

WORLD BANK

PROJECT DOCUMENT

FOR A

JAVA RECONSTRUCTION FUND (JRF)
IN THE AMOUNT OF US\$4.258 MILLION

TO

INTERNATIONAL ORGANIZATION FOR MIGRATION

FOR

**Yogyakarta and Central Java Earthquake
Roof Structure Project**

December 12, 2006

**Infrastructure Unit
East Asia and Pacific Region**

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CURRENCY EQUIVALENTS

(Exchange Rate Effective October 19, 2006)

Currency	=	Indonesian Rupiah
IDR1	=	US\$0.000109778
US\$1	=	IDR 9,109.29

FISCAL YEAR

January 1 - December 31

ABBREVIATIONS AND ACRONYMS

ADB	Asian Development Bank
CAT	Community Assessment Team
DIY	Daerah Istimewa Yogyakarta (Yogyakarta Special Administrative Region)
ERC	Early Recovery Cluster
FM	Financial Management
GoI	Government of Indonesia
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
IDA	International Development Association
IOM	International Organization for Migration
JRF	Java Reconstruction Fund
MIS	Management Information System
MLI	Multi-Lateral Institution
NGO	Non Governmental Organization
PAS	Project Accounting System
PDLAR	Preliminary Damage and Loss Assessment Report
UGM	Universitas Gadjah Mada
UPP	Urban Poverty Project

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REPUBLIC OF INDONESIA

Infrastructure Reconstruction Enabling Program

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REPUBLIC OF INDONESIA

**Yogyakarta and Central Java Earthquake
Roof Structure Project**

EAST ASIA AND PACIFIC REGION

EASUR

Date: June 11, 2007 Country Director: Andrew Steer Sector Director/Sector Manager: Christian Delvoie/Keshav Varma Team Leader: Ida Ayu Indira Dharmapatni
Grant Amount: US\$4.258 million
Grant Recipient: International Organization for Migration Executing Agency: International Organization for Migration

Estimated disbursements (CY/US\$m)				
CY	2006	2007		
Annual	1.0	3.258		
Cumulative	1.0	4.258		

Project implementation period: Start: November 27, 2006 End: June 27, 2007
Expected closing date: August 31, 2007

I. Background

1. On 27 May 2006, an earthquake registering 6.3 on the Richter scale damaged surrounding areas of Yogyakarta and Central Java (the “Affected Areas”). A significant number of houses were destroyed or damaged by the earthquake; societal coping mechanisms have also been severely disrupted, with widespread trauma and the means of earning a living buried in the rubble. The scale of the disaster is much greater than first thought, owing to a traditional building culture that was complacent about earthquake risk. Masonry walls made of burnt bricks connected with weak mortar – a reality exacerbated by unwitting negligence and poverty – were no match for the strong earthquake. In addition, a lack of adequate anchoring, poor workmanship, and minimal compliance with building codes, all contributed to the extent of the damage.

2. In the immediate aftermath of the earthquake, in response to the GoI request for housing assistance and in cooperation with government, local and international stakeholders, various organizations, individuals and community groups distributed emergency shelter materials (e.g. tarpaulins, mattresses, blankets and other emergency-shelter non-food items). Whilst close to 100% of the needs for immediate emergency shelter have now been covered, emergency tents and tarpaulins are only a short-term solution and will not provide adequate shelter to cover transitional needs through the two to three years required for preliminary reconstruction. Many families are likely to wait much longer for the completion of permanent housing built to earthquake-resistant standards (“Permanent Houses”). In the meantime, although some families may have the resources to recover on their own and others may receive assistance from government, civil society or the humanitarian community, poverty and insufficient resources highlight the need for transitional shelter support. The lack of adequate housing also impacts the capacity of people to resume their livelihoods. A large percentage of the affected population is engaged in small home-based industries. Hence, in the absence of more durable shelter, these communities will not be able to resume their previous economic activities. Finally, the lack of adequate housing causes severe health problems, which are expected to expand during the rainy season.

3. GoI is presently focusing all available resources on providing Permanent Houses to affected households, while the NGOs working under the coordination of the United Nations Early Recovery Cluster (“ERC”) are focusing on meeting immediate needs for housing in the form of “Roof Structures”. A typical Roof Structure is a wind and weather-proof bamboo structure with a tile roof, assembled on the existing concrete foundation of the original collapsed house, and is considered durable in that it is built to last for a minimum of two years while Permanent Houses are being constructed. All Roof Structures should be built to SPHERE standards (For further detail on Roof Structures, refer to Annex V: Technical Annex). Some key features of Roof Structures are that: (i) they do not endanger a family’s entitlement for permanent housing assistance under the broader GoI shelter response to the disaster; (ii) almost all components used in the construction can be reused in the construction of the Permanent House (see Section XII: Benefits and Risks); and (iii) no permits or authorizations are required for construction.

II. Preliminary Estimate of Damage and Response to Date

4. The Preliminary Damage and Loss Assessment Report (“PDLAR”) completed in June 2006 showed that over 300,000 homes were either totally destroyed or heavily damaged; with an average family size of 4.3, approximately 1.3 million people were rendered homeless by the earthquake.

5. Assessments recently conducted by the key members of the ERC show a need of approximately 93,000 Roof Structures, that is, 93,000 families are living with other families, are in shelters with a roof height below 2 meters, or are in shelters that will not provide sufficient shelter from the rainy season. To date, overall commitments from various agencies providing Roof Structures amount to 50,000 – showing a gap of approximately 47,300 shelters (including a 10% contingency).

III. Project Rationale

6. The GoI has released its Action Plan for rehabilitation and reconstruction for the Affected Areas and has committed US\$270m in 2006-2007 to reconstruct Permanent Houses. One of the objectives of the multidonor Java Reconstruction Fund is to respond to the basic needs of the households affected by the Earthquake, notably in terms of housing.

7. Whilst GoI has just begun distributing the first phases of cash grants to start the process of permanent reconstruction, this resource cannot be mobilized in time to mitigate the potentially devastating effects of the rainy season upon settlement conditions in the Affected Areas. The Provincial Governments of Yogyakarta and Central Java together with the ERC have developed a joint and complementary strategy aimed at accelerating the process of reconstruction to address the need for housing, whilst adhering to the plan for permanent housing reconstruction established by the Government of Indonesia.

IV. Project Objective

8. The objective of this Project is to respond to the most basic needs of the households affected by the earthquake through the provision of roof structures that transition to permanent housing. The Project will provide eligible families in targeted villages in the affected areas with safe and durable housing through the provision of roof structures while permanent house is being rebuilt. The Project provides the eligible beneficiaries an 18 m² of roof-structure house constructed with bamboo columns and roof trusses and bamboo sheets for the walls with clay roof tiles. Most of the materials of the roof structures can be reused in building a permanent house.

V. Project Description

9. To achieve the objective set out above, the Project will augment and increase capacity of the pre-existing program of the Implementing Agency. The program has four components: (1) preparation of Roof Structure Kits, (2) targeting and distribution of kits to beneficiaries, (3) assistance to beneficiaries during construction, and (4) quality control and reporting.

10. Preparation of Roof Structure Kits involves prefabrication of the most labor intensive and structurally crucial elements of the building including: wall components and bracing, roof frames, and connecting beams. Roofing elements (the frame that holds tiles) will be pre-cut to facilitate transportation of materials and improve on-site construction efficiency.

11. The kit fabrication is organized in different shifts consisting of foremen/supervisors and local skilled woodworkers. Workers are specialized along the different aspects of the production to optimize speed and quality of construction.

12. The Implementing Agency will coordinate closely with the ERC's MIS program, and identify locations that do not receive any assistance from other organizations. The Project aims for full coverage in each targeted sub-village. In consultation with the community leaders, and the community itself, the Implementing Agency will establish a list of eligible households based on the level of damage, and number of inhabitants. Student volunteers, under the supervision and guidance of Implementing Agency Field Assistants, will then survey potential beneficiaries. After a final list of beneficiaries is complete, a community meeting is conducted to socialize the Program.

13. The Implementing Agency already has existing contracts with service providers in all fields of

distribution including trucking, loading, dispatch, transit, logistics management, and so on.

14. In the field, the Implementing Agency will oversee and provide technical guidance for the construction of Roof Structure, in cooperation with volunteer students from local universities, including the Department of Architecture of the Universitas Gadjah Mada (UGM) and recruited skilled construction workers who are pre-trained. A mock-up Roof Structure will also be erected on-site, in presence of the community. It will be done at the sub-village level and may cover several communities benefiting from the action for geographically close sub-villages. Finally, Roof Structure Kits include a construction manual, to serve as a reference during the construction process.

15. The Implementing Agency will also continue to distribute awareness raising material and safe building manuals, which will complement the assistance provided by technical volunteers.

16. (For a more detailed project description, please refer to Annex V: Technical Annex).

VI. Project Implementation

17. **Implementing Agency.** The Grant recipient and organization responsible for all implementation and management issues for the Project will be the International Organization for Migration (the “Implementing Agency”). The Implementing Agency will be responsible for day-to-day management, procurement, logistics, and all operational details of the Project in accordance with IBRD policies and procedures. The implementing agency has an office in Yogyakarta and the organizational structure, so-called the T-Shelter Unit, to implement the roof structure is already in place. This unit has a project manager for the distribution and certification team, a project manager for community assessment, and a project manager for prefabrication production unit and construction as well as project assistants. The organizational structure is presented in Attachment VI: Organization Structure.

18. **Capacity.** While the Implementing Agency’s Roof Structures are relatively expensive, with over 15% of the unit cost representing overheads, and non-operational-related staffing and office costs, it was chosen due to its proven abilities to manage all of the tasks set out in the above paragraph and expand its program with minimal additional costs. As of October 20, 2006, the Implementing Agency has constructed over 4,500 Roof Structures, of which 3,000 have been assembled on site for eligible families in the Affected Areas. The Implementing Agency was judged to be one of few organizations able to deliver Roof Structures on this scale. Negotiations are ongoing with other potential providers of Roof Structures.

19. **Quality control.** The Implementing Agency has a quality control system for the input and the output. The tracking procedures cover incoming material, production, field distribution, end-user tracking and community handover of the structure kits, quality control during the construction and certification upon completion of the construction.

20. **Oversight.** The Urban Unit of IBRD will oversee the project and carry out supervision at least once per month, or more regularly as needed. IBRD will carry out a mid-term review in early February 2007 to assess the performance and the progress as well as the demand of the Roof Structures. The Terms of Reference for the mid-term review will be discussed with the Implementing Agency prior to the undertaking of the review. At the Project level, after all distribution has been completed, and construction should have been completed the Implementing Agency’s Community Liaison staff will conduct additional meetings and follow up with the beneficiaries to evaluate their satisfaction with the shelter provided. Data is collected using sample testing. IBRD will also assign an independent consultant team to verify the deliverables in terms of number, quality, targeting and beneficiaries’ satisfaction.

21. Independent audits of the Implementing Agency’s activities will be carried out in cooperation with relevant levels of government and in accordance with section XI on Auditing.

VII. Targeting of Beneficiaries

22. It is estimated that the Project will target 132 sub-villages in the Affected Areas in the DIY and Central Java provinces. This figures is based on the IOM’s current median sub-village size of 121 beneficiaries. The Implementing Agency will select these villages based on the level of damage and the level of assistance provided and promised by other organizations. The aim is to provide 100% coverage of the need as determined by the community themselves in conjunction with the Implementing Agency; that is, the Project will provide a Roof Structure to every family that needs one in a targeted village. Prioritization of construction for community members with disabilities, widows, and other disadvantaged groups is the prerogative of the communities themselves. For further details of the selection methods, please refer to Attachment V: Targeting Flowchart.

In selecting their target villages, the Implementing Agency will work closely with the ERC and the DIY and Central Java provinces as well as respective *kabupatens* (districts) to reduce overlaps. The Project will not operate in villages targeted by the other housing initiative facilitated by the World Bank: the Urban Poverty Project (“UPP”), which is providing permanent housing to eligible families in 156 villages in the Affected Areas.

VIII. Project Timeline

23. The timeline for the entire Project is anticipated to be 7 months (15 November 2006 – 15 June 2007). Construction of structural elements (frame and roofs) of all 16,000 units will be completed by May 31, 2007 with the final two weeks used for finalization of construction (walls), certification and reporting.

Table 1: Plan of Activities (Unit)

7 month-timeline	Pre-Nov	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Total
Production days (six days per week)		16-31	1-15 16-31	1-15 16-31	1-15 16-31	1-15 16-28	1-15 16-31	1-15 16-30	1-15 16-31	
Non JRF commitments prefabrication	8000	2400	1440	240	240	180				12740
Procurement		960	1920	1920	1920	1920	1920	1600		16000
Prefabrication			960	1920	1920	1920	1920	1600		16000
Distribution and Field Construction				960	1920	1920	1920	1920	1600	16000
Field Construction Finished unit					960	1920	1920	1920	1920	16000
Certification and Reporting						960	1920	1920	1920	16000
Total Prefabricated (JRF and Non-JRF)		2400	2400	2160	2160	2100	1920	1920	1600	
<i>Daily Prefabrication (JRF and Non-JRF)</i>		<i>200</i>	<i>200</i>	<i>180</i>	<i>180</i>	<i>180</i>	<i>175</i>	<i>160</i>	<i>160</i>	<i>133</i>

IX. Financing and Disbursement Mechanisms

24. The total requested funding is US\$4.258 million, which includes the cost of four project components for 16,000 Roof Structure Kits (US\$266 per unit). This figure includes Operational Costs of US\$3.6 million (85% or US\$225 per unit, including 5% contingency for price increases and production defects), Staff Costs of US\$0.4 million (9.3% or US\$24.7 per unit), Office Costs of US\$63,840 (1.5% or US\$4 per unit), and additional Overhead of US\$202,252 (5% or US\$13 per unit). For further breakdown of unit costs, please refer to the Annex I: Project Costs.

25. In order to overcome the Implementing Agency’s liquidity for pre-financing, advance from the

Grant is required. For this purpose, the Implementing Agency will open a designated (special) account (DA) denominated in US\$ in a commercial bank acceptable to IBRD. The DA will be solely used to finance eligible project expenditures. The ceiling of the advance to the DA is fixed at US\$1 million. The payments to the DA will be considered as the advances to the Implementing Agency, while reporting on uses of the advances should be submitted to IBRD monthly and any unused advances must be refunded to IBRD by the end of the project.

26. Disbursements beyond \$2.4 million would be contingent upon satisfactory assessment of the program by the Bank in the mid-term review.

X. Fiduciary Responsibilities

Financial Management

27. Financial management risks are rated as 'Substantial' and these will arise from the following factors: (1) the weak overall fiduciary environment in the country that might influence the project. In such an environment, a set of fiduciary policies and procedures is needed to ensure that proceeds of the Grant are used only for the purposes intended, with due regard to economy and efficiency; (2) Jakarta office has adequate financial management staff under its resource management unit. However, the Implementing Agency will need to exercise careful financial control over the expenditures made at the field location in Yogyakarta, particular over inventories of building materials purchased. (3) Yogyakarta office forwards all financial documents to Jakarta office for accounting purposes. Jakarta has a simple project accounting system (PAS 2000) that is basically a MS Access database application, and is now in a transition to implement their corporate SAP system. However, for this project, the Implementing Agency will not implement SAP system. This arrangement introduces some risks on the reliability of the accounting and reporting for transactions incurred at Yogyakarta for this operation, in particular with respect to costs allocated to similar operations being carried out by multiple donors simultaneously. The Implementing Agency intended to implement PAS 2000 in Yogyakarta office in the near future; hence they can record to the system directly and send it electronically to Jakarta office for consolidation purposes. The current Cooperation Arrangement between GOI and IOM is set to expire on January 31, 2007, but is expected to be renewed before that date. Non-renewal of the Cooperation Arrangement is specified as an event of suspension in the grant agreement.

28. A midterm review of project will be carried on or about February 15, 2007, to review the progress of the project and the projected demand for new roof structure kits. The World Bank will inform the Recipient prior to conducting the mid-term review. Failure on the part of IOM to satisfy the Bank with the progress of the project or with prospects for its continued implementation, having regard to projected demand, will be treated as an additional event of suspension and may also result in the suspension of the balance of the grant.

29. Some measures have been proposed to mitigate the risks arising from these factors. In addition to existing financial management procedures, the Implementing Agency will strengthen payment validation procedures related to the Project and special purpose financial reports will be requested for this operation on a monthly basis, to facilitate monitoring. Individual payments above IDR 100 million (US\$ 10,980) in Yogyakarta office will need to be countersigned by the Jakarta office. An external financial audit will be requested upon completion of the operation, together with a review of internal controls over project implementation. Internal audit program should include physical verification of inventory.

30. Overall, the project financial management risk is assessed as being Substantial. This assessment has concluded that with the implementation of the *Action Plan for Rehabilitation and Reconstruction for the Post-Earthquake Affected Areas in the Province of Yogyakarta and the Province of Central Java*, the proposed financial management arrangements will satisfy IBRD's minimum requirements under OP/BP10.02 and are adequate to provide, with reasonable assurance, accurate and timely information on the status of the Grant required by IBRD. More details of the financial management assessment are given in Annex III: Financial Management.

Procurement

31. The Implementing Agency will manage and coordinate all human resources, by hiring a number of locally pre-trained skilled labors and volunteer students from local universities, including ones from the Department of Architecture of the UGM. The Implementing Agency will employ its own staff to supervise the work.

32. Procurement will consist of the purchase of construction materials. For shopping of goods by comparing at least three quotations, the Implementing Agency has adequate internal procurement and purchasing systems and procedures in place that can be followed for contract packages below US\$200,000, subject to clarifications as stated in the Procurement Annex IV: Procurement. For contracts above US\$200,000, ICB procedures will be followed. A more detailed description on procurement is presented in the Annex IV. Procurement.

Anticorruption

33. As with the anti corruption action plan on procurement, the Implementing Agency will disclose the following information on the Implementing Agency's central website at www.iom.or.id: (i) the prices of major construction items; (ii) the complaint database along with the report on the complaint resolution, (iii) contract award notices, containing the information specified in paragraph 2.60 of the Procurement Guidelines, and (iv) the names and addresses of the beneficiaries. This information will also be published on the ReKompak website. Overall, the procurement risk is average.

Social and Environmental Aspects

34. The Project will carry out on-site housing redevelopment for the affected families. Field observations have shown that most water supply facilities, including wells, and sanitation facilities such as septic tanks are relatively intact. Houses will be built on plots of land where ownership has been clearly established and verified with the landowners and neighbors. Therefore, it is highly unlikely that resettlement will take place in this Project. In the event that a land dispute does arrive, it will be the responsibility of the community to settle it; although there is practically no chance of this happening after construction has begun due to the extensive socialization campaign undertaken by the Implementing Agency. In fact, the Project should have positive social impacts for those involved in the process, since (i) the recipients of the Roof Structure Kits will be able to return to productive lives, (ii) community members (including construction workers, laborers, craftsmen, supervisors, truck drivers and administrative staff) will be provided temporary employment and gain practical professional skills, and (iii) volunteer university students will be better prepared for future employment through on-the-job training for construction and community liaison.

35. The Project will use construction components consisting of a tarpaulin and tiles for the roof, bamboo sheeting for the walls, bamboo poles for the framing, nylon straps and rope as fastening materials, nails, and cement and sand to form the Shelter Kit. The piles and roofing will be entirely made of bamboo. By design, the houses will not use any timber. Bamboo used for the project is sustainably

harvested from both planted and naturally regenerating sources; thus, no environmental issues are expected from the demand that the Project will generate for this versatile material.

36. Moreover, the Project will encourage the beneficiaries to use as much as possible salvaged materials from their previous houses, including bricks, doors, and windows. Environmental problems could occur in the production facilities where the construction materials are processed into prefabricated shelter kits, that is, the disposal of waste cuttings from the bamboo piles and wall sheets. However, the current practice is that excess materials are sent along with the shelter kits to the beneficiaries/sub-villages to be used during the construction of the shelters for small joints or other purposes. The Project will monitor the use of these materials to ensure that they do not pose any environmental threat through improper disposal.

37. The Implementing Agency will oversee and provide technical guidance for the construction of the Roof Structures in cooperation with volunteer students from the Architecture Department of UGM and recruit pre-trained skilled construction workers. The Roof Structures can be classified as semi-permanent housing with a life expectancy of at least two years, and can be incrementally expanded and improved to become permanent housing. Close supervision and assistance to the workers and beneficiaries involved during the construction will be required to ensure that the earthquake-resistant design and techniques are adhered to.

XI. Auditing

38. Special purpose project financial statement for expenditure under this Grant will be prepared by the Jakarta office, based on summary of financial transaction received from the Yogyakarta office. The financial reports will be subject to a financial audit by reputable auditor acceptable to IBRD. A copy of the Project audited financial statements, along with the management letters issued by the auditors, if any, will be submitted to IBRD no later than 3 months after the end of the project.

39. The Terms of Reference (TOR) for the project audit will be agreed by IBRD with the Recipient before negotiations. The audit report will include an opinion on the reliability of the project financial statements.

40. Technical/Performance Audit. There will be a technical/performance audit carried out by an independent consultant team during the implementation of the Project and after the Project is closed. The Terms of Reference will be agreed by IBRD with the Recipient prior to negotiation.

Remedies

41. If ineligible expenditures are found to have been made from the special account, or if expenditures are made from the Special Account without adequate supporting documentation to validate these, the Recipient will be obligated to refund the same to IBRD.

42. IBRD will have the right to suspend disbursement of the funds if significant terms of the Grant agreements, including reporting requirements and deliverables are not complied with. This will be reflected in the Grant agreement.

XII. Benefits and Risks

43. The main benefits of the project are the direct benefits associated with providing sturdy Roof

Structure that will be sufficient to house the family until a Permanent Structure is complete. It is recognized that whilst there is an imperative to make best use of limited resources from national, international and private sources and move as quickly as possible to permanent reconstruction phases, there is currently a greater imperative to ensure that disaster-affected families receive adequate shelter as the monsoon season begins in October 2006 that will remain so until a Permanent House is constructed.

44. A key benefit of a Roof Structure is that it does not reduce the resources available for subsequent construction of a Permanent Structure as all materials used for its construction will be reused when resources for the other components of the permanent house to be provided to a family. Erection is also fast, and materials are cheap, readily available, and the bamboo structure is suitable to withstand future seismic events.

Table 2: Material Reusability

Roof Structure Component	Quantity	Value	Permanent House Component
Bamboo 6.5m x 8cm	9	67,500	Internal partitioning structure, roof extension.
Bamboo 6.5m x 6cm	48	312,000	Roof frame
Nails 2.5 and 3.5cm	≈2kg	13,975	Roof frame
Nylon straps	60m	60,000	Ideal for roof frame support
Woven bamboo sheet 3m x 2m	8	188,000	Walling, ceiling material.
Tarpaulin 7m x 5m	1	117,500	Waterproofing external porch, cooking area
Rope 8mm	300m	150,000	Ideal for roof frame support
Construction Manual	1 book	10,000	Detailed information on safe building practices
Cement 50kg bags	250kg	185,000	Not reusable
Sand	0.5m ²	47,500	Not reusable
Roof tiles	900 pcs	378,000	Roof
Toolkit (shared with 20 HH)	1/10	96,449	Rebuilding
Total		1,625,924	

45. By expanding the already proven program of the Implementing Agency, the Program can reduce most operational and implementation risks. However, there are still a number of risks such as natural disasters, the ability of the Implementing Agency to increase its production capacity, and the possibility of overlap with and negative externalities of, the GoI program. The risks associated with natural disasters will be mitigated by the quality of the Roof Structure Kits distributed and the technical assistance provided at the construction phase. The possibility that the Implementing Agency will not be able to meet production targets is mitigated by the selection of an organization that is well established internationally, in other areas in Indonesia, and in the Affected Areas with proven programs. To mitigate the possibility that the Project will overlap with the broader GoI response once they begin disbursement of funds, the project will work closely with the ERC's Management Information Systems program monitoring all assistance being provided.

46. Beneficiary aggregation. It is assumed that the numbers of beneficiaries will continue to be adequate to maintain economies of scale through geographic and sufficiently grouped numbers of beneficiaries in a given location (about 60 beneficiary households per sub-village).

47. Demand. It is assumed that the demand level for IOM roof structures will remain consistent with what has been thus far experienced. Government policies as well as the pace of private reconstruction may have an impact on the willingness of beneficiaries to accept roof structures. Should substantial changes occur, IOM will immediately inform and consult with the World Bank. To mitigate the possibility that the Project will overlap with the broader GoI response once they begin disbursement of funds, the project will work closely with the ERC's Management Information Systems program monitoring all

assistance being provided.

48. Procurement. It is assumed that the market for raw materials will not significantly fluctuate or change in terms of costs or availability of materials. Should such changes occur, IOM will communicate this to the Bank and coordinate any necessary revisions to the project.

49. Quality Control. It is assumed that the local community self-help mechanism (gotong royong) will continue to adequately provide for the ongoing awareness of the need for maintaining structural integrity in any subsequent owner led modifications or reconstruction after the units have been handed over.

50. Construction. It is assumed that the local community self-help mechanism (gotong royong) will continue to adequately provide for necessary support to the construction program. Construction assisted and supervised by IOM will take place during a period of 6 days for each beneficiary, which from experience is more than enough to construct a roof structure. Should beneficiaries take longer to build the roof structure, IOM's operational capacity and budget do not allow for longer period of construction assistance. This may result in instances where the construction of one shelter is not supervised until completion.

XIII. Project Results

51. Please refer to Annex II: Results Framework.

XIV. Reporting

52. The Implementing Agency must provide monthly reports on the physical and financial progress of the report. In addition, the Implementing Agency must submit one final report after operational aspects of the Project have been completed summarizing the findings of the follow-up surveys of the beneficiaries, and details of the procurement, pre-fabrication, distribution, and technical assistance stages of the project. For further details on reporting, please refer to Annex II: Results Framework.

53. The project will use their existing accounting system, which is documented in the manual for the Implementing Agency field office. The accounting manual is acceptable. All project transactions are included in its financial statement, so that risk of double counting with other donors can be reduced.

54. In addition to the existing financial reporting requirements, the Implementing Agency will produce financial reports, which consist of financial and physical progress information at the end of the project. Some risks will arise from similar expenditures that are being funded by donors other than IBRD. Separate account codes will be created to allow expenditure to be tracked for different field office and different donors.

Annex I. Project Costs

LINE ITEMS	Unit	Months	Unit rate (in US\$)	Costs (in US\$)	Costs per unit (in US\$)
1.0 STAFF COSTS					
1.1 International Staff	per month	7.00	32,000	224,000	
1.2 National Staff	per month	7.00	16,000	112,000	
1.3 Other Jakarta/Mission support costs	per month	5.00	10,000	50,000	
1.1 Project Auditor (Consultant)				10,000	
Sub-Total Staff Costs				396,000	24.75
2.0 OFFICE COSTS					
Office Rent/Utilities	per month	7.00	2,250	15,750	
Communications	per month	7.00	1,500	10,500	
Vehicle Rental and Running Costs	per month	7.00	4,120	28,840	
Travel and Out of Station Allowance	per month	7.00	1,000	7,000	
Security costs	per month	7.00	250	1,750	
Sub-Total Office Costs				63,840	3.99
Sub-Total Staff, Consultant and Office Costs				459,840	28.74
3.0 OPERATIONAL COSTS					
Core material costs (excluding roof tiles)	16,000.00	1.00	125	2,000,000	125.00
Roof tiles	16,000.00	1.00	45	720,000	45.00
Prefabrication costs	16,000.00	1.00	9	144,000	9.00
Transport and distribution costs	16,000.00	1.00	10	160,000	10.00
Field implementation unit costs	16,000.00	1.00	20.0	320,000	20.00
Tool kits	1,600.00	1.00	50	80,000	5.00
Sub-total operational costs				3,424,000	214.00
5% contingency for price increases and production defects				171,200	10.70
Total Operational Costs				3,595,200	224.70
Sub-Total Staff, Consultant and Office and Operational Costs				4,055,040	253.44
4.0 OVERHEAD				202,252	12.64
GRAND TOTAL				4,257,292	266.08

Annex II: Results Framework

Project Development Objective	Key Outcome Indicators	Frequency	Source	Responsibility
To respond to the most basic needs of the households affected by the earthquake in terms of rebuilding housing through the provision of roof structures that transition to permanent housing.	<ul style="list-style-type: none"> ➤ Beneficiaries households' (men/women) satisfaction on ability to resume their normal household activities, e.g. children can study, family member/s can conduct informal economic activities, protected from rain and adverse weather conditions. ➤ Percentage of beneficiaries of roof structures that transition to permanent houses. ➤ Percentage of beneficiaries of roof structures that reuse their materials in permanent house. 	<ul style="list-style-type: none"> ➤ Mid-term and Final ➤ Mid-term and Final ➤ Mid-term and Final 	<ul style="list-style-type: none"> ➤ IOM Community Liaison Data¹ ➤ Community Liason Data and Independent survey ➤ Community Liason Data and Independent Survey 	<ul style="list-style-type: none"> ➤ IOM, followed up by Independent Controller and Verifier Consultant ➤ IOM, follow-up by Independent Consultant ➤ IOM, follow-up by Independent Consultant
Intermediate Results	Intermediate Results Indicators			
Households receive Roof Structures Kit.	<ul style="list-style-type: none"> ➤ Number of prefabricated Roof Structures Kits produced that meet satisfactory basic technical quality. ➤ Number of Roof Structures Kit delivered to eligible beneficiaries that meet satisfactory basic technical quality. 	<ul style="list-style-type: none"> ➤ Monthly ➤ Monthly 	<ul style="list-style-type: none"> ➤ Report ➤ Report 	<ul style="list-style-type: none"> ➤ IOM ➤ IOM
Output Results	Output Indicators			
To provide earthquake affected families with safe and durable housing through the provision of roof structures while permanent housing is being rebuilt.	<ul style="list-style-type: none"> ➤ Number of roof structures constructed that conform to pre-agreed specifications. ➤ Percentage of roof structures occupied by beneficiaries. 	<ul style="list-style-type: none"> ➤ Monthly ➤ Mid-term and final 	<ul style="list-style-type: none"> ➤ IOM Community Liaison Data ➤ IOM Community Liaison Data and Independent Survey 	<ul style="list-style-type: none"> ➤ IOM and Independent Team ➤ IOM and Independent Team

ARRANGEMENTS FOR RESULTS MONITORING

Target values									Data collection and reporting		
Intermediate indicators	Nov '06	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	May '07	Jun '07	Frequency	Instruments	Responsibility
Number of prefabricated Roof Structures Kits produced. (cumulative)		2,880	6,720	10,560	14,400	16,000			monthly	report	IOM
Number of Roof Structures Kit delivered to eligible beneficiaries that meet satisfactory basic technical quality.											
Output Indicators	Nov '06	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	May '07	Jun '07	Frequency	Instruments	Responsibility
Number of roof structures constructed that conform to pre-agreed specifications (cumulative)			960	4,800	8,640	12,480	16,000		monthly	IOM Community Liaison Data	IOM and Independent Team
Percentage of roof structures occupied by beneficiaries				90			90		Mid term and final	IOM Community Liaison Data	IOM and Independent Team
Outcome Indicators	Nov '06	Dec '06	Jan '07	Feb '07	Mar '07	Apr '07	May '07	Jun '07	Frequency	Instruments	Responsibility
Beneficiaries households' (men/women) satisfaction on ability to resume their normal household activities, e.g. children can study, family member/s can conduct informal economic activities, protected from rain and adverse weather conditions.				80			80		Mid term and final	IOM Community Liaison Data	IOM and Independent Team
Percentage of beneficiaries of roof structures that transition to permanent houses.				60			80		Mid term and final	Community Liaison Data	IOM and Independent Team
Percentage of beneficiaries of roof structures that reuse their materials in permanent house.				60			80		Mid term and final	Community Liaison Data	IOM and Independent Team

Note: Target values indicated in below table will be adjusted in light of the actual starting date of the project.

Annex III: Financial Management

FINANCIAL MANAGEMENT ASSESSMENT INTERNATIONAL ORGANIZATION FOR MIGRATION (IOM) DURABLE SHELTERS - YOGYAKARTA

A. Summary

This Grant will finance the construction of Roof Structures to earthquake-affected communities in Yogyakarta and Central Java. Total budget estimate is US\$ 4.25 million and will be implemented in seven months. This Grant will be funded by several donors, under a multi-donor trust fund.

The purpose of the project's financial management assessment is to determine whether the financial management systems of the Implementing Agency, IOM (International Organization for Migration) has capacity to produce timely, relevant and reliable financial information on the project activities. IOM is a non-UN inter-governmental organization with headquarters in Geneva. Financial management system in headquarters has not been assessed for this Grant.

Financial management risks are rated as 'Substantial' and these will arise from some factors: (1) the weak overall fiduciary environment in the country may influence the project. In such an environment, a set of fiduciary policies and procedures are needed to ensure that proceeds of the Grant are used only for the purposes intended, with due regard to economy and efficiency; (2) Jakarta office has adequate financial management staff under its resource management unit. However, IOM will need to exercise careful financial control over the expenditures made at the field location in Yogyakarta, in particular over inventories of building materials purchased. (3) Yogyakarta office forwards all financial documents to Jakarta office for accounting purposes. Jakarta has a simple project accounting system (PAS 2000) that is basically a MS Access database application, and is now in a transition to implement their corporate SAP system. However, for this project, IOM will not implement SAP system. This arrangement introduces some risks on the reliability of the accounting and reporting for transactions incurred at Yogyakarta for this operation, in particular with respect to costs allocated to similar operations being carried out by multiple donors simultaneously. IOM intended to implement PAS 2000 in Yogyakarta office in the near future; hence they can record to the system directly and send it electronically to Jakarta office for consolidation purposes. (4) The current Cooperation Arrangement between GOI and IOM is set to expire on January 31, 2007, but is expected to be renewed before that date. Non-renewal of the Cooperation Arrangement is specified as an event of suspension in the grant agreement. A midterm review of project will be carried on or about February 15, 2007, to review the progress of the project and the projected demand for new roof structure kits. Failure on the part of IOM to satisfy the Bank with the progress of the project or with prospects for its continued implementation, having regard to projected demand, will be treated as an additional event of suspension and may also result in the suspension of the balance of the grant.

Some measures have been proposed to mitigate the risks arising from these factors. In addition to existing financial management procedures, IOM will strengthen payment validation procedures related to the Project and special purpose financial reports will be requested for this operation on a monthly basis, to facilitate monitoring. Individual payment above Rp100 million in Yogyakarta office will need to be countersigned by the Jakarta office. An independent financial audit will be requested upon completion of the operation, together with a review of internal controls over project implementation. Internal audit program should include undertake physical verification of inventory.

Funds will be disbursed to IOM on monthly reimbursement based on list of eligible expenditure. Expenditure to be reimbursed should be clearly defined. Organizational overhead may be reimburse only in proportion to the total operations in Yogyakarta

Overall, the project financial management risk is assessed as being Substantial. This assessment has concluded that with the implementation of the *Action Plan for Rehabilitation and Reconstruction for the Post-Earthquake Affected Areas in the Province of Yogyakarta and the Province of Central Java*, the proposed financial management arrangements will satisfy IBRD's minimum requirements under OP/BP10.02 and are adequate to provide, with reasonable assurance, accurate and timely information on the status of the Grant required by IBRD. More details of the financial management assessment are given below.

Summary of Risks and proposed mitigating arrangements

The project's overall risk assessment and summary of mitigating measures is as follows:

<i>Risks</i> [High / Substantial / Moderate / Low]	<i>Assessment</i>	Summary Comments & Risk Mitigation Measures.	Conditionality
A. Inherent Risks			
1. Country Level Risks	Substantial	This operation will not rely on Govt. financial management systems. Fiduciary risks normally associated with use of Govt. FM systems will therefore not apply. But the wide prevalence of corruption in the country will impact the control environment to some degree.	N
2. Entity specific risks		IOM has extensive experience in Indonesia, with operations in many locations, including Aceh, Nias and Yogyakarta. It has considerable international experience in this kind of work. Indonesia entity is managed by a team of professional staff, including 56 qualified expatriate staff.	N
a. Implementing Entity Organization	High	IOM is inter-governmental organization which has close working relationship with many international donors and non-governmental organizations. Income is mostly from donor countries and total expenditures in FY 2005 amounted to US\$ 952 Million globally. There is a risk of uncertainty about IOM status, since the current Cooperation Arrangement between GOI and IOM is set to expire on January 31, 2007, but is expected to be renewed before that date. Non-renewal of the Cooperation Arrangement is specified as an event of suspension in the grant agreement. A midterm review of project will be carried on or about February 15, 2007, to review the progress of the project and the projected demand for new roof structure kits. Failure on the part of IOM to satisfy the Bank with the progress of the project or with prospects for its continued implementation, having regard to projected demand, will be treated as an additional event of suspension and may also result in the suspension of the balance of the grant.	Y
b. Entity Governance & Audit arrangements	Moderate	The audit of IOM 2005 financial statement is conducted by Office of the Auditor General of Norway. Unqualified opinion. Governance arrangements from HQ are strong.	N
Overall Entity specific Risk	Substantial		

B. Control Risks			
1. Budgeting	High	Detailed budgets for proposed expenditure have not yet been prepared.	Y
2. Internal Controls	High	<p>FM procedures and policies are well documented. However, there has been experience of isolated cause of fraud last year in Aceh. Transactions in Indonesia are subject to internal audit of IOM. Risks may arise from forgery of documents and weak payment validation. For Yogyakarta office, it is unlimited combined authorization of 2 signatures for payments (Head of Operations and Accounting).</p> <p><i>Stringent Payment validation procedures will therefore be specified and linked to evidence of physical progress. Review of Internal controls over Grant operations will be requested, and a copy of the report made available to IBRD. Internal audit should include physical verification of inventory, compare to the records and report any difference.</i></p> <p><i>For individual payment above IDR100 million should be counter-signed by Jakarta-based officer.</i></p>	Y
3. Accounting	Moderate	<p>Accounting staff capacity in Jakarta is adequate. Risks may arise from the field operation in Yogyakarta. Risks may arise from inaccurate allocation of expenditure for similar activities funded by multiple donors.</p> <p><i>Transactions for proposed Grant operation will be included in their entity accounting system to reduce risk of double counting.</i></p>	Y
4. Flow of Fund	Moderate	<p>Inadequate definition of eligible expenditure in particular overhead and indirect will weaken the fiduciary control over expenditure.</p> <p><i>Clearly define of expenditure on the principal that all directly identified to this project will be reimbursed and organizational overhead may be reimburse only in proportion to the total operations in Yogyakarta</i></p>	Y
5. Audit arrangements	Moderate	Independent private audit firms will be hired, acceptable to IBRD, based on TOR acceptable to IBRD. The audit will be for financial transaction in Indonesia under this Grant. A single project audit will be requested, since the project duration will be 7 months.	Y
Overall project specific Risk	Substantial		

Project Financial Management & Disbursement Arrangement

Based on the project design features and the risk analysis summarized above, the following arrangements are proposed for financial management and disbursements. These include measures to mitigate risks identified above.

Institutional and staffing arrangements

IOM is an organization headquartered in Geneva, with extensive operations (220 offices) around the world. It has been in operation in Indonesia since 1999. It has a Memorandum of Understanding with the Ministry of Finance authorizing it to operate as a non UN Intergovernmental Organization for relief work. Its operations in Indonesia are subject to its own internal governance and accountability arrangements. The current Cooperation Arrangement between GOI and IOM is set to expire on January 31, 2007, but is expected to be renewed before that date. Non-renewal of the Cooperation Arrangement is specified as an event of suspension in the grant agreement.

A midterm review of project will be carried on or about February 15, 2007, to review the progress of the project and the projected demand for new roof structure kits. Failure on the part of IOM to satisfy the Bank with the progress of the project or with prospects for its continued implementation, having regard to projected demand, will be treated as an additional event of suspension and may also result in the suspension of the balance of the grant.

Existing staff of the entity located in Yogyakarta will do accounting, reporting and monitoring. Activities will be supervised by Jakarta office of IOM. Resource department has responsibility on financial management and human resources. Right now there are five staffs working under financial management unit. This considered adequate for the time being. Although they may need back up from Jakarta office, once they start implementing PAS 2000 in Yogyakarta.

Accounting & Reporting

IOM Jakarta has simple project accounting system (PAS 2000) that basically is Microsoft Access database. PAS 2000 Jakarta file is downloaded into the headquarter Mosaic accounting system will produce the financial statements. Jakarta office may see their sub component financial report on the organization's website. An SAP system has recently been introduced, but will not be applied to this operation.

Yogyakarta office uses manual system and forwards all financial information to Jakarta office to be input in the system. IOM intended to implement PAS 2000 in Yogyakarta office in the near future.

The project will use their existing accounting system, which is documented in the manual for IOM field office. The accounting manual is acceptable. All project transactions are included in its financial statement, so that risk of double counting with other donors can be reduced.

In addition to the existing financial reporting, IOM Jakarta will produce financial reports which consist of financial and physical progress information at the end of the project. Some risks will arise from similar expenditures that are being funded by other donors in addition to IBRD. Separate entity level project codes will be created to allow expenditure to be tracked for different field office and different donors.

Audit Arrangement

Special purpose project financial statement for expenditure under this Grant would be prepared by the Jakarta office, based on summary of financial transaction received from the Yogyakarta office. The financial report will be subject to a financial audit by reputable auditor acceptable to IBRD. A copy of the Project audited financial statements, along with the management letters issued by the auditors, if any, will be submitted to IBRD no later than 3 months after the end of the project.

The Terms of Reference (TOR) for the project audit will be agreed by IBRD with the Recipient before negotiations. The audit report will include an opinion on the reliability of the project financial statements.

Disbursement Arrangement

In order to overcome IOM’s liquidity for pre-financing, advance from grant is required. For this purpose, IOM need to open a designated (special) account (DA) denominated in US\$ in a commercial bank acceptable to the Bank. The DA will be solely used to finance eligible project expenditures.

The ceiling of the advance to the DA is fixed at \$1 million. The funds made available to the DA will be considered as the advances to IOM. In accordance with IOM’s practices, expenditures would met by IOM’s own specific project code for this purpose in Jogjakarta or elsewhere and periodically IOM debits the DA to reimburse these expenditures sums based on the four categories specified below. The reporting on uses of the advances should be submitted to the Bank monthly and any un-used advances must be refunded to the Bank by the end of the project.

Reporting the use of the DA funds would be consisting of:

- (i) Interim Financial Report (IFR) showing summary listing of the expenditures for the period in accordance to IOM Financial Management System (MOSAIC) and classified under (a) consultants/staff cost; (b) goods and materials; (c) labor; (d) operational costs and overhead.
- (ii) DA reconciliation statement.

Applications for reporting use of DA funds (as above) and further advance for replenishment of the DA may be submitted monthly in a single application.

IFRS will not be accompanied by support documents. However, all documentation evidencing expenditures will be retained by IOM and shall be made available to the auditors for audit and to the Bank and its representatives if requested

Allocations of grants proceeds are as follows

Category Description	Amount of Grant (US\$ equivalent.)	% of expenditures to be financed
(1) Staff costs and Consultant	396,000	100%
(3) Goods and materials	2,800,000	100%
(4) Labour costs and wages	464,000	100%
(5) Operational costs (including office, overhead, transportation and distribution)	426,000	100%
(6) Unallocated	172,000	-
	4,258,000	

Cash Flow Budget is as

JRF Project Cash Flow Budget Revised

(All figures in U.S. Dollar)

Description	December	January	February	March	April	May	June
Funds Available Beginning of the Month	1,000,000	255,751	2,125	2,248	196	(57)	(398)
Plus funds received during the month		620,000	910,000	927,000	464,000	180,000	157,000
Less disbursements:							
Consultant							(10,000)
Staff costs	0	(3,460)	(15,914)	(64,135)	(100,830)	(100,830)	(100,830)
Goods and materials	(558,953)	(656,299)	(672,000)	(639,289)	(247,289)	(26,170)	0
Labour costs and wages	(92,627)	(108,758)	(111,360)	(105,939)	(40,979)	(4,338)	0
Operational costs (including office, transportation and distribution, Overhead)	(68,098)	(80,539)	(86,031)	(95,117)	(50,583)	(24,432)	(21,200)
Unallocated	(24,571)	(24,571)	(24,571)	(24,571)	(24,571)	(24,571)	(24,571)
Balance Carried Forward	255,751	2,125	2,248	196	(57)	(398)	(0)

Remedies

If ineligible expenditures are found to have been made from the special account, or if expenditures are made from the Special Account without adequate supporting documentation to validate these, the Recipient will be obligated to refund the same to IBRD. Eligible expenditures are stated in the Grant Agreement.

IBRD will have the right to suspend disbursement of the funds if significant terms of the Grant agreements, including reporting requirements, are not complied with. This will be reflected in the Grant agreement

FINANCIAL MANAGEMENT ACTION PLAN AND CONDITIONALITIES

Action

Condition of Effectiveness

- Detailed operating budgets for the proposed Grant expenditure should be prepared and agreed with IBRD, including funding for eligible operating expenses. Eligible expenditure should be clearly defined.
- Instructions on strengthened payment validation procedures should be prepared and approved by IBRD. Individual payment above IDR100 million in Yogyakarta offices will need countersign from Jakarta office.
- Terms of Reference of internal audit to be agreed with IBRD, and to include a review of internal controls over project implementation, eligibility of project expenditure and physical verification of inventory

Actions to be followed up during implementation (To be reflected as Other Covenants in the Grant Agreement)

- Extension of Arrangement Cooperation with GOI prior to disbursement.
- Appointment of external auditors acceptable to IBRD to be completed no later than three months after signing of the Grant Agreement. Audit of the Special Purpose Financial Statements will be submitted to IBRD not later than three months after project close.

Actions to be reflected as disbursement conditions

- Further disbursements beyond \$2.4 million would only be made upon satisfactory assessment of the program by the Bank in the mid-term review.

Annex IV: Procurement

A. General

Procurement for the proposed project would be carried out in accordance with IBRD's "Guidelines: Procurement under IBRD Loans and IDA Credits" dated May 2004; and "Guidelines: Selection and Employment of Consultants by World Bank Borrowers" dated May 2004, and the provisions stipulated in the Grant Agreement. The general description of various items under different expenditure category is described below. For each contract to be financed by the Grant, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are agreed between the Borrower and IBRD project team in the Procurement Plan. Due to the nature of the project, i.e. the purchase of basic material on demand basis, the Procurement Plan is still not developed at this stage but will be prior to launching any procurement activities and will be updated on an ongoing basis.

Procurement of Works: N/A

Procurement of Goods: Goods procured under this project would include: the purchase of construction materials, including core materials, roof tiles, prefabricated materials, and the related services (such as: the transportation and the distribution of materials, including field testing). IOM has a network of established vendors and has advertised public tenders in local newspapers. Many of the existing vendors have the opportunity to supply the Production Center. Depending on existing capacity, other vendors can immediately be added to the existing firms to supply the necessary volume. Construction materials will be purchased on batches, with an estimate of no more than US\$200,000 per package. For contracts below US\$200,000, the procurement will be done following Shopping procedures acceptable to IBRD, by comparing at least three quotations, using the Recipient's standard documents satisfactory to IBRD. Although it is not anticipated yet, however, if necessary, procurement above US\$200,000 will follow ICB procedures, using IBRD's standard ICB documents.

Selection of Consultant: An external auditor will be hired (estimated at US\$ 10,000) following CQS procedures. The auditor will conduct an audit of special purpose project financial statement. The overall objective of this assignment is to enable the auditor to express a professional opinion on the project financial statements, the operation of the overall financial management system including internal controls, and compliance with the financing agreements. Since the IOM does not have the experience in carrying out this selection process, this package is subject to the Bank's prior review.

B. Assessment of the agency's capacity to implement procurement

Procurement activities will be carried out by the International Organization for Migration (IOM). Purchase of material is directly done by IOM. IOM does not use external contractors. For this purpose IOM employs dedicated Admin and Finance officers as well as Procurement/Logistics experts (all are international staff)

The assessment of IOM's capacity concluded that IOM has the capacity to carry out procurement, with existing internal procurement procedures as follows:

1. Below US\$500 – no need to be supported by quotations from 3 vendors. The Project manager/procurement officer authorizes.
2. Below US\$20,000 – COM authorizes after obtaining 3 quotations. Missions are encouraged to coordinate with Field Procurement Unit (FPU) in Manila.
3. Between US\$20,000 and US\$200,000 – in addition to no.2, missions are required to coordinate with FCU.

4. Over US\$200,000 – in addition to no. 3, procurement shall be done using competitive bidding.

There is also a provision in IOM's internal procedures that requiring IOM to fully comply with the donor's procurement procedures and requirements for projects financed by donors.

IOM's shopping procedures may be followed subject to the following clarifications:

- Shopping is made by comparing at least three quotations from reputable suppliers. The term "reputable suppliers" shall not be limited to ones currently listed in IOM's vendor system. IOM should expand the list of firms invited to submit quotations in order to expand the pool of invited suppliers and find other qualified potential suppliers.
- Award of contract shall be made to the lowest-priced, substantially technically responsive quotation, and the merit point system is not applicable.
- Quotation is obtained using a one-envelope system.
- No negotiation of contracts is allowed.

As with the anti corruption action plan on procurement, IOM will disclose the following information

1. the prices of major construction items; and
2. the complaint database along with the report on the complaint resolution;

in its website and in the Re-Kompak website.

The overall project risk for procurement is AVERAGE.

C. Procurement Plan

There is no specific procurement plan developed for this Project, since the purchase of materials will be made on an on-going basis, following the progress of construction works. A detailed time schedule for the selection of auditor will be agreed with the Bank during negotiation.

D. Frequency of Procurement Supervision

IBRD will conduct at least a quarterly supervision missions to visit the field to carry out post review of procurement actions.

Annex V: Technical Annex

Technical Annex to MOP on Yogyakarta and Central Java Earthquake Roof Structure Kit Project

1. Background and Strategy

In the morning of May 27, 2006, an earthquake struck the region along the central section of Java's south coast. The areas most severely affected by this earthquake were those south and east of Yogyakarta City, i.e. Kabupaten (District) Bantul (located in Yogyakarta Special Region, *Daerah Istimewa Yogyakarta* – "DIY") and Kabupaten Klaten (located in Central Java Province). Most of the loss of life and most of the material damage was observed in these two districts. Considerable damage and some loss of life were also recorded in the other districts of DIY.

The Preliminary Damage and Loss Assessment Report ("PDLAR") by GoI, World Bank, and ADB estimates the total amount of damage and losses caused by the earthquake at IDR 29.1 trillion (approx. US\$3.1 billion) of which IDR 15.3 trillion (approx. US\$1.7 billion) were in the housing sector. This is more than damage and losses caused in the housing sector by the Aceh disaster (IDR 13.4 trillion).

Under the leadership of the UN, an inter-agency group known as the ERC was established to support GoI in dealing with the needs for immediate assistance.

Various damage assessments state the number of houses destroyed or severely damaged between 306,412 (ERC) and 358,693 (PDLAR). Assuming an average household size of 4.3 persons, this means that between 1.32 and 1.54 million people may have been rendered homeless by the earthquake.

In the immediate aftermath of the earthquake, government agencies and – in response to the GoI request for housing assistance – local and international stakeholders distributed emergency shelter materials (e.g. tarpaulins, tents, mattresses, blankets and other emergency shelter items) to the earthquake affected people. With the completion of these efforts, close to 100% of the needs for emergency shelter have now been covered.

Assessments recently conducted by the key members of the ERC show a minimum need of 102,300 Roof Structures. Up to mid-October 2006, overall commitments from various agencies providing durable shelter assistance amount to 55,000 units, leaving a gap of approx. 47,300 units. The scope of assistance for the first 55,000 units varies from prefabricated bamboo structures to cash vouchers and the distribution of building materials and tools.

Again under the leadership of the UN, another inter-agency group was established (Shelter Cluster Group – "SCG") to coordinate and oversee shelter provision in the disaster Affected Areas, in support of the efforts of GoI and other parties (individuals, civil society, NGOs, etc.).

To deal with the medium term needs of disaster relief and rehabilitation in the sectors housing, infrastructure, restoration of livelihoods, and others, various donors and international organizations have jointly established a Multi-Donor Trust Fund called Java Reconstruction Fund (JRF) in October 2006.

2. IBRD Response and Strategy

IBRD's response to the disaster included immediate communication with the Executing Agency for the Urban Poverty Project III, with the objective of re-allocating undisbursed project funds amounting to US\$20 million to housing reconstruction in the disaster area. IBRD is also in the process of re-assessing

its lending program to Indonesia and the macro-economic dialogue, and it is discussing the use of a project preparation facility or trust funds.

The objective of this Project is to complement efforts by GoI, the SCG, and civil society in providing a safe and appropriate shelter to all households that have become homeless as a result of the disaster and have not otherwise been provided with transitional or permanent shelter. To this end, the Project shall provide Roof Structure Kits to an estimated number of 16,000 eligible households. These kits shall be provided by the International Organization for Migration (IOM).

The main outcome of the project is the provision of 16,000 durable Roof Structure Kits that will be prefabricated at the IOM production facility, delivered through IOM logistics support system to households whose homes were destroyed or heavily damaged, and assembled on site.

The rationale of the Project is that the vast majority of the emergency shelters provided so far are only a short-term solution and will not provide adequate shelter to cover transitional needs throughout the 2-3 years that will probably be required for reconstruction. In the meantime, some families may have the resources to recover on their own, and others may receive assistance from government, civil society or the humanitarian communities. Even so, poverty and insufficient resources create the need for additional efforts to provide Roof Structure.

The lack of adequate housing also impacts the capacity of people to resume their livelihoods. A large percentage of the affected population is engaged in small home based industries and will not be able to resume their previous economic activities in the absence of more durable shelter. Finally, the lack of adequate housing causes severe health problems, which are expected to become much more during the forthcoming rainy season (November through March).

The rationale for entrusting IOM with the implementation of the Project is that IOM is currently, independently from the project and in cooperation with the international community and local partners, implementing a large scale Roof Structure construction program that is consistent with ERC's Strategic Framework. This program is being implemented through the construction, distribution, and assembly of prefabricated shelter units, tools and awareness raising materials. IOM has also established a joint program for the provision of technical assistance in the field with a consortium of local universities. It plans to provide Roof Structure to up to 10,000 households by the end of 2006 under this currently ongoing program. The Project is to build upon IOM's experience, project implementation facilities, organizational capacities, and human resources.

3. Detailed Project Description

The Project shall help close the remaining gap of needs for Roof Structure, as required during the ongoing efforts to construct a sufficient number of permanent houses for all households that have become homeless as a result of the disaster.

The Project shall provide an estimated 16,000 additional eligible households with "Roof Structure Kits" that consist of simple frames made from bamboo, walls made from bamboo weaving, and roof trusses made from bamboo, to be covered with tarpaulins and/or roof tiles.

The most labor intensive and structurally crucial elements of these Roof Structure Kits shall, for maximum efficiency and speed, be pre-fabricated in centralized facility, then transported to the various sites, and assembled there by the beneficiaries themselves, with the necessary technical assistance provided by the Project.

The Roof Structure design used by IOM uses only high quality bamboo for a number of reasons:

- Erection is fast and materials are easily available in Indonesia and thus this method fulfills fast track construction needs.
- Materials costs are relatively low, even for the high quality standards set out by IOM (moisture content of < 15% and maturity of > 2 years).
- Materials are traditionally used in Javanese culture.
- Adequate bamboo construction is suitable to withstand earthquake resistance or movements.
- Will last a minimum of 2 years, and will last longer than 2 years with periodic maintenance (painting, plastering, anti termite spraying, etc.).

The basic design standards specifications are as follows:

- Light weight structure, meets wind pressure coefficient as per Indonesian standard (less than 0.4 KN/m²).
- Total Design Load (less than 0.2 KN/m²).
- Roof design can handle clay tiles and aluminum sheeting with 15-18 kg/m².

The prefabrication facility has a current production capacity for the JRF of 160 Roof Structure Kits per day, with 4 production lines, operated in 2 shifts each. This means that over the period of the project, in addition to their existing commitments, IOM can produce 16,000 kits, allowing time for initial procurement of materials, community assessment and preparation, and selection of beneficiaries, as well as construction in the field.

The duration of the project shall be 7 months with an anticipated completion date of June 15 (assuming a start date of November 15). Construction of structural elements (frames and roofs) of all 16,000 kits shall be completed before April 30, 2007. The final two months of the project shall be used for finalization of construction (walls), certification and reporting.

IOM has already established a central warehouse and prefabrication facility for the production of Roof Structure Kits under its currently ongoing program. This warehouse and workshop facility optimize procurement, speed up the production process, and ensure that quality control standards are met. The quality of incoming raw materials to the warehouse is checked by dedicated quality control officers 'at the gate' of the production site, while another team controls the quality of the outgoing kits. The central warehouse and prefabrication center is located in Kalasan, northeast of Yogyakarta. An additional warehouse has been established in Bantul.

The primary project beneficiaries will be 16,000 vulnerable households in immediate need of durable shelter solutions; with an average household size of 4.3, this equals approximately 68,800 earthquake victims. Aside from this, the Project will also benefit the construction sector through the direct employment of workers at the production facility and in the field, work experience for UGM volunteers, as well as through the reactivation of local labor and businesses active in the production or the provision of construction-related materials or services, e.g. artisans, roof tile producers, daily laborers, *gedhek* (bamboo wall) producers, etc.

Community Assessment Team (CAT) of IOM will undertake selection of end-users/beneficiaries according to the following procedure:

1. Site identification: Using the SCG database, CAT will identify those locations with heavy and total damage that do not receive any assistance from other organizations. This information will be reviewed and crosschecked with various other sources. IOM aims for full coverage in each targeted village. Once an area is selected, CAT carries out a Rapid Assessment Plan.

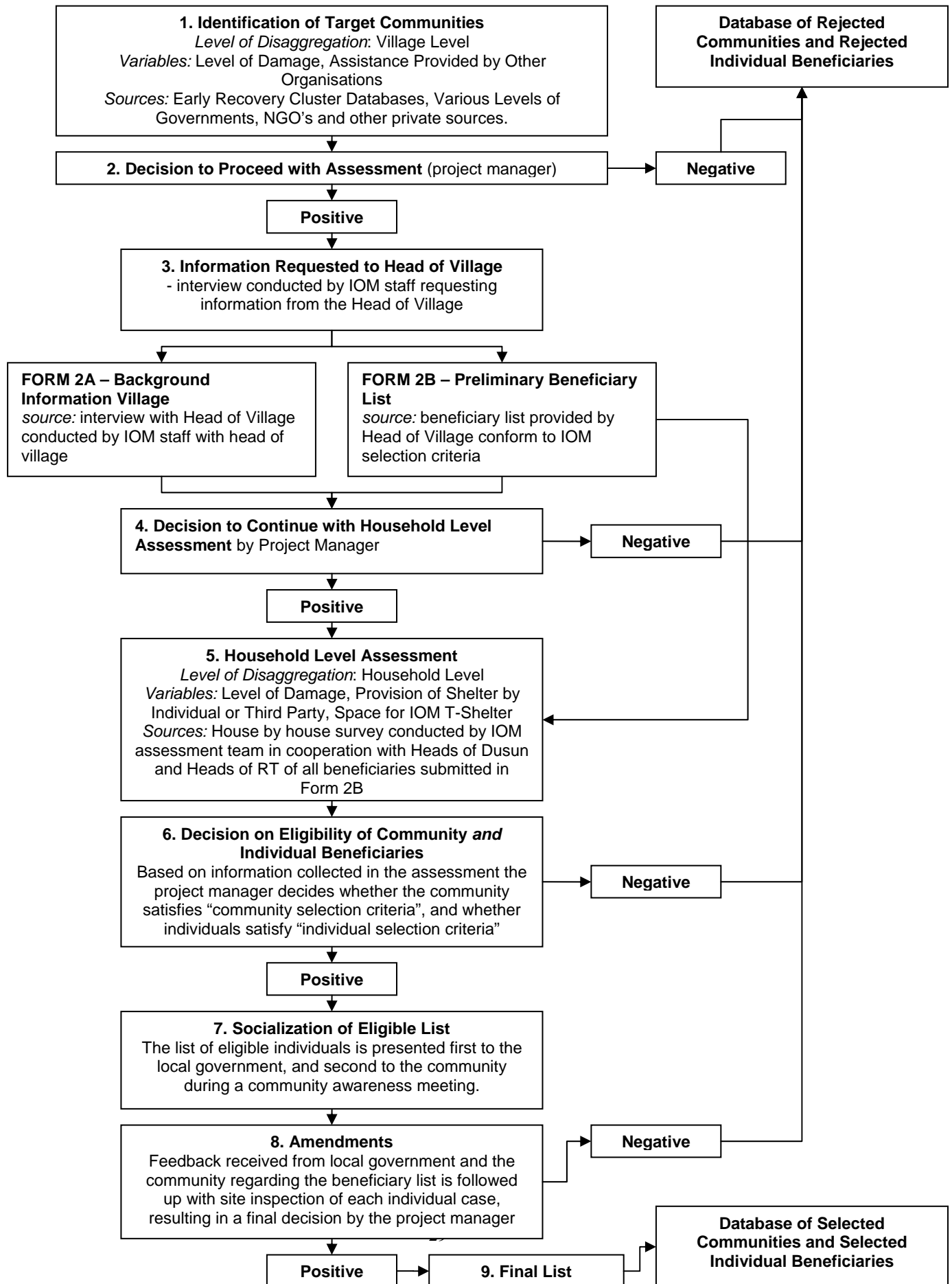
2. Beneficiaries List and Awareness: In consultation with the Kepala Desa (village head) and the community, IOM will establish a list of eligible households based on data on level of damage and number of household members, disaggregated to Dusun and RT (Rukun Tetangga) levels. Potential beneficiaries will then be surveyed by a team of student volunteers under the supervision and guidance of IOM Field Assistants. The checklist coming from the field will be included in IOM database, and a verified list will be produced for final decision and site inspection. After the selection of village and beneficiaries is completed, a community meeting will be convened and conducted for the socialization of the Project as well as safe construction awareness. A mapping of local warehouses and mock-up locations will be produced together with the final beneficiary list and handed over to the distribution unit of IOM.
3. Ex-post Distribution/Monitoring: After the distribution has been completed, the community liaison staff will conduct additional meetings and follow-up with the certified (construction) beneficiaries to evaluate their satisfaction.

The proposed methodology builds on IOM's lessons learned during the start-up of its durable Roof Structure program and deals with on-the-ground realities, namely:

- The current capacity of the work force mobilized from the community is insufficient to erect shelters at the pace required to meet the needs for durable shelter. Some communities are already facing "burn out" when dealing with the demands of reconstruction, combined with the necessity to earn income and tend to the fields and animals. Reconstruction is often taking place between 8:00 pm and midnight, weekends included.
- Initial housing designs were labor intensive and time consuming to erect on site. Manpower limitations require a simple and less labor intensive approach to field construction without sacrificing the self-help aspects of the project
- It is expected that during the monsoon season, productivity will be reduced by 50% or more, thus impacting productivity levels and necessitating centralized prefabrication.
- Quality control of the frame is essential when placing heavy roof tiles on lightweight bamboo structures. Furthermore, many of the village construction teams do not have the construction expertise and understanding to consistently produce adequately braced and structurally secure shelters capable of supporting heavier roof loads.
- Unreliability of suppliers with regards to the quality and quantity of materials distributed directly to the villages.

Based on these lessons learnt from the early reconstruction phase, it appears that the prefabrication of Roof Structure Kits is the best way to address the majority of challenges described above. The prefabrication strategy has been field tested by IOM and is producing the desired outcomes of fast construction coupled with sound management.

Process of selection of beneficiaries is presented in the chart below.



4. Institutional Arrangements and Project Implementation

The implementing agency for the Project shall be the IOM. IOM will be responsible for day-to-day management, including procurement of materials, operation of the prefabrication site, distribution of Roof Structure Kits, provision of technical assistance for assembly on site, logistics, and all other operational details of the Project, in accordance with IBRD policies and procedures. IOM will report on its activities and their outcomes to IBRD.

IBRD will be entitled to conduct, at its discretion, the technical, financial, social, and environmental audits as considered necessary.

Given the experience and demonstrated capacities of IOM, the provision of additional technical assistance is not required.

5. Action Plan

In agreement with the IOM, the following work phases are planned:

Step 1: Standard Design (Completed)

IOM's current 3x6 m design for Roof Structure Kit encourages installation of salvageable roof tiles and provides better perimeter water protection with a 60cm high masonry wall and elevated floor. IOM's design is appropriate for habitation for at least two years.

IOM shelter design has been broken down into shop-built components or pieces that can be shipped to the village level in the form of a kit that reduces construction time in the field by at least fifty percent and virtually guarantees structural integrity of the finished shelter.

Step 2: Bill of Quantity/Costing (Completed)

A budget has been prepared for the standard Roof Structure Kit. The total cost for a standard Roof Structure Kit is based on existing unit prices and currently stands at US\$265 including prefabrication, transport and distribution, office, staff and central IOM overhead costs. For a detailed budget, please refer to Annex I: Project Costs. For the risks and assumptions associated with this unit cost please refer to section X Fiduciary Responsibilities.

Step 3: Set-up of the Production facility (Completed)

IOM has set up a production facility in Kalasan (close to Yogyakarta International Airport), using WFP warehousing. This secure site is ideal to store a large quantity of incoming, outgoing material and provides sufficient room for loading and unloading trucks. The site has a secure perimeter fence and 24 hour security. Moreover, the facility has a reliable power supply for the 4 existing production lines.

The production lines are based on a simple design requiring little capital investment. Power equipment has already been procured and includes circular power saws, electric jig saw, electric drills, and a backup generator in the event of power failure. IOM employs local laborers and carpenters in 40-person teams. Currently, four crews (160 people) produce at least 80 shelter kits per eight-hour shift. With two shifts, this equals 160 Roof Structure Kits per day. Per week this is currently 960 Roof Structure Kits.

Notably, the production facility allows for strict quality control procedures, vis-à-vis incoming materials and outgoing prefabricated units. Contractors are paid according to their performance against targets and quality control standards and specifications.

Step 4: Procurement of materials

IOM has a network of established vendors and has advertised public tenders in local newspapers. Many of the existing vendors have the opportunity to supply the production center. Depending on existing capacity, other vendors can immediately be added to the existing firms to supply the necessary volume, in close coordination with various procurement officers of other agencies that are involved in Roof Structure construction.

In addition, and contingent on future funding, IOM will set-up livelihood projects to produce input materials. Especially, the production of bamboo sheeting for the walls and coconut rope for joints provide excellent livelihood potential.

Step 5: Kit Fabrication on a Piece Work Basis

IOM will produce, for each Roof Structure Kit, three main types of prefabricated components that are (a) the most labor intensive, and (b) crucial to the structural integrity of the building. These are:

- 4 wall components consisting of 2 columns, 2 horizontal beams and one diagonal brace,
- 4 roof frames, and
- 4 horizontal beams to connect two walling elements in the side wall.

In addition, roofing elements (the frame that holds the roof tiles) will be pre-cut to facilitate transportation of materials and improve on-site construction efficiency.

The fabrication of the Roof Structure Kit is organized in different shifts consisting of foremen/ supervisors and local skilled woodworkers. Workers are specialized along the different aspects of the production to optimize speed and quality of construction.

Step 6: Kit Distribution

The prefabricated elements will be combined with a tarpaulin and tiles for the roof, bamboo sheeting for the walls, fastening materials and cement to form a Roof Structure Kit. Unlike some other organizations who rely on salvaged roof tiles for their Roof Structures, IOM will provide enough roof tiles for an entire roof for the Roof Structure; in the event that the household is able to scavenge tiles from their previous house, these can be stored to form the roof of the Permanent House. Roof Structure Kits will be disbursed from the Distribution Center to beneficiaries, as identified by IOM. IOM will also coordinate the distribution of toolkits prior to Roof Structure Kit distribution. These toolkits include tools for clearing sites, preparing shelter foundations in the event that the existing foundation is not ready for immediate use and assembling the Roof Structure Kit. Thus far, the vast majority of recipients of IOM Roof Structure Kits had foundations suitable for use, in most other cases, suitable space was available for use in close proximity to the original house site. Repair of the foundation for the Permanent House will be the responsibility of the organization (most likely to be the Provincial Governments) providing the permanent reconstruction aid. In addition, IOM will continue to distribute awareness raising materials and safe building manuals, which will complement the technical assistance provided by IOM volunteers.

IOM will use its transportation capacity and existing professional expertise in logistics to conduct these complex logistical operations with efficiency, while ensuring accountability to the end-user level. IOM will also use its existing partnerships with numerous local NGOs, currently active in the distribution and construction process to assist in the distribution and assembly of Roof Structure Kits. Discussions are ongoing with the relevant NGOs as well as with the SCG Coordinator to incorporate their capacity and expertise in the IOM program.

Step 7: Construction

In the field, IOM will oversee and provide technical guidance for the construction of shelters, in cooperation with volunteer students from local universities, including the Department of Architecture of the Universitas Gadjah Mada (UGM) and recruited skilled construction workers who are pre-trained. A mock-up shelter will also be erected on-site, (either at sub-village level or for a group of sub-villages, depending on their geographical closeness), in presence of the community. Finally, Roof Structure Kits include a Construction Manual, to serve as a reference during the construction process.

Like for distribution, IOM might also use the capacity of various local NGOs currently active in the distribution and construction processes to assist with the assembly of the Roof Structure Kits.

Once installed with roof tiles and recycled brick floors, the Roof Structure Kit can be classified as semi-permanent shelters with a life expectancy of at least two years. Beneficiaries may install salvaged doors and windows from their damaged houses to enhance the condition of the durable structures.

Correctly positioned in the center of an existing slab, the 18m² structure will allow the incremental construction of a permanent shelter around the Roof Structure Kit. Beneficiaries can live a dignified existence while they proceed with permanent reconstruction efforts, which may take several years.

Annex VI: Project Preparation and Supervision

Milestone	Date
Project Concept Review	10/20/2006
Appraisal RVP approval	10/20/2006-11/13/2006
Planned date of Effectiveness	12/20/2006
Planned closing date	August 31, 2007

Key institutions responsible for preparation of the project:

1. World Bank

IBRD staff and consultants who worked on the project included:

Name	Title	Unit
Ida Ayu Indira Dharmapatni	Task Team Leader	EASUR
Hongjoo Hahm	Infrastructure Sector Coordinator/Lead Infrastructure Specialist	EASUR
Raj Soopramanien	Senior Counsel	LEGEA
Yogana Prasta	Senior Disbursement Officer	EACIF
Joe Leitmann	Lead Environmental Specialist	EASEN
Rajiv Sondhi	Senior Financial Management Specialist	EAPCO
Unggul Suprayitno	Financial Management Specialist	EAPCO
Rizal Rivai	Senior Procurement Specialist	EAPCO
Sarosh Khan	Senior Infrastructure Specialist	Consultant
Gottfried Roelcke	Urban Specialist	Consultant
John Holdaway	Research Assistant	Consultant

JRF funds expended to date on project preparation:

1. Trust funds: \$US 25,000

Estimated Approval and Supervision costs:

1. Remaining costs to approval: \$US 5,000
2. Estimated annual supervision cost: \$US 65,000