

## Chapter 5

### Summary of Environmental Management Costs

#### 5.0 INTRODUCTION AND EXPLANATION

This Chapter provides a summary of the key pre-construction phase and construction phase environmental management costs associated with the Project. These data are presented in the following manner:

- Table 5.1 lists those environmental management costs that apply to the Chad Export Project in its entirety and/or those environmental management costs that were not specifically stewarded by country. Consequently, these costs have not been apportioned to either the Cameroon or Chad portions of the Chad Export Project.
- Table 5.2 lists those environmental management costs that only apply to the Cameroon portion of the Chad Export Project.

Consistent with the Chad Export Project's contracting strategy of integrating environmental protection and mitigation activities into EPC Contractor work scopes, the Project's BP/SE/H-related requirements and specifications [see Volume 2 of this EMP] were included in the bid packages upon which EPC Contractors have developed their base rates. Therefore, since the costs associated with environmental protection and mitigation activities are included in EPC Contractor base rates, it is not possible to present a detailed accounting of all the monies devoted to the Project's construction phase environmental protection and mitigation activities. In view of this fact, it is important to note that the monies included in the "Costs Associated with Construction Contractors' Environmental Quality Assurance Organizations and their Equipment Needs" row in Table 5.2 apply to those items that are directly related to environmental mitigation and management that are included in EPC Contractors' base rates.<sup>1</sup>

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<sup>1</sup> The costs included in the "Costs Associated with Construction Contractors' Environmental Quality Assurance Organizations and their Equipment Needs" row in Table 5.2 are, in fact, an estimate of certain costs believed to be a part of the total value of all EPC Contractor contracts.

**Table 5.1 Environmental Management Costs that Apply to the Chad Export Project in its Entirety**

| Item  | Funds Spent (\$US) <sup>2</sup> | Funds to be Spent (\$US)      |
|---|---------------------------------|-------------------------------|
| Pre-Environmental Assessment Studies  | 2,500,000                       |                               |
| Preparation of the Chad Export Project's Environmental Assessments                              | 7,500,000                       | 100,000 to 200,000            |
| Preparation of the Chad Export Project's Environmental Management Plans                         | 700,000                         | 25,000 to 50,000              |
| Preparation of the Chad Compensation and Resettlement Plan and the Cameroon Compensation Plan   | 450,000                         | 10,000 to 25,000              |
| Post-Environmental Assessment Studies   | 1,350,000                       | 50,000 to 100,000             |
| Pipeline Centerline Survey Environmental Studies  | 2,500,000                       | 200,000 to 300,000            |
| Archaeological Assessments and Monitoring   |                                 | 300,000 to 500,000            |
| EEPCI/TOTCO/COTCO Construction Phase Environmental Mitigation and Monitoring Consultant Support |                                 | 1,500,000 to 2,000,000        |
| Community Health Outreach Program (external to the Chad Export Project)                         | 100,000                         | 300,000 to 600,000            |
| <b>TOTAL</b>  | <b>15,100,000</b>               | <b>2,485,000 to 3,775,000</b> |

<sup>2</sup> To convert \$US to FCFA, multiply by 600.

**Table 5.2 Environmental Management Costs that Apply only to the Cameroon Portion of the Chad Export Project**

| Item   | Funds Spent (\$US)            | Funds to be Spent (\$US)        |
|--|-------------------------------|---------------------------------|
| Compensation (COTCO portion)   | 300,000                       | 2,500,000 to 3,000,000          |
| Compensation (Republic of Cameroon portion)  |                               | 1,200,000 to 1,500,000          |
| Landfills for Project-Related Wastes   |                               | 2,500,000 to 4,000,000          |
| Oil Spill Response Equipment   |                               | 400,000 to 650,000              |
| Environmental Foundation (COTCO's capital contribution)  |                               | 3,500,000                       |
| Costs Associated with COTCO's Construction Phase Environmental Monitoring Organization and its Equipment Needs <ul style="list-style-type: none"> <li>• Salaries and benefits of environmental oversight personnel</li> <li>• Office space, supplies, computers</li> <li>• Travel</li> <li>• Consultant support costs</li> </ul>                               | 4,750,000                     | 5,000,000 to 7,000,000          |
| Costs Associated with Construction Contractors' Environmental Quality Assurance Organizations and their Equipment Needs <ul style="list-style-type: none"> <li>• Salaries and benefits of environmental oversight personnel</li> <li>• Equipment</li> <li>• Office space, supplies, computers</li> <li>• Travel</li> <li>• Consultant support costs</li> </ul> | 500,000 to 1,000,000          | 25,000,000 to 35,000,000        |
| <b>TOTAL</b>   | <b>5,550,000 to 6,050,000</b> | <b>40,100,000 to 54,650,000</b> |