

- A. Project Title : Rehabilitation and Improvement of Banga-Libacao Road with Bridges
 B. Project Location : Municipality of Banga (Barangay Polo, Badiangan, Torralba & Daguitan)
 : Municipality of Madalag (Barangay Paningayan and Napnot)
 : Municipality of Libacao (Barangay Janlud)

The project is located in the eastern part of the province of Aklan that traverses 7 barangays from the town of Banga to Libacao. It is parallel to the Aklan River at the right lane of the road when going to Libacao. The terrain of the location is relatively flat and gradually sloping towards Libacao.

- C. Project Category : Rural Access (Road Rehabilitation and Improvement)
 D. Project Scale/Dimension : 12,740 Meters (12.74 Kilometers)
 E. Project Proponent : LGU-Province of Aklan
 F. Implementing Unit : Provincial Government of Aklan (PEO)
 G. Total No. of Barangays on the Municipalities of:
 Libacao : 24
 Madalag : 25
 Banga : 30
 H. Mode of Implementation : By Contract
 I. Road Influence Area (RIA)
 Libacao : 42,572.9250 hectares
 Madalag : 2,219.6045 hectares
 Banga : 2,271.383 hectares

Barangay	No. of has.	Crops
Libacao (to include the 22 barangays)	42,056.675	Abaca , Rice, Banana, Piña, Root Crops, vegetables, Fruits (lanzones, marang, rambutan, durian, oranges, mangosteen)
Poblacion	162.500	
Janlud	353.750	Abaca , Rice, Banana, Root Crops, Vegetables, Piña, Fruits (lanzones, marang, rambutan, durian, oranges, mangosteen)
Madalag:		Abaca , Coconut, Rice, Fruits, Vegetables, Corn, Root Crops,
Napnot	326.940	Rattan, Bamboo, Nito, Buri
	567.640	Abaca , Coconut, Rice, Fruits, Vegetables, Corn, Root Crops,
Paningayan		Rattan, Bamboo, Nito, Buri
Banga:		
Cerrudo	112.5371	Rice, Corn, Banana, Coconut, Bamboo, Fruit Trees, Vegetables, Root Crops, Legumes.

Daguitan	197.8050	Rice, Corn, Banana, Coconut, Bamboo, Lanzones, Rambutan, Marang, Vegetables, Root Crops, Legumes.
Torralba	543.5549	Rice, Corn, Banana, Coconut, Bamboo, Lanzones, Rambutan, Calamanci, Marang, Vegetables, Root Crops, Legumes.
Badiangan	447.7776	Rice, Corn, Banana, Coconut, Bamboo, Fruits (Lanzones, Rambuta, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Polo	243.1483	Rice, Corn, Banana, Coconut, Fruits (Lanzones, Rambutan, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Lapnag	123.8482	Rice, Corn, Banana, Coconut, Fruits (Lanzones, Rambutan, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Sigcay	213.5157	Rice, Corn, Banana, Coconut, Fruits (Lanzones, Rambutan, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Taba-ao	124.4683	Rice, Corn, Banana, Coconut, Fruits (Lanzones, Rambutan, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Bacan	169.5515	Rice, Corn, Banana, Coconut, Fruits (Lanzones, Rambutan, Calamanci, Marang), Vegetables, Root Crops, Legumes.
Poblacion	43.3979	Fruits: Rambutan, Lanzones, Calamanci, Marang), Vegetables, Root Crops, Legumes, Banana

J. Project Beneficiaries within the RIA

Municipality	No. of Population (2010 Census)	Based on Population Census 2007		No. of Households (2010 Census)
		Male	Female	
Libacao	28,005	14,580	13,425	6,170
Banga	13,018	6,823	6,195	2,600
Madalag				
Napnot	789	480	309	158
Paningayan	1,352	762	590	258
TOTAL	43,164	22,645	20,519	9,186

K. Total Project Cost and Cost Sharing:	
Total Project Cost Per (corrected & adjusted) Program of Works	: PhP173,190,079.27
Less (additional PLGU's Equity):	
a) 1.10-meter excess on proposed PCCP per PRDP guidelines of 5.00 meter width PCCP in the amount of	- PhP12,622,925.34
b) 1.10-meter excess in reblocking of PCCP	- <u>1,207,159.24</u>
Total Project Cost for Cost Sharing	: PhP159,359,994.69

World Bank Proceeds, 80% of TPC Limit of PhP10-M/km	: PhP127,487,995.752
GoP/DA, 10% of TPC Limit of PhP10-M/km	: PhP 15,935,999.469
LGU Equity, 10% of TPC Limit of PhP10-M/km	: PhP 15,935,999.469

Plus (PLGU's additional equity):	
a) 1.10-meter excess in proposed PCCP	: 12,622,925.340
b) 1.10-meter excess in reblocking of PCCP	: <u>1,207,159.240</u> : PhP 29,766,084.049

L. Economic Viability Indicators

ENPV	: PhP1,168,113,000.00
EIRR	: 129.6%
BCR	: 8.28

M. Conclusion and Recommendations:

The project is found to be feasible from the marketing, technical, economic and operational aspects.

It can be noticed that based on its economic analysis, the proposed rehabilitation and improvement of Banga-Libacao Road has greater economic indicators on ENPV, EIRR, and on the BCR. The proposed road project will cater 12,735.80 meters (12.74 kilometers) section of 21,525.51 meters (21.53 kilometers) stretch road that will focus on the project's net contribution to the economic welfare of the three communities, Libacao, Madalag, and Banga.

Given these results, the proposed project is economically viable and it is worth pursuing. In other words, "the greater the benefits, the better the project."

The project, therefore, is worth pursuing.

4.4 Social Analysis

4.4.1 Project Beneficiaries

It has long been dreamed by the people of Banga, Madalag and Libacao to bring into realization the development, improvement and concreting of Banga – Libacao Provincial Road.

The project beneficiaries of the proposed Banga-Libacao Provincial Road composed of three (3) municipalities namely; Banga, Madalag and Libacao with seven (7) covered barangays starting at Sta. 6+271.80 km., and traverses four (4) barangays of Banga (Polo, Badiangan, Torralba&Daguitan); two (2) barangays of Madalag

(Paningayan&Napnot); and one (1) barangay of Libacao (Janlud) ending at Sta. 19+007.60 km.

There are nine thousand forty five (9,045) households (PPDO data) project beneficiaries along Banga-Libacao Provincial Road for this subproject and will eventually support the I-REAP component projects under the Philippine Rural Development Project (PRDP) specifically those areas in Libacao, Madalag and Banga. The socio-economic status of the concerned municipalities is mainly dependent on agriculture especially Libacao having a land area of around 25,498 hectares (254.98 sq.km) (data from internet-http://en.wikipedia.org/wiki/Libacao,_Aklan) where abaca is one of its major product which is marketed not only outside Aklan and Region 6 but even outside the Philippines, whereas, Madalag with a land area of around 26,960 hectares (269.60 sq.km) (data from internet- http://en.wikipedia.org/wiki/Madalag,_Aklan) is also rich in abaca, root crops, banana, rice, fruits and many other agricultural products. On the other hand, Banga with an area of around 8,453 hectares (84.53 sq.km) (data from internet-http://en.wikipedia.org/wiki/Banga,_Aklan) is rich also in agricultural products especially fruit production (abundant in calamansi, rambutan, durian, marang and citrus), livestock, food processing (ASU, Banga) and other crops. Other beneficiaries are also engaged in backyard gardening, livestock and fruit production which could cater their daily basic needs. Economically wise, people from Libacao, Madalag and Banga go to Kalibo (capital town of Aklan) to bring their products and sell it there, likewise, do shopping and marketing. Students from these municipalities are also studying in ASU Banga and Kalibo respectively.

The first stakeholders consultation meeting was conducted last August 29, 2014 at the Conference Room, Provincial Governor's Office, Provincial Capitol, Kalibo, Aklan (see attached minutes of meeting). In attendance reflected in the minutes of the meeting were a total of 28 participants. The meeting was presided by Hon. Florencio T. Miraflores, Provincial Governor, with the presence of Hon. Teodorico T. Haresco, Congressman and attended by Punong Barangays/Representatives along Banga-Libacao Provincial Road, NGO Representative, Cooperative and Transport Groups. The thirteen (13) covered barangays accepted and supported the improvement/rehabilitation of Banga-Libacao Provincial Road through an issuance of Certifications for Public Acceptance and Barangay Council Resolutions. Among the thirteen (13) Punong Barangays, five (5) of them are women who leads their respective Barangays.

The meeting was started with an opening prayer, welcome remarks,introduction of stakeholders and followed by the meeting proper. Hon. Miraflores informed the stakeholders regarding the Philippine Rural Development Project (PRDP) and its project components (I-PLAN, I-REAP, I-BUILD & I-SUPPORT) which is funded by WORLD BANK, citing that the assistance of PRDP prioritizes the affected provinces of super typhoon "Yolanda". PRDP office hired a Consultant in the person of Ms.Jinra L. Demetrio. He also stressed out the counter parting of budget allocation. He informed the

body that the priority project for I-BUILD component is the concreting of Banga-Libacão Provincial Road and other provincial roads will follow. The Governor also mentioned commodities of I-REAP component such as Abaca Trading, Native Chicken Production, Coco-Based Copra Crude Oil, Copra Cakes and Oyster Mussel Production. Hon. Haresco suggested that they include cut flower production which was supported by Hon. Miraflores saying that the said cut flowers are in demand in Boracay where the province of Capiz is the main supplier.

The Provincial Engineer's Office (PEO) presented a power point presentation of the proposed Banga-Libacão Provincial Road improvement/rehabilitation project under PRDP.

The following are the issues and concerns raised by stakeholders facilitated through open forum:

- ✚ Brgy. Bacan, Sigcay, Tabacão and Torralba Banga – stagnant water near their Elementary School
- ✚ Brgy. Janlud, Libacão and Napnot, Madalag – replacement of pipelines
- ✚ Brgy. Daguitan, Banga – rehabilitation of bridge and construction of canal beside the road

These issues and concerns were answered by the PEO and clarified.

In the end the Punong Barangays signified their support of the proposed project by signing Certifications of Project Acceptance and providing Barangay Council Resolutions by the concerned Barangay Sanggunians.

The second consultation meeting was conducted with the stakeholders on November 11 – 14, 2014. There were seven stakeholders consultative meetings conducted throughout the said schedule and the venues were at the respective Barangay Halls of the seven Barangays traversed by the rehabilitation/improvement of Banga-Libacão provincial road project starting from Barangay Polo, in the municipality of Banga to Barangay Janlud in the municipality of Libacão. A total of six hundred sixty two (662) stakeholders attended the consultation meetings, 368 of which are females (56%) and 294 of which are males (44%). They have assured the provincial government of their full support in the successful implementation of the project.

The stakeholders' consultative meeting on the Rehabilitation/Improvement of Banga-Madalag-Libacão Provincial Road project under the Department of Agriculture-World Bank-funded Philippine Rural Development Project (PRDP), to be implemented by the Provincial Government of Aklan (PGA) was conducted by the Provincial Project Management Implementation Unit (PPMIU) Team composed of members from the project components namely: I-PLAN, I-BUILD, I-REAP and I-SUPPORT. The stakeholders are from the municipalities of Banga, Madalag and Libacão, all in the province of Aklan.

These seven (7) barangays (Polo, Badiangan, Torralba&Daguitan in the Municipality of Banga, Paningayan&Napnot in the Municipality of Madalag andJanlud in the Municipality of Libacao) traversed by the provincial road rehabilitation/improvement project were all consulted. The purpose of stakeholders' consultation meeting is to make the stakeholders aware of the above-mentioned project and to consult them with regards to any issues and concerns they are interested in and encourage them to accept the proposed project.

An overview of the Philippine Rural Development Project under the Department of Agriculture-World Bank – funded program was presented to the stakeholders. The Investment – Rural Enterprise on Agriculture and Fisheries Productivity (I-REAP) representative presented the different livelihood and commodities of the project. The I-BUILD member presented the scope of the project including the Detailed Engineering Design (DED) of the proposed Rehabilitation/Improvement of Banga-Madalag-Libacao Provincial Road and the I-SUPPORT member talked about the social and environment safeguards (SES) of the project.

After the PRDP project presentation by the PPMIU, it was followed by an open forum to address issues and concerns of the stakeholders in every barangay traversed by the project. The following are the issues and concerns raised particularly by women during the consultation meetings:

Barangay Polo, Banga, Aklan:

1. Ms.NelyRojero, raised a concern about an existing wooden bridge located on the creek which is near the existing gravel road. She said that during floods, many people use the bridge that might possibly collapse. She asked the PPMIU representatives if it is possible that they can also provide a sturdy bridge.
2. Ms.ErlynReambunanzawas concerned for the safety of the children in their school. She asked if the project would provide humps or road signs so that the vehicles will slow down.
- 3.Ms. Alicia Navarro, a farmer engaged in abaca production, asked the PPMIU representatives from the Agriculture Office/I-REAP Component if they are willing to give financial assistance if the residents want to venture into abaca plantation.

Barangay Badiangan, Banga, Aklan:

1. Ms.SantiagaIsaganraised a question pertaining to abaca production. She said that they have low income from their abaca plantation because they encountered problems on the sharing basis of profits which has three (3) parts and the income is very low.

Barangay Torralba, Banga, Aklan:

1. Ms.Lilibeth Valencia raised her clarifiedfor the width of the road because she thinks her house will be affected by the road project.
2. Ms. Ethel Onio asked if the abaca project is only for the people in the municipality of Libacao because she would also want to venture and join into the abaca project.
3. Ms.Anecita Villas asked the representatives if cross drains will be provided near her house because the said road portion is prone to flooding during heavy rains.

Barangay Daguitan, Banga, Aklan:

1. Ms.Emedio asked if her ornamental plants that are located beside the road it will be affected by the project.
2. Ms.SherlyNalanagay asked if her house near the bridge will be affected by the project.
3. Ms. Elsa Randoy asked if her sari-sari store near the road will be affected and if it is affected, will she be compensated for it.
4. Hon. Lolita Navida informed the PPMIU Composite Team, that there are three (3) Brgy. waiting sheds along the road and she asked if these will all be affected. She said that it is okay if the project will demolish it but she hopes that it will be reconstructed in the right place later on.

Barangay Paningayan, Madalag, Aklan:

None

Barangay Napnot, Madalag, Aklan:

1. Ms.Leizel Sotto asked if the project can also provide job employments to women during the road construction.
2. One participant (woman) pointed out a portion of the road that is a flood prone area.

Barangay Janlud, Libacao, Aklan:

1. Barangay Captain Ofelia Villorente asked if their waiting shed will be affected.
2. Ms.YolaliaSuguillon asked if her house near the waiting shed would be affected.
3. Barangay Captain Villorente asked if the project could provide employment during the road construction.

Another community consultation meeting was conducted last April 23-24, 2015 regarding the inclusion of reconstruction/ upgrading of five (5) bridges along the Banga-Libacao Provincial Road. The consultation was conducted in the respective barangays of Badiangan, Torralba and Daguitan in the municipality of Banga and barangay Paningayan in the municipality of Madalag (Please see attached minutes of the meeting).

To record all of what has been talked about during the stakeholders' consultative meeting, an electronic recorder was used. The Barangay Councils provided for the sound system and helped in the orderly conduct of the meetings. The consultation started from Brgy. Polo, Badiangan, Torralba and Daguitan in municipality of Banga, then in Brgy. Paningayan and Napnot in the municipality of Madalag and finally in Brgy. Janlud in the municipality of Libacao. (Please refer to the detailed minutes of stakeholders' consultative meeting with attached photo documentation).

4.4.2 Indigenous Cultural Community/Indigenous Peoples (ICC/IP)

The proposed road project is not within and will not traverse any ancestral domain nor affect any Indigenous People/Indigenous Cultural Communities (IP/ICC).

The Banga-Libacao Road subproject is located outside the ancestral domain hence it will not affect any Indigenous People (IP) and/or Indigenous Cultural Community (ICC). Aklanon-Bukidnon Tribe is located in the upper portions of Libacao (Dalagsaan, Oyang and Manika) and Madalag (Panipiason) which is more than 75 kilometers from the project site. The Provincial Government of Aklan through Hon. Florencio T. Miraflores, Governor, applied for a certificate of non-overlap (CNO) from the office of the NCIP Regional Office 6. (Please see Certificate of Non – Overlap on SES)

4.4.3 Site and Right-of-Way Acquisition

The proposed Rehabilitation/Improvement of Banga-Libacao Road network subproject will just confine its activities on the provincial road which has been existing now for more than fifty (50) years. No acquisition of right-of-way on both sides of the provincial road shall be conducted. The road width of the proposed project from Sta. 6+271.8 km to Sta. 14+605.89 km is 8.10 meters and from Sta. 14+605.89 km to Sta. 19+007.6 km the width is 7.10 meters except from Sta. 14+19.92 km to Sta. 15+92 km and Sta. 16+468.51 to Sta. 16+760.00 km which has a road width limit of 6.10 meters respectively.

The Department of Environment and Natural Resources (DENR) Province of Aklan has certified that as per verification from records on file, road sections of the proposed Banga-Libacao Provincial road project appearing in the cadastral map was surveyed only as Provincial road and that no claimant with corresponding lot number was surveyed through cadastral in that section of the Provincial road. The Provincial Assessor has also certified that the Banga-Libacao road is an existing provincial road.

These two (2) certifications complement and support the certification of the Hon. Governor of the Province of Aklan certifying exclusive ownership by the Provincial

Government of the Banga-Libacao Provincial Road. (Please see attached Certificate of Ownership)

The Provincial Government of Aklan has already served Quit Claims / Waivers to different stakeholders affected by the project. However as per the findings of the NPCO-PSO Joint Technical Review, there were six (6) Project Affected Persons (PAPs) that the PPMIU should verify on site if the lands are privately owned and if they are needed to be acquired, a Deed of Donation (DOD) shall be executed by each of the PAPs. The PPMIU conducted site verification last March 10-12, 2015 and found out that the said six (6) PAPs encroached the provincial road right of way (RROW) (Please see attached updated Form 1 and 2). The six (6) PAPs have signified their approval to the result of the verification conducted by affixing their signatures in the new PAPs format provided by NPCO-PSO Joint Technical Review (Please see attached Entitlement Survey for PAPs).

4.4.4 Damage to standing crops, houses and/or properties

The improvement/rehabilitation of the Banga-Libacao Provincial Road subproject will affect trees, temporary structures such as bamboo fences, bamboo garage among others and permanent structures such as cyclone fences with concrete hollow blocks (CHB) as per result of the survey conducted by the composite team represented by Barangays and Provincial Government Personnel on September 10-11 and November 18-21, 2014 (Please see attached Entitlement Survey Form for PAPs). A total of 27 standing trees mostly Mahogany species were inventoried by a composite team from DENR-Kalibo, the Provincial Government and representatives from the Municipalities affected on November 20, 2014 (Please see attached Inventory and Entitlement of Project Affected Trees). These project-affected trees were mostly planted by the Barangay governments of the municipality of Banga (Brgys. Polo, Badiangan and Torralba) along the provincial road traversed by the proposed rehabilitation/improvement of Banga-Libacao road. An application for clearance to cut the affected trees has already been submitted to the DENR Region 6 through the DENR-Kalibo CENRO office (Please see attached application for Clearance to Cut Trees).

4.4.5 Physical displacement of persons

The improvement/rehabilitation of the Banga-Libacao Provincial Road subproject will not displace any person/s as per result of survey conducted on September 10-11 and November 18-21, 2014 respectively by the composite team of the Provincial Government. The project will not result to relocation of houses.

4.4.6 Economic displacement of persons

The improvement/rehabilitation of the Banga-Libacao Provincial Road subproject will not result to economic displacement of any person/s as per result of survey conducted on September 10-11 and November 18-21, 2014 by the composite team of the

Provincial Government. The project will not result to loss of livelihood or reduce access of families to their traditional livelihood sources.

4.4.7 Grievance Redress Mechanism (GRM)

The Grievance Redress Mechanism (GRM) will be used to generate feedback from beneficiaries and resolve their complaints on project activities and performance. The mechanism will ensure that (i) the public within the project influence are aware of their rights to access, and shall have access to, the mechanism free of administrative and legal charges; (ii) that these rights and interests are protected from poor project performance, especially of beneficiaries and/or affected persons; and (iii) concerns arising from project performance in all phases are addressed effectively.

A GRM will be established within the MLGUs of Banga, Madalag and Libacao in support of the project in the said municipalities. The Program Support Offices and relevant local government units will make the public aware of the GRM through awareness campaigns, training and capacity building.

The PSOs, the RPCOs, and the LGU Governors/Mayor's Offices will each nominate and train one of their officers to be a Grievance Point Person (GPP) for project-related issues. The GPPs will be responsible for the initial screening of feedbacks and complaints, as well as, the organization of preliminary meetings with concerned parties to establish the critical path to resolution. A registry of feedback or grievances received will be maintained by the GPPs for reporting to the NPCO and the World Bank, specifically for associated follow-up, resolution or non-resolution of issues. Feedback/grievance registries will be consolidated by the NPCO for discussions on how to further enhance PRDP systems based on the feedback and complaints.

The PRDP Grievance Investigation and Resolution Process was adopted by the provincial government of Aklan and the municipalities concerned. Executive Order No. 002 Series of 2015 was issued by the provincial governor to establish the Grievance Redress Mechanism of the Province of Aklan for and in the implementation of the Philippine Rural Development Project. Consequently, Executive Order No. 013 Series of 2015 was issued to appoint Atty. Lee T. Manares, Provincial Legal Officer, Provincial Legal Office as the Grievance Point Person (GPP) for the Grievance Redress Mechanism of the province of Aklan. The municipal mayors of Banga, Madalag and Libacao appointed / designated a grievance point person in their respective municipalities. Ms. Neniveh R. Ron, Agricultural Technologist of the Municipality of Banga was designated by Hon. Erlinda Maming as the GPP for Banga, Mrs. Marriane N. Padalhin, OIC-MAO of the Municipality of Madalag was designated by Hon. Alfonso Gubatina as the GPP for Madalag and Ms. Cathy Cherrylane O. Gomben was designated by Hon. Vincent Navarosa as GPP for Libacao (Please see attached Executive Order for Grievance Redress Mechanism).

Grievance Investigation and Resolution Process

Households or groups of households wishing to provide feedback and/or complain about the effects of PRDP activities on their property, production system, economic well-being, spiritual life, environmental quality, or any other assets of their lives shall

make their complaint using the standard complaint form provided by the GPPs. The Grievance Investigation and Resolution process is outlined below:

a. Step 1: Feedback/Complaint Form will be accomplished by beneficiaries, affected persons (APs), households (AHs) or groups of households and sent to the GPP of the relevant body (PSOs, RPCOs or LGUs).

b. Step 2: Feedbacks and complaints will be recorded in the registry. In cases of complaints, the GPP will assess the validity of the grievance. If evaluated as valid, within 10 days from the date the complaint is received, the relevant LGU's GPP will organize meetings with the relevant agencies/contractors to discuss how to resolve the matter. All meetings will be recorded and copies of the minutes of meetings will be provided to beneficiaries or APs/AHs.

c. Step 3: The relevant LGU Governor/Mayor's Office shall take such mitigation measures as agreed in meetings from step 2 within 10 days, or some other period acceptable to the parties referred to in step 2.

d. Step 4: When the complaint is resolved, the Complaint Form shall be signed by complainant/head of household, the relevant LGU Mayor's Office and annotated at each stage of process by the relevant LGU with copies to be sent to the concerned RPCO.

e. Step 5: If no understanding or amicable solution is reached, or if no response is received from the relevant LGU Governor/Mayor's Office within 15 days after the registration of complaint, the APs/AHs can appeal to the relevant LGU Council (Sangguniang Bayan, Panglungsod or Panlalawigan). The relevant local council will decide and take mitigation measures within one month of receiving the appeal.

f. Step 6: If no understanding or amicable solution is reached, or if no decision or mitigation measure is received from the relevant LGU Council within 15 days after the registration of complaint, the APs/ AHs can appeal to the relevant RPCO GPP. The concerned RPCO will decide and take mitigation measures within one month of receiving the appeal.

g. Step 7: When the complaint is resolved, the Complaint Form shall be signed by complainant/head of household, the relevant LGU, the RPCO, and annotated at each stage of process by the GPP of the PSO.

h. Step 8: If no understanding or amicable solution is reached, or if no response is received from the relevant RPCO within 15 days after the registration of complaint, the APs/ AHs can appeal to the PSO GPP. The PSO will provide a decision and take mitigation measures within one month of receiving the appeal.

i. Step 9: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU, the PSO and annotated at each stage of process by the GPP of the NPCO.

j. Step 10: If no understanding or amicable solution is reached, or if no response is received from the relevant PSO within 15 days after the registration of complaint, the

APs/ AHs can appeal to the NPCO GPP. The NPCO will provide a decision and take mitigation measures within one month of receiving the appeal.

k. Step 11: When the complaint is resolved, the Complaint Form shall be signed by complainant/ head of household, the relevant LGU, and the NPCO with copies to be sent to WB.

l. Step 12: If the AP/AH is still not satisfied with the decision of the PSO in the absence of any response within the stipulated time, the AP/AH as a last resort may submit his/her case to the court, in which decision is final. (Source: Philippine Rural Development Project Operations Manual Integrated Environmental and Social Safeguards Framework; pp 34-35)

4.5 Environmental Analysis

4.5.1 Natural Habitat

The proposed Rehabilitation/Improvement of Banga-Libacao Provincial Road project is located outside the protected areas and any IP/ICC area. It is 12.5818 kilometers in length, flat to slightly rolling terrain traversing the municipalities of Banga, Madalag and Libacao. In terms of vegetation, commonly, ornamental, agricultural crops, fruit and forest tree species are present on both sides of the road. The road project runs almost parallel with the Aklan River which originates from the headwaters of Brgy. Dalagsaan in Libacao which traverses downstream to Madalag, Banga, Malinao, Lezo, Numancia and Kalibo. In Madalag, there are two (2) big rivers that connects to Aklan river namely; Dumalaylay and Timbaban river. There are already patches of erosion along the road which resulted from heavy rains and flash floods. There are portions of slopy terrains that necessitate slope protection. No endangered species can be found in this area, which usually thrive in the forested areas of Libacao and Madalag. Presence of a minifalls can be observed along the road located in Brgy. Daguitan, Banga, however, this road portion has already been improved for the past years.

4.5.2 Physical Cultural Resources

There are no structures, monuments or Physical Cultural Resources on site that will be affected by the subproject. The project site is not part of an important natural feature or landscape. The project will eventually improve the aesthetic value of the site and will enhance tourist potential that will result to increase in revenue generation of the province.

4.5.2.1 Chance Archaeological/Paleontological Finds

The proposed subproject site is not located near a known archaeological or paleontological site or within a potential archaeological or paleontological site. In case of chance finds or discovery of archaeological artifacts during construction, all activities in the affected site will be suspended while PRDP management reports the finds to and

coordinates with the National Museum or the proper government authority. The PRDP Chance Archaeological/Paleontological Finds Procedure for Subprojects will be adopted for the conduct of the project.

Chance Archaeological/Paleontological Finds Procedure for Subprojects

1. This procedure shall be made known to the Local Government Unit (LGU) Contract Administrator, the Contractor, the Site Engineer, all Construction Foremen and all On-Site Supervisors.
2. A copy of this procedure shall be made available at the construction site at all times.
3. Upon discovery of artifacts, bones or other objects of interests, all digging, drilling and other earthmoving activities within the radius of 10 meters from the discovery point shall be immediately suspended. The highest ranking officer of the Contractor present at the site must impose the suspension of activities and immediately inform the LGU Contract Administrator or if not available, the highest ranking LGU officer available.
4. The highest ranking officer of the Contractor at the construction site with or without the LGU Contract Administrator or LGU representative shall immediately take photographs of the artifacts, bones or other objects of interest. The photographs must be taken at closeups and at distant range or at wide-shots placing the objects at the approximately the same point and position where they were found and showing other markers.
5. The highest ranking officer of the Contractor at the site must ensure that the site is secured and any artifacts, bones or objects of interests already removed from the site must also be placed in a secured place or container.
6. The LGU Contract Administrator and/or highest ranking Officer from the LGU shall immediately report the discovery simultaneously to: (a) the Regional Project Coordination Office (RPCO) Social and Environmental Safeguards (SES) Officer and Engineer or if not available, the highest available ranking Officer of the RPCO; and, consistent with RA 8492, (b) to the National Museum.

The following are the contact numbers of the Archaeology Division of the National Museum:

Email: archaeology@nationalmuseum.gov.ph

Telephone Numbers:

Curator: (+632) 527-03-08 Administrative: (+632) 527-12-35
Records Section: (+632) 527-11-40
Underwater Telephone: (+632) 527-11-57

Photographs of the finds and the site shall also be sent to the RPCO SES Officer and to the National Museum, preferably through email.

7. The highest ranking LGU official at the time shall also immediately inform the local police and civil authorities who, consistent with Section 20 of RA 8492, shall preserve and protect the site from illegal exploitation until such time as the National Museum shall have established control over them.

8. Upon knowledge of the discovery and prior validation, the RPCO Head shall also inform the PSO Head and NPCO Head who shall coordinate with the National Museum on further actions or evaluations.

9. Depending on the National Museum's evaluation, actions and recommendations, the LGU, RPCO, PSO and NPCO shall then determine the fate of the Subproject.

10. Any delay due to suspension or any discontinuation or termination of the Contract through or as a result of the application of this Procedure shall be considered "force majeure" and hence the applicable provisions of the Contractors Contract (particularly, the provisions described in Section 20 of the General Conditions Philippine Bidding Documents) shall be applied. (Source: Philippine Rural Development Project Operations Manual; pp 142-143)

4.5.3 Terrain, Soil Types and Rainfall

4.5.3.1 Terrain

The topography of the proposed road project has a slope from flat (0%) to undulating (5%) to rolling (10%) terrains. Using the NAMRIA digitized maps, the total land area of the province of Aklan is about 190,240.48 ha and, as cited in the PDPFP (2008-2013), 98.89% of which, is in the mainland. The remaining 1.12 % is in six other separate small islands where Boracay is the biggest, and considered as among the world's top tourist destinations. The topography of Aklan province is characterized as quite varied; from relatively flat to rolling, to undulating, to moderately steep, to steep, and to very steep. As shown in the NAMRIA digitized maps, about 52,953 ha or 28% of Aklan province is considered as relatively flat to rolling, and about 135,083 ha or 71% is moderately sloping to very steep terrain which are mostly found in the western and southwestern portions along the mountain ranges in the municipalities of Madalag, Libacao, and Malinao. In addition, about 2,204 ha or 1 % is occupied by the inland water bodies.

The main anticline of Panay Island, composed predominantly of mezoic rocks, rises sharply from the seas surrounding the island's peninsula or "panhandle" which comprises the municipalities of Nabas, Malay, and Buruanga in Aklan, and those of Libertad and Pandan in Antique. As this anticline extends southward, this peak becomes higher and its area broader until the contiguous region with a width of over 40 km is reached, and over 1,500 m are common. These are mostly found Southern part of Aklan (Madalag and Libacao) along with the Eastern Antique (Tibiao) and Western Capiz (Jamindan).

4.5.3.2 Soil Types

As mentioned in the Aklan PDPFP, the following sedimentary rocks are found in the Province of Aklan: 1) Singit Formation; 2) Lagdo Formation; 3) Iday Formation; and 4)

Buenavista Limestone types. The Singit Formation is found in the mountainous areas of the municipalities of Libacao and Balete, while the Lagdo Formation can be found in the municipalities of Madalag, Malinao, Makato, Tangalan, and Ibajay. At the same time, the Iday Formation is found in the municipalities of Balete, Altavas, and Batan; while the Buenavista Limestone types are found in the low-lying areas and coastal zones of all the seventeen (17) municipalities of Aklan.

Soil types are categorized into undifferentiated: Sara Clay Loam, Umingan Sandy Loam, Alimodian Clay Loam, Sigcay Clay, and San Manuel Clay Loam, all considered favorable to most agricultural crops, fruit trees, and tree plantation.

Based on the Bureau of Soils and Water Management soil survey, the types of soils in Aklan include Alimodian Clay Loam, Sopian Clay, Sara Clay and San Rafael Clay Loam(<http://rfu6.da.gov.ph/agribiz/index.htm>).

4.5.3.3 Climate and Rainfall

The province of Aklan experiences two (2) types of climate categorized as Type I and III. Type 1 climate is characterized with pronounced maximum rain period. The eastern portion of the province experiences this Type of climate with two (2) pronounced seasons, dry from November to April and wet during the rest the year. Type III climate is characterized with no pronounced maximum rain period with short dry season relatively dry from November to April and wet during the rest of the year.

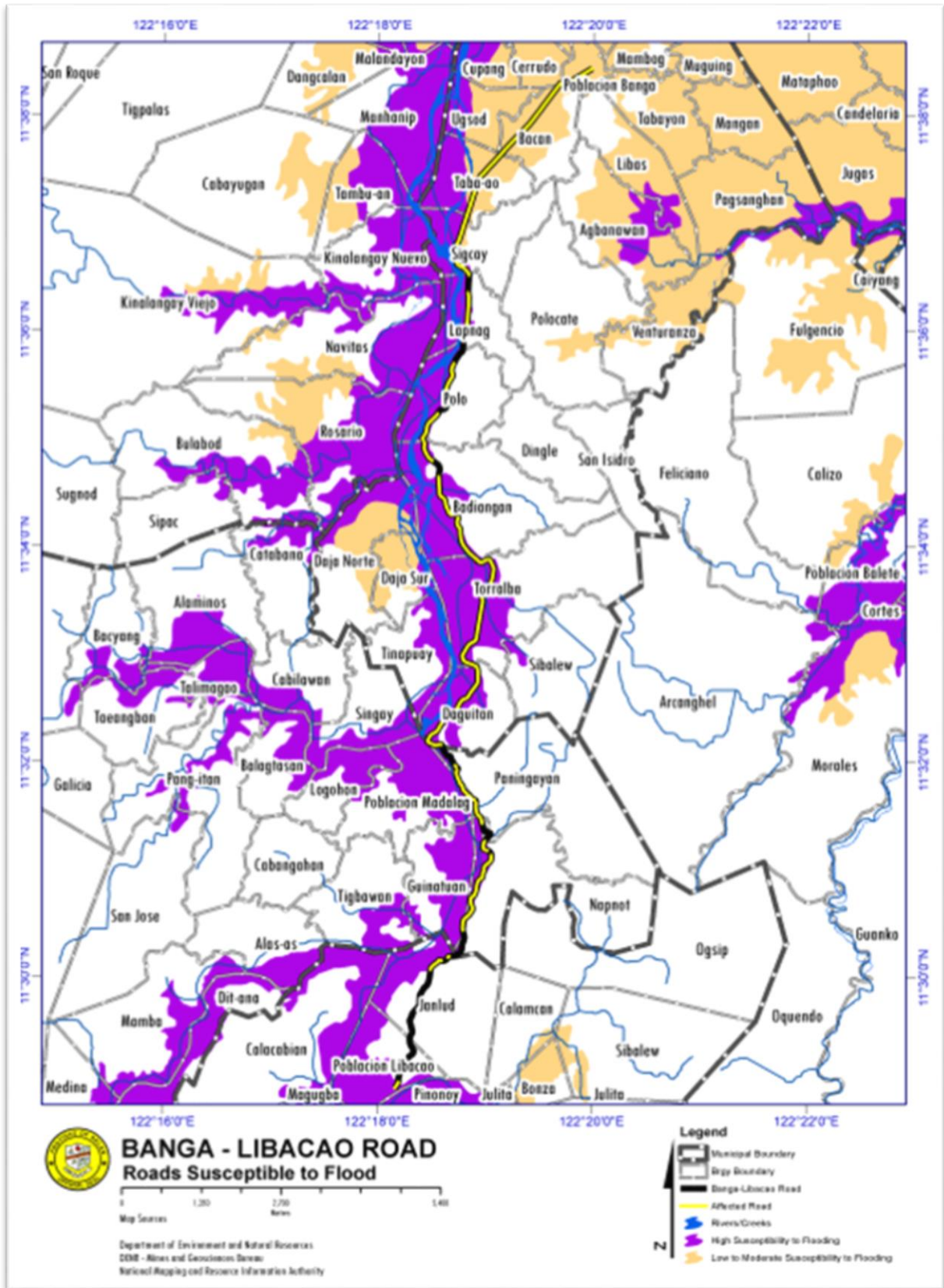
The rainfall in the province averages from 129.5 to 217.11 mm. The month of April has the least rainfall while October has the highest. The province has relatively wet climate from June to November until December.

4.5.4 Hazard/Risk Assessment (Drainage Situations, Erosion, Flooding Potential)

The flood plain in Aklan, where Aklan River runs, is relatively narrow compared to other major flood plain in the region. The flood plains hasan area of approximately 169 square kilometers covering thirteen (13) municipalities including the municipalities of Banga, Madalag and Libacao. Flooding occurs when heavy rainfall continue for sometime and overflow to low lying areas in every municipality.

The Barangays traversed by the Banga-Libacao Road have High Susceptibility to Flooding.(Please see Roads Susceptible to Flood, Banga –Libacao Road Map, Figure 2.0).

Most of the areas along the road has no sustainable side drains or line ditches and cross drains to maintain proper flow of water, allowing water runoff to just spread to low lying areas including road carriageways thereby damaging the surface of the road causing erosion in the vicinity. With appropriate engineering design on drainage structures, vulnerability to flooding of the areas affected will be minimized.



4.5.5 Status of Environmental Clearances

The Provincial Government of Aklan has already submitted the application documents needed for the issuance of Environmental Compliance Certificate (ECC) to the Environmental Management Bureau of the Department of Environment and Natural Resources, Region 6 (DENR-EMB Region 6) and is now waiting for its issuance (Please see attached received application to DENR). The issuance of this clearance was based on the submitted required documents for the rehabilitation and improvement of Banga-Libacao Road including reconstruction/upgrading of five (5) bridges prepared by the Provincial Engineering Office as requested by the DENR-EMB region 6.

4.5.6 Social and Environmental Impacts

4.5.6.1 Site and Design Consideration

The proposed project is the rehabilitation and improvement of the 12,581.80 kilometer section of the Banga-Libacao Provincial Road starting at Sta. 6+271.80 km and ends up at Sta. 19+007.60 km, and traverses four (4) barangays of Banga namely: Polo, Badiangan, Torralba & Daguitan; two (2) barangays of Madalag (Paningayan & Napnot); and one (1) barangay of Libacao (Janlud). It has 3,141.45 meters of concrete road and 9,440.35 meters of gravel road that needs to be concreted.

The Road does not encroach into or traverse any declared protected area of natural habitat (e.g. natural parks) and will not in any way alter, damage or render inaccessible any cultural resources, structure or heritage site.

Current road surface condition is generally good, and the topography has a slope from flat (0%) to undulating (5%) to rolling (10%) terrains. Soil erosion and relatively steep cliffs are observable at the left and right side in some sections of the provincial road which necessitate slope protection. Some existing cross drains are clogged up that needs clean up; drainage structures must be provided and/ or rehabilitated (e.g. cross drainages) and line ditches along selected portions of the proposed road project must be established in order to prevent the area of flooding during heavy rains. Side ditches are non-existent in most sections and the scouring velocity of the run-off water is high in steeper slopes. Aklan River runs almost parallel to this provincial road. Aklan River is a good source of aggregates that can be used for the rehabilitation of the road and its proximity can contribute in reducing the cost of materials to be used for the said project. Necessary testing has to be conducted to determine the quality of the aggregates in Aklan River for road surfacing/concreting.

There are ten (10) bridges traversed by the proposed project. After assessment, four (4) bridges need to be rehabilitated/reconstructed and one (1) bridge needs to be upgraded. The four bridges that need rehabilitation/reconstruction are located in the Barangays of Torralba, Badiangan, Daguitan and Paningayan; and one (1) bridge that needs upgrading is located in Barangay Torralba. Barangay Torralba therefore has one bridge that needs rehabilitation/reconstruction and another for upgrading. The

dimensions of the bridges for rehabilitation/reconstruction in Barangays Torralba, Daguitan and Paningayan measures 12m in length by 7.32m in width while the bridge in Barangay Badiangan measures 21m (L) by 7.32 m (W). The only bridge for upgrading located in Barangay Torralba measures 6m (L) by 7.32 (W).

During the rainy season, however, this road section is still passable to all types of vehicle. Annual average daily traffic for this road section is at 839 vehicles per day or 527 passenger car units (PCU) based on PEO's 2013 traffic survey.

The Banga-Libacao Road provides access to agricultural products of the communities of Banga, Madalag and Libacao; primarily, abaca, rice, fruits, root crops, coconut, copra, bananas, vegetables, mungo, peanuts, and ambulong thatches and shingles. This road project will enhance transport of agricultural products and other commodities from and to Libacao which is the prime source of abaca, banana, copra, rice, lanzones, bamboo and corn.

The provincial road section connects to the National highway, thereby providing access to major local government institutions and social service providers. It also leads towards Barangay Oyang, which is now slowly gaining popularity for its wild river rafting activity and Mangayaw Falls in Barangay Magubahay, Guadalupe, both in the Municipality of Libacao. It completes the Province's circumferential road traversing the Municipality of Madalag through the newly constructed Guadalupe Bridge towards the western section of the Province and finally towards the Province's capital town of Kalibo. The project will directly benefit 43,164 residents of the three municipalities. It will also indirectly benefit the residents of Poblacion, Madalag and of its neighboring barangays because of the decrease in travel time and consequently decrease transportation expenses.

Road width for Banga-Libacao Road varies from 6.10 to 8.10 meters. There are no significant environmental impacts in the rehabilitation/upgrading of this road section considering the fact that the road has long been existing. No Indigenous persons are residing along the road section as well. The area is generally peaceful.

The Contractor shall be solely responsible for the remedy or mitigation measure(s) required by the environment-related effects of any of his construction or construction-related activities. In case of an environmental problem, the Contractor shall immediately notify the Provincial Engineer, and provide a proposed course of action to take.

- (a) Temporary Erosion and Sediment Control – Erosion and sediment control in construction areas will prevent sediment discharge to nearby streams and river. Areas cleared of vegetation for construction and roadway development should be minimized and slopes should be stabilized. Overland drainage should be controlled to prevent channelling and sediment transport by diverting flows from areas where soils are exposed, and/or by providing filter barriers like silt traps or settling basins to remove sediment before the runoff is discharged to surface waters. The Contractor shall implement the following preventive measures:

- (i) The Contractor shall conform to the environment laws and other relevant legislation of the Philippines.
- (ii) The Contractor shall be responsible for ensuring that no earth, rock or debris is deposited on public or private right-of-way as a result of his operations, including any deposits arising from the movement of Construction base camp or vehicles.
- (iii) The Contractor shall at all times ensure that all existing stream sources and drains within, and adjacent to, the Site are kept safe and free from any debris and any excavated materials arising from the Works.
- (iv) The Contractor shall construct, maintain, remove and reinstate as necessary temporary drainage works and take all other precautions necessary for the avoidance of damage by flooding and silt washed down from the Works.

(b) Construction Noise Mitigation

There are houses and other establishment already constructed along the Banga-Libacao Provincial Road. Appropriate measure shall be undertaken by the Contractor to ensure that work carried out, whether on or off the site, will not cause any unnecessary or excessive noise which may disturb local inhabitants.

(c) Proper Handling of Construction Wastes

Temporary waste disposal facilities must be provided to minimize the amount of site litter, and assurances should be made by the LGU that these wastes will be collected and properly disposed of in accordance with government regulations.

- (d) Safety – Safety of Workers and the public must be given priority. Standard construction safety protocols must be observed.

4.5.6.2 Status and Condition of Quarry Sites

The permitted quarry sites of sand and gravel in the province of Aklan are located along Aklan River, Ibajay River and other tributary streams in the municipalities of Malinao, Lezo and Nabas.

Abundant supply of sand and gravel is generally found in the stretch of the Aklan River, the longest and largest river in the province of Aklan. The natural flow of surface runoff that originates from southern and southwestern boundary of the province beyond the municipalities of Libacao and Madalag which causes deposition of high grade quality sand and gravel along the Aklan Riverbed. Sandbar formations are prominent in the stretch of Aklan River.

Quarry operators/permittees are in the municipalities of Kalibo, Banga, Ibajay, Numancia, Lezo, Malinao and Nabas. Quarry permittees apply for the extraction of sand and gravel ranging from five thousand (5000) to fifteen thousand (15, 000) cubic meters for Commercial Sand and Gravel (CSAG) permittees and ten thousand five

hundred (10, 500) cubic meters per year for three year term for Industrial Sand and Gravel (ISAG) permittees.

The approximate volume of sand and gravel that could be extracted from Aklan River alone could reach one million cubic meters (considering 1.5m depth of extraction) as assessed by the project development officer of Aklan Environment and Natural Resources Office (AKENRO). There are also seven barangays in the municipality of Ibaday, Aklan which have quarry operators / permittees or applicants.

Under the standard procedure in the issuance of ECC to the permittee by the DENR allocation clearance approved by DENR-MGB Region VI is conducted before the approval of the ECC to the permittee. All permittees are required to submit an Annual Environmental Protection and Enhancement Program by the Mines Rehabilitation Fund Committee chaired by the Regional Director of the Mines and Geosciences Bureau Region VI.

There are numerous quarry sites in Aklan River and the distance of each from the project site varies from 0.5 to 10 kilometers. The potential impacts on existing road ways of these quarry sites are minimal since these quarry sites are already existing.

Roads could become powdery during dry days and might become a source of dust generation that might as well affect the health of the nearby residents. The road could also become muddy during rainy days. The generation of dust can be mitigated by sprinkling of road (including access roads) during dry days, and filling up of potholes during rainy days, especially in residential areas. Speed limits should be set up for vehicles, especially within residential areas. Regular engine check up for vehicles and equipment shall be conducted to reduce carbon monoxide emission. The contractor shall be responsible in the implementation of the mitigating measures discussed herein (Please see attached geo-tagged photos of Sand and Gravel Quarry Sites).

4.5.6.3 Status of DA's and local programs on Integrated Pest Management (IPM)

The Provincial Government of Aklan under the Office of the Provincial Agriculturist (OPA) has various commodities to be given emphasis/priority, specifically the IPM/Crop Protection aspect as one of the major component in crop production.

One of the prime dilemmas of our farmer to cite is the insect pests and diseases outbreak associated with our erratic weather condition that cause yield reduction. The municipalities of Banga, Madalag and Libacao availed of Farmer's Field School (FFS on IPM/Palaycheck System/Palayamanan) wherein, the good news, the augmentation of Farmer Leaders so called Local Farmer Technicians (LFT's) assist our Agricultural Extension Workers (AEW's) within the area to render technical assistance needed by their co-farmer in the limited AEW's due to their retirement.

To sustain the program implementation there is a need to continue this conduct of FFS training to saturate all barangay about the new technology to help improve/increase their production. The farmers also need recommendation for fungicide/bactericide /zinc phosphide and etc. Close monitoring/regular monitoring are needed for immediate solution. Another strategy is to conduct BantayPeste Brigade training to the said municipalities for reliable data collection.

4.5.6.4 Assessment of Concrete Batching Plant

A concrete batching plant and a transit concrete mixer may be used for the project construction depending on the contractor whichever is applicable. In order to further reduce the environmental impact, apart from the requirement of DENR for concrete batching plant operation, best practice will be done by the contractor to mitigate possible potential impacts. All mitigating measures on all possible potential impacts in the operation of a concrete batching plant should be stipulated in the contract between the provincial government and the contractor.

Some of the environmental impacts that could result from the operation of concrete batching plant include the generation of dust, noise and solid waste generation. This can be mitigated by watering of road surfaces during hauling of mixed concrete by transit mixers, on-site vehicle speed control and covering/dampening of stockpiles in dry/windy conditions. Also the use of quiet powered mechanical plant and full enclosure for the noisy component of the plant; all concrete mixing done inside plant and the batching plant site location must be far from residential areas. Avoidance of operation schedule during wee hours will be practiced. Site management, segregation of waste, and waste minimisation shall also be practiced.