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**SOCIALIST REPUBLIC OF VIETNAM**

RESULTS-BASED OPERATION FOR LOCAL BRIDGE CONSTRUCTION AND ROAD ASSET MANAGEMENT

# Environmental and Social Systems Assessment

# (ESSA)

DRAFT

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PREPARED BY

THE WORLD BANK

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**List of Acronym**

| | |
|---|---|
| AF | Additional Financing |
| AH | Affected Household(s) |
| CEMA | Committee for Ethnic Minority Affairs |
| CPC | Commune People's Committee |
| CSC | Construction Supervision Consultant |
| CSRC | District's Compensation, Support and Resettlement Committee |
| DONRE | Department of Natural Resources and Environment |
| DOST | Department of Culture, Sports and Tourism |
| DPC | District People's Committee |
| DRVN | Directorate for Roads of Vietnam |
| DSTEIC | Department of Science-Technology and Environment and International Cooperation |
| EA | Environmental Assessment |
| EIA | Environmental Impact Assessment |
| EM | Ethnic Minority |
| EHS | Environmental Health and Safety |
| EMP | Environmental Management Plan |
| EPC | Environmental Protection Commitments |
| EPP | Environmental Protection Plan |
| ESSA | Environmental and Social Systems Assessment |
| FS | Feasibility Study |
| GoV | Government of Vietnam |
| LDFO | Land Development Fund Organization |
| LEP | Law on Environmental Protection |
| LRAMP | Local Road Assessment Management Program |
| LRO | Land Registration Office |
| MOLISA | Ministry of Labour, Invalids and Social Affairs |
| MONRE | Ministry of Natural Resources and Environment |
| PLBC | National Program for Eradicating Temporary Bridges |
| NSRTD | National Program for Local Road Development |
| PAD | Project Appraisal Document |
| PAP | Program Action Plan |
| PDOT | Provincial Department of Transport |
| PMU | Project Management Unit |
| PPC | Provincial People's Committee |
| PPMU | Provincial Project Management Unit |
| RTP3 | Rural Transport Project 3 |
| UN | United Nations |
| UXO | Unexploded Ordnance |
| VRAMP | Vietnam Road Assess Management Project |
| WB | World Bank |

**Executive Summary**

1. The Government of Vietnam has endorsed the Rural Transport Development Strategy 2020, and under this strategy, the development of road and bridge programs. The Government has developed a National Program for Local Road Development (NSRTD) and a National Program for Eradicating Temporary Bridges (PLBC). The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children.

2. The implementation of the National Program for Local Road Development (NSRTD) is being decentralized to the provinces and responsibility for implementation is with the Provincial Department of Transport (PDoTs). The objectives of the NSRTD are to achieve the following by 2020: a) Reach 100 percent connectivity/accessibility of communes by motorized transport, b) Pave 100 percent of district roads and at least 70 percent of commune roads, c) Provide maintenance funding for 100 percent of district roads and at least 35 percent of the commune roads.

3. The National Program for Eradicating Temporary Bridges (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering 50 provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c) Target poor communities, particularly those of ethnic minorities.

4. The Environment and Social Systems Assessment (ESSA) was carried out in accordance with the *Program for Result Financing* Policy requirements in order to assess the Program systems for managing environmental and social effects. The assessment considered, among other things, the capacity to plan, implement, monitor and report on the environmental and social mitigation measures, the scope for improvements, and the risks and related mitigation measures. The assessment's key findings will be used to improve the Program's environmental and social management outcomes through specific actions under the overall Program Action Plan (PAP), as well as through technical assistance and capacity building activities to be implemented under the Program. The action plan will be discussed and agreed with the Government of Vietnam (GoV) and will be incorporated as relevant into legally binding agreements under the conditions of the new financing.

**Environmental Benefits and Risks**

5. LRAMP's overall environmental impacts would be significant and positive. Improved local roads or new bridges would bring about safer and more convenient access for local communities to basic services such as health care and education. Better access also enhances social connectivity between the benefitting households, creates opportunities for remote households to be able to evacuate in flood events, provides better connection to markets for farmers. Living standards of the benefitted households are expected to be increased from such direct beneficial impacts.

6. For road rehabilitation and maintenance work, common potential negative construction impacts at subproject level are known, including:

- increased level of dust, noise and vibration;
- disturbance to traffic and increased traffic safety risks;
- disturbance to daily activities of road side households;
- health and safety risks for the workers and local community;

These potential construction impacts are expected to be at low to moderate levels, temporary, short term, localized and mostly reversible after construction is completed. During the operation phase of road rehabilitation subprojects, no incremental negative environmental impacts are expected.

Emissions from vehicles and the traffic safety risk of rehabilitated roads are expected to be reduced during the operation phase.

7. For bridge construction or reconstruction, including access roads, the potential negative environmental impacts and risks at sub-project level would be:

- loss of vegetation cover, cutting down of trees during site preparation;
- increased level of dust, noise and vibration;
- disturbance to traffic and increased traffic safety risks;
- disturbance to daily activities of road side households;
- water pollution related to increased sedimentation risks associated with construction material preparation, temporary loading of construction materials in rainy season;
- pollution and visual impacts related to dumping of excavated materials;
- interfere or disrupt the operation of existing infrastructure or services such as power supply, drainage and water supply.
- health and safety risks for the workers and local community;

During the operation phase, the environmental issues of concerns would be:

- increased accessibility of people to protected areas or areas having high environmental / biological values which may eventually lead to biodiversity degradation;
- traffic safety;
- landslide risks in hilly areas;
- obstruction to boat movements if bridges are built on the waterway;

As the scale of the road rehabilitation and bridge and access road construction under LRAMP is relatively small, the potential negative environmental impacts and risks would be mostly small to medium and manageable.

8. In order to avoid the risks that construction of bridges in environmentally sensitive areas may lead to environmental degradation associated with increased accessibility, a set of criteria has been proposed under LRAMP to exclude subprojects that may have potentially adverse irreversible impacts.

9. Subproject impacts and risks would be manageable through the siting, engineering design and construction practices of these facilities. For example:

- greening combined with engineering measures can be applied for slope protection in hilly areas.
- the design outlet of drains should include energy dispersion and erosion prevention structures,
- topsoil at the borrow pits is retained and reused for beneficial uses.

Construction impacts can be mitigated by following construction practices such as:

- informing affected communities about the construction schedule,
- regularly cleaning up the site and implementing proper site management procedures,
- provide adequate accommodation for the workers,
- minimise waste generation and manage solid waste and wastewater properly, and
- coordinate with relevant authorities to relocate or repair the affected infrastructure.

10. Vietnam has a relatively good legal system for environmental management which is adequate to identify and manage LRAMP's potential environmental impacts and risks. The guiding principles for environmental management during the program are provided in:

- the revised Law on Environmental Protection no. 55/2014/QH13 dated 23 June 2014,
- the Decree 18/2015//ND-CP guiding the implementation of LEP; and

- Circular 27/2015/TT-BTNMT.

Environmental management in Vietnam is also supported by related laws such as the:

- Law on Cultural Heritage,
- Law on Mineral Resources,
- Law on Water Resources,
- Labour Law, and
- Law on Natural Disaster Prevention and Response.

According to LEP and these guiding legal documents, physical investments under the LRAMP will be required to prepare simplified environmental assessments in the form of Environmental Protection Plans (EPPs) which are subject to review and approval at district level.

11. The available resources of the state environmental management authority, particularly at district level, are limited. Environmental performance of a particular subproject depends greatly on environmental management capacity of the Project Owner, construction supervisors and the contractors. Therefore the roles of DRVN, PMUs 3, 4, 5, 6 and 8 in managing LRAMP are critical to ensure that the potential negative socio-environmental impacts are avoided or mitigated, and the positive impacts are promoted.

12. With fifty provinces to be covered and LRAMP's uneven environmental management capacity of LRAMP's Implementing Agencies including DRVN, PMUs 3, 4, 5, 6 and 8, there is a risk that the level of environmental performance is not consistent between the provinces/subprojects. The risk is manageable by establishing a clear program of environmental management procedures including monitoring and reporting requirements environmental capacity building, technical guidance/assistance and independent monitoring during the program's design.

13. Table 1 provides an assessment of five environmental and social systems risk criteria.

**Table 1 - Summary of Environmental Risks[1]**

| Risk Criteria | Risk Description | Risk Rating | Key Mitigation Measures |
|---|---|---|---|
| Environmental impacts and risks | Works will have an adverse impact on the physical environment and communities, in particular construction sites, if mitigation measures are not applied.<br><br>Inadequate environmental supervision stemming from insufficient human resources in the participating provinces cities may lead to incomplete implementation of environmental protection measures.<br><br>Increased accessibility through new bridges in environmentally | *Moderate* | -Include Environmental Codes of Practice and Environmental Specifications into construction bidding documents and contracts;<br><br>-Assign regular environmental monitoring tasks to construction supervision consultants; Hire independent environmental monitoring consultants for capacity building and independent random environmental monitoring/reporting |

| Risk Criteria | Risk Description | Risk Rating | Key Mitigation Measures |
|---|---|---|---|
| | sensitive areas may lead to irreversible environmental impacts, such as biological degradation or loss of large trees in protected areas. | *Substantial* | -Apply eligibility criteria to exclude subprojects that potentially have significant environmental risks, such as those located within or very close to environmentally sensitive areas, or those that potentially cause significant irreversible adverse environmental impacts. |
| Sustainability | Improvements in environmental and social performance/capacity need to be institutionalized in order to ensure sustainability after the Program ends. | *Moderate* | -Build environmental and social capacity in the participating provinces, including adequate staffing of agencies;<br>-Strengthen the implementation of national social and environmental regulations and guidelines. |
| Institutional capacity/ complexity | Given the fifty participating provinces; uneven environmental management capacity resulting from a large number of IAs may lead to lack of safeguard coordination to ensure compliance during the entire program. | *Substantial* | - Develop clear management procedures, particularly concerning monitoring and reporting,<br>- clearly define the functions of each of the program Implementing Agencies. |

**Environmental Recommendations**

14. LRAMP Operations includes a technical assistant (TA) which covers environmental and social management. The TORs of the TA will cover, but not limited to, traning and monitoring on the application of the remaining recommendations.

15. Eligibility criteria will be applicable to LRAMP subproject. LRAMP will not finance a subproject that: i) Located within 2 km of any sensitive environmental area such as natural forest, national parks, nature reserve, bird sanctuary, primary forest, legally protected areas, biosphere conservation areas, national graded historical/landscape sites etc. listed in MONRE decision no. 1107/QĐ-BTNMT regarding the list of conservation area; ii) Located within 10 m of a physical cultural structure such as temples, monuments, pagodas, ancient graves, historical sites, worshiping place, sacred trees or any objects of spiritual important to local community etc.; iii) Road or access road alignment that require land acquisition within a urban settlement or resulting on AHs been relocated in resettlement sites; iv) bridges that require significant alteration or adversely impact the hydrology or hydro-geology relating to the river such as significantly narrowing the wet cross section of river or require massive drilling and pile driving; and v) any new bridge construction that may cause potentially significant and adverse environment or social impacts.

16. Environmental management procedures should be clearly described and explained to LRAMP stakeholders and included in the Program Operation Manual. The procedures will be inclusion of screening for environmental eligibility of subprojects in short-listing stage; preparation of Environmental Protection Plans (EPPs) for subprojects and obtain approval from relevant Vietnamese

authorities in accordance with the Vietnamese Law on Environmental Protection. EPPs of bridges must cover access roads at both ends. Approval of EPPs musts be obtained in feasilibility stage; inclusion of mitigation measures including greening and environmental friendly measures into engineering design; incorporation of Environmental Codes of Practices (ECOP) or Environmental Specifications (ES) into construction bidding documents and contracts; inclusion of environmental supervision as part of engineering supervision and reporting. Such procedures will be implemented at subproject level, coordinated and mornitored by PMUs 3, 4, 5, 6, 8 and DRVN. This procedure will also be included in the Program Operation Manual.

17. The Program OM and training under the proposed TA should include technical guidance for stake-holders to help them to understand the typical potential environmental negative impacts, environmental mitigation measures, ECOP and ES requirements including the World Bank Group EHS Guidelines as well as environmental friendly solutions for road and bridges rehabilitation/construction. Monitoring will be focused on compliance with OM.

**Social Benefits and Risks**

18. The Program will have significant positive impacts on the socio-economic environment in the short term, as they provide employment for laborers leading to increased income. In the long term, improved road conditions provide increased access to social services, markets and could improve employment overall in the localities. In terms of potential impacts/risks, first, although the Program supports relatively small rural infrastructure, land acquisition is unavoidable. Land donation is widely accepted and implemented at local level in similar type of small rural infrastructure. Second, given the geographical scope of the Program, it will be very likely that it will be implemented in provinces with presence of ethnic minority (EM) communites. The Program challenge is how to maximize its accessibility and benefits in these lagging behind regions. The Program area will also entail many different ethnic groups, with differentiated cultural profiles and customary traditions. Thirdly, as typically in infrastructure investments, the planning investment process follows a top-down approach, limiting the participation of local people in the planning processes. And finally, the proposed Program will be implemented by various stakeholders from central level downward (DRVN, PMU6, PMU3, PMU4, PMU5, PMU8, PPMUs/PDOT at provincial level (50 provinces) as well as external stakeholders (fund for rural transport may come from different sources and managed by various investors). The involvement of multiple agencies can easily lead to the inconsistent approach in dealing with social related impact and associated mitigation measures.

**Social Management System**

19. First, on the resettlement side, the land acquisition, compensation payment and resettlement implementation are always the responsibility of the Government, particularly at the provincial and district levels. In the case of transport sector, usually, the responsible PMUs, investors sign contracts with the District's Compensation, Support, and Resettlement Committee (CSRC). The activities are conducted in accordance with the Government's regulations (e.g., planning, disclosing, approving or paying compensation). In this program, PPMUs will play key role in coordinating with local authority to perform the land acquisition, compensation and resettlement tasks. Second, on ethnic minority side, Vietnam has a relatively appropriated legal framework for Ethnic Minority affairs. At the constitutional level, article 5 of the 2013 Constitution confirms: (a) the equality of all Ethnicities living in the territory of Vietnam; (b) prohibition against discriminated behaviors; (c) rights of Ethnic Minority people toward their languages, scripts, traditional culture and custom; and (d) comprehensive policies of Vietnam to enable the development of Ethnic Minority areas. The principles when promulgating Ethnic Minority policies are: (a) equality and solidarity among all Ethnic Minorities; and (b) mutual support for progress. At lower level, decree No. 51/2011/ND-CP dated January 14, 2011 on Ethnic Minority affairs is the highest legal document. The Prime Minister has also approved the project "Cultural Preservation and Development of Ethnic Minorities in Vietnam toward 2020" with an estimated budget of 1.512 billion VND;[2] and the Ethnic Minority

[2] For more detail, refer to decision No. 1270/QD-TTg dated on July 27 2011.

strategy to 20203. Third, on the legal requirements for public consultation/disclosure, Vietnam has relatively good legal framework on access to information and disclosure. These rights of citizen have been reflected in the 2013 Constitution as well as in specialized Laws and its associated guiding decrees.

**Social Management System**

The implementation arrangement is different in the two program's components. In the local road component, local authority (PPC) is the owner of sub-projects in it locality. PPC is responsible to approve the subprojects arrange the counterpart fund for implementation. MOT (through DRVN) plays the role of overall coordination with the support from PMU6 in working with the World Bank and supporting the overall project management. In the bridge component, the program will be implemented by PMU3, PMU4, PMU5, PMU6 and PMU8 under the umbrella coordination of DRVN (MOT). PMUs and PPMUs have a mechanism well established in dealing with land acquisition, compensation issues.

20. The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children. The assessment confirmed that these two programs have very strong focus on ethnic minority people on several counts. However, while these two programs strongly focus on the question of "what" in EM regions, they are very thin on the question of "how", especially how to make sure that all program activities are culturally appropriate. Participation of EMs in decision-making processes remains limited (UNDP, 2006; WB 2009, 2012; MDRI 2014). Experience in other governmental funded programs also indicated that "top-down" decisions and "one size fits all" solutions are not appropriate for EMs.

**Recommendation for Social Management System**

21. **Recommendation 1:** PMUs and program provinces must conduct social screening prior to actual investment to maximize project benefits and minimize adverse impact to local communities especially on land acquisition. The screening results must be properly documented and included in the relevant section of investment proposal. Specific information on social screening processes to be used under the Program will be included in the Program Operational.

22. **Recommendation 2:** If land acquisition is unavoidable, PMUs and program provinces must ensure that people affected by loss of land and assets will be compensated so that they are no worse off than before that loss. Investments that cause physical relocation should be restricted to only those limited cases that are absolutely necessary for the Program's investment. The provision in 2013 Land Law on using independent land appraiser should be followed with appropriate M&E system of participating provinces.

23. **Recommendation 3:** PMUs and program provinces should not consider land donation as default option for land acquisition. Budget must be made available for compensation payment and regardless of the program implementation arrangement, implementing agencies must to ensure that the donation decision will be made based on the informed consent of AHs and their own choice. A voluntary land donation guideline will be developed at the program level and adopted by participating provinces to guide the application of this practice in the Program's activities. Voluntary donation should only be used to support small-scale community infrastructure where the impacts are minor and where there are alternative options for the location of infrastructure4. The guideline will be based on the recent voluntary land donation protocol (developed by EAP Regional Safeguard Secretariat) as well as other safeguard enhancement related works in Vietnam. The procedure for this will be further detailed in the Program Operational Manual.

[3] For more detail, refer to decision No. 449/QD-TTg date on March 12, 2013

[4] Site specific infrastructure may lead to additional pressures on the donor from the community and Government and should therefore be precluded.

24. **Recommendation 4:** PMUs and participating Provinces will enhance transparency by maintaining databases on complaints/feedbacks and responses to those complaints/feedbacks. In addition, a database on the program's beneficiaries, disaggregated by gender and ethnicity should be maintained and monitored. Detailed guidelines for the grievance redress mechanism, based on established existing systems, will be included in the Program Operational Manual.

25. **Recommendation 5**: PMUs and participating Provinces will ensure that all investments supported by the Program are subject to public consultation with local people and public disclosure at program area. Detailed guidelines for implementation and monitoring will be included in the Program Operational Manual.

26. **Recommendation 6:** PMUs and program provinces must ensure that program's interventions are culturally appropriated. This is very important given the diversification of ethnic groups living in the Program areas to assure the Program benefits. Where relevant, PMUs and program provinces should provide a training/orientation to contractors working in the area having intensive presence of EMs peoples. The program's TA should include dedicated resource for this activity.

27. **Recommendation 7**: MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. The guideline will be community-driven, transparent, gender sensitive and in appropriate language. Given that the program will be implemented over a large geographic area with many different ethnic groups, specific guidance will be provided at the local level for each ethnic group. In addition, the guidelines shall fully operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations. This should be included as an action in the Program Action Plan.

28. **Gender and others. Recommendation 8:** The Program should encourage the following social development measures: (a) ensuring unskilled (and to the extent feasible, skilled) labor is sourced locally; (b) ensuring access to the newly developed infrastructure for people with disabilities; (c) mobilization of community (especially women) in maintenance activities or community based supervision. The Women's Union and similar groups should be incorporated into the institutional structure of implementation in order to assist in promoting gender-sensitive community mobilization, participation and grievance redress channels.

29. **Staffing. Recommendation 9:** Using the current arrangement, PMUs must arrange adequate staff time to ensure that social-related issues (land acquisition, land donation, gender mainstreaming, EM participation …) will be properly tracked, monitored and reflected in the relevant program report for documentation and tracking. A detailed scope or work for this unit/staff will be developed prior to the actual implementation of the Program.

**Program Description**

30. The Government has endorsed the Vietnamese Rural Transport Development Strategy 2020, and under this strategy, the development of road and bridge programs. The Government has developed a National Program for Local Road Development (NSRTD) and a National Program for Eradicating Temporary Bridges (PLBC). The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children.

**The National Program for Local Road Development (NSRTD)**

31. The implementation of the National Program for Local Road Development (NSRTD) is being decentralized to the provinces and responsibility for implementation is with the Provincial Department of Transport (PDoTs). The national objectives of the NSRTD are to achieve the following by 2020: a) Reach 100 percent connectivity/accessibility of communes by motorized transport, b) Pave 100 percent of district roads and at least 70 percent of commune roads, c) Provide maintenance funding for 100 percent of district roads and at least 35 percent of the commune roads. The National Program is supported by an expenditure framework for the rehabilitation activities, while the routine maintenance activities are developed from the MTEPs, which have not been prepared for all Provinces at this stage. Based on an economic analysis done on 7 Provinces which completed their MTEPs early, the NSRTD program is estimated to reduce CO2 emissions by 4.3 percent from 1,036,081 tons per year to 991,294 tons per year.

**The National Program for Eradicating Temporary Bridges (PLBC)**

32. The National Program for Eradicating Temporary Bridges (PLBC) is managed at the national level by the Ministry of Transport (MoT). Covering 50 provinces, the program funds the construction of small bridges with widths of 1.5m to 3.5m. The bridges are to be constructed to provide access to poor communities, many of which are inhabited by ethnic minorities. The objectives of the PLBC are to achieve the following by 2020: a) Complement the program for local road development by targeting villages and commune roads missing or unsafe links (river crossing... etc.), b) Facilitate access to social services and other facilities such as schools, clinics within the local road network, c) Target poor communities, particularly those of ethnic minorities.

**LRAMP (the "Program")**

33. The proposed operation will improve rural accessibility and mobility in the targeted provinces of the national programs. A preliminary assessment of the strategic relevance of the Government Programs that the World Bank aims to support has been conducted during the identification missions. Both the National Program for Local Road Development (NSRTD) and the National Program for Eradicating Temporary Bridges (PLBC) have been developed under the umbrella of the Vietnamese Rural Transport Development Strategy 2020. The Vietnamese Rural Transport Development Strategy 2020 covers the Northern Middle and Mountainous Area, the Red River Delta, the Central North and Central Coast, the Central Highland, the South East, and the Mekong River Delta.

34. The overall objective of the Program is to facilitate and ensure all year round access to community centers and villages in remote rural areas and contribute to the transport development objectives of the Vietnamese Rural Transport Development Strategy 2020. The specific objectives of these programs are to reduce travel costs and improve access to markets and social services for poor communities in the targeted provinces through better management and maintenance of the network. One of the strategic challenges facing provinces is that of establishing an effective management and implementation model. It is proposed that this need to establish a sound framework for predictable financing for infrastructure investments for a province's local road network be addressed through use of 3-year rolling Medium Term Expenditure Plans (MTEP). Use of this tool has been successfully piloted5 and has been found to provide a solid basis for budget planning.

35. For the NSRTD, the scope of the proposed World Bank operation will be a sub-set of the provinces in the national programs, as the World Bank support will target eight provinces in the Northern Mountains and Northern Central Coast Regions, which are among the poorest. For the PLBC, the scope of the World Bank support to the bridge program will cover 50 provinces. The 50 provinces for the PLBC include the eight provinces selected for the NSRTD. In addition, eligibility and exclusion criteria will be developed to ensure that eligible activities under the national programs

[5] With funding from the Australian Government, TA was provided to four pilot provinces to assist in the preparation of MTEPs covering current and recurrent expenditures on a rolling three year basis for the local road network in each province. This pilot was successful and is now being scaled-up to a further three provinces.

will meet Bank policy requirements on PforR, i.e. major civil works with environmental and social impacts will be excluded.

36. The PforR operation will target the improving of the efficiency of spending in the selected provinces through the adoption of sustainable shifts in maintenance policy and budget allocation mechanisms, rather than funding the entire maintenance backlog. The design and scope of the Program are made so that they incentivize prioritization of road maintenance activities, including both routine and periodic maintenance, as these provide the highest return on fund.

37. The MoT will be the Program Decider and will be responsible for the overall program management and oversight. Its responsibilities are to coordinate the activities of central government agencies, Provincial People's Committees (PPCs), Provincial Departments of Transport (PDoTs) and other relevant organizations. MoT has appointed the Directorate for Roads of Vietnam (DRVN) to be the overall Program Coordinator for both road and bridge results areas, as DRVN is the sole agency for the road sector in Vietnam. Within MOT, DRVN will be responsible for Program TAs while PMU6 will be in charge of their procurement on behalf of DRVN. PMU6 is also the road sub-program coordinator, while DRVN is the bridge sub-program owner. DRVN will therefore be the focal agency (lead agency) to work with the Bank, and assist the MoT in the overall Program management.

38. At the central level, MoT's and DRVN's functional departments will be the technical lead for local road standard, specification, and cost norms for local road maintenance and bridge construction activities. Program quality will be ensured by the Technical Control for Quality Management Department (TCQM) that will coordinate with the Department of Science and Technology (DST) to appraise technical guidelines and engineering designs for roads and bridges. At the provincial level, institutional strengthening and training need to be provided to PDoTs as well as the Departments of Planning and Investments (DPI) and Departments of Finance (DoF). Quality will be ensured by the Transport Engineering Construction and Quality Management Bureau and the Department of Science and Technology (under MoT) to appraise typical designs for roads and bridges. The PPCs will play a key role in mobilizing other related departments, specifically in facilitating the close linkages needed with the PDoTs and Division of Infrastructure and Economic at the local level. A high level of participation is required from local governments. Local networks of the Women's Union and Commune leaders will be instrumental in program implementation.

39. For the road results area (Road Sub-Program), PMU6 will be the overall sub-program coordinator and will work with PDoTs and assist the DRVN in the sub-program management. The PPC of the 14 participating provinces will be the Line Agency and Project Decider of the Sub-Program in each province. The PPC will decide their investment and arrange provincial counterpart funds to achieve objectives as committed in each Province's approved MTEP. The PDoTs/PPMUs of the participating provinces will be the Implementing Agencies and will be responsible for technical decisions and management of the road improvements and maintenance based on the MTEP's plans and schedules. A high level of participation is also required from the local governments. Local networks of the Women's Union and Commune leaders (Women Union, Veterans Association ...) will be instrumental in the rural roads routine maintenance aspects of the Program implementation.

40. For the bridge results area (Bridge Sub-Program), DRVN will act as the owner of the overall sub-program and project decider. Five Project Management Units (PMUs) - PMU 3, 4, 5, 6 and 8 - will be the implementing agencies under the DRVN for the fifty (50) participating provinces in coordination with the PDoTs and PPMUs

**Financing and program costs**

**Result Area 1 – Improvement of rural accessibility and associated service delivery**

41. Result Area 1 of the PforR will provide support to the NSRTD. The proposed program will include rehabilitation of and the maintenance of local roads in 14 targeted provinces. The scope of this

program is based on the readiness of Medium Term Expenditure Programs (MTEPs) prepared by each province, on the basis of a three year rolling program that will be extended to cover the period from 2015 to 2021.

42. The road results area of US$135 million would support efforts of the National Program for the participating Provinces, with a particular focus on the rehabilitation and improvements to the network, while creating incentives to strengthen the maintenance activities with the Government's budget. Implementation and operational support will be embedded in these activities. The road results area of US$135 million comprising a US$125 million envelope for civil works and a US$10 million envelope for consultancy services (preparatory activities, supervision…etc), which will be embedded in DLI based disbursement.

**Result Area 2 – Improvement of rural bridge connectivity to isolated communes**

43. The Result Area 2 of the PforR Program will provide support to the PLBC. This Program will fund the reconstruction or construction of thousands of small bridges to isolated poor communities in the 50 targeted provinces. The scope of this program is based on the same boundaries as the national program. The total national program cost during 2015-2020 is estimated to be around US$330 million for the 50 Provinces.

44. The World Bank subprogram will support the financing and construction of part of the 3,664 bridges of the National Program that still need to be completed (out of the 4,145 total bridges of the National Program excluding the 235 suspension bridges already constructed under phase 1 using GoV's budget). The bridge results area is proposed to provide support financial support of US$245.5 million for the fifty (50) participating Provinces. Implementation and operational support will be included in these activities. The bridge results area of US$245.5 million will comprise a US$215.5 million envelope for civil works and a US$30 million envelope for consultancy services (preparatory activities, supervision…etc), which will be embedded in DLI based disbursement.

**Purpose of Environmental and Social Systems Assessment (ESSA)**

45. The ESSA is conducted to understand the extent to which the Program:[6]

- promotes environmental and social sustainability in the Program design; avoids, minimizes, or mitigates adverse impacts, and promotes informed decision-making relating to the Program's environmental and social impacts;
- avoids, minimizes, or mitigates adverse impacts on natural habitats and physical cultural resources resulting from the Program;
- protects public and workers' safety from the potential risks associated with: (i) construction and/or operations of facilities or other operational practices under the Program; (ii) exposure to toxic chemicals, hazardous wastes, and other dangerous materials under the Program; and (iii) reconstruction or rehabilitation of infrastructure located in areas prone to natural hazards;
- manages land acquisition and loss of access to natural resources in a way that avoids or minimizes displacement, and assists the affected people in improving, or at the minimum restoring, their livelihoods and living standards;
- gives due consideration to the cultural appropriateness of, and equitable access to, Program benefits, with special attention to the rights and interests of the Indigenous Peoples and to the needs or concerns of vulnerable groups; and
- avoids exacerbating social conflict, especially in fragile states, post-conflict areas, or areas subject to territorial disputes.

46. In addition, ESSA is also an opportunity to review the procedures, standards and arrangements for social and environmental management applicable for LRAMP and to assess institutional capacity of program implementing agencies in managing the program social and environmental issues in Vietnamese contexts. The key findings of this assessment will be used to

[6] Paragraph 8, OP 9.00 Program-for-Results Financing, February 2012.

improve environmental and social management outcomes of the Program through specific actions under the overall Program Action Plan (PAP), as well as through technical assistance and capacity building activities to be implemented under the Program. The action plan will be discussed and agreed with the GoV and will be incorporated as relevant into legally binding agreements under the conditions of the new financing. The ESSA was prepared in collaboration with relevant officials and technical staff members of GoV implementing agencies. The methodology included:

- a desk review of current related environmental and social legislations and regulations;
- a desk review of relevant provincial environmental and social reports as well as central and provincial reports on the implementation of the Phase 1 (186 bridges);
- a consultation workshop on the implementation of environmental and social management within LRAMP; and
- a number of field visits to five provinces, and interviews/discussions with relevant central and provincial representatives.

**Description of Program Environmental Management System**
**Scope of Works**

47. The proposed program will include the rehabilitation and the maintenance of local roads in eight targeted provinces: including Ha Giang, Bac Can, Lao Cai, Thanh Hoa, Nghe An, Ha Tinh, Nam Dinh and Quang Binh. This program will also fund the reconstruction or construction of thousands of small bridges to isolated poor communities in the 50 targeted provinces 7.

48. As LRAMP is a "Program for Result", only subprojects equivalent to Environmental Category B according to World Bank classification, i.e. the potential impacts are assessed to be small to moderate, and manageable will be financed under the Program.

**Potential Environmental Impacts and Risks**

49. The overall environmental impacts of the LRAMP Program would be significant and positive. Improved local roads or new bridges would bring about safer and more convenience access for local communities to basic services such as health care and education. Better access also enhance social connectivity between the benefited households, creates opportunities for remote households to be able to evacuate in flood events, provides better connection to markets for farmers. Living standards of the benefited households are expected to be increased from such direct beneficial impacts.

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| *Some direct benefits of improve access:*<br>*Safer and more convenience for the children to go to school in rainy season. Instead of taking the children to school, parents can spend time for household income creation activities.*<br>*Better access to clinics of sick people; Local medical staff can access to remote communities for health care services.*<br>*Farmers can sell products at higher price as the time and cost of transport decrease*<br>⇨ *Living standards of benefited communities are improved* |  <br>*Northern mountain: Currently local people cross the stream on the irrigation structure* |

[7] PAD, pages 15 and 16

| | |
|---|---|
|  *Central Highland: farmers taking pigs to the market on motorbike. Bridge degraded and became very dangerous in rainy weather* |  *Mekong Delta: A degraded bridge which is dangerous to come through* |

**Figure 1 – Potential beneficial impacts at some locations**

50. Through technical assistance and independent environmental consultancy service provided under LRAMP, it is expected that environmental management capacity the implementing agencies including DRVN, PMUs 3, 4, 5, 6 and 8, PDOTs would be enhanced.

51. There are some potential negative environmental impacts and risks at subproject level during both construction and operation phases of road rehabilitation and maintenance, and bridge construction or reconstruction.

52. For road rehabilitation and maintenance work, common construction impacts are known, including: i) increased level of dust, noise and vibration; ii) disturbance to traffic and increased traffic safety risks; iii) disturbance to daily activities of road side households; v) health and safety risks for the workers and local community; These potential construction impacts are expected to be low to moderate levels, temporary, short term, localised, mostly reversible after construction is completed. During operation phase of road rehabilitation subprojects, no incremental negative environmental impacts are expected. Emissions from vehicles and traffic safety risk of rehabilitated roads are even expected to be reduced during operation phase.

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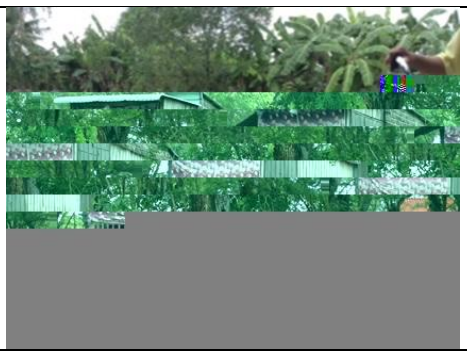
|  *A proposed road rehabilitation: dust, noise, community disturbance would be the main construction impacts. Meanwhile connection with roadside buildings can be improved.* |  *Some trees, shrubs and agricultural land would be affected for the construction of bridge and access road at this location* |
| *l* |  |

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|---|---|
|  <br>*Would be risky if Children swimming near bridge construction site.* | *Boats are popular on canals in the Mekong Delta. Clearance is required when designing bridges.* |

**Figure 2 – Potential negative impacts and risks at some locations**

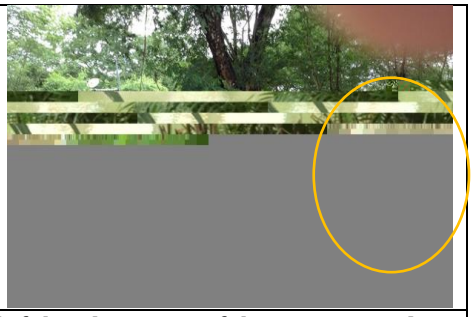
53. For bridge construction or reconstruction, including access roads, the potential impacts and risks would be: i) loss of vegetation cover, cutting down of trees during site preparation; ii) increased level of dust, noise and vibration; iii) disturbance to traffic and increased traffic safety risks; iv) disturbance to daily activities of road side households; v) water pollution related to increased sedimentation risks associated with construction material preparation, temporary loading of construction materials in rainy season; vi) pollution and visual impacts related to dumping of excavated materials; vii) interfere or disrupt the operation of existing infrastructure or services such as power supply, drainage, water supply etc. viii) health and safety risks for the workers and local community; During operation phase, the environmental issues of concerns would be: i) increased accessibility of human beings to protected areas or areas having high environmental/ biological values may eventually lead to biodiversity degradation; ii) traffic safety; iii) landslide risks in hilly areas; iv) obstruction to boats movements if bridges are built on waterway;

**Mitigation Measures for the Potential Negative Environmental Impacts and Risks**

54. While construction impacts are mostly mitigable though construction practices, some of the potential negative impacts during operation phase can be avoided or addressed through the siting of subproject or engineering design.

55. To avoid adverse potential environmental impacts, particularly the socio-environmental risks associated with bridge and access road construction/ reconstruction, siting of the sub-projects under LRAMP will avoid locations that would cause adverse potential impacts. LRAMP will NOT support subprojects that:

- Located within 2 km of any sensitive environmental area such as natural forest, national parks, nature reserve, bird sanctuary, primary forest, legally protected areas, biosphere conservation areas, national graded historical/landscape sites etc. listed in MONRE decision no. 1107/QĐ-BTNMT regarding the list of conservation area;
- Located within 10 m of a physical cultural structure such as temples, monuments, pagodas, ancient graves, historical sites, worshiping place, sacred trees or any objects of spiritual important to local community etc.
- Road or access road alignment that require land acquisition within a urban settlement or resulting on AHs been relocated in resettlement sites
- bridges that require significant alteration or adversely impact the hydrology or hydro-geology relating to the river such as significantly narrowing the wet cross section of river or require massive drilling and pile driving
- any new bridge construction that may cause potentially significant and adverse environment or social impacts;

*These subprojects would not be financed if the alignment of the access road or any point of the bridge is within 10 m from of the pagoda (left) or graves (right)*

**Figure 3 – Structures to be avoided**

56. The measures that can be incorporated into engineering design or construction practice to mitigate the potential negative socio-environmental impacts are summarised in the Table below:

**Table 1 – Mitigation Measures**

| Phase | Mitigation Measures |
|---|---|
| Engineering Design | • Choose weather and climate durable materials to enhance sustainability of structures<br>• Include environmental friendly measures for slop protection in sub-projects located in hilly areas, e.g. plant vegetation or grass on slopes<br>• Design drainage on slops and along the road<br>• Outlet of drains is designed with energy dispersion and erosion prevention structures Retain topsoil at the borrow pits, and reapply at the final stage of site-reinstatement<br>• Design smooth connection at junctions between the rehabilitated/ new road and existing access paths to households or other existing roads<br>• Bridge design includes height and width clearance for boat access underneath<br>• Select non-corrosive materials for bridge structures in areas where water has low pH<br>• Place traffic signboards at locations where traffic safety would be of risks during operation phase such as before curvy sections, near schools, markets, health clinics, commune centers or other public buildings |
| Construction | • inform affected community about construction schedule<br>• Keep the disturbed areas to be minimal at all the time<br>• provide adequate accommodation, water supply and sanitation facilities for the workers to use; provide adequate protective equipment for the workers<br>• carry out proper site management regular cleaning up the site, waste and material management etc. particularly in rainy weather<br>• Install fences, signboards and arrange staff to direct traffic flow<br>• Spray water on dusty road in dry weather, cover the trucks and construction materials loads<br>• avoid to generate high level of noise at sensitive hours such as early morning and night time<br>• use static instead of vibration compactors<br>• provide temporary access to roadside building if the regular access is affected<br>• Reuse excavated materials for construction and filling where possible |

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| | • Regularly levelling and landscaping excavated/filled areas<br>• Plant grass or reestablish vegetation cover on slopes or barren land created<br>• Ensure drainage patterns are created or maintain to minimise the erosion potentials of rainwater when running on slopes<br>• coordinate with relevant authority to relocate or repair the affected infrastructure |
| Operation | • Involve community in road and bridge maintenance where possible, particularly planting/maintaining green corridors along the roads |

57. A comprehensive set of environmental activities to address the typical potential impacts and risks of bridges and access roads are presented in Annex 6.

**Environmental Management System**

***National Environmental Legal Requirements***

58. Vietnam has a good legal system for environmental management. The new Law on Environmental Protection (LEP) which became effective from January 2015, Decree 18/2015/ND-CP and Circular 27/2015/TT-BTNMT set out a relative comprehensive environmental management framework for infrastructure projects. Environmental management is also supported with related laws such as the Law on Cultural Heritage, the Law on Mineral Resources, the Law on Water Resources, the Labour Law, the Law on Natural Disaster Prevention and Responsive etc.

59. The guiding principles for environmental management in the program are provided in: i) revised Law on Environmental Protection no. 55/2014/QH13 dated 23 June 2014, in effect from 1 January 2015; ii) the Decree 18/2015//ND-CP guiding the implementation of the Law on Environment 2014 with particular regulations on environmental planning, strategic environmental impacts assessment, environmental impacts assessment and environmental protection plans; iii) Circular 27/2015/TT-BTNMT dated 29 May 2015 detailing some guidance for the implementation of the Decree 18/2015/ND-CP.

60. In addition, other legal documents that may be applicable to some specific subprojects are:

- The Law on Natural Mineral no. 60/2010/QH12;
- The Law on Water Resources no.17/2012/QH13 dated 21 June 2012;
- The Law on Natural Disaster Prevention and Preparedness no. 33/2013/QH13, effective from 1 May 2014;
- The Law on Labour no. 10/2012/QH13 date 18 June 2012;
- The Law on Cultural Heritage no. 32/2009/QH12 dated 18 June 2009 revising some articles of the Law on Cultural Heritages no. 28/2001/QH10;
- The Law on Biodiversity no. 20/2008/QH12 dated 28 November 2012;
- Decree 201/2013/ND-CP guiding the implementation of the Law on Water Resources.
- Decree 179/2013/ND-CP regarding fines applicable to environmental violations;
- Circulars regarding management of solid wastes, national environmental standards etc.

61. Relevant clauses in the legislations applicable to LRAMP are discussed in detail below.

**The Laws on Environmental Protection (2014)**

62. The Law on Environmental Protection (LEP) no. 55/2014/QH13 become effective from 1 January 2015 to replace the LEP 2005. The LEP with 15 chapters, 136 articles provided regulations on environmental protection activities, policies, measures and resources for protection of the environment; general rights, obligations and responsibilities of institutions, organizations, households

and individuals with respect to protection of the environment. The chapters that are closely related to LRAMP are:

Chapter 1: General Regulations
Chapter 2: Environmental Standards
Chapter 3: Strategic Environmental Assessment
Chapter IV, articles 39 - 48: Adaptation to Climate Change;
Chapter VI, articles 52 - 64: Air, Water and Soil environmental protection;
Chapter VII. articles 72-74: Environmental Protection in (a) hospitals and healthcare centres; (b) construction; and (c) transport;
Chapter VIII, articles 80-84: Environmental Protection in residential areas;
Chapter XI, articles 85-103: Waste and wastewater management;
Chapter XIV, articles 139-143: Responsibilities of State Environmental Management Agencies; and
Chapter XV, articles 144: Environmental Protection responsibilities of Vietnam Father Front, Civil Organisation and Communities.

63. **Environmental Impact Assessments.** Under LEP, EIA is mandatory for projects that: (a) are large scale for which investment decisions are made by the National Assembly, the Government and the Prime Minister; (b) use land falling within nature reserves, national parks, historical/cultural sites, biosphere conservation areas or classified sites with landscape values; and (c) have adverse environmental impacts and high risks. . LRAMP would cover any subprojects that fall into these categories, thus simplified version of EA, i.e. Environmental Protection Plans, would be required for subprojects under LRAMP.

64. Physical investments under the LRAMP will be required to prepare simplified environmental assessment in the form of Environmental Protection Plan (EPPs) in compliance with the new LEP:

- Entities subjected to EPP preparation: (a) Investment projects where EIAs are not required, (b) production, business and the service establishments where investment reports are not required;
- Contents of EPP: the LEP 2014 requires EPPs to provide information on project locations, type, technology and scale of production lines/business/services; raw materials and fuels used, predictions on the wastes generated and other environmental impacts; measures for waste treatment and mitigation of negative environmental impacts measures and arrangements for EPP implementation.
- Review and Appraisal of EPPs: the LEP 2014 regulates in detail the responsibilities of government agencies to appraise and approve EPPs and of project owners to implement the approved EPPs. District Peoples Committees will review and appraise small projects implemented within the administrative boundary of the District, and Provincial DONRE will appraise and review small projects covering two or more districts in the province.

65. In particular, the new LEP also specifies environmental management responsibilities requirements to communities and households, including:

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| Chapter XV<br>Article 146<br>Community responsibilities | *...Have the rights to request state environmental management authority to implement measures to protect the rights and welfares of the community in accordance with the civil Law...* |

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| Chapter VIII, Article 82<br>Households | • *Reduce and separate municipal wastes at source and transport to approved location*<br>• *Reduce, treat and discharge domestic wastewater to approved receptors* |

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| responsibilities | • *Generation of emitted gases, noise, vibration exceeding environmental technical standards is forbidden*<br>• *Pay environmental protection fees in full amount and on time; pay for waste collection and treatment services as regulated by Law;*<br>• *Participate in environmental protection activities in public and residential areas.*<br>• *Have sanitary facilities and animal cages that are safe and hygienic.* |

**Decree no. 18/2015/NĐ-CP dated 14 February 2015 regarding environmental management planning, strategic environmental assessment and environmental protection plans.**

66. Chapter IV and Annex I regulate the subprojects requiring environmental assessment to be carried out:

- Projects using land of any national park, nature reserve, world heritage, biosphere conservation area, nationally registered cultural – historical sites;
- Projects that would cause forest loss, conversion of forest land: from 5 ha of watershed protected forest and specialised forest, from 10 ha of natural forest, from 50 ha of other type of forests; conversion from 5 ha of rice field land into non-agricultural land use
- Construction of new Roads grades from I to III
- Construction of from 50 km of road grade IV in mountainous areas
- Bridges from 500 m long, excluding access road

67. Decree 18/2015/ND-CP regulates that for small scale projects that are not located in environmental sensitive areas, Project Owners will therefore only be required to prepare Environmental Protection Plans (EPPs) for submission to the District People's Committee for review and approval. Article 30 in the new Environmental Law only suggests the key headings for EPPs. Detail guidance on the preparation of EPPs are provided in Circular 27/2015/TT-BTNMT dated 29 May 5/2015 by MONRE and became effective from 15 July 2015. Although the final list of the bridges to be constructed/reconstructed under LRAMP has not been finalised, it is very likely that all small bridges to be constructed/reconstructed under LRAMP would be required to have EPPs prepared.

68. Chapter V regulates about Environmental Management Plan

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| Article 18. EPP Registration: District People's Committee will be the authority to certify environmental protection plans for projects that will be implemented within the boundary of one province.<br><br>Article 19. Certification of EPP: Projects can be commenced only the EPPs have been certified. |

69. Chapter VI covers the implementation arrangements:

- Article 20: the costs of environmental assessment and the preparation of environmental management plans will be part of total project costs; the costs related to appraisal of environmental assessment report will be from the fees charged to the project owner; the costs related to certification of environmental protection plan, checking of environmental protection structures will be covered by the environmental administration budget
- Article 21 regulates the type of environmental reports that government agencies at various level are required to prepare and submit to relevant environmental management authorities:

i. District People's Committees are required to submit annual reports about environmental management activities carried out within the district during the year to Provincial People's Committee (PPC);
ii. PPCs are required to submit annual report to MONRE which cover: i) SEIA appraisal; appraisal and approval of EIA reports; Environmental Protection Plan registration and implementation inspection to MONRE;

**Review of the Circular 27/2015/TT-BTNMT**

70. Chapter VI – Environmental Protection Plan EPPs. Article 32. Authority to Certify EPPs: Provincial Department of Natural Resources and Environment DONRE will be the authority to certify the EPCs of project types listed in Annex 5.1 of Circular 27. District People's Committee will be the authority to certify EPCs for the types of projects listed in Item 1 – Article 1 of Decree except those listed in Annex 5.1. Commune Peoples committee can be authorised by DPC to certify EPCs of household scale projects in the commune.

> Annex 5.1 extract:
>
> "Environmental protection plans will be certified by either provincial Department of Natural Resource and Environment or District Peoples committee. Among other projects, Provincial DONRE will review EPPs of projects using the land of: i) provincial cultural or historical sites; ii) areas with beautiful land scape and graded by the province; iii) less than 5 ha of watershed management forest, specialised forest; iv) between one to ten ha of natural forest; v) from one to five ha of rice field, if the land is converted into non-agricultural land; and vi) between 10 to 50 ha of other forest"

- Article 33. Dossiers to be submitted for EPP certification: i) together with three copies of the EPP document, project owner is also required to submit a copy of the Investment Report to DONRE/DPC; ii) In cases where application for EPP certification of EPP is at another authorised authority, the document to be submitted will meet the requirement of the authorised authority
- Article 34. Timing of EPP certification: Within 10 working days from the date of receipt, certification should be issued. In case certification not yet be issuable, written notice specifying the reason will be issued.
- Article 35. Implementation of EPPs: Project owner are require to re-register for EPP certification in cases are regulated in Item 4, Article 33 of the LEP, which refers to: change project location; Do not commence the implementation within 24 months from the date that EPP was certified; Where there are changes in project nature or scope that lead to an environmental impact assessment EIA is required, the Project owner will be responsible for having EIA prepared and submit for approval by relevant authority; In cases where there are changes in project owner, the new project owner will be responsible to continue implementing the certified EPP.

**Review of the Law on Mineral Resources no. 60/2010/QH12**

71. Road rehabilitation and construction/reconstruction of bridges may requires limited quantity of construction materials such as sand, rocks, soil for filling etc. The exploitation of such materials will be required to comply with the Law on Mineral Resources which also discussed about construction materials.

72. Chapter II discuss about mineral resource planning:

- Article 10. Mineral Resource Planning include planning on the exploitation and usage of each type and groups of materials used for construction …;
- Article 22. Survey on mineral resources includes: Survey and prepare geological/geo-envrionmental maps; Assess storage.

- Article 23. Responsibilities of Mineral Surveyors includes: i) registration with relevant authorities before starting the surveys; conduct survey in accordance with the approved plans; Carry out measures to protect the environment and mineral resources during the survey; and Submit the survey results for approval by relevant authorities;
- Article 26. Restrictions will be applicable in order to meet the requirements of national security, environmental protection: a) Organisations and individuals permitted; b) Productivity; c) Timing; d) land areas, depth and methods.

73. Chapter VI regulates about environmental protection requirements when using land, soil, water, infrastructure in mining activities:

- Article30 requires: i) Usage of environmental friendly technology, equipment and materials; implement measures to prevent or mitigate potential negative environmental impacts, rehabilitate the sites in accordance with legal requirements; ii) The solutions and costs for environmental mitigation and rehabilitation must be included in FS, EIA/EPP; iii) Before the commencement of exploitation, operators must pay deposits for environmental rehabilitation as regulated by the Government8.
- Article 32. usage of water for mining: Exploiter must comply with the Law on Water Resources; The water source, quantity and the methods of water usage and discharge during mining process must be defined in the mining proposal and design

**Review of the Law on Natural Disaster Preparedness and Response (LNDPR)**

74. Being promulgated in June 2013, LNDPR establishes fundamental principles relating to disaster preparedness and response which include proactive prevention and timely response as well as prompt and efficient recovery. Article 4 specifies that disaster preparedness and response should combine construction and non-construction solutions; environment and ecosystem protection, and climate change adaptation.

75. Chapter Ii discuss about natural disaster prevention response. Article 19 specifies disaster prevention requirements for urban/rural residential areas and technical infrastructure works. Investors are required to ensure disaster prevention requirements are incorporated into proposed project preparation, including: (a) not to cause increased disaster risks, restrict to a minimum the risk of disasters, and ensure the stability of the structure in case of disaster; and (b) comply with the provisions of the law on environmental protection, construction and urban planning. This article also requires the competent authority to perform a project assessment to ensure that proposed projects meet disaster prevention requirements.

**Review of the Law on Water Resources no. 17/2012/QH13**

76. The revised Law on Water Resources was promulgated in 2012 replacing some articles of the old Water Resources Law issued in 1992. While this Law is more focused on water resource planning, Chapter III included provisions regarding protection of water resources that would be relevant to bridge construction activities. Some articles are discussed below:

- Article 25 requires those who have been using the water resource to protect water sources; Any threats or damages caused to water resources should be promptly reported to local authority.
- Article 26 set out the requirements to prevent and mitigate degradation or depletion of water resources.

  "…Corrective actions must be undertaken for water resources degradation, soil erosion or landslides, pollution or salinisation of water resources; if damages are caused, compensation must be paid in accodance with the Law"

[8] In case where are environmental failure or the exploiter fail to reinstate the site, the amount deposited by the exploiter will be used for site rehabilitation.

"… Avoidance or mitigation measures must be applied if the construction of… roadway transport, waterway transport… have the potential to cause water pollution or water resource degradation/depletion"

**Review of Decree No. 59/2007/ND-CP dated April 09, 2007 of the Government on Solid Waste Management.**

77. The first three principles stated in Article 4 of this Decree will be applicable under the Proposed Program. These are: (a) Organizations and individuals that discharge solid waste or are engaged in activities that generate solid waste shall pay charges for the collection, transportation and disposal of solid waste; (b) Waste shall be separated at source of generation and then recycled, reused and processed to have its useful constituents recovered for use as input materials and to generate energy; (c) to prioritize the application of technologies for the processing of hard-to-decompose solid waste which may help reduce the volume of waste to be buried, so as to save land used for this purpose;

78. The proposed Program should also follow the requirements detailed in some items of Article 24: "on the main streets, in business centres and in public and residential areas, facilities for storage of solid wastes must be arranged" (item 3); "the volumes of waste bins within a building must suit detention time. Bins placed in public places must meet technical and aesthetical requirements (item 4); and "solid waste must not be kept on-site for more than two days" (item 5).

79. Public and Worker Safety. Regulations related to public worker safety are included in various laws such as the Vietnam Labor Codes 1994 and Decree 06/ND-CP dated January 20, 1995 which elaborates some provisions of the Vietnam Labor Law on Occupational Safety and Health and stipulates that "employers provide the workers with sufficient personal protective devices and to carry out other measures ensuring occupational safety and health for them in conformity with laws and regulations." In addition Decree 110/2002/ND-CP dated 27 December 2002, which amends and supplements Decree 06/ND-CP, elaborates provisions of the Vietnam Labour Law on occupational safety and health.

***Environmental Institutional Responsibilities***

*Central Level*

80. The Ministry of Natural Resources and Environment (MONRE) is the environmental management authority at the central level in Vietnam. As part of its management function, MONRE appraises and approves environmental reports and carries out post-EIA monitoring. Regarding occupational health and safety, agencies from various levels of the Ministry of Labour, Invalids and Social Affairs (MOLISA) provide guidance and carry out periodical inspections. Management of cultural resources is the responsibility of the Ministry of Culture, Sports and Tourism (MOST).

81. According to the existing Environmental Law, as the proposed investments under LRAMP will be of relative small scale and not located in any environmental sensitive areas, the reviewing and approval of environmental document will be remained at district levels.

82. At the central level, the Ministry of Transport represented by DRVN will be the overall coordinators of LRAMP road and bridge components, respectively. Under the coordination of DRVN, each of the three PMUs no 3, 4, 5, 6 and 8 will work directly with certain number of provinces to supervise, monitor and provide advice to support bridge subproject shortlisting, preparation and implementation including technical advice on safeguard issues to the provincial DOTs.

*Provincial and District Levels*

83. The Departments of Natural Resources and Environment (DONREs) are the provincial environmental management agencies. DONREs are responsible for environmental management, land

acquisition and compensation, mineral resources management, hydrometeorology, and mapping. DONREs support the PPCs on environmental management in accordance with the LEP and related laws and regulations. For small scale investments, state environmental functions are delegated to district level.

84. At the province level, the Department of Culture, Sports and Tourism (DOST) is the authority for state management of culture including physical cultural resources.

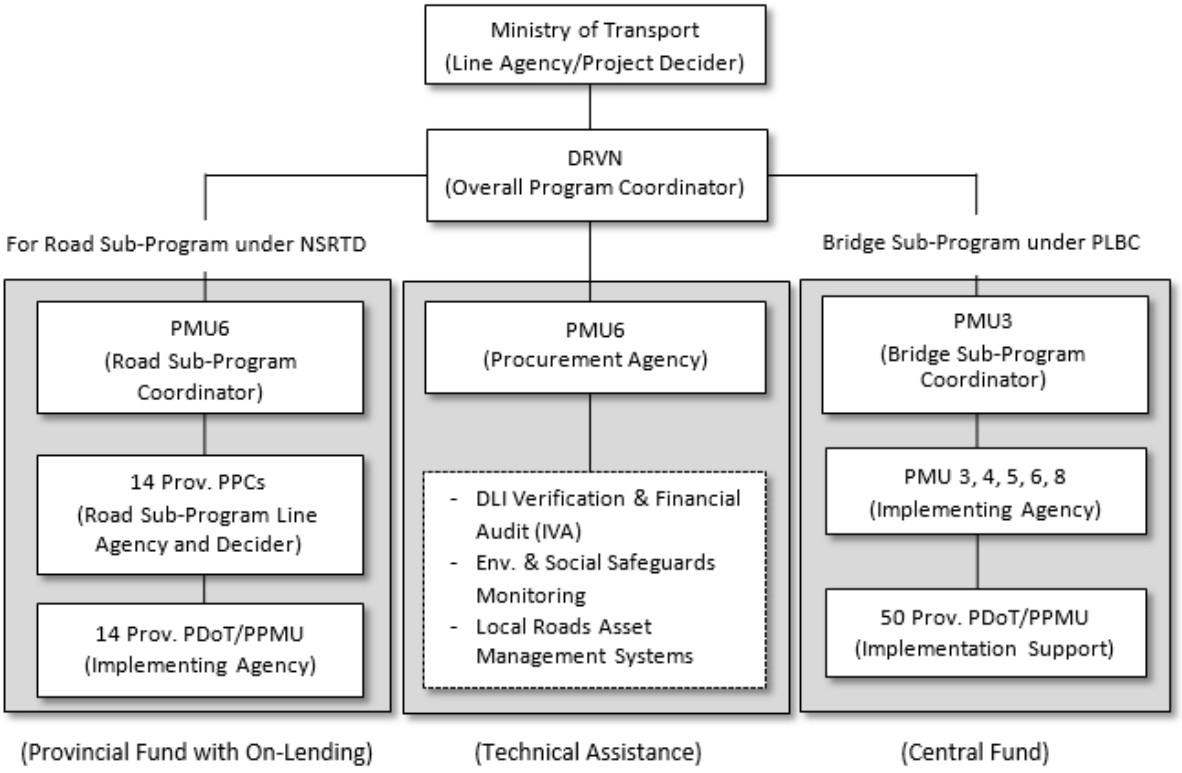
**Program Environmental Capacity and Performance Assessment**
**Implementation Arrangements**

85. The MoT will be the Program Decider and will be responsible for the overall program management and oversight. Its responsibilities are to coordinate the activities of central government agencies, Provincial People's Committees (PPCs), Provincial Departments of Transport (PDoTs) and other relevant organizations. MoT has appointed the Directorate for Roads of Vietnam (DRVN) to be the overall Program Coordinator for both road and bridge results areas, as DRVN is the sole agency for the road sector in Vietnam. Within MOT, DRVN will be responsible for Program TAs while PMU6 will be in charge of their procurement on behalf of DRVN. PMU6 is also the road sub-program coordinator, while DRVN is the bridge sub-program owner. DRVN will therefore be the focal agency (lead agency) to work with the Bank, and assist the MoT in the overall Program management.

86. At the central level, MoT's and DRVN's functional departments will be the technical lead for local road standard, specification, and cost norms for local road maintenance and bridge construction activities. Program quality will be ensured by the Technical Control for Quality Management Department (TCQM) that will coordinate with the Department of Science and Technology (DST) to appraise technical guidelines and engineering designs for roads and bridges. At the provincial level, institutional strengthening and training need to be provided to PDoTs as well as the Departments of Planning and Investments (DPI) and Departments of Finance (DoF). Quality will be ensured by the Transport Engineering Construction and Quality Management Bureau and the Department of Science and Technology (under MoT) to appraise typical designs for roads and bridges. The PPCs will play a key role in mobilizing other related departments, specifically in facilitating the close linkages needed with the PDoTs and Division of Infrastructure and Economic at the local level. A high level of participation is required from local governments. Local networks of the Women's Union and Commune leaders will be instrumental in program implementation.

87. For the road results area (Road Sub-Program), PMU6 will be the overall sub-program coordinator and will work with PDoTs and assist the DRVN in the sub-program management. The PPC of the 14 participating provinces will be the Line Agency and Project Decider of the Sub-Program in each province. The PPC will decide their investment and arrange provincial counterpart funds to achieve objectives as committed in each Province's approved MTEP. The PDoTs/PPMUs of the participating provinces will be the Implementing Agencies and will be responsible for technical decisions and management of the road improvements and maintenance based on the MTEP's plans and schedules. A high level of participation is also required from the local governments. Local networks of the Women's Union and Commune leaders (Women Union, Veterans Association ...) will be instrumental in the rural roads routine maintenance aspects of the Program implementation.

88. For the bridge results area (Bridge Sub-Program), DRVN will act as the owner of the overall sub-program and project decider. Five Project Management Units (PMUs) - PMU 3, 4, 5, 6 and 8 - will be the implementing agencies under the DRVN for the fifty (50) participating provinces in coordination with the PDoTs and PPMUs.




*Source: Ministry of Transport*

**Figure 4. Institutional arrangements for Program Implementation**

**Institutional Capacity and Performance Assessment**

89. **DRVN** [9] head office is based in Hanoi with 21 sub-departments and agencies including the Department of Traffic Safety and the Department of Science-Technology and Environment and International Cooperation (DSTEIC). DSTEIC's key environmental functions are: i) Develop environmental standards for the construction, operation and maintenance of roadway infrastructures; ii) Prepare and submit strategic environmental assessment, environmental assessment and environmental protection plans for review and approval by relevant authorities; iii) implement environmental plans during the implementation of roadway infrastructure projects managed by DRVN. DRVN/DSTEIC has been the coordinator of its PMUs, particularly PMUs 3 and 4 in managing environmental aspects of past and on-going transport projects including those financed by international donnors such as the World Bank such as RT3 or VRAMP or ADB.

90. **DSTEIC**'s Environmental Division comprises of two officers. For LRAMP, DRVN has assigned Ms. Van who holds a Master Degree on Environmental Science to take a lead on environmental aspects of LRAMP. She was involved in the management of the Rural Transport 3 financed by the World Bank and the Provincial Road Updgrating Project financed by ADB. Ms Van participated in LRAMP preparation teams to familiarise with program environmental management requirements and received some initial mentoring from the Bank Team's Environmental Specialist. For managing environmental aspects of LRAMP, DRVN will need technical assistance for further building up their environmental management capacity to be capable to monitor and supervise adequately the environmental aspects in LRAMPs' 50 participating provinces. Therefore, LRAMP has been designed to include an environmental consulting service with the key objectives of : i) provide capacity building, training for DRVN, PMUs and other stake-holders of both road and bridge components of LRAMP; ii) periodical compliance monitoring for both components.

[9] http://www.drvn.gov.vn/webdrvn/index.php?q=trang/chuc-nang-nhiem-vu

91. **PMUs 3, 4, 5, 8** were established under DRVN. The head offices of PMU 3 is in Hanoi while these of PMUs 4, 5 and 8 are in Vinh City (north central), Da Nang (Central) and Ho Chi Minh City (south of Vietnam). Under each PMU, project preparation is managed by the Planning and Technical Division while the management of on-going projects are assigned to Project Implementing Divisions (PIDs). These geographical locations of the PMUs would be favourable for supervising and monitoring the operations of LRAMP (which covers 50 provinces from north to south of Vietnam) including environmental aspects.

92. **PMU 3** has approximately 80 staff including 40 road and bridge engineers. There are 4 PIDs under PMU 3. PMU 3 has been managing large number of road and bridge projects. The Social and Environmental management Team has 8 staff, among them there is only one staff, Mr Nguyen Xuan Vinh, specialising in Environmental Management. Mr Vinh has extensive experience working on environmental safeguard aspects of previous and VRAMP, the on-going World-Bank financed transport project.

93. PMU 3 was assigned by MOT to manage the first phase of the National Program on Temporary Bridge Eradication (NPTBE) in which 126 bridges has been built in 28 provinces. PMU 3 staff worked closely with the consultant to carry out site survey for shortlisting of bridges, then site selection before choosing the most suitable sample designs of the bridges introduced by DRVN. Therefore, some paperwork has been simplified during sub-project preparation. Limited number of EPCs was available for review during the preparation of LRAMP, and there are some limitations in the quality of the EPCs prepared.

94. Currently PMU 3 has also been managing the Vietnam Road Assets Management Project (VRAMP) financed by the World Bank. Good environmental management practice has been followed under this Project. At the beginning of the Project, PMU 3 arranged safeguard training for the officers in districts. The Construction Supervision team included a Heath, Environmental and Safety Officer who prepared project environmental guideline document and coordinated with PMU 3 Environmental Officer to conduct training to 75 Site Engineers of both Construction Supervision team and the contractors. Supervision adhered to the approved EMPs. An Independent Environmental Consultant carry out periodical inspections, reports prepared by them were submitted to both PMU 3 and the Bank. PMU 3 has been responsive to environmental concerns raised by affected households, staff has been followed up to address the concerns and the case are documented at PMU 3 office[10].

95. The experience from NPTBE and VRAMP shows that PMU 3 perform good environmental management practice when the requirements are set out clearly and compliance are monitored closely. Lack of reporting requirements may lead to environmental management not complied with fully in some subprojects managed by PMU 3 where available resources may not be adequate to cover large number of subprojects located in a wide geographical areas.

96. **PMU 4** was established in 1995. In 2015, PMU 4 has 61 staff including 28 road and bridge engineers and one staff with B.Sc Degree on Environmental Science. PMU 4 involved in the WB-financed Rural Transport projects 2 and 3, ADB-financed road maintenance project, Government-funded project on repair and strengthening of bridges on highways, and project to build residential bridges for traffic safety in ethnic minorities areas.

97. A report prepared by PMU 4 for LRAMP preparation team shows that their on-going projects have been in compliance with Vietnamese Environmental Management legislations:

- Environmental Assessment Reports, Environmental Management Plans prepared;
- Environmental management responsibilities of particular projects are assigned to specific PID
- PMU 4 coordinates with local authorities to address issues related to land acquisition;

[10] Information provided by PMU 3 during the Bank's supervision mission, September 2013.

- PMU 4 cooperates with other local authorities on climate change adaptation, natural resource management and environmental protection, saving and efficient usage of resources and materials during project implementation;
- PMU 4 supervise and monitor to ensure that basic environmental mitigation measures are implemented during construction phase;
- Regular environmental inspections are conducted, periodical environmental monitoring reports are prepared.

98. Interview with PMU 4 management and staff shows that they have relative good understandings about environmental management requirements and practices. EAs were prepared during project preparation. However, the quality of one EA report reviewed during the preparation of this ESSA is quite limited with generic potential environmental impacts and mitigation measures for construction and operation phases. Environmental assessment was made based on existing environmental conditions, technical and resource constraints and engineering proposals than making recommendations to address the constraints or improve engineering proposals11. Subsequently, bidding document required the bidders to propose the construction methods that meet applicable legislations including technical and environmental regulations. Environmental Assessment reports was not referred to in the bidding document.

An example of Bidding document: Environmental and Safety are incorporated but not linked to EA recommendations

- Explanations about sources and specifications of construction materials including sand, rocks, filling materials; specify if contractor would buy the materials from dealers or directly exploit from source.
- Present construction arrangements with layouts, work items and orders of construction included
- Present list of human resources and construction plants to be mobilised, and construction schedule
- Present in detail traffic safety management plan for construction phase, this plan must be approved by the Project Owner before construction commencement
- Methods to ensure work place safety
- Methods to maintain hygienic/environmental conditions during construction phase

An example of Construction supervision TOR: Environmental and safety supervision are incorporated

- Supervise the implementation of measures to ensure traffic safety, workplace safety,
- Check detail design document with regards to construction method, traffic control, safety, fire and explosion prevention, and maintaining environmental sanitation;
- check these systems arranged at the site by the contractor and the beginning and regularly during construction phase
- Direct the contractor to halt construction if environmental/safety non-compliance is found; direct the contractor to implement corrective actions. Report to the Project Owner and recommend terminating construction contracts if the contractor can not meet environmental and safety requirements
- Direct the contractor in case of emergency/accidents and report to the Project Owner

99. According to PMU 4, ensuring safety has been their top priority. Before construction is started, PMU reviews the contractor's proposals on construction methods and only allow to proceed if safety is ensured. The contractors are required to allocate staff responsible for safety and provide training for the workers on safety and environment. PMU staff and consultants monitor compliance to environmental and safety requirements regularly. However, environmental monitoring have not well-documented at PMU 4 office.

[11] EIA for rehabilitation of 8A Highway,

100. PMU 4 has seriously considered concerns raised by the public during construction phase. Engineering proposal of one project was modified in response to public concerns although additional costs incurred. PMU 4 responsiveness to public concerns has been appreciated by community and acknowledged in local media:

> *In 2012, PMU 4 implemented the Highway 8A Expansion Project. Original construction plan include the cutting down of 50 trees planted in the 1960s, which are of spiritual important to local people. Good price was offered to buy those 50 trees. In response to the suggestions of local community, PMU 4 has revised the engineering proposal and construction plan, spent 200 millions VND (approximately 10,000USD) to relocate two third of these 50 old trees and realign the highway in order to retain the remaining old trees.*

101. For LRAMP, PMU 4 has planned to allocate 2 staff to be responsible for environmental management: Mr Dang Van Manh and Mr Nguyen Tuan Anh. Mr Manh who has environmental background and been managing government-funded projects will take lead. Mr Anh, a civil engineer who worked in WB-financed Rural Transport 3 Project and other projects financed by GOV, will be member. According to PMU 4, Mr Manh and Mr Anh are expected to be responsible for quality control of Environmental Assessment/Environmental Protection Plans, provide training for stakeholders, monitor compliance of subprojects and support independent monitoring consultants.

102. For LRAMP, technical assistance would be necessary for PMU 4 to: i) enhance their capacity on quality control of environmental documents; ii) promote the coordination between the divisions within PMU 4 to facilitate the incorporation of environmental considerations into engineering proposals and other relevant project documents; and iii) establish environmental reporting procedure during construction phase.

103. **PMU 5** has 18 key staff in 2015. For each project, PMU allocate one engineer to manage all aspects of project implementation, including safeguard issues. During 2012-2014, PMU 5 staff carried out site survey for 31 small bridges with length from 50 to 140 m, width from 1.5 to 2.5 m.

104. While most of Environmental Protection Commitments (EPCs) had been prepared by consultants hired by PMU, some EPC was also prepared by PMU staff. The sample EPC shared by PMU shown that it included basic common potential environmental impacts and mitigation measures[12]. Construction contract prepared by PMU 5 has a section on workplace safety, environmental protection and fire prevention with general statements.

> Safety and Environmental requirements in a sample bidding document:
> - The contractor must establish measures to ensure safety for human and machineries at and surrounding the construction site; Workplace safety rules must be disclosed on site; Warning signs must be placed at risky locations; The contractor is required to provide trainings on safety for their workers
> - The contractor is required to implement mitigation measures to address the potential impacts such as dust, noise, waste and waste water generation; Construction materials and wastes must be covered and protected during transportation
> - Workplace safety and environmental issues will be monitored and supervised by the contractor, project owner and related parties.

105. Sample of Construction Supervision Report prepared by PMU 5 staff included the mitigation measures implemented and assessment on the contractors' environmental performance with regards to

[12] EPC prepared by PMU 5 staff for the subproject "road surface repair and localised lining at sections km 74+00-km84+00, km 116+00-km 160+00 of Highway No.19".

site management, safety, traffic management and traffic safety, and dust control measures. The report has also recorded construction supervision's effort to enforce contractors' environmental compliance.

106. For effective environmental management of LRAMP, PMU 5 staff would need to be assisted to improve their understandings about the potential impacts and mitigation measures of typical road and bridge projects. The coordination mechanism for PMU divisions also need to be established to ensure that the recommendations and commitments of EAs are adequately transferred into engineering design, bidding and contractual documents. PMU 5's construction supervisors would also need to be instructed to understand environmental issues of road and bridge construction projects. Environmental reporting procedure should also be established in PMU 5.

107. **PMU 8** with 35 key staff has diverse experience as project owner, project management consultant or construction supervision consultant. In 2015, 21 relative large-scale road (including bridge construction) projects mostly in the Mekong Delta region have been being prepared or managed by PMU 8.

108. PMU 8 has strong environmental management capacity. Random review of various documents prepared at different stages of number of projects found that Environmental aspect has been properly incorporated in to each step from project preparation to implementation.

- During project preparation, PMU 8 staff prepared the Terms of References for Environmental Assessment, cost estimation and submit for approval before recruiting consultants. PMU 8 monitor and supervise the EA consultant's works, provide inputs for the Environmental Assessment (EA)/Environmental Protection Commitments[13]. Random review of EA/EPCs reports provided by PMU 8 found that the reports are of very good quality with mitigation measures proposed for both engineering design and construction phases[14]. EPC/EAs have been approved by relevant Vietnamese authorities before construction permits is granted in accordance with Vietnamese regulations.
- Detail engineering designs included solutions to address subproject-specific environmental and safety issues and risks, such as weak soil foundation treatment, slope stabilisation, drainage, traffic safety management, residential areas crossing etc.
- Construction Bidding documents specifically describes the solutions to be implemented to address environmental issues and risks mentioned above. Bidding documents also requires the contractors to fully comply with the requirements set out in the project's Environmental Assessment report/Environmental Management plan[15].
- A sample construction supervision report prepared by PMU 8 staff[16] included comments on the impacts and mitigation measures to ensure safety, traffic and site/environmental management. For relative large-scale project in which PMU 8 is project management consultant, environmental monitoring reports in good quality with detail assessments on specific environmental mitigation measures and requirements[17] were also prepared periodically.

| Interview with PMU 8 staff: Mr Quynh, Planning Division and Mr Tuyen, head of PID 2: |
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| - Mr Quynh Tuyen used to work for contractors before joining PMU 8. Recently he participated in EA team of two large road projects including site survey and sampling. He works more focus on project preparation stage<br>- Mr Tuyen used to be the head of technical division of a contractor before he joined |

[13] LRAMP project preparation, October 2015.
[14] EPC prepared for project on repairing 8.45 km of Highway No.1 section in Long An province; EA prepared for Highway 1 (including bridge construction) bypass Soc Trang city included details engineering solutions to address environmental impacts and risks (weak soil foundation treatment, slope stabilisation, drainage, traffic safety management, residential areas crossing etc.)
[15] Bidding document of Highway 61 rehabilitation and upgrading project, Km 52+800 to 67+000
[16] Highway 61 rehabilitation and Upgrading Project, Cái Tư - Gò Quao section (Km52+800 - Km67+000), Kiên Giang province.
[17] Highway 1 rehabilitation and upgrading project, construction of section bypassing Cai Lay Town section, Tien Giang province. Three periodical Environmental monitoring reports were reviewed

PMU 8. He had extensive practical construction management procedures and practices and good understanding about how environmental management can be incorporated into construction management procedures. Below are some of the points that he shared

- contractors are required to submit Proposals on general construction methods (including human resources, construction plants to be mobilised) for PMU review and approval before commencement;
- Contractor must submit documents to prove the sources of construction materials including copy of license/permits of operating borrow pits/quarries owners or suppliers and written agreements with land owners/local authority on disposal sites. Detail Engineering design should include details explanation on excavation and site rehabilitation procedures;
- a list of workers must be registered to local communities;
- environmental and safety measures must be implemented as part of construction practice

109. In 2015, PMU 8 was assigned to manage the investments on 104 residential bridges, however, the preparation is at early stage thus no EPCs have been prepared.

110. For LRAMP, PMU 8 has planned to allocate 3 staff, two of them are engineers, to be responsible for social and environmental management. Some of them worked in the World Bank – financed Rural Transport 3 Project. For effective management of LRAMP, PMU8 environmental and technical staff could be good resources for capacity building and experience sharing with DRVN and other PMUs, beside the independent environmental consultant.

111. **PMU 6** has its head office in Hanoi and two representative offices in the central and the south. With six Project Implementing Divisions (PIDs) and other divisions and units, PMU 6 represents MOT to operate and manage large number of road and bridge projects including those financed by the World Bank. The WB-financed Rural Transport Projects (RTPs), particularly the most recent Third RTP its Additional Financing which covered 33 provinces, was successfully managed by PMU 6.

112. PMU 6 Safeguard Environmental Officers, Ms. Huong and Ms. Ngoc Anh, also received extensive on-the-job environmental training from the Bank Task Team during the implementation of the RT3, particularly the AF project. In the last two years of RT3 AF, the Bank's prior review of environmental safeguard documents submitted by PPMUs were shifted to random post review when PMU 6 Environmental Officer were capable of reviewing environmental safeguard documents. However, for environmental compliance monitoring during construction phase, PMU 6 mainly relied on the service provided by the contracted Independent Environmental Safeguard Monitoring Consultant who periodically visit construction sites. No major pending environmental or safety issues were recorded by the Independent Consultant.

113. Under RTP 3 AF, safeguard staff of the 33 participating provinces also have received training from the Bank's Task Team and the effectiveness of the training has been proven. The participating PPMUs were able to prepare specific EMPs along the road alignments instead of preparing generic EMPs in the parent projects. As the result, engineering design of AF subprojects included solutions to address traffic safety risks and drainage issues during construction phase (which were the weakness identified in the parent project). Good construction environmental management practice were also recorded in some of the provinces randomly visited by the Bank Task Team18. Experience from RT3 AF will facilitate the implementation of the road component as some of the 13 provinces were covered under the RT3AF.

1. Therefore, for the road component, PMU 6 should be capable to properly manage environmental aspects of subprojects in the 13 participating provinces, with the assistance of the

[18] Findings from the World Bank's supervision mission to RT3 in Phu Yen and Binh Dinh provinces, May 2014

independent monitoring consultant. To promote sustainability of road subprojects, it is recommended that PMU 6 continues to apply good experiences learnt from RT 3 AF.

2. At provincial level, the **Department of Transports (DOTs)** will be involved in the shortlisting of subprojects and may be contracted to supervise subproject preparation and construction. 33 DOTs participated in the Rural Transport 3 Project are familiar with Environmental Screening procedure. The responses from 18 DOTs to the environmental questionares prepared by LRAMP preparation team shown that i) most DOTs have allocated staff to be responsible for safeguard aspects; ii) DOT staffs have good understanding about Vietnamese environmental management requirements, the typical potential environmental impacts and mitigation measures for road and bridge construction projects; iii) LRAMP POM should include guidance on safeguard procedures to be carried out at each step of project preparation and implementation, the mitigation measures that can be included into engineering design, construction as well as environmental reporting forms.

3. At the District level, staffing for environmental management has been regulated in Government Decree no. 81/2007/ND-CP dated 23 May 2007 and specified that each district should have one to two environmental staff. Interviewed district officers confirmed that two to three Environmental Staff had been allocated in their districts. At commune level, Environmental Officer normally have to carry out various functions including land administration, construction management etc. but without an appropriate background for environmental management. Community Environmental monitoring and supervision has been practiced in some communes. Therefore, although EPPs are reviewed and approved at district levels, to ensure environmental compliance, LRAMP should focus on internal monitoring through construction supervisors, PPMUs and PDOTS rather than relying on district authorities. Independent Environmental consultants would be needed to carry out environmental training for relevant stake holders and periodical environmental monitoring.

**Environmental Performance under Phase 1 of 186 National Bridge Construction Program**

4. To prepare for phase 1 Program Investments, Program Proposal was prepared for the 186 hanging bridges after preliminary survey on the locations of the bridges and investment units were studied. Subsequently, an Economic and Technical Reports were prepared for each of the bridges. The estimated cost of each bridge was relatively limited, from 2 to 15 billions VND, which is from 100,000 USD 700,000 USD equivalents.

5. The main national legislations applicable to phase 1 subprojects are the 2005 Environmental Law, Decree 29/2011/NDCP and Circular 26/2011/TT-BTNMT in which small scale subprojects under the two existing program are required to prepare Environmental Protection Commitments for review and approval by District People's Committee. According the report prepared by PMU 3, Under Phase 1, these bridges were designed and built in very short time frame (one to three months for each bridge covering both design, preparation of investment report and completion of field work) to meet the urgent needs of remote communities. PMU 3 staff worked closely with the consultant to carry out site survey for shortlisting of bridges, then site selection before choosing the most suitable sample designs of the bridges introduced by DRVN. Therefore, some paperwork has been simplified during sub-project preparation. While some subprojects complied with the applicable regulations, the there are some shortages in others sub-projects. Limited number of EPCs was available for review during the preparation of LRAMP, and there are rooms for improvements.

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| The key contents of EPCs for Hong Kien and Nuoc Ne bridges:<br>Limited site-specific information was included; EPC for Nuoc Ne bridge included brief description of social settings; the list of equipment, sources of materials was identified but related impacts and mitigation measures not discussed<br>Key measures to mitigate typical construction impacts such as dust, noise, vibration, solid waste and wastewater generation, safety during construction and operation phases. An environmental monitoring program was included. |

6. Also under the bridge construction program, the risks such as explosive materials left from the war has been identified during field survey stage and addressed separately19 before construction was started. The construction contract20 document with requirements on work place safety, environmental protection, fire prevention and site security management21. The contractor's performance and supervisors' enforcement on these aspects were recorded in construction supervision reports22 although the construction supervision contract may not explicitly set out environmental management requirements[23].

7. The observed [24]construction social and environmental impacts of the bridges under Phase 1 was limited, localised and manageable due to the following features:

- Construction takes place in relative short time from one to three months in dry season.
- The entire hanging structures were compiled from materials pre-casted in factories, transported to the site by small trucks, load up to 2.5T thus less areas are disturbed at each bridge site
- The number of workers mobilised was limited, approximately 20 workers for each bridge, local houses were hired for the workers to stay so no camps are set up. Therefore, social disturbance and conflicts would be minimal.

8. No major environmental issues or risks associated with the investments under phase 1 were reported during the preparation of LRAMP. However, environmental management under phase 2 should also consider the potential risks related to subproject siting with regards to the potential impacts during operation phase.

9. The environmental impacts and risks during operation phase such as dust, noise and traffic safety would also be limited as most of the bridges built are accessible by pedestrians, bicycles, motorbikes and light motor vehicles but not cars. However, environmental risks related to the location of the bridges and access roads, particularly with regards to increased accessibility and land acquisition in environmental sensitive areas would lead to serious adverse environmental impacts have not been considered under phase 1. The topic has been discussed in depth with the implementing agencies and local authorities during LRAMP preparation. It was agreed that environmental screening criteria will be developed under LRAMP in order to exclude subprojects that may have high environmental risks.

**Environmental Performance under Phase 2 of national bridge construction program**

10. During the preparation of LRAMP, the national program on residential bridge construction has been continued and financed from a special fund contributed by various donors. Some bridges have been being built directly by the donors. On the other hand, each of the PMUs 4, 5 and 8 has been implementing certain number of bridges in certain geographical areas. They have been working closely with local authorities and the consultants in identifying the locations of the bridges. Special mechanism has been being applied to phase 2, some simplified procedures have not been clearly defined. Although the preparation of EPPs for the bridges under phase 2 are mostly pending, environmental and safety considerations has been included in bridge siting and design.

> Interview with Mr Tuan, PID 3 of PMU 5:
> During the project siting, we asked local people information about graves, pesticide storage area and avoid these areas. Access road is usually away from residential areas.
> During construction phase, construction schedule has been designed taking into account

[19] Correspondents between DRVN/PMU 3 and Phu Tho PPC/Army unit to get their advice on explosive materials risks and arrange for clearance before construction was started.
[20] the contractors were nominated, therefore no bidding documents prepared.
[21] Construction contract signed between PMU 3 and the contractor for the construction of Ban Loi bridge, Dien Bien province.
22 prepared by the consultant from the Transport Science and Technology Institute in April 2015 for Hong Kien bridge, Phu Tho province and Village #11, Da The, Lam Dong province
[23] consulting contract signed between PMU 3 and the consultant for Ban Diem bridge in Nghe An province
[24] Site visits during LRAMP preparation, July and September 2015

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| weather conditions in order to maintain good health for the workers. For example, in summer where day temperature in the Central region may reach 39-40$^0$C, workers are not required to work before 3 pm in the afternoon.<br>In addition to the common environmental mitigation measures, minimising the potential impacts and risks on waterway transport and cleaning up water body has been one of the key activities to be carried out during construction and before the work was handed over… |

11. Each of the above PMUs will also review the list of proposed subproject and submit for approval by DRVN, review bidding documents, sign contracts with the consultants and contractors. Each PMUs may also sign contracts with local PMUs for subproject management at the request of PPCs

12. Also under the bridge component, the PDOT will review the list of proposed bridges and prioritise, review the siting of bridges together with the Project Owner and the consultants, accept the works after construction is completed. PPMUs will be responsible for the preparation of subproject documents for submission to PMUs/DRVN for review and approval.

**Key Findings**

1. Vietnam has a good legal system for environmental management. The new Law on Environmental Protection (LEP) which became effective from January 2015, Decree 18/2015/ND-CP and Circular 27/2015/TT-BTNMT set out a relative comprehensive environmental management framework for infrastructure projects. Environmental management is also supported with related laws such as the Law on Cultural Heritage, the Law on Mineral Resources, the Law on Water Resources, the Labour Law, the Law on Natural Disaster Prevention and Responsive etc.The existing legal system is adequate for identifying and managing of potential environmental impacts and risks of the investments provided under LRAMP.

2. The scale of the road rehabilitation and bridge and access road construction under LRAMP are relative small. The potential negative environmental impacts and risks would be mostly small to medium. The locations of bridge subprojects should be considered carefully in order to avoid potential adverse impacts during construction operation phase in sensitive areas. Subproject impacts and risks would be manageable through the siting, engineering design, and construction of these facilities. There are also opportunities to make the proposed investments are environmentally sound by incorporating environmental friendly solutions into engineering design and construction practice.

3. Available resources of state environmental management authority, particularly at district level, is limited. As the result, post-EA supervision by local authority is not common, particularly to small projects. Environmental performance of a particular subproject depends greatly on the capacity of the Project Owner, construction supervisors and the contractors. Therefore, the roles of DRVN and the PMUs in managing LRAMP are critical to ensure that the potential negative socio-environmental impacts are avoided or mitigated, and the positive impacts are promoted.

4. Program implementing agencies, DRVN, PMU 3, 4, 5, 6 and 8 has institutional arrangements and experience on environmental safeguard management various level. DRVN has assigned staff with relevant background education but lack of practical experience in managing safeguard in similar programs. PMU 8 has strong capacity and extensive experience in environmental management. PMU 3 environmental performance is good if closely monitored. PMU 6 has safeguard staff who received extensive on-the-job training under past World-Bank financed projects. PMU 4 and 5 need to be assisted with both technical expertise and putting in place a proper management and coordination procedure. With large number of provinces covered under LRAMP and uneven existing environmental management capacity between the implementing agencies, there would be a risk that the level of environmental performance is not even between

the provinces/subprojects. If without proper guidance and monitoring, environmental considerations may be included in some stage of some subprojects but not the others. LRAMP can managed this risk by providing setting out clearly its environmental management procedures including monitoring and reporting requirements. Environmental capacity building, technical guidance/assistance and independent monitoring would also be necessary;

**Recommendations**

1. LRAMP Operations includes a technical assistant (TA) which covers environmental and social management. The TORs of the TA will cover, but not limited to the remaining recommendations of ESSA.

2. LRAMP will not finance a subproject that: i) Located within 2 km of any sensitive environmental area such as natural forest, national parks, nature reserve, bird sanctuary, primary forest, legally protected areas, biosphere conservation areas, national graded historical/landscape sites etc. listed in MONRE decision no. 1107/QĐ-BTNMT regarding the list of conservation area; ii) Located within 10 m of a physical cultural structure such as temples, monuments, pagodas, ancient graves, historical sites, worshiping place, sacred trees or any objects of spiritual important to local community etc.; iii) Road or access road alignment that require land acquisition within a urban settlement or resulting on AHs been relocated in resettlement sites; iv) bridges that require significant alteration or adversely impact the hydrology or hydro-geology relating to the river such as significantly narrowing the wet cross section of river or require massive drilling and pile driving; and v) any new bridge construction that may cause potentially significant and adverse environment or social impacts. These recommended Environmental Screening for eligibility of LRAMP subprojects are included in Annex 1. This form should be included in the Program Operation Manual.

3. Environmental management procedures should be clearly described and explained to LRAMP stakeholders. The procedure will be inclusion of screening for environmental eligibility of subprojects in short-listing stage; preparation of Environmental Protection Plans (EPPs) for subprojects and obtain approval from relevant Vietnamese authorities in accordance with the Vietnamese Law on Environmental Protection. EPPs of bridges must cover access roads at both ends. Approval of EPPs musts be obtained in feasilibility stage; inclusion of mitigation measures including greening and environmental friendly measures into engineering design; incorporation of environmental codes of practices or specifications into construction bidding documents and contracts; inclusion of environmental supervision as part of engineering supervision and reporting. Such procedures will be implemented at subproject level, coordinated and mornitored by PMUs 3, 4, 5, 6, 8 and DRVN. This procedure will also be included in the Program Operation Manual.

4. The Program OM and training under the TA Project should cover the typical potential environmental negative impacts, environmental mitigation measures, ECOP and ES requirements including the World Bank Group EHS Guidelines as well as environmental friendly solutions for road and bridges rehabilitation/construction. Monitoring will be focused on compliance with OM.

## SOCIAL MANAGEMENT

### Social Context

13. Vietnam has achieved high rates of sustained economic growth over the past 20 years. Between 1990 and 2010, real Gross Domestic Product (GDP) grew at an average annual rate of 7.4 percent—among the world's top five growth performance records over the same period. Meanwhile, the percentage of the population living below the poverty line decreased from 58 percent in 1993 to 15 percent in 2008. Vietnam joined the World Trade Organization (WTO) in 2007, and trade and foreign direct investment have grown significantly in the last 10 years. In 2011, GDP per capita reached an estimated US$1,362 at market rates, confirming Vietnam's recently rated status as a lower

middle-income country. While economic growth and poverty reduction in Vietnam over the last two decades has been remarkable, not all the regions have benefitted equally.

14. Poverty, and extreme poverty rates are higher in regions having high density of ethnic minority people. The highest poverty rate in the country is registered in the Northern Mountains region. Over the last decade in Vietnam, this region has experienced less poverty reduction when compared with others. Since 1999, the Northern Mountains region has had the lowest income per capita in the country[25]. Causes of poverty among the majority of poor Ethnic Minorities (EMs) continues to be related to their settlements in remote areas, landholdings in less productive upland regions, with a major income source from agriculture and associated activities. In order to reduce poverty, recommendations have included to enhance occupational and geographic mobility of labor, quality improvement of the public services (education and health) provision addressing rural areas particularly in those where EM groups are settled (WB 2012). General EMs poverty socioeconomic indicators are shared by those of other poorest non EM groups (WB 2012).

15. In Vietnam, there are eight groups of EMs having a population of around one million (Tay, Thai, Muong, Khmer, Mong, Nung, Hoa and Dao), and fifteen groups have a population range between few hundreds to less than thousand peoples. The annual growth of the different groups vary, with the smaller groups growing at 4%, and others confronting a decrease of population (Gie Trieng, Chut, La Hu, La Ha, Cao Lao, and Mang) (MDRI, 2014). Large EM groups such us, the Hoa, Tay Thai, the Muong and the Nung have better living standards regarding housing, access to basic infrastructure showing a substantial improvement in the last decade, whereas some small groups register a dramatic decline rather than improvement (Bo Y, Phu, Brau and Si), in the same period. In sum, less advantaged EM groups are scattered over mountainous and isolated areas while development studies have mainly concluded and documented data over 44 out of the 53 EM groups (MDRI, 2014), with limited information for the remaining groups.

16. The proposed Program will be implemented in 50 out of 64 provinces, covering all geographical regions of Vietnam. Its proposed development objective is to improve the road accessibility and bridge connectivity for the rural communities of the participating provinces. The local roads network in Vietnam comprises about 253,000 km, or about 85%, of Vietnam's total network of 295,000 km. This network serves around 80 percent of the entire national population and 90 percent of the nation's poor, who mainly live in rural areas. Research carried out in Vietnam and neighboring countries since 2000 has shown that investments in local roads has had a significant impacts on poverty alleviation, social participation, school attendance and health services provision improvement. It has been estimated that an investment of 1% of GDP per year in rural transport has helped reduce the poverty rate by 1.5% per year, on average. However in 2014, 59 communes in Vietnam still lacked access to all-weather roads. Time lost to mobility and travel erodes prosperity. High mobility costs cut the disposable income of the poor as they often live in locations that lack reliable, safe, and affordable transportation means.

**Potential Program's Benefits**

17. The two programs (National Program for Local Road Development (NSRTD) and a National Program for Eradicating Temporary Bridges (PLBC) supported under this PforR were developed under the Vietnamese Rural Transport Development Strategy 2020. The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor EM communities are located as well as other vulnerable groups due to poverty rates. The obvious program's benefits include: (i) potential opportunities for employment and (ii) better transportation and accessibility to basic social services.

18. The Program will have significant positive impacts on the socio-economic environment in the short term, as they provide employment for laborers leading to increased income. In the long term, improved road conditions provide increased access to social services, markets and could improve

[25] Government Statistics Office, Monthly average income per capita at current prices by residence and by region (2013)

employment overall in the localities. Specific socio-economic benefits include: increased demand for skilled and unskilled labor; increased income for local communities; and indirect employment opportunities from provision of services to construction workers, (e. g. food provision) and other services provision.

19. Social benefits of the Program will also include all-weather road reliability, reduced transportation costs, increased access to markets for local producers and products, increased investment in real estate development, industry and commerce, better access to health care and other social services. In the long term, this will have a positive benefit to local economic development.

**Potential Program's Impacts/Risks**

20. **Land Acquisition.** Although the Program supports relatively small rural infrastructure, land acquisition is unavoidable. The construction of small rural bridges and rehabilitation of rural roads may result in the acquisition of small land parcels of few households. Regarding road rehabilitation sub-program, in a Bank funded operation with similar type of investment (Vietnam Third Rural Transport Project – Additional Financing), out of the 32 project provinces, there are 17 provinces having investments required site clearance. The total number of affected households is 5,531 with the compensation budget of 63,635,961,334 VND. According to technical requirements and standards, the majority of investment are in the existing boundaries of the infrastructure, so the impact level is minor. There are a total of 13 relocated HHs in Cao Bang, Lang Son and Thanh Hoa provinces. On the bridge component side, experience in Phase 1 (186 bridges program) indicated the impact on land acquisition was relatively minor in terms of the number of AHs, as well as, on the size of land area acquired. In Da Hoai district (Lam Dong province), there is only 11 HHs affected by the construction of 3 bridges financed under Phase 1 program. Land donation is widely accepted and implemented in Phase 1. The area of donated land can hardly excess 1-2% of total land holdings of the concerned households.

21. **Ethnic Minority**. Given the geographical scope of the Program, it will be very likely that it will be implemented in provinces with presence of ethnic minority (EM) communites, especially in the Northern Mountain, and Central Highland with a large EM population. The Program challenge is how to maximize its accessibility and benefits in these lagging behind regions. Although Vietnam's 53 Ethnic Minority groups make up less than 15 percent of the population, they accounted for 47 percent of the poor in 2010, compared to only 29 percent a decade before. According to the Poverty Assessment 66.3 percent of Ethnic Minorities are poor, with poverty rates in their rural settlements steadily escalating (WB 2012). In addition, the Program area will entail many different ethnic groups, with differentiated cultural profiles and customary traditions. Therefore the Program approach requires to be customized according to diversity across ethnic groups.

22. **Accountability/Participation.** Typically in infrastructure investments, the planning investment process follows a top-down approach, limiting the participation of local people in the planning processes (especially among EM people, although they are direct beneficiaries of the Programs). In Phase 1, some bridges built could not be fully operationalized due to insufficient consultation with local authorities and community members. In addition, regarding ethnic minority group, their low level of literacy may prevent them from fully understanding the program activities, potential impacts and associated mitigation measures. This is partly due to the difficulties contacting and informing isolated communes, especially the elder ethnic minority people,

23. **Institutional Risk.** The proposed Program will be implemented by various stakeholders from central level downward. At ministerial level, DRVN will play coordinating role on behalf of MOT. PMU6 is the coordinator for the road subprogram which will be implemented by PPMUs/PDOT of 13 provinces participating in the program. DRVN is the owner of bridge subprogram which will be implemented by PMU3, PMU4, PMU5, PMU6 and PMU8. PDOT/PPMUs at provincial level (50 provinces) will provide support as needed in program implementation. The involvement of multiple agencies can easily lead to the inconsistent approach in dealing with social related impact and associated mitigation measures. Similar risk was listed in the Strategy for Rural Transport

Development to 2020, vision 2030 as the fund for rural transport may come from different sources and managed by various investors.

**Social Management Systems**

**Land Acquisition**

24. ***Legal Framework*:** In Vietnam, there is no specific regulation on land acquisition applicable exclusively to rural roads or bridges. The relevant law is the Land Law No. 45/2013/QH13 dated on November 29, 2013. There are a number of decrees guiding the implementation/application of the land law including:

- Decree No.43/2014/ND-CP dated May 15, 2014 providing guidance on detailed implementation of the Land Law 2013;
- Decree No. 44/2014/ND-CP dated 15 May 2014 providing regulations on land prices;
- Decree No. 47/2014/ND-CP dated 15 May 2014 on compensation, support, and resettlement when land acquisition is required by the State;
- Decree No. 104/2014/ND-CP date 14 November 2014 of the Government on the land price frame.
- Circular No. 36/2014/TT-BTNMT dated 30 June 2014, specifying detailed methods of valuation of land prices, construction, adjustment of land prices; specific land prices valuation and land prices valuation consulting service; and
- Circular No. 37/2014/TT-BTNMT dated 30 June 2014, providing detailed regulation compensation, assistance, and resettlement when the State acquires land.
- Decisions of PPCs in program provinces releasing the land price table, compensation rate for crop, structures, graves and supporting allowances.

25. ***Institutional Arrangements.*** In general, the land acquisition, compensation payment and resettlement implementation are always the responsibility of the Government, particularly at the provincial and district levels. The overall provisions are presented in the 2013 Land Law and its guiding decree as follows.

26. Ministries (or Ministerial Agencies), governmental agencies, corporations, companies (Investor) having project investment required land acquisition shall: (i) Direct, supervise, and inspect the compensation, support and resettlement; (ii) Coordinate with PPC and LFDO/LRO/CRSC[26] during the implementation; and (iii) Secure the budget for land acquisition, compensation and resettlement activities. MONRE is responsible for (i) directing, organizing, providing guidance, supervising, inspecting the implementation of land acquisition, compensation and resettlement policies; (ii) solving the emerged issues at the request of PPC.

27. The organizational arrangement at provincial level downward varies. The PPC is responsible for (i) directing the implementation of land acquisition, compensation, support and resettlement; and (ii) reporting to MONRE on the results of these activities before December 1st each year. The PPC may decide on: (i) recovery of land from organizations, religious establishments, overseas Vietnamese, diplomatic organizations, and foreign-invested enterprises (excluding the case of overseas Vietnamese who are eligible to own houses in Vietnam); (ii) recovery of agricultural land in the public land funds of communes, wards or townships. District People's Committee (DPC) may decide on recovery of land from households, individuals and communities, overseas Vietnamese (who are eligible to own houses in Vietnam). In case where the recovered area has both subjects earlier prescribed, PPC shall decide on the land recovery or delegate it to district-level People's Committees.

28. At district level, there are several agencies involved in land acquisition, compensation are resettlement process, including Compensation, Support and Resettlement Council (CSRC), LDFO and LRO. The Council might be established on a temporary basis depending on the land acquisition needs.

[26] LFDO – Land Fund Development Organization; LRO – Land Registration Office; CRSC – Compensation, Resettlement, and Support Committee.

Chaired by leader of DPC, members of this council come from various district units/department. Its main mandate is to review and appraise the compensation plan prepared by responsible organization. When completing its appraisal, this council will submit the compensation plan to DPC for final approval. LDFO and LRO are line departments DPC. Their main mandate is to prepare the compensation plan for any project having land acquisition requirement. Although in some location, this task is shared among LDFO and LRO depending on the complexity of the project, this task generally belongs to the responsibility of LDFO. At commune level, CPC shall coordinate with LDFO/LRO to implement land recovery plan, investigation, survey, measurement and inventory.

29. In the case of transport sector, usually, the responsible PMUs, investors sign contracts with the District's Compensation, Support, and Resettlement Committee (CSRC). The activities are conducted in accordance with the Government's regulations (e.g., planning, disclosing, approving or paying compensation). In this program, PPMUs will play key role in coordinating with local authority to perform the land acquisition, compensation and resettlement tasks.

30. ***Resettlement Arrangement.*** According to the 2013 Land Law, local authorities (PPC, DPC) are responsible to develop and implement the resettlement plan prior to the actual land acquisition. The resettlement areas must meet the standard of basic infrastructure, construction quality as well as the specific conditions, customs and practices of the locality. Land acquisition can only occur when the resettlement project is completed. Relocation plan must be disclosed at the CPC's office at least 15 days prior to the approval of relocation plan. Resettlement options include (i) on-site resettlement – if the remaining land allows; (ii) and resettlement in concentrated area. In the allocation of resettlement plots, priority will be given to DPs who timely handover the land to investor. In the case where the compensation/allowance package is insufficient to buy the minimum resettlement plot, local authority will provide DPs with the cash support equivalent to the difference gap.

31. ***Income rehabilitation.*** The 2013 Land Law and its guiding decrees have provided a number of allowances and support in order to help affected households to stabilize their life following project impacts. The allowances/support may include assistance for life stabilization, relocation transportation, income restoration, and training for new job skills. In addition, special attention is paid to poor households, who will receive special assistance through a subsistence allowance for a long period. The households eligible to receive the regular government allowance under the social policy will also receive a special allowance if they are affected by a project.

32. ***Voluntary donation:*** According to the 2013 Land Law, donating land use right, which is defined as one of the transaction forms is the legally recognized right of land users (as stipulated in article 167, 174, and 179). Donating contract must be certified by competent entities or by commune people's committee and must be registered at land registration offices. Land users are entitled to donating right as long as they meet the following criteria: (i) having LURC (except the cases defined in clause 3, article 186 and clause 1, article 168 of the 2013 Land Law); (ii) dispute-free; (iii) not under distrainment for the judgment enforcement; (iv) having a valid land use term. In addition, to meet the land donation criteria, land user must satisfy the conditions defined in articles 189-194 of the 2013 Land Law. Regarding administrative procedure, clause 3, article 79 of decree 43/2014/ND-CP stipulates that in case where land users wish donating land for the purpose of public facilities construction, donation documents must be established in accordance to regulations. Once completing the construction of the given public facilities, Land Registration Office bases on donation documents (certified by CPCs) and actual use of land to measure and update the change in cadastral dossier, land administration database and to request land users submitting their LURC for revision. If the land user donates the whole area, then LURC will be confiscated for further management.

33. ***People's participation.*** During the land acquisition process, the legal framework mainly focuses on consultation during planning (consultation on the draft plan for compensation, support and resettlement and plan for training, career change and facilitating job searching); information sharing and disclosure. Citizens are allowed to supervise and report on breaches in land use and management on their own (or through representative organizations), including land recovery, compensation, support and resettlement (Article 199, Land Law 2013).

34. ***Grievance Redress Mechanism (GRM)***: The legal framework on complaints and denunciations is mainly based on the 2011 Law on Complaints (Law 02/2011/QH13) and the 2011 Law on Denunciations (Law 03/2011/QH13). The implementation of these laws is respectively guided by decree No. 75/2012/ND-CP and No. 76/2012/ND-CP all dated October 3, 2012. Land related complaints/denunciations are also regulated under these laws (as stipulated in article 204, 205 of the 2013 Land Law). The complaint procedure is described in article 7 of the Law on Complaint with the following provisions:

- Complaints must be lodged within 90 days after the reception (the awareness) of the administrative decision/act;
- Complainants may initiate administrative lawsuits at courts at any time during the complaint-settling process.
- Complainants may complain with the person issuing the administrative decision or with the organization managing the official/employee who has performed the administrative act.
- For administrative decision/act of Minister (or equivalent agencies), complainants may complain with Minister or initiate administrative lawsuit at courts. In case of disagreement with complaint resolution decision of Minister or having no official response within the allowable timeline, complainants may initiate administrative lawsuits at courts.
- For administrative decision/act of Chairperson of Provincial/City's People Committee, complainants may complain with the Chairperson or initiate administrative lawsuit at courts. In case of disagreement with complaint resolution decision of the Chairperson, complainants may complaint with line ministries or may initiate administrative lawsuits at courts. In case of disagreement with complaint resolution decision of Minister or having no official response within the allowable timeline, complainants may initiate administrative lawsuits at courts.

35. The denunciation procedures are described in article 18, 20 and 21 of the Law on Denunciations with the following steps: (i) receiving and handling denunciation information; (ii) verifying the denunciation contents; (iii) Making conclusion on the denunciation contents; (iv) Handling the decision on the denunciated contents; (v) Disclosing the conclusion on the denunciation contents and illegal act-handling decisions. The time limit for settling a denunciation is 60 days from the date of receiving such settlement. For complicated case, such time may be longer, but must not exceed 150 days.

**Ethnic Minorities**

36. ***Legal framework:*** Vietnam has a relatively appropriated legal framework for Ethnic Minority affairs. At the constitutional level, article 5 of the 2013 Constitution confirms: (a) the equality of all Ethnicities living in the territory of Vietnam; (b) prohibition against discriminated behaviors; (c) rights of Ethnic Minority people toward their languages, scripts, traditional culture and custom; and (d) comprehensive policies of Vietnam to enable the development of Ethnic Minority areas. The principles when promulgating Ethnic Minority policies are: (a) equality and solidarity among all Ethnic Minorities; and (b) mutual support for progress.

37. To date, decree No. 51/2011/ND-CP dated January 14, 2011 on Ethnic Minority affairs is the highest legal document. This decree stipulates the ethnic policies on: (a) resource investment and use; (b) sustainable development; (c) education and training; (d) Ethnic Minority human resource; (e) policies for the prestige of Ethnic Minority people; (f) culture development and preservation; (g) sport and tourism development; (h) health and population policies; (i) information and communication; (j) legal support and education; (k) environment and ecology protection; and (l) security and national defense policies. The Prime Minister has also approved the project "Cultural Preservation and Development of Ethnic Minorities in Vietnam toward 2020" with an estimated budget of 1.512 billion VND;[27] and the Ethnic Minority strategy to 2020.[28]

[27] For more detail, refer to decision No. 1270/QD-TTg dated on July 27 2011.
[28] For more detail, refer to decision No. 449/QD-TTg date on March 12, 2013

38. In addition to the above umbrella policies, there are many other policies that grant preferential treatment for Ethnic Minority people in the areas of tertiary education admission and the provision of special subsides such as for cooking oil, kerosene, and iodized salt. There are two major programs (P135 and 30a)[29] aiming at addressing poverty in areas where EMs are settled, focused on ensuring the communities inclusion and providing them livelihood assistances.

39. Program 135-III, together with two previous periods (Period 1 from 1999 to 2005; Period 2 from 2006 to 2010), is one of the largest poverty reduction programs of Government of Vietnam. The objective of the Program is to promote socio-economic development for particularly disadvantaged areas, where a high proportion of EMs reside. The Program changes across the timeline, but basically comprises of 4 components, in which there always has one component of production support (since 2013, before Decision 551 of Prime Minister approved Program 135 Period 2013-2015 and Period 2016-2020, there is no inclusion of production support component). For the past few years, communes in Program 135 have been allocated roughly VND 1.5 billion, in which approximately VND 500 million is for livelihood activities.

40. Program 30a is named after the Resolution 30a in 2008 for 61 poorest communes in the country (afterthat, it was 62 poor communes because one commune was split into 2 new communes). Similar to the Program 135, the beneficiaries are mainly EMs (roughly 90%). Therefore, more than 85% of communes in P135 are also communes within 62 poorest districts of the country under Program 30a. The program focuses on four main categories of policies and solutions: (1) Support production, employment and improve income; (2) Education and training policy; (3) Staff policy for poor districts; (4) Policies and mechanisms of infrastructure investment in villages, communes and districts. However, the process of implementing the Program 30a faced many difficulties due to limited budget. In recent 1-2 years, 30a districts receives only 15% of the total planned investment and the money was mainly disbursed for development of essential infrastructure.

41. The GoV, along with foreign development partners and many NGOs have provided assistance programs/projects that target Ethnic Minorities. The GoV has a long trajectory of development investments among the EM groups aimed at support for them to "catch-up" with the rest of lowland areas. According to the government policy, proposed projects affecting land, environment, or the life of Ethnic Minority communities, should disclose information and consultations carried out with representatives of the local authorities, to ensure that the investment ensures their better life conditions, in a culturally appropriate manner (article 9, decree 05/2011/ND-CP), with specific provision in the case of involuntary resettlement.

42. ***Institutional arrangements*.** Central Committee for Ethnic Minority Affairs (CEMA) is the governmental institution at Ministerial level established to address the ethnic affairs in the country. The government has also defined the organizational structure, competences and resources for both central and decentralized governments working with EMs affairs. Ministries and other governmental agencies which coordinate with the Committee for Ethnic Minorities Affairs (CEMA), are entitled for the following activities:

- Implement the State's policy on Ethnic Minorities as per Laws and is defined by a number of Decrees;
- Elaborate annual plans and programs and define institutional arrangements for implementation among EMs;

[29] It should be noted that since mid-2012, after the Decision 1489 approved by PM on the NTP SPR 2012-2015, Program 135 and Program 30a become two component projects of this NTP-SPR. Therefore, the separation of these two programs (P135 and 30a) in this section only facilitates the presentation of results, but not implies the distinction of the two programs. In addition, the Ministry of Agriculture and Rural Development (MARD) is coordinating a new national targeted program for "New Rural Areas" (NRA) featuring a broad set of infrastructure and access to services targets for each rural commune in the country.

- Elaborate local policies, and prioritize programs and projects for EMs, in areas confronting socio-economic constrains and difficulties;
- Elaborate EMs reports on development investment and results in their localities, for CEMA covey the reporting to the Prime Minister.

43. At Provincial level, an Office of the Provincial People Committee is established to to undertake EM development needs when at least two of the following conditions are met: (i) People live in village or community account for more than 20.000; (ii) 5,000 Ethnic EMs People needing the State's support and attention account more than 5000; (iii) EMs people living in border areas with an exchange between EMs in and neighboring countries.

**Information Disclosure, Consultation and Participation**

44. ***Legal framework:*** Vietnam has relatively good legal framework on access to information and disclosure. These rights of citizen have been reflected in the 2013 Constitution as well as in specialized Laws and its associated guiding decrees.

- On access to information, the 2013 Constitution confirms that Vietnam is a state 'of the people, for the people and by the people' in which 'people know, discuss, execute and examine'.[30] This constitution also describes the rights of citizens, including "freedom of speech, access to information, association, protest"[31]. To operationalize this, on June 20, 2012, the National Assembly enacted Law No. 14/2012/QH13 on dissemination and education of legal documents. Detailed implementation of this Law has been specified in Decree No. 28/2013 / ND-CP of April 4, 2013.

- On information disclosure, specific provisions were detailed in the grassroots democracy Decree No. 29/1998/ND-CP dated (May 1998), later supplemented by Decree No. 79/2003/ND-CP dated July 7, 2003. The implementation of these Decrees allowed the local communes participation. However, inconsistencies throughout the country are evident. These decrees have been replaced by the grassroots democracy ordinance No 34/2007/PL-UBTVQH11 dated April 20, 2007, which characterized citizen's rights, including right to know; to discuss and decide; to voice; and to monitor development interventions. The information disclosure requirements are also reflected in other specialized Laws. The Environment Protection Law specifically regulates which relevant agencies must disclose environmental information in the forms of books and bulletins and through newspapers and web sites. The 2013 Land Law stipulates the minimum number of days prior to which affected households must receive land acquisition notification (90 days for agricultural land and 180 days for residential land). Compensation and resettlement plan are also subject to public disclosure within at minimum 20 days.

- Similar to the right of access to information, participation and consultation are also citizens' rights as stated in the 2013 Constitution. Citizens are allowed to participate in social and state management, and to discuss and provide recommendations to competent agencies on the relevant issues in their locality and in Vietnam.[32] The State is responsible for creating the necessary conditions to enable the execution of these rights. The 2013 Land Law and its guiding documents are designed to ensure people's participation in making decisions about land management, particularly relating to land use planning in order to ensure the principle of "democracy and transparency." The current legislation also specifies the approach for organizing public consultation at the local level. The Environmental Protection Law and regulation decrees guide the execution of public consultation – including the role of the People's Committees of communes, wards and towns in the formulation, evaluation and implementation responsibilities and in supervising compliance with the environmental impact assessment (Article 18, 21 and 23).

[30] Article 2, 2013 Constitution.
[31] Article 25, 2013 Constitution
[32] Article 28, 2013 Constitution

45. Despite of these relatively good legal frameworks, meaningful consultation with EMs for development intentions cycle, including city planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures for land acquisition, is not clearly defined by any specific Decree or other legal documents or norms.

**Program Social Capacity and Performance Assessment**

**Land Acquisition**

46. As described elsewhere, the implementation arrangement is different in the two program's components. In the local road component, local authority (PPC) is the owner of sub-projects in it locality. PPC is responsible to approve the subprojects arrange the counterpart fund for implementation. MOT (through DRVN) plays the role of overall coordination with the support from PMU6 in working with the World Bank and supporting the overall project management. In the bridge component, the program will be implemented by PMU3, PMU4, PMU5, PMU6 and PMU8 under the umbrella coordination of DRVN (MOT).

47. Regarding institutional arrangement, PMUs and PPMUs have a mechanism well established in dealing with land acquisition, compensation issues. First, on the staffing side, all PMUs have dedicated staff working on social risks/impact management. These staff may be gathered in single unit (PMU3) or integrated in project implementation departments (PMU4, PMU5, PMU8) with dedicated staff (PMU6). In a complicated project, PMUs may assigned a dedicated leader (normally PMU Deputy Director) to oversight the implementation of land acquisition, compensation and resettlement. Similar structure is also being applied to PPMUs (provincial level) in the program area. Second, on reporting and monitoring side, land acquisition and compensation activities are regularly reported at team level, PID level and PMU level. Usually, in the District Council for Compensation and Resettlement, one of its member is PMU staff. With this arrangement, PMUs are fully informed about the land acquisition progress (in real time). For important project, PMUs will also include land acquisition progress as one content in its progress report to DRVN or MOT for guidance and support. Third, on coordination side, PMUs maintain a close working relationship with PPC and DPC in order to keep them posted and to bring to their attention the land acquisition progress and challenges. And finally, those PMUs have significant experience in implementing the safeguard policies through the implementation of the World Bank funded operations (RT2, RT3, RNIP, VRAMP).

48. The land acquisition impact in this program is expected to be minor given the nature of investment. Land acquisition and resettlement option always constitute key factor in considering the feasibility of a project. The Strategy for Rural Transport Development to 2020, vision 2030 stipulated that land acquisition impact must be carefully reviewed in the planning or construction of the network in order to minimize the physical relocation and impacts against ethnic minority people. For the investments proposed under this program, the percent of the acquired area is hardly more than 10% of the total land holdings of DPs. However, in some exceptional, the proposed investments might cause physical relocation impact to DPs, although the number of relocated households is very small. As mentioned elsewhere, in a similar project (RT3 AF), there was only 13 relocated households despite a huge number of participating provinces (33/63 provinces). In the bridge component, while it is relatively clear that the investment may only cause land acquisition impact in the Northern Mountain and Central highland regions (bridges will be built in remoted area with very low population density), it may cause physical relocation in Mekong Delta region. This is because of local practice of living along the river and in some section, the population density is relatively high.

49. The arrangement of counterpart fund for compensation activities is also different from program/project to program/project. In the Bank funded project like RT3, MOT is responsible to arrange the compensation budget. In other program (such as rural road investment under NTP or bridge component – phase 1), local authorities are responsible to perform the land acquisition, compensation activities and to arrange the compensation budget. However, given the budget constraint, local authorities tend to call for donations from affected households. This approach seems workable because the impact is generally minor (less than 10% of total land holdings) and the local

community is willing to exchange the land for the potential benefits of having better transportation condition. Land donation practice is widely accepted in both subprograms. This practice has been adopted for other small rural infrastructure projects. The design of Phase 1 (186 bridges) has no budget allocated to land acquisition, compensation activities which are presumably implemented through land donation. The current design of the PforR use the same principle by proposing that local authorities are responsible for land acquisition (staff and budget arrangement) and land donation will be considered as contribution of local people. This arrangement may lead to the risk that we mentioned earlier the abuse of 'land donation' practice which is promoted due to the budget constraint rather than the informed decision from AHs. In addition, using this approach will weaken the collaboration between PMUs and local authority. In Phase 1 program, there is no evidence showing that implementing agencies (PMUs and PPMUs) are aware of the selected options (donation or compensation) given to a specific investment.

50. Complaint/Grievance constitute a major issue in land acquisition, compensation and resettlement activities. Findings of a recent survey carried out at national level indicated that over 80 percent respondents had some degree of dissatisfaction regarding prices applied to resettlement, compensation and allowance (World Bank, 2011).[33] Before the 2013 Land Law became effective, the compensation rate generally fell within the pre-defined framework released annually by the Provincial authority. It seems that PPMUs keep track the progress of addressing outstanding complaints.

51. While the expected level of land acquisition under the Program is small, it is nonetheless necessary to make sure that affected households receive compensation at full replacement cost for their losses due to land acquisition and affected assets. The main challenge is to ensure that the compensation rates used adhere to the national provision that they should reflect market value. In addition, the resettlement package should also identify any other measures beyond compensation payments that may be needed to ensure no one is worse off as a result of the sub-project. The Program will need to ensure that mitigation of such impacts is fully documented and that full compensation is paid to Program affected people.

52. The following gaps and weaknesses have been identified in the government's land acquisition system.

- First, the 2013 Land Law became effective on July 1, 2014 according to which compensation rate will be defined at the time of performing land acquisition. However, the rate will be based on the price table established by the PPC applicable in a five-year period. During the implementation, independent land valuators can be used to determine land prices, which will be reviewed by the land appraisal board before official approval by PPC. This provision could be considered as an evidence indicating that the Vietnam's legal system is approaching the Bank's principle to assist the affected people in improving, or at the minimum restoring, their livelihoods and living standards. However, during the program implementation, close watch is needed as this new land law hasn't gone through the whole cycle yet, especially in provinces where compensation rate still comes from provincial table price.

- Second, while the law calls for aspects of livelihood and income to be taken in to account, the application of this principle is not uniform. Payments which are largely only based on direct compensation for affected assets are delivered as a single payment to affected people without careful consideration of the longer term impact of livelihood and income losses. While the intention is for affected people to enjoy a better (or at least equal) standard of living, there is rarely if ever, any additional support, programs or assistance for this, nor is it monitored.

- Third, to be eligible for compensation for the land, affected people must be in possession of a land use rights certificate. According to the Law and its guiding decree, those who do not have

[33] For more detail discussion, please refer to: The World Bank (2011), Compulsory Land Acquisition and Voluntary Land Conversion in Vietnam: The conceptual approach, land valuation and grievance redress mechanism, Ha Noi 2011.

land use deeds, depending on the legal status, may not be eligible for full land and attached assets compensation.

- Fourth, the local authority may encourage community members to donate land for small rural infrastructure. This tendency is even more visible in this proposed Program as it is expected that local authorities will arrange the compensation budget. While the land donation in small rural infrastructure is generally acceptable, without a proper management, this practice could be abused and the related households may not be fully informed about the Program as well as the compensation package that they are supposed to receive. This issue is particularly important as the proposed PforR will be implemented mainly in rural area of Vietnam, including two of the poorest regions with intensive presence of Ethnic Minority people. The abuse of land donation request may lead to ***forced donation*** of land (rather than ***voluntary***) and worsen the life of poor Ethnic Minority people.

- Fifth, in a recent assessment of the 2013 Land Law implementation[34], a number of issues that affect land acquisition and compensation processes were identified, including (i) conversion of agricultural land to other purposes – required approval of Prime Minister (more than 10ha agricultural land or 20ha protective forest land) or Provincial People's Council (less than 10ha agricultural land or 20ha protective forest land); (ii) inconsistent guidance in compensation for land and investment cost into land – referring to both Decree 47/2014/ND-CP and Decree 197/2004/ND-CP, which was expired and replaced by the former; (iii) inconsistent application in identifying the level of support for job changing and livelihood stabilization; (iv) land price is identified using different methodologies and the capacity of land appraiser is still very limited.

- Finally, there are no specific regulations to guide land acquisition procedures for cases of resettlement impacting on Ethnic Minority people although the recently approved new Land Law has a provision in ensuring that Ethnic Minorities have land for living and agricultural production (if needed) after land acquisition.

**Ethnic Minority**

53. The NSRTD and PLBC are closely linked as they both target improving access to rural areas with low accessibility, especially for areas where poor ethnic minority communities are located as well as other vulnerable groups such as single women and children. The assessment confirmed that these two programs have very strong focus on ethnic minority people on several counts. First, the implementation of these two program is considered as an action to operationalize the Government's Strategy of Ethnic Minority Affairs to 2020. Second, both program clearly stated ethnic minority region is the most prioritized area for program investment to boost the socio-economic development. And third, CEMA was listed as key collaborator to ensure the consistency in the approach and to avoid the overlapping between these two programs and those managed by CEMA. However, while these two programs strongly focus on the question of "what" in EM regions, they are very thin on the question of "how", especially how to make sure that all program activities are culturally appropriate.

54. Participation of EMs in decision-making processes remains limited (UNDP, 2006; WB 2009, 2012; MDRI 2014). Studies and results' analysis of development programs confirm that EMs face a number of barriers and challenges for their effective participation. According to these analyses the participation of EM people is limited mainly due to: (a) insufficient information provided for planning and budgeting processes; (b) limited skills for sound participatory planning and budgeting from the part of government officials; and (c) limited fluency of EMs in Vietnamese, and insufficient bilingual

[34] An assessment implemented by SCODE, Asiaplant, Salung JSC, Can Tho University, BUSTA, QUSTA, CUSTA in October 2015. [Báo cáo đóng góp xây dựng dự thảo nghị định "Quy định bổ sung một số nội dung về quy hoạch, kế hoạch sử dụng đất, thu hồi đất, bồi thường, hỗ trợ, tái định cư khi nhà nước thu hồi đất, chuyển đổi mục đích sử dụng đất, cấp giấy chứng nhận quyền sử dụng đất"]

support to overcome[35] challenges of cultural that could overcome with the lack of EMs appropriation (2nd program 135) of projects and programs investments.

55. Experience in other governmental funded programs also indicated that "top-down" decisions and "one size fits all" solutions are not appropriate for EMs (e.g., providing training in Vietnamese for Ethnic Minority groups [MOLISA and UN, 2009].[36] Albeit certain program target EM groups, indigenous knowledge which could help to solve development problems, is not undertaken or recognized, and local languages are overlooked. Non-Vietnamese speaking groups are regarded as backwards and barriers for development purposes. EMs are passive 'targets' of benefits whereas dependency on the support and Government's top-down assistance worsen a dependent relationships. The problem is promoting the loss of EMs social capital, customary law and ancestral skills. Finally, if in EM communities, cohesion is not enhanced through the continued practice of customary law (village conventions and regulations), and the continuing of village elders and erosion of confidence of Ethnic leadership and communities are evident and counterproductive. The problem is not the Government support itself, but rather the ways in which the Government has given this support, which has promoted dependency, low self-esteem and passivity, rather than promoting empowerment, social capital and capacity in the villages.

56. At sector level, the assessment confirmed that in general, there is no difference in doing business in EM regions. In exceptional case (e.g. the program face important challenges), implementing agencies may call support from EM community, including interpretation support or mobilization of village head to convince local people). There is no consistent approach describing the PMUs/contractors' code of conducts when working in an EM community. Evidences in other programs show the limited participation of CEMA in program implementation.

57. Despite the legal framework provision for development in EM areas, procedures for adequate implementation and monitoring results are lacking. This assessment has identified a number of weaknesses and gaps that are presented below.

(i) ***Free, prior and informed consultations:*** The EMs legal framework in Vietnam, defined and advocates for the respect and protection of their rights, interests and their unique social, cultural and economic livelihoods. There a series of policies that support poverty alleviation, for EMs in the mountainous and remote regions. However, policy does not prescribes any special procedures for development interventions to ensure free and prior consultations in programs/projects cycles focused on EMs beneficiaries targeted or/and impacted.

(ii) **EM communities' cohesion** is enhanced through practice of customary law (village constitution, conventions and regulations), guidance and leadership of village elders. However, the customary organization structures are not supported by policy implementation. As a result, customary law, culture, confidence on Ethnic Minority leadership is increasingly been eroded.

(iii) ***Participation and consultation*** do not mandate the culturally appropriateness of the mechanisms /activities and methods to be observed particularly important for example on the cases ensuring the inclusion of EM women and confirm the broad community support to investments. On the one hand, there is a limited EM's voice in the decision making process indicating a constrained effectiveness of the complaints and grievances mechanism and effective support to local interventions. On the other hand, this is an impediment for beneficiaries' oversight that contributes to sustainable implementation of the proposed Program. Moreover, grievances and Redress handling are of most importance when related to land donation practices in rural contexts.

[35] CEMA and UN (2009), Reviewing the past, responding to new challenges: Mid-term review of Programme 135-II, 2006-2008, Hanoi, Vietnam.

[36] MOLISA and UN (2009), Reviewing the past, responding to new challenges: Mid-term review of National Target Program for Poverty Reduction, 2006-2008, Hanoi, Vietnam.

(iv) ***Identification of opportunities to benefit from customary resources of EMs that are socially and culturally acceptable***. The use of EM languages for consultation and during programs cycles is mainly overlooked. The support to EMs knowledge and their social capital is restrained facing impediments to make it work by their customary leaders, due to their weak capacities and skills and scarce capacity building opportunities. This situation affects the legitimization of customary leadership which otherwise works effectively for ensuring equitable benefits to their community members.

**Information Disclosure, Consultation and Participation**

58. Although Vietnam has relatively sound legal framework on access to information and disclosure, there are a number of weaknesses that need to be addressed.

i. The information flow from district to commune levels is still limited, and confronts lack of top-down accountability. Commune officials have limited knowledge on budget management and criteria for allocation of the respective levels (central, provincial, district, and commune levels). In this sense, social accountability is not a common practice and public expenditure is not subjected to formal/informal oversight.

ii. There is a generalized limited beneficiaries' involvement in decision making processes for public investments. Public information for stakeholders to be used as a basis for decision making is not available.

iii. The planning of small rural infrastructure remains predominantly top-down. Communities are mainly informed of the progress on their financial contribution. A limited community supervision at the site construction does take place. In hard-to-reach locations, communication is inappropriate because of both the content and the audience, mainly local people (especially elders), who can rarely understand the message unless translation is provided.

**Recommendations**

59. **Land acquisition.** The LRAMP is designed in such a way that land acquisition will be minimized and the majority of land utilized will be vacant public land. Nonetheless, there may be some incidences where land acquisition is required. In general GoV has a robust legal and regulatory framework governing land acquisition and Provincial authorities have established the required institutional frameworks. Experience in handling of land acquisition issues is considerable. However, as noted in above section, there are a number of weaknesses and gaps that should be address through the following recommendations:

60. ***Recommendation 1:*** PMUs and program provinces must conduct social screening prior to actual investment to maximize project benefits and minimize adverse impact to local communities especially on land acquisition. The screening results must be properly documented and included in the relevant section of investment proposal. Specific information on social screening processes to be used under the Program will be included in the Program Operational.

61. ***Recommendation 2:*** If land acquisition is unavoidable, PMUs and program provinces must ensure that people affected by loss of land and assets will be compensated so that they are no worse off than before that loss. Investments that cause physical relocation should be restricted to only those limited cases that are absolutely necessary for the Program's investment. The provision in 2013 Land Law on using independent land appraiser should be followed with appropriate M&E system of participating provinces.

62. ***Recommendation 3:*** PMUs and program provinces should not consider land donation as default option for land acquisition. Budget must be made available for compensation payment and regardless of the program implementation arrangement, implementing agencies must to ensure that the donation decision will be made based on the informed consent of AHs and their own choice. A

voluntary land donation guideline will be developed at the program level and adopted by participating provinces to guide the application of this practice in the Program's activities. Voluntary donation should only be used to support small-scale community infrastructure where the impacts are minor and where there are alternative options for the location of infrastructure[37]. The guideline will be based on the recent voluntary land donation protocol (developed by EAP Regional Safeguard Secretariat) as well as other safeguard enhancement related works in Vietnam. The procedure for this will be further detailed in the Program Operational Manual.

63. **Information Disclosure, Consultation and Participation.** The assessment has found that the information flow from district to commune levels is still limited. There is also limited involvement of beneficiaries in the decision making process and in implementation. At the local level the Program would promote the use of state-of-the art approaches to participation. Consultations would be held with local communities on planned investments. The capacity of provinces to oversee this type of consultative planning process may however be limited and would need to be supported and built up during the period of the Program. The following recommendations are made:

64. ***Recommendation 4:*** PMUs and participating Provinces will enhance transparency by maintaining databases on complaints/feedbacks and responses to those complaints/feedbacks. In addition, a database on the program's beneficiaries, disaggregated by gender and ethnicity should be maintained and monitored. Detailed guidelines for the grievance redress mechanism, based on established existing systems, will be included in the Program Operational Manual.

65. ***Recommendation 5:*** PMUs and participating Provinces will ensure that all investments supported by the Program are subject to public consultation with local people and public disclosure at program area. Detailed guidelines for implementation and monitoring will be included in the Program Operational Manual.

66. ***Ethnic Minorities*.** The assessment on EMs policy implementation suggests that the regulations covering this aspect are relatively well structured but there are some uncertainties relating to the capacity to implement those regulations. Specifically, free, prior, and informed consultation must be undertaken if EMs are potentially affected (positively or negatively). Consultation should determine whether there is broad community support for program activities and ensure that EMs can participate actively. Participation will also help in identifying opportunities for the customary resources or indigenous knowledge to be applied with the consent of their communities. While the legal framework is robust, the implementation of the regulations related to EMs, information disclosure, and social participation at local level is not consistent with the policy in place. There is a lack of accountability due to the limited information flowing to communes and participation of EMs in decision making remains limited. Specific actions are needed to close these gaps.

67. ***Recommendation 6:*** PMUs and program provinces must ensure that program's interventions are culturally appropriated. This is very important given the diversification of ethnic groups living in the Program areas to assure the Program benefits. Where relevant, PMUs and program provinces should provide a training/orientation to contractors working in the area having intensive presence of EMs peoples. The program's TA should include dedicated resource for this activity.

68. ***Recommendation 7:*** MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. The guideline will be community-driven, transparent, gender sensitive and in appropriate language. Given that the program will be implemented over a large geographic area with many different ethnic groups, specific guidance will be provided at the local level for each ethnic group. In addition, the guidelines shall fully

[37] Site specific infrastructure may lead to additional pressures on the donor from the community and Government and should therefore be precluded.

operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations. This should be included as an action in the Program Action Plan.

69. ***Gender and others. Recommendation 8:*** The Program should encourage the following social development measures: (a) ensuring unskilled (and to the extent feasible, skilled) labor is sourced locally; (b) ensuring access to the newly developed infrastructure for people with disabilities; (c) mobilization of community (especially women) in maintenance activities or community based supervision. The Women's Union and similar groups should be incorporated into the institutional structure of implementation in order to assist in promoting gender-sensitive community mobilization, participation and grievance redress channels.

70. ***Staffing***. ***Recommendation 9:*** Using the current arrangement, PMUs must arrange adequate staff time to ensure that social-related issues (land acquisition, land donation, gender mainstreaming, EM participation …) will be properly tracked, monitored and reflected in the relevant program report for documentation and tracking. A detailed scope or work for this unit/staff will be developed prior to the actual implementation of the Program.

**Inputs to the Program Action Plan**

71. The following action should be included in the Program Action Plan: MOT/DRVN will develop community/citizen engagement guidelines (to be implemented by PMU and participating provinces) to enhance people's participation, especially for Ethnic Minorities to ensure their meaningful participation and consultation in every step of the Program implementation, including planning, sub-project design and implementation, compensation, resettlement and rehabilitation measures in land acquisition. The guideline will be community-driven, transparent, gender sensitive and in appropriate language. Given that the program will be implemented over a large geographic area with many different ethnic groups, specific guidance will be provided at the local level for each ethnic group. In addition, the guidelines shall fully operationalize existing Vietnamese Legislation with respect to Ethnic Minorities through a process of free, prior, and informed consultations.

**Environmental and Social Risk Ratings**

72. Given the scope of the Program, its types and scale of investment, geographic focus, and previous experience with World Bank projects of the central Government, the risk rating is *moderate* from the environmental perspective and *substantial* from the social perspective (mainly related to EM aspect).

**Inputs to the Program Implementation Support Plan**

73. It is critical that adequate staff time be allocated during the first year of the Program, including specialists to strengthen the capacity of the implementing agencies. Capacity building activities will be included in Program Technical Assistance in order to incentivize the timely delivery. Table 2 overeaf indicates environment and social activities to be undertaken within the program implementation support plan.

**Table 2: Environmental and Social Support Plan for the implementation of the program**

| Activity | Timing |
|---|---|
| Capacity building activities for the Program and its social and environmental implications. | Program launching workshop;<br>Refresher training to be delivered annually. |
| Review implementation guidelines and associated | During the program preparation and early |

| | |
|---|---|
| documents in order to implement recommendations. | stages of implementation. |
| Capacity building for contractors on Ethnic Minority sensitivity. | As needed. |
| Review and monitor the implementation progress of social related actions and associated indicators. | As needed.<br>At least twice per year during supervision missions. |
| Join the supervision mission and field visits to selected sites. | |
| Support the client to resolve implementation issues and carry out institutional capacity building. | |

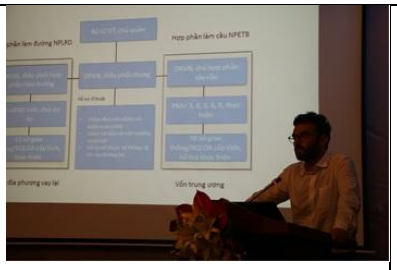
**Annexes**

**Annex 1 – List of Participants and photos of the consultation meeting**

| Organisation | Name | Position |
|---|---|---|
| DRVN | Trần Thị Vân | Officer, Environment and International Relations |
| | Đặng Minh | Officer, Investment and Planning Dept |
| | KHánh Hồng | Officer |
| | Đoàn Chí Thành | Officer |
| | Võ Anh Thắng | Officer, Investment and Planning Dept |
| | Nguyễn KHánh Toàn | |
| | Nguyễn Mạnh Hùng | |
| | Nguyễn Ngọc Đàm | Traffic Safety Department |
| PMU 4 | Nguyễn Quang Huy | |
| | Nguyễn Phương Nam | Head of Division, PID 1, Construction Manag. Div |
| | Trần Đức Đình | Deputy Director, PMU 4 |
| | Nguyễn Việt Anh | Officer, Construction Manag. Div |
| PMU 5 | Lưu Ngọc Vinh | Head of Planning and Investment Division |
| | Đỗ Tuấn Hạnh | |
| PMU 6 | Phạm Xuân Trung | Project Implementing Division PID 1 |
| | Nguyễn Tiến PHương | PID 1 |
| | Mrs Hương | PID 1 |
| | Nguyễn Thu Hương | PID 1 |
| | Lê Mai Ngọc Anh | PID 1 |
| | Cao Nguyễn Quỳnh Anh | PID 1 |
| | Ngô Nam Tri | PID 1 |
| | Vương Khánh Ly | PID 1 |
| | Lê Tuấn Khanh | Finance and Planning Division |
| | Ngô Minh Hiếu | Finance and Planning Division |
| WB Team | Trần Thị Minh Phương | |
| | Nguyễn Quý Nghị | |
| | Vũ Thị Diệu Lý | |
| | Nguyễn Chí Kiên | |
| Institute of Transport Strategy | Nguyễn Thị Diễm Hằng | |
| An Giang | Ngô Công Thức | DOT Director |
| | Nguyễn Thanh Sang | PPMU Director |
| | Lâm Tiến Cường | Deputy Head, Traffic Management |
| Bạc Liêu | Lê Tanh Nhã | PPMU Director |
| Bắc Giang | Nguyễn Thanh Tùng | PPC Officer |
| | Chu Văn Hưng | Head, Planning and Finance Division |
| | Hoàng Văn Thanh | RT3 PPMU Director |
| Bắc Kạn | Dương Ngọc Thuyết | Transport PPMU |
| Bình Định | Diệp Thanh Tùng | Officer, Transport Management Division, DOT |
| Bình Phước | Nguyễn Quôc Hiệp | DOT Deputy Director |
| BÌnh Thuận | Đỗ Lộc Sơn | Infrastructure Sructure management |
| Cà Mau | Lê Thành Huấn | DOT Deputy Director |
| | Dương Trí Dũng | PPC Vice Chairman |
| Cao Bằng | Lưu Công Hữu | PPC Officer |
| | Nguyễn Xuân Nguyên | PPMU |
| Cần Thơ | Nguyễn Hoàn gTùng | DOT |
| | Trần Công Phú | PPMU |
| Đak Lăk | Trần Viết Tiệp | Deputy director, PPMU |
| | Tô Quang Định | Deputy Head, traffic management division |

| Organisation | Name | Position |
|---|---|---|
| Đắc Nông | Võ Văn Hùm | DOT Director |
| | Bùi Văn Điền | Head of Infrastructure |
| Điện Biên | Nguyễn Đình Giang | DOT Director |
| | Tô Trọng Thiện | PPMU Director |
| Đồng Nai | Lê Quang Bình | DOT Deputy Director |
| Đồng Tháp | Nguyễn Văn Cống | DOT Director |
| | Nguyễn Thanh Hoàng | |
| | Nguyễn Trường Giang | |
| | Trần Ngọc Quyết | |
| Gia Lai | Lê Văn Hạnh | DOT Deputy Director |
| | Nguyễn Hữu Tiến | PPMU Deputy Director |
| Hà Giang | Tống Văn Huấn | DOT Deputy Director |
| | PHạm Văn Kiên | Officer |
| Hà Nội | Nguyễn Văn Thiết | Officer |
| | Nguyễn Đình Đôn | Head of division |
| | Nguyễn Thị Thu Hương | Accountant |
| Hà Tĩnh | TRần Văn Trung | Deputy Director |
| | Bùi Đức Đai | DOT Deputy Director |
| Hải Dương | Vũ Văn Tùng | DOT Deputy Director |
| | Nguyễn Đức Huấn | PPMU |
| Hậu Giang | Lê Văn Năm | DOT Deputy Director |
| Hòa Bình | Bùi Văn Thăng | DOT Deputy Director |
| | Trần Hữu Kim | Head of Planning and Finance division |
| Khánh Hòa | Nguyễn Thanh Hiến | Deputy head, transport management |
| Kiên Giang | PHạm Văn Tựu | DOT Deputy Director |
| Kon Tum | Huỳnh Tấn PHục | DOT Director |
| Lai Châu | Tạ Tấn Vĩnh | DOT Deputy Director |
| | Nguyễn Chương | PPC Vice Chairman |
| Lâm Đồng | Hoàng  Anh Tuấn | DOT Deputy Director |
| | Nguyễn Hồng Minh | PPMU |
| Lạng Sơn | Lăng Văn Thạu | DOT Deputy Director |
| | Hoàng Viết Hóng | PPMU |
| | Dương Thanh Vân | PPMU |
| Lào Cai | Dương Văn Sơn | DOT Deputy Director |
| | Nguyễn Thị Hồng | PPMU Deputy Director |
| | Đỗ Hoàn gNam | Officer |
| Nam Định | Lê Nguyên Khính | DOT Director |
| | PHạm Hồng Thái | PPMU Director |
| Nghệ An | Hồ Viết Vinh | PPMU Deputy Director |
| | Trần Duy Hưng | Head of Transport Division |
| | Nguyễn Hồng Kỳ | DOT Deputy Director |
| Ninh Thuận | Trần Văn Hai | Head of Transport Division |
| | Nguyễn Tường Dũng | DOT |
| | Phan Chánh Trọng | |
| Phú Thọ | Dương Hoàng Phúc | DOT Director |
| | Lê Mạnh Cường | Officer |
| Phú Yên | Trần Bá Nghĩa | Infrastructure Division |
| Quảng Bình | Mr Thuyết | Planning Division |
| Quảng Nam | Nguyễn Văn Nhân | DOT Director |
| | Nguyễn Thái Nhân | Head, Planning and Finance Division |
| | Nguyễn Thanh Tâm | PPMU Director |
| | Nguyễn Tấn Hoàng | Officer |
| Quảng Ngãi | Trần Hoài Bình | Deputy Head, Investment Management Division |

| Organisation | Name | Position |
|---|---|---|
| Quảng Ninh | Nguyễn Văn Phúc | Deputy Head, Infrastructure Management Division |
| Quảng Trị | Nguyễn Hữu Anh | DOT Deputy Director |
| | Nguyễn Đức Hà | |
| | Bạch Văn Yên | |
| | Đinh Văn Lập | |
| Sóc Trăng | Trang Trường Thanh | DOT Deputy Director |
| Sơn La | Nguyễn Hợp Cường | DOT Deputy Director |
| | Vũ Thành Chung | |
| | Nguyễn Tiến Hải | |
| Tây Ninh | Lại Hoàng Khương | |
| Thái Nguyên | Lê Văn Vinh | |
| | Lê Ngọc Phớt | |
| Thanh Hóa | Mai Xuân Liêm | DOT Director |
| | PHạm Quốc Thành | PPMU 3 |
| Thừa Thiên Huế | Lê Anh Tuấn | Deputy Deputy Director |
| | Nguyễn Khoa Thanh Vinh | Officer, Appraisal Division |
| Trà Vinh | Dương Văn Ni | DOT Deputy Director |
| | Đào Mạnh Hùng | PPMU Deputy Director |
| Vĩnh Long | Hồ Văn Trí | Deputy head, Director |
| Vĩnh Phúc | PHạm Thị Năm | Deputy head, planning and Traffic management Division |
| | Vũ Hạnh | Officer |
| Yên Bái | Trần Anh Tuấn | |
| | Nguyễn Thanh Huyền | |



**Annex 2 – Eligibility Screening Criteria**

| Screening Question | Yes | No | Remarks |
|---|---|---|---|
| ***... Would the proposed subproject…*** | | | |
| 1. be located within 2 kilometres from any environmentally sensitive areas such as primary natural forest, national park, nature reserve, bird sanctuary, sites legally protected or requiring construction/filling materials extracted from protected forest or nature reserve areas listed in MONRE decision no.1107/QĐ-BTNMT? | | | |
| 2. be located within 10 metres of a physical cultural structure such as temple, monument, pagoda, ancient grave, historical site, worshiping place, sacred tree or any object of spiritual importance to the local community? | | | |
| 3. have road/access road alignment requiring land acquisition within an urban settlement? | | | |
| 4. bridges that require significant alteration or adversely impact the river's hydrology or hydro-geology such as significantly narrowing the river's wet cross section or requiring massive drilling and pile driving? | | | |
| 5. have an alignment that requires land acquisition which would result in Affected Households needing to be relocated to resettlement sites? | | | |
| 6. any new bridge construction that may cause potentially significant and adverse environmental or social impacts[38]; | | | |

If the response to any of the six questions above is "yes", the subproject will not be eligible under the program.

[38] For example, create a new access to least disturbed areas, which may lead to tree cutting, conversion of land use in such areas

**Annex 3 – List of Conservation Areas issued at MONRE Decision no. 1107/2015/BTNMT**

| TT | Name | Province | Geographical/ecological region | Land area (ha) |
|---|---|---|---|---|
| I | **NATIONAL PARKS** | | | |
| 1 | Ba Bể | Bắc Kạn | Northeast | 10,048 |
| 2 | Bái Tử Long | Quảng Ninh | Northeast | 15,783 |
| 3 | Cát Bà | Hải Phòng | Northeast | 16,196,8 |
| 4 | Tam Đảo | Vĩnh Phúc | Northeast | 15,270 |
| | | Thái Nguyên | Northeast | 11,446 |
| | | Tuyên Quang | Northeast | 6,160 |
| 5 | Xuân Sơn | Phú Thọ | Northeast | 15,048 |
| 6 | Phia Đén - Phia Oắc | Cao Bằng | Northeast | 12,261 |
| 7 | Hoàng Liên | Lào Cai | Northwest | 20,910 |
| | | Lai Châu | Northwest | 7,598 |
| 8 | Ba Vì | Hà Nội | Red River Delta | 6,486 |
| | | Hòa Bình | Northwest | 4,263 |
| 9 | Cúc Phương | Ninh Bình | Red River Delta | 11,440 |
| | | Thanh Hóa | North Northwest | 4,996 |
| | | Hòa Bình | Northwest | 5,972 |
| 10 | Xuân Thủy | Nam Định | ĐBSH | 7,100 |
| 11 | Bạch Mã | Thừa Thiên Huế | North Northwest | 34,380 |
| | | Quảng Nam | South Northwest | 3,107 |
| 12 | Bến En | Thanh Hóa | North Northwest | 14,734 |
| 13 | Phong Nha Kẻ Bàng | Quảng Bình | North Northwest | 123,326 |
| 14 | Pù Mát | Nghệ An | North Northwest | 93,524 |
| 15 | Vũ Quang | Hà Tĩnh | North Northwest | 52,741 |
| 16 | Núi Chúa | Ninh Thuận | South Central Region | 29,865 |
| 17 | Phước Bình | Ninh Thuận | South Central Region | 19,814 |
| 18 | Côn Đảo | Bà Rịa Vũng Tàu | East Southern region | 19,990 |
| 19 | Bù Gia Mập | Bình Phước | East Southern region | 25,926 |
| 20 | Lò Gò Sa Mát | Tây Ninh | East Southern region | 19,156 |
| 21 | Cát Tiên | Đồng Nai | East Southern region | 39,627 |
| | | Bình Phước | East Southern region | 4,193 |
| | | Lâm Đồng | Central Highland | 27,530 |
| 22 | Chư Mom Rây | Kon Tum | Central Highland | 56,434 |
| 23 | Kon Ka Kinh | Gia Lai | Central Highland | 42,057 |
| 24 | Yok Đôn | Đắk Lắk<br>Gia Lai | Central Highland | 113,853 |
| 25 | Chư Yang Sin | Đắk Lắk | Central Highland | 66,980 |
| 26 | Bidoup-Núi Bà | Lâm Đồng | Central Highland | 64,366 |
| 27 | Mũi Cà Mau | Cà Mau | Mekong Delta | 41,862 |
| 28 | U Minh Hạ | Cà Mau | Mekong Delta | 8,528 |
| 29 | Phú Quốc | Kiên Giang | Mekong Delta | 29,136 |
| 30 | Tràm Chim | Đồng Tháp | Mekong Delta | 7,313 |
| 31 | U Minh Thượng | Kiên Giang | Mekong Delta | 8,038 |

| | | | | |
|---|---|---|---|---|
| **II** | **NATURE RESERVE** | | | |
| 1 | Mường Nhé | Điện Biên | Northwest region | 45,581 |
| 2 | Hang Kia - Pà Cò | Hòa Bình | Northwest region | 5,257 |
| 3 | Ngọc Sơn - Ngổ Luông | Hòa Bình | Northwest region | 15,890 |
| 4 | Phu Canh | Hòa Bình | Northwest region | 5,647 |
| 5 | Thượng Tiến | Hòa Bình | Northwest region | 5,873 |
| 6 | Mường Tè | Lai Châu | Northwest region | 33,775 |
| 7 | Văn Bàn | Lào Cai | Northwest region | 25,173 |
| 8 | Copia | Sơn La | Northwest region | 6,311 |
| 9 | Sốp Cộp | Sơn La | Northwest region | 18,020 |
| 10 | Tà Xùa | Sơn La | Northwest region | 16,553 |
| 11 | Xuân Nha | Sơn La | Northwest region | 18,116 |
| 12 | Nà Hẩu | Yên Bái | Northwest region | 16,950 |
| 13 | Tây Yên Tử | Bắc Giang | Northeast region | 12,172 |
| 14 | Kim Hỷ | Bắc Kạn | Northeast region | 14,772 |
| 15 | Bát Đại Sơn | Hà Giang | Northeast region | 4,531 |
| 16 | Bắc Mê | Hà Giang | Northeast region | 9,042,5 |
| 17 | Du Già | Hà Giang | Northeast region | 11,540 |
| 18 | Phong Quang | Hà Giang | Northeast region | 8,445,6 |
| 19 | Tây Côn Lĩnh | Hà Giang | Northeast region | 15,043 |
| 20 | Hữu Liên | Lạng Sơn | Northeast region | 8,293 |
| 21 | Đồng Sơn Kỳ Thượng | Quảng Ninh | Northeast region | 15,110 |
| 22 | Thần Sa - Phượng Hoàng | Thái Nguyên | Northeast region | 17,639 |
| 23 | Chạm Chu | Tuyên Quang | Northeast region | 15,902 |
| 24 | Na Hang | Tuyên Quang | Northeast region | 22,402 |
| 25 | Bạch Long Vĩ | Hải Phòng | Red River Delta | 27,009 |
| 26 | Vân Long | Ninh Bình | Red River Delta | 2,736 |
| 27 | Tiền Hải | Thái Bình | Red River Delta | 12,500 |
| 28 | Pù Hu | Thanh Hóa | North Central Region | 23,028 |
| 29 | Pù Luông | Thanh Hóa | North Central Region | 17,172 |
| 30 | Xuân Liên | Thanh Hóa | North Central Region | 23,816 |
| 31 | Pù Hoạt | Nghệ An | North Central Region | 35,723 |
| 32 | Pù Huống | Nghệ An | North Central Region | 40,187 |
| 33 | Kẻ Gỗ | Hà Tĩnh | North Central Region | 21,759 |
| 34 | Bắc Hướng Hóa | Quảng Trị | North Central Region | 23,456 |
| 35 | Đakrông | Quảng Trị | North Central Region | 40,526 |
| 36 | Cồn Cỏ | Quảng Trị | North Central Region | 4,532 |
| 37 | Phong Điền | Thừa Thiên Huế | North Central Region | 41,509 |
| 38 | An Toàn | Bình Định | South Central Region | 22,545 |
| 39 | Núi Ông | Bình Thuận | South Central Region | 23,834 |
| 40 | Tà Kóu | Bình Thuận | South Central Region | 8,047 |
| 41 | Hòn Cau | Bình Thuận | South Central Region | 12,500 |
| 42 | Hòn Bà | Khánh Hòa | South Central Region | 19,286 |

| | | | | |
|---|---|---|---|---|
| 43 | Vịnh Nha Trang | Khánh Hòa | South Central Region | 15,000 |
| 44 | Krông Trai | Phú Yên | South Central Region | 13,775 |
| 45 | Bán đảo Sơn Trà | Đà Nẵng | South Central Region | 3,871 |
| 46 | Bà Nà - Núi Chúa | Đà Nẵng | South Central Region | 27,981 |
| 47 | Bà Nà - Núi Chúa | Quảng Nam | South Central Region | 2,753 |
| 48 | Cù Lao Chàm | Quảng Nam | South Central Region | 8,265 |
| 49 | Sông Thanh | Quảng Nam | South Central Region | 75,274 |
| 50 | Ngọc Linh | Quảng Nam | South Central Region | 17,576 |
| 51 | Ngọc Linh | Kon Tum | Central Highland | 38,110 |
| 52 | Ea Sô | Đắk Lắk | Central Highland | 24,017 |
| 53 | Nam Ca | Đắk Lắk | Central Highland | 21,912 |
| 54 | Nam Nung | Đắk Nông | Central Highland | 12,308 |
| 55 | Tà Đùng | Đắk Nông | Central Highland | 17,915 |
| 56 | Kon Chư Răng | Gia Lai | Central Highland | 15,446 |
| 57 | Bình Châu - Phước Bửu | Bà Rịa-Vũng Tàu | East southern region | 10,905 |
| 58 | Vĩnh Cửu | Đồng Nai | East southern region | 53,850 |
| 59 | Ấp Canh Điền | Bạc Liêu | Mekong Delta | 363 |
| 60 | Hòn Chông | Kiên Giang | Mekong Delta | 965 |
| 61 | Láng Sen | Long An | Mekong Delta | 5,030 |
| 62 | Thạnh Phú | Bến Tre | Mekong Delta | 2,584 |
| 63 | Long Khánh | Trà Vinh | Mekong Delta | 868,1 |
| 64 | Lung Ngọc Hoàng | Hậu Giang | Mekong Delta | 2,805 |
| **III** | **ECOSYSTEM/SPECIES CONSERVATION AREA** | | | |
| | Chế Tạo | Yên Bái | Northwest | 20,108 |
| 2 | Khau Ca | Hà Giang | Northeast region | 2,010 |
| 3 | Nam Xuân Lạc | Bắc Kạn | Northeast region | 1,788 |
| 4 | Trùng Khánh | Cao Bằng | Northeast region | 9,574 |
| 5 | Sến Tam Quy | Thanh Hóa | North Central Region | 519 |
| 6 | Hương Nguyên | Thừa Thiên Huế | North Central Region | 10,311 |
| 7 | KBT Sao La | Thừa Thiên Huế | North Central Region | 15,520 |
| 8 | KBT Sao La | Quảng Nam | South Central Region | 15,822 |
| 9 | Đắk Uy | Kon Tum | Central Highland | 660 |
| 10 | Ea Ral | Đắk Lắk | Central Highland | 49 |
| 11 | Trấp Ksơ | Đắk Lắk | Central Highland | 100 |
| 12 | Sân Chim đầm Dơi | Cà Mau | Mekong Delta | 130 |
| 13 | Vườn Chim Bạc Liêu | Bạc Liêu | Mekong Delta | 127 |
| 14 | KBT sinh thái Đồng Tháp Mười | Tiền Giang | Mekong Delta | 107 |
| 15 | KBT biển Phú Quốc | Kiên Giang | Mekong Delta | 2,881 |
| 16 | Hòn Khoai islands | Cà Mau | Mekong Delta | 621 |
| **VI** | **LANDSCAPE PROTECTED AREA** | | | |
| 1 | Suối Mỡ AREA | Bắc Giang | Northeast region | 1,207 |
| 2 | Bản Giốc | Cao Bằng | Northeast region | 566 |
| 3 | Lam Sơn | Cao Bằng | Northeast region | 75 |

| | | | | |
|---|---|---|---|---|
| 4 | Núi Lăng Đồn | Cao Bằng | Northeast region | 1,149 |
| 5 | Pắc Bó | Cao Bằng | Northeast region | 1,137 |
| 6 | Thăng Hen | Cao Bằng | Northeast region | 372 |
| 7 | Trần Hưng Đạo | Cao Bằng | Northeast region | 1,143 |
| 8 | Mường Phăng | Điện Biên | TB | 10,049 |
| 9 | Đền Hùng | Phú Thọ | Northeast region | 538 |
| 10 | Núi Nả | Phú Thọ | Northeast region | 670 |
| 11 | Yên Lập | Phú Thọ | Northeast region | 330 |
| 12 | Yên Tử | Quảng Ninh | Northeast region | 2,783 |
| 13 | ATK Định Hóa | Thái Nguyên | Northeast region | 8,758 |
| 14 | Đá Bàn | Tuyên Quang | Northeast region | 120 |
| 15 | Kim Bình | Tuyên Quang | Northeast region | 210,8 |
| 16 | Tân Trào | Tuyên Quang | Northeast region | 4,187 |
| 17 | Chùa Thầy | Hà Nội | Red River Delta | 17 |
| 18 | Hương Sơn | Hà Nội | Red River Delta | 3,760 |
| 19 | K9 - Lăng Hồ Chí Minh | Hà Nội | Red River Delta | 234 |
| 20 | Vật Lại | Hà Nội | Red River Delta | 10 |
| 21 | Đồng Mô - Ngải Sơn | Hà Nội | Red River Delta | 900 |
| 22 | Sóc Sơn | Hà Nội | Red River Delta | 12 |
| 23 | Hồ Suối Hai | Hà Nội | Red River Delta | 1,200 |
| 24 | Côn Sơn Kiếp Bạc | Hải Dương | Red River Delta | 1,217 |
| 25 | Kinh Môn | Hải Dương | Red River Delta | 323 |
| 26 | Đồ Sơn | Hải Phòng | Red River Delta | 228 |
| 27 | Hoa Lư | Ninh Bình | Red River Delta | 2,985 |
| 28 | Đền Bà Triệu | Thanh Hóa | North Central Region | 434 |
| 29 | Hàm Rồng | Thanh Hóa | North Central Region | 216 |
| 30 | Lam Kinh | Thanh Hóa | North Central Region | 170 |
| 31 | Núi Chung | Nghệ An | North Central Region | 628 |
| 32 | Thần Đinh (Chùa non) | Quảng Bình | North Central Region | 136 |
| 33 | Rú Lịnh | Quảng Trị | North Central Region | 270 |
| 34 | Đường Hồ Chí Minh | Quảng Trị | North Central Region | 5,680 |
| 35 | Nam Hải Vân | Đà Nẵng | South Central Region | 3,397 |
| 36 | Núi Bà | Bình Định | South Central Region | 2,384 |
| 37 | Orange garden of Nguyễn Huệ King | Bình Định | South Central Region | 752 |
| 38 | Quy Hòa-Ghềnh Ráng | Bình Định | South Central Region | 2,163 |
| 39 | Đèo Cả-Hòn Nưa | Phú Yên | South Central Region | 5,784 |
| 40 | Núi Thành | Quảng Nam | South Central Region | 111 |
| 41 | Mỹ Sơn | Quảng Nam | South Central Region | 1,081 |
| 42 | Nam Trà My | Quảng Nam | South Central Region | 49 |
| 43 | Đray Sáp-Gia Long | Đắk Nông | Centgral Highland | 1,515 |
| 44 | Hồ Lắk | Đắk Lắk | Centgral Highland | 10,284 |
| 45 | Căn cứ Đồng Rùm | Tây Ninh | East southern region | 32 |

| | | | | |
|---|---|---|---|---|
| 46 | Căn cứ Châu Thành | Tây Ninh | East southern region | 190 |
| 47 | Chàng Riệc | Tây Ninh | East southern region | 10,711 |
| 48 | Núi Bà Đen | Tây Ninh | East southern region | 1,761 |
| 49 | Núi Bà Rá | Bình Phước | East southern region | 1,056 |
| 50 | Núi Sam | An Giang | Mekong Delta | 171 |
| 51 | Thoại Sơn | An Giang | Mekong Delta | 371 |
| 52 | Trà Sư | An Giang | Mekong Delta | 1,050 |
| 53 | Tức Dụp | An Giang | Mekong Delta | 200 |
| 54 | Xẻo Quýt | Đồng Tháp | Mekong Delta | 61 |
| 55 | Gò Tháp | Đồng Tháp | Mekong Delta | 290 |

**Annex 4: Environmental Considerations, Mitigation Measures for RURAL ROADS AND BRIDGES developments**

**Table 4.1 Environmental Considerations during FS and detail design**

| Phase | Content Implementation | Monitoring method | Who, when to monitor |
|---|---|---|---|
| Siting | Siting road and bridges, borrow pits and quarries, and any sites that would be potentially disturbed during the construction and/or operation phase will avoid socially and environmentally sensitive areas listed in Annex 2 – Screening Criteria. | Check the distance between project sites and the nearest social / environmental sites. | PPMU, at site-selection stage. |
| Engineering design | Environmental Criteria incorporated into the Engineering Design.<br>Specific environmental requirements for engineering design: the items listed below shall be included. | Check draft and final versions of drawings, Bill of Quantities, Cost Estimation Tables. | PPMU<br>CPO |
| Bidding document preparation | Specific environmental requirements for Cost Estimates and Bidding documents: Relevant information concerning environmental impacts and mitigation measures during the preparation and construction phase must be presented in the bids. | Check cost estimation and bidding documents. | CPO, PPMU |
| Operation | Sludge from water treatment plant, if any, must not be reused for food tree planting as it may contain heavy chemicals such as aluminium from the water treatment process. The sludge can only be used for activities such as ground filling or making bricks.<br>Households must clean up drains regularly, ensuring that there is no stagnant water surrounding the washing areas. | | |

**Table 4.2 - Environmental Code of Practice, Workers Code of Conducts (for inclusion in Bidding document for road maintenance contracts)**

**Construction Phase**

| Issues/Risks | Mitigation Measures |
|---|---|
| **Dust generation** | • The Contractor is responsible for compliance with relevant Vietnamese legislation with respect to ambient air quality.<br>• The Contractor shall ensure that the generation of dust is minimized and is not perceived as a nuisance by local residents and shall implement a dust control program to maintain a safe working environment and minimize disturbance for the surrounding residential areas/dwellings.<br>• The Contractor shall implement dust suppression measures (e.g. use water spraying vehicles to water roads, cover material stockpiles, etc.) as required.<br>• Material loads shall be suitably covered and secured during transportation to prevent the scattering of soil, sand, materials or dust.<br>• Exposed soil and material stockpiles shall be protected against wind erosion and the location of stockpiles shall take into consideration the prevailing wind directions and locations of sensitive receptors. |

| Issues/Risks | Mitigation Measures |
|---|---|
| **Air pollution** | • All vehicles must comply with Vietnamese regulations controlling allowable emission limits of exhaust gases.<br>• Vehicles in Vietnam must undergo a regular emissions check and obtain the: "*Certificate of conformity from inspection of quality, technical safety and environmental protection"* following Decision No. 35/2005/QD-BGTVT;<br>• There should be no burning of waste or materials on site. |
| **Impacts from noise and vibration** | • The Contractor is responsible for compliance with the relevant Vietnamese legislation with respect to noise and vibration.<br>• All vehicles must have the appropriate "*Certificate of conformity from inspection of quality, technical safety and environmental protection*" following Decision No. 35/2005/QD-BGTVT; in order to avoid exceeding noise emissions from poorly maintained machines.<br>• When needed, measures to reduce noise to acceptable levels must be implemented and could include silencers, mufflers, acoustically dampened panels or placement of noisy machines in acoustically protected areas. |
| **Water pollution** | • The Contractor must be responsible for compliance with the relevant Vietnamese legislation relevant to wastewater discharges into watercourses.<br>• Portable or constructed toilets must be provided on site for construction workers. Wastewater from toilets as well as kitchens, showers, sinks, etc. shall be discharged into a conservancy tank for removal from the site or discharged into municipal sewerage systems; there should be no direct discharges to any water body.<br>• Wastewater over permissible values set by Vietnam's relevant technical standards/regulations must be collected in a conservancy tank and removed from site by licensed waste collectors.<br>• Prior to construction commencing, all necessary wastewater disposal permits/licenses and/or wastewater disposal contracts must have been obtained.<br>• Upon completion of construction works, water collection tanks and septic tanks shall be covered and effectively sealed off. |
| **Drainage and sedimentation control** | • The Contractor shall follow the detailed drainage design included in the construction plans, intended to prevent storm water from causing local flooding or scouring slopes and areas of unprotected soil resulting in heavy sediment loads affecting local watercourses.<br>• Ensure the drainage system is always maintained, cleared of mud and other obstructions.<br>• Areas of the site not disturbed by construction activities shall be maintained in their existing condition.<br>• Earthworks, cut and fill slopes shall be properly maintained, in accordance with the construction specifications, including measures such as installation of drains and use of plant covers.<br>• In order to avoid sediment-laden runoff that could adversely impact watercourses, install sediment control structures where needed to slow or redirect runoff and trap sedimentation until vegetation is established. Sediment control structures could include windrows of logging slash, rock berms, sediment catchment basins, straw bales, storm drain inlet protection systems or brush fences.<br>• Site de-watering and water diversions: In the case that construction activities require that work be carried out within the watercourse (e.g. culvert or bridge crossing construction, retaining wall construction, erosion protection works), the work area must be dewatered to allow for construction in dry conditions. The sediment laden water pumped from the work area must be discharged to an appropriate sediment control measure for treatment before re-release to the |

| Issues/Risks | Mitigation Measures |
|---|---|
| | stream.<br>• Stream diversions or construction of cofferdams would require site-specific mitigation measures in the EMP. |
| **Management of stockpiles, quarries, and borrow pits** | • Large scale borrow pits or stockpiles will need site-specific measures that go beyond those in these ECOPs.<br>• All locations to be used must be previously identified in the approved construction specifications. Sensitive sites such as scenic spots, areas of natural habitat, areas near sensitive receptors or areas near water should be avoided.<br>• An open ditch shall be built around the stockpile site to intercept wastewater.<br>• Stockpile topsoil when first opening a borrow pit and use it later to restore the area to near natural conditions.<br>• If needed, disposal sites shall include a retaining wall.<br>• If the need for new sites arises during construction, they must be pre-approved by the Construction Engineer.<br>• If landowners are affected by use of their areas for stockpiles or borrow pits, they must be included in the project resettlement plan.<br>• If access roads are needed, they must have been considered in the environmental assessment. |
| **Solid waste** | • Before construction, a solid waste control procedure (storage, provision of bins, site clean-up schedule, bin clean-out schedule, etc.) must be prepared by Contractors and it must be carefully followed during construction activities.<br>• Before construction, all necessary waste disposal permits or licenses must be obtained.<br>• Measures shall be taken to reduce the potential for litter and negligent behaviour with regard to the disposal of all refuse. At all places of work, the Contractor shall provide litter bins, containers and refuse collection facilities.<br>• Solid waste may be temporarily stored on site in a designated area approved by the Construction Supervision Consultant and relevant local authorities prior to collection and disposal through a licensed waste collector, for example, URENCO.<br>• Waste storage containers shall be covered, tip-proof, weatherproof and scavenger proof.<br>• No burning, on-site burying or dumping of solid waste shall occur.<br>• Recyclable materials such as wooden supports for trench works, steel, scaffolding material, site holding, packaging material, etc. shall be collected and separated on-site from other waste sources for reuse, for use as fill, or for sale.<br>• If not removed off site, solid waste or construction debris shall be disposed of only at sites identified and approved by the Construction Supervision Consultant and included in the solid waste plan. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas, such as in areas of natural habitat or in watercourses. |
| **Chemical or hazardous wastes** | • Chemical waste of any kind shall be disposed of at an approved appropriate landfill site and in accordance with local legislative requirements. The Contractor shall obtain needed disposal certificates.<br>• The removal of asbestos-containing materials or other toxic substances shall be performed and disposed of by specially trained and certified workers.<br>• Used oil and grease shall be removed from site and sold to an approved used oil recycling company.<br>• Used oil, lubricants, cleaning materials, etc. from the maintenance of vehicles and machinery shall be collected in holding tanks and removed from site by a specialized oil recycling company for disposal at an approved hazardous waste |

| Issues/Risks | Mitigation Measures |
|---|---|
| | site.<br>• Used oil or oil-contaminated materials that could potentially contain PCBs shall be securely stored to avoid any leakage or affecting workers. The local DONRE must be contacted for further guidance.<br>• Unused or rejected tar or bituminous products shall be returned to the supplier's production plant.<br>• Relevant agencies shall be promptly informed of any accidental spill or incident.<br>• Store chemicals appropriately and with accurate labelling.<br>• Appropriate communication and training programs should be put in place to prepare workers to recognize and respond to workplace chemical hazards.<br>• Prepare and initiate a remedial action following any spill or incident. In this case, the contractor shall provide a report explaining the reasons for the spill or incident, remedial action taken, consequences/damage from the spill and proposed corrective actions. |
| **Management of small amounts of sludge** | • A dredging plan should be established including time schedule, method statement to meet the requirements of traffic safety, public health and environmental sanitation. In order to ensure dredging that is consistent with environmental regulations, key decision makers (local authority, DONRE, utility company, CSC, etc.) must be involved and concur in each key decision point in the process leading to preparation and implementation of a plan.<br>• Characteristics of sludge/sediment should be determined by sampling and analysis if not already fully evaluated during the EIA. Sludge that is heavily contaminated would require measures that go beyond the scope of these ECOPs.<br>• Ensure that dredged material management plans incorporate environmental considerations in the identification of short-term and long-term disposal alternatives, consider methods to reduce dredging and maximize the beneficial use of dredged materials.<br>• Dredging work should be conducted when water flow is high in order to allow the dredged materials to be separated into the sediment and the supernatant water (i.e. spoil) by settling.<br>• Lixiviate from dredged materials should not be allowed to enter watercourses without appropriate filtering or treatment.<br>• Collected dredged materials have to be processed, as per Vietnamese regulations on waste collection, to ensure safe and environmentally secure transportation, storage, treatment and management<br>• Those involved in handling of sludge should be specialized and have certification of sludge handling. Guidelines for certification of sludge handling are in Circular No. 12/2011/TT-BTNMT concerning management of hazardous substance<br>• A sanitary landfill site should meet technical requirements, based on level of potential contamination. |
| **Vegetation Cover Management** | • The Contractor shall prepare a Clearance, Revegetation and Restoration Management Plan for prior approval by the Construction Engineer, following relevant regulations. The Clearance Plan shall be approved by the Construction Supervision Consultant (CSC) and followed strictly by the Contractor. Areas to be cleared should be minimized where possible.<br>• The Contractor shall remove topsoil from all areas where topsoil will be impacted by rehabilitation activities, including temporary activities such as storage and stockpiling, etc.; the stripped topsoil shall be stockpiled in areas agreed with the CSC for later use in re-vegetation and shall be adequately protected. |

| Issues/Risks | Mitigation Measures |
|---|---|
| | • The application of chemicals for vegetation clearing is not permitted.<br>• Prohibit cutting of any tree unless explicitly authorized in the vegetation clearing plan.<br>• When needed, erect temporary protective fencing to efficiently protect the preserved trees before commencement of any works within the site.<br>• No area of potential importance as an ecological resource should be disturbed unless there is prior authorization from CMS. This could include areas of breeding or feeding birds or animals, fish spawning areas or any area that is protected as a green space.<br>• The Contractor shall ensure that no hunting, trapping shooting or poisoning of fauna takes place. |
| **Traffic Management** | • Before construction, carry out consultations with local government, the community and traffic police.<br>• Significant increases in the number of vehicle trips must be covered in a construction plan previously approved. Routing, especially of heavy vehicles, needs to take into account sensitive sites such as schools, hospitals and markets.<br>• Installation of lighting at night must be done if this is necessary to ensure safe traffic circulation.<br>• Place signs around the construction areas to facilitate traffic movement, provide directions to various sections of the works and provide safety advice and warning.<br>• Employing safe traffic control measures, including road/rivers/canal signs and flag persons to warn of dangerous conditions.<br>• Avoid material transportation for construction during rush hour.<br>• Passageways for pedestrians and vehicles within and outside construction areas should be segregated and provide for easy, safe and appropriate access. Signposts shall be installed appropriately in both water-ways and roads where necessary. |
| **Restoration of affected areas** | • Cleared areas such as borrow pits no longer in use, disposal areas, site facilities, workers' camps, stockpiles areas, working platforms and any areas temporarily occupied during construction of the project works shall be restored using landscaping, adequate drainage and revegetation.<br>• Start revegetation at the earliest opportunity. Appropriate local native species of vegetation shall be selected for the planting and restoration of the natural landforms.<br>• Spoil heaps and excavated slopes shall be re-profiled to stable batters, and grassed to prevent erosion;<br>• All affected areas shall be landscaped and any necessary remedial works shall be undertaken without delay, including green-spacing, roads, bridges and other existing works<br>• Trees shall be planted on exposed land and slopes to prevent or reduce land collapse and maintain slope stability.<br>• Soil contaminated with chemicals or hazardous substances shall be removed and transported and buried in waste disposal areas.<br>• Restore all roads and bridges damaged by project activities |
| **Worker and public Safety** | • The Contractor shall comply with all Vietnamese regulations regarding worker safety.<br>• Prepare and implement an action plan to cope with potential risks and emergencies.<br>• Prepare an emergency aid facility at the construction site.<br>• Train workers in occupational safety regulations. |

| Issues/Risks | Mitigation Measures |
|---|---|
| | • If blasting is to be used, additional mitigation measures and safety precautions must be outlined in the EMP.<br>• Ensure that ear protection is provided to and used by workers who must use noisy machines such as piling, explosion, mixing, etc., for noise control and workers protection.<br>• During demolition of existing infrastructure, workers and the general public must be protected from falling debris by measures such as chutes, traffic control and use of restricted access zones.<br>• Install fences, barriers, dangerous warning/prohibition site around the construction area which identify potential danger to the public.<br>• The contractor shall provide safety measures such as installation of fences, barriers, warning signs, lighting systems to prevent traffic accidents and other risks to people and sensitive areas.<br>• If previous assessments indicate there could be unexploded ordnance (UXO), clearance must be done by qualified personnel and in accordance with detailed plans approved by the Construction Engineer.<br>• Follow World Bank Group Environmental, Health and Safety (EHS) Guidelines, which is available at http://www.ifc.org/wps/wcm/connect/a99ab8804365 b27aa60fb6d3e9bda932/EHS-Guidelines. |
| **Chance Find Procedures** | If the Contractor discovers archaeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:<br>• Stop the construction activities in the area of the chance find;<br>• Delineate the discovered site or area;<br>• Secure the site to prevent any damage or loss of removable objects. In case removable antiquities or sensitive remains are found, a night guard shall be arranged until the responsible local authorities or the National Culture Administration take over;<br>• Notify the Project Environmental Officer who in turn will notify the responsible local authorities and the Ministry of Culture, Sports and Tourism immediately (within 24 hours or less);<br>• Responsible local authorities and the Ministry of Culture, Sports and Tourism will be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of Ministry of Culture, Sports and Tourism. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage and include the aesthetic, historic, scientific or research, social and economic values;<br>• Decisions on how to handle the finding shall be taken by the responsible authorities and by Ministry of Culture, Sports and Tourism. This could include changes in the layout (such as when finding important immovable cultural or archaeological remains) conservation, preservation, restoration and salvage;<br>• Implementation of the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and<br>• Construction works could resume only after permission is granted from the responsible local authorities or the Ministry of Culture, Sports and Tourism concerning safeguard of the heritage. |

**Worker Code of Conduct**

1. All workers and subcontractors shall abide by the laws and regulations of Vietnam.
2. Illegal substances, weapons and firearms shall be prohibited.
3. Pornographic material and gambling shall be prohibited.
4. Fighting (physical or verbal) shall be prohibited.
5. Workers shall not be allowed to hunt, fish or trade in wild animals.
6. No consumption of bush meat shall be allowed in camp.
7. No pets shall be allowed in camp.
8. Creating nuisance and disturbances in or near communities shall be prohibited.
9. Disrespecting local customs and traditions shall be prohibited.
10. Smoking shall be prohibited in the workplace.
11. Maintenance of appropriate standards of dress and personal hygiene shall be implemented.
12. Maintenance of appropriate hygiene standards in accommodation quarters shall be implemented.
13. The resident camp workforce visiting the local communities shall behave in a manner consistent with the Code of Conduct; and
14. Failure to comply with the Code of Conduct, or the rules, regulations, and procedures implemented at the construction camp will result in disciplinary actions.

**Sample of Environmental Specifications for Road and Bridge Construction (for inclusion in the bidding documentation for bridge construction/reconstruction contracts)**

The following activities are included in this section:

- Off-site Disposal of Excavated Material,
- Site Clean up and Disposal of Waste,
- Use and Closure of Borrow Pits,
- Removal and Re-instatement of Services,
- Dust Control,
- Noise and Vibration Control,
- Handling of Fuel and Lubricants,
- Employment of Unskilled Labour,
- Worker Health and Safety Issues,
- AIDS/HIV Awareness,
- Discovery of Cultural Artifacts,
- Use of Fuel Wood,
- Road Safety.

**OFF-SITE DISPOSAL OF EXCAVATED MATERIALS**

**Description:** Excavation may result in earth and rock materials that need to be disposed of off-site. This activity deals with how to dispose of material that requires off-site disposal.

**Procedures:** All excavated material to be disposed of can only be disposed in an approved site. If this is on private land the Contractor must obtain approval from the occupier. If the site is on public land approval must be obtained from the government organisation that is responsible for overseeing the site (eg. PPC or DPC). For disposal on public property the Contractor must obtain a copy of the site approval which is issued by the relevant governmental agency. A copy of the approval is be handed to the Engineer and retained for his records. For disposal either on private or public land the Engineer is required to approve the site.

**Construction Method:** When all material is removed, the disposal area must be suitably shaped and finished so that the disposed site is stable and will not erode. This will normally require levelling and

smoothing the heaped material so that an acceptable finish is achieved that allows the site to drain correctly. Removal, disposal and stabilisation of excavated waste to an off-site area is the Contractor's responsibility and is not costed separately. The cost is to be included as part of the activity that generates the excavated waste material. Final payment to the Contractor may be withheld until the waste disposal sites have been stabilised.

## SITE CLEAN UP AND DISPOSAL OF WASTE

**Description:** When any construction activity is completed the site is to be cleaned up and all waste removed. This applies to both large and small work items. Waste may include rock and soil, plastic bags, cardboard, cement bags, reinforcing steel off-cuts, unused or spilt mortar and concrete, bitumen and fuel drums, abandoned machinery and equipment. The site is to be cleaned and re-instated and all of these materials and items removed and disposed of in a proper fashion. This activity deals with how to clean up the site and dispose of material so that the site is left clean.

**Procedures:** Where material cannot be recycled or collected by scrap dealers all material that is to be disposed of can only be disposed of to an approved site. If this is on private land the Contractor is to obtain approval from the occupier. If the site is on public land approval must be obtained from the government organisation that is responsible for overseeing the site (eg. PPC or DPC). For disposal on public property the Contractor must obtain a copy of the site approval which is issued by the relevant governmental agency. A copy of the approval should be handed to the Engineer and retained for his records. For disposal either on private or public land the Engineer is required to approve the site.

**Construction Method:** The site must be cleared of all material that has been brought on-site by the Contractor. This includes the removal of all loose material and material that has bonded with the earth e.g. concrete, mortar, fuel and lubricant spills (contaminated areas). All areas are to be cleaned or contaminated areas dug up and the soil removed. The site is to be left in a stable and non-erodible condition. Where required the site may require smoothing so that an acceptable finish is achieved that re-establishes the site drainage. Where the site is extensively disturbed the Engineer will direct the Contractor to revegetate the site. The Engineer will inspect and approve that the site has been cleaned and cleared of all materials to his satisfaction. All waste material that cannot be recycled is to be removed and disposed of at a suitable waste site. The Engineer will approve the site where the waste material is to be dumped.

Clean up and removal, disposal and stabilisation of work areas is the Contractor's responsibility and is not costed separately. The cost is to be included as part of the activity that requires clean up and disposal of waste material. Final payment to the Contractor may be withheld until all sites have been cleaned and waste disposed of.

## USE AND CLOSURE OF BORROW PITS

**Description:** Borrow pits will be a source for road base material. Where borrow pits are privately owned and the Contractor buys material from the borrow pit this activity does not apply and Contractor is not required to rehabilitate these areas. The Contractor however is still obliged to show that the owner has the necessary DONRE approvals for operating the borrow pit.

The Contractor may only use material from borrow pits that have been approved by DONRE. The Contractor is required to provide copies of the necessary approval licenses for the borrow pit and submit these to the Engineer for his records. The Engineer will approve the location of the borrow pit and inspect the Contractor's activities in the borrow pit so that it is worked safely. Borrow pits should be at least 500 m from residential areas in order to reduce dust and noise from these sites. Dust in borrow pits can be a concern especially to workers. The Contractor will need to apply dust suppression in any borrow pit where the Contractor employs labour. In dusty conditions the Contractor will need to provide workers with face masks.

**Construction Methods:** In any borrow pits, the Contractor shall:

- Identify and demarcate locations for borrow pits, ensuring that they are 15 meters away from critical areas such as steep slopes, erosion-prone soils and areas that drain directly into sensitive water bodies (except the sites designed with rock wall to cover the surroundings).
- Limit extraction of material to approved and demarcated borrow pits.
- Stockpile topsoil when first opening the borrow pit. After all usable borrow has been removed, the previously stockpiled topsoil should be spread back over the borrow area and graded to a smooth, uniform surface, sloped to drain. On steep slopes, benches or terraces may have to be specified to help control erosion.
- Excess overburden should be stabilized and re-vegetated. Where appropriate, organic debris and overburden should be spread over the disturbed site to promote re-vegetation. Natural re-vegetation is preferred to the extent practicable.
- Existing drainage channels in areas affected by the operation should be kept free of overburden.
- Once the job is completed, all construction generated debris should be removed from the site.

The Contractor shall present a borrow pit exploitation plan. The operation of the borrow pit should follow the following principles:

- Operations must be conducted in discrete stages with all valuable material fully extracted so that progressive rehabilitation can be carried out.
- It is most important that operators plan for progressive rehabilitation while operations are ongoing. Planning of final rehabilitation of a pit should occur well before the cessation of operations. Any plan for the rehabilitation of a site should include a brief description of the site prior to the commencement of operations including soils, landform, flora, fauna, drainage and conservation values.
- Deposits should be worked in a systematic manner, generally across or down the slope, so that worked out sections can be rehabilitated and left to revegetate without further disturbance.
- Minimization of the total disturbed area is the best method of reducing erosion caused by storm water run-off and weed invasion. Use boundary markers, such as stakes and flagging tape, to indicate to machinery operators the extent of areas to be cleared.
- Topsoil is usually the darker upper soil layers. Though only 10-30 cm deep, it contains nutrients, minerals, seeds and organic matter which helps bind it all together. Wherever possible, stripped topsoil should be placed directly onto an area being rehabilitated. This avoids stockpiling and double handling of the soil.
- If topsoil must be stockpiled, remember that it deteriorates in quality while stockpiled. The following practices will help maintain soil quality:
    - Topsoil should be kept separate from overburden, gravel and other materials; if possible, windrows of topsoil should not exceed one metre in height to reduce "souring";
    - Topsoil stockpiles should be protected from erosion;
    - Growing vegetation on the stockpiles (shrubs or grasses) reduces erosion and will maintain biological activity in the soil;
    - Topsoil should not be buried or driven on as this will damage soil structure.
    - Soil should be stored somewhere out of the way; and
    - Excessive handling of topsoil should be avoided.

Closing and rehabilitation of the borrow pit is not a separate cost item and is to be included in the costing of excavating material from the borrow pit. Failure to reinstate any borrow pit areas to the required standard by the Contractor, may result in the Engineer undertaking the work using other resources and any payments made will be deducted from the Contractor.

**USE AND CLOSURE OF QUARRIES**

**Description:** Quarries will be required as a source of rock material for road surfacing or for use in other activities such as rock paving, rock walling and as mattress material. This activity deals with

procedures required to open, use and close quarries that the Contractor opens. Where quarries are privately owned and the Contractor buys material from the quarry this activity does not apply and the Contractor is not required to rehabilitate these areas. The Contractor however is still obliged to show that the owner has the necessary DONRE approvals for operating the quarry.

The Contractor is to only to draw rock from quarries that have been approved by DONRE. The Contractor is required to provide copies of the necessary approval licenses for the quarry and to submit these to the Engineer for his records. The Engineer will approve the location of the quarry and where the Contractor opens and works the quarry by himself the Engineer will also inspect the Contractor's activities in the quarry to ensure it is worked safely.

Quarries should be at least 500 m from residential areas so as to reduce dust and noise from these sites. Dust in quarries can be a concern especially to workers. The Contractor will need to apply dust suppression in any quarry where the Contractor employs labour. In dusty conditions the Contractor will need to provide workers with face masks. If the Contractor uses explosives the person handling the explosives must be licensed. The Engineer is to be given a copy of the explosives license together with a copy of the holder's ID.

**Construction Methods:** Where a quarry is opened by the Contractor, the Contractor is required to strip and remove topsoil to a suitable site so that it is available for re-use when the quarry is to be closed and the area rehabilitated. Where slopes are excessive and top soils have not formed the Engineer will waive this requirement. The Contractor is to work the quarry so that the open area is minimised by progressively rehabilitating the disturbed areas.

The location of crushing plants shall not be close to environmentally sensitive areas or to existing residential settlements, and shall be operated with approved fitted dust control devices. Enclosures may be required around crushing and screening plants. Solid barriers, such as bund walls and topographical features, provide the most effective 'in line' reduction of sound levels. Reliance on a barrier of vegetation alone will result in only marginal reduction in noise levels. Hydraulic rock breakers produce less noise than secondary blasting with explosives. In general operators should avoid using surface detonating cord for charge initiation. Sufficient stemming and appropriate delays between shot holes should always be used. Use of non-electric detonators has won widespread approval as the quietest delay system for initiating blasts.

Where substantial volumes of waste rock or overburden will be produced by the operation of the quarry, this material should be placed in properly designed dumps, which are located and shaped to blend in with the surrounding landscape. Costly reshaping of dumps during the rehabilitation phase is then avoided. Quarrying should be carried out in a series of working benches if the material is stable. Orientation of benches should take into account the underlying geology and vantage points from which the quarry is visible. All benches should be self-draining. Each bench should act as a table drain, carrying water along the bench to a suitable discharge point or settling pond. If drainage is allowed to flow down the face from one bench to the next, erosion will occur and the benches may be lost. Quarry faces should be screened from frequently used roads and commonly visited vantage points. Existing topographic features may be utilized as effective screens and any landscaping undertaken should be designed to be visually compatible with the surrounding natural landscape. Where practical, working faces should be oriented away from vantage points and neighbors and the direction of working should be carefully chosen so that the working face is hidden from the most critical view. Where possible, uppermost benches should be worked out and rehabilitated as soon as possible.

Rehabilitation includes the reshaping of the excavated area so that it drains and does not allow pools of water to accumulate in the bottom of the quarry. Topsoil is then re-spread over these areas and the area revegetated with trees so that the disturbed area will eventually develop as a forest. The Provincial Department of Forests will advise on suitable tree species. Revegetation is carried out as specified. Long slopes that will be susceptible to erosion will need to have small level bunds constructed across the slope to break up and redirect runoff away from the re-establishment area. Should the area not stabilise the Contractor will be required to repair the damage. The Engineer will inspect and approve the rehabilitation of the quarry when the Contractor has finished using it.

Closing and rehabilitation of the quarry pit is not a separate cost item and is to be included in the cost of material drawn from the quarry. Failure to reinstate any quarry areas to the required standard by the Contractor, may result in the Engineer undertaking the work using other resources and any payment made will be deducted from the Contractor.

**RELOCATION OF SERVICES**

**Description:** Services that may need to be removed/relocated/reinstated after road widening (ie. Electricity lines, water, telephone, irrigation channels, drains and any other installations along the road). In the event that services will need to be removed for road widening or other activities, the Contractor is to advise the Engineer of the services to be moved. The Engineer will advise and arrange this with the owner of the service.

**Construction Method:** Relocation of services shall be undertaken by the appropriate statutory authority. In the event that any services are damaged by the Contractor, he is to (i) report this to the Engineer and (ii) where safety is not an issue the Contractor is carry out repairs to the damaged services as an immediate task. Should the service be unable to be immediately re-instated the Contractor may be required to replace the lost services with other means and at the Contractor's cost. Payment for relocation of services is not made under the contract. All costs associated with the relocation of services incurred by the Contractor are deemed to be included in the rates.

**DUST CONTROL**

**Description:** Dust in residential areas can be a health problem and a nuisance to people living close to roads. Women and children who live in houses close to the road are most at risk. The Contractor is to suppress dust when it becomes a problem by regularly spraying water on the roads during construction. This is particularly important where the construction is being carried out within village areas or where the Contractor's vehicles are using unsealed roads through villages as haul roads.

Dust in work areas such as borrow pits and quarries can be a concern to workers. The Contractor will need to apply dust suppression in any borrow pit or quarry where the Contractor employs labour. Water tankers shall be used to spray water to control dust in roads and work places. In dusty work place conditions the Contractor will need to provide workers with face masks.

**Monitoring:** Monitoring of dust and dust suppression activities is the responsibility of the Contractor and shall be carried out to the required standard with regard to the community's interests. Should this not appear to be satisfactory, the Engineer can instruct the Contractor to spray water to suppress dust.

**NOISE AND VIBRATION CONTROL**

**Description:** Noise and vibration from construction equipment is a particular nuisance for people who are living close to the road. This includes houses, work and business areas, schools and medical centres.

**Mitigation Methods:**
*Noise:* The Contractor is to maintain silencers on all equipment to the manufacturer's standard. The Contractor is not to work between the hours of 22.00 and 07.00 within 500 m of houses or other permanent places where people live. The Contractor is required to provide suitable protective ear mufflers to workers who operate excessively noisy equipment.
*Vibration:* The Contractor is to seek the approval of the Engineer if vibratory equipment is to be used within 50 m of a building. The Contractor will be responsible for the repair of any damage to buildings that may arise from the use of vibratory equipment.

**Monitoring:** Monitoring of machinery for noise and vibration is the responsibility of the Contractor and is monitored with regard to the community's interests.

**BIOLOGICAL IMPACTS MANAGEMENT**

Disturbered areas on the ground will be kept minimal. No trees or vegetation cover will be removed without prior approval from the Site Engineer.

When works are carried out in waterways, the disturbed areas will be kept minimal. Stream flows must be maintained. All waste will be collected and disposed of properly, coffer dams will be removed , stream/river bed and bank will be reinstated to "pre-construction" state before construction works are completed.

**HANDLING OF FUEL, LUBRICANTS AND BITUMEN**

**Description:** Fuel, lubricant and bitumen spills can contaminate soil and water resources.

**Mitigation Methods:** Fuel, lubricants and bitumen are to be stored in approved containers. No refuelling is allowed on farmland or close to water courses where spillage may contaminate soil and water resources. All waste oil is to be collected and disposed of according to oil industry standards. Any spillage of fuel, lubricants and bitumen is to be cleaned up and contaminated soil removed and disposed of in a suitable place. Serious spillages are to be reported to the Engineer.

**Monitoring:** Monitoring of fuel, lubricant and bitumen storage and handling is the responsibility of the Contractor. The Engineer will inspect and approve the Contractor's fuel, oil and bitumen handling procedures as needed.

**EMPLOYMENT OF UNSKILLED WORKERS**

**Description:** Large numbers of unskilled workers employed from outside the local community and brought into the community may create several adverse social issues with the local community, including gambling, drinking and sexual activities. This may lead to conflict with the local community. Furthermore if the local community has not been consulted and given the opportunities for employment that the immigrant workers enjoy this may also be an area of tension between the local community and immigrant labour.

**Mitigation Method:** Preference for hiring unskilled workers shall be given to the surrounding community. In the event that unskilled workers will be hired by the Contractor, the Contractor will need to first discuss this with the Engineer who will advise the Contractor on this issue. If issues may arise they should not be accommodated within the community and camps should be located well away from the community. The Contractor will be required to provide the workers with suitable accommodation, potable water, cooking facilities, an energy source for cooking (gas or kerosene if wood is in short supply in the area), sanitation facilities, solid and liquid waste collection and disposal facilities.

When the worker accommodation site is no longer required the Contractor will be responsible for closing and cleaning the campsite. The Contractor will discuss worker hiring arrangements and accommodation sites with the Engineer who will approve the arrangements with regard to the location of the accommodation and the provision of facilities for the workers. When camps are closed the Engineer will be responsible for inspecting and approving the closed site.

**WORKER HEALTH AND SAFETY**

**Description:** The Contractor has a duty of care to ensure that safe and healthy work place conditions are provided for workers. Workers may be exposed to a range of adverse workplace conditions that includes dust and smoke particles, noise, material handling and hazardous chemicals.

**Method:** Where required the Contractor is to provide workers with approved safety and protective equipment. This may include safety helmets, dust masks, ear protection, eye protection and gloves for handling materials and hazardous chemicals. The contractors are requird to follow the World Bank Group Environmental, Health and Safety (EHS) Guidelines, which is available at http://www.ifc.org/wps/wcm/connect/ a99ab8804365b27aa60fb6d3e9bda932/EHS-Guidelines. The Contractor has the prime responsibility of monitoring worker and workplace health and safety conditions in accordance with the relative laws and standards.

**AIDS AND HIV AWARENESS**

**Description:** Staff and workers that are employed by the Contractor may be knowingly or unknowingly infected and may pass the disease on to the community. This is more of a concern where itinerant staff and workers may be residing within the community and may pass the disease on to the community by unsafe sex practices.

**Method:** The Contractor shall ensure that his workforce is aware of HIV/AIDS. Several methods are available and in small rural road and bridge projects awareness can be raised by the use of posters that can be placed in campsites and by formal discussion sessions with health workers from surrounding health centres. The Contractor shall ensure that such methods are employed. The Contractor is required to monitor worker awareness and submit awareness programs for approval by the Engineer.

**DISCOVERY OF CULTURAL ARTEFACTS**

**Description:** Excavation activities may uncover artifacts that are part of the nation's heritage and may be of particular interest to museums. If artifacts are discovered the law states that finds must be reported to the nearest office of the Ministry of Cultural Affairs.

**Procedure:** If cultural artefacts are uncovered the Contractor must stop work at the site, secure the site and inform the Engineer. The Engineer will inform the provincial representative of the Ministry of Cultural Affairs who will inspect the discovery and advise the Engineer as to what action is to be taken. Following a discovery and after securing the site the Contractor should arrange with the Engineer to move his activities to another site.

The Contractor has the prime responsibility of supervising excavation works. Should a discovery be made the Contractor is to cease work at that site and advise the Engineer. Any costs associated with the discovery whereby the Contractor is delayed or is unable to complete the work may be negotiated with the Engineer.

**USE OF WOOD FUEL**

**Description:** If wood resources are scarce in an area then other methods for heating bitumen and work camp cooking and heating should be considered. Where wood is in short supply, excessive use of wood will impact most on the poorest members of the community who have the least ability to substitute alternatives for cooking and heating. The use of wood in such situations needs to be carefully considered as otherwise social hardship and unsustainable extraction of this resource may occur.

**Procedure:** Where the Contractor proposes to use wood for road construction or worker camp activities the Engineer is to approve its use. Before approving its use the Engineer will verify with the local community that this will not create an excessive use on the surrounding forest resources to the detriment of the supply that is available for the local community's use.

**Mitigation Method:** Where wood is in short supply the Engineer will instruct the Contractor to use an alternative heating and cooking source such as kerosene or gas. The Contractor is to site all bitumen boilers downwind of buildings that are used for human habitation.

**ROAD SAFETY**

**Description:** Road safety concerns can arise during construction activities and following completion of the construction when the road conditions may be altered. Construction activities may create a series of hazards to road users by altering road conditions while the Contractor's vehicles will increase the volume of traffic travelling through urban areas. Following construction where the road conditions have been changed this will increase the traffic volume and vehicle speed. This could create road safety concerns which may become a particular concern in semi-urban and urban areas. School areas and school children who use the road are at particular risk.

**Procedure:** The Engineer will identify areas of road safety concern and determine suitable methods for reducing the road hazard to the users during and after construction. This may include the erection

of warning signs, traffic calming road measures, pull over areas and road safety awareness campaigns that are conducted at schools. Driver education and enforcement methods may also need to be considered. The Engineer will determine the level of risk and instruct the Contractor to erect safety fencing and warning signs during construction. Where road conditions will be changed after construction the Engineer will arrange to discuss the various road safety methods that are proposed with the local community. Following this the Engineer will instruct the Contractor which methods are to be used and arrange with the Contractor where signs are to be erected and changes that will be required in the pavement conditions to reduce the hazards. During construction the Contractor will arrange for temporary road signage and safety fencing. Where road construction has been completed road signs shall be progressively erected within these sections.

**Monitoring:** The Contractor shall provide and erect permanent road signs in accordance with the Contract Documents, drawings and/or as instructed by the Engineer.

**CHANCE FIND PROCEDURES**

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the Department of Culture and Information takes over;
- Notify the Supervision Engineer who in turn will notify responsible local or national authorities in charge of the Cultural Property of Viet Nam (within 24 hours or less);
- Relevant local or national authorities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding immovable remains of cultural or archeological importance) conservation, preservation, restoration and salvage;
- If the cultural sites and/or relics are of high value and site preservation is recommended by the professionals and required by the cultural relics authority, the Project's Owner will need to make necessary design changes to accommodate the request and preserve the site;
- Decisions concerning the management of the finding shall be communicated in writing by relevant authorities;
- Construction works could resume only after permission is granted from the responsible local authorities concerning safeguard of the heritage.

**Annex 5. Ethnic Minority Population in the Program's Fifty Provinces**

| Region | Province | Total Population | EM Population* | EM* (%) |
|---|---|---|---|---|
| Northwest | Dien Bien | 491,046 | 398,543 | 81 |
| | Son La | 1,080,641 | 899,542 | 83 |
| | Lai Chau | 324,325 | 281,571 | 87 |
| | Hoa Binh | 786,964 | 560,944 | 71 |
| North East | Bac Giang | 1,555,720 | 188,669 | 12 |
| | Bac Can | 294,660 | 254,178 | 86 |
| | Cao Bang | 510,884 | 483,539 | 95 |
| | Lao Cai | 613,075 | 390,936 | 64 |
| | Lang Son | 731,887 | 606,817 | 83 |
| | Yen Bai | 740,905 | 401,776 | 54 |
| | Phu Tho | 1,313,926 | 195,177 | 15 |
| | Ha Giang | 724,353 | 635,052 | 88 |
| | Tuyen Quang | 725,467 | 396,663 | 55 |
| | Thai Nguyen | 1,124,786 | 287,692 | 26 |
| | Quang Ninh | 1,144,970 | 133,186 | 11.6 |
| Red River | Ha Noi | 6,451,699 | 81,468 | 1.3 |
| | Hai Duong | 1,705,054 | 5,408 | 0.32 |
| | Vinh Phuc | 999,782 | 42,855 | 4.3 |
| | Ninh Binh | 898,995 | 23,416 | 2.6 |
| North Central Coast | Thanh Hoa | 3,400,584 | 599,268 | 17.6 |
| | Nghe An | 2,912,031 | 422,085 | 14.5 |
| | Ha Tinh | 1,227,037 | 2,168 | 0.2 |
| | Quang Binh | 844,892 | 20,426 | 2.4 |
| | Quang Tri | 598,322 | 69,434 | 11.6 |
| | Thua Thien Hue | 1,087,411 | 47,342 | 4.4 |
| South Central Coast | Quang Nam | 1,422,316 | 115,365 | 8.1 |
| | Quang Ngai | 1,216,771 | 161,617 | 13.3 |
| | Binh Dinh | 1,486,460 | 34,547 | 2.3 |
| | Phu Yen | 862,227 | 51,222 | 5.9 |
| | Khanh Hoa | 1,157,573 | 61,592 | 5.3 |
| | Ninh Thuan | 1,167,023 | 86,299 | 7.4 |
| | Binh Thuan | 564,993 | 132,594 | 23.5 |
| Central Highland | Dak Lak | 1,629,789 | 480,982 | 30 |
| | Dak Nong | 489,442 | 161,610 | 33 |
| | Gia Lai | 1,272,792 | 583,279 | 46 |
| | Kon Tum | 430,037 | 224,373 | 52 |
| | Lam Dong | 1,186,786 | 239,556 | 20 |
| Southeast | Binh Phuoc | 873,577 | 172,218 | 19.7 |
| | Dong Nai | 2,486,066 | 174,751 | 7.0 |
| | Tay Ninh | 1,066,448 | 16,072 | 1.5 |
| | Ba Ria - Vung Tau | 996,623 | 24,528 | 2.5 |

| | | | | |
|---|---|---|---|---|
| Mekong Delta | An Giang | 2,142,701 | 112,814 | 5.3 |
| | Can Tho | 1,118,388 | 36,133 | 3.0 |
| | Bac Lieu | 856,515 | 90,943 | 10.6 |
| | Ca Mau | 1,206,935 | 39,170 | 3.3 |
| | Hau Giang | 757,273 | 27,771 | 3.7 |
| | Kien Giang | 1,168,231 | 241,776 | 14.3 |
| | Soc Trang | 1,292,803 | 462,295 | 35.8 |
| | Tra Vinh | 1,002,988 | 325,339 | 32.6 |
| | Vinh Long | 1,204,702 | 26,910 | 2.7 |

*Source: Figues calculated based on the 2009 Population and Housing Census*

**Annex 6. Key environmental and social elements in PforR versus Government system requirements.**

| Key Environmental and Social Elements[39] | System Requirements |
|---|---|
| Program procedures are backed by an adequate legal framework and regulatory authority to guide environmental and social impact assessments at the Program level. | The Constitution (Articles 29 and 31) and various laws, including the LEP, which includes provisions relevant to the core principles. The LEP stipulates: (a) environmental standards (Chapter IX); (b) strategic environmental assessment, environmental impact assessment, and environmental protection plans (Articles 13-34); (c) Environmental protection during the usage of natural resources (Part 4, Chapter III, Articles 35-38), protection of water, soil and air environment (Articles52-55), environmental protection with regards to construction and transport (Article 73, 74), environmental protection in urban and residential areas (Articles80-81), solid waste management (Articles 85-86), wastewater management (Article 99); dust, gas emission, noise, vibration and radioactive management (Articles 102, 103); pollution management, environmental rehabilitation and improvement; prevention, adaptation and correction of environmental hazards (Articles 108, 109, 111). |
| Incorporate recognized elements of environmental and social assessment good practice, including early screening of potential effects. | A screening process is in place and based on the list of projects contained in Decree 18/2015/ND-CP, and consists of the following categories: (a) projects and programs subject to strategic environmental assessment (Appendix I); (b) projects that require the preparation of a full EIA (Appendix II ); (c) projects subject to EIAs reviewed and approved by MONRE (Appendix II I); and (d) projects that do not require an environmental assessment. (Appendix IV). |
| Identification of measures to mitigate adverse environmental or social impacts that cannot be otherwise avoided or minimized. | Circular 27/2015 provides templates for EPP, which includes: description of the project area, the list of fuels and materials to be used, environmental impact scoping and assessment; environmental mitigation plan and monitoring. |
| Avoid or minimize land acquisition and related adverse impacts. | No specific article addressing this issue, however, in the FS (or Economic and Technical Report), resettlement impact is usually discussed to strengthen the selected design.<br><br>The program may have minor resettlement impact (land acquisition, relocation) at the household level. The program may experience voluntary land donation practice. |

[39] Paragraph 20, BP 9.00 Program-for-Results Financing, February 2012.

| Key Environmental and Social Elements[39] | System Requirements |
|---|---|
| Identify and address economic and social impacts caused by land acquisition or loss of access to natural resources, including those affecting people lacking full legal rights to resources they use or occupy. | Impacts can be identified during the measurement exercise which is mainly focused on the area of acquired land. Livelihood and income pattern of AHs are generally not included in this survey. |
| Provide compensation sufficient to purchase replacement assets of equivalent value and to meet any necessary transitional expenses, paid before taking land or restricting access. | In principle, the 2013 Land Law required that the resettlement condition of affected people must be better or at least equal to the original living condition and the resettlement area must be planned as part of the whole provincial plan with access to good infrastructure. |
| Provide supplemental livelihood improvement or restoration measures if taking of land causes loss of income-generating opportunity (e.g. loss of crop production or employment). | Socio-economic impacts of a given program could be identified through the procedures and guidelines described in the 2013 Land Law and decree 47/2013/ND-CP. These documents laid out very detailed contents of compensation and resettlement plans (including inventory of losses, compensation, resettlement, relocation of public infrastructures, information disclosure and finalization of such plans). |
| Restore or replace public infrastructure and community services that may be adversely affected by the Program. | The 2013 Land Law provided that affected technical and social infrastructures will be compensated as newly built ones in accordance with the standard of competent ministries. |
| Undertake free, prior and informed consultations if the Indigenous Peoples are potentially affected (positively or negatively), to determine whether there is broad community support for the Program activities. | The Decree No. 05/2011/ND-CP of January 14th 2011 on activities related to ethnic minorities specified various supports to the maintenance of language, culture, customs and identities of these groups (Article 3). |
| Ensure that the Indigenous Peoples can participate in devising opportunities to benefit from exploitation of customary resources or indigenous knowledge, the latter (indigenous knowledge) to include the consent of the Indigenous Peoples. | All projects affecting land, environment, life of Ethnic Minority communities, to perform information disclosure and consultations with representatives of the local authorities, affected people, ensuring that affected people will be resettled (where unavoidable) in a better condition and in a culturally appropriate manner (Article 9). |
| Give attention to groups vulnerable to hardship or disadvantage, including as relevant the poor, the disabled, women and children, the elderly or marginalized ethnic groups and, if necessary, take special measures to promote equitable access to Program benefits. | This element is fully covered under Vietnam's current policies framework. This program itself also targets the poor and Ethnic Minority communes to enhance their accessibility to the basic social services such as piped water. In addition, poor and Ethnic Minority people are also benefiting from various Program-funded programs such as: Program 134, 135; New Rural Development Program 2010-2020; Program for the most difficul districts (program 30a). |