

IMPLEMENTATION COMPLETION MEMORANDUM (ICM)

Revised Template version May 2007

A. BASIC TRUST FUND INFORMATION

Most basic information should be automatically linked to SAP TF Master Data and IBTF

TF Name: **GEF MSP-GLOBAL: WORLD BANK GLOBAL DEVELOPMENT MARKETPLACE 2005**

TF Number: **TF55092**

Task Team Leader Name/TF Managing Unit: **Ms Kaliope Azzi-Huck / CSRSI**

TF Amount (*as committed by donors*): **\$3,937,946**

Recipient of TF funds (*Bank/Recipient, if Recipient state name of recipient government and implementing agency*): **World Bank, CSRSI: Development Marketplace**

Type of TF (*Free-standing/ programmatic/ new TF for an ongoing program*):

Single/Multi Donor: **Multi Donor**

Donor(s) Name(s): **IBRD, IFC, MacArthur Foundation, Conservation International, CGIAR**

TF Program Source Code: **GEFIA, GEF-IBRD AS IMPLEMENTING AGENCY**

Purpose of TF (*Co-financing/Investment financing/ Debt Service/ Advisory Activities-Bank/Advisory Activities-Recipient, etc*): **Co-financing**

TF Approval/IBTF Clearance Date:

TF Activation Date: **04/29/2005**

TF Closing Date(s): **5/30/2008**

Date of ICM Submission to TFO:

Cost and Financing Table:

Cofinancier	Original	Actual
GEF 2005	\$1,000,000	\$ 800,000
GEF 2003		\$160,290
IBRD/IDA/IFC	\$1,000,000	\$1,977,656
Other	\$1,340,000	
MacArthur Foundation		\$500,000
Conservation International		\$200,000
CGIAR		\$300,000

Rating Summary

Category	Rating
Overall TF Outcome	
Overall Risk to Development Outcome	
Bank Performance	
Recipient Performance	

B. TRUST FUND DEVELOPMENT OBJECTIVES AND DESIGN

1. Original (and Revised) Trust Fund Development Objectives

Provide original statement of objectives from the approved/cleared IBTF. If original objectives have been changed, explain the timing and nature of the revisions, their justification and approval authority given.

The objectives were to fund social entrepreneurs with innovative approaches to end climate change, and to generate and share knowledge with the development community.

2. Original (and Revised) Trust Fund Activities/Components

Provide original activities/components to be financed by the Trust Fund. If original activities/components have been changed, identify them, and explain the nature of the revisions, their justification and approving authority.

Each of the six projects funded by this Trust Fund had its own set of activities – please refer to the individual project objectives in Section C.

3. Outcome Indicators

Provide original performance benchmarks to be measured in the assessment of outcome. If none were established, explain why not.

There were no outcome indicators defined or used for this TF, because each of the six sub-projects had its own set of milestones – please refer to individual projects in Section C.

4. Other Significant Changes in Trust Fund Design

Describe and explain the rationale for any changes made in design, scope and scale, implementation arrangements and schedule and funding allocation

There were no significant changes in Trust Fund design.

C. OUTCOME

1. Relevance of TF Objectives, Design and Implementation

Discuss how the Trust Fund objectives, design and implementation are proved relevant to current global/regional/country priorities and the Bank's sector strategy

The Development Marketplace funds projects proposed by individual social entrepreneurs, NGOs, academics, and others based on their own ideas for how to achieve development and conservation results. Thus, projects are not explicitly aligned to national priorities and programs because they are bottom-up projects proposed by those on the ground closest to the problems being addressed.

Nonetheless, to ensure that projects are not contradictory to national priorities, DM subjects each potential project to a review by World Bank Country Office staff (as

designated by the country director) to (1) validate the legitimacy of the executing team, (2) comment on the implementing group's implementation record, and (3) identify any potential conflict with relevant World Bank strategies and programs (whether stated government priorities, PRSP, CAS, lending operations, etc.). DM jurors are not required to reject those rare projects that conflict with country strategies, but jurors are instructed of the poor success rate of past projects where such a conflict has existed. In the very rare cases where direct synergies have not been identified, the Development Marketplace acts as a catalyst for linking successful winning projects back into World Bank knowledge management and strategies.

2. Achievement of TF Development Objective

Discuss and rate the extent to which the Trust Fund development objectives have been met, with linkage to outcome indicators. This includes an assessment as to whether the actual output/deliverables were successfully completed, compared to the expected output, for each activity/component of the Trust Fund. For activities where the output is a report or a dissemination event such as a workshop, conference, training, or study tour, discuss and rate the Quality, Presentation and Dissemination. Applicable reports and/or documents are to be attached to the ICM

The Trust Fund's development objectives were to fund social entrepreneurs with innovative approaches to end climate change, and to generate and share knowledge with the development community. The Development Marketplace (DM) is a World Bank competitive grant program that invests in early-stage innovative community-based projects with broad potential for scale-up and replication. The DM 2005 theme was "Livelihoods in a Sustainable Environment", of which GEF funded six (6) of the 31 winning projects through this Trust Fund.

In terms of sharing knowledge with the development community, DM 2005 hosted 11 Knowledge Exchange sessions, covering topics such as Strategic Planning, Organizational Self-Assessment, Funding Resources, Environmental Awareness, and more. In addition, the DM has recently revamped its website which will serve as a focal point for a community of social entrepreneurs. Development Marketplace projects represent some of the most innovative approaches to development challenges that have gone on to win multiple awards and achieve scale in multiple countries. The website is a place where projects are on display for people to learn about or where investors can locate the next best investment.

Please see below the project-specific objectives and outcomes for the six GEF-funded projects.

Sub-Projects:

**DM-0343: Ground-Source Systems in Hot, Arid Regions
(India, \$139,000)**

Objectives

The primary goal of this project was to introduce more productive and stable agriculture in areas with harsh climatic conditions in India by introducing Earth Tube Heat Exchanger (ETHE) Technology, a new concept in the region. ETHE replaces the typical evaporative cooling system of most greenhouses, which need large quantities of water, by using deep soil, an abundant local resource. This new system will enable extended cropping, reduce crop water requirements, and double yields in open fields. The project aims to set up greenhouses, sol-cafes (large solar cooking devices), and cattle house cooling systems.

Outcomes

This project installed four dew harvest systems as supplementary source of water, making dew harvesting practical and affordable and providing water security to the community. It also installed 12 sol-cages, two ETHE cooling systems in human houses, one ETHE cooling system for a local zoo, and four ETHE cooling systems for cattle houses. In addition, two greenhouses were built, making it possible for farmers to grow crops twice a year, with significant increases in yield and reduction of water use.

DM-0448: Credit for Safe Collection of Used Oil (Kenya, \$150,000)

Objectives

The primary goal of this project was to clean the Mukuru-Ngong River in Nairobi by encouraging vehicle mechanics to collect used engine oil instead of dumping it into the river. This project converted used oil into cash and/or loans through a credit points system, turning a pollutant into an income supplement and encouraging mechanics to collect used oil instead of discarding it. The project then sold the collected oil to recycling and reprocessing centers. Preliminary market surveys show the potential for selling up to 60,000 liters of reprocessed oil. Recycling just one automobile oil change protects between one to four million liters of water. This project targeted 100 mechanics to participate directly in the program, thereby improving water quality and health for the 5,000 households who live along the Mukuru-Ngong River. The cleaner river would also be more likely to support more plant and animal life, thereby enhancing biodiversity.

Outcomes

This project achieved its primary objective of making a cleaner Ngong River by encouraging mechanics to collect used oil instead of dumping it into the river – it collected 211,000 liters of used oil and sold it to re-users, garnering \$19,100 in funds that were re-invested into the project. In addition, the project trained 113 mechanics (exceeding the initial target of 100) and 45 community members in environmental management and small business management; all the mechanics are either involved with used oil collection or in the credit program. At the time of project completion, there were 167 individuals involved in the savings and credit program, with a total loan portfolio of \$31,233. Furthermore, there were 11 formal lube stations that joined the program and delivered their used oil for safe disposal to the project.

DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership

(Kenya, \$132,773)

Objectives

The goal of this project was to simultaneously reduce waste and energy costs in Nairobi's slums by buying discarded charcoal dust and transforming it into low-cost, clean-burning briquettes. In this project, Chardust teamed with an NGO that had an existing garbage collection program to encourage Kibera slum dwellers to act as "carbon collectors," salvaging charcoal dust to sell to Chardust for processing into briquettes. This project offered local residents an income stream for collecting raw material and a cleaner burning fuel alternative that was 40 percent cheaper than charcoal. The project team anticipated producing 5 tons of briquettes per day to replace 6 tons of firewood charcoal and save over 60 tons of live, standing wood. Up to 300 low-income slum dwellers would earn US\$900 per month (equivalent to over a year's income) as charcoal dust suppliers, and at least 1,000 charcoal-using households would benefit from lower fuel costs.

Outcomes

This project established five centers for the centralization of charcoal waste, with weighing and storage facilities. At the time of project completion, materials for a sixth site were in place. Collection and removal of charcoal waste began in late 2005 and the scale of purchase by Chardust was increased progressively to 4.2 tons/day by March 2007. This created income for 250 people involved in the supply chain, supporting 20 new jobs in transport and processing. This project also decreased the demand for 13,000 tons of trees, saving \$5,000/year for consumers on fuel purchases and reducing indoor pollution and deforestation.

**DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste
(Costa Rica, \$133,139)**

Objectives

In Costa Rica, Universidad Nacional and Hospital San Vicente de Paul jointly launched this project promoting the use of solar ovens to attain the temperature necessary for sterilizing biological wastes at hospitals. The simple and low-cost process sterilizes waste on-site, thereby eliminating the hazard of transporting these wastes, while allowing hospitals to dispose of the waste as common biological inert waste.

Outcomes

This project generally achieved its objectives by building and installing the first-ever clean-energy solar oven, which can sterilize infectious-contagious waste, thereby protecting both the environment and human health. It met three of its four milestones at the time of project completion, with training of hospital staff to operate the solar device, the official consignment, and information dissemination still pending. This was mainly due to the fact that the operational area surrounding the oven was still being finalized at the time of project completion.

**DM-3765: Benefiting from the Dreaded Janitor Fish
(Philippines, \$143,747)**

Objectives

The primary objective of this project was to create an economic demand for the janitor fish, an exotic invasive species, in the Laguna Bay in the Philippines. Until this project, the janitor fish did not have aquaculture, conservation, or game value, and its proliferation in the lake has been blamed for a decrease in fish catch, damage of fishing gear and fish cages, and the disappearance of native fish from areas of the lake where the janitor fish was established. By creating an economic demand for the fish, fishermen would have an incentive to actively harvest and sell the fish, stopping its invasion and generating additional income for subsistence fishermen.

Outcomes

The project reached its goal of creating an economic demand for the janitor fish, thereby reducing its proliferation in Laguna Bay, by paying farmers 3-4 pesos/kg. A total of 13.4 tons of janitor fish were harvested, resulting in 2.15 tons of fishmeal produced. The project demonstrated that the janitor fish is an excellent source for fishmeal and a viable alternative source of protein for animal feeds, at a lower cost compared to the use of more expensive imported fish meal. However, due to serious logistical and administrative challenges, the original milestones of establishing four fish cages and six demonstration facilities for fish meal/feed production had to be modified. Instead, the project scaled down the livelihoods component of the project. By project completion, fourteen fishermen and five backyard hog raisers were provided with alternative livelihood support, earning substantial income.

DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue (Philippines, \$98,882)

Objectives

The goal of this project was to improve farm productivity and increase income for 100 farmers by growing rice and raising ducks on the same piece of land. The project established four rice-duck zones (RDZs), where ducks free-ranged in paddy fields, feeding off the destructive golden snail population and decreasing the need for chemical pesticides. In addition, the manure of the ducks served as organic fertilizer for the rice and other crops, resulting in savings on fertilizer costs.

Outcomes

This project successfully achieved its primary objectives of improving farm productivity and increasing incomes for the 100 farmer-beneficiaries by \$1,152 per rice-duck practitioner per year. Much of this increased income was due to the increase in economic activities related to duck raising, duck herding, feed retailing, duck and egg trading, egg and meat processing, and snail picking. Additionally, the project reduced the cost of production by \$87 per year, equivalent to the cost of four liters of chemical pesticides, which reduced chemical hazards in the environment and improved human health. At the time of project completion, it had met all its project-specific milestones.

3. Efficiency

Describe the degree to which the Trust Fund activities have been efficiently implemented, in terms of their associated costs, implementation times and economic and financial returns.

Development Marketplace projects are implemented over a two-year period. At the time of project completion, most projects leverage their DM awards for additional financing, in-kind assistance, or generate enough income from the project to continue operations.

Sub-Projects:

DM-0343: Ground-Source Systems in Hot, Arid Regions

(India, \$139,000)

In addition to the Development Marketplace award of \$139,000, this project was able to leverage Rs. 2 million from the VJ Shah Foundation in the UK to build infrastructure in Kothara and promote water technology in the region. The project was also able to secure financial assistance from the Ashapura Foundation in Kutch to pay for desalination technology.

DM-0448: Credit for Safe Collection of Used Oil

(Kenya, \$150,000)

In addition to the GEF-funded Development Marketplace award of \$150,000, this project was able to secure in-kind assistance from Ibera Africa (power generation firm which donated its used oil to the project), Nakumatt Holdings (chain of supermarkets supporting the campaign by providing tools and equipment for the clean-up exercise), and Superloaf (through the donation of food for participants).

DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership

(Kenya, \$132,773)

At the time of project completion, this project had not raised additional funding; however, it was continuing to operate on a self-sustaining commercial basis mainly from sales of dust from Kibera, as well as the sale of briquettes.

DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste

(Costa Rica, \$133,139)

In addition to the Development Marketplace award of \$133,139, this project was able to leverage another \$100,000 from the Universidad Nacional Storehouse for Provisions to continue project implementation. At the time of project completion, this project was also in negotiations with DIMMSA, a private company, for a partnership involving international marketing and sales, as well as with the Mexican-Costa Rican Fund for Sustainable Development for financial assistance.

DM-3765: Benefiting from the Dreaded Janitor Fish

(Philippines, \$143,747)

As a result of the project, participants ('cooperators') and the local project partner earned modest revenues from the livelihood activities that were supported by the project, using an income-sharing scheme of 70% for cooperators and 30% for the local partner.

**DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue
(Philippines, \$98,882)**

As a result of this project, the farmer-beneficiaries were able to generate a total net income of more than USD \$108,695 for a one-year period. Moreover, at the time of project completion, the project team was in negotiations with the Department of Agriculture and various local government units for financial and in-kind assistance.

4. Development Impacts, including those that are Unintended/Unrelated to TF Objectives

Discuss all other outcomes and impacts achieved under the Trust Fund (including unintended, positive and negative). Where relevant, discuss how the Trust Fund has contributed to the development/strengthening of relevant institutions, mobilization of other resources, knowledge exchange, recipient policy/program implementation, replicable best practices, introduction of new products, New Forms of Cooperation with Other Development Institutions/NGOs, etc., which would not have been achieved in the absence of the Trust Fund.

Sub-Projects:

**DM-0343: Ground-Source Systems in Hot, Arid Regions
(India, \$139,000)**

Through this project, the communities that participated were able to harvest dew in an affordable manner, giving them some form of water security. In addition, the project disseminated information both in the local community and in professional scientific circles (on arid area greenhouses) through various conferences and papers.

**DM-0448: Credit for Safe Collection of Used Oil
(Kenya, \$150,000)**

Aside from the positive environmental impact (reducing the amount of oil dumped into the Ngong River by over 200,000 liters), the project also created a market for selling used oil, which was hitherto discarded. In addition, the savings and credit group created by the project has mobilized mechanics to become involved in savings activities, which they had not been involved with prior.

**DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership
(Kenya, \$132,773)**

The charcoal centers provided employment opportunities to "carbon collectors", improving livelihood security, particularly for women involved in small-scale charcoal sales.

DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste

(Costa Rica, \$133,139)

This project built a clean energy device to sterilize infectious-contagious waste, protecting environmental and human health. As a result of the project, the University became interested in developing new academic resources in Alternative Energies, and planned to send students to obtain graduate degrees in the field.

**DM-3765: Benefiting from the Dreaded Janitor Fish
(Philippines, \$143,747)**

Beyond the scope of original milestones, the project led to a series of laboratory analyses to determine the levels of heavy metals in the janitor fish and two other species of fish in Laguna Bay. Lab results revealed high levels of mercury, leading the project team to recommend more detailed studies to relevant government authorities.

**DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue
(Philippines, \$98,882)**

Aside from the original objectives, the project created a floating duck shed model to address the problem of seasonal inundation in the area – this became an alternative duck-housing model for farmers to use. Furthermore, additional financial support from USAID was secured for an offshoot project, the solar duck egg incubator.

5. Overall TF Outcome

Justification for overall outcome rating, taking into account the Trust Fund's relevance, achievement of each TF development objectives, efficiency and development impact. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

Since this Trust Fund financed six individual sub-projects, there is no overall outcome rating for the TF as a whole – please see the sub-projects below.

Sub-Projects:

**DM-0343: Ground-Source Systems in Hot, Arid Regions: *Moderately Satisfactory*
(India, \$139,000)**

This project met its overall goals, but the numbers of targeted beneficiaries were scaled down mainly due to a lack of technology to desalinate brackish water cheaply for greenhouses.

Awards and Recognition

This project won the 2005 Plasticon Award for new product development from the Plastindia Foundation (a plastic industry association). Additionally, this project has garnered the project team leader the Indian Society for Agricultural Engineers (ISAE) a golden medal, the highest honor the Society confers on its members. Local and national media, through newspapers and television, have also provided coverage and information dissemination for this project.

DM-0448: Credit for Safe Collection of Used Oil: *Moderately Satisfactory*
(Kenya, \$150,000)

Issues with the local partner organization led to delays in project implementation. In addition, limited support from relevant government agencies for licensing/permits posed a challenge for the project. For example, the project did not achieve the milestone of signing a collection agreement with a lubricant manufacturer because it did not have an operating license. However, the project was still able to sell all the used oil it collected and the primary objective of the project was still met.

Awards and Recognition

The program director of this project participated in Santa Clara University's Global Social Beneficiary Incubator (GSBI) program. The project was also awarded a scholarship by the Accenture Accelerator Program and was labeled as "Entrepreneur of the Month of December 2006" on the Changemakers' (Ashoka) website. The project's success and experience was also disseminated at the Dubai Award for Best Practice in April 2007. In addition, the Ngong River cleanup exercise was broadcasted in Kenya on the 11th September 2006.

DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership: *Moderately Satisfactory*
(Kenya, \$132,773)

At the time of project completion, the project had established five of the six dust collection centers in Kibera due to land ownership issues at the proposed sixth site. As a result, the volumes of dust being collected were around 15% lower than expected by the end of the project period. However, the project was planning to open the sixth site within a month after project completion.

Awards and Recognition

This project received international coverage in 2005 with an exclusive TIME magazine feature of Chardust, as well as national coverage when Kenyan newspapers covered the DM 2005 winners. Moreover, the Canadian Broadcasting Corporation ran a feature on the project in December 2006.

DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste: *Moderately Satisfactory*
(Costa Rica, \$133,139)

At the time of project completion, this project had met three of its four milestones, with training of hospital staff to operate the solar device, the official consignment, and information dissemination still pending. This was mainly due to the fact that the operational area surrounding the oven was still being finalized at the time of project completion.

Awards and Recognition

The project won the National Energy Globe Award 2006 and 2007 for Costa Rica. Moreover, the organization applied for an international patent for the solar oven.

DM-3765: Benefiting from the Dreaded Janitor Fish: *Moderately Satisfactory*

(Philippines, \$143,747)

Some of the original project milestones had to be scaled down due to serious logistical problems. For example, four fish cages were supposed to be constructed in the lake. Due to logistical and administrative issues, the implementation of the fish cages could not be met so the milestones had to be adjusted. However, all the original cooperators were still trained and given the opportunity to proceed with the livelihood component of the project, albeit without the large-scale fish farming.

Awards and Recognition

The project has been featured in the American Chronicle and in local forums and exhibits.

DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue: *Highly Satisfactory*
(Philippines, \$98,882)

This project met all its milestones within the implementation period. Through a mid and final evaluation conducted by the project team, the farmers also positively assessed the project as successful in terms of meeting its objectives of increased income, cost reduction in rice farming, job creation in the community, and environmental protection from hazardous chemicals.

Awards and Recognition

At the time of project completion, the project had been broadcasted five times in radio programs in the form of interviews, covered in 20 articles in various local, regional, and local newspapers, and presented three papers in scientific conferences. Moreover, the project leader was awarded the Young Scientist Prize by the British Society of Animal Science and Animal Husbandry Association of Thailand. The project was also a finalist in the 2006 Dubai International Award on Best Practices to Improve the Living Environment.

D. Risk to Development Outcome

1. Follow-On Results and/or Investment Activities

Identify and provide a description of the role played by this TF that led to those follow-up activities or investments checked below. (Check all that are applicable):

Activity/Investment:

Recipient/Other Investment; Grant Project/Program; Bank Project;
 IFC Financial Project/Activity, Other (explain)

This TF led to some additional (non-GEF, non-World Bank) financing for a few projects. Please see Section C for more details. In addition, the next section (D2) contains a short discussion for each sub-project's scalability potential.

2. Replicability

Describe and rate the extent to which the Trust Fund has generated useful lessons and methodology that are replicable in other sectors and/or regions.

The Trust Fund has shown that innovative, environmental impact projects can be scaled up and potentially replicated in other areas. The GEF-funded individual projects below contain a short summary of each project's potential scalability, given its situation at project completion.

Sub-Projects:

**DM-0343: Ground-Source Systems in Hot, Arid Regions
(India, \$139,000)**

Scalability

Additional funds (Rs. 2 million) from VJ Shah Foundation will further build and strengthen the Kothara Development Outreach Station (DOS) and promote water technology in the area. In addition, at the time of project completion, a small business owner had ordered 20 units of the sol-cafe cookers in order to produce solar-cooked snacks for sale. Given the competitive advantage of solar cooked snacks, more businesses may follow.

**DM-0448: Credit for Safe Collection of Used Oil
(Kenya, \$150,000)**

Scalability

Given that the project did not secure any additional funding at the time of project completion, the team focused on the three aspects of the project that showed most potential for growth: credit program, oil collection and recycling, and oil collection from informal garages. For the credit program, the team decided to reinvest all funds from the sale of used oil into the credit program, growing the number of members to 500 by 2008 as well as the loan portfolio to Kshs. 5.5 million. For oil collection and recycling, the team was planning to increase the number of lube stations delivering oil to their facility from the existing 11 at project completion to 30 stations. This would increase the total oil collected from lube stations to an estimated 16,000 liters per month. For the oil collection from informal garages, the team was aiming to increase the average of 8,000 liters a month at the time of project completion to 12,000 liters a month within two years.

**DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership
(Kenya, \$132,773)**

Scalability

At the time of project completion, the project was continuing on a self-sustaining commercial basis. Chardust was also exploring the possibility of additional partnerships with community-based organizations for the sourcing of charcoal waste from other slum areas of Nairobi. There was potential to replicate this project in other African cities, and Chardust had made a number of technological innovations that could accelerate this process, including low-tech sieving and milling equipment, and a simple "agglomeration" system for the production of briquettes in locations with limited access to power and sophisticated maintenance facilities.

**DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste
(Costa Rica, \$133,139)**

Scalability

There is potential for scaling up this project – it could become a profitable choice for other health institutions in the country and also beyond. At the time of project completion, the team had a new contract for a similar over in place with the Universidad Nacional School of Veterinary. In addition, based on this project’s technology, the team was conducting technical studies for the sterilization of animal bones.

**DM-3765: Benefiting from the Dreaded Janitor Fish
(Philippines, \$143,747)**

Scalability

At the time of project completion, the project showed great promise in being scaled up in other parts of the Laguna Bay region or in other areas where the janitor fish are present. The project team recommended to the Laguna Lake Development Authority to allocate a budget to continue and sustain the janitor fish collection activities and process the harvested fish into fish meal.

**DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue
(Philippines, \$98,882)**

Scalability

The project team has submitted a proposal for scaling up with the Duck Ranger Project in other regions of the Philippines (Visayas and Mindanao), where there are vast lands of rice fields with similar problems of golden snail infestations.

3. Overall Risk to Development Outcome

Rate how likely, and for how long, the outcomes will be sustained after completion of Trust Fund activities, and the likelihood that some changes may occur that are detrimental to the achievement of the TF development objectives. These may include factors such as technical, financial, economic, social, political, environmental, government ownership/commitment, other stakeholder ownership, institutional support, governance and natural disasters exposure. (Rating Scale would be consistent with the four point scale used in ISR/ICR: Negligible to Low (L), Moderate (M), Significant (S) and High (H))

Sub-Projects:

**DM-0343: Ground-Source Systems in Hot, Arid Regions: Low
(India, \$139,000)**

A major challenge for this project was the lack of technology to desalinate brackish water cheaply. Until a desalination solution is available and affordable for use in greenhouses for commercial growing of vegetables, a major impediment in adopting this technology remains. However, the project was able to secure financial assistance from the Ashapura

Foundation in Kutch to pay for desalination technology. In addition, the project leveraged Rs. 2 million from the VJ Shah Foundation in the UK to build infrastructure in Kothara and promote water technology in the region.

**DM-0448: Credit for Safe Collection of Used Oil: Moderate
(Kenya, \$150,000)**

Given the lack of additional financing from other sources, the project was focused on growing the aspects of the project that have the most potential for growth: the credit program, oil collection and recycling, and oil collection from informal garages. However, the project was operating in a policy vacuum at the time of project completion, so depending on government policies, the scope of the project could be impacted.

**DM-0869: Carbon Collectors in Kibera, Nairobi: A Renewable Energy Business Partnership: Moderate
(Kenya, \$132,773)**

One of the main challenges this project faced was the fact that there are no legal land titles in the Kibera slum, and that land is controlled by de facto landlords. This made it risky for the project to set up dust collection centers in the area, given that no official rights of occupation or property ownership could be assured. To address this, the local partner organization decided to enter into a formal agreement with elders who effectively controlled the selected collection sites, which were endorsed and witnessed by local government officials. In addition, no additional financing was secured for this project at the time of project completion.

**DM-3485: Solar Ovens for Sterilizing Bio-Infectious Waste: Low
(Costa Rica, \$133,139)**

This project faced government bureaucracy while waiting for the Ministry of Health's requirements for operating the solar oven, leading to delays in project implementation. However, the project was able to build and install the oven at the hospital. In addition to the Development Marketplace award, this project was able to leverage another \$100,000 from the Universidad Nacional Storehouse for Provisions to continue project implementation.

**DM-3765: Benefiting from the Dreaded Janitor Fish: Significant
(Philippines, \$143,747)**

As this project started addressing the proliferation of an alien invasive species in a local ecosystem, it also became a significant advocate for the government to address the problem of mercury contamination of the lake and fish products that are harvested from the lake. If the high levels of mercury are not addressed, the fishmeal from the janitor fish may affect human health and could pose as a threat to the sustainability of the project.

**DM-3890: The Duck Ranger: Rice-Duck Systems to the Rescue: Low
(Philippines, \$98,882)**

Thanks to an excellent working relationship among project partners, the various challenges this project faced were overcome and did not pose a threat to the project's

sustainability. For example, the main challenge this project faced during implementation was how to enforce the farmer-beneficiaries to pay the Association for the cost of ducks as per their agreement. They were able to overcome this obstacle by involving the Municipal Agricultural Officers who the farmers well, together with the agricultural technicians, the farmer leaders, and elders to explain to the beneficiaries that the Association could work only if the members would adhere to the payment.

E. PERFORMANCE

1. Bank

Rate and justify rating on how well the Bank carried out its specific responsibilities assumed under the Trust Fund. If the TF financed Secretariat functions, describe how well the Secretariat carried out its roles and responsibilities, and its exit strategy, if any. If the Bank is executing Recipient work on behalf of Recipient, describe how well the rationale for Bank execution (as specified in the IBTF) was realized. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

The World Bank manages the Development Marketplace program with Project Liaison Officers at the Country Office level and an administrative DM Team in Washington to provide technical assistance and support the projects throughout their two-year implementation. Given the highly positive feedback on the DM's role from all six of the GEF-funded projects in the ICRs, the rating for the Bank's performance should be **Satisfactory**. The project teams were very pleased with the DM team's flexibility and supportiveness throughout the project.

2. Recipient (for Recipient-executed TFs only)

Rate and justify rating on how well the different tasks that were expected from the Recipient under this Trust Fund were carried out. (Rating Scale would be consistent with the six point scale used in ISR/ICR: Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) and Highly Unsatisfactory (HU))

F. LESSONS LEARNED / RECOMMENDATIONS

Describe the most significant positive and negative lessons learned from the success or failure of the grant activity and, as appropriate, make constructive recommendations for each stakeholder involved (Donor/Bank/Recipient/Development Community)—based on

the assumption these stakeholders might decide to undertake a similar activity at a future time.

Bank: One recommendation given by a project team to improve DM operations was to disburse more of the DM funds up-front in order to pay for larger cash outlays to get the projects off the ground. In 2005, the projects were disbursed in four tranches, 25%, 30%, 30%, and 15%. In later DM cohorts, this was changed to 50%, 30%, and 20%.

Recipient: Ensure that the working relationship between the project team and the local partner organization is very strong in order to overcome obstacles on the ground. This was successfully achieved by the Rice-Duck project in the Philippines, but the project team working in Kibera (Credit for Safe Collection of Used Oil) experienced delays in implementation due to problems with the partner organization.

G. ICM PROCESSING AND COMMENTS

1. Preparation

TTL at Approval: **Ms. Kaliope Azzi-Huck**

TTL at Closing: **Mr. Arvind Gupta (TTL) / Karen Vega (Portfolio Coordinator)**

Comment of TTL at Closing:

Prepared by (if other than TTL): **Myra Valenzuela, Consultant, WBI - Innovation**

Date Submitted to Approving Manager:

2. Approval

Manager:

Date Approved by Manager:

Manager's Comment:

3. TFO Evaluation of ICM Quality

TFO Reviewer:

TFO Rating on the Quality of ICM (*Satisfactory or Unsatisfactory*):

Comment and Justification for Rating Given by TFO: