

## ■Renewal of Diesel Heavy Trucks

### **Project Title:**

Renewal of aged road transport truck fleets by retirement of 65000 old diesel powered trucks and supply of new trucks.

### **Brief Description:**

This project is basically aiming at reducing diesel fuel consumption by renewal of considerable share of the operating truck fleets. In this project, diesel powered heavy trucks older than 35 years, are considered to be retired and replaced by new trucks with advanced technology. The earned value of replacing every single heavy truck in its first five years of operation shall be paid back to the investor(s) of the project at seasonal intervals.

### **Project Timeline:**

The supply of new diesel heavy trucks has been predicted to be accomplished in 5 years according to table (a). Relatively, the total annual cash flow of repayment to the investor(s) is calculated in table (b) which extends the total duration of the project to 9 years.

Table (a)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
# of supplied 10 to 18 tone Diesel Trucks	830	1015	1200	1385	1570	0	0	0		6000

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
# of supplied 19 to 26 tone Diesel Trucks	5678	6939	8200	9461	10722	0	0	0		41000

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
# of supplied 27 to up tone Diesel Trucks	2492	3046	3600	4154	4708	0	0	0		18000

### **Project Payments:**

The payments are based on operation and monthly trip of new heavy truck in the fleet. The heavy trucks shall be equipped with AVL devices to control and validate their operational conditions. Total payments are based on 5/5 USD¢ per kilometer of operation for every single 10 to 18 tone Truck, 4/4 USD¢ per kilometer of operation for every single 19 to 26 tone Truck & 9/1 USD¢ per kilometer of operation for every single 27 tones and above Truck .

Table (b)

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Maximum annual payment (M USD)10 to 18 tone Diesel Trucks	4/6	10/2	16/9	24/5	33/2	28/6	23	16/4	8/7	166/2

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Maximum annual payment (M USD)19 to 26 tone Diesel Trucks	33.9	75.3	124.2	180.7	244.7	210.8	169.4	120.4	64	1223.4

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
Maximum annual payment (M USD) 27 to up tone Diesel Trucks	31.4	69.9	115.3	167.7	227.1	195.6	157.2	111.8	59.4	1135.4

### **Project Achievements:**

The major achievements of implementation of such project, considering benefits of first five years of operating new heavy truck are potentially as follow;

Maximum Diesel Fuel consumption reduction:

6905 (million liters)

Maximum carbon emission reduction:

18.6 (million tons) of CO<sub>2</sub> equivalent