



# Change in Investment Program Implementation

---

Project Number: 38411  
MFF Number: 0022  
Loan Number: 2444  
February 2009

Multitranche Financing Facility  
India: Orissa Integrated Irrigated Agriculture and  
Water Management Investment Program

## CONTENTS

	<b>Page</b>
I. INTRODUCTION	1
II. BACKGROUND	1
III. PROPOSED CHANGES	2
IV. ASSESSMENT	3
V. THE PRESIDENT'S RECOMMENDATION	3
APPENDIX	
Revised Cost Estimates and Financing Plan	4

## I. INTRODUCTION

1. The Board of Directors of the Asian Development Bank (ADB) approved the multitranche financing facility (MFF) for the Orissa Integrated Irrigated Agriculture and Water Management Investment Program (the Investment Program) on 18 September 2008.<sup>1</sup> The total cost of the Investment Program is equivalent to \$268.8 million. ADB is financing up to the equivalent of \$188.2 million from its ordinary capital resources through the MFF in accordance with ADB's *Mainstreaming the Multitranche Financing Facility* approved in July 2008.<sup>2</sup> On 26 September 2008, the President approved the first tranche of the Investment Program. Its total cost is equivalent to \$67.5 million, and ADB is to finance \$47.2 million from its ordinary capital resources.

2. This paper informs the Board of the availability of loan cofinancing from the OPEC Fund for International Development (OFID) for the first tranche, and seeks the Board's approval for ADB to administer the OFID loan.

## II. BACKGROUND

3. The Investment Program aims to enhance the productivity, water use efficiency, and sustainability of the irrigation schemes in the four northern river basins and a part of the Mahanadi River Delta in Orissa state. It covers six major and nine medium-sized irrigation schemes with a net irrigated area (NIA) of 185,000 hectares (ha), and 1,400 community-based minor lift irrigation schemes with an NIA of 30,000 ha. The Investment Program's scope includes (i) the empowerment of water users associations (WUAs); (ii) renovation and extension of irrigation and associated infrastructure; (iii) agriculture and related support services, including livelihood enhancement of the poor; and (iv) the progressive transfer of the operation and maintenance to WUAs. The Investment Program also strengthens the institutional basis for participatory irrigation management and integrated water resources management through management reforms and capacity strengthening of the relevant institutions, while providing support for project management. The implementation period is 8 years. The Department of Water Resources of the Orissa state government is the Executing Agency.

4. Following the MFF framework, the first tranche of the Investment Program will cover one major and three medium-sized irrigation schemes with an NIA of 55,300 ha, and 650 minor lift irrigation systems with an NIA of 14,300 ha. The first tranche will finance (i) all irrigation and associated infrastructure for these irrigation schemes; and (ii) other nonphysical components of the Investment Program for the first 2 years of the implementation period, including institutional strengthening and project management support. The first tranche investments are expected to raise farm incomes by 60% through increases in irrigated area by 40% and in crop intensity, including high-value crops, by 20%. Associated improvements in water use efficiency in the irrigation schemes will also help to boost incomes. About 810 WUAs will be established, and these will take over the operation and maintenance of minor irrigation infrastructure. At the same time, the performance of the Department of Water Resources field office in bulk water delivery in major and medium-sized schemes will be improved.

---

<sup>1</sup> ADB. 2008. *Report and Recommendation of the President to the Board of Directors on a Proposed Multitranche Financing Facility to India for Orissa Integrated Irrigated Agriculture and Water Management Investment Program*. Manila.

<sup>2</sup> ADB. 2008. *Mainstreaming the Multitranche Financing Facility*. Manila.

5. During the preparation of the Investment Program, OFID expressed interest in providing \$30 million in cofinancing for the first tranche. However, ADB had not received a firm commitment from OFID before the Board approved the Investment Program. Consequently, OFID's funding was not included in the MFF financing plan approved by the Board. OFID's management approved the proposed cofinancing in October 2008. A draft loan agreement between the Government of India and OFID was submitted to the Government, and shared with ADB, in November 2008.

### III. PROPOSED CHANGES

6. OFID has advised ADB of its approval of a loan for \$30 million to be used to cover the costs of eligible expenditures, including civil works and equipment of irrigation and associated infrastructure for the first tranche of the Investment Program. The OFID loan will have an interest rate of 1.75% per year, an annual service charge of 1%, and a maturity period of 20 years, including a grace period of 5 years. It is proposed that the OFID loan be administered by ADB, and become effective at the same time as the ADB loan.

7. The OFID loan will be used to replace the corresponding portion of the ADB financing shares under the Investment Program and the first tranche. Therefore, the maximum amount of ADB loan financing under the Investment Program will be reduced to the equivalent of \$157.5 million, and the ADB loan amount under the first tranche will be reduced to \$16.5 million. These and other corresponding changes to the financing plans for the Investment Program and the first tranche are shown in Tables 1 and 2. Details are in the Appendix.

**Table 1: Investment Program Financing Plan**  
(\$ million equivalent)

Source	Original Plan		Revised Plan	
	Total	%	Total	%
Asian Development Bank	188.2	70	157.5	59
OPEC Fund for International Development	0.0	0	30.0	11
Government	73.4	27	73.0	27
Beneficiaries	7.2	3	7.2	3
<b>Total</b>	<b>268.8</b>	<b>100</b>	<b>267.7</b>	<b>100</b>

OPEC = Organization of Petroleum Exporting Countries.  
Source: Asian Development Bank estimates.

**Table 2: First Tranche Financing Plan**  
(\$ million equivalent)

Source	Original Plan		Revised Plan	
	Total	%	Total	%
Asian Development Bank	47.2	70	16.5	25
OPEC Fund for International Development	0.0	0	30.0	45
Government	18.5	27	18.1	27
Beneficiaries	1.8	3	1.8	3
<b>Total</b>	<b>67.5</b>	<b>100</b>	<b>66.4</b>	<b>100</b>

OPEC = Organization of Petroleum Exporting Countries.  
Source: Asian Development Bank estimates.

8. The replacement of a portion of the ADB loan with OFID's loan of \$30 million will reduce the total cost of the Investment Program from the equivalent of \$268.8 million to the equivalent of \$267.7 million, and the first tranche from the equivalent of \$67.5 million to the equivalent of \$66.4 million, because of the lower financing charges associated with the OFID loan.

#### **IV. ASSESSMENT**

9. Given that the scope of the Investment Program and the first tranche will not be affected by the inclusion of the OFID loan, cofinancing can be accommodated immediately. The impact, outcome, and outputs under the Investment Program and the first tranche will not change. The Government will benefit from the lower financing charges for the first tranche. The proposed administration by ADB of the OFID loan will also strengthen ADB's cooperation with other external funding agencies in India.

#### **V. THE PRESIDENT'S RECOMMENDATION**

10. The President recommends that the Board approve the administration by ADB of a loan of \$30,000,000 to India for tranche 1 of the Orissa Integrated Irrigated Agriculture and Water Management Investment Program to be provided by the OPEC Fund for International Development.

11. Following the Board's approval of the administration by ADB of the loan cofinancing from the OPEC Fund for International Development, the Framework Financing Agreement for the Investment Program and other relevant documents will be amended as necessary to give effect to the changes approved under this paper.

**REVISED COST ESTIMATES AND FINANCING PLAN**  
**Table A1: Component Cost by Financiers (Total Investment Program)(\$ million)<sup>a</sup>**

Item	Tranche 1 (FY2010–13)				Subtotal	Tranche 2	Tranche 3	Tranche 4	Total
	ADB	OFID	State	WUAs		FY2012–14	FY2014–16	FY2016–17	
<b>A. Irrigated Agriculture Management Systems</b>									
1. Planning and WUA Development									
a. WUA Mobilization through NGOs	0.7	0.0	0.0	0.0	0.7	1.7	1.9	0.7	5.0
b. WUA Elections, Buildings, etc.	0.0	0.0	0.2	0.0	0.2	0.2	0.1	0.1	0.6
2. Irrigation and Associated Infrastructure									
a. Land Acquisition and Resettlement	0.0	0.0	3.6	0.0	3.6	1.1	0.0	0.0	4.7
b. Infrastructure (Major and Medium Schemes)	4.8	19.9	4.2	0.0	28.9	40.7	28.0	2.6	100.2
c. Minor Lift Irrigation	0.0	4.9	0.7	1.4	7.0	0.0	5.3	2.7	15.0
d. Command Area and Conjunctive Use	0.6	0.0	0.6	0.2	1.4	5.2	7.4	5.4	19.4
3. Agriculture and Livelihoods Support	0.6	0.0	0.0	0.0	0.6	2.1	2.7	1.4	6.8
4. Sustainable O&M	0.1	0.0	0.1	0.0	0.2	1.0	2.2	2.9	6.3
<b>Subtotal (A)</b>	<b>6.8</b>	<b>24.8</b>	<b>9.4</b>	<b>1.6</b>	<b>42.6</b>	<b>52.0</b>	<b>47.6</b>	<b>15.8</b>	<b>158.0</b>
<b>B. Institutional Development</b>									
1. Institutional Strengthening									
a. Department of Water Resources	2.2	0.0	0.3	0.0	2.5	2.4	0.6	0.4	5.9
b. Training	0.6	0.0	0.0	0.0	0.6	0.7	0.7	0.4	2.4
c. Consulting Services	3.1	0.0	0.4	0.0	3.5	2.9	1.2	0.6	8.2
2. Project Management									
a. Project Management	0.9	0.0	2.8	0.0	3.7	4.9	4.3	3.0	15.9
b. Minor Lift Implementation Services	0.6	0.0	0.0	0.0	0.6	0.7	0.8	0.3	2.4
<b>Subtotal (B)</b>	<b>7.4</b>	<b>0.0</b>	<b>3.5</b>	<b>0.0</b>	<b>10.9</b>	<b>11.6</b>	<b>7.6</b>	<b>4.7</b>	<b>34.8</b>
<b>Total (Base Cost)</b>	<b>14.2</b>	<b>24.8</b>	<b>12.9</b>	<b>1.6</b>	<b>53.5</b>	<b>63.6</b>	<b>55.2</b>	<b>20.5</b>	<b>192.8</b>
Price and Physical Contingencies <sup>b</sup>	2.3	5.2	1.8	0.2	9.5	18.4	20.4	8.4	56.7
<b>Total Project Cost</b>	<b>16.5</b>	<b>30.0</b>	<b>14.7</b>	<b>1.8</b>	<b>63.0</b>	<b>82.0</b>	<b>75.6</b>	<b>28.9</b>	<b>249.5</b>
Financing Charges <sup>c</sup>	0.0	0.0	3.4	0.0	3.4	7.4	6.9	0.5	18.2
<b>Total Cost Including Financing Charges</b>	<b>16.5</b>	<b>30.0</b>	<b>18.1</b>	<b>1.8</b>	<b>66.4</b>	<b>89.4</b>	<b>82.5</b>	<b>29.4</b>	<b>267.7</b>
<b>Indicative ADB Financing Amount</b>	<b>16.5</b>					<b>62.7</b>	<b>57.8</b>	<b>20.5</b>	<b>157.5</b>

ADB = Asian Development Bank, FY = fiscal year, NGO = nongovernment organization, OFID = OPEC Fund for International Development, OPEC = Organization of Petroleum Exporting Countries, O&M = operation and maintenance, WUA = water users association.

<sup>a</sup> In mid-2007 prices. Taxes and duties will be financed by the state.

<sup>b</sup> Physical contingencies computed at 10% for civil works, NGO and consultancy costs, and project management, totaling \$12.7 million. Price contingencies are computed at 0.8% per year for foreign exchange costs and 4.0%–5.0% per year for local currency costs.

<sup>c</sup> Includes interest and commitment charges. Interest during construction has been computed at the 5-year forward London interbank-offered rate plus a spread of 0.2%.

Source: Asian Development Bank estimates.

**Table A2: Expenditure Cost by Financiers (Total Investment Program)<sup>a</sup>**  
(\$ million)

Item	ADB	OFID	State	WUAs	Total	Cost Sharing (% , average for all tranches)			
						ADB	OFID	State	WUAs
<b>A. Civil Works</b>									
M&M Schemes (Main and Distributary Canals)	53.5	12.9	7.6	0.0	74.0	72	17	10	0
M&M Schemes (Minor Canals)	15.0	7.0	2.3	0.0	24.3	62	29	9	0
Command Area Development	7.0	0.0	9.5	1.8	18.3	38	0	52	10
Minor Lift Schemes	4.5	3.9	1.2	2.4	12.0	38	33	10	20
O&M Support	2.5	0.0	3.1	0.6	6.2	40	0	50	10
Others	1.2	0.0	0.1	0.0	1.3	92	0	8	0
<b>Subtotal (A)</b>	<b>83.7</b>	<b>23.8</b>	<b>23.8</b>	<b>4.8</b>	<b>136.1</b>				
<b>B. Land Acquisition and Resettlement</b>	<b>0.0</b>	<b>0.0</b>	<b>4.7</b>	<b>0.0</b>	<b>4.7</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>
<b>C. Vehicles and Equipment</b>									
Vehicles	0.1	0.0	0.0	0.0	0.1	100	0	0	0
Equipment and Materials	2.8	0.0	0.3	0.2	3.3	85	0	9	6
Minor Lift Equipment	1.1	1.0	0.3	0.6	3.0	37	33	10	20
<b>Subtotal (C)</b>	<b>4.0</b>	<b>1.0</b>	<b>0.6</b>	<b>0.8</b>	<b>6.4</b>				
<b>D. Specialist Services</b>									
NGO Social Mobilization	5.0	0.0	0.0	0.0	5.0	100	0	0	0
Consulting Services	7.2	0.0	1.0	0.0	8.2	88	0	12	0
Minor Lift Implementation	2.4	0.0	0.0	0.0	2.4	100	0	0	0
Resettlement Plan Implementation	0.3	0.0	0.0	0.0	0.3	100	0	0	0
Studies	1.4	0.0	0.2	0.0	1.6	88	0	13	0
<b>Subtotal (D)</b>	<b>16.3</b>	<b>0.0</b>	<b>1.2</b>	<b>0.0</b>	<b>17.5</b>				
<b>E. Survey and Investigation</b>	<b>1.4</b>	<b>0.0</b>	<b>0.6</b>	<b>0.0</b>	<b>2.0</b>	<b>70</b>	<b>0</b>	<b>30</b>	<b>0</b>
<b>F. Training</b>									
Irrigation Management	2.4	0.0	0.0	0.0	2.4	100	0	0	0
Agriculture and Livelihood	6.8	0.0	0.0	0.0	6.8	100	0	0	0
<b>Subtotal (F)</b>	<b>9.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>9.2</b>				
<b>G. Operational Costs</b>	<b>4.0</b>	<b>0.0</b>	<b>12.8</b>	<b>0.1</b>	<b>16.9</b>	<b>24</b>	<b>0</b>	<b>76</b>	<b>1</b>
<b>Total (Base Cost)</b>	<b>118.6</b>	<b>24.8</b>	<b>43.7</b>	<b>5.7</b>	<b>192.8</b>				
Physical Contingencies	9.0	1.9	1.4	0.0	12.3	73	15	11	0
Price Contingencies	29.9	3.3	9.7	1.5	44.4	67	7	22	3
<b>Total Project Cost</b>	<b>157.5</b>	<b>30.0</b>	<b>54.8</b>	<b>7.2</b>	<b>249.5</b>				
Financing Charges	0.0	0.0	18.2	0.0	18.2	0	0	100	0
<b>Total Cost Including Financing Charges</b>	<b>157.5</b>	<b>30.0</b>	<b>73.0</b>	<b>7.2</b>	<b>267.7</b>	<b>59</b>	<b>11</b>	<b>27</b>	<b>3</b>

ADB = Asian Development Bank, M&M = major and medium, NGO = nongovernment organization, OFID = OPEC Fund for International Development, OPEC = Organization of Petroleum Exporting Countries, O&M = operation and maintenance, WUA = water users association.

<sup>a</sup> In mid-2007 prices. All taxes and duties will be financed by the state.

Source: Asian Development Bank estimates.

**Table A3: Expenditure Cost by Financiers (Project 1)<sup>a</sup>**  
(\$ million)

Item	ADB	OFID	State	WUAs	Total	Cost Sharing (%)			
						ADB	OFID	State	WUAs
<b>A. Civil Works</b>									
M&M Schemes (Main and Distributory Canals)	4.3	12.9	3.3	0.0	20.5	21	63	16	0
M&M Schemes (Minor Canals)	0.0	7.0	0.8	0.0	7.8	0	90	10	0
Command Area Development	0.6	0.0	0.6	0.2	1.4	44	0	46	10
Minor Lift Schemes	0.0	3.9	0.6	1.1	5.6	0	70	10	20
O&M Support	0.1	0.0	0.1	0.0	0.2	40	0	50	10
Others	0.6	0.0	0.1	0.0	0.7	90	0	10	0
<b>Subtotal (A)</b>	<b>5.6</b>	<b>23.8</b>	<b>5.5</b>	<b>1.3</b>	<b>36.2</b>				
<b>B. Land Acquisition and Resettlement</b>	<b>0.0</b>	<b>0.0</b>	<b>3.6</b>	<b>0.0</b>	<b>3.6</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>0</b>
<b>C. Vehicles and Equipment</b>									
Vehicles	0.1	0.0	0.0	0.0	0.1	90	0	10	0
Equipment and Materials	1.1	0.0	0.1	0.0	1.2	89	0	10	1
Minor Lift Equipment	0.0	1.0	0.1	0.3	1.4	0	70	10	20
<b>Subtotal (C)</b>	<b>1.2</b>	<b>1.0</b>	<b>0.2</b>	<b>0.3</b>	<b>2.7</b>				
<b>D. Specialist Services</b>									
NGO Social Mobilization	0.7	0.0	0.0	0.0	0.7	100	0	0	0
Consulting Services	3.1	0.0	0.4	0.0	3.5	88	0	12	0
Minor Lift Implementation	0.6	0.0	0.0	0.0	0.6	100	0	0	0
Resettlement Plan Implementation	0.1	0.0	0.0	0.0	0.1	100	0	0	0
Studies	0.3	0.0	0.0	0.0	0.3	90	0	10	0
<b>Subtotal (D)</b>	<b>4.8</b>	<b>0.0</b>	<b>0.4</b>	<b>0.0</b>	<b>5.2</b>				
<b>E. Survey and Investigation</b>	<b>0.5</b>	<b>0.0</b>	<b>0.2</b>	<b>0.0</b>	<b>0.7</b>	<b>75</b>	<b>0</b>	<b>25</b>	<b>0</b>
<b>F. Training</b>									
Irrigation Management	0.6	0.0	0.0	0.0	0.6	100	0	0	0
Agriculture and Livelihood	0.6	0.0	0.0	0.0	0.6	100	0	0	0
<b>Subtotal (F)</b>	<b>1.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.2</b>				
<b>G. Incremental Operational Costs</b>	<b>0.9</b>	<b>0.0</b>	<b>3.0</b>	<b>0.0</b>	<b>3.9</b>	<b>24</b>	<b>0</b>	<b>76</b>	<b>0</b>
<b>Total (Base Cost)</b>	<b>14.2</b>	<b>24.8</b>	<b>12.9</b>	<b>1.6</b>	<b>53.5</b>				
Physical Contingencies	1.1	1.9	0.7	0.0	3.7	30	51	19	0
Price Contingencies	1.2	3.3	1.1	0.2	5.8	21	57	19	3
<b>Total Project Cost</b>	<b>16.5</b>	<b>30.0</b>	<b>14.7</b>	<b>1.8</b>	<b>63.0</b>				
Financing Charges	0.0	0.0	3.4	0.0	3.4	0	0	100	0
<b>Total Cost Including Financing Charges</b>	<b>16.5</b>	<b>30.0</b>	<b>18.1</b>	<b>1.8</b>	<b>66.4</b>	<b>25</b>	<b>45</b>	<b>27</b>	<b>3</b>

ADB = Asian Development Bank, M&M = major and medium, NGO = nongovernment organization, OFID = OPEC Fund for International Development, OPEC = Organization of Petroleum Exporting Countries, O&M = operation and maintenance, WUA = water users association.

<sup>a</sup> In mid-2007 prices. All taxes and duties will be financed by the state.

Source: Asian Development Bank estimates.