

# **Maximizing the Effectiveness of the Global Environment Facility (GEF) Sustainable Transport Portfolio**

**Case Studies and Recommendations** 

October, 2013





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| ABBREV  | IATIONS   |
|---------|---|
| BRT     | Bus Rapid Transit                                     |
| CDM     | Clean Development Mechanism                           |
| C02     | Carbon dioxide  |
| CO2e    | Carbon dioxide equivalent                             |
| FONAM   | Fondo Nacional del Ambiente (Peru)                    |
| GEF SEC | GEF Secretariat                                       |
| GHG     | Greenhouse gas  |
| IPCC    | Intergovernmental Panel on Climate Change             |
| ICR     | Implementation completion report                      |
| ISR     | Implementation Status Report                          |
| M&E     | Monitoring and evaluation                             |
| MDB     | Multilateral Development Bank                         |
| MRT     | Mass rapid transit                                    |
| Mt      | Megatonne   |
| NDRC    | National Development and Reform Commission (NDRC)     |
| NMT     | Non-motorized Transport                               |
| PIF     | Project Identification Form                           |
| SLCF    | Short-lived climate forcer                            |
| STAP    | Science and Technical Advisory Panel                  |
| STAR    | System for Transparent Allocation of Resources        |
| TOD     | Transit oriented development                          |
| TDM     | Transportation demand management                      |
| TOR     | Terms of Reference                                    |
| UNDP    | United Nations Development Programme                  |
| UNEP    | United Nations Environment Programme                  |
| UNFCCC  | United Nations Framework Convention on Climate Change |

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### **Executive Summary**

### The GEF and Transport

Transport infrastructure is a critical component of modern society, without which national economies would grind to a halt – the world relies on it to travel to work, schools,health services and for the delivery of goods and services. The quality of a transport system has a resounding impact on individual quality of life and national standards of living. Economic growth and urbanization are occurring at breakneck speeds in developing countries, driving up global demand for transport, which historically has been accompanied by increases in GHG emissions. Over the past ten years, GHG emissions from the transport sector have grown faster than any other.

The Global Environment Facility (GEF) is a small but critical source of climate finance and has built an investment portfolio that addresses emissions from the transport sector in developing and transitioning countries. The GEF has invested more than \$3.6 billion in mitigating climate change since its inception, 10 percent of which was spent on sustainable transport projects.<sup>1</sup>Unfortunately, there has been consistent under-investment in the very sector in which GHG emissions are growing the fastest. Despite this, the GEF remains an important tool for funding low-carbon pilot projects and capacity building in the transport sector. It is crucial that this continues to be the case.

Transport accounts for nearly a quarter of global energy usage and contributes 23%<sup>2</sup> of global anthropogenic GHG emissions. The transport sector is both the fastest-growing consumer of fossil fuels and the fastest growing source of GHG emissions, and the sector is expected to grow robustly in coming decades. Barring a major shift away from current patterns of transport energy use, total transport energy use and carbon emissions are projected to increase 80% over 2002 levels by 2030<sup>3</sup>, driven by rapid urbanization, rising incomes, and a growing middle class in emerging economies. Because the majority of transport investments are being made in developing countries where they will have long-term "lock-in" effects, increased focus and optimization of investments in this sector is critical. The GEF is just one source of funding for transport projects, accounting for far less than one percent of global spending on transport. But it can fill an important financing gap supporting innovative sustainable transport pilot projects. Within this context, GEF money can create opportunities for mainstreaming sustainable transport concepts in low and middle income countries.

The negotiations over GEF's sixth replenishment cycle (GEF-6) are ongoing and the results will establish the framework for how billions of dollars in GEF grants will be spent between 2014 and 2018. This provides an opportunity to review proposed strategies and examine project-level implementation experiences. Some substantial changes have been proposed to the programmatic structure of the GEF. In GEF-5, sustainable transport was articulated as a key objective under the Climate Change Mitigation (CCM) Program. The proposed GEF-6 strategy explicitly references sustainable transport as an eligible activity in several areas. But will this be sufficient to ensure that the progress that has been made in the transport sector will be sustained as the GEF reformats its strategies? The absence of transport-specific goals in the broader cross-sectoral objectives presented in the Climate Change Mitigation (CCM) strategy of the draft Programming Directions for GEF-6 may result in a diluted focus on sustainable, low-carbon transport interventions, just as such focus is needed most. Indeed the challenges to organizing successful transport sector interventions will likely be compounded to the extent that future programming requires much greater cross-sectoral coordination.

Although the GEF has improved its process for project selection in the transport sector, its varied success rate raises an essential question: Which factors increase the likelihood of

<sup>&</sup>lt;sup>1</sup> As of 2009, according to GEF Web site

<sup>&</sup>lt;sup>2</sup> IPCC Fourth Assessment Report

<sup>&</sup>lt;sup>3</sup> IPCC Fourth Assessment Report

successful project implementation, and which factors increase the likelihood of failure? This paper attempts to answer this question, by providing an in-depth look at selected GEF projects to inform a set of general recommendations aimed at improving the way transport projects are conceived and managed. It also addresses the potential restructuring of the GEF in the 6th replenishment and the implications for transport funding in the future. It also presents the background and history of the GEF and an overview on how the GEF's transport portfolio has evolved over time.

A key aim of this paper is to provide context for understanding potential implications for future transport project of proposed changes to the GEF. The authors hope that this paper can inform the transport community, the GEF, and GEF Agencies on recurring themes that positively and negatively impact GEF transport projects and offer guidance aimed at optimizing interactions between these entities. Observations are drawn from a review of four GEF transport projects, supplemented with 20 interviews with key stakeholders within national governments, NGOs, and GEF Agencies.

It would be helpful to engage transport stakeholders in GEF processes, particularly in initial budgetary discussions with national Focal Points. Currently they are largely missing from the discussion. Early engagement of transport stakeholders with those guiding GEF decisions at the national level is critical if transport projects are to be made national priorities in the GEF process under the GEF's current STAR framework, which favors implementing agencies with in-country presence. Transport projects already face a disadvantage in this regard, as traditional energy projects are generally favored for limited funds earmarked for climate change mitigation.

### **Key Findings**

 The GEF's transport portfolio has been the most successful of those within the climate change focal area in leveraging co-financing. A total of \$309.6 million in grants has been provided for transport projects, which has leveraged over \$3.8 billion in co-financing. For every dollar invested, 12 dollars were leveraged. GEF transport projects have leveraged more co-financing per project than any other climate change program, with a co-financing ratio of 1:12.

- In light of the recent commitment made at Rio+20 by the 8 largest MDBs to invest US\$175 billion over 10 years in more sustainable transport, the GEF now has vastly increased opportunity to leverage investments in this vital sector.
- 3. The varied success rate of GEF projects speaks to the experimental and catalytic nature of pilot projects – out of ten interventions, there may be only a few winners that spur wide replication, but this does not mean that projects which do not culminate in replication are total failures. Many plant seeds that take longer to germinate, lay a foundation for future transformative action, or generate material to guide future interventions.
- 4. Real and long-term impacts of transport projects are very difficult to measure accurately, owing to the long timelines associated with transport projects and existing monitoring and evaluation frameworks. At present, projects are evaluated in their entirety against a predetermined set of indicators, which de-emphasizes achievements in individual project components. Even successful projects may appear to be failures if the results are poorly documented, if they were inconsistently monitored and evaluated, or if the targets were poorly defined at the project preparation stage. To win approval, projects too often over-promise when defining targets and then fall short of delivering on unrealistic targets on implementation.
- 5. A major recurring hindrance to successful implementation of transport projects seems to be difficulty in adjusting project designs from original proposals to respond to changing political and economic conditions. Other factors contributing to disparate performance include unclear or inappropriate project design, high turnover of project staff, and opaque procurement processes.
- 6. The GEF has been moving toward better project selection criteria and more appropriate levels of funding for the transport sector. In GEF-5, roughly 20 percent of the funding for the GEF's climate change

portfolio was allocated for transport, a substantial increase from previous cycles. However, utilization is still low, which means there is still room for improvement. By the end of GEF-4 in 2009, 29% of GEF transport projects involved BRT systems or some form of transit system priority or restructuring. Another 29% focused on some form of NMT; 28% on 'other' activities, including capacity building, land use programs, awareness raising, policymaking, freight and bicycle manufacturing, and 8% on travel demand management (TDM) measures.<sup>4</sup>

7. The GEF is focused on systemic change in GEF-6, with proposed strategies focusing on increasing integration across focal areas and programs. Within this context, transport is presented within a new urban systems signature program, as well as within Climate Change focal area's three programs. While a systems approach is needed to adequately address the cross-cutting impacts of environmental challenges, we are concerned that the implementation of such strategies will result in transport projects being proposed exclusively as part of larger urban or cities packages, which will de-emphasize its inherent importance to climate change mitigation. In GEF-5 urban transport was articulated as a key objective under the CCM strategy, with its own budgetary allocation, and dropping this objective risks losing the momentum built during earlier GEF cycles. The GEF's transport portfolio grew significantly between GEF 3 and GEF-5; the progress previously made in improving project selection criteria may be lost.

### Recommendations

 Transport should remain a key objective, or sub-objective, within Climate Change Mitigation strategy attached to a dedicated funding allocation. Another option could be to introduce a transport-specific sub-focal area under the urban systems program. Such an approach can easily be integrated into the GEF's multi-sectoral approach to urban projects. GEF could still facilitate cross-cutting projects while setting sector specific targets and tracking them to guide its portfolio. Although transport is a critical component of sustainable cities, it is integral to mitigating climate change and should be considered for national projects on its own.

- 2. Timely and active engagement with national focal points, which is important to ensuring that transport projects are considered for funding under the STAR system, should be encouraged. The reduction of black carbon and other short-lived climate forcers (SLCFs) is now eligible for project funding for the first time. Because transport is one of the largest sources of emissions of SLCFs, this inclusion offers an opportunity to expand the GEF's transport portfolio to include projects that may provide major positive health benefits. Transport groups need to engage national focal points to promote the far reaching benefits of sustainable transport in light of the inclusion of black carbon and SLCFs, but also beyond this.
- 3. Due to time consuming proposal preparation and project approval processes, conditions on the ground have often changed between the time a proposal is submitted and the time the project is ready for implementation. This is especially true for transport projects, which tend to operate in highly politicized environments and under frequently changing political conditions. For these reasons, more flexible project designs which allow post-approval review and modification are vital to ensuring successful implementation.
- 4. Again, due to the long timeline of transport projects, a two-pronged evaluation process would serve transport projects more effectively. This would mean separating the evaluation of projects from the evaluation of outcomes, with the latter occurring from three to eight years following project closure, so as to accurately assess long-term impacts.
- 5. Case studies show that many activities classified as "other" – outreach, awareness raising, capacity building, and training – are

<sup>&</sup>lt;sup>4</sup> GEF STAP (2010)

where many GEF grants have significant added value. Although pilot demonstrations are important and should remain a primary focus, these other types of activities can be integral to the sustained progress of the project as well as its replication potential. Thus, a larger portion of grants should be allocated toward barrier removal and other activities. Such activities do raise awareness in relevant jurisdictions, and these components should be more effectively accounted for and emphasized in project monitoring and evaluation frameworks.

- 6. The GEF should further streamline the project approval process. One way to do this is would be to encourage a common starting point for project proposals by requiring that all transport projects utilize the TEEMP model, a methodology that the GEF Secretariat (GEF SEC) invested in to evaluate the GHG impacts of project proposals. Currently, the TEEMP is not promoted by the GEF.
- 7. Agencies that undertake project execution are a critical factor to successful implementation. GEF Agencies should conduct a thorough technical and political assessment to determine whether institutions

tasked with executing duties have the technical expertise or the political authority to lead a specific project.

8. In accordance with its Operational Principles, the GEF is supposed to play a catalytic role in maximizing global environmental benefit, and should focus on being ahead of current mainstream practices. GEF projects are meant to be ahead of their time – pilots are conceived with the intention of replication, in order to catalyze additional financing and policy change. Considering this, the GEF should focus its resources on not yet mainstream and breakthrough interventions by staying one generation ahead of current trends. In the transport sector, this means advanced travel demand and traffic management, such as congestion pricing, BRT network management, and transit-oriented development and urban design. The new GEF-6 program framework proposed generally promotes this idea in its recommendations for transport sector activities.

### Introduction to the GEF

### **Background and History of the GEF**

The GEF was established in 1991 as a partnership between UNEP, UNDP, and the World Bank as a pilot program within the World Bank. It was created to build international cooperation and catalyze financing to address critical threats to the environment. The GEF provides grants and concessional funding to cover the incremental/additional costs associated with transforming a project with national benefits into one with global environmental benefits. The GEF was restructured in 1994 to become a permanent independent entity and was entrusted to become the financial mechanism for four UN Conventions: Convention of Biological Diversity (CBD) and the Framework Convention on Climate Change (UNFCCC); and later the Stockholm Convention on Persistent Organic Pollutants (POPs), and the UN Convention to Combat Desertification (UNCCD).

There are six focal areas in which GEF programs and projects are categorized, with sustainable transport falling under Climate Change Mitigation.

### **Structure**

The GEF is governed by an Assembly, a Council, a Secretariat, ten Implementing Agencies, a Scientific and Technical Advisory Panel (STAP), and the Independent Office of Monitoring and Evaluation. The majority of GEF funds are contributed by donor countries, which are required under the relevant Conventions to provide financial assistance to developing countries to achieve respective environmental objectives. The GEF administers three trust funds, with transport sector funding coming from the GEF Trust Fund, for which the World Bank serves as the Trustee. Replenishment of the Trust Fund occurs every four years based on donor pledges over the period. Funding is then made available for activities within GEF Focal Areas, which are defined during the replenishment negotiation process, which occurs one year prior. The GEF Trust fund has received a total of \$15.23 billion over its five replenishments from 39 donor countries, and provided \$11.5 billion in grants for over 3,000 projects in more than 165 countries.<sup>5</sup> Between 1999 and 2010, the GEF has approved 50 transport projects through the provision of \$309.6 million in grants (an average of \$5.9 million per project).6

#### **GEF Agencies**

GEF Implementing Agencies are partners of the GEF and work closely with national focal points on project identification, project prep and start-up, supervision, and evaluation. The UNDP, UNEP, and the World Bank were the three original GEF Agencies. Each agency was chosen to contribute specific expertise to the GEF project process. For example, UNDP specializes in technical assistance, particularly related to institutional capacity building; UNEP in environmental assessment and management; and the World Bank is instrumental in developing and managing investment projects.

Over time, the types of GEF Agencies have become increasingly diverse. Seven additional Agencies are now responsible for implementation and oversight. These agencies were chosen for to consolidate regional and specialized expertise within the GEF system and include regional development banks and specialized UN entities. In May 2011<sup>7</sup>, the network was further expanded through a pilot program allowing a number of new institutions to be accredited to serve as GEF Project Agencies, including civil society organizations, with the aim of enhancing country ownership by allowing recipient countries greater choice in choosing the GEF Agencies with which they will work.

"Execution" refers to the management and administration of the day-to-day activities of projects in accordance with specific project requirements in agreement with Implementing Agencies, and is carried out by entities that are referred to as Executing Agencies, and can include a range of organizations, including

 $<sup>^{\</sup>scriptscriptstyle 5}$  The GEF Web site

<sup>&</sup>lt;sup>6</sup> GEF (2013)

<sup>&</sup>lt;sup>7</sup> Broadening the GEF Partnership Under Paragraph 28 of the GEF Instrument

| Approved Urban Trar | nsport Projects b | y GEF Agencies | (1991-2012) |
|---------------------|-------------------|----------------|-------------|
|---------------------|-------------------|----------------|-------------|

|                 | # OF PROJECTS | GEF FINANCING<br>(\$ MILLIONS) | CO-FINANCING<br>(\$ MILLIONS) |
|-----------------|---------------|--------------------------------|-------------------------------|
| ADB             | 3             | 9.2                            | 276.4                         |
| IDB             | 1             | 3.4                            | 16.2                          |
| UNDP            | 19            | 84.8                           | 581.4                         |
| UNEP            | 8             | 16.8                           | 212.4                         |
| World Bank      | 18            | 152.9                          | 1,730                         |
| World Bank/UNDP | 1             | 25.4                           | 352.7                         |
| Total           | 50            | 292.5                          | 3169.1                        |

Source: Investing in Sustainable Transport and Urban Systems

governments, national institutions, international organizations, and local communities. These Agencies work closely with entities often referred to as project partners to execute projects.

### **Focal Points (Country Representatives)**

Each GEF member country has a designated government agency responsible for GEF activities, known as a GEF Focal Point, which ensures that GEF projects are country-driven and based on national priorities. Political Focal Points oversee GEF governance issues and policies within their constituencies. Operational Focal Points are involved at the project level as well as in project preparation and implementation.<sup>8</sup> Countries that are eligible for GEF funding designate Operational Focal Points, which later become responsible for the national endorsement of a grant proposal. Operational Focal Points also play an important role in the STAR allocation system.

# System for Transparent Allocation of Resources (STAR)

This system was adopted in 2009, and allows each country access to an indicative allocation of resources separated by Focal Area. The STAR methodology is a complex and sometimes opaque system, based on a set of criteria which includes a country's "potential" to achieve global environmental benefit, and a social/economic index based on GDP (GDPI).

As it is currently applied, the STAR allocation system does not facilitate transport interventions. Countries do have a say in how they will allocate GEF funds, and in principle, this is good. In practice, however, this can limit the way money is spent. Because funds are allocated at the beginning of a GEF cycle, budgets are also created at this time. In order for projects to be considered for GEF funding, organizations need to be engaged in budgetary discussions from the very start. Transport is often left out of this dialogue, because of the nature of implementing agencies, which is discussed in a later section.

### **GEF Projects**

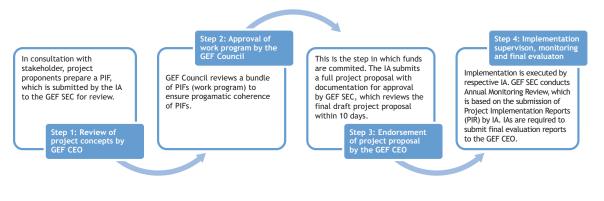
The GEF offers three types of financing:

- Small Grants Programme (SGP): Up to \$50,000 mostly for NGOs
- Medium-sized Projects (MSPs): Up to \$1 million; can be accessed by NGOs, government agencies, academic/research institutions, and other stakeholders.
- Full-sized Projects (FSPs): Projects receiving \$1 million or more, which undergo a more rigorous screening process. These are usually reserved for government agencies, but NGOs may submit proposals and to partner with governments. The majority of GEF transport projects have fallen under this category, with 29 full-sized projects. The remainder are MSPs.

### **The Project Cycle**

The GEF approval cycle is the framework within which projects are approved by the GEF to receive an allocation and/or commitment

<sup>&</sup>lt;sup>8</sup> Full list of political and operational focal points by country here: http://www.thegef.org/gef/focal\_points\_list

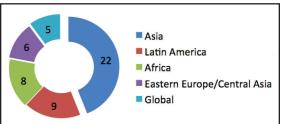


of funding. Most projects must go through all 4 steps of the project cycle, but the cycle is expedited for some projects, like MSPs. The approval process should take no more than 22 months. However, according to a report by Congressional Research Service, there is an average 66-month<sup>9</sup> lapse between the entry of a project into the pipeline and the start of implementation. Delays occur throughout the project pipeline, but those that impacted projects reviewed in this study mainly occurred in the beginning of the implementation phase.

### **GEF in the Transport Sector**

The GEF's initial programmatic commitment to sustainable transport was adopted as part of GEF-2 (1998-2002). As of July 2012, the GEF has approved funding for 50<sup>10</sup> sustainable transport projects, with US \$309 million allocated and an additional \$3.8 billion leveraged in co-financing.<sup>11</sup> Of these 50 projects, 22 were in Asia and the remainder spread across the rest of the world. Project documents indicate these transport projects have achieved a total aggregate direct GHG emissions reduction of 66.9 Mt CO2e, and an expected indirect reduction of 124.7 Mt CO<sub>2</sub>e since funding started in 1999.<sup>12</sup>

### Regional Distribution of GEF Sustainable Transport Portfolio (1991-2012)



The GEF groups its transport projects into three broad categories, and the core focus has evolved over time:

- Technology Solutions: Technology solutions focus improving the energy efficiency of engines and motor fuels. This was previously the main category getting funded in GEF 1 and 2.
- Urban Transport Systems: This is the main pillar of the GEF's current transport portfolio now, and which began to take shape GEF 4. These projects focus on transportation systems in the urban context with the aim to reduce travel by single-occupancy vehicles, and increase travel using more efficient, lower carbon modes, such as public transport, with better public rapid transit and NMT.
- Integrated Urban systems: With GEF 5, a shift to the integrative approach that began in GEF 4 was continued. This new investment strategy has only one project in the pipeline since January 2013 – the Green Energy Schemes for Low-Carbon City in Shanghai, China. The project has four components: 1) green buildings; 2) lowcarbon energy; 3) green transport; and 4) the integration of green energy schemes to achieve low-carbon objectives.

<sup>&</sup>lt;sup>9</sup> CRS Report (2010)

<sup>&</sup>lt;sup>10</sup>Of these 50, 4 contain components additional to urban transport.
<sup>11</sup>GEF (2013)

<sup>&</sup>lt;sup>12</sup>GEF (2013)

### Transport in GEF 2-5 (1999-2014)

Despite the rapidly increasing contribution of the transport sector to global emissions, it was one of the last major sectors to be considered for GEF funding under CCM. For many years, the GEF Secretariat was reluctant to fund transport projects because of the comparatively high costs and difficulties related to calculating the GHG impact of transport projects. The GEF's transport portfolio has grown over the years – it accounted for for 3% of investments for Climate Change projects during GEF-1 and GEF-2, increasing to roughly 20% percent planned for GEF-5.<sup>13</sup>

The Secretariat began funding transport projects in 1999, under GEF-2, with an initial focus on hydrogen and fuel cell programs, mostly in land transport and in urban areas. During GEF-3, grants were provided through Operational Programs (OPs) within each Focal Area. The GEF Council introduced Operational Program #11 – Promoting Environmentally Sustainable Transport (OP 11) in 2000. ITDP was instrumental in influencing the GEF to place a greater emphasis on NMT, public safety measures, and air quality management, and shifting focus from hydrogen cell vehicles under OP 11. As a result, GEF transport projects included an increasing proportion of institutional capacity building and outreach, with the aim of building more supporting environments to support sustainable transport systems.

Under OP 11, the GEF expanded its transport focus from technology solutions to include several other priorities, including:

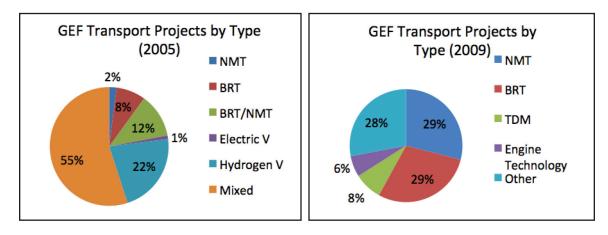
• Modal shifts toward more efficient and less polluting forms of public and freight

transport through measures such as traffic management and avoidance and increased use of cleaner fuels;

- NMT;
- Hybrid electric buses equipped with internal combustion engines; and
- Advanced technologies for converting biomass feedstock to liquid fuels.<sup>14</sup>

Despite these priorities, single-initiative hydrogen fuel cell bus demonstration projects continued to dominate GEF activities for the first few years of OP 11. These projects were largely unsuccessful, and the GEF was roundly criticized for choosing technological winners and imposing them on developing countries. Critics pointed out that unproven technologies are generally brought to scale in developed economies and exported to developing countries only after technologies have matured and costs have dropped.<sup>15</sup> In the second phase of OP 11, investment moved away from fuel cell projects, and focused on projects that would have a demonstrable impact on shifting trips to less energy-intensive modes.

The GEF's climate change mitigation strategy was revised under GEF-4 to focus primarily on six strategic programs, including "sustainable innovative systems for urban transport." This marked the beginning of a movement toward a "systems" approach. GEF-4 highlighted the "prevention of a modal shift to less environmentally friendly transport in developing countries" as the key issue facing transport-sector emissions growth. Subsequently, interventions during GEF-4 focused on modal shifts to lower carbon modes, BRT, and NMT. At the beginning of GEF-4, hydrogen fuel



<sup>13</sup>According to the GEF SEC, the GEF invested \$30 million in GEF-2, compared to \$126 million in GEF-5.
 <sup>14</sup>OP -11(2001)

#### <sup>15</sup>Sperling (2006)

cell projects accounted for roughly a quarter of programmed/expected expenditures, compared with the end of GEF-4, by which time they accounted for less than 6%.

It took the first decade of GEF funding to get to this point, where effective and transformative projects are being chosen and implemented with some degree of success, and the level of funding is appropriate to the impact of the transport sector on GHG emissions. As of 2009 (the end of GEF-4), 29% of GEF transport projects involved BRT systems or some form of transit system priority or restructuring. Another 29% focused on some form of NMT; 28% on 'other' activities, including capacity building, land use programs, awareness raising, policymaking, freight and bicycle manufacturing; and 8% on travel demand management (TDM) measures.<sup>16</sup>

Transport activities in GEF-5 (2010-2014) continue to move toward the comprehensive approaches to achieving emissions reductions from the transport sector initiated in GEF-4. This is detailed in Strategic Objective 4 of GEF-5's climate change mitigation strategy, which aims to "promote energy efficient, low-carbon transport and urban systems."<sup>17</sup> This is one of six targeted objectives prioritized as part of GEF-5's CCM strategy and was allocated \$250 million—20% of the CCM budget and 6% of total GEF-5 funds.18 The GEF aimed for 20-30 cities to adopt low-carbon programs and \$1.2 billion in investments to be mobilized. Total funds have not yet been programmed - approximately 30% of the budget allocated for transport/urban systems has been programmed as of March 2013.<sup>19</sup> Countries are able to submit proposals at any time during a GEF funding cycle. Although money is budgeted early on, according to the GEF SEC, sometimes projects are submitted in the final year of a funding cycle. Additionally, countries are allowed flexibility to program GEF resources across different objectives, based on national priorities, which vary from country to country. Many countries appear to favor energy projects more than transport projects. This appears to be a function of which agencies find a place to participate in the STAR system that guides sectoral budget allocations.

GEF-4 was the pinnacle in terms of getting projects funded and moved through the pipe-

| CYCLE                     | # OF<br>PROJECTS | GEF<br>FINANCING<br>(\$ MILLIONS) | CO-FINANCING<br>(\$ MILLIONS) | PERCENTAGE OF TOTAL COST<br>COVERED BY CO-FINANCING |
|---------------------------|------------------|-----------------------------------|-------------------------------|---|
| GEF Pilot (1991-1994)     | 2                | 9.0                               | 2.0                           | 6%  |
| GEF-1 (1994-1998)         | 0                | 0                                 | 0                             | •   |
| GEF-2 (1998-2002)         | 6                | 30.4                              | 28.3                          | 47%   |
| GEF-3 (2002-2006)         | 13               | 88.9                              | 847.5                         | 91%   |
| GEF-4 (2006-2010)         | 20               | 111.3                             | 1571.4                        | 93%   |
| GEF-5 (2010-2014) FY 2011 | 1                | 20.0                              | 88.3                          | •   |
| GEF-5 FY 2012             | 4                | 20.4                              | 365.1                         | •   |
| GEF-5 FY 2013             | 6                | 29.6                              | 951.6                         | •   |
| Total GEF-5* 2011-2013    | 11               | 70.0                              | 1,405                         | 96%   |
| Total                     | 52               | 309.6                             | 3,854.2                       | 93%   |

#### Financing of GEF Urban Transport Projects

Source: Investing in Sustainable Transport and Urban Systems: the GEF Experience

\* GEF-5 is not yet over

<sup>16</sup>GEF (2010)

<sup>17</sup>GEF-5 Programming Document, p.20 [74]

<sup>18</sup>GEF-5 Programming Document, p.22 [78]

<sup>19</sup>GEF-6 Draft Strategic Positioning p.18

### Climate Change Mitigation Projects GEF 1-5

|   | TOTAL<br>FINANCING,<br>GEF 1-5/ \$MLN | CO-FINANCING,<br>GEF 1-5/ \$ MLN | TOTAL  | TOTAL PROJECTS/<br>AVERAGE GEF<br>INVESTMENT<br>PER PROJECT | AVERAGE CO-FINANCING<br>PER PROJECT/<br>CO-FINANCING RATIO | % OF TOTAL<br>COST<br>COVERED BY<br>CO-FINANCING |
|---|---------------------------------------|----------------------------------|--------|---|--|--|
| Technology transfer/<br>low-carbon technologies | 586                                   | 2,242                            | 2,828  | 55/\$10.6m  | \$41m/1:3.84   | 79%  |
| Energy efficiency                               | 1,124                                 | 8,985                            | 10,108 | 185/\$6m  | \$48.6m/1:8  | 89%  |
| Renewalbe Energy                                | 990                                   | 7,112                            | 8,102  | 205/\$4.8m  | \$35m/1:7  | 88%  |
| Transport/Urban                                 | 310                                   | 3,854                            | 4,164  | 52/\$5.9m   | \$74m/1:12   | 93%  |
| LULUCF  | 154                                   | 852                              | 1,007  | 34/\$5m   | \$25m/1:5  | 85%  |
| LULUCF & SFM/REDD+                              | 288                                   | 1,336                            | 1,624  | 30/ <b>\$9.</b> 6m  | \$44m/1:5  | 82%  |
| Mixed   | 296                                   | 2,419                            | 2,715  | 56/\$5.3m   | \$43/1:8   | 89%  |
| Small Grants Program                            | 207                                   | 79                               | 286    | 12/\$17m  | \$6.5m/-   | 27%  |
| Others  | 79                                    | 201                              | 279    | 10/\$7.9m   | \$20m/1:3  | 72%  |

Source: Data taken from GEF Report to the 19th session of the Conference of the Parties of the UNFCCC

line. As it stands currently, about half as many transport projects as will be funded in GEF-5 than were funded in GEF-4. The co-financing rate of transport projects has consistently increased, which indicates that GEF transport projects are able to leverage more and more financing from outside sources. During the pilot phase, co-financing covered 6% of total project costs. This figure surpassed 90% in GEF-3 and continues to remain at over 90%. While this is generally a positive development, high co-financing requirements for transport projects implies that only financial institutions or entities that have their own funds can implement transport projects.

### **Proposed GEF-6 Strategy**

In order to more effectively respond complex environmental challenges, which are inter-disciplinary and cross-sectoral by nature, the GEF's proposed strategy has gradually shifted from being siloed within Focal Areas toward an integrative and programmatic approach in GEF-6, with 40% of GEF projects cutting across multiple Focal Areas. <sup>20</sup> Prior to GEF-4, strategies were articulated by solely by focal area and drew closely on the Conventions that it was created to finance; however the GEF SEC has expressed an interest in continuing to build on inter-linkages between Focal Areas.

The proposed GEF-6 strategy released in March 2013 continues this trajectory by focusing on integrative strategies at the urban and regional levels. Subsequently, instead of sector-specific targets, there are cross cutting programs. Transport is only articulated as part of a larger "urban systems" program in the new proposed strategy, which integrates the transport, energy, water, waste, and housing sectors.

The GEF SEC has proposed three broad strategic objectives for GEF-6 addressing 1) technology transfer; 2) systemic impacts; and 3) fostering enabling conditions, through five key programs categorized by objective.<sup>21</sup> Various references are made to sustainable transport within the draft strategy, particularly within the first program of the first objective which aims to "promote the timely development, demonstration, and financing of low-carbon technologies and policies." The draft does emphasize that transport urgently requires the "timely development, demonstration, and financing of low-carbon systems and supportive policies, given the rapid increase of GHG

<sup>20</sup>US Treasury Dialogue, 2013

<sup>&</sup>lt;sup>21</sup>GEF-6 draft Programming Directions p.41-55

| STRATEGIC OBJECTIVE  | PROGRAM   |  |  |
|--|---|--|--|
| 1) Promote innovation and technology transfer                      | Program 1) Promote the timely development, demonstration, and<br>financing of low-carbon technologies and policies<br>Program 2) Develop and demonstrate innovative policy packages and<br>market initiatives to foster a new range of mitigation actions |  |  |
| 2) Demonstrate systemic impacts of<br>mitigation options           | Program 1) Promote integrated low-carbon urban systems<br>Program 2) Promote conservation and enhancement of carbon stocks<br>in forest and other land-use, and support climate smart agriculture   |  |  |
| 3) Foster enabling conditions to<br>mainstream mitigation concerns | Program 1) Integrate findings of Convention obligations and enabling activities into national planning processes and mitigation targets   |  |  |

emissions from transport sources in developing countries."<sup>22</sup> The role of transport in promoting the integration of low-carbon urban systems, is also highlighted.

### The GEF and Transport: A Mutually Beneficial Relationship

Within the context of the commitment made at the June 2012 Rio+20 Sustainable Development Conference by the 8 largest MDBs to invest US \$175 billion over 10 years in more sustainable transport, the GEF now has vastly increased opportunity to leverage investments in this vital sector. The MDB pledge is for transport lending, and GEF support can play a crucial role in contributing to the operationalization of this commitment.

While many of these MDBs have adopted sustainable transport policies and initiatives that are moving in the right direction, the current state and pipeline of projects in these 8 MDBs still does not fully reflect this progress. To accelerate the transformation of MDB transport lending, developing institutional capacity and long-term planning in developing countries is critical. The GEF is ideally positioned to play a vital role in partnering with the MDBs and wider transport community to expand the pipeline of financeable sustainable transport projects, increasing the chances that the MDBs are able to successfully realize their pledge. Such a partnership could potentially leverage large amounts of money that MDBs would then be able to mobilize. Additionally, the GEF can more nimbly seize opportunity than larger bureaucratic institutions and help lower the risk for investment by both national

and multinational funders.

The GEF is not the only source of funding for transport projects, and overall accounts for a very small proportion of total global spending on transport. However, it is a critical source of climate finance because other instruments, such as the Clean Development Mechanism (CDM), require mitigation quantification methodologies that are generally too complex to apply to transport projects. The GEF process also engages UN agencies, and soon will engage other civil society participants. By working with these types of institutions, the GEF can provide an important complement to the efforts of MDBs and fill important financing gaps for innovative pilot projects in developing countries.

Sustainable transport is a critical component in sustainable development, and can at once address rapid motorization in developing countries and related emissions. GEF money is crucial because it creates opportunities to mainstream sustainable transport concepts in developing countries, where critical infrastructure does not yet exist. It can spur investment in the right infrastructure to promote more sustainable modes and prevent the negative lock-in effects of automobile-oriented development. The GEF also fills an important funding gap for projects originating from cities and countries that are prepared to implement transport investments with their own funds but lack sector-specific expertise and require international input. For these reasons, it is very important that the GEF continues to build its transport portfolio.

<sup>&</sup>lt;sup>22</sup>GEF-6 draft Programming Directions, p.49 [34]

### Case Studies Methodology

This study was compiled through interviews with 20 stakeholders at various levels within the GEF, GEF agencies, and local partners who were directly involved in project implementation. Data was also collected from project documents, academic research, and media reports. A broad analysis was conducted on the GEF transport portfolio, as well as an in-depth review of four projects that varied in size, scope, and geographic location.

The cases were selected with the aim of representing two of the original Implementing Agencies involved in transport projects and analyzing the short-term impact of two types of projects: one multiple city and one single city project each. These case studies shed light on primary factors that impact a project positively or negatively, which are meant to illuminate lessons learned and used as a basis in forming set of recommendations.

Two larger multi-city projects were chosen – one single country project administered across 19 municipalities in China, implemented by the World Bank; and one mid-sized multi-country project coordinated across Guatemala City, Guatemala; and Concepcion, Chile; implemented by the UNEP. Additionally, two single city projects were selected – one in Jakarta, Indonesia, implemented by UNEP; and the other in Lima, Peru; implemented by the World Bank. As these projects are in varying phases of implementation, it is difficult to fully evaluate long-term impacts. This review attempts to offer some insight on these projects that may serve as guidance for similar ongoing or future projects.

The purpose of this paper is not to provide a comprehensive review of GEF projects or a framework against which GEF projects can be judged as successful or unsuccessful. Rather, this study hopes to offer insights on recurring problem areas and opportunities for improvement, while highlighting successes that may not have been captured within existing project evaluation frameworks. These case studies present evidence that, while the jury is still out on long-term impact and outcomes, small successes have been achieved and do offer value.

### **GEF-World Bank China Urban Transport Partnership Program (CUTPP)**<sup>23</sup>

### **CUTPP Project Information**

Country: People's Republic Of China

Implementing Agency: World Bank

**Executing Agency:** Ministry Of Finance, Later Changed To The Ndrc

**Project Partners:** Deutsche Gesellschaft Fur International Zusammenarbeit (Gtz); Energy Foundation; Cai Asia

Project Grant: \$21 Million

Co-Financing: \$585.75 Million (Prc Government, Local Agencies)

Pipeline Entry Date: January 2005

Implementation Dates: June 2008- 2012 – Extended For Two Years To June 2014

Current Disbursement Status: 27% (June 2013)

Status: Ongoing

#### Background

CUTPP is the largest GEF transport project in China, with one of largest number of pilot cities. It is a multi-city project spanning fourteen pilot cities and one province (five localities). Following a lengthy restructuring, the project was extended two years, with an expected closing date of June 2014.

Initially, the Bank had suggested a maximum of five cities be chosen as pilots, citing difficulty in managing projects substantially larger than this based on previous experiences implementing similar projects around the world. The cities were chosen through a competitive process, which the Chinese government referred to as a "Beauty Contest", through which bids were submitted by potential pilot cities to the Ministry of Finance (MoF), which is not a transport agency, nor an agency with experience in urban issues. There is a certain level of prestige and recognition granted to Chinese cities that are chosen to participate in an internationally funded project through such a highly publicized national competitive process. The MoF was overwhelmed by the level of interest that the initial stages of the project generated, and wanted to publicize the project as much as possible. As a result,

the project was ultimately approved to include nineteen pilots, pushed by the MoF, with the Bank claiming to have little control over the final outcome.

Although the magnitude of the project generated media coverage and subsequently raised public awareness of sustainable transport, the project became too large for the national Project Management Office (PMO) to manage and coordinate. The only larger existing GEF transport project is the Sustainable Urban Transport Project in India, funded with a GEF grant of \$23.75 million – roughly \$2 million greater than the CUTPP project, disbursed among only five pilot cities.

Monitoring and evaluation of both national and pilot-city initiatives are the responsibility of the PMO, originally lead by the MoF's International Department. The PMO is fully responsible for overseeing inter-agency coordination and implementation. Project oversight was initially assigned to the Ministry of Finance (MoF), which was ill equipped to adequately manage or implement infrastructure projects, but was the only institution able to disburse grant funds to the local level within the Chinese financial system. The MoF was shortstaffed and had no transport specific expertise. At the time, the Chinese government was undergoing restructuring - urban transport issues were being transferred from the Ministry of Construction (MoC) to the Ministry of Transport (MoT), but institutional jurisdiction was unclear, as both ministries were overseeing different types of transport matters, and there was little coordination or cooperation between the two. The project was ultimately placed under the oversight of the National Development and Reform Commission (NDRC), a national agency which coordinates a variety of economic development policies and strategies.

This project has been ongoing for over four years, and a website has been created to showcase its accomplishments, yet there is very little documentation or content of any kind showing accomplishments. The creation of a Web site

<sup>&</sup>lt;sup>23</sup>All information was taken from the official project documents of the China Urban Transport Partnership Program.

| COMPONENT/TASK  | GEF FINANCING<br>(\$MLN) | GOV. CO-FINANCING<br>(\$MLN) | TOTAL<br>(\$ MLN) |
|---|--------------------------|------------------------------|-------------------|
| Component 1: Strategy Development and Capacity Building at the National Level         | 7.75 (61%)               | 5.00 (39%)                   | 12.75             |
| Component 2: Pilot demonstrations in 14 cities and 1 province: Demonstration Projects | 13.0 (2%)                | 560.13* (98%)                | 573.13            |
| Component 3: Project Management   | .25 (20%)                | 1.00 (80%)                   | 1.25              |
| Total   | 21.0 (4%)                | 566.13 (96%)                 | 587.13            |

\*City-level financing

#### **KEY INDICATORS**

| INDICATOR   | CURRENT STATUS<br>(JUNE 2013)  | END TARGET   |
|---|--|--|
| 1. # of non-pilot cities show demonstrable interest in<br>implementing investments/plans that promote public<br>transport and NMT; 10 cities demonstrate measurable<br>progress toward it | 50   | 25   |
| 2. CO2 emissions over 10 years in pilot cities lower than BAU forecasts   | No data  | at least 1 million<br>tons lower                               |
| 3. Daily person trips made by public transport, walking<br>or cycling over 10 years in pilot cities more than BAU<br>forecasts  | No data  | 5% higher than<br>BAU forecast                                 |
| 4. National sustainable urban transport framework and associated guidelines developed and issued  | In progress – a national plan<br>has been developed  | National adoption  |
| 5. National sustainable urban transport training curriculum prepared, tested, delivered   | In progress – draft completed  | 3 training courses<br>with at least 20<br>cities participating |
| 6. # of cities use updated technical guidelines, manu-<br>als, and standards in designing 12th 5-year masterplan<br>updates, other plans and transport projects                           | 30 cities – policy guidelines for<br>NMT/bus priorities developed<br>using counterpart funds   | 30 cities  |
| 7. # of cities implement transport development<br>programs that include: 1) BRT development; and/or 2)<br>integration of public and NMT facilities  | 20 cities – 7mentioned in Oct. 2012<br>ISR: Jinan, Zhengzhou, Chongqing,<br>Guangzhou <sup>24</sup> , Urumqi, Liaoyang,<br>Changhzhi | 8 cities   |
| 8. # of cities introduce automobile demand management   | 1 – Guangzhou  | 1  |
| 9. # of cities commit to introducing transit-oriented land use development  | 5 – Zhengzhou and Nanchang   | 1  |
| 10. A national sustainable urban transport knowledge system is established  | A Web site has been created  | -  |

<sup>&</sup>lt;sup>24</sup>A This project has been credited with involvement in the Guangzhou BRT system, yet based on in-depth discussion with individuals who spearheaded that project, the CUTPP was uninvolved in the project planning, design, or execution. The GEF project funded delegations to see the BRT project after it opened.

#### **OVERALL RATINGS**

| CRITERIA                            | IMPLEMENTING AGENCY RATING |
|-------------------------------------|----------------------------|
| Overall Implementation Progress     | Moderately Satisfactory    |
| Progress towards achievement of GEO | Moderately Satisfactory    |

for the project is a key project deliverable that is listed as achieved. However, although this Web site exists, it is virtually empty and has not been updated since 2011. Implementation status reports (ISRs) are very brief and offer little information, and no mid-term evaluation is available, despite being a key deliverable. Where reporting is available, it is difficult to decipher the achievements of this project because the language used in the ISRs is vague. For example, the first key indicator intends to measure the number non-pilot cities which show "demonstrable" interest in implementing investments/ plans that promote public transport and NMT. It is unclear what constitutes "demonstrable." This activity was assessed as achieved by the World Bank, with the justification "over the last 4.5 years, an increasing number of cities have implemented BRT and NMT, according to mass media." No further details are offered. The importance of a transparent and well documented project to replication efforts is discussed in a later section.

Sources have conveyed that a number of achievements have been made, such as awareness raising, outreach, and knowledge sharing. According to Bank staff, this project fundamentally changed the nature of the relationship between China and the World Bank, in terms of the scope of loans and how urban transport is conceptualized at the national level in China. Prior to this project, the NDRC was mainly submitting project proposals for the construction of urban highways and roads to the Bank. The aim of this project was to create a pipeline of catalytic sustainable transport projects in suitable cities with official endorsement that would create an environment which would foster follow-up investment in similar types of projects. Bank loans now finance follow-on investments in sustainable transport in at least four CUTPP pilot cities. The project has also produced a TOR for development of a National Urban Transport Strategy by mid-2014.

### **Project Overview**

This project is under implementation and there was no mid-term evaluation available. The original project documents indicate a number of M&E activities, including performance indicators for each pilot project, and the standardization of guidelines for data collection and reporting. No such data is available on either the World Bank or GEF Web sites.

The project has two broad objectives:

- 1. Project Development Objective: To achieve a paradigm shift in China's urban transport policies and investments toward the promotion of public and non-motorized transport and modes that are less energy intensive than those fostered by current urban land-use planning and transport systems in China.
- 2. Global Environment Objective (GEO): Slow the forecast growth of urban transport GHG emissions in China's cities.

According to the most recent implementation status report (ISR) from June 2013, total disbursement for this project was at 27%, with only \$5.6 million of the \$21 million budget dispersed.

### **GEF-UNEP Promoting Environmentally Sustainable Transport in Latin America Project (PSTLA/NESTLAC)**

### **PSTLA/NESTLAC** Project Information<sup>25</sup>

**Countries:** Chile, Guatemala, Panama (Later Withdrawn)

### Implementing Agency: Unep

**Executing Agencies:** Guatemala City: Municipality Of Guatemala City Department Of Urban Mobility (Munigate); Concepcion: Undersecretariat Of Transport (Subtrans) Of The National Government Of Chile/Inter-Ministerial Secretariat Of Transport Planning For The Southern Region (Sectra Sur); Panama City: Transit And Road Transport Authority Of Panama (Attt)

Gef Project Grant: \$960,750

Co-Financing: \$1.42 Million

Pipeline Entry Date: January 2005

Implementation Dates: May 2006-December 2009

Status: Completed

### Background

This was a medium-sized multi-country, multi-city project conducted across two cities in two countries: Guatemala City, Guatemala; and Concepcion, Chile. Three cities were originally selected, but Panama City, Panama was ultimately withdrawn from the project due to a lack of support from the Panamanian govern-

ment, which was described as uncommitted by those involved. This project attempted to address severe air pollution, explosive growth in automobile demand, and a myriad of public safety issues; through three demonstration projects - one in each of the original cities that would improve mobility and reduce greenhouse gas emissions, focusing on BRT, bus regulation and planning (BRP), and NMT. This project offers lessons on how a project with a scope larger than a single city or municipality is managed and coordinated across national borders. The failure in Panama City was attributed to a lack of support from key managers on the national side overseeing transport planning issues who did not prioritize the project, possibly due to conflicting priorities involving more funding than what this GEF grant provided. This provides an interesting case study on how important political support and local buy in is to the successful implementation of projects.

This project is described as successful by interviewees, but was rated in the evaluation as Moderately Unsatisfactory by UNEP, the IA. The project failed to achieve a number of components written into the project design, despite having contributed to a number of other initiatives in these cities, including a project that was later submitted as a CDM project. This indicates a lack of flexibility in the GEF evalu-

| COMPONENT/TASKS   | GEF FINANCING<br>PLANNED/ACTUAL<br>(\$ THOUSANDS) | GOV. CO-FINANCING | TOTAL<br>PLANNED/ACTUAL/ % OF ORIGINAL<br>APPRAISAL |
|---|---|-------------------|---|
| Component 1: Joint<br>Activities (initial meeting<br>and workshops) | 80,000/12,762                                     | 15,000            | 95,000/27,762/29                                    |
| Component 2:<br>Guatemala City BRT                                  | 250,000/147,324                                   | 25,000            | 275,000/172,324/63%                                 |
| Component 3:<br>Conception NMT                                      | 240,000/230,619                                   | 25,000            | 265,000/255,619/96%                                 |
| Component 4:<br>Concepcion BRP                                      | 200,000/173,784                                   | 25,000            | 225,000/198,784/88%                                 |
| Total   | 960,750/733,377                                   | 90,000            | 1.05mln/823,377/78%                                 |

<sup>25</sup> All information was taken from official NESTLAC project documents.

**KEY INDICATORS** 

| COMPONENT  | INDICATOR TARGET  | STATUS/OUTCOME   |
|--|---|--|
| 1. Joint activities:<br>Training/workshops<br>aimed at regional<br>decision makers | Capacity building, including 3<br>Training/workshop; 3 planning/<br>implementation guidelines for<br>project programs   | Achieved   |
| 2. Guatemala City BRT  | Detailed BRT plans, including<br>doing 14 studies to assist in the<br>implementation of a new line of<br>Transmetro BRT   | Achieved. 13 studies conducted. *The planned<br>BRT line of the Eje Occidente Transmetro was<br>not implemented. In its place, another line of<br>the network was constructed – the "Central<br>Corridor." This line made partial use of the<br>transit, environmental impact, and social com-<br>munications studies originally intended for the<br>Eje Occidente line.   |
| 3. Concepcion NMT  | Increased cycling, by doing 5<br>studies for execution of bike<br>promotion campaign  | Achieved – 30% increase in bike sales, which<br>attracted the attention of the national govern-<br>ment and was a key part of the submission of<br>a bill that seeks to promote the use of bikes as<br>a means of transport. The current government<br>has proposed the implementation of the Bike<br>Lanes and Paths Master Plan in major Chilean<br>cities, which it expects will double the number<br>of cyclists by 2014. Additionally, requests for<br>permits to conduct activities relating to cycling<br>have increased 25%. |
| 4. Concepcion BRP  | Increase efficiency of regular bus<br>services by doing 8 studies for<br>implementation of integrated fare<br>collection system, fleet manage-<br>ment, and geo-spatial information<br>for use by city officials. | Achieved – Studies are being used to prepare<br>the new guidelines for the concession of<br>buses. The tender process has not begun, and<br>no mobility improvements resulted from this<br>project. The studies were conducted in a way<br>that could be used as a reference case for other<br>Chilean cities.<br>*Despite activities under this component being<br>achieved, the BRP system has not yet been<br>implemented.  |

### **OVERALL RATINGS**

| CRITERIA                                     | UNEP EVALUATION SUMMARY   | UNEP RATING               |
|--|---|---------------------------|
| Attainment of project objectives and results | Products were completed on time;<br>expected results were achieved<br>in part; only one of three planned<br>demonstration projects was fully<br>implemented | Moderately Unsatisfactory |
| Catalytic Role                               | Positive political/institutional/behav-<br>ioral changes; no full replications  | Moderately Satisfactory   |
| Achievement of outputs and activities        | Only one of expected products was not completed.  | Moderately Satisfactory   |
| Monitoring and Evaluation                    | Project monitoring was removed from<br>the project and uniform control of<br>project progress was not maintained.   | Moderately Unsatisfactory |

ation process in accounting for different types of successes that grants often help generate. Under current evaluation schemes, it is difficult to fully account for successes outside of preconceived indicators. Although all activities were completed in a timely manner, expected results were only achieved in part. Some of the deliverables included studies, and while the studies were completed and delivered, the actual pilot demonstration never came to fruition- only one of three planned demonstration projects was fully implemented. In the second component, the studies were intended to guide the construction of a second BRT line, the Eje Occidente line, which was never built due to opposition from local interest groups. Another line, the Central Corridor, was built in its place, which was eventually submitted as a CDM project.

Studies developed as a result of this project, including an environmental impact assessment, were used to formulate the GHG emissions baseline for the Central Corridor CDM project. The planned BRP project in Concepcion under this project's fourth component was not implemented, but the studies are being used to prepare new guidelines for the concession of buses. No improvements in mobility were reported as a result of this project, and the tender process has not yet commenced. Despite this, the studies could serve as a reference case for similar projects in other Chilean cities.

Several issues were highlighted in this case. Firstly, administrative procedures in transport project development tend to be long and complex and often hinder project progress, and this case is no exception. Because this was not factored into project design, there were substantial delays and timelines of deliverables were not upheld. Additionally, time allocated for projects was spent largely on studies, leaving little time for implementation. This limited replication of project experiences, which was one of the project's main objectives. Lastly, the time between project completion and final evaluation was too short, and did not allow ample time to fully evaluate project results.

### **GEF-World Bank Lima Urban Transport Project**<sup>26</sup>

### Country: Peru

Implementing Agency: World Bank

**Executing Agency:** Fondo Nacional Del Ambiante (Fonam); Protransporte, Municipality Of Metropolitan Lima (Mml)

Gef Project Grant: \$7.9 Million

Co-Financing: \$126 Million

Pipeline Entry Date: May 2001

Implementation Dates: May 2004 -June 2010

Status: Completed

#### Background

This is a full-sized single-city project that is considered a successful project, receiving an overall rating of Satisfactory from the World Bank, and credited with opening the dialogue for the subsequent implementation of the BRT system. Peru's National Environment Fund (FONAM), and also the GEF focal point, was designated to execute the project. Despite FONAM being assessed as a good institution for environmental protection by the World Bank, it lacked sector specific knowledge and experience.

This particular project was meant to complement a World Bank loan, but the grant and the loan were not managed as one project, which resulted in supervision issues. There were two task managers, and many missions took place at different times. After the city decided that bus scrapping would be unsuitable for Lima, mostly due to high costs, World Bank staff attempted to reallocate funds from this component toward sustainable transport approaches in other Peruvian cities. The funds originally intended for the bus scrapping component – some \$2 million—went unused for two years while Bank staff waited for approval from the World Bank GEF Coordinator. This case is further discussed in the Lessons Learned section.

Management and staff retention issues were cited as key factors that affected this project both positively and negatively. While FONAM did have some very committed staff that had a very positive impact on the project overall, talent was inconsistent and turnover was relatively high. A key manager in this project was terminated due to personality conflict with city leadership, despite being described as extraordinarily committed and exceptionally talented by nearly everyone involved with the project. There also seemed to be a lack of technical expertise in the office of the World Bank GEF coordinator, made worse by bureaucratic red tape that prevented the project from responding to changing realities on the ground.

### **Project Overview**

This was a single-city investment coordinated across two large and contiguous provincial municipalities of Lima and Callao. The project complemented the Lima Transport project, which was co-financed by the World Bank and the Inter-American Development Bank and funded the construction of the Metropolitano BRT in Lima.

The project's main development objective was to facilitate GHG reductions from ground transport in Lima and Callao through the

| COMPONENT/TASK  | GEF FINANCING<br>(\$ MLN) ACTUAL/ORIGINAL/<br>% OF ORIGINAL APPRAISAL |
|---|---|
| Component 1: Rationalization of Public Transport Fleet  | 1.55/1.7/81%  |
| Component 2: Rehabilitation and Expansion of the Lima-<br>Callao Bikeway                                | 4.06/4.180/97%  |
| Component 3: Institutional Strengthening  | 0.98/1.1/89%  |
| Component 4: Management, Monitoring and Evaluation (M&E), Replication Strategy and Administrative Costs | 1.05/1/99%  |

<sup>&</sup>lt;sup>26</sup> All information was taken from official documents of the Lima Urban transport project.

#### **KEY INDICATORS**

| INDICATOR  | TARGET   | STATUS   |
|--|--|--|
| 1. Kilometers of bikeway rehabilitation  | 32.5 km  | Achieved - 32.2 km   |
| <ol> <li>Km of bikeways extended to connect<br/>two main university campuses to existing<br/>bikeway network</li> </ol>  | 6.1  | Exceeded - 6.45 km   |
| 3. % increase in bicycle trips in the<br>Project-financed bikeway  | 100%   | Not achieved - 4% (In comparison to the baseline)  |
| 4. Provincial/district municipalities/<br>FONAM have benefitted from institutional<br>strengthening component  | 5 provincial, 3 district<br>municipalities,<br>FONAM | Exceeded - 6 provincial, 39 district municipalities, FONAM, others                                     |
| 5. # of people among local authorities,<br>civil servants, community leaders, civil<br>society groups and the general popula-<br>tion informed about sustainable transport<br>options and their impact on air quality,<br>GHG emissions, and the environment in<br>general | 3,000  | Exceeded – 3,220 (including 2,797<br>participants in conferences and 423<br>people trained in courses) |
| 6. Study to consolidate the integrated<br>public transport system in Metropolitan<br>Lima considered satisfactory by PRO-<br>TRANSPORTE/Bank   | 100  | Achieved - Satisfactory  |
| 7. # of PROTRANSPORTE staff trained in<br>areas related to public transport (partici-<br>pation in the study and formal training<br>through the study)   | 3  | Exceeded – 21 (of which 7 received on the job training)  |

### **OVERALL RATINGS**

| CRITERIA                    | EVALUATION SUMMARY  | WORLD BANK RATING       |
|-----------------------------|---|-------------------------|
| Achievement of Outcomes     | Only one of expected products was not completed.  | Satisfactory            |
| Achievement of GEO Outcomes | Project monitoring was removed from<br>the project and uniform control of project<br>progress was not maintained. | Moderately Satisfactory |

promotion of a long-term modal shift to more efficient and less polluting forms of transport, including NMT and BRT. The project underwent restructuring, after bus scrapping was deemed unachievable and/or unsuited for Lima. The original components were:The first component was revised from Public Transport Fleet Rationalization (bus scrapping) to the Development of a Public Transport Strategy, a study that aimed at integrating the BRT, other bus services, and a metro line which was then under construction. In addition to this revision, the project was extended for 12 months to close on June 10, 2010.

### **GEF-UNEP Bus Rapid Transit and Pedestrian Improvements in Jakarta**<sup>27</sup>

### Country: Indonesia

Implementing Agency: Unep

**Executing Agency:** Institute For Transport And Development Policy (Itdp)

**Project Partners:** Dki Jakarta Government, Yogyakarta Provincial And Municipal Government, Batam Municipal Government, Palembang Municipal Government, Makassar Municipal Government

Gef Project Grant: \$5.8 Million

Co-Financing: \$187.98 Million

Pipeline Entry Date: December 2005

**Implementation Dates:** December 2006-December 2011 (Extended To December 2012)

Status: Completed

### Background

This project was a full-sized single-city project. It had a targeted focus in which a GEF grant was used to improve existing infrastructure. Due to the existing investments already made in the Jakarta busway, GEF funds were used to cover the marginal cost of improving this system to obtain further GHG emission reduction benefits. ITDP was contracted as the Executing Agency.

In January 2004, Jakarta opened Asia's first BRT system. Governor Sutiyoso showed strong political will and commitment by planning and implementing the system in about 18 months and continuing to expand quickly until 2007, which is remarkably fast. This GEF project was meant to provide technical assistance to the government in doing so. By the time the

| COMPONENT/TASK  | RESULT  |
|---|---|
| Objective 1: Develop BRT<br>Corridors 4-14  | Routes for corridors 7-14 are located so as to maximize potential for long-term demand at lowest system cost.   |
| Objective 2: Optimize Fare<br>System for Corridors 1-14   | Station design for corridors will better match passenger demand and improve customer experience. Jakarta will be able to negotiate more favor-able payment contracts to bus operators.                    |
| Objective 3: Improve Intersection<br>Performance for BRT  | Improvement of BRT flow at critical intersections results in higher BRT average speed.  |
| Objective 4: Optimize Busway<br>Operation   | Improved operation of BRT reduces travel time for passengers. Reduced travel time relative to other modes will lead to increased ridership on BRT.  |
| Objective 5: Improve public perception of BRT   | Improved information on how to use the BRT, and the benefits to Jakarta of the BRT.   |
| Objective 6: Rationalize Non-BRT<br>Bus Routes  | Improved routing of non-BRT buses increase several passenger load level, and maximizes use of BRT for trunk service.  |
| Objective 7: Evaluate and Imple-<br>ment Transport Demand Manage-<br>ment Measures to Reduce Private<br>Motor Vehicle Use | Congestion pricing scheme implemented in central Jakarta.   |
| Objective 8: Improve Pedestrian,<br>NMT Facilities and Land Use in<br>Center and Along Corridors                          | Pedestrian area implemented near Kota station and at 1 other location<br>near the BRT. Pedestrian improvements continue near all BRT stations. 10<br>BRT stations have secure bicycle parking facilities. |
| Objective 9: Dissemination and<br>Outreach to Other Cities  | 10 km of pedestrian way improvements. 10 km of bike routes. Traffic cell or other NMT priority implemented at 1 university.   |

<sup>27</sup> All information was taken from official project documents .

| INDICATOR   | TARGET  | STATUS               |
|---|---|----------------------|
| 1. BRT implemented on corridors 4-14 with routes optimized  | 600,000 additional BRT Passenger Trips per day  | Not yet<br>available |
| 2. Integrated fare system with controls stops fare<br>leakage. Competitive contracting implemented for<br>BRT bus operation, reducing costs   | 105,000 additional BRT passengers<br>per day  | Not yet<br>available |
| 3. Intersection conflicts reduced to acceptable<br>levels. BRT average speed increases to 25km/hr;<br>improved political support for BRT by reducing<br>impacts on mixed traffic  | 5km/hr BRT average speed increase<br>hBRT Passengers increases by<br>118,000/day  | Not yet<br>available |
| 4. Increased average speed of BRT, 5% reduction<br>of fleet downtime, reduced operating costs; 8%<br>reduction in fuel consumption  | average speed of BRT improves from 25<br>to 28 km/hour<br>133,000 additional BRT passengers/day   | Not yet<br>available |
| 5. Public understanding of BRT and optimal use of public road space increased. Web and SMS based routing information system available to potential passengers.  | 96,000 additional BRT passengers/day  | Not yet<br>available |
| 6. Increase of passenger from bus feeder system<br>from 5% to13% of BRT passengers; of which 32 %<br>are new passengers and 32 % shifted from PMV<br>feeder, reducing PMV feeder trips and increasing<br>total BRT passengers | 200% increase in BRT passengers using<br>bus feeder<br>50% reduction in BRT passengers using<br>private motor vehicle as feeder; 250,000<br>fewer PMV km per day<br>1,050,000 fewer private motor vehicle<br>feeder trips per day | Not yet<br>available |
| 7. TDM measure implemented so that cost of PMV use is greater than BRT fare   | TDM charge for operating PMV on<br>congested portions of BRT corridors<br>720,000 additional BRT passengers<br>per day<br>Doubling of passengers from PMV from<br>25% 50 50%  | Not yet<br>available |
| 8. Convenient NMT and pedestrian trips increases<br>BRT trips by pedestrians; increased feeder trips by<br>bicycle  | Additional BRT passengers from pedes-<br>trian and bike connections<br>246,000 fewer PMV kms as feeder and<br>short-distance trips  | Not yet<br>available |
| 9. Full BRT implemented in 1 of target cities;<br>BRT draws some passengers from private motor<br>vehicles. Or increased number of students walking<br>and biking to school; increased use of bicycle for<br>short trips.     | 30,000 additional daily trips by public<br>transit or 150,000 fewer short trip<br>motorcycle km per year  | Not yet<br>available |

Governor left office in October 2007, seven corridors were operational. That rush, however, led to some operational inefficiencies and institutional gaps. The later stages of project execution were overseen by a new governor, Fauzi Bowo, from October 2007 - 2012. Under his administration, five new corridors opened, but service continued to decline, mainly because he was not as committed to improving the service. Despite poor service, TransJakarta has been and remains very popular among the public, and is the first mass transit system in the city that is locally controlled.

This project highlighted the importance of having strong buy-in from local leadership. National or regional support is important, but having a project endorsed by a local decision maker can make or break it. This project was implemented under the oversight of three different governors, and project progress varied depending on the level of support provided by the governor's office. Outreach and awareness raising was cited as a critical activity in building strong political and community support. Such activities were accounted for in the project budget. There is a limit to how much these types of activities actually help, but they do contribute to building political will and support. This case is explored in further detail in the Lessons Learned section.

### **Project Overview**

This project was to address key issues with Jakarta's BRT by operational efficiencies that would increase capacity and speed as well as the area of the population served through the integration of improved TDM and NMT measures and land use changes. The goal was that by improving service, this could serve as a catalyst and model for other Indonesian cities. The overall objective of this project was to address capacity shortcomings of the BRT and improve its performance through technical assistance and training programs.

A final rating and assessment of the outcomes of these results are not yet available , but the evaluation is scheduled to begin in the fourth quarter of 2013.

### **Lessons Learned**

# 1. Over-emphasis on vague components negatively impacts implementation and evaluation

Often the project designers have a tendency to (or feel pressured into) "promising the world" when defining performance indicators or targets – so as to increase the chances of project approval by IA management and/or the GEF. In this way, even good projects end up looking bad because unrealistic targets that are hard to measure in concrete terms are set and then not achieved.

Terms like "increased interest," or "better understanding" are often used in project indicators, leaving assessment up to the judgment of individual evaluators, which are arbitrary and contribute to inconsistencies at the evaluation phase. This is seen in the CUTPP case, where one of the performance indicators is articulated as "demonstrated interest" in sustainable transport concepts by non-pilot cities. Another common issue is that when certain objectives are achieved, ex-post evaluators tend to see a half-full glass as half-empty and emphasize those project elements that have not been achieved, rather than those where good progress was attained

It is very important to strike a balance between having a set of measurable indicators so as to have a framework within which to monitor and evaluate a project, while also allowing for flexibility within this framework to fully account for other achievements that fall outside of these parameters.

### 2. There are inherent differences among Implementing Agencies

The World Bank has historically dominated the GEF transport portfolio for several reasons, the first being that the World Bank still serves as the GEF Trust Fund's Trustee.

GEF projects require large amounts of upfront co-financing, so the Bank has a distinct advantage in its ability to leverage money and fund the construction of the projects. Another reason is that UNDP did not make transport a priority area of their technical assistance in the late 1990s, although it did end up playing an ad hoc role in providing technical assistance to

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transport projects.<sup>28</sup> Additionally, as a financial
institution, the Bank can generate substantial
co-financing, an important decision criterion
for the GEF. Co-financing or matching funds
are required by the GEF Council, and the World
Bank is able to provide low interest loans to
finance implementation. In contrast, UNDP
has a small amount of technical assistance
funds it can use, and UNEP has very little of
its own financial resources. This has been a
point of contention among other GEF agen-
cies. Of the approved 50 sustainable urban
transport projects since the GEF's inception,
19 projects (38%) were implemented by UNDP;
18 (36%) by the World Bank, 8 (16%) by UNEP; 3
by the Asian Development Bank; and 1 by the
Inter-American Development Bank. Roughly
60% of all GEF funding for transport has gone
to projects implemented by the World Bank,
which contributed 66% of the total $3.8 billion
leveraged by the GEF transport portfolio.29
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There is a perception that GEF grants are used to market loans for multilateral development banks, particularly the World Bank. Full-sized GEF projects are still relatively insignificant for the Bank, which handles much larger loans. There is a general sentiment that Bank management is reluctant to take GEF projects under a certain amount and views even full-size projects as more of a hassle then they are worth - unless they are bundled with loans. Unlike some of the regional development banks, the World Bank does not offer grants under any situation. GEF grants are sometimes used to fund preparation of loan components. GEF grants can also foster the development of good projects for Bank loans. In Lima, the Bank loan was not affiliated with the GEF grant, but the GEF grant made the development of the BRT system possible with the Bank funded with its loan. Countries which do not need bank loans to implement, however, may be less likely to receive a GEF grant from some banks, which sometimes bundle the grants with loans.

The participation of UNEP and other UN agencies fills an important gap in the GEF process, providing an alternative for supporting solid projects that come from municipalities that are prepared to implement with their own money. This was the case with the Jakarta project, where existing infrastructure needed improvement, which signaled some level of commitment to support project objectives. The local government also happened to have its own funds to co-finance implementation, but lacked of sector-specific expertise. In this case, a GEF grant guaranteed international input and guidance in an area where no local experience existed.

National Focal Points will engage with organizations that have offices in their countries, which would generally include the World Bank, regional development banks, and UNDP, while leaving smaller UN entities (such as UNEP), as well as transport organizations, out of this process. This is one factor which contributes to the under-funding of transport projects. Because of UNDP's late entrance into the transport sector, and conflicting priorities on the national side and within the banks that tend to favor larger energy projects, transportation is often left out of important dialogues at the beginning of a GEF cycle when funds are allocated through the STAR system.

Additionally, although there is no formal cofinancing requirement, GEF transport projects tend to carry a very high co-financing requirement for the Implementing Agency, of up to three to four times the amount the GEF will contribute to a project over its lifespan.<sup>30</sup> This is often a very large amount of money, which only large institutions with adequate funding—and banks, which can provide a follow-on loans—are able to fulfill.

# **3. Sustaining political support throughout** long time horizons is challenging

Political support is the most important factor in determining successful implementation, and this is a dual layered problem, because local and national priorities are not always aligned. The length of time it takes to develop a proposal for a transport project and for that proposal to go through the pipeline is generally not aligned with political election cycles, which tend to be shorter. It is common for the political environment to change abruptly before a project ends, due to elections or turnover in key government staff, which can have a significant impact on final outcomes. Strong support from local officials is a key factor that dictates project success, although national support is also necessary. It was observed that failure to cement concrete local support ultimately results in project failure, regardless of project design. Since transport projects are essentially city projects, local buy-in will ultimately determine success.

In the Jakarta case, the project entered implementation under a committed governor, who fought to expand and improve the TransJakarta BRT. Governor Sutiyoso is described in the project information document as "one of a very few municipal leaders in Asia - and the only one in a developing economy – who has proven his political will" to tackle public transport issues. However, in 2007, a new governor, Fauzi Bowo, was elected midway through the project. During Bowo's term, project progress stalled because the BRT project was de-prioritized in favor of MRT and other planning priorities, including the construction of two elevated roads, despite feasibility studies which had determined that an MRT system was not the most suitable option for Jakarta. This may be related to Bowo's close involvement with MRT activities. Progress resumed when Governor Joko Widodo took office in 2012, as he was perceived as having planning goals that in alignment with project objectives. This project had three political leaders over its duration, not atypical of transport projects and their time horizon.

A lack of local buy-in severely impeded progress in the NESTLAC project, which was originally designed to implement pilots in three cities. The project was implemented with relative success in two cities (Guatemala City and Concepcion), but was severely delayed in the third (Panama City), which resulted in a project extension of an additional 8 months. Panama City was ultimately removed from the project due to a lack of action from the Transit and Ground Transport Authority (ATTT), the local Executing Agency. Interviews with project participants suggested that conflicts of interest among local officials impeded project progress. Additionally, the BRT line which was planned for construction in Guatemala City was scrapped, due to local opposition to the route.

Country ownership was recognized as a key

issue impacting project success in the Fourth Overall Performance Study (OPS4). Policy recommendations for GEF-5 suggested centering reforms to increase ownership and accountability in four key areas: corporate programs; direct funding of national communications to Conventions; implementing a more flexible system for the allocation of GEF Resources; and broadening GEF partnerships with Agencies.<sup>31</sup> Although country ownership is an ongoing issue and directly correlates with the likelihood of successful implementation, policy reform has been slow. Again, even when country ownership is strong, it is common that there is a large disconnect between national priorities and local conditions.

### 4. Personnel and "soft" components matter

Project success is attributable at least in part to managers involved in a project on the national side. If a key manager or bureaucrat on the national side has priorities which conflict with a specific project this can derail any progress made. Alternatively, a motivated individual or group of individuals can push a project through even under difficult circumstances, as was seen in the Lima project. In this project, a key manager on the national side was able to build support for the project in creative ways, which ultimately contributed to the overall success of the project. The terminal evaluation and input from interviewees indicate that the extraordinarily committed project staff had a positive impact on grant implementation. This commitment was particularly reflected in the bike education program, which was implemented in a number of city school districts. This was a key component of the project's institutional capacity strengthening objective and was considered a highlight of the project. This particular program was taken over by FONAM-the Peruvian national environmental authority, under the GEF project in 2006—after being managed by FONAM's GEF-financed consultants for one year. By 2009, the project was able to expand its partnership network from 12 to 50, educating 42,000 students on environmental and sustainable transportrelated topics, and training 34,000 students on cycling skills.<sup>32</sup> These successes were largely attributed to proactive and committed FONAM

management and staff.

Following the success of the bike promotion activities, project staff hoped to have this program incorporated into the academic curriculum of the local school district in order to ensure follow up past the project closing date. This was not ultimately achieved by project closure and therefore, not measured as part of the project success. It was during this effort that a key project manager on the national side was let go due to a personality conflict with city leadership. Sources stated that had there not been an abrupt change of staff at a critical point during the project's wrap up, the project's bike program output would most likely have been achieved. Soft components add to project success and may be critical in solving the problems related to the long timelines associated with transport projects.

The NESTLAC project's workshops and guidebooks were widely disseminated throughout the region, and representatives from several localities, including San Pedro Sula and San Salvador, Honduras, attended and expressed interest in the sustainable transport concepts presented. However, the long-term impact of such workshops and dissemination is hard to measure. Although there is certainly some value in these activities, it is difficult to assess how exactly to weigh this value, as the decision on whether or not to implement lies ultimately with local governments. This decision is more often than not political and requires a strong institutional framework that can support the change required to implement transformative sustainable transport policies. Interviews with officials from San Pedro Sula revealed a strong interest in BRT and NMT from the municipal transport planning authority (UTTU), which developed a proposal for METROSULA, a firststage BRT project. However, despite strong leadership and commitment within UTTU, nothing has been accomplished due to the 2009 coup that ousted both the president and the mayor. Comments from parties involved at the municipal level credit NESTLAC and the Guatemala City workshop as being instrumental in raising awareness and generating interest in BRT and NMT concepts among senior staff, but ultimately nothing has been

<sup>&</sup>lt;sup>31</sup>Policy Recommendations for the 5th Replenishment of the GEF Trust Fund

<sup>&</sup>lt;sup>32</sup>World Bank Lima Urban Transport ICR

implemented because projects have not received the requisite political support and funding from the local/national government. This is not to say that these concepts will not gain traction in the future under a more amenable administration.

In Jakarta, project managers found that showing examples through conducting study visits and on-site training for key decision makers was an extremely powerful and effective method of generating political support. The Guangzhou direct service BRT system was critically important to convincing key Jakarta officials to adopt similar approaches in Jakarta. Study visits to other cities can increase awareness from external stakeholders, which can build the public awareness needed to generate political pressure.

All four projects achieved a number of "soft" components - outreach, trainings, and capacity building objectives where conducted, despite perhaps not achieving all the key and target indicators. These components are low risk and involve less investment and commitment to achieve - it is easy to hold a workshop; it is harder to get a project implemented. These components can help deliver, at a minimum, some short term wins for the projects and potentially help with catalyzing other projects and should not be underestimated. Given the long lead times for transport projects and the relatively short cycles for politicians and decision-makers, these components may be even more important to ensure continuity and continued political will.

## 5. Real and long-term impacts are difficult to measure

One major issue in evaluating transport projects is, as mentioned in the last section, that it is exceedingly difficult to concretely measure the degree to which a workshop or a promotional campaign has impacted national policy. Another issue is that the timeline for project evaluation does not allow evaluators to measure outcomes accurately. This difficulty ties into the long timelines associated with transport projects and the existing framework for monitoring and evaluation. The GEF project may end, but the actual project will take some years to have a full impact – whether getting infrastructure built or getting a program adopted as policy. Furthermore, for transit systems, it takes at least one year after opening for the system to stabilize to a point where it makes sense to measure the impacts. This means that a truly meaningful final evaluation should be written on a project-by-project timeline, anywhere from three to eight years following project closure.

Although the Lima project's bike promotion program was not integrated into the educational curriculum before project closure in June 2010, it was eventually implemented under Mayor Susana Villaran, who took office in 2011. Concepts from the GEF project guided the creation of the Municipality's Sustainable Mobility Program, which promotes bicycle usage and other forms of NMT by engaging 20,000 students from 111 schools.<sup>33</sup> According to contacts from both the project and the Municipality of Lima, this program is a direct extension of the bicycle promotion campaign that was initiated as part of the GEF Lima Urban Transport project. The Municipality's NMT Office attributes many of the office's current activities to the GEF grant, and information brought to the office by young professionals that were involved with the GEF project, and who are still employed by the Municipality today. The NMT Office (the Popular Office for Non-Motorized Transport) itself had existed before the GEF project – it was opened in 1990, but was later shut down by Mayor Alberto Andrade in 1996. The office was reopened in 2003 to support GEF project preparation. Prior to this, the office was very small and operated with a limited budget and approximately 13 employees. Now, years after project closure, this office is still operating today, with full-time staff of 31 and more than 30 consultants.<sup>34</sup> Key staff members include several carried over from staff employed under the GEF grant, either with FONAM or Cicloaxion, a non-profit that was involved with the Lima Urban Transport project.

NESTLAC received a moderately unsatisfactory rating from UNEP and Lima received a rating of moderately satisfactory. However, interviews with those involved describe successes that stand on their own, but are overshadowed by failures of other project components. In interviews with six people

<sup>&</sup>lt;sup>33</sup>El Comercio

<sup>&</sup>lt;sup>34</sup>Interview with the Municipality of Lima's NMT Office – see Lima project

involved with the project in Lima, five said the project had an impact on increasing the usage of bicycles in Lima.<sup>35</sup>

# 6. Measuring the carbon impact of urban transport projects can be complex

Difficulties related to calculating the GHG impact of transport projects was another recurring issue. Many involved in the proposal writing process reported that although projects are required to estimate how much carbon is mitigated as a result of a project, it is unclear to what degree these figures are accurate or useful and that the GHG quantifications required by the GEF were arbitrary and irrelevant.

To make it easier for applicants to evaluate carbon impacts of proposed projects, the GEF developed a standardized methodology for calculating GHG benefits for GEF transport projects. This manual was presented by the Scientific and Technical Advisory Panel (STAP) of the Global Environmental Facility (GEF) at the 39th GEF Council in November 2010 (GEF/C.39/ Inf.16) and has now been posted on the UNEP website,<sup>36</sup> along with the Transportation Emission Estimation Model for Projects (TEEMP), a set of spreadsheet-based tools and transferable parameters for various GEF project types, consistent with the standardized methodology. This was intended to address the lack of robust GHG emissions accounting, including monitoring and reporting of transport projects.

The Manual addresses these needs and provides a step-by-step guide for development of baseline, impact estimation, and calibration of transport projects across a wide range of interventions including transport efficiency improvement, public transport, non-motorized transport, transport demand management, and comprehensive transport strategies.

While the TEEMP model and broader methodologies have been employed in a few GEF project evaluations prepared by the World Bank in Asia and by the Clean Air Initiative/World Bank in Latin America, it is not widely used. The GEF has not officially endorsed the usage of the TEEMP models, although they are available on its Web sites. The GEF does not keep track of how many projects have used TEEMP and does not proactively seek feedback on the application of the methodology. To understand how the tool is used, an interested party would have to know of its existence and then contact GEF Agencies directly. Agencies are required to disclose the methodology used to calculate ex-ante GHG emissions reductions at the CEO endorsement stage – not when submitting a project proposal. Thus standardized appraisals of GEF transport project impacts appear to remain elusive.

### 7. The Executing Agency matters

The Executing Agency was a key differential in the four cases that had a great impact on project success. When the executing agency is a national agency, the closer it is to the political jurisdiction or technical area of implementation, the higher the likelihood of success. The entity undertaking executing duties must have the capacity to coordinate among various stakeholders with authority – either political or technical. Institutional conflict and lack of coordination among respective local and national planning authorities can result in severe delays and inertia. This was the case, to differing degrees, with both the Lima project and the CUTPP project in China.

In Peru, FONAM, the national environment authority, was granted oversight by the World Bank, after having assessed it as having sound institutional capacity. The introduction of NMT and BRT concepts required FONAM to work closely with the municipalities of Lima and Callao, which was not always possible. Collaboration broke down after several years of adequate interaction, primarily due to inter-agency competition, and ultimately because of personality conflicts. Finally, FONAM, which lacked transport expertise, had different ideas on how to implement bikeways than municipal staff.

In China, urban transport is overseen by several Chinese ministries, which have overlapping and conflicting priorities. The Ministry of Finance oversees financial sustainability; the National Development and Reform Commission (NDRC) approves guiding investments; the Ministry of Transport approves plans and provides guidelines for urban transport; the Ministry of Land Resources approves acquisition of peri-urban land; and the Ministry of Public Security oversees traffic safety issues. These agencies do not necessarily have con-

<sup>35</sup>Gerhard Menckhoff (2013)

<sup>&</sup>lt;sup>36</sup>http://www.thegef.org/gef/node/4638

sistent objectives and lack a coherent national vision of sustainable transport development. Large urban transport investment projects like the CUTPP, as well as urban master plans, must be reviewed and approved by the national government, although rapidly changing economic conditions at the local level make it increasingly difficult for national authorities to fulfill this duty. The fact that the actual planning for urban transport is the functional and financial responsibility of local governments adds an additional layer of complexity.

There are often also numerous agencies involved in urban transport policy and management at the city level. For example, Shanghai has an Urban Planning Bureau as well as an Urban Construction and Transport Committee. Overlapping jurisdiction and complex institutional frameworks make choosing an appropriate executing agency more complicated, and make implementing a project a cumbersome endeavor. Coordination and communication between agencies is critical to promote coherent and effective decision making. However, this is not always possible, because a number of these government agencies have conflicting priorities, and there is a level of inter-agency competition at play.

There is also sometimes disagreement between the Implementing and Executing agencies on how to implement. In the CUTPP project, the World Bank attempted to discourage the national government from a potentially problematic plan. The Bank was skeptical about choosing so many pilots, but because it wanted to rely on the Chinese country system to establish the requisite political and institutional commitment to see this project through, it allowed the national side to make the final decision. This may be because there were a number of loans hanging in the balance for follow-up investments in a number of pilot cities. Aside from this, the lack of experience with urban and transport specific issues within the MoF most likely contributed to its attempt to undertake such a large and ambitious project.

## 8. Slow project approval and initiation impedes implementation

The GEF's two-layer structure requires all funding proposals to be approved twice – once by the GEF and again by the Implementing Agency. Because the GEF is a trust held by the World Bank, its lack of legal status prevents it from disbursing funding directly to countries through a one-step approval process. Although there have been significant efforts to reduce the duration of the approval process, the interval is still currently roughly 16-22 months.<sup>37</sup>

The average time between project approval and the first disbursement was estimated at roughly one year in the cases reviewed in this study. Because of long approval and project initiation times, cities that are very motivated to implement will may go ahead and fund project preparation with their own money, which can be reimbursed from the GEF grant once the legal agreements are finalized. This was the case with several pilot cities in the CUTPP project. The World Bank attributed the low disbursement rate to the fact that many pilot cities had gone ahead and funded project prep work with their own money, so this spending was not reflected in project documents. This presents a question on additionality - GEF grants are meant to fund work that is additional – meaning that work funded by a GEF grant would not have been completed otherwise. In Guatemala City, which was a pilot in the NESTLAC project, it took 4.5 years for the city to receive the first disbursement. By this time, planning decisions had already been made and the money arrived too late in the process. Planning officials say that the BRT would have been built in Guatemala City with or without the GEF money.

In addition to delays associated with project initiation, implementation-beginning with the actual drafting of TORs, which refer to work specifications or a workplan- can be so time consuming, particularly for cities that are unfamiliar with the process, that by the time an initial TOR is finally drafted and completed, the city in question has often changed so much that the original version is no longer applicable. In cities that experience rapid economic growth, a matter of a year or two can drastically alter conditions. This was the case in the CUTPP project - the speed and pace of economic and social development in China varies widely across the country. In more than one pilot city rapid economic development required the TORs to be completely reworked. Hiring consultants is a lengthy process in

<sup>&</sup>lt;sup>37</sup>Lattanzio (2010)

itself, and there is a standard additional lead time of 6-12 months for procurement, and an additional 12-18 months to spend money on goods and services procured.<sup>38</sup> This results in delays and confusion in coordinating across pilots – different pilots were at varying stages of socio-economic development, resulting in differing levels of institutional capacity and ability to implement.

# 9. Inability to re-evaluate project design can be catastrophic

The GEF process does not allow major amendments, and once a project proposal is submitted, any changes require the whole process to be repeated, which is an extremely time consuming process. A lack of flexibility in re-evaluating project design after approval prevents projects from making adjustments to respond to political changes and does not allow changes to be when new information about technical feasibility is introduced.

In the Lima project, a component that focused on bus scrapping was not completed successfully. The project designers realized

that this component was too costly and complicated to complete in a timely manner and attempted to reallocate the budget toward replicating sustainable transport pilot projects in nearby Peruvian municipalities. In order to do this, the project was required to undergo a lengthy restructuring process and obtain approval from the GEF. Project managers reported a waiting period exceeding two years for an answer from the Bank's GEF coordinator. Their proposal was ultimately denied on a technicality— it deviated from the original project objectives, which were limited to Lima and Callao. Project participants attributed this aversion to change to bureaucratic processes and a lack of motivation of some Bank staff altering a project is very time consuming, and there is often little incentive for staff to initiate significant changes. It was suggested that there was a lack of drive to see this through, even though it would have advanced sustainable transport aims and achieved precisely the type of replication that would make this project catalytic.

### Recommendations

While many of these recommendations could potentially be applied in broadly across the GEF's focal areas and programs, they were drawn specifically from observations from the four cases studies examined to be applied within the transport sector. Recommendations are not solely aimed at the GEF Secretariat, but rather for all groups involved in planning and executing GEF-funded transportation projects, as well as for the larger transport community as a whole, which we encourage to participate in ongoing dialogue with the GEF, GEF Agencies, and national Focal Points.

## 1. Introduce a transport-specific sub-focal area under urban systems

GEF should give special emphasis to the role of transport under an integrated urban systems strategy, with a sector specific funding allocation objective. This would help ensure continued progress in addressing this sector, which does so much to shape longer-term urban development and resource consumption patterns. This is also important because of the different timelines that transport projects have from other types of projects. Finally, although transport is a critical component of sustainable cities, it is integral to mitigating climate change on its own – not just within cities, and emphasizing its role only within the urban context is limiting.

# 2. Encourage timely and active engagement with national Focal Points

Because of the nature of the STAR allocation system, in order to prioritize transport projects for GEF funding on the national side, it is important that transport groups are there at the start, which is rarely the case. Large energy projects remain more popular than transportation because of the relative certainty in calculating carbon impact with the former. Transport groups should develop a joint transport campaign with the aim of reaching out to national Focal Points to promote the benefits of transport projects.

Now that black carbon has been recognized as an important factor in the mitigation of climate change within the urban systems program, this is an important opportunity for transport organizations to recognize and leverage in conversations with national counterparts. In the past, only the mitigation of CO2 was supported under the GEF's climate change strategy. Because transport is one of the biggest sources of emissions of SLCFs, the inclusion of black carbon and other SLCFs offers an opportunity to expand the GEF's transport portfolio further to include projects with major health benefits, which could significantly increase interest from various countries.

# 3. Allocate a larger portion of grants to barrier removal and "other" activities

Case studies show that activities classified as "other" activities –encompassing outreach, awareness raising, capacity building, and training – have often been where GEF grants have added value. Although pilot demonstrations are important and should remain a primary focus, these types of activities are integral to the sustained progress of a project and add to its catalytic potential. This is particularly true for transport projects, which have longer implementation timelines, and, as mentioned in the Lessons Learned section, often experience a change in political leadership prior to project closure.

In the NESTLAC project, such activities received roughly 12% of total project funds, with the rest split between three pilots. The figure in the Lima project was comparable at around 14%, in Jakarta it accounted for less than 1%; and in the CUTPP it received about 2%, with the rest distributed among the 19 pilots. Some of these activities could be directed specifically toward sustaining and building local support over the course of the project. Additionally, although quantifying political will and commitment has proven to be a complicated task, projects sometimes engage local civil society for input to gather intelligence, while ensuring some level of accountability. The inclusion of such stakeholder consultations was recommended by the GEF's Scientific and Technical Advisory Panel (STAP),<sup>39</sup> and is often included in project design, but it should be further encouraged, if not made mandatory.

<sup>&</sup>lt;sup>39</sup>STAP Advisory Document "Advancing Sustainable Low Carbon Transport Through the GEF."

As GEF-6 projects create important opportunities for urban travel demand and traffic management, as suggested by current strategy documents, increased funding for strategic communications and socialization campaigns to build public support and engagement are vital to success.

### 4. Introduce dual-pronged evaluations process

GEF evaluations are generally written immediately following project closure and take several months to prepare and write. However, a GEF project normally will take some years to have a full impact – whether it be from getting the infrastructure built or getting the program adopted and implemented, particularly in the context of transport projects. Additionally, for transit systems, it takes at least one year after opening for the system to stabilize to a point where it makes sense to measure the impacts.

Considering this, the GEF should conduct final evaluations for outcomes as a separate and independent process from project evaluations and timelines. This could mean conducting the final evaluation three to four to even eight or ten years after the end of the GEF project. For this reason, the final project evaluation should be separated from the evaluation of immediate outcomes, such as GHG reduction. The GEF could conduct project-based independent assessments that could also be used to document lessons learned and disseminate results to other cities, which would help to catalyze the development of additional projects indirectly. Monitoring and evaluation is overseen by the Implementing Agency, which results in inconsistencies since each institution has its own framework and methods. Having an independent assessment could address such inconsistencies and while facilitating the GEF in meeting its goal of catalyzing projects. The GEF should systematically assess the information gained from both successful and unsuccessful projects. Lessons documented through the specific achievements and failures of each can offer valuable guidance to interested parties.

The GEF should have its own budgeting for a standardized evaluation process that will really dig deeper into cases to truly assess the type of impact projects have. One way to do this could be on a project-basis, through which a group of experts financed by the GEF who possess deep sector and context-specific expertise conduct in-depth evaluations based on quality control and long-term impacts within very specific contexts. Not all projects would need to be evaluated in this way, but there should be special focus on projects which are high profile, larger in size/scope, or testing newer or riskier technologies.

Although the Secretariat does compile an Annual Monitoring Review, it is not clear what is actually done with these reports. Successes and failures cannot add value or guide future activities unless they are promoted and shared. Results should be collated, analyzed, and evaluated on-site by professional staff, and then made easily accessible and be widely distributed. It was suggested in the 2009 Annual Monitoring Review that optimizing the reporting process would require a shift in thinking about how much information can realistically be integrated into the report and which information might be better collected and analyzed through other reporting tools.<sup>40</sup>

Finally, evaluations, either project-specific or outcome related, should allow more flexibility, so as to account for different types of accomplishments and the achievement of co-benefits. There should be less emphasis on indicators and components (the logical and results based framework approach that's used now), and more emphasis on peer review and quality. Co-benefits produced as a result of sustainable transport projects should be included in final project ratings, this could be done with the addition of an "other" category. This will show the variety of benefits that GEF projects have achieved beyond their projected indicators. Co-benefits could include health, safety, air pollution, economic rates of return, and other impacts.

### 5. Streamline project approval process

The slow project proposal and approval processes were mentioned by many interviewees, but few suggestions were given on how to make the process more nimble. Inefficiencies in the project cycle have been the subject of ongoing discussion in the GEF's annual reports as well as in the policy recommendations that are issued to inform replenishment cycles, but disbursement is still a time-consuming process.

The GEF invested in the creation of a model to assess the GHG impacts of proposals – the TEEMP model, which is not officially endorsed or promoted by the GEF SEC, It is unclear how many project proponents even know it exists. The GEF should promote and disseminate this model and encourage its use so as to help address a common complaint of project proponents -- that GHG analysis for transport projects is difficult and that results were unreliable. All transport projects that are covered by the TEEMP should be required to use it or another similar approach in the proposal stage to ensure accurate and responsible GHG impact estimates, as well as to provide a common starting point for all projects.

# 6. Ensure Executing Agencies have either the relevant technical acumen or the appropriate political authority

Since Executing Agencies are a critical factor to project success, in addition to assessing the capacity of the agency, a technical and political assessment should be made to determine if this institution has either the technical expertise or the political authority to lead the project. If an agency lacks both, the project will fail. If the agency lacks technical acumen, then it needs to coordinate closely with those that have it, such as transport planning authorities, in the case of transport investments. The Implementing Agency should ensure appropriate inter-agency cooperation agreements are developed early on and monitor performance to ensure that this actually happens, mediating or negotiating changes in agreements where cooperation fails. Cases reviewed show that inter-agency conflict and competition often prevents close cooperation. The Executing Agency, if lacking technical expertise, needs to possess political authority for decision making. If the national government is the one making decisions about city-level projects, then assigning a national authority to execute would be appropriate. If the local government is the decision maker, then a municipal level entity should be assigned.

Out of the four projects, local and national transport planning authorities were not designated to execute the projects in Lima and China; which led to mid-project restructuring and re-assignment of executing duties in the latter case. Both cases suffered severe delays. Municipal and national transport agencies were included as executing agencies or project partners in Jakarta, Guatemala City, and Concepcion.

# 7. Incorporate post-approval review and modification consideration

Both the proposal preparation process and the project approval process are very time consuming, and it is typical that conditions on the ground will change radically between the time a proposal is submitted and the point when it is finally approved. There should be a way to modify projects once they are approved to more effectively respond to those changes, which include economic conditions, political situations, and changes in local or national leadership. Failure to allow projects to evolve to a reasonable degree from their original designs could result in the failure of a component, which ultimately results in a lower overall rating in the terminal evaluation. Project performance in the transport sector could improve by allowing project review and refinement to occur after the initial project approval. This would capitalize on one of the GEF's major potential strengths: the ability to be more nimble and flexible than larger institutions.

### Conclusion

This review of four cases illuminates the successes generated by GEF funds in the transport sector in developing countries. The GEF has served as an increasingly important tool, allowing Implementing Agencies to be more proactive in generating truly sustainable transport projects. The basic programmatic framework for the GEF transport program will continue to evolve in GEF-6, and the GEF has successfully shifted focus to tasks that will have the greatest mitigation impact. Turning programmatic priorities into successful projects on the ground is a challenge, and the GEF's mixed track record indicates a need to optimize GEF processes in order to ensure that implementation is successful.

Investments in sustainable transport infrastructure are rarely made solely for the purpose of carbon reductions – transport planning decisions are made because they enable social and economic development, increase access to jobs and services, improve health and safety, and result in a host of other co-benefits. The consideration of the diverse co-benefits delivered by sustainable transport projects should be more fully considered. The GEF should scale up its transport portfolio so as to reflect the urgency needed to address a sector that contributes nearly one quarter of global emissions, and which will be driven by explosive urbanization and motorization in middle-income countries over the near future. Moving forward, GEF investments in the transport sector should be informed and guided by experiences gleaned from past interventions, which can only be done through the collection and dissemination of detailed documentation at the project level.

In the context of GEF-6's integrative strategy, the GEF should favor investment in low-carbon

strategies that have the greatest potential to deliver co-benefits that will promote the mainstreaming of innovation. While institutional restructuring for more integrated urban management and planning does have considerable value, the size of GEF grants are insufficient to overcome the barriers that impede such integration in most cities and nations. Without an explicit transport window or funding allocation in GEF-6, as in GEF-4 and GEF-5, the progress initiated by implementing of a number of promising sustainable transport projects over the past several years may be derailed. In this context, it is very important to designate a GEF-6 sub-allocation for sustainable transport within the proposed integrated low-carbon urban systems program and ensure that this money is allocated efficiently.

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