

SUPPORTING REPORT  
FOR

**CHAPTER 5**  
Wehda-Irbid Water Supply

# **Supporting Report for Chapter 5**

## **“Wehda-Irbid Water Supply”**

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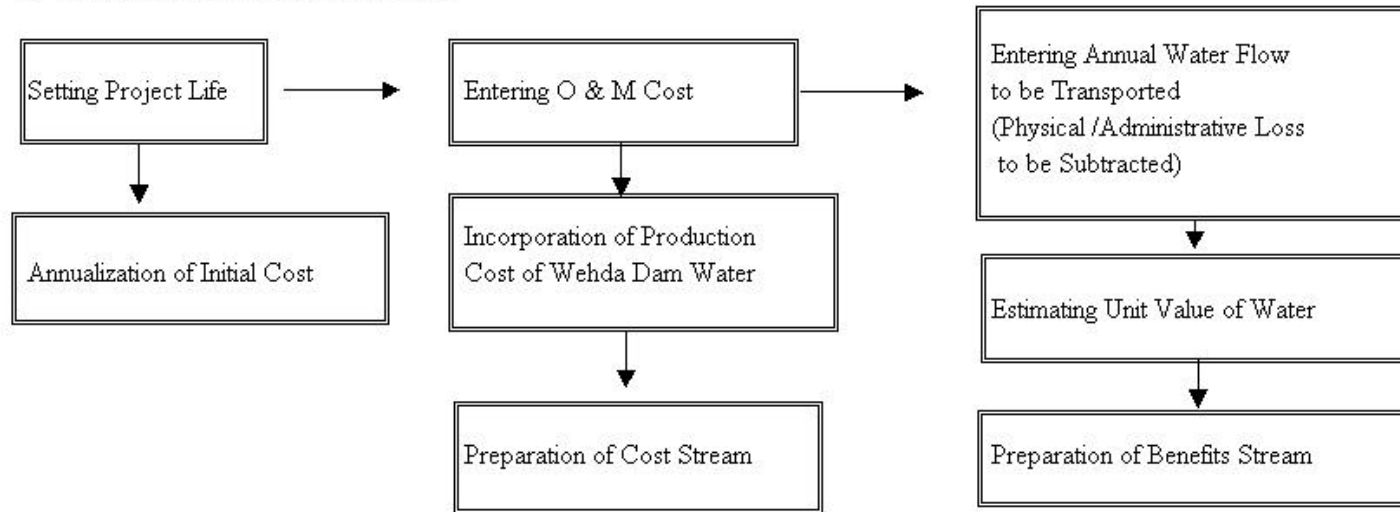
**ANNEX to 5.7.2**

**Economic and Financial Analysis**

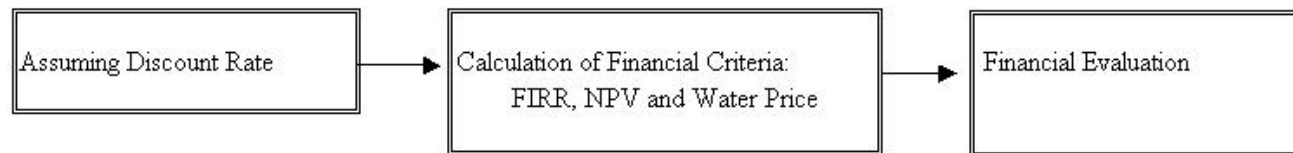
Economic and Financial Analysis

1. Financial Analysis

1) Preparation of Cost Benefits Streams

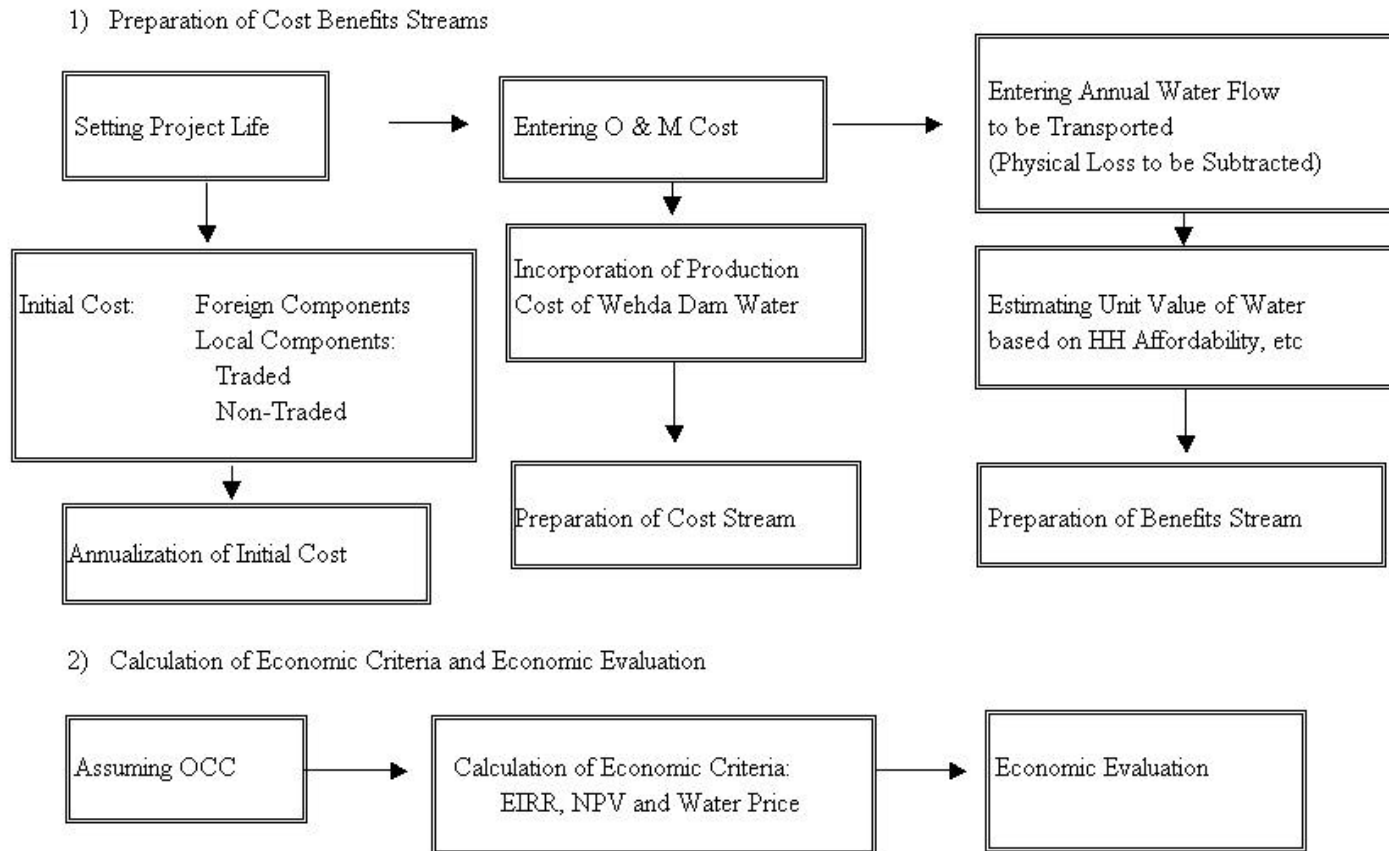


2) Calculation of Financial Criteria and Financial Evaluation



**Methodology for Economic and Financial Analysis of Wehda-Irbid Water Supply Project**

## 2. Economic Analysis



### Methodology for Economic and Financial Analysis of Wehda-Irbid Water Supply Project



**Economic Analysis (M JD at 2001 Prices)**

Items	Percent	Annual	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
<b>Costs</b>																				
Local Components		18.0	4.8	4.8	5.5	1.6	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign Components		36.5	9.1	9.1	12.1	3.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Duty & Taxes		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Capital Costs</b>		<b>57.4</b>	<b>13.9</b>	<b>13.9</b>	<b>17.7</b>	<b>4.7</b>	<b>4.7</b>	<b>4.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Cumulative Costs</b>			<b>13.9</b>	<b>25.9</b>	<b>43.6</b>	<b>48.3</b>	<b>53.0</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>	<b>57.7</b>
O & M Costs		0.0	0.0	0.0	5.5	5.6	5.6	5.6	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
<b>Total Costs</b>			<b>13.9</b>	<b>13.9</b>	<b>17.7</b>	<b>10.2</b>	<b>10.3</b>	<b>10.3</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>	<b>5.5</b>
<b>Benefits</b>																				
Municipal Usage Qty (M m <sup>3</sup> )		0.0	0.0	0.0	17.8	18.0	18.3	33.6	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Unit Benefits of Municipal Water (JD/m <sup>3</sup> )		0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
<b>Municipal Benefits (M JD)</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>13.1</b>	<b>13.3</b>	<b>13.4</b>	<b>34.7</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>
Industrial Usage Qty (M m <sup>3</sup> )		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unit Benefits of Industrial Water (JD/m <sup>3</sup> )		2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740
<b>Industrial Benefits (M JD)</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
Irrigation Usage Qty (M m <sup>3</sup> )		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unit Benefits of Irrigation Water (JD/m <sup>3</sup> )		0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283	0.283
<b>Irrigation Benefits (M JD)</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Total Benefits (M JD)</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>13.1</b>	<b>13.3</b>	<b>13.4</b>	<b>34.7</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>	<b>25.0</b>
<b>Net Cash Flow (M JD)</b>		<b>-13.9</b>	<b>-13.9</b>	<b>-17.7</b>	<b>2.9</b>	<b>3.0</b>	<b>3.1</b>	<b>16.2</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>	<b>16.4</b>
Discounting (DF=10%)		1.90919	1.61845	0.75111	0.68301	0.63993	0.56447	0.51316	0.46651	0.42410	0.38534	0.35045	0.31865	0.28966	0.26555	0.23939	0.21763	0.19704	0.17958	0.16498
<b>Total Qty Delivered (M m<sup>3</sup>)</b>		<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>17.8</b>	<b>18.0</b>	<b>18.3</b>	<b>33.6</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>	<b>34.0</b>
<b>EBRN</b>																				
<b>NPV (M JD)</b>	<b>28.3%</b>	53.1	-11.8	-10.7	-13.3	2.0	1.9	1.8	8.3	7.7	7.0	6.3	5.5	5.2	4.8	4.3	3.9	3.6	3.3	3.0
<b>PV of Total Costs (M JD)</b>		98.2	11.8	10.7	13.3	7.0	6.4	5.8	4.3	4.0	3.6	3.3	3.0	2.7	2.5	2.2	2.0	1.9	1.7	1.5
<b>PV of Total Qty Delivered (M m<sup>3</sup>)</b>		205.9	0.0	0.0	0.0	12.2	11.2	10.3	17.2	15.9	14.4	13.1	11.9	10.8	9.8	9.0	8.3	7.4	6.7	6.1
<b>Unit Water Price (F/m<sup>3</sup>)</b>		<b>-477</b>																		

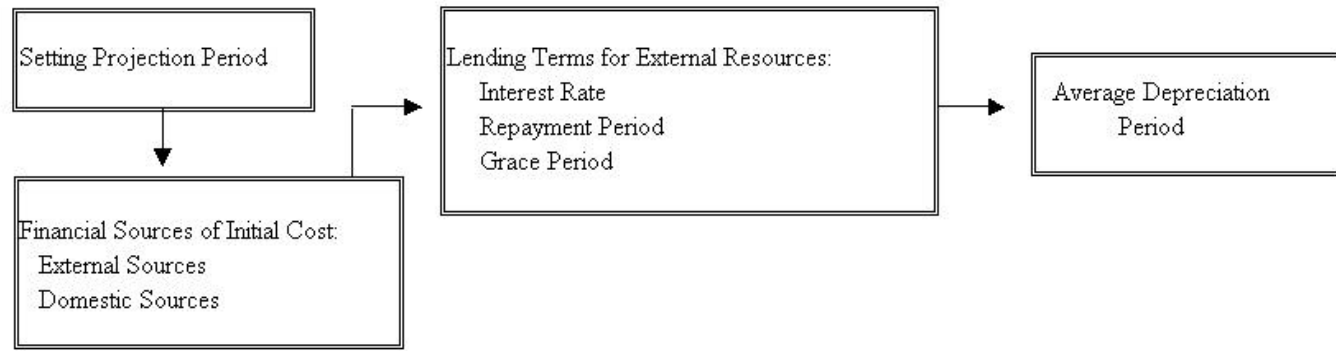
**ANNEX to 5.7.3**

**Financial Statements**

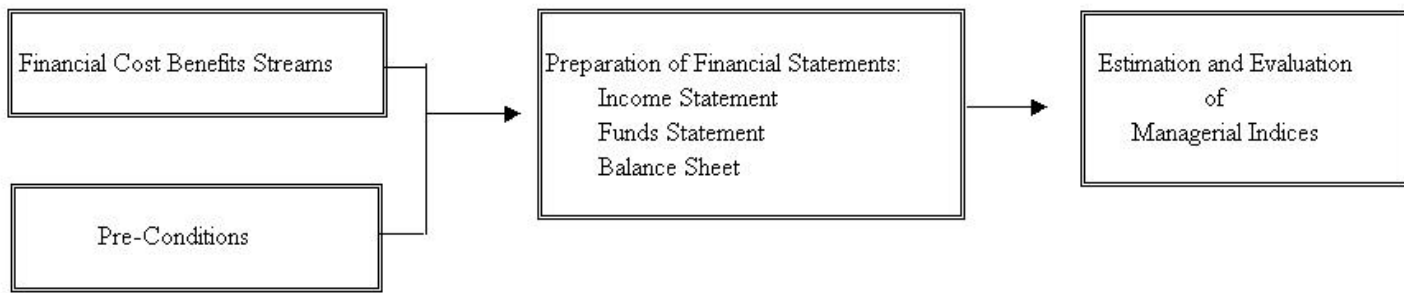


### Preparation of Projected Financial Statements

#### 1. Setting Pre-Conditions



#### 2. Preparation and Evaluation of Projected Financial Statements



**Methodology for Preparation of Financial Statements for Wehda-Irbid Water Supply Project**