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MONITORING OF REHABILITATION OF ROADS BY DAI IN BAGHLAN REGION

**Saroj K. Basnyet, Yar Mohammad
RAMP**

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From: Saroj K. Basnyet, Yar Mohammad
Purpose: Monitoring of rehabilitation of roads by DAI in Baghlan region
Sites Visited: Jui Naw, Darqad and Mangalha roads, total length 38 kilometers
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DAI: General Statement

Since 2 June Engineers Hashmat, Abdul Ahamad, Esmat and their colleagues have crowned, watered and compacted 38 kilometers of Jui Naw, Darqad and Mangalha roads with the gravel sub-base. Results of the California Bearing Ratio (CBR) for this sub-base were higher than 75 percent, far greater than the required standard of 60 percent. The construction of sub-base of 19 kilometers of road per month was mainly due to their supervision skills and the use of one complete set of compacting equipments for the rehabilitation of each road. Three Dainakok compactors are applying vibrating forces on the sub-base. In addition three Komatshuo graders, 4 water tankers each having the capacity of 20,000 litres, together with 24 trucks are currently operating on these roads.

The following activities are proposed during the month of August:

- Lay the gravel base and complete the construction of 34.5 kilometer of road by the end of August;
- Improve the bondage between stones of the parapet walls constructed above the culverts;
- Submit to RAMP the schedule for rolling out the final layer of gravel base and completing the construction of these roads by the end of August;
- Submit to RAMP unit costs of different components of the road including material, equipments and labor input;
- The official Inauguration of these roads is proposed to be either on 30 or 31 August;
- Proposal by DAI to bid for future projects that will be funded by RAMP without including the administrative costs of home office for discussion; and
- Transfer the asset given to DAI at Pul-e-Khurmi to the Consultancy Firm called Engineering Services for Environment (ESE) established by Afghan Engineers currently working with DAI and constructing these roads.

Specific Comments

Jui Naw road:

- This road is on the right bank of irrigation channel Joy Now which was rehabilitated by RAMP. DAI has crowned and compacted the total length (11.9 kilometer) of this road.

Darqad road:

- The crowning of this road is impressive. The picture on the right hand side shows Komatshuo grader fixing the horizontal alignment of the road with laborers from the catchment area.
- After the water tanker drops water on the road the compactor must wait for at least twenty minutes so that water does get the opportunity to penetrate into soil ingredients. This message was repeated to the driver of the compactor.
- Cement mortar is used to develop the bondage between stones of the parapet walls constructed above the culverts to improve the structure of these walls. The current practice is to put on a thin layer of cement mortar, lay down stones on top of the mortar followed by another thin layer of cement mortar. During this process perpends or the vertical joints separating the stones do not have a strong bond. For this kind of low standard of work DAI has punished their contractors by not letting them work during the next day. DAI has signed an agreement with contractors to ensure that this kind of activity is not repeated in the future. DAI will dismantle these walls and construct new ones.
- It was an honor to be wrapped around by Chapan for allocating investments on the rehabilitation of this road corridor. The people from this catchment area have gained substantial benefits from the construction of this road corridor.



Mangalha road:

- The crown of the road compacted with the first layer of gravel ingredients looked impressive. However soil was recommended to be added to the sub-base at the following kilometers to improve the bond among gravel ingredients: 2.5, 3.9, 4.1, 4.6, 4.8, 4.9, 5, 5.3, 6.4 and 6.9 kilometer;
- The driver of the compactor was told that he had to wait for at least twenty minutes so that water does get the opportunity to penetrate into soil ingredients before applying pressure to the sub-base.
- The alignment of the road and the culvert



was changed so that after the rehabilitation, the centre line of the road would be in a straight line. This was to ensure that vehicles would not have to make two turnings before and after crossing the culvert. The length of the culvert is 6 metre and is located at 12.5 kilometer from the start of the road.

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Benefits of Rehabilitation of Joe Naw Road

This road was damaged by communities so that Taliban commanders could not travel by vehicles to their villages to torture them. This road was closed to traffic before its rehabilitation.

Farmers recalled that a few years back the farm gate price and the transport cost of melon was the same, \$2 for 100 melons. Farmers would carry melon from their farm to the road head and they considered themselves to be experienced entrepreneurs if they succeeded in handed over their melon to drivers of vehicles.



Their bargaining power has increased substantially after the rehabilitation of Jai Naw road due to the following benefits: firstly, the farm gate price of 100 melons has increased from \$24 to \$52 during the period of just one year. Secondly, the transport cost to Kabul has decreased from \$700 to \$200 per truck partly due to rehabilitation of their road and the highway from Pul-e-Khurmi to Kabul. Thirdly, the time of transport from their villages to Pul-e-Khurmi has been reduced from the previous one hour to just 15 minutes.

Farmers proudly informed us that the average income from each hectare of land in the catchment area of these three road corridors is around \$8000 and farmers have shifted to production of melon in at least 3000 hectares. This income is far greater in comparison to income from subsistence crops that they had before the rehabilitation of these roads.

In addition these roads generate a number of social benefits. An example of this is the reduction in traveling time for the sick to reach the hospital from the previous one hour to just 15 minutes. Villagers normally suffer from water borne diseases.

Farza and Stalif road proposed by ACTED.

Together with Engineer Ghulam Ahamad inspected Farza and Stalif road in Parwan region, proposed for rehabilitation by ACTED. These road corridors pass through rich

agricultural base where farmers are exporting cash crops, but these roads were rehabilitated by European Union and UNHCR respectively to a certain degree.

Deputy Regional Office Mir Mohamad of ACTED has been requested to propose number of new roads that have a high traffic level, are exporting cash crops, are providing access to market centres to RAMP for a reconnaissance survey.