

## **Attachment 9.2- Benefit of longer hours of work with travel allowance for staff**

### **Trucks:**

For carting distance of 30 km, with travel speed of 85 km/hr, 6 min to load and 5 min to unload. The following is the computation for number of loads:

Travel time two way 43 minutes plus 11 minutes to load unload, total 54 minutes per load.

Actual working hour 6.33 hours. Therefore they can do 7 loads a day.

With travel allowance, the actual working hour will be 7.33 hours. They can do 8 loads a day.

Without travel allowance, cost for 7 loads will be \$ 2975 (cost for loader, trucks and operator). Cost per load per truck is \$ 425. With travel allowance for two trucks, there will be 2 extra loads per day for 30 km distance, in terms of \$\$ value the production is  $\$ 425 * 2 = \$ 850$ . In one fortnight, the monetary extra production is  $\$ 850 * 9 = \$ 7650$ .

The total additional cost for travel allowance per fortnight for two truck operator is  $\$ 2285 * 2 - \$ 1989 * 2 = \$ 592$ .

Therefore, with \$ 592 of capital injection, we are making \$ 7650 worth of additional production.

### **Maintenance grading operation:**

Currently, with 6.33 hours of actual working time, we are producing about 2 km of maintenance grading with Tag-along Roller.

In 6.33 actual hours we are doing 2 km of grading. Therefore about 315m of grading is done every hour.

The cost per day of operation of one maintenance crew is \$ 1853. 2,000 meter of grading cost \$1853. So 315 meter of grading cost \$292.

Therefore, saving on 1 hour of travel time produced 315 m of grading or \$ 292 worth of production.

A 3 grader crew produces  $\$ 292 * 3 = \$ 876$  value of additional production each day, or \$ 7884 value of production each fortnight.

Additional travel allowance to be paid to grader and water cart operator is (  $\$ 13818 - 12042 = \$ 1776$ ). Therefore, with the injection of \$ 1776, we are producing \$ 7884 value of additional work.

### **Construction Grading Operation:**

Usually it takes 3-4 days to resheet 150 mm loose resheeting 6000 m<sup>2</sup> of resheeting ( 1 km of 6 m wide) OR 25 hours of work for 6000 m<sup>2</sup> of resheeting. Therefore, at least 240 m<sup>2</sup> of resheeting done each hour, given that gravel is already on the shoulder of the road.

Cost per day for grader, roller, water cart with operators is \$ 2448 per day.

Cost for 6000 m2 of resheeting is \$ 2448 \* 4 = \$9792 (Excluding carting and purchase of gravel), which equals \$ 1.632/m2. Therefore, 240 m2 of resheeting cost \$392. Therefore, each day construction grader will produce \$ 392 worth of additional work with the travel allowance arrangement. In one fortnight this production is worth \$3528.

The additional cost for travel allowance for construction crew is (\$ 2467+2202+2202- \$2171-\$1906-\$1906 = \$ 888

Therefore, with \$ 888 value of additional travel allowance, there will be \$ 3528 worth of additional production with arrangement of travel allowance.

