection of the willingness of the rest of the world to pay for global environmental benefits.

The CTF covers some of the financing costs that show up in the bottom half of the graphs as a cost. They are concessional loan resources, but because of their more favorable financing characteristics, they reduce the debt burden of costs associated with the

FIGURE 1 CASH-FLOW PROFILE FOR A BASELINE DEVELOPMENT PROJECT

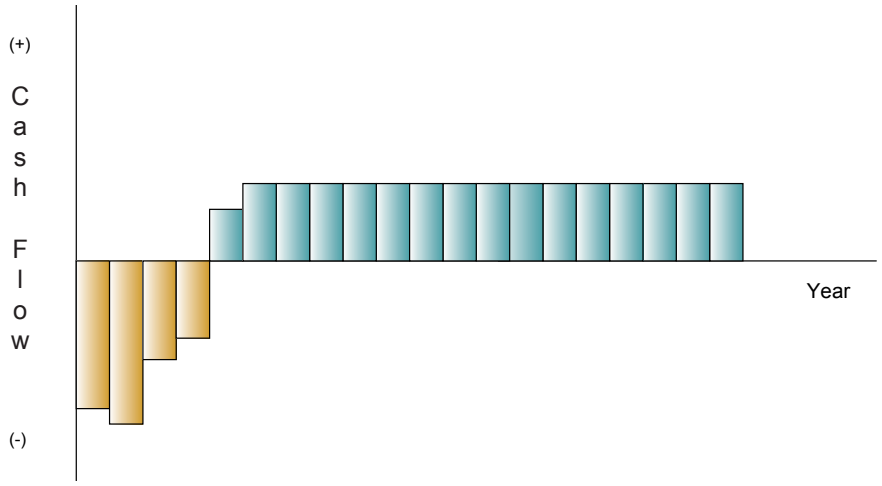
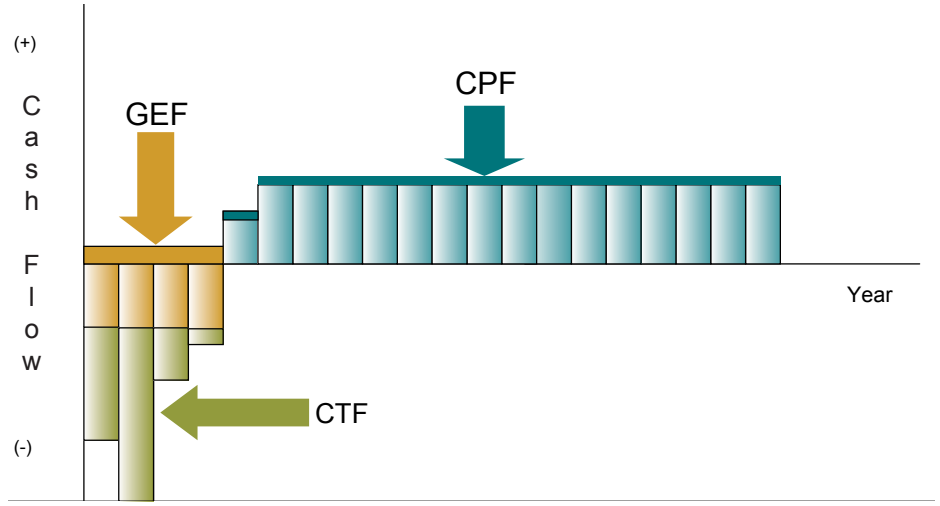


FIGURE 2 CASH-FLOW PROFILE FOR A LOW-CARBON DEVELOPMENT PROJECT USING CLIMATE FINANCE INSTRUMENTS

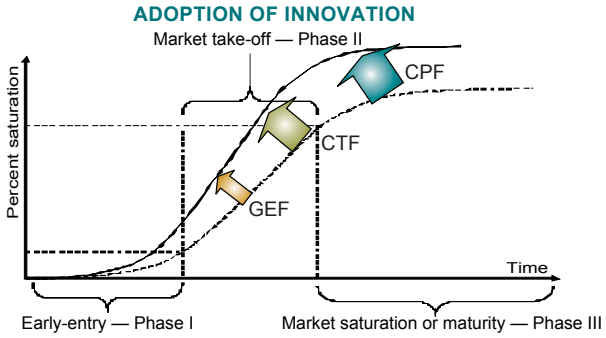


project. In fact, they can be co-mingled with IBRD or IDA resources to reduce the overall financing costs of the project. During project implementation, the revenue provided by carbon finance—CPF in this instance—serves as an additional benefit or performance reward to the project. The carbon offsets are sold to the market and provide an additional revenue stream to the project, improving its overall financial and economic rate of return.

Combining resources from the climate finance instruments can thus make otherwise unattractive low-carbon projects attractive. Moving up from the individual project level to the market level, the effect is somewhat different. As low-carbon development projects typically represent a new technology, it is possible to use an adoption of innovation curve to discuss the likely impacts. Figure 3 begins with a dotted learning curve representing the adoption of the low-carbon innovation in a particular market. Normally, that curve will pass through an early-entry phase where the technology is used only by early adopters. From there, it moves to a market takeoff phase where it begins to reach its full potential, which it finally reaches in the market saturation or maturity phase.

Bringing support from the GEF, the CTF, and the CPF to such a market will have the effect of pushing the curve from the bottom. The extra resources from these instruments combine both to accelerate the movement up the technology curve in each instance, but also to exert an upward pressure to shift the curve forward in time. The goal of combining these resources is to create synergistic pressure that results not only in increasing the pace of adoption of the new technology or practice, but also in bending or shifting the curve to a higher level at an earlier point in time. This bending or shifting of the curve is part of the process of market transformation—taking the market to a new, higher equilibrium level than it would have been in the absence of the support from the climate finance instruments.

FIGURE 3 USING CLIMATE FINANCE RESOURCES TO TRANSFORM A MARKET



MATCHING INSTRUMENTS TO NEEDS — CASE STUDIES

Table 3 presents the basic information about six projects that have utilized more than one of these financial instruments to support low-carbon growth. The financing for the projects is broken into two categories: (1) funds provided from dedicated climate financing instruments, and (2) funds that can be considered development financing. For each project, the percentage of the total financing that comes from climate finance is calculated in comparison to that provided from development finance. As a fraction of the total, climate finance ranges from as little as 4 percent to as much as 24 percent of the total, demonstrating the strategic value of climate finance in leveraging, directing, and shaping the much larger value of development finance into support for low-carbon development. As CTF is relatively new and there are only a handful of cases of GEF and carbon finance being combined, there is a limited set of project case studies to demonstrate the possibilities of combining resources from the different climate financing instruments. Of these six projects, the three that are listed in bold face are discussed in more detail below.[2]

2 The other three projects are also discussed in: World Bank. 2010. *Beyond the Sum of Its Parts: Combining Financial Instruments to Support Low Carbon Development.* Washington, DC: World Bank.

TABLE 3 CLIMATE CHANGE MITIGATION FINANCING CASE STUDIES

Project	Status	Sector	Dedicated climate finance used			Development finance used	
			GEF	CTF	CF	IBRD/ IDA	Other
China Renewable Energy Scale-up Project (CRESP)	2005–present	On-grid renewable energy generation	$40m		$15m or about 1 $mtCO_2e$	$173m	
Total project financing comprised of climate vs. development finance				24%		76%	
China Energy Efficiency Program	1998–present	Industrial energy efficiency	$14m		$12 m or 750 $ktCO_2e$	$200m	$371m
Total project financing comprised of climate vs. development finance				4%		96%	
Morocco Municipal Solid Waste	Board approved—March 2009	Urban solid waste mgt			$30m or 2 $mtCO_2e$*	€100m**	
Total project financing comprised of climate vs. development finance				19%		81%	
India Chiller Energy Efficiency Project	Board approved—June 2009	Energy efficient appliance & CFC phaseout	$6.3m		$5.8m or 485 $ktCO_2e$		MLF $1m IDBI/private $70m
Total project financing comprised of climate vs. development finance				15%		85%	
Mexico: Efficient Lighting and Appliance Project (ELAP)	Under final preparation	Energy efficient lighting and domestic appliances	$7.1m	$50m	TBD	$320m	NAFIN $123m+ GoM $22m+ Consumers $180m
Total project financing comprised of climate vs. development finance				8%		32%	
Mexico Urban Transport Transformation Program (UTTP)	Board approved—October 2009	Sustainable transport	Mexico City $5.8m + $8m from STAQ to 4 cities	$200m	~$50m or about 3 $mtCO_2e$	$200m	$868m Fonadin+ $732m Private Sector + $225m from cities
Total project financing comprised of climate vs. development finance				12%		88%	

Notes: * Value of CERs to be determined in the market.

** Value of euro = $1.3

CHINA RENEWABLE ENERGY SCALE-UP PROJECT (CRESP) — CREATING A MARKET FOR RENEWABLE ENERGY

CRESP was approved in 2005, building on the lessons of a failed component of its antecedent, the China Renewable Energy Development Program (REDP), initiated in 2001. The failed component of the REDP provided resources to support the establishment of demonstration wind farms, but these wind farms never reached financial closure. In analyzing the situation, the task team found that the failure was due to the lack of agreement on sharing the incremental costs of the investments between the national and regional grids, as they far exceeded whatever grant resources could be mustered. None of the actors were willing to pay the extra cost per kWh required to make the wind investments sustainable.

In response, the World Bank helped the Chinese government obtain resources from both the GEF and the Asia Sustainable and Alternative Energy Program (ASTAE) to evaluate international experiences and best practices with respect to renewable energy-mandated market policies. This resulted in the development of China's Renewable Energy Law, which established a feed-in tariff. The technical assistance also laid the foundation for an IBRD Specific Investment Loan (SIL) for $173 million. The loan provided support for co-financing two 100 MW wind farms, a 25 MW biomass power plant, and a bundled package of small hydro projects. The GEF grant and Bank loan were seen not only as investment support, but also as a way to bring to bear international best practices in private sector renewable power development.

For one of the wind investments (Inner Mongolia) targeted as part of CRESP, the Chinese government specified that the wholesale power tariff should not exceed 5 cent per kWh, a price that made wind uncompetitive. At this point, the Bank's carbon financing helped improve the project's financial viability by committing to purchase 1.6 million emission reductions from the project, raising the financial internal rate of return from 7.2 percent to 8.8 percent, a point where the project became attractive. Therefore, by integrating GEF and ASTAE grants, IBRD lending, and carbon finance payments, CRESP has had an effective transformational impact on renewable energy development in China. China is now considered the second fastest growing wind market in the world and, with 12.2 GW of installed capacity in 2008, has the fourth largest wind market in the world.[3]

MEXICO EFFICIENT LIGHTING AND APPLIANCES PROJECT (ELAP) — SUPPORTING NATIONAL ENERGY EFFICIENCY GOALS

The Mexico ELAP project is designed to use resources from multiple climate financing instruments to reduce the electricity consumption of the household sector. In 2008, Mexico's residential sector accounted for 25.8 percent of total electricity use, with a typical household consuming the equivalent of about 8,735 kWh per year of energy (4,157 kWh per year of electricity and 4,578 kWh per year of gas). Most household energy consumption is attributable to the use of domestic equipment such as stoves, heaters, refrigerators, and air conditioners. Combined consumption for cooking, heating, refrigeration, and air conditioning accounts for about 70 percent of total residential energy consumption. Air conditioning, home appliances, and electronics are expected to be the main growth areas of residential electricity demand in Mexico. Currently, these three energy end-uses—along with lighting—account for roughly equal shares of residential electricity consumption. Electricity consumption in the lighting sector as a whole grew on average by 3.9 percent per year between 1997 and 2007. It is projected to continue at 3.3 percent annually through 2030, with the residential sector portion projected to grow the most rapidly. In response to the important role of the residential sector in Mexico's electricity consumption, the government has initiated energy efficiency programs that target power consumption in the residential sector by increasing the efficiency of household lighting and appliances.

In direct response to the government's initiative, ELAP is designed to promote more efficient use of energy and to mitigate climate change by increasing the use of energy-efficient technologies in the residential sector. The project has three components. The first component focuses on replacing incandescent light bulbs with more efficient compact fluorescent lamps (CFLs), providing support particularly to Mexico's low-income households. It will make use of $70 million of IBRD loan resources to

3 REN21. 2009. *Renewables: Global Status Report 2009 Update*. Paris: REN21 Secretariat.

purchase and supply 45 million CFLs to 11 million low-income households over three years. Project activities will also ensure that safe disposal mechanisms are created and utilized for the mercury contained in the CFL lighting devices.

The second component will create incentives to encourage the replacement of older, inefficient refrigerators and air conditioners. This component supports two types of incentives—vouchers and credits for consumers—for the replacement (including collection and scrapping) of approximately 1.7 million old and inefficient refrigerators and air-conditioning units over a four-year period. Resources from the IBRD loan will finance the vouchers to enable low-income consumers to afford the new appliances. NAFIN (a national financial bank) will make use of its own resources and a $50 million soft loan from CTF to provide credit to low-income consumers. The government will provide $20 million in grant resources and GEF will provide $5 million in grants to guarantee against the default of the low-income consumers.

The third component of the project will provide technical assistance to enhance the capacity of the Secretaría de Energía (SENER) to promote energy efficiency activities consistent with its new responsibilities under the Energy Efficiency Law, and will strengthen the ability of all implementing agencies to carry out the project. The government is contributing $2 million and GEF $2.12 million to this component. Carbon finance will be brought into the project through programs of activities (PoAs) linked to the CFL, air-conditioner, and refrigerator incentive programs. Some resources might also flow to the project from voluntary carbon markets linked to the phasing out of CFC's found in refrigerators and air conditioners that are more than 10 years old.

The ELAP project utilizes resources from an IBRD loan, the GEF, the CTF, the NAFIN, Mexican consumers, and the Mexican government. In addition, there is an expectation that future carbon finance revenues will be available to the government to help repay some of their up-front investments. The total value of the project comes to over $700 million. It is expected to transform the Mexican electrical appliance market toward a more efficient future path. Expected GHG emissions are in the range of 7 million tCO_2e for the direct emissions alone during the lifetime of the project. The indirect emissions—which will result if the entire market is saturated—will come to over 85 million tCO_2e over the 20-year lifetime of the appliances

being used. Such an ambitious program is possible only because the Mexican government has made a strong commitment to improve energy efficiency as a way to reduce GHG emissions. While it is too early to be declared a success, it has been designed in an exemplary manner to help the Mexican government respond to national needs and global concerns by creatively weaving together financing from a number of financial instruments.

MEXICO URBAN TRANSPORT TRANSFORMATION PROGRAM (UTTP) — REPLICATING LESSONS FROM MEXICO CITY'S SUCCESS

The Mexico UTTP is designed to transform urban transport in cities to a lower carbon growth path. Achieving this objective will significantly reduce the carbon footprint of the transport sector as well as reduce air pollution. UTTP aims to bring together the agendas of modernizing local urban transport, reducing national poverty, while responding to the Mexican government's voluntary pledge to reduce GHG emissions.

Demand for transport in Mexican cities is leading to increasing motorization with growth rates of around 10 percent per year. In many cities, private cars today account for 80 percent of total motor vehicles, while they represent approximately 30 percent of daily passenger trips. This growing motorization has led to demand for more roads, including ring roads and multi-lane highways, which has led to diversion of public funding for private transportation enhancement. Although there is variation among cities, the government is not in a position to respond adequately to the demand from all cities. The transport policy and framework is inadequate, the institutions responsible for public transit are weak, and there is a shortage of capable professional staff to adequately manage transport corridors.

The project focuses on urban areas across the country, and is designed around three components: (1) increasing the human and institutional capacity to prepare and carry out sustainable transport investment policies and projects; (2) developing integrated transit systems, including mass transit corridors and public transport enhancement; and (3) stimulating the market for low-carbon buses in these urban areas, as well as scrapping older, inefficient buses. Altogether, the program is an ambitious effort to transform the urban transport sector across Mexico.

The project has been built around earlier and existing GEF support to the transport sector in Mexico. One earlier GEF-supported project—Climate Measures in the Transport Sector of Mexico City—helped develop the *Insurgentes* bus corridor, as well as testing various types of cleaner buses, such as hybrids and electric buses. This early support not only helped provide a basic demonstration of the importance of bus rapid transit systems, but it also stimulated the development of a CDM methodology on bus rapid transit systems. This current project seeks to transfer these lessons and experiences beyond Mexico City to other urban areas.

The program is ambitious in its design and scope, and if successful, will truly have a transformative impact on the urban transport sector in Mexico. It builds around a $200 million IBRD SIL and an additional $200 million CTF concessional loan. These resources will be channeled through the *Banco Nacional de Obras* (BANOBRAS), which will serve as a financial intermediary in the project. BANOBRAS will then provide loans to the participating municipalities. This will be combined with up to $900 million from the National Trust for Infrastructure (FONADIN). The private sector and the municipalities themselves are expected to make contributions of up to $300 million and $150million, respectively. An estimate of the potential for carbon revenue payments is only approximate, but using just the existing BRT methodology, could add up to an additional $50 million. Urban areas that complete and propose Integrated Transport Plans will be eligible for the funding. Four of the eligible cities—Ciudad Juarez, Puebla, Leon, and Monterrey—are also participating in an ongoing GEF-supported regionwide transport project called the Sustainable Transport and Air Quality (STAQ) Project, which will assist them in the preparation of their plans.

OVERCOMING BARRIERS TO COMBINING RESOURCES

RESOURCE AND ELIGIBILITY LIMITATIONS

Blending or combining resources from the various climate-change financing instruments serves as an important strategy to concentrate limited resources where they can have

the greatest impact. Because of the limitations of climate financing resources, it is not a strategy that is relevant to every project or that is available to every country. Not only is the total quantity of resources insufficient to support low-carbon growth alternatives demonstrating incremental costs, additional costs, or financing gaps but also, not all countries have access to those resources. As the CTF is a pilot program, only 17 countries are expected to participate. During GEF 5, only 37 out of the total eligible 143 countries will have resource allocations exceeding $5 million; the remaining 107 countries are allocated between $2–5 million for the replenishment period. For the carbon market, nearly 80 percent of the issuances to date have been based in China, largely because that is where the largest share of global emissions takes place. Projects in other countries have received approval by the CDM Executive Board, but the sheer volume of emission reductions slants CDM support toward a few large-emitting countries. Blending resources from multiple funding will simply not be an option in many countries, as the limited resource availability is reflected in reduced country eligibility for support.

FRAGMENTED GOVERNANCE

Apart from resource limitations, the main obstacle to combining resources are the different processes and procedures required for approval under different financing instruments. Because each financing instrument has its own separate decision-making body, approval procedures differ for each one. World Bank projects are approved by the Bank's Board of Executive Directors. Of the three instruments featured here, CTF's procedures come the closest to mimicking the Bank's own approval procedures, with the CTF Trust Fund Committee only reviewing projects once prior to the Multilateral Development Banks' (MDBs) Board for final approval. To date, this procedure has worked very efficiently. For GEF, a project requesting GEF resources must be reviewed and approved by the GEF Council twice: once at the concept stage, and once at the appraisal stage prior to being finally approved by the MDB's Board. Experience has shown that these extra steps can require anywhere from one month to six months in additional preparatory time beyond what would be required for a Bank loan. Because CDM is governed by an entirely separate decision-making body, the CDM Executive Board, its decision-making process is entirely governed outside the framework of the MDBs, and therefore bears little resemblance to that of the MDBs or other development agencies. Gaining approval for a new methodology alone frequently requires two years. In addition, complex and fast-changing rules, capacity bottlenecks, and regulatory inefficiencies result in year-long delays and instability, with financial implications for projects. It now takes almost two years for a CDM project to be registered. Delays and uncertainties lead to higher transaction costs, losses in CER volumes, and lower market values, potentially eroding the interest of project sponsors for carbon finance mechanisms over the long term. Despite these potential delays, a seasoned task manager can manage the approval cycles in parallel to minimize the overall review and processing time.

ALIGNING INSTRUMENTS

What can be done to ease these frustrations and reduce the delays? Basically, the key to reducing these procedural delays lies in reform and familiarity. To date, the CTF approval cycle has run smoothly, but it will no doubt be evaluated for simplification before the end of its lifetime. Both the CDM governance procedures and the GEF pipeline procedures require reform. During the GEF-5 replenishment process, a proposal was made to reduce the number of approval steps from two to one. If approved by the Council, this would have a very positive impact on the Bank's participation in the GEF by enabling the Bank's Board to sign off on comments provided to GEF projects by the GEF Council. In addition, the negotiation of the CDM for the post-2012 period will address the issues of pipeline procedural reform and approval simplification. Clearly, some way must be found to reduce the bottlenecks in the CDM review and approval process.

RAISING AWARENESS

The other key to procedural simplification lies in increasing the familiarity of staff members with each instrument's rationale and operations. The ability to combine resources from the climate change financing instruments requires in-depth expertise in both development and climate finance. To manage such a process in addition to a Bank lending operation, the task team will have to undertake multiple processes in parallel. In addition, effective combination requires a good understanding of both the challenges in the target markets and the relative strengths of each instrument. Training and information dissemination regarding the operation of each instrument, the nature of

complementarity and synergy in the use of these funds, and the additional impact that can be achieved will help team members cope with the additional complexity and reduce the stress level.

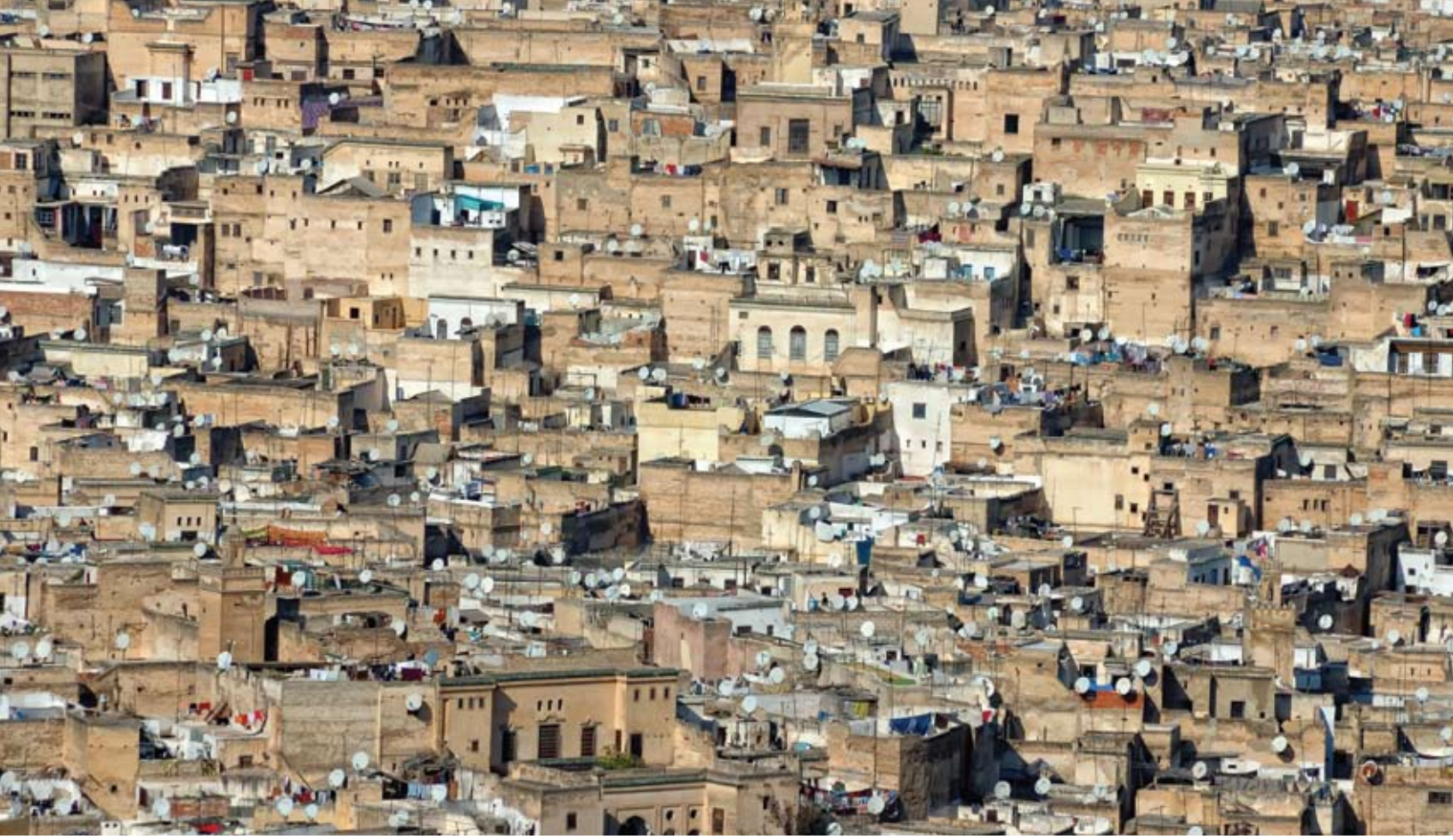
CREATING COMMITMENT

Staff members will be willing to undertake the additional work involved in combining resources from different climate financing instruments only if the Bank management encourages it through the incentive structure. Many opportunities for combining resources from mitigation funding resources are not undertaken because the task manager perceives no reward or value for the extra work that will be required. In this context, it is up to senior management to provide consistent incentives, including budgetary resources, to encourage dedicated team members to prepare and implement these blended projects, which will have greater impact on reducing the rate of GHG emissions growth.

One prerequisite for successful combination frequently goes unmentioned: the commitment, vision, and capacity to identify climate-friendly development plans that are compatible with growth needs of developing countries. This last intangible element—the willingness to innovate, learn by doing, and build capacity for scaling up—will play an increasingly important role in shifting from conventional least-cost approaches to more sustainable and demanding low-carbon, climate-friendly development. Staffing and personnel will require sophisticated skills, creative ingenuity, and budgetary and moral support to pursue these options more frequently and successfully. But if development institutions are to become agents for change for low-carbon growth in the developing world, all opportunities to stimulate low-carbon growth must be taken.

TOWARD A LOW-CARBON FUTURE FOR DEVELOPING COUNTRIES

Combining resources and maximizing synergies among multiple climate and development financing instruments will remain critical to achieving impact and responding to the challenges posed by climate change. If effectively



combined, the total effect of such resources from a blended project will exceed the impact of the same resources used separately in different projects. Combining resources reduces transactions costs, musters a larger package of resources to address the same issue, and leverages a greater quantity of both human and financial capital toward implementation. To facilitate combination, reforms should be actively pursued to simplify and align processes and procedures, making them more user-friendly to teams preparing projects. In addition, capacity building is needed to provide more complete information about the climate resources available, their complementarity, and how they can be woven together into seamless, low-carbon development programs.

Looking ahead, the WBG expects to increasingly utilize complementarities among multiple instruments to build capacity, promote policy reforms, and undertake investment programs targeting the reduction of emissions from deforestation and degradation, the conservation of forest carbon stocks, sustainable management of forests, and enhancement of forest carbon stocks (REDD-Plus) through the Forest Carbon Partnership Facility (FCPF), the CIF Forest Investment Program (FIP), and through GEF's Sustainable Forest Management (SFM). In a similar manner, the support of the program to Scale-Up Renewable Energy Program (SREP) will be built into larger renewable energy programs complementing support of the GEF, IBRD, IDA, and carbon finance. Finally, innovative solutions will increasingly be needed to address the issue of risk in low-carbon project design and finance. Risk-mitigation instruments are key to increasing private investors' and lenders' confidence as they mitigate (perceived) risks; future efforts will focus on combining resources to structure improved responses to these risks.

D E V E L O P M E N T • C L I M A T E • A N D F I N A N C E

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