# Initial Environmental Examination

February, 2016

VIET NAM: INTEGRATED RURAL DEVELOPMENT SECTOR PROJECT IN THE CENTRAL PROVINCES (Additional Financing)

SUBPROJECT: UPGRADING DAI GIANG RIVER DIKE SYSTEM, THUA THIEN HUE PROVINCE

#### **CURRENCY EQUIVALENTS**

(as of 05 November 2014)

Currency unit – Vietnamese Dong (VND)

VND 1.00 = \$0.0000470 \$1.00 = VND 21,265

#### **ABBREVIATIONS**

ADB Asian Development Bank

AP Affected persons

CPC Communal People's committee
CPMU Central Project Management Unit

DARD Department of Agriculture and Rural Development

DONRE Department of Natural Resources and Environment

DPC District People's Committee

EIAR Environmental Impact Assessment Report
EMDF Ethnic Minority Development Framework

EMP Environmental Management Plan
EPP Environmental Protection Plan

DARD Department of Agriculture and Rural Development

FPD Forest Protection Department

IEE Initial Environmental Examination

IPM Integrated Pest Management

IRDPCP Integrated Rural Development Project in Central Provinces

LIC Loan Implementation Consultant

MONRE Ministry of Natural Resources and Environment

PC People's Committee

PPC Provincial Peoples Committee

PPMU Provincial Project Management Unit

RF Resettlement Framework

SIR Subproject Investment Report

The Subproject Upgrading Dai Giang River Dike system

TPC Town People's Committee

UXO Unexploded Ordnance

#### **WEIGHTS AND MEASURES**

km – kilometer

kg – kilogram

ha – hectare

m – meter

#### NOTE

In this report, "\$" refers to US dollars.

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#### 1. INTRODUCTION

- Loan 2357(SF) for the Integrated Rural Development Sector Project in the Central Provinces (IRDPCP) was approved by ADB on 15 October 2007. The total cost of the Project was estimated at \$168.2 million and is jointly financed by ADB and Agence Française de Development (AFD). The IRDPCP focuses on upgrading and rehabilitating rural infrastructure (rural roads and irrigation systems, flood control, markets and other key infrastructure). To date, 129 subprojects have either been completed or are nearing completion. Review missions had determined that the quality of construction of subprojects was good. The executing agency (EA) has developed the expertise needed to effectively implement the project and significant benefits are already accruing.
- 2. At the request of the Government, the potential for additional financing was investigated during the Mid-Term Review in 2011 and two review missions in 2012. About 39 new subprojects were found eligible for consideration in the additional financing. The amount of \$70 million has been recommended and included in the country program for ADB Board consideration in 2013. The IRDPCP - Additional Financing (the Project) aims to rehabilitate and upgrade deteriorated critical productive rural infrastructure in support of the Government of Viet Nam's new National Target Program for Rural Development (NRD).
- In consultation with the relevant provincial government and field investigation by the CPMU, a total of 23-24 eligible subprojects were initially identified based on 7 screening criteria which are focused on social economic development, safeguards, integrated development model, feasibility and sustainability. The types of subprojects are as follows:
  - i. Small & medium-sized dam and reservoir improvements e.g., spillways, head-works, reservoir walls, and leakage control;
  - ii. Rehabilitation of primary and secondary irrigation canals and river bank stabilization. Wherever possible key strategic investments such as the lining of critical lengths of canal or the reinforcing of existing water control structures will be chosen; and
  - iii. Rehabilitation of commune to district, and inter-commune roads to improve linkages between higher level alignments (provincial and national routes) and lower level commune to village and inter-village roads. In addressing key issues of sustainability, designs will take into account the increased intensity and frequency of climatic hazards anticipated to result from global climate change, the local geology and terrain, potential change in utilization patterns (type and volume of traffic), and the longer-term availability of recurrent expenditure for operations and maintenance (O&M).
- As part odd the IRDPCP, UPGRADING DAI GIANG RIVER DIKE SYSTEM subproject (The Subproject) will be constructed in 4 communes, including Vinh Thai, Vinh Ha communes -Phu Vang district, Thuy Phu commune - Huong Thuy town and Loc An commune - Phu Loc district - Thua Thien-Hue province.
- This Initial Environmental Examination (IEE) document has been prepared to meet the environmental safeguards requirements of the ADB<sup>1</sup> and GOV<sup>2</sup>. The IEE contains the following information:
  - Section 2 contains a description of the subproject;
  - Section 3 contains a description of environmental conditions in the vicinity of the subproject:
  - Section 4 contains a describes potential environmental impacts of the subproject;

<sup>&</sup>lt;sup>1</sup> ADB Safeguard Policy Statement (2009)

<sup>&</sup>lt;sup>2</sup> Law on Environment Protection (Revised) 2006; Decree 29/2011/ND-CP and Circular 26/2011/TT-BTNMT

- iv. Section 5 contains the environmental management plan including mitigation measures, monitoring system and cost estimation for Environmental Monitoring System (EMS) implementation;
- v. Section 6 contains activities description on community consultation and subproject disclosure;
- vi. Section 7 contains conclusion and recommendation including summarization of main impacts and typical mitigation measures in the subproject's implementation.

#### 2. PROJECT DESCRIPTION

Table 1. General information of subproject

DATA ITEM	SUBPROJECT DATA
GENERAL INFORMATION	
Subproject Name	Upgrading Dai Giang River Dike system
Subproject Type	Flood protection
Executing Agency	People's Committee of Thua Thien Hue Province
Sub-project owner	Department of Agriculture and Rural Development, Thua Thien Hue Province
Sub-project Management Unit	PPMU of IRDPCP, Thua Thien Hue Province
Address of Project owner	No. 7, Dong Da Str, Hue city, Thua Thien Hue province
Name and Title of Head of Project owner	Mr. Ho Sy Nguyen Title: Director
Telephone, fax and email details of	Tel: 054.3834957 Fax: 054.3834922
Project owner	Email: duanptntth.hue@gmail.com
Name of Environmental Officer of PPMU	Mr. Diep Minh Phong
Telephone, fax and email details of	Tel 0905979676
PPMU Environmental Officer	Email: duanptntth.hue@gmail.com
	Tel 0905979676
SUBPROJECT DESCRIPTION	
New project or rehabilitation project	Rehabilitation and upgrading project. The subproject will rehabilitate a protection dike system cum management road with a length of 16.716 km, in which 7.544 km in right bank, 9.172 km in the left.
Surface water or ground water	Surface water
Determination of water source	Dai Giang and Nong rivers
Is this water used for domestic purposes or not?	No. The branch canals will be built for irrigation purpose. Local people use ground water for their living activities.
Identification of drainage basin area	To ensure 1461 ha of agricultural land not be flooded by small floods, early floods
Purpose of the subproject	The Subproject will contribute to poverty reduction for local people in Thuy Phu commune, Huong Thuy town, Loc An commune, Phu Loc district, Vinh Thai and Vinh Ha communes, Phu Vang district and through upgrading Dai Giang river dike system to prevent small & early flooding, and solving inundation problems for 1461 ha for 2 rice crops.
Width of dike surface & road	Width of the dike surface is 3m;
	Width of construction/management road is 3 m,
Length and Height of the dike	Dai Giang surrounding dike:

DATA ITEM	SURPRO	IECT DATA
DATATIEM	Total length: 16,716 m;	COLDAIA
	Dike elevation of the right bank:	+1 2 to + 1 5 m
	Dike level of the left bank: +1.2	
Number of culverts	Total 46 open & pipe culverts	
Length of management road	The same with the length of the	dike
Supplementary items		s, of which 04 open culverts for
Supplementary terms		oth drainage & taking irrigation
	Right Dai Giang bank: 21 culve & 11 pipe culverts for with diam	erts, of which 10 open culverts neter: 0.6-1.0 m
Number of flows running through the road	No major flows and lakes runnir	ng through the road
- River		
- Lake		
Other flows		
Number of hills and mountains crossing the road  - Hills	running around Dai Giang di	raded following the existing road ke. The upgrading road goes y paddy field, shrimp ponds, etc. n passing the road.
Mountains		- Passing and read
CONSTRUCTION ACTIVITIES	A 110040 / 1 1)	
Construction commencement date (month/year)	, ,	
Construction completion date (month/year)	April 2018 (as expected)	
Number of construction workers	Approximately 200 people	
Necessary camps (Yes/No)	Yes	
Construction in rainny season (Yes/No)	Yes (the construction will also be the rainy season to meet the de	e implemented in the dry days in adline)
Asphalt/ concrete mixing plants	No	
Number and condition of construction	Vehicle/equipment	Quantity
vehicles and equipment	Excavator (0.8 - 1.25m <sup>3</sup> )	4
	Crane	1
	Grader	1
	Concrete mixers	4
	Compactors	4
	Ttrucks of ≥ 5 ton type	7
Location and area of borrow area or	Sources of materials:	
description of material source	borrow pit located about 20km borrow pit at a distance of 17 - Filled soil for the left bank ca borrow pit. These two borrow licenses from Thua Thien Hue F 20 December 2014 for Ngoc Ho	
	from the subproject area aborderated under the permission district.	Thuy, Loc Dien quarries. It is far but 8-15 Km, which has been of local authorities of Phu Loc
	distance of 40 km from the subp	-
Quantity of cutting and filling soil	Quantity of excavating soil: 20,3	347 m <sup>3</sup>

DATA ITEM		SUBPROJECT DAT	ΓΑ	
	Quantity of filling soil			
	Quantity of spoiled so			
Method on management and balance of excavated soil/surplus soil	The route is upgraded based on the existing one, therefore, the quantity of excavated soil along the route will not great if compared with the compactness soil which is used for upgrading;			
Type and approximate quantity of raw	Item	Unit	Quantity	
construction materials	Concrete	m <sup>3</sup>	15,200	
	Stone	m <sup>3</sup>	8004	
	Steel	ton	569	
Quantity of solid waste generated from		volume: 102 m³/mon	th (according to SIR)	
construction (calculated monthly following m³)  - Soil, sand, debris, etc  - Domestic waste		mainly organic wa	aste or plants): 0.5	
Cut / fill balance and management measures for excess spoil	earth will be re-use (including the dike, s Spoils will be tran specified in the authorities and the ( will be transfer to the Vinh Ha commune w Spoil from the left	ed for filling purpossupplementary struct isported to authoriz Agreement Minutes Contractor. Spoil from temporary dumping which is 3.5 – 4 km find bank canal will be au Thanh hamlet, Li	d filled, the excavated ses in other structures dures and access road). Led dumping sites as a between the local of the right bank canaling site in Hamlet No.2, from the subproject site. Transfer to Ha Thanh oc An commune. (See	
OPERATION & MAINTENANCE ACTIV	VITIES	,		
Allowed velocity	15km/h			
Expected load	10 tons			
Expected traffic volumes	50 vehicles per day a	and night		
Descriptions of periodical maintenance activities		such as sinking, fallin	y year to ensure timely g, erosion, etc) and to	
	If necessary, the cor operation and mainte pruning.	nmunities will be mol enance activities like	bilized to support small dredging; weeding,	
	maintenance's budge Provincial fund (follo	et will be provided throwing the Decree 15 ster fee & Operation	every 5 years. Major rough Government and 54/2007/ND-CP of the on and Protection of	
Maintenance activities	Huong Thuy, Phu V for the Subproject's 0		PC will be responsible enance Organisation.	
	in comes to its op conditions is necess suitable remedies to might include: potho are: fix pot holes, dry	eration period, regu- sary to early detect ensure the work's lo- ples, water logging, ying water, replacing		
	maintenance and o	once per 25 years naintenance activities	years for medium for concrete roads. s are carried out in line	

DATA ITEM	SUBPROJEC	CT DATA	
Subproject capacity (household/hectare)	This objective will be achieved through protecting 1461 ha of paddy field for 2 rice crops		
	The improved levee dike system w road.	vill be used as inner field	
RESETTLEMENT AND LAND ACQUISITION <sup>3</sup>			
Number of Affected Households (AHs)	12		
Number of severely affected APs	None		
Number of APs that must relocate	None		
Total land area to be acquired (m <sup>2</sup> )	Temporary = 0	Permanent = 3,986 m <sup>2</sup>	
Agricultural land area to be acquired (m²)	Temporary = 0	Permanent = 3,949 m <sup>2</sup>	
Forestry land area to be acquired (ha)	Temporary = 0	Permanent = 0	
Aquacultural land to be acquired (ha)	Temporary = 0	Permanent = 0	
Residential land to be acquired(ha)	Temporary = 0	Permanent = 0	
Garden land to be acquired (ha)	Temporary = 0	Permanent = 37 m <sup>2</sup>	
Other land to be acquired (ha)	Temporary = 0	Permanent = 0	
SUBPROJECT COST			
Total subproject cost (VND and USD)	121,159,000,000VND (equivalent t	o 5,769,000 USD)	

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 $<sup>^{\</sup>rm 3}$  This data should be extracted from the subproject Resettlement Plan

BẢN ĐỐ VỊ TRÍ ĐỂ SỐNG ĐẠI GIANG TL 1/25,000 LEGEND: K2 Phu Bai - Vinh material N5 transportation quality road monitoring locations K1 Water quality N1-5 monitoring locations K3 Left Dike Material .63 X3-Viologii transportation road Right Dike Road No.1A So Thirting Nguyên xã Lộc Bốn GHI CHÚ: N3 Material transportation road

Figure 1: Map of the subproject location

## 3. DESCRIPTION OF EXISTING ENVIRONMENT

Table 2. Environmental baseline

DATA ITEM	SUBPROJECT DATA						
PROJECT LOCATION							
Commune (s):	Thuy Phu, Loc An, Vinh Thai and Vinh Ha						
District:	Huong Thuy, Phu Loc and Phu Vang						
Province	Thua Thien Hue						
Geographic location:	107 <sup>0</sup> 65' – 107 <sup>0</sup> 64' East longitude						
	16 <sup>0</sup> 42' – 16 <sup>0</sup> 41' North latitude						
PHYSICAL ENVIRONME	NT CONDITIONS						
Air quality, noise and vibration	Air quality & noise: Major activities in the subproject area are agricultural production activities There are no industrial parks and factories, thus the air is not polluted. Noise is mainly caused by the activities of local people, such as transporting, farming, aquaculture, etc.						
Climate and natural disasters	The rainy season occurs from September to December and the dry season occurs from January to August. There is no rainfall data in the subproject area. According to Physical Environment of Thua Thien Hue province in the website ( <a href="www.thuathienhue.gov.vn">www.thuathienhue.gov.vn</a> ). Average rainfall is about 2500 - 2.700mm /year, the annual average temperature is 25° C. According to the statistic from Hydrology and Meteorology Center, the rainy season is also the period for water rising with 2 storms/year cause flood; dike erosions; reduction of agricultural production; roads' deterioration. The annual storms also prevent transportation, reduce economic activities and impacts on other social services (such as education and health), etc.						
Topography and soils	This region is a plain area with flat terrain with sand, silt, soil salinity. In subproject area, there are mainly agriculture land, rice and vegetable planting land.						
Water bodies	There are Dai Giang river, Nong river and canals in the subproject area. There is no waste water of the subproject discharging into them. Water of the river and canals is mainly used for agriculture and domestic purposes.						
Underground water	Groundwater is at shallow layers. As observed, deep well is 4-6m from the ground surface. Ground water in some places is salinity or alkaline. This water has been so far used mainly for domestic consumption						
Water quality	There are some canals and Dai Giang and Nong rivers in the subproject area.						
	There is no data on the water quality in this area but as observed, there are signals of minor contamination caused by sediment, waste and salinity. However, water pollution by solid waste is at low level.						
Flooding	Main flood normally occurs from October to December and periodic minimum flood occurs from May to June. Early flood also occurs from August to September in the Subproject area. These floods caused frequently water logging in the Subproject area.						
Terrestrial flora and fauna	+ Terrestrial flora: mainly rice field and fruits and vegetables gardens in residential areas;						
	+ Terrestrial fauna: buffalo, cow, pig, chicken, ducks, etc.						
	+ Terrestrial flora and fauna in subproject area are not listed in Vietnam's Red Data Book.						
Aquatic flora and fauna	- Aquatic flora includes some algae species in Dai Giang river such as Cambomba Ceae, Allium ramosum and other surface plants.						

DATA ITEM	SUBPROJECT DATA					
	Aquatic fauna includes:					
	<ul> <li>Zooplankton: mostly mosquitoes (Anopheles) and crustaceans in different stages (Nauplius, Mysis, Copedoid, etc.)</li> </ul>					
	<ul> <li>zoobenthos: not relevant diversity, mostly prawns, Nipponense, Somanialthelphusma, Lynemaswinhoeni, etc.</li> </ul>					
	Aquaculture:					
	<ul> <li>Includes natural freshwater fishes such as carp, tilapia, mullet, Notopterus. In addition, there are some common fishes in rivers and streams in Thua Thien Hue province.</li> </ul>					
	<ul> <li>Moreover, feed fishes such as snapper, grouper, hypophthalmichthys, black carp, unisexed tilapia, etc. in rivers, streams, ponds and in the resident gardens to develop household economies.</li> </ul>					
	In the subproject area, there are no rare or endangered species recorded in Vietnamese Red Book.					
Protected areas	There is no natural or cultural heritage in the subproject area.					
SOCIAL ENVIRONMENT	CONDITIONS					
UXO	Probable					
Land use	Land is mainly used for agricultural production; aquaculture cultivation; the local people have good skills in intensive farming.					
	The surrounding areas are mostly paddy fields and aquaculture fields and residential land.					
Nearest residential land	Residential areas are located along the dike including Kenh Tac hamlet, Vinh Thai commune, hamlet 10, Thuy Phu commune; residential land is located at road edge; The distance between residential houses and the subproject road ranges from 3m to 20m;					
Rural infrastructure; Access to Water Supply & Sanitation and Solid	Education: The subproject communes have intensively invested facilities and equipment for teaching and learning activities. There are kindergarten school, primary and secondary schools in the area.					
Waste Management	Power: For all communes under the subproject, national electricity grid is available.					
	Water: Local people use tap water for domestic purposes, some households use water from Dai Giang river for their domestic purposes.					
	Water drainage: Domestic wastewater is discharged into the ditches in the front of their houses or discharge directly to Dai Giang river. Recently, there is a proposal of domestic solid waste collection serving households in the project area.					
	Domestic waste is collected and transported to temporary waste storages in the commune and then will be transported to the district landfill to treat.					
	The road is upgraded on existing route with the different of road width on sections for effects on works like houses at road sides can be minimized;					
	The electric and communication cables were arranged in parallel with the route; therefore, route construction will have effects on some local infrastructure works such as electric cables.					
Agriculture and	- Agriculture: rice, maize, peanut, bean, etc.					
aquaculture	- Aquaculture: aquatic product farming over the wetland, stream					
Population	Direct beneficiaries: 11,678 people in Thuy Phu commune; 11,926 peoples in					
	Loc An commune, 6550 peoples in Vinh Thai commune and 10,139 people in					

DATA ITEM	SUBPROJECT DATA					
	Vinh Ha commune.					
	- Average population density: 246 - 445 people/km²					
Ethnic minorities	There are no Ethnic minority groups in the subproject area					
Livelihoods	The main employment of the community is agriculture and handicraft production, occupying 98% of the local population.					
	The average income is VND 16.8 - 27.3 million/person/year <sup>4</sup>					
	The level of poverty (following the new poverty line made by the Government): number of poor households makes up 6.52% - 17% of the population.					
Physical and cultural heritage	There is no cultural heritage or preservation area in the subproject region;					
Public health	Diseases which often occur in the summer are diarrhea, petechial fever					
	Besides, there are respiratory diseases like sore throat, sinusitis					
Environmental sensitive points	<ul> <li>Kenh Tac temple, a kindergarten and a primary school in Kenh Tac hamlets, Vinh Thai commune, about 30-50 m to the site</li> </ul>					
	<ul> <li>Residential areas in Kenh Tac hamlet, Vinh Thai commune, hamlet 10, Thuy Phu commune, about 20 m to the site</li> </ul>					

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 $<sup>^{\</sup>rm 4}$  Source: PPMU of Thua Thien Hue province, SIR of Upgrading Dai Giang dike, 2014

## 4. ENVIRONMENTAL IMPACT SCREENING

Table 3. Environmental impact screening

		POTENTIAL IMPACT		т				
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE			
Pre-Construction	Pre-Construction Stage Impacts							
Plan Spoil and Waste Disposal	Yes	N/A	N/A	N/A	Waste Management and Spoil Disposal Plan is prepared for handling, storage, treatment, transport and disposal of solid and liquid wastes, hazardous materials, hazardous wastes and excavation spoils. Ensuring disposal of excavation spoils will not cause negative visual impacts. The plan will also provide details of a trip ticket system to ensure that contractors dispose excavation spoils in approved areas. Such system will be designed so that the PPMU and construction supervisors could readily monitor the volume and disposal site of excavation spoils, and to ensure that the total volume of spoils disposed will not exceed the maximum capacity of disposal site (landfill). Domestic waste collection and management also need to set plan during this phase to avoid missing implementation resources and sanitation issues on the site.			
Disturbance of UXO	Yes	Minor	Negative	Temporary	Description: UXO can be left in some areas that have not been used for construction. Mine detector in subproject area may obstruct moving or agricultural works of local people. However, to help in securing safety for people UXO clearance team will be hire from Provincial Military Command.  Location: Along the dike.  Objects: Local people living in the subproject area.  Affected level: Minor due to this affect will be temporary and can be controlled by hiring mine detector team.  Time of impact: Temporary			

Upgrading Dai Giang river dike system Integrated Rural Development in Central Provinces Project

	POTENTIAL IMPACT							
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE			
Effects on households by the loss of residential or agricultural land	Yes	Minor	Negative	Permanent	<ul> <li><u>Description:</u> No households must relocate in the subproject area. The upgrading the dike affects 3,949 m² of agricultural land and 37 m² of garden land.</li> <li><u>Location:</u> Thuy Phu, Loc An, Vinh Thai and Vinh Ha.</li> <li><u>Objects:</u> Local households</li> <li><u>Affected level:</u> The impact is considered not significant since there are no significantly affected households, no HH that will require physical relocation, no production land loss of more than 10% of the total. The affected households will received support and compensation for their acquired land from the subproject.</li> <li><u>Time of impact:</u> Permanent</li> </ul>			
Construction Stag	Construction Stage							
Dust, vegetation clearing, noise, water quality or other impacts from development of borrow areas for road construction materials	Yes	Minor	Negative	Temporary	Description: Stone, sand and soil will be purchased from licensed mines as mentioned above. These mines are operated in accordance with environment protection requirements of Thua Thien Hue DONRE. The owners of these mines take responsibilities for any environmental problems related to vegetation clearing and water quality. Materials from these mines will be transported to construction sites by contractors. Transportation of material to the construction sites will generate noise, dust which affect local residents along transportation routes and near the construction sites. Filling soil will be taken from Ngoc Hoang and Doi Ong borrows pits located at a distance of 17 - 24 km from the subproject site.  Location: Ngoc Hoang and Doi Ong borrow pits. Transporting roads are concrete, earth (commune's roads) and asphalt (road no.1A, Phu Loc – Vinh Thai road).  Affected objects: Local households  Affected level: Small  Dust and noise will not be seriously affected because (i) loading capacity of vehicles is less than 10 tons, (ii) communal roads are almost structured of concrete with the width of 3-3.5m; (iii) Among the total soil about 58,576 m³ must be transported; requires about 07 tip trucks with a capacity of 07 tons/ day within 2 years;  Time of impact: 2 years			

	POTENTIAL IMPACT				
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
Erosion or sedimentation caused during the site clearance or earthwork activities	Yes	Minor	Negative	Temporary	Description: Runoff of rain water during site clearing or earthworks. Earthwork activities will change soil structure and raise the amount of unconsolidated sediments. When it rains, runoff of rain water will take away them into the surrounding water bodies causing sedimentation and erosion also and it could reduce the water of Dai Giang and Nong river and affect the aqua cultural cultivation in these two rivers as well as downstream in Cau Hai lagoon.  Location: Water bodies around the dike  Affected objects: Dai Giang river, Nong river and other water sources around subproject's area  Affected level: Small  Embanking earth can deposit and/or move downstream, increase sediment of ponds' bottom and affect the aquaculture ponds. As there is no residential area nearby and this will only occur temporarily during the construction period, the impact will not be significant.  Time of impact: 2 years
Pollution of waterways, aquatic environments or groundwater from waste, chemicals, effluent or disturbance of contaminated soils	Yes	Minor	Negative	Temporary	<ul> <li>Description: Waste, chemicals, effluent or disturbance of contaminated soils during construction phase, if domestic waste of worker or leakage oil from machine which generated during construction phase is not managed properly, it will affect to quality of surface water and groundwater.</li> <li>Location: along the dike alignment and around the surrounding ponds</li> <li>Affected objects: waterways, aquatic environments or groundwater</li> <li>Affected level: Small</li> <li>It is possible to have pollution along construction route, especially during culvert construction stage as spoils spilling in water can cause turbidity. However, this impact is just temporary partly during construction.</li> <li>Time of impact: 2 years</li> </ul>

		РОТЕ	NTIAL IMPAC	т		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
Clearing or resource extraction from areas of sensitive vegetation	No	No	No	No	There are bamboo and other trees on the dike, terrestrial flora in the river are alga, seawee Halodule and Zooplankton, etc. Around the dike, there are agriculture and aquaculture area Therefore, there are no sensitive vegetation in the subproject area.	
Dust, exhaust or noise emissions from construction equipment	Yes	Average	Negative	Temporary	Description: dust and exhaust fume from materials exploitation and transportation could affect local people in residential area of Kenh Tac hamlet, Vinh Thai commune and hamlet No.10, Thuy Phu commune, especially the kindergarten and primary school in Kenh Tac hamlet.  Location: Residential area along the dike including Kenh Tac hamlet, hamlet 10 and other residential area near transportation roads.  Affected objects: Local people in Kenh Tac hamlet, hamlet No.10 and along transportation road  Affected level: This impact is considered at small level due to (i) the number of construction machine is not large; (ii) construction area is mainly in the field, away from residential areas; (iii) Impact of noise to residential areas is mainly caused by the means of materials transportation during the construction along transportation route.  Time of impact: 2 years	
Increased flooding duration or area	No	No	No	No	Upgrading dike doesn't have an effect on increasing flood time and area.	

Upgrading Dai Giang river dike system Integrated Rural Development in Central Provinces Project

		РОТЕ	NTIAL IMPAC	т	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE	
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
			Negative		<u>Description</u> : Construction activities can effect on traveling, transporting goods for local people, disturbance to individual households and cause risk for safety traffic in process transport raw materials. During the upgrading of the dike process: build up level of dike surface, construction activities, transport materials, equipment arrangement, will limit the movement of local people on the dike route to access their houses, to visit their fishing cages and agricultural production. The material transportation could also affect the high density traffic area near Phu Bai Industrial Zone and Phu Bai Airport. <u>Location</u> : Residential area in Kenh Tac hamlet, hamlet No.10 and along material	
Disruption to traffic	Yes	Minor		Temporary	transportation road	
or property access					Affected objects: Local people in Kenh Tac hamlet, hamlet No.10 and along the material transportation road. People who travelling in the subprject area and material transportation road.	
					Affected level: Minor	
					Due to people can use branch route in the communes to travel during construction and the construction activities will not concentrate in a short duration (implemented in 2 years). Besides, the construction will be divided into many sections and contractors will work section by section.	
					Time of impact: 2 years	
Affect rural infrastructure					<u>Description:</u> construction activities and materials transportation may effect on rural infrastructure system. Electric and communication cables along the road could be damaged by transportation vehicles. The transportation road itself and the culverts of the road could be damaged by the movement of the vehicles. There are some outlets in the residential areas of hamlet No.10 will be removed.	
system such as		Minan	Namativa	Temporary	<u>Location:</u> Hamlet No.10 and along the material transportation road.	
communication system, electricity	Yes	Minor	Negative	and permanent	Affected objects: Commune's roads, drainage and electricity systems in the construction area in Thuy Phu, Loc An, Vinh Thai and Vinh Ha communes.	
and water-supply, etc.					Affected level: Small	
					The number of transportation vehicle is not large and transportation density is not high. On the other hands, the outlets in hamlet No.10 will be reconstructed in their existing locations.	
					Time of impact: 2 years	

	POTENTIAL IMPACT		T T			
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
Effects on nearby heritage such as graves, pagodas etc.	No	No	No	No	There is no national or local heritage such as pagodas, temples, gravestones nearby the dike. Kenh Tac temple is a small temple and located in the middle of residential area, far from the material transportation road and the dike so construction activities will not effect on the temple.	
		s Minor		Temporary	<u>Description:</u> Construction workers can cause social effects or disease transmission such as sore eyes, cholera, flu and respiratory problems. Some social problems can appear such as gambling, drug addiction, prostitute, violence, conflict amongst workers, or between workers with local people. Workers have to get temporary residence certificate to avoid social disruption in the subproject area.	
	Yes		Positive/ Negative		<u>Location</u> : in the project area, construction site and camps in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.	
Construction workers cause					Affected objects: Affect directly on workers and indirectly on the community near the construction sites in the residential area in Thuy Phu, Loc An, Vinh Thai and Vinh Ha communes.	
social or					Affected level: Small	
sanitation/health disturbance					+ <u>Positive impacts</u> : Cultural exchanges between local people and others; it will also promote the development of services.	
					+ <u>Negative impacts</u> : Some social evils can appear such as gambling, drug addiction, prostitution, violence, conflict amongst workers, or between workers and local people. With a maximum of 100 workers, there is also a risk of sexually transmitted diseases (STD), including HIV/AIDS	
					However, these problems are insignificant and bearable because of the limited construction time duration (24 months) with the small number of workers.	
					Time of impact: 2 years	

		РОТЕ	NTIAL IMPAC	т	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE	
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
Employment or livelihood benefits from the employment of local people	Yes	Minor	Positive	Temporary	<ul> <li>Description: Contractors will use local laborers for simple works such as smooth the road, moving soil, give priority to poor families, female householders, woman if they need jobs. It aims to raise their income, create more jobs and contribute to hunger elimination and poverty alleviation for community.</li> <li>Location: adjacent areas along dike route in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.</li> <li>Affected objects: Local people in the subproject areas in communes along upgrading road.</li> <li>Affected level: Small. Although contractors usually prefer to use their own experienced skilled workers in construction works, they will be solicited to employ local unskilled labor force for temporary and intermittent activities. They should prioritize poor households, femaleheaded households and women if they need a job, to increase their income. Creating more jobs is to contribute to hunger elimination and poverty alleviation for the community.</li> <li>Time of impact: 2 years</li> </ul>	
Health or safety risks to local people or construction workers	Yes	Minor	Negative	Temporary	Description: Dust, and noise generating from earthworks, transporting of material, construction activities and operation of machines, etc. These factors have direct effects on health of workers and local residents; Material transport and construction activities on the existing road may create the risk of traffic safety and houses structure on road sides; Traffic signs and signals are insufficiently arranged, awareness of residents in rural areas on traffic safety is not high. Besides, unsafe of transportation materials will endanger the traffic along the route. Sewage from construction activities and domestic use of workers, which causes some respiratory diseases for local people as well as workers. Accidents may occur during the construction, if workers are not provided with safety equipment and obey construction regulations.  Location: construction site along material transport roads and worker camps in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes  Affected level: Small. However, these impacts are insignificant because construction area is far from resident area. Accidents often occur during construction stage due to the lack of training or of safety equipment. The risk of such accidents can be minimized with compliance with safety regulations.  Time of impact: 2 years	

		РОТЕ	NTIAL IMPAC	T .		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE	
Generation of spoil/dredge material that can be reused	Yes	Minor	Positive	Temporary	<ul> <li><u>Description</u>: There is estimated 4069.4 m³ of spoil generated from dredging material that can be reused for leveling or tree planting.</li> <li><u>Location</u>: along Construction site in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.</li> <li><u>Affected objects</u>: Local household.</li> <li><u>Affected level</u>: Minor.</li> <li>During the upgrading of the dike, it is possible to generate excess spoils by removing old surface dike, however the volume of spoils is not large as the Contractor will also use part of it to backfill the low level sections. The rest will be used by the local people to fill their gardens.</li> <li><u>Time of impact:</u> 2 years</li> </ul>	
Causing waste disposal problems from solid waste generated by construction activities or waste generated from construction worker's camps	Yes	Minor	Negative	Temporary	<ul> <li>Description: Construction waste generated during construction activities likely as cement cover, fuel can, spoil, etc. Domestic waste generated from construction workers is estimated 3000kg/month. Construction waste is estimated 102 m³/ month.</li> <li>Location: construction site and construction camps in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.</li> <li>Affected objects: Surrounding area and local residential area</li> <li>Affected level: Small</li> <li>This type of impacts is easily controlled through the implementation of appropriate sanitation and waste disposal systems. Amount of waste isn't much because there are not many workers.</li> <li>Time of impact: 2 years</li> </ul>	
Impact on surrounding agricultural areas and irrigation activities	No	No	No	No	The subproject will upgrade the dike and the road system of Dai Giang. There is no irrigation system near the subproject area. The construction will be implemented in dry season with low water level so it will minimize the impact of erosion to Cau Hai lagoon downstream. On the other hands, there is not so many fish or shrimp breeding activities in Cau Hai lagoon and the surrounding area.	

		РОТЕ	NTIAL IMPAC	т		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
Environmental		Minor	Negative	Temporary/ Permanent	<u>Description:</u> If after construction work has been completed, the sites are not cleaned up, construction waste and waste soil could also impact on the soil quality of the temporary acquired land area. Construction and domestic waste will also pollute surrounding environment. If site restoration such as replanting trees; grass; filling up construction pit; removing camp site have not been implemented in accordance with environmental regulation then the environmental issues like erosion, sedimentation and accident may occur.	
impacts due to inappropriate enivronmental	Yes				<u>Location:</u> In the entire subproject site and Ngoc Hoang, Doi Ong borrow areas; temporary disposal site in hamlet No.2, Vinh Ha commune and Ha Thanh disposal site, Chau Thanh hamlet, Loc An commune.	
recovery responsibility					Affected object: i) Borrow areas; ii) Land and water near the dike and disposal, borrow areas; iii) People who living near the proposed road and camp sites, disposal and borrow areas.	
					<u>Affected level:</u> This impact is minor impact. Even the construction time is 24 months, the amount of work load is not much, construction machines and about 200 workers will not be mobilized in the same time.	
					Affected time: Mainly 24 months during construction time.	
Impacts in operation	on sta	ge				
Inundation of sensitive vegetation from operation of culvert including upstream or downstream inundation	No	No	No	No	After the subproject construction, the upgrading protection dike/levee system, and 4 to be opened or closed by wood stop logs will prevent minor & early & major flood inundation situation of 1461 ha for 2 rice crops. So, the subproject doesn't cause Into of sensitive vegetation from the operation of culvert	

		РОТЕ	NTIAL IMPAC	т		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE	
Changes to living conditions and public health from the upgrading dike	Yes	Significant	Positive	Permanent	The subproject will improve living condition for 40,338, through improvement of incomes from agricultural & aquaculture products and by preventing damages from floods.  Location: adjacent residential area in Thuy Phu, Vinh Thai, Vinh Ha and Loc Ar communes.	
Improved productivity from preventing damages from floods.	Yes	Significant	Positive	Permanent	The subproject will protect paddy rice of 2 crops /year from floods; and improve productivity by providing for a stable agricultural production.  Location: areas in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.	
Changes in land use from conversion to agricultural land use	No	No	No	No	The subproject (including upgrading the dike, building culverts, preventing flooding) will only develop agriculture production, therefore, the practice of land use will not be change.	
Deterioration of water quality from increased application of fertilizers or pesticides or use of water treatment chemicals	Yes	Minor	Negative	Permanent	Location: Aquaculture and Agricultural area near Dai Giang dike  Affected level: Small  As flooding will be prevented, the local farmers can invest more money on product therefore the water can deteriorate from increased application of fertilizers or pesticides this impact is expected to be small as the management of pesticides is reasonable.	
Risks from natural disasters	Yes	Average	Positive	Permanent	The subproject objective is to reduce the risks from natural disasters through dike upgrading.  Location: Aquaculture and Agricultural area near Dai Giang dike	

		РОТЕ	NTIAL IMPAC	т		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE	
Changes to local accessibility through upgrading dike system as inner-road	Yes	Significant	Positive	Permanent	The dike will be combined to be the access road in Thuy Phu, Vinh Thai, Vinh Ha and Loc Al communes, providing better access for local people of these communes.  Hence, 40,338 people in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes will benef from the subproject.	
Blockage of protection dikes/levee causing flooding	No	No	No	No	As the culverts aim to be boat passing ones, the blockage of protection dikes will not happen	
Changes to inner field water quality by of culvert's O&M methods caused salinity, alum instructions and sediment	No	No	No	No	The dike and the culverts for boat passing will be upgraded to mitigate the negative impacts of floods. These works will not make any changes to inner field water quality of intakes' O&M methods caused salinity, alum instructions and sediment.	
					The subproject will reduce poverty through improvement of incomes from agricultural products and by preventing damages from floods.	
Effects on employment or	Yes	Significant	Positive	Permanent	The linkage road will provide new access for the local people to the centres, markets and other social services.	
livelihoods					Therefore, the subproject is expected to improve livelihoods and reduce poverty.	
					<u>Location:</u> in Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes.	
Impacts on ethnic minorities	No	No	No	No	There is no impact as there are no ethnic minority groups in the subproject area.	

		РОТЕ	NTIAL IMPAC	т		
IMPACT	YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?		
Erosion or shifting of dikes	No	No	No	No	Erosion just occurs on embankment slope; the main causes are inundation in rainy seasor and destruction by the low awareness of people.  Hence, these causes are expected to be reduced after construction.	
Solid or liquid waste generation	Yes	Average	Negative	Permanent	Solid and liquid wastes are generated from fishing, animal and plants dead bodies flow from the upper streams and from households.  This situation is expected to be controlled by the detailed O&M.  Location: culverts, dike surrounding areas	

## 5. 5. OUTLINE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

## 5.1 Environmental Mitigation Plan

Table 4. Environmental mitigation plan

Potential impact	Mitigation measure	Responsibility	Cost
	Pre-Construction		
Environmentally responsible	<ul> <li>EMP is included in tender documents to ensure that mitigation measures are budgeted and to prepare the contractors for environmental responsibilities.</li> <li>Specify in bid document that Contractors shall engage capable and trained staff or site agent(s) to take responsibility for the environmental management and safety issues at the working level and to monitor the effectiveness and review mitigation measures as the sub project proceeds. Contractors recruit qualified staff to oversee implementation of environmental and safety measures specified in the EMP.</li> <li>Any recent recommendations and initiatives from</li> </ul>	Design Consultant, PPMU, Contractor, Environmental Consultant	Included in the contract
procurement and SEMP preparation	DONRE or other local environmental authorities will be incorporated in the EMP and updated as necessary.  Before starting civil construction works, based on the		
	requirements of the IEE, contractors need to prepare SEMPs for implementation by contractors. Such SEMPs shall not be in conflict with any provisions of the EMP in the IEE: Waste Management and Spoil, Disposal Plan, Materials Management Plan, Drainage Management Plan, Erosion Control Plan, Tree-cutting and Replanting Plan, Temporary Transport Management Plan, Utilities and Irrigation Reprovisioning Plan, Noise and Dust Control Plan, and Workers and Public Safety Plan, Emergency Responding Plan etc.		
	As planed in design documents, the main construction material will be taken from existing quarries as:  Filled soil will be taken from Ngoc Hoang and Doi Ong borrows pits located at a distance of 17 - 24 km from the subproject sites. These borrows pits have obtained operation licenses from Thua Thien Hue PPC;	Design Consultant, PPMU	Included in the contract
Plan construction materials management	<ul> <li>Stone will be taken from Loc Thuy, Loc Dien quarries that have been operated under the permission of local authorities of Phu Loc district;</li> <li>PPMU and contractor need to check the environmental responsibilities of suppliers.</li> <li>In case that, above material sources will be changed, an appropriate material management plan should include the following:</li> </ul>		
	<ul> <li>Required materials, potential sources and estimated quantities available;</li> <li>Material supply manners: preferring to purchase from existing material quarries;</li> </ul>		

Potential impact	Mitigation measure	Responsibility	Cost
	<ul> <li>Agreement with the local authorities;</li> <li>Check with environmental permission/certification of the quarries to ensure that environmental impacts and mitigation measures have been considered by owners;</li> <li>Environmental recovery plan;</li> <li>Material transportation manner plans and schedules.</li> <li>Program for delivery of quarry and borrow material</li> </ul>		
Plan Spoil and Waste Disposal	<ul> <li>Re-use of waste materials &amp; spoil disposal locations included in bid and contract documents.</li> <li>Select an properly treatment manners, preferred of for fill up the site of other projects activities/purposes</li> <li>Determine waste materials &amp; spoil disposal locations. The expectation is that construction waste will be stored temporarily along the proposed road, domestic waste will be stored in rubbish bins and then will be collected and treated by the local authority in Ha Thanh temporary dumping site in Chau Thanh hamlet, Loc An commune and hamlet No.2, Vinh Ha commune and contractors will be responsible for paying the bill</li> <li>Agreement with the local authorities need to be obtain during detail design or before starting construction activities;</li> <li>Environmental I recovery plan since construction activities completed</li> <li>Waste materials transportation manner plans and schedules</li> <li>Establishment of complaints management system for</li> </ul>	Design Consultant, PPMU	Included in the contract
	<ul> <li>duration of the works</li> <li>Hiring the authorized mine detector team (proposed team from Thua Thien Hue Provincial Military Command) to scan and remove any possible UXO left in the subproject are.</li> <li>Inform widely UXO removal plan to Thuy Phu, Huong Thuy, Loc An, Vinh Thai and Vinh Ha CPCs and people in these communes and town by information board at CPCs or broadcast through media system in Phu Loc and Phu Vang districts</li> <li>Install signs and alarms system at the UXO removal area while implement to warns people from entering the area.</li> <li>Checking the construction site and UXO clearance certificate upon the UXO removal complete.</li> <li>Implement mitigation measures outlined in the subproject Resettlement Plan</li> </ul>	PPMU	separate package Included in resettlement plan

Potential impact	Mitigation measure	Responsibility	Cost
Dust, vegetation clearing, noise, water quality or other impacts from borrow area, mines for construction sites	<ul> <li>Preferred building materials from commercial activities currently licensed and approved for the environment (soil exploited from Thuy Phuong and La Son borrow pits, other materials purchased at the district centre)</li> <li>Cover trucks that transport materials purchased from the mines</li> <li>Ensure that all facilities and equipment maintenance are adequate</li> </ul>	Contractor	Included in the contract
Erosion or sedimentation caused during the site clearance or earthwork activities	<ul> <li>Install temporary coffer dam to prevent sedimentation to the canal.</li> <li>Reduce the time and area of the surface area used for construction</li> <li>Precede gradually restoring vegetation in the areas of clearance for construction.</li> <li>Install sediment trap (ditch) to prevent sediment runoff into the surrounding waterbodies when it is necessary.</li> <li>Place information about the subproject and construction schedule in Thuy Phu, Vinh Thai, Vinh Ha, Loc An communes in advance for local people could prepare their fish, shrimp breeding plan.</li> <li>Avoid conduct dredging in the rainy season (from September to December)</li> </ul>	Contractor	Included in the contract
Pollution of waterways, aquatic environments or groundwater from waste, chemicals, effluent or disturbance of contaminated soils	<ul> <li>Storage of chemicals (oil, etc.) for construction in a secure area with a concrete roof to avoid rain water and flooding</li> <li>Ensure vehicles and equipment are maintained in good condition</li> <li>Building toilets to the standard prescribed by the Ministry of Health and installing equipment scouring farm construction</li> <li>Regularly collecting waste land to avoid sedimentation, as muddy water of the region and Dai Giang river</li> <li>Prohibited use of hazardous materials near water sources</li> <li>Hazardous materials spilling out unexpectedly to be cleaned, reported and monitored</li> </ul>	Contractor	Included in the contract
Dust or fumes from the equipment	<ul> <li>Building measures on construction techniques to minimize the reasonable time and area for use during construction</li> <li>Cover all trucks carrying raw materials to and from the construction area</li> <li>Ensure equipment and vehicle maintenance is in good condition</li> <li>Water sector under construction and related road, increasing the frequency of watering when passing through communities</li> <li>Minimize traffic travelling on the village's road which go through Kenh Tac hamlet, Vinh Thai commune and hamlet No.10, Thuy Phu commune monitor speed limit (not more than 40</li> </ul>	Contractor	Included in the contract

Potential impact	Mitigation measure	Responsibility	Cost
	<ul> <li>km/h)</li> <li>Concrete batching plants to be arranged a distance of 500m away from residential areas in Kenh Tac hamlet, Vinh Thai commune and No.10 hamlet, Thuy Phu commune, especially far from the kindergarten and primary school in Kenh Tac hamlet, Vinh Thai commune</li> <li>Frequency measurement of dust to be increased when close to Kenh Tac and No.10 hamlets</li> </ul>		
	<ul> <li>Use modern and new construction machines and equipment to meet standards of exhaust, noise, and vibration as regulated by the Government. The Contractor needs to submit the Engineer documents proving that all construction vehicles, equipment, and machines are checked and meet requirements concerning noise and vibration generation of the Vietnam standards as QCVN 26:2010 for noise level and QCVN 27:2010 for vibration emitted by construction works</li> <li>Maintain machineries, equipment and transportation trucks regularly.</li> </ul>	Contractor District's Support Group Project / Contractor  CPC / DPC / PPC	Included in the contract
Noise generated from equipment	<ul> <li>Select routes for transportation and avoid crossing residential areas whenever possible</li> <li>Arrange the number and transportation time, reasonable speed (not over 40 km/h) as passing residential area in Kenh Tac and No.10 hamlets</li> <li>All noise generation activities shall be undertaken using minimum impact intensity and only during the hours of 07:00 to 17:00, and shall be located at least 300 metres from any residence, especially the kindergarten and primary school in Kenh Tac hamlet.</li> </ul>		
	<ul> <li>Provision noise protection equipment for worker;</li> <li>Operation schedule of noise generation equipment must be approved by construction supervision.</li> <li>In case that, noise generation equipment need to run during night time nearby the resident areas, the detail schedule will be considered and approved by construction supervision before could be applied</li> </ul>		
	<ul> <li>Local communities must be informed about construction schedules and time through informal public consultation or any local people meetings and notice board;</li> <li>Strictly implementing noise control measures as noted above through sampling and taking adequate corrective actions if needed</li> </ul>		
Changes to road safety / traffic movements, property access and commercial activities	<ul> <li>Minimize surface by construction, to avoid affecting public transport</li> <li>Construction signs used in construction area</li> <li>Install signage and lighting for construction works</li> <li>Inform communities living near sub-project of planning and execution time</li> <li>As much as possible, limit the operation of</li> </ul>	Contractor  / District's Support Group Project	Included in the contract

Potential impact	Mitigation measure	Responsibility	Cost
	facilities, construction and installation on the main roads, and avoid operation in peak hours.  Installation of speed limit signals and other signals for synchronized traffic.		
Affect rural infrastructure system such as communication system, electricity and water-supply, etc	<ul> <li>Minimize using heavy trucks for transporting materials in rainy season to avoid accidents from crashing into houses or works at road edge due to slippery road;</li> <li>Comply traffic regulations;</li> </ul>	Contractor	Included in the contract
	<ul> <li>Reconstruct outlets and drainage pipes in hamlet 10, Thuy Phu commune.</li> <li>Reinstate or compensation for any damage to rural infrastructures.</li> </ul>		
Social impact caused by the presence of construction workers in the region	<ul> <li>Consider house leasing in locality in comparison with site camps.</li> <li>Ensure site camp areas are kept in a clean and hygienic condition by arranging camps at suitable place, cleaning periodically, applying sanitary regulations, etc.</li> <li>Rules for construction workers in the implementation of sanitation and of relationships with people at work site and at accommodation</li> <li>If it is possible (with the support from NGOs), distribute guidance leaflets to workers or invite health workers to speak about the prevention of infectious dispages and dispages that may expurs in</li> </ul>	Contractor  PPM / NGOs	Included in the contract  No marginal cost
Health or safety risks to local people or construction workers	<ul> <li>Provide safety equipment for workers and train them on how to use it. The authorities regularly inspect and supervise the safety of construction workers and people in the area of construction</li> <li>Secure construction site and restrict access by</li> </ul>	Contractor	Included in the contract

Potential impact	Mitigation measure	Responsibility	Cost
	<ul> <li>Limit construction activities in the area during flood season from September to December.</li> </ul>		
Create solid waste generated by construction activities or waste generated from construction	bin for each other camp) and request workers to collect waste and no littering into the canal and other surrounding water bodies.  • Provide containers to collect construction waste	Contractor	Included in the contract
worker's camps	<ul> <li>construction site</li> <li>Regularly, collect waste and keep it in a safe area before moving it for temporary removal treatment</li> <li>There are regulations about sanitary and garbage regulations where, and how to handle garbage and common rules for the workers. Update daily and directly supervise waste collection regulations</li> </ul>		
Impacts due to inappropriate enivronmental recovery responsibility	<ul> <li>Remove all of the construction machines and construction tools out of the construction sites upon construction complete.</li> <li>Perform clean in all construction sites and</li> </ul>	Thua Thien Hue PPMU/ Contractor;	Included in the contact with the contractor
Operation Stage			
Affect water quality by increasing the amount of fertilizer or pesticide use or use chemicals to treat water or wastewater volume increases	farmers are trained on methods for proper use of water  Construction of collection or people recommended order for collection of chemical compounds such as packages of fertilizers, pesticides used to cover water treatment devices in waterproofing and	Phu Loc, Phu Vang and Huong Thuy DPCs/ Thua Thien Hue DARD	Provincial budget and other assistance funds
Generated solid and liquid waste	<ul> <li>Periodically clean up garbage on the dike and on the farm</li> <li>Construction of a waste collection system</li> <li>Enhancing the people awareness on management and collecting of solid and liquid waste on the dike through trainings</li> </ul>	Phu Loc, Phu Vang and Huong Thuy DPCs	Provincial budget

## **5.2 Environmental Monitoring Plan**

### 5.2.1 Environmental effects monitoring

6. Environmental effects monitoring is carried out to examine impacts of project in relation to ambient environmental conditions.

Table 5. Environmental effects monitoring plan

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Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost	
Construction Stage							
Minimization of noise generation	Noise levels	In the residential areas close to Dai Giang dike and materials transporting routes	First observed using equipment to measure noise dB (A), if that is the big noise levels	Every 3 months during construction duration or if there is feedback about high noise levels from the community	Contractor /Independent supervision consultant/ DPCs	Included in the contract with Supervision contractor	
Minimization of dust generation	Dust levels	In the residential areas closest to Dai Giang dike and materials transporting routes	Requirement of dust level measurement (TSP mg/m3) Location is near the residential area along the transport routes from Thuy Phuong and La Son borrow pits	Every 3 months during construction duration or if there is feedback about high noise levels from the community	Contractor /Independent supervision consultant/ DPCs	Included in the contract with Supervision contractor	
Control of water quality	Sediment loads, rubbish, oil or other visible pollutants		Observation	Every 3 months during construction duration. Or any time if required	Contractor /Independent supervision consultant/ DPC	Included in the contract with Supervision contractor	
			Operation Stag	ge			
Water quality	Indexes BOD, COD, pH, TSS, salinity, bacillus, zinc, Cd, Lead in accordance with TCVN 08:2008/BTN MT	The agricultural production's area, ponds and the area around the dike	Methods in accordance with TCVN	Twice a year for the first 2 years (once during the rainy season and once during the dry season)	Sub-project owner	Local budget	
Waste and liquid	Conditions and cleanliness of the area sub- projects; area containing waste temporarily	At some point in the field, pond's area and around the dike	Observations	Every 6 months in the first five years of operation	Sub-project owner	Local budget	

#### 5.2.2 Environmental Compliance Monitoring

7. Environmental compliance monitoring is carried out to test compliance with operating procedures, technical standards and/or contractor specifications in the EMP.

**Table 6. Environmental Compliance Monitoring** 

Mitigation						
Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
		Pre-Co	nstruction Sta	ige		
Environmentally responsible procurement	Inclusion in bid docs	N/A	Checking documents	Bid preparation, before start of civil works	Thua Thien Hue PPMU	Project preparation
Plan construction materials management	Meeting minutes and agreement with local authorities	N/A	Checking documents, Consultation	Prior to start of site works and throughout construction phase	Thua Thien Hue PPMU	Project preparation
Plan spoil and waste disposal	Meeting minutes and agreement with local authorities	N/A	Checking documents, Consultation	Prior to start of site works and throughout construction phase	Thua Thien Hue PPMU	Project preparation
The mine detection (from Thua Thien Hue Military Command)	Confirm the mine detection's result	The affected area	Checking documents; Observations	Before beginning construction activities	Thua Thien Hue PPMU	There are separate bidding packages
		Cons	truction Stage	е		
Dust, noise, water quality at Ngoc Hoang and Doi Ong borrows pits and othe mines	Operation Licenses from Thua Thien Hue PPC for the borrow pits; Noise and exhaust generation; covering of trucks; oil/fuel leaks	At the borrow pits and other mines	Checking documents; Observations	Prior to start of material exploitation at the borrow pits and the mines	Environmenta I monitoring Consultant	Included in the Monitoring Consultant Contract
Erosion and sediment controls	Condition and capacity of controls	Throughout construction site	Observation	After heavy rain events	Environmenta I monitoring Consultant	Included in the Monitoring Consultant Contract
Pollution of waterways, aquatic environments	The condition of construction machines; suitable fuel storage site;	Throughout the construction sites; worker camps and construction	Observation	Weekly	Environmenta I monitoring Consultant	Included in the Monitoring

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
	hygiene toilets available	camps; material transportation route				Consultant Contract
Construction equipment and vehicles	Noise and exhaust generation; covering trucks; oil/fuel leaks	Throughout construction site	Observation	Random	Environmenta I monitoring Consultant	Included in the Monitoring Consultant Contract
Site camp conditions	Cleanliness; waste disposal facilities; general conditions	All site camps	Observation	Weekly	Environmenta I monitoring Consultant	Included in the Monitoring Consultant Contract
Property Access	Rehabilitate the possibility of temporary and fixed access	Affected assets; material transportation roads and affected assets during constructio; outlets in the residential of No.10 hamlet	Observation and community consultation	Once during construction works and once after finishing construction	Environmenta I monitoring Consultant; Local Community Monitoring Boards	Included in the Monitoring Consultant Contract
Waste disposal	Site cleanliness and site conditions; temporary waste storage area	Throughout construction site	Observation	Weekly	Environmenta I monitoring Consultant	Included in the Monitoring Consultant Contract
	<u> </u>	Оре	eration Stage	T	<u> </u>	
Water quality	Environmenta I water conditions around Dai Giang dike	Store water areas	Sampling	6 monthly for first two years of operation.	Division of industry and Trade, Phu Vang, Phu Loc and Huong Thuy District, Hue province	Local budget
Waste disposal	Site cleanliness and site condition; temporary waste storage area	Throughout construction area	Observation	6 monthly for first five years of operation.	Vang, Phu	Local budget

## **5.3 EMP Implementation Arrangements**

**Table 7. EMP Implementation** 

	Roles and Responsibilities					
Organization	Subproject Preparation	Subproject Implementation	Subproject Operation			
СРМИ	Provide advice to PPMU's Safeguards Officer on IEE/EPP or IEE/EIAR preparation Review and provide "noobjection" on IEE/EPP or IEE/EIARs submitted by PPMU	Provide advice to PPMU's Safeguards Officer on EMP implementation during construction  Monitor progress during construction  Consolidate PPMU environmental reporting	Provide advice to PPMU Safeguards Officer on EMP implementation during first year of operation  Monitor progress during first year of operation  Consolidate PPMU environmental reporting			
Thua Thien Thua Thien Hue PPC	Sign-off on environmental assessment documents prior to submission for approval Approval of any subprojects requiring EIAR that are not subject to MONRE's approval	Project owner with ultimate responsibility for environmental performance of subproject during construction	Project owner is responsible for environmental performance during operation stage including implementation of EMP during operation			
Thua Thien Hue DONRE	Provide advice and guidance on environmental issues as required during subproject preparation	Monitoring implementation of EMP through their own internal monitoring system	Monitoring implementation of EMP through their own internal monitoring system			
Thua Thien Hue PPMU	Recruit consultant for overall responsibility about IEE/EPP or IEE/EIAR preparation and submission for approval Ensure staffs are adequately trained in environmental issues	Responsibility for EMP implementation during preconstruction and construction Ensure that contract specifications and bid documents include environmental requirements Undertake inspections and monitoring of environmental issues during construction Cooperate with CPMU for environmental monitoring reporting	Responsibility for EMP implementation during first year of operation Undertake inspections and monitoring of environmental issues during first year of operation  Assist project owners to incorporate environmental requirements into O&M procedures			
Phu Loc and Phu Vang DPCs	Approval of subproject EPPs in accordance with GOV's regulations	Monitoring implementation of EMP through their own internal monitoring system	Monitoring implementation of EMP through their own internal monitoring system			
District Subproject Support Teams (SST) of Phu Loc and Phu Vang districts	Assist in IEE/EPP preparation as required Assist PPMU to review bidding documents, contract documents, and tenders to ensure environmental issues are adequately addressed	Day to day supervision of contractors' activities in district including compliance with environmental management requirements  Undertake environmental monitoring and coordination of	Undertake environmental monitoring and coordination of local community environmental monitoring activities for			

	Roles and Responsibilities				
Organization	Subproject Preparation	Subproject Implementation	Subproject Operation		
		local community environmental monitoring activities	first year of operation		
Commune Supervision Boards (CSBs) and local community members <sup>5</sup> of Thuy Phu, Loc An, Vinh Thai and Vinh Ha communes	Involvement in consultation and participation activities to identify and develop subprojects  Responsibility to comment on environmental assessment documentation upon disclosure	Involvement in environmental monitoring activities under the direction of SSTs	Involvement in environmental monitoring activities under the direction of SSTs		
Construction contractor	n/a	Prepare detailed Site EMP to meet the Subproject EMP general requirements Allocate adequate resources to meet the requirements and obligations of Site EMP	n/a		
LIC Team on environmental safeguard policies	N/a	Implement spot check environmental monitoring at subproject area once every 6 months. Monitoring results will be included in the report which will be sent to CPMU.	N/a		
Construction Supervision Consultant	N/a	Implement construction supervision at construction sites every day.  Implement environmental monitoring at subproject area every week. Monitoring results will be included in the report which will be sent to PPMU.	N/a		

### 5.4 Monitoring and Reporting System

Table 8. Monitoring and Reporting System

Project Phase	Type Of Report	Frequency	Responsibility	Submitted To Whom
Construction	Site Environmental Performance Report indicating compliance with Site EMP and monitoring results	Monthly	Construction contractor	Subproject Support Teams

<sup>&</sup>lt;sup>5</sup> CSBs have been established under Decree 80 Regulation for Participatory Investment Supervision. Article 8 of Decree 80 provides the community with opportunities to inspect compliance, monitor implementation and evaluate the results of investments in the commune, including environmental impacts.

Project Phase	Type Of Report	Frequency	Responsibility	Submitted To Whom
	District EMP Compliance Report indicating compliance with subproject EMP and monitoring results	Quarterly	Subproject Support Teams	Thua Thien Hue PPMU
	EMP Compliance Report indicating compliance with subproject EMP and monitoring results	Bi-annually or twice during construction depending on construction duration	Thua Thien Hue PPMU	CPMU
	Subproject Environmental Report indicating overall subproject environmental performance and EMP compliance	At completion of subproject	СРМИ	ADB, AFD,
Operation	EMP Compliance Report: Operation indicating compliance with subproject EMP commitments during operation	6 monthly for first two years of operation. Ongoing frequency to be determined based on review after 2 years.	Division of industry and Trade, Phu Loc and Phu Vang Districts, Thua Thien Hue province	Thua Thien Hue DONRE

# 5.5 EMP Budget

Table 9. EMP Budget

ltem	Marginal Costs for Pre-Construction	Marginal Costs for Construction	Marginal Costs for Operation	Marginal Costs Sub- Total
Mitigation		Included in the contract with the construction contractor	Provincial budget	N/a
Monitoring		Included in the contract with and construction supervision consultant and LIC Team	33,500,000	33,500,000
Community consultation	15,000,000	15,000,000	15,000,000	45,000,000
TOTAL	15,000,000	15,000,000	15,000,000	78,500,000

### 6. PUBLIC CONSULTATION AND DISCLOSURE ACTIVITIES

# 6.1 Description of Activities to Date

Table 10. Public consultation and public disclosure activities

CONSULTATION METHOD	DE	TAILS OF ACTIVITIES
Correspondence and meetings	Date of correspondence	10 /03/ 2014
with local authorities (District and Commune PCs, Commune Fatherland Front. Women's	Dates of meetings (if requested)	18/03/2014
Union, Youth Union and others)	Minutes of meeting attached (Yes / No)	Yes
Public meetings	Date(s) held	18/03/2014
	Location(s) held	PC's meeting hall of Thuy Phu commune – Huong Thuy district, Vinh Thai, Vinh Ha communes – Phu Vang district and Loc An commune – Phu Loc district
	Invitees	Commune PCs, stakeholders, village heads, Young Communist League, Fatherland front, Farmer Association, Women Union of the communes.
	Methods of invitation	Letter, coordinate with Women Union to mobilize women's participation in meetings
	Agenda attached (Yes / No)	Yes
	Minutes of meeting attached (Yes / No)	Yes
	Number of participants	Total have 46 people
		Men: 28 people
		Women: 18 people
		(the list of participants will be closed in the minutes of consultation)

### 6.2 Outcomes of Public Consultation to Date

Table 11. Results of public consultation

Description of Issue Raised	By Whom?	Required Follow-up Actions?
Subproject design	Loc An commune	In the surveying and detailed design period, the consulting firm is expected to coordinate with local authorities to find suitable water inlets and outlets in Cong Quan section.
Affect aquaculture (fish	Local people of Kenh	The local people should be informed in advance so
cages)	Tac hamlet	they can halt fish raising activities, or they should
		receive suitable amount of compensation
Traffic disturb when	Vinh Ha residents	Do not transport materials at rush hours (6 am to 7
transporting material		am; 11 am -12 pm; 5 pm- 6pm)
and constructing the		The Contractors are supposed to slow down when
production/management		transporting materials by the residential area. It is

Description of Issue Raised	By Whom?	Required Follow-up Actions?
road,		necessary to erect construction signposts and speed limit signs Attention should be paid to upgrading the cover of the culvert No.3 of Bau O to ensure its load during transportation. The load of the rural concrete road is less than 10 ton (the section is about 2km long).
Affect drainage	Thuy Phu residents	Contractor should rebuild outlets and drainage pipe for residents in hamlet 10 – Thuy Phu commune

### 6.3 Future Public Consultation Activities

Table 12. Proposed community consultation activities

Activity	Participants	Expected Outcomes	Schedule	Cost Estimate
Kick-off meeting prior to construction commencement	PPMU, the Contractor, Construction Supervision Consultant, community representatives at project area		1 week prior to construction commencement	Be estimated in EMP budget
Periodical meetings	Contractor, Construction Supervision Consultant and representatives of local authority, organizations and community at project area	arising problems Propose treatment alternatives and	from construction commencement	Included in contract signed with parties

### 7. CONCLUSION AND RECOMMENDATIONS

- 8. The upgrading Dai Giang river dike system subproject will be implemented by Thua Thien Hue PPMU of IRDSPCP in Phu Vang, Phu Loc and Huong Thuy districts, Thua Thien Hue province.
- 9. An environmental assessment of the project has been carried and the main negative potential environmental impacts of the sub-project during construction and operation stages include:
  - (i) Risk for the health and safety of the local people and workers;
  - (ii) Solid and liquid waste pollution attributable to soil and stone banking and excavation, construction material mixing (during construction and O&M period), discharged gasoline and oil and workers' camps (during construction period);
  - (iii) Increase of productivity due to the flooding protection goal after the construction.
- 10. A range of mitigation and monitoring measures has been developed for the sub-project, which includes the following activities:
- 11. Following mitigation measures for negative impacts caused by project implementation
  - (i) Provide protection equipment to the workers, including working comforters and gloves, protection belts, etc.; trainings to use the equipment are required. The

functional agencies need to supervise regularly the working safety activities for workers and local people; restrict access by local people in the construction site by Construction sign and barrier. Awareness on the risks during construction period should be provided on the local radio; the Contractor must protect people and workers by avoiding overload volume for vehicles during material transportation time; and limit the construction activities in the rainy season;

- (ii) Control to minimize waste/liquid disposal, exhaust pollution during construction; periodic cleaning of the dike as well as subproject area; build the disposal collecting system; build the awareness for local people on disposal collecting
- 12. To ensure the compliance of the mitigation activities, following monitoring measures should be implemented
  - (i) For the Contractor: The contractor must have methods and commit to conducting reduction of negative environmental impacts at subproject area and the surrounding residential areas; observe and monitoring of air quality, and water according to local people's opinions; and prepare a detail plan of environmental monitoring and provide enough staffs to meet the requirement and regulation on EMP in the field;
  - (ii) The regulations on EMP in the field;
  - (iii) In operation phase, the Subproject functional manager (in this subproject are Phu Vang, Phu Loc and Huong Thuy DPCs) must supervise periodically the water quality following the Vietnam Criteria QCVN;
  - (iv) Thua Thien Hue PPMU strengthen the environmental compliance monitoring, check the erosion and sediment, material storage, maintenance of equipments, vehicles, machines, condition of camps, disposal treatment, drainage system in construction and operation phase; corporate with local authorities to set up and carry out EMP.

### 8. Conclusion and recommendations

- 13. Upgrading Dai Giang river dike system subproject aims to improve livelihood and reduce poverty for total 40,338 peoples of 4 communes including Thuy Phu, Vinh Thai, Vinh Ha and Loc An communes through protection of the annual floods. Especially, it is expected to promote the living standard of 2344 people living under the poverty line in the communes; besides, the subproject will also improve access for people from these communes to centre, economic and social services.
- 14. Based on the study, all negative impacts on environment will only be generated from the construction stage and will not occur in the operation stage.
- 15. It is expected to limit the negative environmental problems after the subproject implementation such as flooding, erosion, etc. and the new system (dike and culverts, etc) will have a positive impact to the environment.
- 16. According to the IEE, the FS consultant and the PPMU have following suggestions:
  - (i) As no significant environmental impact will happen, it is recommended that no further environmental assessment is warranted;
  - (ii) The functional authorities can approve the IEE for this subproject to create the basis for the next implementation steps, to ensure implementation progress and the effectiveness of the project.

### 9. ANNEXES

- Photos of implementation of public consultation
- Photos of locations of air and water quality monitoring

### Integrated Rural Development in Central Provinces Project

- Current status of irrigation system and ambient environment
- Public consultation activities
- Data sources
- Environmental monitoring forms
- Environmental mitigation measure to include into bid documents Subproject of Upgrading Dai Giang River Dike system

Annex 1: Some proposed environmental monitoring locations (Air /Noise monitoring and traffic disturb monitoring points)



Photo 1: Water quality monitoring location at Photo 2: Water quality monitoring location at the Dai Giang bridge



corner of Dai Giang river and Tac canal (at the proposed bridge)





Photo 3: Water quality monitoring location at the Photo 4:: Water quality monitoring location at corner of Dai Giang river and Con hamlet's the corner of Dai Giang river and Nong river canal



Cong Quan, Loc An commune



Photo 5: Water quality monitoring location at Photo 6: Air quality monitoring location at residential area of Kenh Tac hamlet, Vinh Thai



Photo 7: Air quality monitoring location at Photo 8: Air quality monitoring location at the residential area of hamlet 10, Thuy Phu material transportation road side, next to commune



residential area, near Phu Bai bridge



Photo 9: Air quality monitoring location at the Photo 10 Air quality monitoring location at the material transportation road, near the residential material transportation road, near the residential area of Thuan Hoa hamlet, Loc An commune



area of hamlet 10, Thuy Phu commune



Photo 11: Environmental sensitive point (Kenh Photo 12: Environmental sensitive point (Kenh Tac temple)



Tac kindergarten, Vinh Thai commune

## Other pictures of the subproject area



Photo 13: Plant at the banks of Dai Giang river



Photo 14: An outlet to discharge domestic waste water to Dai Giang river at the residential area of hamlet 10, Thuy Phu commune



Photo 15: Domestic solid waste in Dai Giang Photo 16: Boats in Dai Giang river, near hamlet river, at hamlet 10, Thuy Phu commune



10, Thuy Phu commune



Photo 17: Fish cages in Dai Giang river, hamlet Photo 18: Fish cages in Dai Giang river, Kenh 10, Thuy Phu commne



Tac hamlet, Vinh Thai commune

### Annex 2. Public consultation

Meeting minutes at public consultation and lists of attendance in the public consultation meeting at Vinh Thai commune

v. *	BAN GLDA	
	PHAT TREM HONG THOM YE	
	CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM	
	Độc lập – Tự do – Hạnh phúc	
	Dự ÁN PHÁT TRIỀN NÔNG THÔN TÔNG HỢP CÁC TÍNH MIỀN TRUNG	
	(Loan 2357-VIE)	
	BIÊN BẢN LÀM VIỆC	
	Hôm nay, ngày 18 tháng 03 năm 2014, tại Xa. Vimh thai chúng tôi gồm:	
	I. Đại diện nhóm S-PPTA của dự án Phát triển nông thôn tổng hợp miền Trung:	
	- Ong/Ba V. W. Hoarry Law, Chức vụ Từ Vàm mọ trường	
	- Ong/Bà Cau thai Bimh Chức vụ Từ Vain Hiết Kế	
-	- Ong/Ba Nguyễn Phong Sự Chức vụ.	
	II. Đại diện Ban QLDA tỉnh	
	- Ong/Ba Too That Khanh Chức Vụ Can bộ P.P.M.U	
	- Ong/Ba Dile Minh Phong Chức vụ Cán kố PP M 4	
	- Ông/Bà Chức vụ	
	III. Đại diện địa phương	
	- Ong/Ba Do Vite time chức vụ Chú tích UBND	
	- Ong/Ba Huynh Cong Ty, Chức vụ Hài nang das	
	- Ông/Bà Chức vụ	
	Nội dung làm việc:	
	17 ong Nguyễn Phong Sy, đay diễn Từ Vân Hhiệt Kế trinh bay tổng quan tom lài vớ	
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	him của piệ án năng cấp hệ thông để sóng	
	Dai Ctrang	
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	trink bay we when tak dong we mai treeng va	
	nhưng biến pháp Khoố phục nhưng tác động của.	
	3.	

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	t đồng ý về nội dung biên bản, không có ý kiến
Diep Minh Shong	Dar dien abno xa  David Gui
	Đại diện tư vấn
	Outing Durc Chien

# CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc



Phú. Vancy..., ngày 18 tháng 93 năm 2014 Dự ÁN PHÁT TRIỂN NÔNG THÔN TÔNG HỢP

CÁC TỈNH MIỀN TRUNG - KHOẢN VAY BỔ SUNG

# BIÊN BẢN HỌP THAM VÁN CỘNG ĐỒNG

Về các chính sách an toàn: Môi trưởng, Tái định cư, Giới và Dân tộc thiểu số

Tên tiểu dự án: Nang Cấp Xã Vìmh thai huyện	hệ thống sống Đơi Chiang phú Voyng tinh thiến thiến - Huế
l. Thành phần tham dự:	
- Ong/Ba U. Hoany Lan.	Chức vụ Từ Vành Mọi turểng
- Ong/Ba Cao Thai Bimh	Chức vụ TK Vais thiết Và
- Ong/Ba. Nowyen Phong Sy.,	Chức vụ từ vành thiết Kế
- Ong/Ba Diep Numh Phong	Chức vụ. Cần bà P.P.M.U.
- Ong/Ba DE VIR TI	Chức vụ Chủ từch UBNO
- Ong/Bà Dô thi Hip	Chức vụ Xã Vinh Thai
- Ông/Bà,	Chức vụ
- Đại diện những hộ bị ảnh hưởng	người, trong đónữ, chiếm(%), Dân tộc
thiểu sốngười, chiếm%	
II. Nõi dung	

### 2.1 Các nội dung phổ biến:

- Cung cấp các thông tin về dự án như địa điểm, quy mô, các thông số kỹ thuật cơ bản ....
- Chính sách an toàn của dự án bao gồm: Chính sách về giới và sự tham gia của cộng đồng; Kế hoạch hành động giới; Chính sách môi trường, Chính sách Tái đinh cư và kế hoạch phát triển người dân tộc thiểu số.

### 2.2 Tham vấn cộng đồng:

- Tham vấn các vấn đề giám sát và tham gia của cộng đồng trong các giai đoạn chuẩn bị, thực hiện, vận hành tiểu dự án, các vấn đề về giới và lồng ghép giới, nhóm dễ tổn thương, hộ bị ảnh hưởng nặng...

- Tham vấn các vấn đề về môi trường, tác động môi trường tiềm năng của dự án bao gồm tác động lên môi trưởng tự nhiên và xã hội của khu vực dự án và những biện pháp giảm thiểu các tác động tiêu cực;
- Tham vấn các vấn đề về tái định cư, các tác động dự kiến, quyền lợi của người bị ảnh hưởng, các biện pháp giảm thiểu tối đa nhằm có ít tác động nhất đến người bị ảnh hưởng.
- Tham vấn nhu cầu đào tạo của các hộ bị ảnh hưởng.

### III. Ý kiến thảo luận

III.1 Các vấn đề về giới, tham gia công đồng

17 ởng Đơng Vàn toàn, Cán bộ xã Vinh thai, rất hoàn
nghiênh và lúng hiệ Diệ din, và sẽ viện đườig người
chân tham gia vào quá trinh thuếc hiện Diệ am

27 Chỉ Nguyễn thị Xoa, ngiêt dair thân kếnh tạc cho rong, ngiết dair trong thân sẽ lúng hiệ

Diệ din Và Sẽ nhiệt tinh tham gia vào các
hoạt đơng của Diệ cán như thom gia vào tổ

Ctrain Sai công đơng, Vận đóng ngiết dair giải

Phóng mát bong Chu đồn Vị thi công

33 Hội Phụ nư tại đưa phương Cẽ lúng họi và vàn
đồng hài viên tham gia vào Địc am

### III. 2. Các vấn đề về môi trường

1) trong quá trinh thiểc hoàn trị am, sẽ anh hiểng tinh các hộ dân như tiếng on bui.

try nhiên, các hộ BHH cho rằng nhưng anh hưởng mày là Không trong kế Và Sĩ trị

Khác phục

2) Các hộ BAH nhất thi Sẽ tham qua bái

vẽ để trong quá trình vàn hành.

3) Nên thì công cuốn chiếu để grain thiểu nhưng

taế động đươ một tưởng song của người dào

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	A plus
	Dỗ Viết Gư
Đại diện Ban QLDA tỉnh	Đại diện tư vấn
2.45	
( ) William	O bien
Diep Minh Phony	Didng Duc Chien
	Outing Due Cruens
	3

# CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc



Vinh Thai , ngày 18 tháng 03 năm 2014

DỰ ÁN PHÁT TRIỂN NÔNG THÔN TỔNG HỢP CÁC TÍNH MIÈN TRUNG -KHOẢN VAY BỔ SUNG

DANH SÁCH ĐẠI BIỂU THAM DỰ CUỘC HỌP (Tham vấn cộng đồng về chính sách an toàn: Môi trường, Tái định cư, Giới và Dân tộc thiểu số

Tên tiểu dự án: Nang Cấp hệ thống Sông Đưi Grang Xã Vinh thái huyện phú Vang tính thúi thiến Huế

STT	Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghi chú
1	phan thi Hong	Nã	xa Vinh Thai	lunk	
2	Mai thi He	Ne	xa Vinh Thai	He	
3	Vi Thi Liai	Nã	Xx Vinh Thai	Lieu	
4	Phan Thi Thanh		xã Vinh thai	ri	
5	Ngo Thi Hang	Nu	Xã Vinh Thai	They seep you	
6	Do thi Hill	Nã	Xa Vinh thai	Hier	
7	Nguyãn thị Xoa	NY	Xe vinh thai	you	
8	Vo thi Suana	NE	W	Same	
g		NE	NX.	uyêr	
10	Houng the thool upa	NX	no	Nga	
14	Vo thi righ thank	Næ	W	thanh	
	Ngô Thị Le	NE	nx xe	20	
	Nguyễn thị cứ	Nã	mt-	uyêr Nga Khanh Lanh	
	Nguy				
	Huan the Box		N	Bich	
					7

STT	Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghí chú
3	Disting your town	Nam	xã Vinh thai	Book	
	Do Việt tư	Nam	1000 C 100 C	rune	
	Não Van Sinh		~	Who Z	
	Vo Van tie		8	hart	
	Naugin Chian			201149	
	Uguero Lieno			Mehmal	
				mont	
	Huyah cony ty voguja van name			ntimore	
	1				
	Đại diện cộng đồn		THE WAY	Tal diện UBND xã	
			THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	
		tình	THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	To Vict Gu	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	
	Đại diện Ban QLDA	tình	THE WAY TO SEE THE SEE	Tiết Cư	

# Meeting minutes at public consultation and lists of attendance in the public consultation meeting at Thuy Phu commune

	SAN OLDAY
22	SO PHAT THEN HONG THOM (S)
	CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
	Độc lập – Tự do – Hạnh phúc
	TX Hildney They ngày 18 tháng & 3 năm 2014
	Dự ÁN PHÁT TRIỂN NÔNG THÔN TỔNG HỢP CÁC TÌNH MIỀN TRUNG
	(Loan 2357-VIE)
	BIÊN BẢN LÀM VIỆC
	Hôm nay, ngày & tháng 3 năm 2014, tại. Xã. Thuy phụ chúng tối gồm:
	<ol> <li>Đại diện nhóm tư vấn của dự án Phát triển nông thôn tổng hợp miền Trung:</li> </ol>
	- Ong/Bà Vi Hoang Lân Chức vụ Tư Vớn Môi Trường
_	- Ong/Ba Ducong Duc Chim chire vy the voin TDC.
	- Ong/Ba Hoany Hounds Chirc vy The voin we Crist
	II. Đại diện Ban QLDA tỉnh
	- Ong/Ba Ton That Khanh Chức vụ Can bộ BQL DA tinh TT. Huế
	- Ong/Ba Diep winh Phong Chức vụ Cần bà BOLDA
	- Ông/Bà Chức vụ
	III. Đại diện địa phương
	- Ong/Ba Nas Viet Vinh, Chức vụ Pho CT UBND Xã
	- Ong/Ba Ng6 thi Mung Chiro vu Chi tich HS phu me
_	- Ong/Ba to Now Tools Chức vụ Địa Chính Xa
	Nội dung làm việc:
	17 Pha bien thong Tim We Du ain Nang cap he
	17 phổ biến thông tim về Dư an Năng cấp hệ Thông để Sông Đài criang bou gồn : muc
	stich main tien va ke hoach these hien Du an.
	27 the van Moi helding The war the van
	de God tham van it lien voi cae he SAH
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	3.7 Cothi sohan car y lian cua Car ha BAH
	Va land day otia Philang Ve viec this
	Die am der vor cas hop phan mhis cas von
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dea most tribing trong	qua trinh this him hi an.
Sau khi đọc lại biên bản, những người có m gì khác.	tặt đồng ý về nội dung biên bản, không có ý kiến
Đại diện Ban QLDA tỉnh	Dat diện UBND xã
Jughen	
Diep Minh Dhong	
2.4	10 + 20
	Đại diện tư vấn
	Shieng Duc Chien
	Opening Duc Chien

# CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc



Thuy Phu ngày 18 tháng 3 năm 2014

DỰ ÁN PHÁT TRIỂN NÔNG THỐN TỔNG HỢP CÁC TỈNH MIÈN TRUNG - KHOẢN VAY BÓ SUNG

# BIÊN BẢN HỌP THAM VẤN CỘNG ĐỜNG

Về các chính sách an toàn: Môi trường, Tái định cư, Giới và Dân tộc thiều số

Tên tiểu dự án: Nămg C Xã Thúy Phụ huyệ	ap he thong testing Dai Grang n TX Holong thuy tinh IT- Hue
I. Thành phần tham dự: - Ông/Bà	Chức vụ Cán bà ban QLO A linh TT, Huế
- Ông/Bà,	Chức vụ
- Ong/Ba. Ngo Vier Vinh	Chức vụ PCT UBNO Xã
- Ong/Ba Ngo thi Nucha.	Chức vụ Ct HĐ! LH PN Xa
- Ong/Ba to Van Toan,	Chức vụ Địa Chính xã
- Ong/Ba. V. W. Hoomey Lan.	Chức vụ Từ Voia MIN Trung
- Ong/Ba Hong Hang Hunh	Chirc vy I'v van ve Grat
<ul> <li>Đại diện những hộ bị ảnh hưởng</li> </ul>	người, trong đónữ, chiếm(%) , Dân tộc
thiểu sốngười, chiếm%	
II. Nội dung	

### 2.1 Các nội dung phổ biến:

- Cung cấp các thông tin về dự án như địa điểm, quy mô, các thông số kỹ thuật cơ bản ....
- Chính sách an toàn của dự án bao gồm: Chính sách về giới và sự tham gia của cộng đồng; Kế hoạch hành động giới; Chính sách môi trường, Chính sách Tái đình cư và kế hoạch phát triển người dân tộc thiểu số.

### 2.2 Tham vấn cộng đồng:

- Tham vấn các vấn đề giám sát và tham gia của cộng đồng trong các giai đoạn chuẩn bị, thực hiện, vận hành tiểu dự án, các vấn đề về giới và lồng ghép giới, nhóm dễ tổn thương, hộ bị ảnh hưởng nặng...

- Tham vấn các vấn đề về môi trường, tác động môi trường tiềm năng của dự án bao gồm tác động lên môi trường tự nhiên và xã hội của khu vực dự án và những biện pháp giám thiểu các tác động tiêu cực;
- Tham vấn các vấn đề về tái định cư, các tác động dự kiến, quyền lợi của người bị ảnh hưởng, các biện pháp giảm thiểu tối đa nhằm có ít tác động nhất đến người bị ảnh hưởng.
- Tham vấn nhu cầu đào tạo của các hộ bị ảnh hưởng.

### III. Ý kiến thảo luận

III.1.Các vấn đề về giới, tham gia cộng đồng
1) Cac his 13AH thông what se than gra vais
Việc tham gite gram lat cong tong Do Trong quá
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de co Sil tion 65 do ce can though thong que trinh
21000
3) Bo Ngô thủ Nulong, Chủ tích Ho phụ nư xã
3) & Ngô thủ Nưêng, Chủ tích Hại phụ mã Xã Cho năng Se đóng tinh Và thông nhai vận động
thanh vien thong Ho! phy new ling his va than
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III. 2. Các vấn đề về môi trường
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12 Can Chu y viêc Chair ha hang cay chap lu tranh vai viêc mua mula de khong and helding den
Che toi Sais cuia caé les 13AH.
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87 What those care chie of lawn strong thour niese
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4> trong that gian the cong Se and husbig stead

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III.3. Các vấn đề về tái định cư và dân tộc thiể	usó car hoa man cua Du
- *	y Ko do cto cac ho BAH
	these his Die an trong that from
Sam what	
2) thong quá trinh this co	ng, new laws can't helding tai
IV. Két luận - Làng mộ cats phái to	otion but the car how which didoi.
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tulbe most talking va can't	the state of the s
cuts them give grain Sar	
2> trong que trimh the	_ ,
thin mburny tac stong of	-
nguar milde Simb haver, t	
	ter ring ho Dy am, do việc thy
hat đại đại trà tại San là K Trong quá trinh thị Công, nấi - Cuộc họp các bên thống nhất và kết thúc vào I	hong stong Ke. Cac his to night day San Cus cuc his BAH town that so these day ac 16 ngày 12 tháng. 3. năm 2014 bu
Đại diện cộng đồng	Đại điện UBND xã
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Đại diện Ban QLDA tỉnh	Đại diện tư vấn
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21 21 21	Shield Chien
Diep Ninh I hong	niema Duc Chien

3

# CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập – Tự do – Hạnh phúc



Thur Dhu., ngày Athang 0 - nam 2014

DỰ ÁN PHÁT TRIỂN NÔNG THÔN TỔNG HỢP CÁC TÌNH MIỀN TRUNG -KHOẢN VAY BỔ SUNG

DANH SÁCH ĐẠI BIỂU THAM DỰ CUỘC HỌP (Tham vấn cộng đồng về chính sách an toàn: Môi trường, Tái định cư, Giới và Dân tộc thiểu số

Tên tiệu dự án: Nang Cáp hệ thống Đế Song Đại Grang Xã thuy Phụ huyện TX Hiệng thủy tính Tt, Huế

STT	Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghi chú
1	Note the hing	Nu	Thân 1A	1	
2	Ngôthi Ngọc Diệp	NE	than Etruigne	HARD That	
3	phan The thanh	Nie	than 10	Thaih	
4	phono thi saa	Ne	thin 10	Sul	
5	HE Thi thanh	NE	thin 10	The Hu	
1	Não the phie	NŽ	then 10	Vac	
7	pham-thi Hue	Nã	then to	nu	
					+
			-		
				_	
					1

STT	Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghi chú
8	Phan Van Tx	Noun	Then solvent xã	My	
9	Tian Dai Ly	Movi	Thin 5 (Twenty TH see)		
10	Tovertoon	Now	Dice chink xa	Mule	
11	Tran Vous Childry	Nam	Ct CCB_	Churg	
12	Hố Hiệp	Now	phong KT-TX History	him hotile	
17	Train Dai Ly	Nam	Than 5	land.	_
14	Plagn VLE Ba Hai	Now	thin 5	Trai	
15	Le Tranh	Nam	than 6-courtex2	Mark	
16	Ngo Dão Sy	Nom	thom 1B_tty To	m	
17	Down Vous Huy	Nam	than 8B_	web	
18	Phan Holu Tung	Now	than 3	July 16	
19	Nguyễn Thanh Son	Nam	Anon 10	00/	
10	Ngo Viet Vinh	Nam	thon 10	Sill	
					4
		-			

STT	- Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghi chi
2	6				
				1	
	Đại diện cộng ở th the trg - Cher		TONG TONG	Đại diện UBND x	/
	Un vog - Taker	rl You	TO HE	Ngo vie	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	PHO PHO	Ngo vie	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	TO THE	Ngo vie	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	THE THE PARTY OF T	Ngo vie	r vinh
	Un vog - Taker	ol You	PHO TO THE PHONE OF THE PHONE O	Ngo Nie Đại diện tư vấn Được	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	PHO TO THE PHONE OF THE PHONE O	Ngo vie	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	TO HE CONTRACTOR OF THE CONTRA	Ngo Nie Dại diện tư vấn Dước Julian	r vinh
	Jug - Caher Dại diện Ban QLD	ol You	THE PARTY OF THE P	Ngo Nie Dại diện tư vấn Dước Julian	r vinh

# Meeting minutes at public consultation and lists of attendance in the public consultation meeting at Loc An commune

. =/	SPHAT THEN HONG THON S
	CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
	Độc lập – Tự dọ – Hạnh phúc  An , ngày l & tháng O Snăm 2014
	Dự ÁN PHÁT TRIỂN NÔNG THÔN TỔNG HỢP CÁC TÌNH MIỀN TRUNG
	(Loan 2357-VIE)
	BIÊN BẢN LÀM VIỆC
	Hôm nay, ngày / 8tháng Chăm 2014, tại LIBND Xã DC Aldhung tôi gồm:
	I. Đại diện nhóm tư vấn của dự án Phát triển nông thôn tổng hợp miền Trung:
	- Ong/Ba Doan Dai Dine Chuyen gra Tai doul cel
	- Ong/Ba Ng The The Trang chicky Chayles gia hes tribing.
0	- Ong/Bà Apan Dai Amb Chức vụ Chuyển gia Tai đầu chỉ - Ong/Bà Ng Thị Thu Trang chức vụ Chuyển gia Nưới trường - Ong/Bà And Chức vụ Chuyển gia Tai đầu chỉ
	II. Đại diện Ban QLDA tỉnh
	- Ong/Bà, Dip Nuns Phong chức vụ (180 Ban OL OA tris
	- Ông/Bà
	- Ông/Bà Chức vụ
	III. Đại diện địa phương
	- Ong/Ba Ngayer Em Chức vụ CT UBND Xã.
	- Ong/Ba Lot Dal Ta chức vụ Cho Ding Chiel
	- Ông/Bà Chức vụ
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_	Diep Minh Phong	Đại diện UBND xã  CHỦ TỊCH
		Dại diện tư vấn  Sau Y  Đốm Cầm Định
0		

## CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc

LOC An..., ngày L Ktháng D Inam 2014

DỰ ÁN PHÁT TRIÊN NÔNG THÔN TỔNG HỢP CÁC TÌNH MIÈN TRUNG - KHOẢN VAY BỔ SUNG

# BIÊN BẢN HỌP THAM VẤN CỘNG ĐỜNG

Về các chính sách an toàn: Môi trường, Tái định cư, Giới và Dân tộc thiểu số

Tên tiểu dự án: Nang, Cap.	he Hong ale song Dai Grang
xă DC An huyên	Phy Do tinh Theia Thier Low
I. Thành phần tham dự:	Do or Tabel on &
- Ong/Ba Down lan Ams	Chức vụ Từ vấn Mort sing củi
- Ong/Ba Mg hi The Trang	chức vụ Tử v đụ Mớt phường
- Ong/Ba. Dep Mins Ching	Chức vụ OB Ban QLOJ Jông
- Ong/Ba Navyon Em	Chức vụ CT LIBND Xa
- Ông/Bà It Arc Ta,	Chức vụ Ch địa Chính
- Ông/Bà,	Chức vụ
- Ông/Bà,	Chức vụ
- Đại diện những hộ bị ảnh hưởng	người, trong đónữ, chiếm(%), Dân tộc
thiểu sốngười, chiếm%	
II. Nội dung	

# 2.1 Các nội dung phổ biến:

- Cung cấp các thông tin về dự án như địa điểm, quy mô, các thông số kỹ thuật cơ bản ....
- Chính sách an toàn của dự án bao gồm: Chính sách về giới và sự tham gia của cộng đồng; Kế hoạch hành động giới; Chính sách môi trường, Chính sách Tái đinh cư và kế hoạch phát triển người dân tộc thiểu số.

### 2.2 Tham vấn cộng đồng:

- Tham vấn các vấn đề giám sát và tham gia của cộng đồng trong các giai đoạn chuẩn bị, thực hiện, vận hành tiểu dự án, các vấn đề về giới và lồng ghép giới, nhóm dễ tổn thương, hộ bị ảnh hưởng nặng...

- Tham vấn các vấn đề về môi trường, tác động môi trường tiềm năng của dự án bao gồm tác động lên môi trường tự nhiên và xã hội của khu vực dự án và những biện pháp giảm thiểu các tác động tiêu cực;
- Tham vấn các vấn đề về tái định cư, các tác động dự kiến, quyền lợi của người bị ảnh hưởng, các biện pháp giảm thiểu tối đa nhằm có ít tác động nhất đến người bị ảnh hưởng.
- Tham vấn nhu cầu đào tạo của các hộ bị ảnh hưởng.

III. Ý	kiến	thảo	luân
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III. 2. Các vấn đề về mội trường	
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an ban, giain thieu 1	therein day
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an train, giain thice of	the any day
an train, giain thicky of	therein

III.3. Các vấn đề về tái định cư và dân Dring John V	tộc thiều số dù da, không có ng
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anyon to wal	Các 150 BAH
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	Đại diện UBND xã
	Đại diện UBND xã
Đại diện cộng đồng	Đại diện UBND xã CHỦ TỊCH
Đại diện cộng đồng Đại diện Ban QLDA tình	Đại diện UBND xã CHỦ TỊCH
Đại diện cộng đồng Đại diện Ban QLDA tình	Đại diện UBND xã CHỦ TỊCH  Vàn  Đại diện tư vắn
Đại diện cộng đồng Đại diện Ban QLDA tình	Đại diện UBND xã CHỦ TỊCH  Vàn  Đại diện tư vắn
Đại diện cộng đồng	Đại diện UBND xã CHỦ TỊCH
Đại diện cộng đồng Đại diện Ban QLDA tình	Đại diện UBND xã CHỦ TỊCH  Vàn  Đại diện tư vắn

# CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập – Tự do – Hạnh phúc



Coc Au ngày 18 tháng 03 năm 2014

DỰ ÁN PHÁT TRIỂN NÔNG THÔN TỔNG HỢP CÁC TÌNH MIỀN TRUNG -KHOẢN VAY BỔ SUNG

DANH SÁCH ĐẠI BIỂU THAM DỰ CUỘC HỌP (Tham vấn cộng đồng về chính sách an toàn: Môi trường, Tái định cư, Giới và Dân tộc thiểu số

STT Họ và tên Giới Địa chỉ Ký tên Ghi chủ

The Alla Chi Diệu Ly Nư Làc An Duy Ngườn Mỹ Minh Nư Làc An Thương

Krân Thị Tra My Nư Lác An Thương

STT	Họ và tên	Giới tính	Địa chỉ	Ký tên	Ghí chú
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	Đại diện Ban QLDA	tinh	THE PROPERTY OF THE PROPERTY O	CHỦ  Mg.yes	TICH 8m

### Photos of public consultation meeting





Photo 19: Public Consultation in Vinh Thai Photo 20: Public Consultation in Thuy Phu Commune, 20 March 2014

Commune, 20 March 2014

### Annex 3. Data source

- 1. PPMU of Thua Thien Hue province, upgrading Dai Giang river dike system, Thua Thien Hue province, 2014.
- 2. PPMU of Thua Thien Hue province, Basic Design Explanation of upgrading Dai Giang river dike system, Thua Thien Hue province, 2014.
- 3. Vinh Thai Commune People's Committee, Annual Report on Social Economy, December 2013.
- 4. Thuy Phu Commune People's Committee, Annual Report on Social Economy, December
- 5. Loc An Commune People's Committee, Annual Report on Social Economy, December 2013.

### **Annex 4: Environmental monitoring forms**

Environmental Compliance Monitoring Form for Construction Package

### Part A: General Project Information

Subproject Name:	
SIR Code: Subproject Package #	Activity Sector:
Province: Dist	icts:
Design and Supervision Consultant Firm:	
Construction Company Name:	Contract Date:
Contract Amount:	Contract Duration (days)

### Initial Environmental Examination (IEE)

Upgrading Dai Giang river dike system Integrated Rural Development in Central Provinces Project

integrated Narai Bevelopinent in Central Povinces Project	
Person Responsible:	Phone
PPMU EMO:	_ Phone

### Part B: Monitoring checklist

### Performance Indicator 1. Design and Preparations

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
Have all UXO been cleared prior to commencement of construction?			
2. Does the subproject design meet applicable engineering safety and public health standards?			
3. Have the resettlement provisions been disclosed to the affected communities and compensation made to affected persons or households?			
4. For the applicable subproject type:			
<ul> <li>a. Roads, embankments, irrigation works and coastal protection: does the design provide cross drainage to prevent flooding?</li> </ul>			
b. Markets: does the design provide washing facilities and toilets in the market area?			

The construction Supervision consultant (CSC) to complete 5-10 with the PPMU and construction contractor at the time of start-up. Date of Monitoring:\_\_\_\_\_

5.	Has the contractor prepared a SEMP?	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
6.	Has the contractor posted a public notice regarding the nature, extent and cost of the project?			
7.	Are locations for mixing plants sufficiently distant from houses, schools and hospitals?			
8.	Are agreements in place with owners for temporary use of land for worker camps and construction yards?			
9.	Have spoil disposal sites been selected in consultation with local authorities?			
10.	Are official permits on record for quarry sites and borrow pits?			
	Score (1-10; 10 total)			(%)

### Performance Indicator 2. Worker Provisions

The CSC to complete 11-16 in conjunction with the PPMU and construction contractor following commencement of construction. Date of Monitoring:\_\_\_\_\_

	Yes	<u>No</u>	<u>Remarks</u>
11. Were local authorities consulted in the planning for the location of construction worker housing?			

# Initial Environmental Examination (IEE)

Upgrading Dai Giang river dike system

Integrated Rural Development in Central Provinces Project	Integrated R	ural Develop	ment in Centra	I Provinces	Proiect
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Integrated Rural Development in Central Provinces Project			
12. Are supervisors or other site personnel trained in basic first aid emergency response measures?			
13. Are first aid kits readily available to workers at the job site along with instructions for use?			
14. Has the contractor or Inspector from the Department of Health undertaken an awareness program for communicable diseases/HIV-AIDS?			
15. Has the contractor provided safety equipment (hard hats, ear plugs, dust masks, safety boots and glasses) to workers and training in use?			
16. Are construction camps equipped with adequate water supply, sanitary toilets, washing facilities and facilities for waste collection and storage?			
Score (11-16; 6 total)			(%)
Performance Indicator 3. Biodiversity  The CSC should complete 17-21 in conjunction with the PPMU and conformation of construction. Date of Monitoring:	onstruction co	ntractor follo	owing commenceme
	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
17. Does the project avoid encroaching on natural forests or wetlands?			
18. Does the project avoid adverse effects on flow of natural streams and water quality?			
19. Are worker camps located outside of forested areas and has the contractor restricted access of workers to forests, fishing and hunting?			
20. Does the contractor obtain fill materials only from pre-existing quarries, or from borrow pits within the strict limits of the construction zone?			
21. For irrigation sector projects, are effects on agricultural biodiversity limited through use of integrated pest management?			
Score (17-21; 5 total)			(%)
Performance Indicator 4. Community Based Monitoring			
The CSC to complete 22 and 23 in conjunction with the PPMU and confidence of construction. Date of Monitoring:	onstruction co	ntractor follo	owing commencemen
	Yes	<u>No</u>	Remarks
22. Has the contractor posted a public notice regarding complaints from the community?			
23. Has there been a public consultation regarding construction, environmental impact, and the community complaints system?			
Score (22-23; 2 total)			(%)
Outcome of Public Consultation:	ı L		•
Date: Location:			
Topics covered in presentation:		_	

omments from Attendees:	

### Performance Indicator 5. Community Values and Safety

<u>Items 24 – 35 should be inspected quarterly.</u> Date of Monitoring:

	<u>Yes</u>	<u>No</u>	<u>Remarks</u>
24. Is temporary access provided to adjacent properties as needed?			
25. Is permanent access to adjacent properties reinstated on completion of a segment of work?			
26. Are construction hours adjusted around houses, hospitals and schools to minimize disturbance?			
27. Does the contractor limit the scope of construction in progress to minimize community impacts?			
28. Are physical impacts on public infrastructure and service disruption minimized?			
29. Are materials transported on approved haul routes?			
30. Are construction equipments maintained in good condition?			
31. Do vehicles operate within legal speed limits?			
32. Are material loads traveling on public routes covered?			
33. Is dust suppressed by watering exposed surfaces?			
34. Has the contractor installed signs and lighting in vicinity of works on public roads?			
35. Is access to the construction site restricted to the public?			
Score (24-35; 12 total)			(%)

### Performance Indicator 6. Hydrology/Water Pollution

<u>Items 36 – 43 should be inspected quarterly.</u> Date of Monitoring:

	Yes	<u>No</u>	Remarks
36. Are construction camps maintained in a clean and hygienic condition?			
37. Are oil, fuel and chemicals stored in enclosed areas (diked or covered)?			
38. Is discharge of waste water into water bodies used for water supply avoided?			
39. Is clearing activity suspended during rains?			
40. Does the contractor prevent discharge of concrete trucks to water ways?			
41. Have existing drainage patterns been maintained during construction?			
42. Are areas of standing water in the construction area drained and backfilled?			
43. Are sediment controls installed upslope of waterways?			
Score (36-43; 8 total)			(%)

### Performance Indicator 7. Project Completion

<u>Items 44 – 50 should be inspected prior to finalizing the construction works.</u>

Date of Monitoring:\_\_\_\_\_

	Yes	<u>No</u>	<u>Remarks</u>
44. Have drainage fixtures, curbs, road shoulders and ditch slopes been finished out to prevent hazard to the public during use?			
45. Are ground surfaces in the project area graded to prevent water from collecting?			
46. Have all construction debris, tree cuttings, excess dirt, rubble and scrap been removed from the construction zone?			
47. Have all pits been filled in and graded to drain, underground tanks (including septic tanks) removed and holes backfilled?			
48. Are all waste products removed from the construction site, equipment yards and worker camps, including oil waste, scrap materials and equipment, building materials and domestic waste?			
49. Have all points of access (drives, walks) and utilities (water supply, power, communications) to public and private property been restored to original condition?			
50. Have all complaints by the local community and individuals been resolved by the Contractor?			
Score (44-50; 7 total)			(%)

Performance Tracking

Performance Tracking consists of three sections:

- a. Performance Follow-up, where performance shortfalls noted in prior monitoring are listed and checked against current monitoring results.
- b. Community Complaints, where issues raised by the affected community are registered, tracked and outcomes recorded.
- c. Performance Indicator Results, where environmental performance against indicators are recorded.

### Section 1: Performance Follow-up

Column 1	Column 2	Column 3	Column 4	Column 5
Performance variable (#) / Date Observed	Reason for negative rating	Was agency responsible notified? / Date	Was problem corrected before next monitoring?	Was performance indicator adjusted?

### **Section 2: Community Complaints**

Column 1	Column 2	Column 3	Column 4	Column 5
Person Registering Complaint / Date	Summary of Complaint	Was agency responsible notified? / Date	Was problem corrected before next monitoring?	Was Person satisfied with Action?

### Initial Environmental Examination (IEE)

Upgrading Dai Giang river dike system
Integrated Rural Development in Central Provinces Project

Inspector:\_\_\_\_\_

Project Name: #:Province: Project Start Date:										
	Startup	Rev.	Q1	Q2	Q3	Q4	Average	Completion	Rev.	Final
Recording Date:										
_,										
<ol> <li>Design and Preparations</li> </ol>										
Design and Preparations     Worker Provisions										
Preparations										
Preparations  2. Worker Provisions										
Preparations  2. Worker Provisions  3. Biodiversity  4. Community Based										
Preparations  2. Worker Provisions  3. Biodiversity  4. Community Based Monitoring  5. Community Values /										
Preparations  2. Worker Provisions  3. Biodiversity  4. Community Based Monitoring  5. Community Values / Safety  6. Hydrology/Water										

### Initial Environmental Examination (IEE)

Upgrading Dai Giang river dike system
Integrated Rural Development in Central Provinces Project

(Signature)

Annex 5: Environmental mitigation measure to include into bid documents Subproject of Upgrading Dai Giang river dike system, Thua Thien Hue province

Sub-project Activity	Potential impacts	Proposed Mitigation Measure
Site clearance Earthworks	Erosion or sedimentation	<ul> <li>Equipment to prevent sediment</li> <li>Stone embankment or construction and installation items to stabilize the banks of the roof slope from landslide risk</li> <li>Reduce the time and area of the surface area used for construction</li> <li>Proceed gradually restoring vegetation in the areas of clearance for construction</li> <li>Conduct dredging in the rainy season if there is a high level of sediment contamination</li> </ul>
Material gathering	Dust, vegetation clearing, noise, water quality or other impacts from borrow area, mines for construction sites	<ul> <li>Preferred building materials from commercial activities currently licensed and approved for the environment (soil exploited from Thuy Phuong and La Son borrow pits, other materials purchased at the district centre)</li> <li>Cover trucks that transport materials purchased from the mines</li> <li>Ensure that all facilities and equipment maintenance are adequate</li> </ul>
Material gathering Earthworks Excavate activities and worker camp establish on sites	Pollution of waterways, aquatic environments or groundwater	<ul> <li>Storage of chemicals (oil, etc.) for construction in a secure area with a concrete roof to avoid rain water and flooding</li> <li>Ensure vehicles and equipment are maintained in good condition</li> <li>Building toilets to the standard prescribed by the Ministry of Health and installing equipment scouring farm construction</li> <li>Regularly collecting waste land to avoid sedimentation, as muddy water of the region and Dai Giang river</li> <li>Prohibited use of hazardous materials near water sources</li> <li>Hazardous materials spilling out unexpectedly to be cleaned, reported and monitored</li> </ul>
Oil and chemical storage Construction and domestic waste Material gathering	Soil contamination	<ul> <li>Gather material, fuel at the area with high concreted ground with roof</li> <li>Avoid spilling material when refueling, replacing fuel, maintaining machineries</li> <li>Waste oil, oily rags should be collected separately for reuse or proper treatment.</li> <li>Gather neatly soil at temporary storage site. Clean construction site regularly.</li> <li>Prevent soil contamination requiring contractors to instruct and train their workforce on storage and handling of materials and chemicals that can potentially cause soil contamination</li> </ul>
Earthworks Concrete embankment  Waste and material transportation Construction machinery operation	Air pollution and impacts on safety traffic	<ul> <li>Building measures on construction techniques to minimize the reasonable time and area for use during construction</li> <li>Cover all trucks carrying raw materials to and from the construction area</li> <li>Ensure equipment and vehicle maintenance is in good condition</li> <li>Water sector under construction and related road, increasing the frequency of watering when passing through communities</li> <li>Minimize traffic travelling on the village's road and monitor speed limit</li> <li>Concrete batching plants to be arranged a distance of 500m away from residential areas</li> </ul>

Sub-project Activity	Potential impacts	Proposed Mitigation Measure
-		<ul> <li>Frequency measurement of dust control to be increased when close to residential areas</li> </ul>
Earthworks  Concrete embankment  Waste and material transportation Construction machinery operation	Noise and vibration generation	<ul> <li>Use modern and new construction machines and equipment to meet standards of exhaust, noise, and vibration as regulated by the Government. The Contractor needs to submit the Engineer documents proving that all construction vehicles, equipment, and machines are checked and meet requirements concerning noise and vibration generation of the current Vietnam standards as QCVN 26:2010 for noise level and QCVN 27:2010 for vibration emitted by construction works</li> <li>Maintain machineries, equipments and transportation trucks regularly.</li> <li>Select routes for transportation and avoid crossing residential areas whenever possible</li> <li>Arrange the number and transportation time, reasonable speed as passing residential area.</li> <li>All noise generation activities shall be undertaken using minimum impact intensity and only during the hours of 07:00 to 17:00, and shall be located at least 300 metres from any residence;</li> <li>Provision noise protection equipment for worker;</li> <li>Operation schedule of noise generation equipment must be approved by construction supervision.</li> <li>In case that, noise generation equipment need to run during night time nearby the resident areas, the detail schedule will be considered and approved by construction supervision before could be applied</li> <li>Local communities must be informed about construction schedules and time through informal public consultation or any local people meetings and notice board;</li> <li>Strictly implementing noise control measures as noted above through sampling and taking adequate corrective actions if needed</li> </ul>
Transport vehicle activities Construction machinery operation Material gathering Excavation	Changes to road safety/traffic movements, trading activities property access	<ul> <li>Minimize surface by construction, to avoid affecting public transport</li> <li>Construction signs used in construction area</li> <li>Install signage and lighting for construction works</li> <li>Inform communities living near sub-project of planning and execution time</li> <li>As much as possible, limit the operation of facilities, construction and installation on the main roads, and avoid operation in the peak hours.</li> <li>Installation of speed limit signals and other signals for synchronized traffic</li> <li>Building temporary toilets with standards as prescribed by</li> </ul>
Construction activity, domestic waste of worker's camps	Create solid waste generated by construction activities or waste generated from construction worker's camps	the Ministry of Health with a proper water supply at construction camps  Discussion with locals about the selection and use of landfill waste and about suitable conditions for workers in construction camps  Collect waste and keep it in a safe area before moving it for temporary removal treatment  There are regulations about sanitary and garbage regulations where, and how to handle garbage and common rules for the workers. Update daily and directly supervise waste collection regulations
Construction activities	Affect rural infrastructure	<ul> <li>Consulting the sub-project engineering staff to minimize physical impacts on public infrastructure and disruption to</li> </ul>

Sub-project	Potential	Proposed Mitigation Measure
Activity	impacts	Proposed Miligation Measure
	system such as communication system, electricity and water-supply, etc	<ul> <li>services;</li> <li>Avoid impacts on low-voltage lines in villages during transport of materials and construction machinery;</li> <li>Minimize using heavy trucks for transporting materials in rainy season to avoid accidents from crashing into houses or works at road edge due to slippery road;</li> <li>Comply traffic regulations (limit the velocity of trucks);</li> <li>Install warning signs and avoid crashes to electric poles and houses.</li> <li>Reconstruct outlets and drainage pipes in hamlet 10, Thuy Phu commune.</li> </ul>
Workers come from other areas	Social impact caused by the presence of construction workers in the region	<ul> <li>Consider house leasing in locality in comparison with site camps</li> <li>Ensure site camp area are kept in a clean and hygienic condition by arranging camps at suitable place, cleaning periodically, applying sanitary regulations, etc</li> <li>Rules for construction workers in the implementation of sanitation and of relationships with people at work site and at accommodation</li> <li>Distribute guidance leaflets to workers or invite health workers to speak about the prevention of infectious diseases and diseases that may occur in the areas of the shack camp. Recommend workers use bed curtains, and keep sanitary accommodations clean to prevent diseases caused by insects such as dengue, malaria that can then spread to the community.</li> <li>Consultation with competent staff in planning local housing for workers in the local community</li> <li>Implement HIV/AIDS and Trafficking Awareness and Prevention Campaign</li> </ul>
Impacts due to inappropriate enivronmental recovery responsibility	Insanitation condition and health risks at borrow pits, construction sites and disposal areas	<ul> <li>Remove all of the construction machines and construction tools out of the construction sites upon construction complete.</li> <li>Perform clean in all construction sites and temporary acquired land areas upon the construction complete and before hand over.</li> <li>Compensate adequately for the temporary acquired land area that could not be recovered</li> <li>Plant tree to recover the vegetation coverage.</li> <li>Taking photos of the clearance site before clearance and after recovery process complete to ensure the vegetation recovery has been recovered adequately.</li> </ul>

# Annex 6. Agreement Minutes of the temporary dumping sites

\$1.	•
	CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM
	Độc lập - Tự do - Hạnh phúc
	BIÊN BẢN XÁC ĐỊNH VỊ TRÍ BÃI THẢI
	Đự án : Nâng cấp hệ thống để sông Đại Giang thuộc dự án Phát triển nông thôn tổng hợp cá tĩnh miền Trung -Khoản vay bổ sung Hạng mục : Tuyến để bờ Hữu đoạn qua xã Lộc An
	Hồm nay, ngày 2 k, tháng c 1.năm 2014, tại thực địa tuyến để sông Đại Giang đoạn qu xã Lộc An. Các thành phần tham gia gồm có :
	I. Thành phần tham gia:
	1. Đại diện Chủ đầu tư: Ban QLDA PTNT tổng hợp các tính miền Trung
	- Ông: Chức vụ:
	- Ong: One Their Buil Chire vu: CB Kap thuit
	2. Đại diện đơn vị khảo sát, thiết kế : Công ty TNHH Tư vấn và XD Trí Huy.
	- Ông: Bư. Tr. Dưng. Chức vụ: Giám đốc
	- Ong: Desay Thank Diting Chức vụ: Thiết kế
	3. Đại diện UBND xã Lộc An.
	- Ông: Hô A Sp. Chức vụ: Chủ tịch
	- Ong: Hong Xvão Lat. Chức vụ: Địa chiết
	II. Nội dung làm việc:
	<ul> <li>Xác định các vị trí bãi thải dất đào trong quá trình thi công (bao gồm đất phong hòa) ở tuyệ để Đại Giang đoạn qua xã Lộc An và một số nội dung khác phục vụ cho quá trình thi công.</li> </ul>
	- Sau khi nghe đơn vị tư vấn trình bày, cùng với địa phương xác định vị trí các bãi th như sau và các nội dung khác như sau : — Alan Auger, bai Hoi Av. 19 Ki An Gorg vi Ho Thanh (Thân An Tha
	Ci by use chyen throng 2 km
1.1	III. Kết luận: Biên bản này làm cơ sở pháp lý để đóng tập và triển khai sau này.
	Biển bản này được lập thành (3 bản có giá trị pháp lý như nhau, mỗi bên giữ 01 bản.
	ĐẠI ĐIỆN CHỦ ĐẦU TƯ TOẠI ĐIỆN CHỦ ĐẦU TƯ TRÍ HUY  TRÍ HUY  TRÍ HUY  TRÍ HUY  TRÍ HUY
	Cao Thai Buil Buil Gri Dung
	O That Built one ou rung

# CỘNG HOÀ XÃ HỘI CHỦ NGHĨA VIỆT NAM Độc lập - Tự do - Hạnh phúc

BIÊN BĂN XÁC ĐỊN	NH VỊ TRÍ BÃI THẢI
Dự án : Nâng cấp hệ thống đề sông Đại Giang tĩnh miền Trung -	thuộc dự án Phát triển nông thôn tổng hợp các Khoản vay bổ sung y Tả đoạn qua xã Vinh Hà
Hồm nay, ngày 25, thắng đ 1 năm 2016 xã Vinh Hà. Các thành phần tham gia gồm có	tại thực địa tuyển để sông Đại Giang đoạn qua :
I. Thành phần tham gia:	
1. Đại diện Chủ đầu tư: Ban QLDA PTN	VT tổng hợp các tĩnh miền Trung
- Ông:	Chức vụ:
- Ong: Coo the Birth	Chức vụ:
2. Đại diện đơn vị khảo sát, thiết kế : Cô	ng ty TNHH Tư vấn và XD Trí Huy.
- Ong: Bu. Tre Dury	Chức vụ: Giám đốc
- Ong: Duary Thear Diving	Chức vụ: Thiết kế
3. Đại diện UBND xã Vinh Hà.	
- Ong: La D. ch T. 6n	Chức vụ: Chủ tịch
- Ong: TN guyir Chin	Chire vu: Dia chol
II. Nội dung làm việc:	
	quá trình thi công (bao gồm đất phong hóa) ở tuyến dung khác phục vụ cho quá trình thi công.
- Sau khi nghe đơn vị tư vấn trình báy, như sau và các nội dung khác như sau :	cùng với địa phương xác định vị trí các bài thái
- Van chuyên bai kan tê wi	the this cary to two 2 12 Just the
III. Kết luận: Biến bản này lắm cơ sở pháp lý	ý để động tận và triển khai vau này
Biên bản này được lặp thành 03 bản có gi	ấ trị pháp lý như nhau, mỗi bên giữ 01 bản.
ĐẠI ĐIỆN CHỦ ĐẦU TƯ ĐẬT ĐIỆN T	HIÉT KÉ DALDIÉN UBND XÃ VINH HÃ
Colera TRI HUY	Jan Day
Cast brickers &	lui Crí Dung . La Dinh Can