

## OVERVIEW

### A. Background

1. The GoPNG and ADB through the Japan Fund for Poverty Reduction (JFPR) approved the Extending the Socioeconomic Benefits of an Improved Road Network to maximize the social and economic benefits of the improved road network through the ADB assisted Highlands Region Road Improvement Investment Program (HRRIP). Communities along the road beside HRRIP proposed to improve feeder roads, provide small infrastructure and capacity building to improve their socio-economic conditions.
2. People living in the highlands walk to most destinations, such as to markets, health centers and schools. Women usually carry heavy loads to sell their produce to markets. Improvement in feeder roads will allow access to public transportation and social services especially benefitting women.
3. The dominant livelihood in the Highlands region combines subsistence agriculture, cash cropping and livestock raising and limited access to regional market and employment to factories. Support in enhancing productivity in these areas and other non-traditional skills will complement the opportunities offered by the improved road network. The project specific focus on the poor and vulnerable groups such as women will further ensure extending road benefits to the needy and economically deprived groups. Raising awareness on health issues such as HIV/AIDS and family health issues was envisaged to promote health seeking behavior among community members. Workshops on gender issues proved significant with high rate of domestic violence noted in PNG.

### B. Grant Development Objective and Scope

4. The overall objective of the Project was to extend the socioeconomic benefits of ADB's Highlands Region Road Improvement Investment Program to roadside communities besides the HRRIP roads in selected districts in the Southern Highlands and Enga provinces. Specifically, the Project will support: consensus building in the project area and the increased involvement of the HRRIP roadside communities in the rehabilitation and maintenance of rural feeder roads and small infrastructure; (ii) skills development among the rural poor and vulnerable population through agricultural extension and alternative livelihood and microenterprise development; (iii) activities that will raise community awareness and change behavior with respect to social and gender as well as health issues (including sexually transmitted infections, reproductive health, violence against women, and road safety); and (iv) policy improvement and the pilot-testing of initiatives to give women better access to safe transportation services.
5. To ensure that benefits are captured by the communities, the feeder roads to be rehabilitated were selected based on the following criteria:(i) connecting local communities to essential social services, (ii) connecting local communities to the HRRIP trunk roads, (iii) potential economic rates of return (connections to economic activities) and (iv) number of beneficiaries. The feasibility of road maintenance was also considered in the selection of road sites. The used labor-based approach where contracting was done with local communities in the improvement of road networks and maintenance.

### C. Implementation Arrangement

6. The Department of Works is the Executing Agency and the Community Road Empowerment (CORE) is the Implementing Agency for the Project.
7. The DOW as the Executing Agency provided guidance and support to the Project including monitoring the project progress. DOW's Provincial Works Manager and field engineers in the two provinces worked with the IA.
8. CORE as the IA maintained close coordination with EA and ADB. Their performance is rated satisfactory on the basis of their timely and effective delivery of project activities with

minimum supervision. Specifically, the following roles have been fulfilled by the IA: implementation, supervision and coordination of the grant components in consultation with DOW and Provincial Administrator; (ii) ensuring participation and consultation among local road users especially those living and working near the road side; (iii) dissemination of reports and presentation of the outcome of the project to local level government officials, local communities and other relevant stakeholders; (iv) resource allocation, financial reporting and auditing in consultation with DOW and provincial administrators; (v) overall monitoring and reporting of progress of all project activities and (vi) submission of project quarterly reports. ADB fielded review missions including progress review, midterm and final review missions to assess the completion of the project activities. The communities are also involved in the assessment of project implementation and impacts through community self-evaluation.

9. The Project engaged an international NGO called Community Road Empowerment (CORE) as the Implementing Agency (IA) having the experience on community-based infrastructure development in the Highlands of PNG. The IA is composed of Project Manager as international consultant and Project Accountant as national consultant.

10. The project implementing team is consist of four national consultants including Field Coordinator, Community Development Specialist, Health and Gender Specialist, and Environment Specialist, who were directly contracted with DOW It took almost 6 months to find an IA due to difficulties in finding prospective candidate with the required expertise. Consequently, the original project closing date was extended for six months from 2 March 2013 until 2 September 2013. Although the project implementation picked up from 2012, further delays as a result of PNG's national election from May to August 2012 were encountered. In addition, inaccessibility to some roads due to tribal conflicts resulted in suspension of the project activities in some communities. Turnover of consultants did not significantly impact project implementation except for initial slow down of activities during turn over.

#### **D. Summary on achievements**

11. 81.0 km of roads were rehabilitated with ongoing maintenance for 8 road sections. A total of 7 simple rural infrastructure facilities were constructed. Activities for Yakalap Yakamanda was cancelled due to tribal fights. 2,780 community laborers (41% women) participated in civil work activities

12. Capacity trainings consisting of 1 or 2 socio-economic trainings and microfinance for 8 road sections were completed. 341 local community members were trained with 22% female participants.

13. 15 different IEC materials including STI/HIV/AIDS, malaria, breastfeeding, TB, domestic violence, family planning, road safety etc. supplied by the NDOH and CIMC (Consultative Implementation & Monitoring Council) distributed to the communities.

14. 2 Gender Relations Trainings and 2 Health & Gender workshops were conducted on each of the 4 roads in Enga and SHP. The number of the participants in Health and Gender workshops was 2,386. Out of this, 986 were female, which was 41% female participation.

15. 2 Basic Health Trainings and 1 HIV/AIDS Training were also conducted on 4 roads in Enga and SHP with 168 females out of 581 participants, which was 29% female participation.

16. This component was combined with gender trainings under component 4. 412 participants with 32% female participated in gender training.

17. 4 GRT pilot project activities were conducted by establishing GRT committees responsible for advocating gender responsive transportation. GRT committees carryout their activities e.g. road campaign, community awareness and demonstration activities on a weekly basis from August – Nov 2012 in Enga and from September- Nov 2012 in SHP.

## **E. Summary of activities**

18. The Project has taken a gender inclusive and participatory approach in formulating project activities such as selection of sites for small civil works and engagement of community workers, design and methods of feeder roads rehabilitation and maintenance and provision of small community infrastructure. Trainings for community action plan training were built into the project which helped identified community needs and existing priorities.

19. The project used labor-based technology in improving rural road infrastructure to enhance community ownership and accountability. It was design to utilize community-based contracting in the rehabilitation and maintenance of rural feeder roads enabling labor surplus in the community to be absorbed by the project through temporary labor employment. In addition, the project introduced a sense of solidarity and accomplishment among community members and enhanced the notion of work discipline.

20. Community self evaluation was designed to be conducted during project implementation on a semiannual basis. It was aimed at determining a more adequate training approach and effective community-based road rehabilitation and maintenance activities. Where it was conducted, it proved to be an innovative formative exercise with direct involvement of community members.

21. Tribal conflict and political activities such as local election should have been taken into account in the timing of project implementation to avoid disruptions in project activities.

### **1. Component 1: Rehabilitation and Maintenance of rural feeder roads**

22. There are three main phases in rural feeder road improvement: (i) vegetation control and clearing drainage; (ii) spot improvement and re-sheeting; and (iii) routine maintenance. As part of start-up activities, community mobilization and peace keeping trainings were completed to build consensus and improve community readiness to participate in the project. This proved helpful in setting the ground on which the rest of project components will build on. In finalizing the selection of road communities, rapid assessment was conducted to confirm the feasibility of road maintenance and potential socio-economic gains of the component. Notably, attention was paid to avoid duplication of benefits from ongoing Liquefied Natural Gas project in SHP. The Provincial Government was involved at the outset in identifying the final list of road sections. The list of selected road sections is in Appendix 1. The use of do-nou (Soil Bags) technology and log bridges were noted compatible with relatively low traffic in selected road sections, but do-nou technology was not sustainable in roads with steep slope. The road improvement was designed in such as way that communities can do road maintenance themselves to increase the chances of sustained feeder roads improvement.

23. Participation of both men and women in the community-based contract was ensured during implementation. Particularly, communities along the roadside were involved in grass cutting and clearing drainages. Small civil work contracts for spot improvement, building log bridges and supplying of the gravel or transportation were awarded to the landowners, community based organizations such as church groups, aid posts, women and youth groups and owners of the gravel pit and trucks. Inadequate payment became an issue with some community members and eventually resolved by clarifying with the community the distinction between several phases of road improvement and corresponding payment to be made. It was ensured that women who participated in the contract received adequate compensation by monitoring the list and amount of payment done through individual signature. One of the challenges was the difficulty in transporting materials such as gravel and stones with the absence of vehicle. Vehicle owners in some communities volunteered to assist in transporting needed materials with fuel provided by the project. The quality of work was monitored by Provincial DOW field engineer on demand basis. Lack of full-time field engineer caused some delays in civil works.

24. The Project has taken a different approach than originally planned to ensure sustainable road maintenance. Instead of continuing with paid labor, the Project established a

road committee to be in charge of maintaining feeder roads following the end of the Project. This was intended to create a sense of project ownership and responsibility in maintaining roads.

25. Establishing community infrastructure was not given immediate priority due to the amount of time required to progress on feeder road improvements. It also proved challenging to transport the materials for community infrastructure without road access. The details of the community infrastructures were not determined at the beginning of the project. It was finalized with inputs from local communities.

## **2. Skills Development for Rural Poor and Vulnerable Population**

26. The types of trainings to be implemented were identified during baseline survey in consultation with the communities. The selection builds on the existing livelihood activities that community members are already engaged with. Accordingly, fish and pig farming were selected as priority skills in each project province. In addition to generating income to the families, fishing was envisaged to improve nutrition. Destiny Foundation Trainers conducted the Fish Training and the Highlands Piggery Farmers Association (HPFA) conducted the Piggery Training. As local NGOs, communities were able to request follow-up technical assistance from said organizations even after the training was completed. The training collaborated with the government institution as well. National Agriculture Research Institute (NARI) in Enga was involved in piggery training where they provided new techniques and good practices in breeding pigs.

27. Trainer of Trainers on facilitation and leadership were conducted in each project province prior to skills development trainings. The trainees were selected based on their willingness to work for the community since they were expected to become responsible for organizing participants and facilitating trainings. The availability of the trainers, working on voluntary basis for the project, caused delays in training implementation as they are sometimes employed outside of the community.

28. The Project offered microfinance trainings to complement the fish and pig raising skills acquired by community members. There was no microfinance scheme in the selected communities prior to the Project and people lack awareness on the nature of its operation. This became a hurdle especially in organizing members and collecting membership fees. Microfinance committee was formed in each road section. Executive members of the microfinance committee were appointed by the communities themselves, composed of village leaders, councilors and other literate members. However, their busy schedule slowed down the implementation of microfinance. In addition, registration in Investment Promotion Authority, required to start a microfinance business, also took time. Opening the bank account for the members was denied in the beginning due to lack of familiarity on the operation of microfinance. The Project did spend time building awareness on this type of scheme and used alternative financial institution for opening bank accounts. Microfinance committee was formed in each road section.

29. In some cases, the launch of microfinance schemes was scheduled to coincide with election campaigns to increase awareness among local government officials and solicit additional support from them. Monitoring and field visits to microfinance beneficiaries helped avoid the risks associated with loan default.

## **3. Community Awareness – Building and Behavior Changes regarding Health Issues in Roadside Communities**

30. A broad range of training and awareness programs was designed to sensitize community on gender and health issues such as sexually transmitted infections (STIs), HIV, reproductive health, violence and alcoholism. The trainings and workshops on basic health were conducted mostly with community health workers with support from Provincial Health Authority to ensure alignment of activities with recognized health needs and priorities in the province. The Project networked with NGOs such as Anglicare, Susu Mamas, Marie Stops and World Vision regarding their health/gender programs. The Project utilized their existing training

and IEC materials, such as posters, leaflets and pamphlets. IEC materials were distributed to store owners for their customers to see and read. In one community road section, HIV infected person participated in the awareness campaign which made a huge impact in getting the message across the community. This helped eliminate discriminatory behavior and misinformation on how HIV gets transferred.

31. The health trainings cover a variety of subject such as hygiene, family planning, maternal and child health care, STI and HIV, and substance abuse. Trainings on HIV/AIDS focused on raising awareness on HIV/AIDS prevention as demanded by the communities themselves. Gender workshops emphasized the issues surrounding gender-based violence which are common in the country. Those who received awareness were expected to disseminate information to other community members. To further ensure wider participation, the Project rolled out health and gender workshops in an open space.

#### **4. Gender Responsive Transportation**

32. A gender assessment was carried out in 2011 to find out the availability of transport and accessibility and how women can be given priority in accessing transport. Culturally acceptable ways of promoting women's access and use of intermediate means of transportation (IMT) was proposed to be identified and piloted with the help of women's groups. Accordingly, gender responsive transportation committees were established to increase awareness on the following: (i) importance on assisting women in carrying heavy loads especially from the village to the junctions where vehicles pick up the passengers; (ii) negotiate with men passengers to give priority to women in the use of transportation where applicable; (iii) negotiate with vehicles to pass through pick-up points preferred by women; and (iv) conduct fund raising to support initiatives to sustain gender responsive awareness activities. Not all road sections have public transportation passing in their community which limited the pilot of GRT to four road sections. The lack of clear understanding on the applicability of GRT in selected communities caused implementation delays. Consequently, the implementation of the component mostly focused on raising awareness through gender trainings and was mostly integrated with gender workshops under Component 3.

#### **F. Findings**

33. Expected project outputs were satisfactorily met. However, community self evaluation was not done on a semiannual basis due to priorities given to implement the project activities on a timely basis. Two road sections in Enga and 3 in SHP conducted a community self-evaluation during the life of the project. The evaluation mostly focused on the outcomes of the skills trainings and gender and health awareness programs.

34. Under Component 1, all 8 mobilization workshops and peace keeping trainings were completed for each road section as part of start-up activities. 81 kilometers of road (against 80 km target) were established or rehabilitated in selected road sections. However, activities under road maintenance were cancelled for one road section i.e. Lakalap Yakamanda due to continuous tribal fights and spot improvements and maintenance for another road section called Rindita Kuare were turned over to a local official who initiated similar road improvement work in the area. The quarry incident which took place in Tulum Wembip road delayed implementation of road maintenance and other project components as well.

35. Do-nou technology was applied not only to rehabilitate the critical spots but build retaining walls as well. This technology was well accepted by the communities including the new skills they learned in road improvements. Field Engineer from Provincial DOW supervised the work of the community on demand basis. During the ADB Mid-term Review, suggestion was made to prepare a set of selection criteria to include disadvantaged population such as single parent households, families with sick members or affected by HIV to be included in the community contract for civil works. At the end of the project, 40% women participated in the civil works.

36. The original target for renovating 8 community infrastructures remains the same, except for Lakalap Yakamanda. The budget allocation has been reduced due to increased in

the cost of rural road improvements and transportation brought by PNG Kina appreciation against US Dollars and the need for additional trainings as demanded by local communities.

37. Outcomes of the community self-evaluation and ADB field visit revealed the following assessments: (i) community satisfaction on the outcome of the on-the job trainings in civil works particularly the use of do-nou technologies; (ii) improved cooperation and unity among the community members from the use of community-based contracts; (iii) reduced tribal conflicts following peace keeping trainings. Some peace keeping training participants are recognized as tribal conflict mediator even from surrounding communities. To further ensure improve project outcomes, the following comments were also provided: (i) the need for close supervision by field coordinator to avoid miscommunication, such as in terms of payment, and compliance with work specification; (ii) strengthen community linkage with local government to ensure support on the project activities; and (iii) application of more resilient road technology with flooded and potentially heavy traffic roads.

38. 341 community members (against the 400 target) with 22% female participation were trained for livelihood activities under Component 2. The trainings include piggery and fish farming and microfinance. Microfinance replaced either fish or piggery training in six out of 8 road sections due to strong interest in microfinance scheme. Training of trainers on facilitation and leadership was also rolled out in each province to increase facilitation skills and leadership in communities with around 10 to 20 participants, with 16% female participation. Productivity improvement and expansion in piggery and fish farming as well as other income generating activities were noted following livelihood trainings. Other rooms for improvement include the need to: (i) conduct training assessment or continuous liaison with the training provider to ensure updated information; (ii) link with other service providers to obtain inputs such as feeds for fish farming and veterinary supplies; and (iv) continue support for microfinance.

39. Under component 3, 2,443 community members from both Enga and SHP participated in health and gender workshops on social/gender and health issues with 45% female participation. Participants were mostly from selected road sections in two project provinces although it was envisioned that high risk groups and settings such as local construction workers, long distance drivers and local communities involved in construction and corridors of influence of the HRRIP will participate. This was not possible due to the delay in the implementation of HRRIP. In addition, 553 participants with 29% female participated in health trainings. These trainings helped improved health practices within the community. However, challenges still remain in adopting healthy lifestyle including lack of availability of water, difficulty of raising vegetables for household consumption due to climate change and lack of pit latrines.

40. A total of 412 community members with 32% female participated in gender training under Component 4. According to the baseline survey, there was limited gender awareness in the communities which led the component to increase concentration on trainings related to gender. GRT committees were established to continue awareness on how transport can be made acceptable to women. It was observed that men have started to become more considerate to allow women' access to transportation.

## **G. Exit Strategy/Sustainability Measures**

41. The project is likely to be sustainable. It prepared a sustainability strategy to be implemented through existing government support and programs and local committees formed among the project beneficiaries. The strategy focuses on: (i) sustainability of community ownership of road maintenance; (ii) continuity of activities for awareness raising on health and gender; (iii) utilization of skills and knowledge received through the project; (iv) equity in gender participation in civil works, socio-economic activities, health awareness and maintenance of gender responsive transportation initiatives; (v) continuity of the management of community infrastructures and (vi) replication of comprehensive approach for extending socio-economic benefits to roadside communities by relevant authorities. Specifically, the Project established

road committee, gender and health committee, microfinance committee and agriculture committee in each of the road section. These committees were capacitated on basic community management to carry forward the project components. Representatives from each committee received trainings on planning, preparation of report and conducting meetings and writing minutes and monitoring of the results of socio-economic trainings. A workshop on the fundamentals of preparing project proposal for submission to local government was implemented with participation of District Officers and Community Development Officers as Resource Persons.

42. Where possible, the Project coordinated with provincial and local government officials during implementation to ensure continuity of project activities. However, lack of availability of concerned government officials and changes in administration proved challenging in their regular engagement to the project. NGOs were also involved in the Project which facilitated follow-up support or technical advice to the beneficiaries. The Rural Integrated Volunteer Initiatives in Enga took over the monitoring of health and gender committee in 3 road sections under the project. Community health workers, through the health and gender committee, have also been actively implementing health awareness activities. Road committees collaborated with microfinance committee to receive small funds to be allocated for road maintenance.

## **H. Overall Assessment**

43. The Project is rated successful. It delivered key expected results such as improvement in rural feeder roads and provision of small community infrastructure, capacity building on income generating activities, increased awareness on gender issues and health and promotion of gender responsive transportation. The Project adopted a more demand driven approach of aligning the project activities based on the actual needs of the community members. Community consultation and participation were key factors to the acceptability of project activities and its implementation. The labor-based method of improving road network is generally compatible with the existing community road access characterized by low traffic. However, for high traffic and mountainous roads, do-nou technology and labor based method may not be compatible for longer term road improvement.

44. Initial positive impacts to household beneficiaries were observed during field visits, including: (i) vehicle access in all selected road sections enabling movement of people and products from market to communities and vice versa, improved supply of medicine and access to ambulances during emergency situation; (ii) improvement in piggery and fish farming activities and access to microfinance to further expand livelihood activities; (iii) increased awareness in basic health, maternal and child health, STI/HIV awareness, family planning and gender issues; and (iv) sense of accomplishment developed among community members which raised their perception of the importance of collaborative efforts. Mostly women benefited from access to vehicles as they often carry the load of transporting goods in and out of the community. However, there are improvements which could still be made to further maximize project gains such as (i) ensuring resilience of rural feeder roads by carefully assessing the structure and materials to be used; (ii) following-up on skills trainings to ensure effective application of acquired skills; and (iii) linking trained community members with service/ input providers; (iv) engaging with local government to get support in accessing water for drinking and sanitation, inputs for livelihood activities and other complementary services.

## **I. Major Lessons Learned**

45. To help improve the implementation of future similar intervention, the following should be taken into consideration:

46. Labor-based approach would require longer time to implement especially where kinship or familial relationships largely dictate community activities. The Project had to delay implementation for weeks when there are deaths, political or cultural activities within the community. Schedule of civil works was also affected by tribal conflicts. The success of community-based project likewise depends on how the community understands the project. Raising community awareness takes time and dependent on initial project results.

47. Activities between the Project and associated loans/grants should be well coordinated to effectively complement/reinforce each other's activities. Potential risks of delays in associated loans/programs should be managed to sustain linkage and opportunities of working together.

48. Joint implementation with the national and local government should be facilitated to get buy-ins from community members and other key stakeholders. Collaboration with local government should be maintained for the duration of the project to generate inputs and support which would allow the project to be incorporated into the existing community development programs. Soliciting support from concerned national agency improved the content of the training in terms of most updated techniques and technology.

49. Involvement and collaboration with local NGOs helped the project to maximize available resources from other existing programs. Available health and gender training resources tapped by the Project were distributed to the communities. Capacity could also be extended to local NGOs to carry forward the project activities and widen scope of communities involved.

50. Trainings on income generating activities for poor and marginalized groups should be implemented alongside support for other complementary services such as access to inputs, linkage to other provider of technical advice and services such as health centers and aid posts and existing government services.

51. Women participation should be specifically aimed at where they are most likely to be neglected. Implementation of trainings and other awareness activities should consider the schedule and workload of women to ensure their participation.

52. Disbursement of funds in labor-based project is critical to ensure commitment and trust among community members. However, carrying cash to pay for the community was a big risk to the Project which required protection measures. In ensuring quality of work, full-time engineer should be assigned to work with the community.

53. Forming committees proved effective in sustaining project activities and commitment among community members. Group formation should build on the existing ones, where available, or formed by the communities themselves to widen recognition and acceptability within the community. Selection of committee officials has the tendency to be biased to community leaders but should be flexible to appoint other members who have more time to implement planned activities.

54. Community self-evaluation proved effective in identifying the impact of the project which captures the varying experience and expectations among the beneficiaries.

## **J. Recommendations and Follow-up Actions**

55. Sustainability in the long run will determine the real success of community or labor-based interventions. Accordingly, incentives for sustaining project outcomes should be well understood by the community. Champions within the community who will carry forward the achievement of the project should be identified. Local government will play an important role to sustain project activities especially where additional funding is required. Additional support can come from the associated Tranche 1 or succeeding tranches of HRRIP.

56. Other follow-up actions may include: (i) scaling-up of microfinance and health and gender awareness in communities along ADB supported road projects; (ii) identify applicable models under tripartite partnership between national, provincial and local level government to extend socio-economic gains through rural feeder road improvement; and (iii) disseminate lessons learned from the project to other provinces.

## **K. Remarks**

57. The Project is successful in getting the involvement and participation of the communities. The approach of forming committees and building their capacity for managing community activities, such as road maintenance and health awareness activities, proved



effective in the context of PNG where sense of community already exist. Mainstreaming this approach in infrastructure related interventions will improve community involvement and raise perception of their capability to be partners in development projects.