

**IMPLEMENTATION COMPLETION MEMORANDUM (ICM)**  
*Revised Template version 5/18/06*

**A. BASIC TRUST FUND INFORMATION**

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

TF Name: Philippines: Reducing vulnerability to flooding in Metro Manila (GFDRR: Track II TA Australia Non-Core).

TF Number: TF098018.

Task Team Leader Name/TF Managing Unit: Joop Stoutjesdijk / GWADR.

TF Amount (*as committed by donors*): 1,500,000.00

Recipient of TF funds (*Bank/Recipient, if Recipient state name of recipient government and implementing agency*): Government of the Philippines, with the Department of Public Works and Highways (DPWH) as implementing agency.

Type of TF (*Free-standing/ programmatic/ new TF for an ongoing program*): Stand-alone Recipient Executed Project.

Single/Multi Donor: Single.

Donor(s) Name(s): Government of Australia through Australia Agency for International Development (AusAID).

TF Program Source Code: Global Facility for Disaster Reduction and Recovery

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

TF Approval/IBTF Clearance Date: December 13, 2010

TF Activation Date: October 11, 2010

TF Closing Date(s): January 31, 2015

Date of ICM Submission to DFi: June 4, 2015

Cost and Financing Table:

Fiscal Year	Expenditure (US\$)
11	104,200.00
12	276,629.79
13	411,160.35
14	116,011.38
15	386,630.11
<b>Total</b>	<b>1,294,631.63</b>

**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 original objective of the Grant was ‘to reduce the vulnerability of Metro Manila to future flood events after the September and October 2009 disasters typhoons Ondoy and Pepeng caused in Metro Manila.’

The objective was changed on February 24, 2012 (amendment letter signed by Philippines Country Director) as follows: ‘to reduce the vulnerability of Metro Manila and surrounding areas, including parts of Bulacan and Pampanga, to future flood events, following the typhoons that occurred in the recent years, including Ondoy in September 2009, Pepeng in October 2009, and Pedring in August 2011.’ This change in objective was in response to a request by government to expand the project area to the areas of Bulacan and Pampanga that were seriously devastated a few months ago by Typhoon Pedring. Considering the proximity to Metro Manila, the effect of the floods on the livelihood of the population that lives on the fringes of Metro Manila Bank management agreed with government’s request and study the flood conditions in Bulacan and Pampanga Provinces and prepare a comprehensive framework of a flood management master plan. Rather than expanding the master plan for Metro Manila, a separate flood management master plan was developed for Bulacan and Pampanga Provinces. In addition, it was agreed that few short studies could be carried out, based on requests from the Department of Public Works and Highways.

## 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.*

The original activities to be financed by the trust fund were to: (a) carry out a risk assessment study for the entire Metro Manila basin area to support: (i) the preparation of a comprehensive flood risk management plan; and (ii) determine a set of priority structural and non-structural measures that will provide sustainable flood management up to a designated safety level; and (b) carry out consultation activities, including meetings, workshops and seminars among stakeholders to ensure that their concerns are duly considered into the risk assessment study and to agree on the flood risk management plan.

The original activities were not changed, but by amendment to the grant agreement the following additional activities were added: (i) carry out an assessment of the flood damages in the Pampanga Delta Area; (ii) conduct studies on the constraints and barriers for flood risk management in the Pampanga Delta Area; (iii) prepare a comprehensive flood management master plan framework for Bulacan and Pampanga Provinces, with special emphasis on the Pampanga Delta Area; (iv) select priority flood control projects for flood risk management in the Pampanga Delta Area; (v) conduct investigation and analysis of the flooding condition along the Angat River including condition of Angat Dam operation; (vi) assess water supply potential of possible flood management infrastructure; and (vii) carry out additional studies, such as on resettlement and on-site developments on institutional capacities to improve flood management, and to link the mathematical model developed under the Grant to the AusAID-funded Light Detection and Ranging (LiDAR) survey.

### 3. Outcome Indicators

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

There is no reference to performance benchmarks or outcome indicators in the Grant Funding Request (GFR). The GFR refers to the preparation of a master plan for flood management in Metro Manila and surrounding areas; several consultation events; and the setting up of two steering committees by government. These have been measured and will be explained below.

### 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*

The consulting services for the preparation of the Flood Management Master Plan for Metro Manila and Surrounding Areas were much cheaper than estimated and by the time the draft master plan was prepared less than half of the available grant funds were used. Rather than canceling the remaining grant funds, government requested continued support from the Bank and utilize the remaining funds for a number of additional activities, including an assessment of the water supply potential of flood management infrastructure proposed in the master plan, an expansion of the project area to the areas of Bulacan and Pampanga Provinces that were seriously devastated late 2011 Typhoon Pedring, and the preparation of some additional studies related to the master plan. In order to carry out these additional tasks, a one year closing date extension of the Grant to February 28, 2013 was approved by the Bank.

As both DPWH's team and the Bank's task team put much emphasis on the completion of the master plan and related activities during the extended grant implementation period, several of the agreed activities could not be completed or even started. Therefore government requested a second closing date extension and the grant was subsequently extended to January 31, 2014.

The flood management studies for Bulacan and Pampanga Provinces were awarded to the National Hydraulic Research Center (NHRC) of the University of the Philippines (UP), with intermittent technical assistance support by Deltares of the Netherlands, especially for mathematical modeling and introduction of innovative concepts as 'giving room to the river'. Implementation progress during 2013 was not as expected, while lack of data made modeling difficult and time-consuming. Furthermore, following Typhoon Yolanda in November 2013, senior DPWH staff was not readily available to work with NHRC in completing the contract before the current grant closing date. Government requested a final closing date extension, which was granted to January 31, 2015. This one year period also allowed the Bank task team to continue its regular just-in-time interaction with senior government officials, especially of DPWH and the Metro Manila Development Authority (MMDA).

## 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*

Tropical Depression Ondoy that hit Metro Manila late September 2009 was so damaging and lasting that it renewed government's focus on the need for flood management improvements. Manila is a vulnerable area, as it is located in a floodplain/tidal basin, which makes flood management difficult. Rainfall and flooding are not isolated events, but there are measures that can be taken to reduce the impact of high rainfall events up to a pre-determined safety level. Government realizes that it has a responsibility for this and provide protection to its people and ensure that high rainfall and flood events are managed in a more sustainable manner and with minimum impact to the population of Metro Manila, including those living in surrounding areas. The trust fund objective, design, and implementation have been very relevant as it has provided the outputs that will guide government to achieve these objectives and priorities.

Despite the rapidly growing size of the flood portfolio, the World Bank lacks a corporate strategy on flood management. The Bank realizes that flooding is a serious and growing development challenge in many urban areas, including in Metro Manila. Recurrent flood events cause death and destruction of property and disrupt millions of people's lives and businesses. The poor are disproportionately affected, as many live in the floodways or other flood-affected danger zones. The challenge for the Bank's clients is to consider engineering, social/resettlement, and environment in a fully integrated way, whereby flood management improvements are part of an urban renewal/development process. Poorly planned and managed urbanization contributes to the growing flood hazard due to unsuitable land use change. As cities grow to accommodate population increase, large-scale urban expansion often occurs in the form of unplanned development in floodplains and along coastal areas, as well as in other flood-prone areas. The Bank's focus is on combining structural and non-structural measures. Structural measures aim to reduce flood risk by controlling the flow of water both outside and within urban settlements. Non-structural measures intend to keep people safe from flooding through better planning and management of developments. Examples are flood forecasting, early warning, but also urban planning and management and policy development. The Bank also considers a water catchment/river basin as a whole, the need to include tackling floods before they reach the city where they can do most harm (the city), and the need to involve all stakeholders to ensure maximum communication and consultation. The trust fund objective, design, and implementation have taken these best practices and recommendations fully into account and the trust fund has been very relevant as it has provided the outputs that will guide government to achieve these best practices and recommendations.

### 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*

As indicated in Section B.1, the objective of the proposed activity is to reduce the vulnerability of Metro Manila to future flood events. As per GFR 6722, this will be achieved through the preparation of a Master Plan for Flood Management in Metro Manila and surrounding areas. The Master plan will propose institutional reforms for flood management, capacity building interventions, amendments to existing legislations and rules that would lead to the introduction of an integrated flood management for the greater Manila area, level of protection and corresponding infrastructure measures, and costed prioritization for construction and rehabilitation. The objective was expanded to also include the preparation of a master plan for Bulacan and Pampanga Provinces and assist government, especially DPWH and MMDA, during the early implementation stage of the Metro Manila Master Plan by providing specialists to provide knowledge and best global practices on various topics of interest to the management and staff of DPWH and MMDA. It is noted that this trust fund did not carry out any studies on resettlement, as mentioned in one of the request letters for a closing date extension as these studies were eventually be carried out by Urban colleagues from other funding sources. The task team of this trust fund has worked and is still working closely with urban and social colleagues.

The Trust Fund objectives as described above have been met with the following outputs (reports):

- (i) Flood Management Master Plan for Metro Manila and Surrounding Areas;
- (ii) Flood Risk Management in the Pampanga River Basin of Bulacan and Pampanga Provinces;
- (iii) Flood Management Dam – Assessment of Water Supply Opportunities;
- (iv) Review of Structural Measures;
- (v) Review of Dredging Works;
- (vi) Metro Manila, Pumping Station Rehabilitation - Two Reports;
- (vii) Advise on Vinyl Sheet Piling;
- (viii) 3Di Flood Modeling for the Lower Marikina-Pasig Basin, Metro Manila Region Report and three Short Videos with Simulations for Illustration Purposes;
- (ix) Sediment Transport and Erosion Analyses for River Dredging in the Philippines;
- (x) Manila Pampanga Basin Flood Management: Room for the River solutions for Pampanga Basin;
- (xi) Laguna de Bay Data Compilation Report.

Flood Management Master Plan for Metro Manila and Surrounding Areas. The Master Plan, approved by the National Economic and Development Authority (NEDA) Board on September 4, 2012, proposes a set of priority structural and non-structural measures to provide sustainable flood management up to a certain safety level. The total estimated cost for the implementation of the Master Plan is up to PhP 352 billion (about US\$8

billion) over a 20-25 year period. The main elements of the Master Plan are: (a) structural measures to reduce flooding from river systems that run through the city; (b) structural measures to eliminate long-term flooding in the flood plain of Laguna de Bay; (c) structural measures to improve urban drainage; (d) non-structural measures such as flood forecasting and early warning systems and community-based flood risk management; and (e) improved institutional structure to deal with flood management in an integrated manner.

Flood Risk Management in the Pampanga River Basin of Bulacan and Pampanga Provinces. The study formulated a flood risk management plan for the Pampanga River Basin, with due attention given to reduce damaging flood events in the downstream area of the basin, in particular the deltaic area, the San Antonio Swamp, and Candaba Swamp.

Flood Management Dam – Assessment of Water Supply Opportunities. One of the priority structural measures in the Flood Management Master Plan for Metro Manila and Surrounding Areas is a flood management dam on the Marikina River, upstream of the city. Since raw water sources for Metro Manila are limited it was studied whether the proposed dam could also serve as a water supply source, realizing that flood management should be the main purpose of what would become a multi-purpose dam. It was determined that with good reservoir management, the proposed dam could provide raw water for the water supply of Metro Manila during the critical dry months of January through April.

Review of Structural Measures. The report provides advice on some of the early interventions proposed in the Flood Management Master Plan for Metro Manila and Surrounding Areas. In particular, the report describes the assessment of the effectiveness of recently constructed embankments, provides advice on the best protection method along selected rivers in Manila and the Laguna de Bay Area, and provides advice on structural alternatives to avoid flooding from Manila Bay.

Review of Dredging Works. The Flood Management Master Plan for Metro Manila and Surrounding Areas proposes certain dredging activities of the Napindan Channel, Mangahan Floodway, esteros, and smaller drainage channels. The report provides advice and the latest knowledge on dredging methods and models and dredging equipment and its operation. In particular, the current dredging practices were reviewed and advice on improvements was provided, including the sequence of dredging of systems; proposals were provided for different types and sizes of modern dredging equipment, with minimum maintenance needs, suitable for different dredging requirements (rivers, large channels and floodways, and smaller esteros); overall technical specifications for the recommended equipment were provided; cost estimates for the recommended equipment were provided; advice on environmentally friendly disposal of dredging material was provided; and advise was provided on the tools and equipment available to accurately monitor and measure dredging quantities.

Metro Manila, Pumping Station Rehabilitation. Metro Manila has about 60 pumping stations scattered throughout the city. Many of these pumping stations were constructed

20 to 40 years ago and are not performing well anymore. This study provided advice on upgrading and modernizing selected pumping stations, including the determination of the optimum capacity of each pump, selection of best types of pumps, cost estimates, and sample technical specifications. It also provides advice on synchronization of clusters of pumping stations to optimize their use and the development of a protocol for the operations of the pumping stations.

Advise on Vinyl Sheet Piling. DPWH lacks the knowledge to apply vinyl sheet piling and compare it to more conventional sheet piles. The report describes the properties of vinyl sheets and its superiority with regard to durability compared to sheet piling. It provides advice on the utilization, which can only be for constructions with relatively low loads. It provides the range of constructions for which vinyl sheet piling is used. The report provides DPWH management and engineers with the information needed to confidently apply vinyl sheet piling in some of its future works.

3Di Flood Modeling for the Lower Marikina-Pasig Basin. The report describes building a flood simulation model for the Lower Marikina and Pasig River Basins, based on the recently developed integrated water management model 3Di. 3Di is an innovative new model system for making high speed hydraulic computations to support decision making in water management. Since it is considerably faster than conventional flood modelling techniques, it can easily show decision makers, including non-water specialists, the impact of their ideas in various scenarios. As such it is strengthening DPWH's capabilities in analyzing, modelling, and visualizing flood events and to support its decision making capacities in urban flood prevention.

Sediment Transport and Erosion Analyses for River Dredging in the Philippines. DPWH prepared guidelines on river dredging operations for flood control. The guidelines stipulate that the design report for dredging works shall contain, among other items, sediment yield, sediment transport, and river-bed scouring analyzes, but the guidelines do not provide further details on how these analyses should be carried out. The report proposes guidance for carrying out analyses of sediment transport and river-bed scouring for different situations. The report presents simple diagrams and formulas for understanding and initially assessing the development of longitudinal river profiles as a result of sediment extraction. It is recommended to issue dredging permits for specific limited amounts and duration only, after which the impacts should be monitored through water level gauge reading and specific-gauge analysis.

Manila Pampanga Basin Flood Management: Room for the River solutions for Pampanga Basin. The report identifies and describes possible 'Room for the River' solutions for the Pampanga River Basin. Room for the River is the concept in which more room is created in the river cross-section (e.g. excavation or dike setback), such that water levels will become lower during floods and damage due to flooding can be reduced.

Laguna de Bay Data Compilation Report. The Government of the Netherlands funded a capacity building project (2000 - 2003) entitled 'Sustainable Development of the Laguna de Bay Environment' (SDLBE). The overall objective of the project was to ensure future

sustainable development of the Laguna de Bay resources, based upon a sound knowledge of the functioning of the system and the interaction with its users. This report summarizes both the data and insights as obtained by the SDLBE project and more recent updates gained in other studies or building on the results from the SDLBE project. The purpose of this compilation report is to provide information of and references on these studies, in order to support new initiatives by government for Laguna de Bay, including those identified in the Flood Management Master Plan for Metro Manila and Surrounding Areas.

One high-level steering committee and one technical-level steering committee were established for the overall management and coordination of the master plan. The committees met several times to discuss the master plan preparation and agree on its final output.

During the preparation of the Flood Management Master Plan for Metro Manila and Surrounding Areas many consultations have taken place, including with management and staff of government agencies, local government units (LGU), non-governmental organizations (NGO), community organizations (CO), and potentially affected people, like fishermen living along Laguna de Bay and people living along rivers and waterways. The aim of the consultations was to inform people about draft and final master plan conclusions and recommendations and get their opinions and acceptance of the plans.

### 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.*

In general, the trust fund activities have been effectively implemented. The Flood Management Master Plan for Metro Manila and Surrounding Areas was completed about six months later than the estimated date in the GFR, which was mostly due to a late start of the consulting services. Due to the very low financial proposal (less than half the estimated costs) by the selected consulting firm, the Bank task team had to ensure that the firm would be able to implement the services. This required extended negotiations with the consulting firm.

As the contract value was less than 50 percent of the available trust funds, government suggested additional activities rather than closing the trust fund and canceling almost US\$800,000. The preparation of the flood management plans for Bulacan and Pampanga Provinces was time-consuming. Initially there were delays with the procurement as at the request of government the procurement method was changed from QCBS to SSS to allow the contract to be awarded to the National Hydraulic Research Center (NHRC) of the University of the Philippines. Government's intention is to have NHRC develop into a center of excellence on integrated water resources development and management and the assignment would allow it to build up experience. Lack of data meant that modeling took more time. The two extensions of the closing were actually positive as it allowed the Bank task team and its consultants to continue its regular just-in-time interaction with

senior government officials, especially of DPWH and MMDA. Several outputs were produced in the final year, which would not have been possible if the trust fund would not have been extended.

Based on the above, it is concluded that trust fund has been used efficiently and has given good returns, even though the implementation period was over 4 years instead of the originally estimated 1 year and 5 months as per GFR.

**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.*

The trust fund has had positive effect on development of capacity of certain staff of DPWH and MMDA. Government specialists have been closely involved with the preparation of the various plans and reports. Engineers have benefited from training in modeling, planning, and design of modernization of pumping stations. NHRC has gained very relevant experience with master planning and water resources management through the implementation of the study on Flood Risk Management in the Pampanga River Basin of Bulacan and Pampanga Provinces.

At the time of approval of the Flood Management Master Plan for Metro Manila and Surrounding Areas by the NEDA Board, an allocation of PhP 5 billion (US\$115 million) was earmarked to start the implementation of the master plan with specific interventions that were described in the master plan. These funds may not have been made available without the master plan in place.

The Flood Management Master Plan for Metro Manila and Surrounding Areas has identified a number of large structural investments. The Bank has provided grant funds to government to prepare feasibility studies and designs for the most important ones, including the large dam. Without the guidance on required investments in the master plan this would unlikely have happened.

During the implementation of the trust fund, the Bank became a trusted partner of DPWH and MMDA management. This has led to a request from government for the Bank to finance a first phase of the Metro Manila Flood Management, focusing on pumping station modernization and drainage area improvements. Before the trust fund started, the Bank had not been involved in flood management activities in the Philippines and without the trust fund there would unlikely have been a request for the proposed project.

## **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))*

The overall trust fund outcome is rated Satisfactory (S). Considering the importance of improved flood management in Metro Manila and Surrounding Areas (including Bulacan and Pampanga Provinces), the trust fund has been very relevant and its objective has been achieved with relevant outputs and outcomes. The Flood Management Master Plan for Metro Manila and Surrounding Areas can be considered the most important output that was approved by government and is used as the standard for improving flood management. As such the development impact is positive. Although efficiency may seem low on account of the much longer implementation period than envisaged in the GFR, this has actually allowed a number of additional outputs that are relevant to government's work on flood management.

#### **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

The Government of the Philippines is earmarking funds for flood management improvements in Metro Manila that have been identified in the Flood Management Master Plan for Metro Manila and Surrounding Areas. These are typically smaller activities such as dredging of waterways and rivers and improvements of pumping stations.

The Flood Management Master Plan for Metro Manila and Surrounding Areas has identified a number of priority measures and shows clearly – through modeling – what the impact of such investments would be. The master plan has allowed the Bank to source US\$7 million from Australia's Department of Foreign Affairs and trade (DFAT) and US\$2.7 million from Japan's PHRD program. These funds will allow government to prepare feasibility studies and designs for some of the major structures that, once implemented, would lead to major reductions in flooding in Metro Manila. The necessary environmental and social studies will also be financed from these grant.

In late 2014, the Bank was requested to support government with a Metro Manila Flood Management Project – Phase 1. This proposed project that will focus on urban drainage improvements identified in the master plan is currently under preparation. The combination of regular rainfall events leading to excess of water, solid waste causing

obstructions of waterways, and people living over waterways results in poor drainage water conveyance and management. In addition, pumping stations perform poorly, resulting these days in drainage problems even during moderate rainfall events. Drainage water recedes slowly, impacting the living conditions of many people. Urban drainage improvements within the Greater Metro Manila Area are considered a priority for the government to lessen the impact of rainfall events on people and the economy. Improvements will require a multi-sectoral approach of simultaneously improving physical infrastructure and solid waste management, and addressing the issue of those ISFs living on and over waterways and drainage channels.

## **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 preparation of the Flood Management Master Plan for Metro Manila and Surrounding Areas has used a very thorough and comprehensive methodology that could be replicable for other regions. The methodology comprised a detailed review of the current situation and arrangements of flood management in Metro Manila, followed by a determination of the constraints and barriers to implementation of flood management practices (including policy, laws and regulations; institutional factors; social factors; awareness and preparedness; and land use planning), and finally the development of an Integrated Flood Risk Management Plan. This includes solutions and recommendations for the institutional foundation; for managing flood hazards through structural and non-structural measures in a phased, prioritized investment plan, including a mathematical model of the existing flood management system in and around Metro Manila, including Laguna Lake, to test the existing system for floods of varying magnitude and to test new infrastructure developments; for managing exposure to flood hazards; and managing vulnerability to the residual flood risks.

## **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))*

The current Administration has shown strong ownership for the preparation and implementation of the master plans and is using innovative practices based on advice generated under the trust funds such as use of vinyl sheet piling. After Tropical Depression Ondoy in September 2009, the general population became well aware of the issues with flood management, mostly through very regular media communication, and is demanding improvements. The master plans are the vision for addressing the flood problems in Manila and surrounding areas. The current Administration will finish its

term in June 2016. In the past, new Administrations have abolished at times certain programs developed and implemented by previous Administrations. As the need to improve flood management is well embedded in the general population and regular staff of relevant agencies, it is not expected that the new Administration will put aside the master plan and the priorities it has established. As such, the overall risk to development outcome is rated Low (L).

## 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))*

At the request of government, the Bank carried out the activities under the trust fund on behalf of the recipient. The Bank task team worked closely with government departments and other stakeholders during the implementation of the trust fund. The Bank task team served as a third-party convener during many stakeholder meetings and consultations. This was important to develop credibility for the proposals and to bring the many stakeholders, often with different views and priorities, around the table and come to commonly accepted solutions. The Bank task team has presented the preparation of the master plan and the findings during various forums in-country and in the Bank, including the Regional Vice President and other senior management. The Bank's performance is rated Satisfactory (S).

### 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))*

Several government agencies, notably DPWH and MMDA, have been closely involved with the implementation of the trust fund. Staff were assigned to work with consultants and the Bank task team. They were always present during meetings and consultations. Government agencies reviewed all the outputs and provided comments on draft reports. The two steering committees met regularly to review progress with implementation. The recipient's performance is rated Satisfactory (S).

## 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.*

The Bank's convening power is important for potentially controversial assignments. Historically there has been a lot of criticism from NGOs, COs, and the population at large that governments are not doing enough to mitigate flood risks. There was some skepticism that this assignment would not be any different. With the Bank implementing the assignment and being able to be transparent to all stakeholders to get buy in, the final results of this trust fund implementation have been successful and acceptable to all.

When preparing a master plan it is important to think broadly and consider all possible options and assess and describe these clearly before settling on the priority interventions.

There have to be strong teams on the ground, both from the Bank and the Recipient. Regular interaction with staff and senior management of the Recipient agencies is critical to make timely decisions that impact the next steps of a master plan preparation.

Much can be done with a relatively small grant, but it is important to allow flexibility with implementation and for the Bank team to have a good rapport with senior government officials.

Just in time support by the Bank is important to be able to respond to requests from senior government officials and bring in international knowledge and experiences.

## G. ICM PROCESSING AND COMMENTS

### 1. Preparation

TTL at Approval: Takao Ikegami, Senior Water Supply and Sanitation Engineer (retired)

TTL at Closing: Joop Stoutjesdijk, Lead Irrigation Engineer, GWADR

Comment of TTL at Closing: None

Prepared by (if other than TTL): Joop Stoutjesdijk

Date Submitted to Approving Manager: June 4, 2015

### 2. Approval

Manager: Ousmane Dione, Practice Manager, GWADR

Date Approved by Manager: June 4, 2015

Manager's Comment:

### 3. DFi Evaluation of ICM Quality

DFi Reviewer: Eka Putra, Operations Officer, DFPTF

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

Comment and Justification for Rating Given by TFO: The ICM provides good lessons learned.