

Annex E

Annex E Standard Designs and Estimated Costs for Development of Small Scale Rural Infrastructure

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Annex E: Improvement of Small-Scale Rural Infrastructure

E.1 Proposed Rural Infrastructure

E.1.1 Long List provided by Districts and DARDs

The needs for small-scale infrastructure were assessed based on the information on the development needs collected from the 15 district offices concerned with the target protection forests and nature reserves. Several types of small-scale rural infrastructure, such as road, irrigation system, water supply system, electricity distribution system, village house/meeting house, and school building, were proposed in the lists. Among them, the preparatory survey team selected i) rural road (commune/village road), ii) small-scale irrigation system (commune/village irrigation system), and iii) small-scale watershed supply system (commune/village water supply system) as the activities essential to livelihood improvement in rural communities in the 15 districts.

A total of 1,741 sub-projects of either new construction or rehabilitation/upgrading of the three types of rural infrastructure were confirmed as proposals submitted by the 64 target communes to the district offices concerned. The majority of the proposals (1,218) were those relating road works, followed by those for irrigation development (336) and water supply (167) as shown below. More details of the development needs of the target communes are shown in **Tables E-1 to E-15** attached to this annex.

Summary of Long List of Rural Small-Scale Infrastructure

Province	District	No. of Target Commune	Road Works		Irrigation Works		Water Supply Works		Total No. of sub-projects
			No. of sub-projects	Qt (km)	No. of sub-projects	Qt (canal) (km)	No. of sub-projects	Qt (system)	
Dien Bien	Dien Bien	5	396	506	96	90	4	16	496
	Muong Cha	1	38	81	22	8	0	0	60
	Tuan Giao	2	89	115	6	7	2	2	97
	Subtotal	8	523	702	124	105	6	18	653
Lai Chau	Sin Ho	13	125	515	42	81	9	9	176
	Tan Uyen	6	52	84	33	73	7	7	92
	Than Uyen	3	6	15	3	3	4	4	13
	Subtotal	22	183	614	78	157	20	20	281
Son La	Moc Chau	1	7	12	0	0	0	0	7
	Quynh Nhai	2	7	47	5	7	5	5	17
	Thuan Chau	6	370	6,611	118	252	102	102	590
	Van Ho	2	7	144	3	6	16	44	26
Subtotal	11	391	6,814	126	265	123	151	640	
Hoa Binh	Cao phong	1	11	62	7	NA	1	1	19
	Da Bac	10	51	197	3	4	4	4	58
	Lac Son	3	10	39	4	4	0	0	14
	Mai Cahu	4	38	26	12	8	12	12	62
	Tan Lac	5	11	45	2	1	1	1	14
Subtotal	23	121	369	28	17	18	18	167	
Total		64	1,218	8,499	356	544	167	207	1,741

Source: JICA preparatory survey team based on the lists provided by District Offices (2016)

E.1.2 Criteria of Selection of Priority Sub-projects

The following points were considered and discussed for short-listing the potential small scale infrastructure development options proposed by the districts.

◆ Upgrading of existing facility is prioritized than new construction

The priority is given to “upgrading of the existing facilities” rather than “new construction of the facilities” since it is more cost effective and environmentally friend. In fact, there are many proposals of upgrading the existing small scale infrastructure facilities, especially commune/village roads and village irrigation systems. The majority of commune/village roads are earth roads; therefore, they get easily damaged by heavy rains, floods, and

landslides. Village irrigation systems are generally composed of a small reservoirs with stone gabion dikes and earth canals. They are also easily damaged by heavy rains and seasonal floods/inundations. Rehabilitation and upgrading of those malfunctioned facilities are expected to produce the same results as the new construction can bring.

Furthermore, the potential environmental impact caused by rehabilitation and upgrading of facilities is far smaller than the potential adverse impacts caused by new construction. For instance, the construction of a new commune road might cause a certain size of deforestation and/or land acquisition, while no land acquisition or large-scale clearing is expected to occur in upgrading/rehabilitation of existing facilities, such as village/commune roads, irrigation systems (or canals), and water supply system. It is, however, necessary to assess the potential environmental and social risks when the proposed sub-projects of the component are determined. In addition to the prior screening of potential impacts/risks, the environmental code of practice (ECOP) described in Annex-I of the Final Report (Environmental Social and Management Framework) should be applied during the construction period to minimize the potential adverse environmental and social impacts caused by construction works for small scale rural and silviculture infrastructure.

◆ Location of the sub-projects

Any infrastructure development planted within the territory of the special use forests, even rehabilitation/upgrading of the existing facilities, should be rejected to avoid any adverse environmental impact on the ecosystems in the special use forests.

◆ Budget ceiling

The total budget to be allocated to the component is less than 10% of the total project budget. As such budget allocation needs to cover the development needs of 64 communes, the budget will be dispersed to each commune. Hence, a large-scale intervention, such as rehabilitation/upgrading of long length of commune/village road, is given lower priority.

◆ Provision of support to as many communes as possible

Although the budget allocated to the component is rather limited, the component should cover all the 64 communes, at least one option for one commune, unless there is no appropriate option available in the commune. Even though the scale of the intervention is small, the component is essential for encouraging local communities to actively participate in the forest management activities.

◆ Length of road and canal:

The total length of commune/village road or irrigation canal proposed for upgrading might be shorten in the case where a certain positive effect on livelihood improvement is expected, so that the total budget for proposed option can fit in the budget allocation.

E.1.3 Selection of Priority Sub-projects

All the long-listed options were evaluated and classified into three categories: A (high), B (medium), and C (low), and those classified as A were selected as priority options. The following guidelines were employed in the evaluation.

- i) Any project which meets any of the following conditions shall be classified as C.
 - The project area is located within or adjacent to special use forests.
 - The project includes new construction of facilities.

- The project can be classified as higher categories in terms of its scale (e.g., district/provincial roads and large scale irrigation systems).
 - The project meets more than two condition of Class B described below.
- ii) Any project which meets any of the following conditions shall be classified as B.
- The total length of roads to be improved is more than 2 km.
 - The total irrigation command area is more than 100 ha.
 - The total length of irrigation canals to be improved is more than 2 km.
 - The total number of households covered by a water supply system is more than 250 households.
- iii) Any project which does not meet any of the following conditions listed above shall be classified as A.

As a result, a total of 104 development options were short-listed as priority ones in the 64 target communes as summarized below.

Summary of Short List if Rural Small-Scale Infrastructure

Province	District	No. of Target Commune	Road Works		Irrigation Works		Water Supply Works		Total
			No. of sub-projects	Qt (km)	No. of sub-projects	Qt (canal) (km)	No. of sub-projects	Qt (system)	
Dien Bien	Dien Bien	5	10	4.5	5	3.2	0	0	15
	Muong Cha	1	2	0.6	2	0.9	0	0	4
	Tuan Giao	2	5	2.4	1	0.7	0	0	6
	Subtotal	8	17	7.5	8	4.8	0	0	25
Lai Chau	Sin Ho	13	9	10.1	2	5.0	3	3	14
	Tan Uyen	6	2	2.5	3	6.1	3	3	8
	Than Uyen	3	3	3.0	1	0.7	0	0	4
	Subtotal	22	14	15.6	6	11.8	6	6	26
Son La	Moc Chau	1	1	1.5	0	0.0	0	0	1
	Quynh Nhai	2	2	2.0	0	0.0	1	1	3
	Thuan Chau	6	3	2.4	4	5.6	4	4	11
	Van Ho	2	1	2.5	0	0.0	0	0	1
	Subtotal	11	7	8.4	4	5.6	5	5	16
Hoa Binh	Cao phong	1	1	1.0	0	0.0	1	1	2
	Da Bac	10	9	15.0	0	0.0	1	1	10
	Lac Son	3	3	3.5	2	1.8	0	0	5
	Mai Chau	4	7	3.9	4	3.1	1	1	12
	Tan Lac	5	5	6.5	3	1.2	0	0	8
	Subtotal	23	25	29.9	9	6.1	3	3	37
Total		64	63	61.4	27	28.3	14	14	104

Source: JICA preparatory survey team (2016)

Detailed descriptions of the short-listed sub-projects are shown in Tables E-16 to E-30 attached to this Annex.

E.2 Major Features of the Short-listed Sub-projects for Infrastructure Improvement

The main features of the short-listed infrastructure improvement options are summarized below.

Main Features of the Short-listed Infrastructure Development Options

Type of options	Typical Component of the Work
1) Road works	(1) Stripping of top soils by motor grader and removal of soils in the defective portion (2) Replacement of road bed material by macadam and then compaction of the surface (3) Formation of the existing road and placement of the concrete pavement with 3.0 m width and 0.16m thickness on the surface of the existing road (4) Construction of necessary side drains to drain rain water and/or inundated water when a flood takes place (5) Construction of new culverts and installation of retaining walls on the proper location if necessary
2) irrigation	(1) Replace the stone and soil check dam to concrete check dam on the mountain stream with a scouring sluice and wooden stop log (2) Installation of concrete steep slope straight canals with three supports to lead the water to gentle slope area (3) Installation of retention pool to reserve water tentatively before distribute it to the main canal (4) Construction of rectangular open concrete lining canals for irrigation (5) Construction of necessary related canal structures such as drop, culvert and turnout on the irrigation canal (6) Drainage arrangement, if necessary
3) Water supply works	(1) Replace existing concrete intake to new one (type 1) or installation of the pumping system on the reservoir (type 2) (2) Replace damaged or simple treatment tank to improved tank (3) Replace damaged PVC pipes (main pipes, sub-pipes and distribution pipes) to new ones (4) Replace damaged connectors between pipe to pipe

Source: JICA preparatory survey team (2016)

E.3 Standard Designs of the Short-listed Small-scale Rural Infrastructures

Standard designs of the short listed rural small-scale infrastructures are presented in **Figures E-1 to E-3** attached to this Annex. The volume of works and quantity of materials are estimated based on the typical designs of the respective types of infrastructure.

E.4 Cost Estimate

The construction cost of the rural small-scale infrastructures consists of i) direct construction cost and ii) indirect construction cost. They are further divided into a) direct construction cost and b) general construction cost.

E.4.1 Direct Construction Cost

(1) Direct Cost

The direct cost for improvement of small-scale rural infrastructure was estimated by using the work quantities based on the typical designs and applying the construction cost norms¹ established and defined by the PPCs or Department of Construction of the target provinces in accordance with Decree No. 32/3015/ND-CP under the Law of Construction². The unit construction cost is composed of costs of construction materials, operation of construction machinery, and construction laborers. The material cost is based on the prevailing market prices and transportation cost of the materials from the market places to the project sites in accordance with the decree, while the machine and equipment costs are determined according to the standard monthly and quarterly rental operation costs set by the Ministry of Construction. The prevailing labor market prices publicized by the regions or provinces are employed as the unit costs for construction labor in the respective provinces.

¹ Construction cost norm in Dien Bien Province: 23/5/2016, in Lai Chau Province: 30/4/2016, Son La Province : 11/1/2016, and in Hoa Binh Province: 10/5/2016.

² The cost norms are defined in consideration of the particular and locational conditions of the works based on the Econo-Technical Norm and Construction Price Index issued by the Ministry of Construction.

(2) General Construction Cost

The general construction cost is composed of i) temporary facility cost, ii) safety facility cost, and iii) mobilization cost. Each cost is estimated in accordance with the following calculations:

- i) Temporary facility cost: 1% of direct construction cost without VAT
- ii) Safety facility cost: 2% of direct construction cost without VAT
- iii) Mobilization cost: 1% of direct construction cost without VAT

The costs of i) and ii) are determined on the basis of the circular of the Ministry of Construction (Circular No. 06/2016/TT-BXD on March 10, 2016), while iii) is the estimation made by the preparatory survey team based on the actual records confirmed by the JICA 2 Project.

E.4.2 Indirect Construction Cost

The following administrative and management charges of the contractors and their profit are added to the direct construction cost in accordance with Circular No. 06/2016/TT-BXD. Any price and physical contingencies are not considered in the cost estimation.

- i) Administration and management charge: 5.5% of the direct Cost for road work and irrigation work, and 5.0% of the same for water supply work
- ii) Profit: 6.0% for road, and 5.5 % for irrigation and water supply

E.4.3 Unit Costs of Construction of the Three Types of Rural Infrastructure

The unit construction costs of improvement of rural roads, irrigation systems, and water supply systems in the target districts are shown in **Tables E-31 to E-34** attached to this Annex, and summarized below.

Estimated Unit Cost for Rural Infrastructure (without VAT)

Type of Work	Unit	Dien Bien	Lai Chau	Son La	Hoa Binh
1. Road Improvement					
1) Direct Cost	VND million / km	1,730	1,862	1,880	1,571
2) General Cost	VND million / km	69	75	75	63
3) Total Cost	VND million / km	1,799	1,937	1,945	1,634
2. Irrigation (Dam)					
1) Direct Cost	VND million / No.	263	270	294	242
2) General Cost	VND million / No.	10	11	12	10
3) Total Cost	VND million / No.	273	281	306	252
3. Irrigation (Canal)					
1) Direct Cost	VND million / km	1,040	1,047	1,137	978
2) General Cost	VND million / km	42	42	455	39
3) Total Cost	VND million / km	1,082	1,089	1,182	1,017
4. Water supply (Small:75 HHs)					
1) Direct Cost	VND million / No.	555	559	551	549
2) General Cost	VND million / No.	22	22	22	22
3) Total Cost	VND million / No.	577	581	573	571
5. Water supply (Large: 137 HHs)					
1) Direct Cost	VND million / No.	803.6	745	726	728
2) General Cost	VND million / No.	32.1	30	29	29
3) Total Cost	VND million / No.	835.7	775	755	757

Source: JICA preparatory survey team (2016)

E.4.4 Survey and Detailed Design Cost

The survey and detail design cost is composed of costs of i) ground survey and ii) detailed design works. Based on the Ministry of Construction's Circular (No. 957/QD-BXD on September 29, 2009), the costs for survey and detailed design works are estimated at the following rates to the construction cost (direct construction cost + general construction cost) of each type of work.

- i) Road works: 6.3 %
- ii) Irrigation works: 9.1 %
- iii) Water supply system works: 6.3%

The following table shows the unit costs and total costs of the survey and detailed design works for the small scale rural infrastructure in the respective provinces.

Estimated Unit Cost for Rural Infrastructure (without VAT)

Type of Work	Unit	Dien Bien	Lai Chau	Son La	Hoa Binh
1. Road Improvement					
1) Average Unit Cost	VND million / km	113	122	123	97
2) Total Volume of Work	Km	7.5	15.6	8.4	20.0
3) Total Cost	VND million	850	1,903	1,024	2,910
2. Irrigation					
1) Average Unit Cost	VND million / km	99	110	122	100
2) Total Volume of Work	Km	4.8	11.8	5.6	6.1
3) Total Cost	VND million	468	1,294	687	611
3. Water supply					
1) Average Unit Cost	VND million / No.	0	39	41	41
2) Total Volume of Work	No.	0	6	5	14
3) Total Cost	VND million	0	232	204	132
Grand Total	VND million	1,318	3,429	1,915	3,653

Source: JICA preparatory survey team (2016)

E.5 Estimated Cost of the Component by Province

Based on the number and type of sub-projects short-listed and unit cost of the respective types of rural infrastructure, the total cost of improvement of small-scale rural infrastructure in the target provinces is estimated at VND 159,070 million as shown below.

Summary of Estimated Cost for Rural Infrastructure

Province	District	Cost		Total (*000,000 VND)
		Construction Cost	Survey & Design Cost	
Dien Bien	Dien Bien	11,500	820	12,320
	Muong Cha	2,053	157	2,210
	Tuan Giao	5,073	341	5,414
	Subtotal	18,626	1,318	19,944
Lai Chau	Sin Ho	27,473	1,898	29,371
	Tan Uyen	14,072	1,096	15,168
	Than Uyen	6,573	435	7,008
	Subtotal	48,118	3,429	51,547
Son La	Moc Chau	2,918	184	3,102
	Quynh Nhai	4,645	293	4,938
	Thuan Chau	14,606	1,132	15,738
	Van Ho	4,864	306	5,170
	Subtotal	27,033	1,915	28,948
Hoa Binh	Cao Phong	2,302	145	2,447
	Da Bac	23,926	1,508	25,434
	Mai Chau	9,746	508	10,254
	Lac Son	7,238	702	7,940
	Tan Lac	11,766	790	12,556
	Subtotal	54,978	3,653	58,631
Total		148,755	10,315	159,070

Source: JICA preparatory survey team (2016)

Tables

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Road Works

Dien Bien Province

Dien Bien District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)

Number of Benefisheries (Pa Khoang): 1,078 (HH)

Number of Benefisheries (Muong Nha): 901 (HH)

Number of Benefisheries (Na Tong): 1,033 (HH)

Number of Benefisheries (Phu Long): 518 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad001	Muong Phang	Dien Bien	Muong Phang	C to C	Upgrade: Soild to Asphalt	25.000 km	A
DBDBroad002	Muong Phang	Dien Bien	Muong Phang	C to C	Upgrade: Soild to Asphalt	1.000 km	A
DBDBroad003	Muong Phang	Dien Bien	Muong Phang	C to C	Upgrade: Soild to Asphalt	9.000 km	A
DBDBroad004	Muong Phang	Dien Bien	Muong Phang	C to C	Upgrade: Soild to Asphalt	2.000 km	A
DBDBroad005	Muong Phang	Dien Bien	Muong Phang	C to C	Upgrade: Soild to Asphalt	2.000 km	A
DBDBroad006	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	2.000 km	B
DBDBroad007	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	3.000 km	B
DBDBroad008	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.100 km	B
DBDBroad009	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	3.500 km	B
DBDBroad010	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.100 km	B
DBDBroad011	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	3.000 km	B
DBDBroad012	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	1.500 km	B
DBDBroad013	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.500 km	B
DBDBroad014	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.500 km	B
DBDBroad015	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	1.500 km	B
DBDBroad016	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	4.000 km	B
DBDBroad017	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	11.000 km	B
DBDBroad018	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.500 km	B
DBDBroad019	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	1.000 km	B
DBDBroad020	Muong Phang	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	2.500 km	B
DBDBroad021	Muong Phang	Dien Bien	Pa Khoang	C to C	Soil to concrete	12.000 km	NA
DBDBroad022	Muong Phang	Dien Bien	Pa Khoang	C to C	Soil to concrete	1.000 km	NA
DBDBroad023	Muong Phang	Dien Bien	Pa Khoang	C to C	Soil to concrete	8.000 km	NA
DBDBroad024	Muong Phang	Dien Bien	Pa Khoang	C to C	Soil to concrete	10.000 km	NA
DBDBroad025	Muong Phang	Dien Bien	Pa Khoang	C to C	Soil to concrete	6.500 km	NA
DBDBroad026	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	1.000 km	NA
DBDBroad027	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	2.000 km	NA
DBDBroad028	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	0.500 km	NA
DBDBroad029	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	0.800 km	NA
DBDBroad030	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	2.300 km	NA
DBDBroad031	Muong Phang	Dien Bien	Pa Khoang	V to V	Soil to concrete	1.000 km	NA
DBDBroad032	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.250 km	NA
DBDBroad033	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad034	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad035	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad036	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	2.000 km	NA
DBDBroad037	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	2.000 km	NA
DBDBroad038	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.800 km	NA
DBDBroad039	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad040	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.150 km	NA
DBDBroad041	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.250 km	NA
DBDBroad042	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.750 km	NA
DBDBroad043	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad044	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.150 km	NA
DBDBroad045	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.150 km	NA

Note:

C to C: Commune to commue,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PF/SUFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad046	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.700 km	NA
DBDBroad047	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad048	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad049	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad050	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.600 km	NA
DBDBroad051	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad052	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.700 km	NA
DBDBroad053	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.750 km	NA
DBDBroad054	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad055	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad056	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad057	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad058	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.700 km	NA
DBDBroad059	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.700 km	NA
DBDBroad060	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.400 km	NA
DBDBroad061	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad062	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad063	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.800 km	NA
DBDBroad064	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.230 km	NA
DBDBroad065	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.080 km	NA
DBDBroad066	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.230 km	NA
DBDBroad067	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad068	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.600 km	NA
DBDBroad069	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.250 km	NA
DBDBroad070	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad071	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.180 km	NA
DBDBroad072	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad073	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.100 km	NA
DBDBroad074	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad075	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.050 km	NA
DBDBroad076	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.150 km	NA
DBDBroad077	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad078	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad079	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad080	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad081	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.100 km	NA
DBDBroad082	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.400 km	NA
DBDBroad083	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad084	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad085	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.400 km	NA
DBDBroad086	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.050 km	NA
DBDBroad087	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad088	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad089	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad090	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.600 km	NA
DBDBroad091	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.650 km	NA
DBDBroad092	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad093	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad094	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad095	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.130 km	NA
DBDBroad096	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.160 km	NA
DBDBroad097	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad098	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad099	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad100	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.240 km	NA
DBDBroad101	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.060 km	NA
DBDBroad102	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.050 km	NA
DBDBroad103	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad104	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.030 km	NA
DBDBroad105	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.050 km	NA
DBDBroad106	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.030 km	NA
DBDBroad107	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.050 km	NA
DBDBroad108	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.030 km	NA
DBDBroad109	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad110	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.400 km	NA
DBDBroad111	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.250 km	NA
DBDBroad112	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad113	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad114	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.100 km	NA
DBDBroad115	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad116	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad117	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.150 km	NA
DBDBroad118	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.200 km	NA
DBDBroad119	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad120	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.400 km	NA
DBDBroad121	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad122	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad123	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.300 km	NA
DBDBroad124	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	1.000 km	NA
DBDBroad125	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.500 km	NA
DBDBroad126	Muong Phang	Dien Bien	Pa Khoang	VR	Soil to concrete	0.600 km	NA
DBDBroad127	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	4.500 km	NA
DBDBroad128	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	2.000 km	NA
DBDBroad129	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	2.500 km	NA
DBDBroad130	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	1.500 km	NA
DBDBroad131	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	1.500 km	NA
DBDBroad132	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.500 km	NA
DBDBroad133	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	2.000 km	NA
DBDBroad134	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.500 km	NA
DBDBroad135	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.500 km	NA
DBDBroad136	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.300 km	NA
DBDBroad137	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.100 km	NA
DBDBroad138	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.300 km	NA
DBDBroad139	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	1.250 km	NA
DBDBroad140	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.220 km	NA
DBDBroad141	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	0.130 km	NA
DBDBroad142	Muong Phang	Dien Bien	Pa Khoang	FR	Soil to concrete	3.000 km	NA
DBDBroad143	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	5.000 km	B
DBDBroad144	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	10.000 km	B
DBDBroad145	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	15.000 km	B
DBDBroad146	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	17.000 km	B
DBDBroad147	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	1.500 km	B
DBDBroad148	Dien Bien PF	Dien Bien	Muong Nha	V to V	Soil to concrete	0.350 km	B
DBDBroad149	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.400 km	B
DBDBroad150	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad151	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad152	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad153	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad154	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad155	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad156	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad157	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B
DBDBroad158	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.180 km	B
DBDBroad159	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.130 km	B
DBDBroad160	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad161	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B
DBDBroad162	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.000 km	B
DBDBroad163	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad164	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.000 km	B
DBDBroad165	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad166	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.120 km	B
DBDBroad167	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.130 km	B
DBDBroad168	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.170 km	A
DBDBroad169	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.120 km	A
DBDBroad170	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.260 km	A
DBDBroad171	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.310 km	A
DBDBroad172	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.160 km	A
DBDBroad173	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.230 km	A
DBDBroad174	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B
DBDBroad175	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad176	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad177	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad178	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad179	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.160 km	B
DBDBroad180	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad181	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.140 km	B
DBDBroad182	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad183	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B
DBDBroad184	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad185	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad186	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.220 km	B
DBDBroad187	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad188	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.250 km	B
DBDBroad189	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.070 km	B
DBDBroad190	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad191	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.350 km	B
DBDBroad192	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.250 km	B
DBDBroad193	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.210 km	B
DBDBroad194	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad195	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad196	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad197	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	6.000 km	B
DBDBroad198	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad199	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad200	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.600 km	B
DBDBroad201	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.400 km	B
DBDBroad202	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad203	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	1.500 km	B
DBDBroad204	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.070 km	B
DBDBroad205	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad206	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad207	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad208	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad209	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.100 km	B
DBDBroad210	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad211	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad212	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad213	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.150 km	B
DBDBroad214	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad215	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad216	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad217	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad218	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.300 km	B
DBDBroad219	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.050 km	B
DBDBroad220	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.900 km	B
DBDBroad221	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.600 km	B
DBDBroad222	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.138 km	B
DBDBroad223	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	2.000 km	B
DBDBroad224	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.200 km	B
DBDBroad225	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	1.000 km	B
DBDBroad226	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B
DBDBroad227	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	1.300 km	B
DBDBroad228	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.800 km	B
DBDBroad229	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.760 km	B
DBDBroad230	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.150 km	B
DBDBroad231	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.560 km	B
DBDBroad232	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.600 km	B
DBDBroad233	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.220 km	B
DBDBroad234	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.250 km	B
DBDBroad235	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad236	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.070 km	B
DBDBroad237	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.250 km	B
DBDBroad238	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.250 km	B
DBDBroad239	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	4.000 km	B
DBDBroad240	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad241	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.500 km	B
DBDBroad242	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad243	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.500 km	B
DBDBroad244	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.800 km	B
DBDBroad245	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad246	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	2.000 km	B
DBDBroad247	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	5.000 km	B
DBDBroad248	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad249	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	1.000 km	B
DBDBroad250	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.600 km	B
DBDBroad251	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.300 km	B
DBDBroad252	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.400 km	B
DBDBroad253	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	2.500 km	B
DBDBroad254	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	2.500 km	B
DBDBroad255	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.500 km	B
DBDBroad256	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.600 km	B
DBDBroad257	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	0.400 km	B
DBDBroad258	Dien Bien PF	Dien Bien	Muong Nha	FR	Soil to concrete	2.000 km	B
DBDBroad259	Dien Bien PF	Dien Bien	Na Tong	C to C	Upgrade soil road to concrete	35.000 km	B
DBDBroad260	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	5.000 km	A
DBDBroad261	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.600 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad262	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.600 km	B
DBDBroad263	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad264	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad265	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad266	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad267	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad268	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad269	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad270	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad271	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad272	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad273	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad274	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad275	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad276	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad277	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.260 km	B
DBDBroad278	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	1.200 km	B
DBDBroad279	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad280	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad281	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad282	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad283	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad284	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad285	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.060 km	B
DBDBroad286	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad287	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.050 km	B
DBDBroad288	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.080 km	B
DBDBroad289	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.050 km	B
DBDBroad290	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad291	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad292	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.060 km	B
DBDBroad293	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad294	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.400 km	B
DBDBroad295	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.400 km	B
DBDBroad296	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad297	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad298	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad299	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad300	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad301	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad302	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.800 km	B
DBDBroad303	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad304	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.350 km	B
DBDBroad305	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad306	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad307	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad308	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad309	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.400 km	B
DBDBroad310	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	2.000 km	B
DBDBroad311	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad312	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad313	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.250 km	B
DBDBroad314	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad315	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad316	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad317	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad318	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad319	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad320	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad321	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad322	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad323	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad324	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.150 km	B
DBDBroad325	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.300 km	B
DBDBroad326	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad327	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.050 km	B
DBDBroad328	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad329	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad330	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad331	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.100 km	B
DBDBroad332	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B
DBDBroad333	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.200 km	B
DBDBroad334	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	1.000 km	B
DBDBroad335	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	4.500 km	B
DBDBroad336	Dien Bien PF	Dien Bien	Na Tong	V to V	New construction	0.500 km	A
DBDBroad337	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.500 km	B
DBDBroad338	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	7.000 km	B
DBDBroad339	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	6.000 km	B
DBDBroad340	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	6.000 km	B
DBDBroad341	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.000 km	B
DBDBroad342	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.000 km	B
DBDBroad343	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	4.000 km	B
DBDBroad344	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	3.000 km	B
DBDBroad345	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.500 km	B
DBDBroad346	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.600 km	B
DBDBroad347	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.000 km	B
DBDBroad348	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.000 km	B
DBDBroad349	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	5.000 km	B
DBDBroad350	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	3.500 km	B
DBDBroad351	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.000 km	B
DBDBroad352	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.150 km	B
DBDBroad353	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.500 km	B
DBDBroad354	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	3.000 km	B
DBDBroad355	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	4.000 km	B
DBDBroad356	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.500 km	B
DBDBroad357	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	2.000 km	B
DBDBroad358	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.000 km	B
DBDBroad359	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.000 km	B
DBDBroad360	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	3.000 km	B
DBDBroad361	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	4.000 km	B
DBDBroad362	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	5.000 km	B
DBDBroad363	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	1.000 km	B
DBDBroad364	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	5.000 km	B
DBDBroad365	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	5.000 km	B
DBDBroad366	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	6.000 km	B
DBDBroad367	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.500 km	B
DBDBroad368	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.500 km	B
DBDBroad369	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.500 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Period (by District Office)
DBDBroad370	Dien Bien PF	Dien Bien	Phu Long	V to V	Upgrade: Soil to concrete	19.500 km	B
DBDBroad371	Dien Bien PF	Dien Bien	Phu Long	V to V	Upgrade: Soil to concrete	25.000 km	B
DBDBroad372	Dien Bien PF	Dien Bien	Phu Long	V to V	Upgrade: Soil to concrete	9.400 km	B
DBDBroad373	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.100 km	B
DBDBroad374	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B
DBDBroad375	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.120 km	B
DBDBroad376	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.250 km	B
DBDBroad377	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.250 km	B
DBDBroad378	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.120 km	B
DBDBroad379	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.200 km	B
DBDBroad380	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.200 km	B
DBDBroad381	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B
DBDBroad382	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B
DBDBroad383	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.300 km	B
DBDBroad384	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.100 km	B
DBDBroad385	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.100 km	B
DBDBroad386	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.100 km	B
DBDBroad387	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.500 km	B
DBDBroad388	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.100 km	B
DBDBroad389	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B
DBDBroad390	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.250 km	B
DBDBroad391	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.060 km	B
DBDBroad392	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B
DBDBroad393	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.500 km	B
DBDBroad394	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.180 km	B
DBDBroad395	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.250 km	B
DBDBroad396	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.150 km	B

Note:

C to C: Commune to commune,

V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Irrigation Works

Dien Bien Province Dien Bien District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)

Number of Benefisheries (Pa Khoang): 1,078 (HH)

Number of Benefisheries (Muong Nha): 901 (HH)

Number of Benefisheries (Na Tong): 1,033 (HH)

Number of Benefisheries (Phu Long): 518 (HH)

PF/SUFMB	District	Commune	Name of Sub Project	Quantity (unit)	Period (by District Office)
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	2.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.600 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.200 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	2.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	3.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.600 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	3.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.200 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.900 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.050 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.010 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.700 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.600 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.020 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.500 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	1.000 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.700 km	A
Muong Phang	Dien Bien	Muong Phang	Upgrade existing canal for irrigation	0.800 km	A
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.550 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.650 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	1.250 km	NA

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Irrigation Works

Dien Bien Province Dien Bien District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)

Number of Benefisheries (Pa Khoang): 1,078 (HH)

Number of Benefisheries (Muong Nha): 901 (HH)

Number of Benefisheries (Na Tong): 1,033 (HH)

Number of Benefisheries (Phu Long): 518 (HH)

PF/SUFMB	District	Commune	Name of Sub Project	Quantity (unit)	Period (by District Office)
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.500 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.750 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	1.150 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.950 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	1.000 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.020 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.020 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.020 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.020 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.010 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	0.010 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	7.700 km	NA
Muong Phang	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	5.600 km	NA
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.160 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.270 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.290 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.180 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.210 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.400 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.150 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.200 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.850 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.300 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.400 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.250 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.000 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.350 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.750 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.700 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.300 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.200 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.800 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.400 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

Irrigation Works

Dien Bien Province Dien Bien District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)

Number of Benefisheries (Pa Khoang): 1,078 (HH)

Number of Benefisheries (Muong Nha): 901 (HH)

Number of Benefisheries (Na Tong): 1,033 (HH)

Number of Benefisheries (Phu Long): 518 (HH)

PFMB	District	Commune	Name of Sub Project	Quantity (unit)	Period (by District Office)
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.600 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.600 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.800 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	3.000 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	2.000 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.300 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.500 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.800 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	1.200 km	B
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.730 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	1.200 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	1.000 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	2.000 km	A
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	1.000 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.300 km	A
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	1.000 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.300 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-1 The long-list of rural small-scale infrastructure in Dien Bien district

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Water Supply Works

Dien Bien Province Dien Bienh District

Ovjectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
DBDBwater001	Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	4 system	236	NA	A
DBDBwater002	Dien Bien PF	Dien Bien	Muong Nha	New construction	3 system	300	NA	B
DBDBwater003	Dien Bien PF	Dien Bien	Na Tong	New construction	1 system	86	15,000	A
DBDBwater004	Dien Bien PF	Dien Bien	Na Tong	New construction	8 system	600	30,000	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-2 The long-list of rural small-scale infrastructure in Muong cha district

Road Works

Dien Bien Province Muong Cha District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Muong Tung):

952 (HH)

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity	Period	Cost (by District Office)	Period (by District Office)
DBMCroad001	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	1.200 km		3,776	A
DBMCroad002	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	1.200 km		3,840	A
DBMCroad003	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	3.000 km		9,600	A
DBMCroad004	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	1.000 km		3,200	B
DBMCroad005	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	2.500 km		8,000	B
DBMCroad006	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	4.000 km		12,800	B
DBMCroad007	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	8.000 km		25,600	B
DBMCroad008	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	1.500 km		4,800	B
DBMCroad009	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	7.200 km		23,040	B
DBMCroad010	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	8.000 km		25,600	B
DBMCroad011	Muong Cha PF	Muong Cha	Muong Tung	V to V	Soil to concrete	19.700 km		63,040	B
DBMCroad012	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.200 km		480	A
DBMCroad013	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.600 km		1,440	A
DBMCroad014	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	A
DBMCroad015	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.300 km		720	A
DBMCroad016	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	2.500 km		6,000	B
DBMCroad017	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.200 km		480	B
DBMCroad018	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.100 km		240	B
DBMCroad019	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.300 km		720	B
DBMCroad020	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.200 km		480	B
DBMCroad021	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad022	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.300 km		720	B
DBMCroad023	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.300 km		720	B
DBMCroad024	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad025	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.400 km		960	B
DBMCroad026	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad027	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad028	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad029	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.100 km		240	B
DBMCroad030	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.100 km		240	B
DBMCroad031	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	5.200 km		12,480	B
DBMCroad032	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km		1,200	B
DBMCroad033	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	4.500 km		10,800	B
DBMCroad034	Muong Cha PF	Muong Cha	Muong Tung	FR	Soil to concrete	1.000 km		2,400	B
DBMCroad035	Muong Cha PF	Muong Cha	Muong Tung	FR	Soil to concrete	1.000 km		2,400	B
DBMCroad036	Muong Cha PF	Muong Cha	Muong Tung	FR	Soil to concrete	1.000 km		2,400	B
DBMCroad037	Muong Cha PF	Muong Cha	Muong Tung	FR	Soil to concrete	1.200 km		2,880	B
DBMCroad038	Muong Cha PF	Muong Cha	Muong Tung	FR	Soil to concrete	1.000 km		2,400	B

Note:

C to C: Commune to commue, V to V: Village to village,

VR: inside of village, FR: Village to cultivation field

Period: A (anterior half of 5 years plan), B (last half of 5 year plan) F - T - 13

Table E-2 The long-list of rural small-scale infrastructure in Muong cha district

Irrigation Works

Dien Bien Province Muong Cha District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Beneficiaries (Muong Tung): 952 (HH)

Code	PFMB	District	Commune	Type of Construction	Proposed Qt (canal) (unit)	Period (by District Office)
DBMCirri001	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.300 km	A
DBMCirri002	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	A
DBMCirri003	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	1.000 km	B
DBMCirri004	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.700 km	B
DBMCirri005	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.500 km	B
DBMCirri006	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.300 km	B
DBMCirri007	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.500 km	B
DBMCirri008	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.700 km	B
DBMCirri009	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	1.300 km	B
DBMCirri010	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri011	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri012	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri013	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri014	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri015	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri016	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri017	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.400 km	B
DBMCirri018	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri019	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri020	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.200 km	B
DBMCirri021	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.100 km	B
DBMCirri022	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.100 km	B

Note:

C to C: Commune to commune, V to V: Village to village,

VR: inside of village, FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 years plan)

Table E-3 The long-list of rural small-scale infrastructure in Tuan Giao district

Road Works

Dien Bien Province Tuan Giao District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ta Ma)

829 (HH)

Number of Benefisheries (Phinh Sang)

1,203 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
DBTGroad001	Tuan Giao PF	Tuan Giao	Ta Ma	C to C	Soil to asphalt	7.000 Period (by District Office)	B
DBTGroad002	Tuan Giao PF	Tuan Giao	Ta Ma	C to C	Soil to asphalt	6.000 km	B
DBTGroad003	Tuan Giao PF	Tuan Giao	Ta Ma	C to C	Soil to asphalt	4.500 km	B
DBTGroad004	Tuan Giao PF	Tuan Giao	Ta Ma	C to C	Soil to asphalt	7.000 km	B
DBTGroad005	Tuan Giao PF	Tuan Giao	Ta Ma	V to V	Soil to concrete	3.000 km	B
DBTGroad006	Tuan Giao PF	Tuan Giao	Ta Ma	V to V	Soil to concrete	0.500 km	B
DBTGroad007	Tuan Giao PF	Tuan Giao	Ta Ma	V to V	Soil to concrete	1.200 km	B
DBTGroad008	Tuan Giao PF	Tuan Giao	Ta Ma	V to V	Soil to concrete	1.500 km	B
DBTGroad009	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.120 km	B
DBTGroad010	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.130 km	B
DBTGroad011	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.100 km	B
DBTGroad012	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.080 km	B
DBTGroad013	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.120 km	B
DBTGroad014	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.200 km	B
DBTGroad015	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.250 km	B
DBTGroad016	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	1.000 km	B
DBTGroad017	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.100 km	B
DBTGroad018	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.100 km	B
DBTGroad019	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.300 km	B
DBTGroad020	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.500 km	B
DBTGroad021	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.200 km	B
DBTGroad022	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.150 km	B
DBTGroad023	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.800 km	B
DBTGroad024	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.700 km	B
DBTGroad025	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	1.000 km	B
DBTGroad026	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.800 km	B
DBTGroad027	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.900 km	B
DBTGroad028	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	1.000 km	B
DBTGroad029	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.250 km	B
DBTGroad030	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.700 km	B
DBTGroad031	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.800 km	B
DBTGroad032	Tuan Giao PF	Tuan Giao	Ta Ma	FR	Soil to concrete	20.000 km	B
DBTGroad033	Tuan Giao PF	Tuan Giao	Phinh Sang	V to V	Soil to asphalt	12.000 km	B
DBTGroad034	Tuan Giao PF	Tuan Giao	Phinh Sang	V to V	Soil to asphalt	9.000 km	B
DBTGroad035	Tuan Giao PF	Tuan Giao	Phinh Sang	V to V	Soil to asphalt	7.000 km	B
DBTGroad036	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.800 km	B
DBTGroad037	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.600 km	B
DBTGroad038	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	2.000 km	B
DBTGroad039	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B
DBTGroad040	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.950 km	B
DBTGroad041	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.450 km	B
DBTGroad042	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.700 km	B
DBTGroad043	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.120 km	B
DBTGroad044	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	1.000 km	B
DBTGroad045	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.500 km	B
DBTGroad046	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.700 km	B
DBTGroad047	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.900 km	B
DBTGroad048	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.360 km	B
DBTGroad049	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	3.500 km	B
DBTGroad050	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	1.100 km	B
DBTGroad051	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.060 km	B
DBTGroad052	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-3 The long-list of rural small-scale infrastructure in Tuan Giao district

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
DBTGroad053	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.200 km	B
DBTGroad054	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.300 km	B
DBTGroad055	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad056	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.350 km	B
DBTGroad057	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.500 km	B
DBTGroad058	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.350 km	B
DBTGroad059	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.450 km	B
DBTGroad060	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad061	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad062	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.200 km	B
DBTGroad063	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B
DBTGroad064	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B
DBTGroad065	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.800 km	B
DBTGroad066	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.250 km	B
DBTGroad067	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.120 km	B
DBTGroad068	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.180 km	B
DBTGroad069	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.220 km	B
DBTGroad070	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B
DBTGroad071	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad072	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.070 km	B
DBTGroad073	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad074	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad075	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.080 km	B
DBTGroad076	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.130 km	B
DBTGroad077	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.100 km	B
DBTGroad078	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.270 km	B
DBTGroad079	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.350 km	B
DBTGroad080	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.150 km	B
DBTGroad081	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.700 km	B
DBTGroad082	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.800 km	B
DBTGroad083	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.600 km	B
DBTGroad084	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.250 km	B
DBTGroad085	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.130 km	B
DBTGroad086	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.450 km	B
DBTGroad087	Tuan Giao PF	Tuan Giao	Phinh Sang	FR	soil to concrete	0.700 km	B
DBTGroad088	Tuan Giao PF	Tuan Giao	Phinh Sang	FR	soil to concrete	1.300 km	B
DBTGroad089	Tuan Giao PF	Tuan Giao	Phinh Sang	FR	soil to concrete	0.600 km	B

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-3 The long-list of rural small-scale infrastructure in Tuan Giao district

Irrigation Works

Dien Bien Province Tuan Giao District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ta Ma) 829 (HH)

Number of Benefisheries (Phinh Sang) 1,203 (HH)

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Period (by District Office)
DBTGirr001	Tuan Giao PF	Tuan Giao	Phinh Sang	Repair/ upgrade of canal	0.050 km	A
DBTGirr002	Tuan Giao PF	Tuan Giao	Phinh Sang	New construction	1.000 km	B
DBTGirr003	Tuan Giao PF	Tuan Giao	Phinh Sang	New construction	2.300 km	B
DBTGirr004	Tuan Giao PF	Tuan Giao	Phinh Sang	New construction	0.150 km	B
DBTGirr005	Tuan Giao PF	Tuan Giao	Phinh Sang	New construction	2.500 km	B
DBTGirr006	Tuan Giao PF	Tuan Giao	Ta Ma	Upgrade existing canal for irrigation	0.700 km	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-3 The long-list of rural small-scale infrastructure in Tuan Giao district

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Water Supply Works

Dien Bien Province Tuan Giao District

Objectives: To improve the live level for livelihood improvement in the commune

Code	PFMB	District	Commune	Type	Quantity	(unit)	Number of Beneficiaries (HH)	Period (by District Office)
DBTGwater001	Tuan Giao PF	Tuan Giao	Phinh Sang	New construction	1	system	170	B
DBTGwater002	Tuan Giao PF	Tuan Giao	Ta Ma	New construction	1	system	26	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-4 The long-list of rural small-scale infrastructure in Sin Ho District

Road Works

Lai Chau Province Sin Ho District

Objectives: To improve the mobility in the commune

Number of Benefiseries (Chan Nua):	641 (HH)
Number of Benefiseries (De Phin):	1,101 (HH)
Number of Benefiseries (Hong Thu):	936 (HH)
Number of Benefiseries (Lang Mo):	337 (HH)
Number of Benefiseries (Lung Thang):	795 (HH)
Number of Benefiseries (Ma Quai):	916 (HH)
Number of Benefiseries (Nam Cha):	1,142 (HH)
Number of Benefiseries (Nam Cui):	1,310 (HH)
Number of Benefiseries (Nam Han):	461 (HH)
Number of Benefiseries (Nam Ma):	1,032 (HH)
Number of Benefiseries (Nam Tam):	877 (HH)
Number of Benefiseries (Noong Heo):	1,630 (HH)
Number of Benefiseries (Pa Khoa):	1,252 (HH)
Number of Benefiseries (Pa Tan):	976 (HH)
Number of Benefiseries (Phang So Lin):	479 (HH)
Number of Benefiseries (Phin Ho):	885 (HH)
Number of Benefiseries (Pu Sam Cap):	541 (HH)
Number of Benefiseries (Sin Ho Town):	729 (HH)
Number of Benefiseries (Ta Ngao):	1,127 (HH)
Number of Benefiseries (Ta Phin):	111 (HH)
Number of Benefiseries (Tua Sin Chai):	659 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
LCSHroad001	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	4.140 km	A
LCSHroad002	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	4.140 km	B
LCSHroad003	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	1.400 km	A
LCSHroad004	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	1.400 km	A
LCSHroad005	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	3.000 km	B
LCSHroad006	Nam Ma PF	Sin Ho	Hong Thu	VR	Soil to concrete	1.000 km	A
LCSHroad007	Nam Ma PF	Sin Ho	Hong Thu	VR	Soil to concrete	0.700 km	A
LCSHroad008	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	3.000 km	B
LCSHroad009	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	3.000 km	B
LCSHroad036	Nam Ma PF	Sin Ho	Nam Cui	V to V	Soil to concrete	1.200 km	A
LCSHroad037	Nam Ma PF	Sin Ho	Nam Cui	V to V	Soil to concrete	1.200 km	A
LCSHroad038	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	0.600 km	A
LCSHroad039	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	0.700 km	A
LCSHroad040	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	0.300 km	A
LCSHroad041	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	0.300 km	A
LCSHroad042	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	1.000 km	A
LCSHroad043	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	1.000 km	A
LCSHroad044	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	0.500 km	B
LCSHroad045	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	1.200 km	B
LCSHroad046	Nam Ma PF	Sin Ho	Nam Cui	VR	Soil to concrete	1.200 km	B
LCSHroad047	Nam Ma PF	Sin Ho	Nam Cui	V to V	Soil to concrete	8.500 km	A
LCSHroad048	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	4.500 km	A
LCSHroad049	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	4.500 km	B
LCSHroad050	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	4.500 km	B
LCSHroad051	Nam Ma PF	Sin Ho	Nam Han	VR	Soil to concrete	3.500 km	B
LCSHroad052	Nam Ma PF	Sin Ho	Nam Han	VR	Soil to concrete	3.500 km	B
LCSHroad053	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	5.000 km	B
LCSHroad054	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	0.817 km	A

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-4 The long-list of rural small-scale infrastructure in Sin Ho District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
LCSHroad055	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	0.817 km	A
LCSHroad056	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	1.300 km	B
LCSHroad057	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	1.300 km	B
LCSHroad058	Nam Ma PF	Sin Ho	Nam Han	VR	Soil to concrete	1.100 km	A
LCSHroad059	Nam Ma PF	Sin Ho	Nam Han	VR	Soil to concrete	1.200 km	A
LCSHroad060	Nam Ma PF	Sin Ho	Nam Han	VR	Soil to concrete	1.200 km	A
LCSHroad061	Nam Ma PF	Sin Ho	Nam Han	C to C	Soil to concrete	16.000 km	B
LCSHroad062	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	5.000 km	A
LCSHroad063	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	18.000 km	B
LCSHroad064	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	6.000 km	B
LCSHroad065	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	5.000 km	B
LCSHroad067	Nam Ma PF	Sin Ho	Nam Tam	C to C	Soil to concrete	1.800 km	A
LCSHroad068	Nam Ma PF	Sin Ho	Nam Tam	C to C	Soil to concrete	1.800 km	B
LCSHroad069	Nam Ma PF	Sin Ho	Nam Tam	C to C	Soil to concrete	1.800 km	B
LCSHroad070	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.200 km	A
LCSHroad071	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.000 km	A
LCSHroad072	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	2.000 km	A
LCSHroad073	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.000 km	A
LCSHroad074	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.200 km	A
LCSHroad075	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	2.000 km	A
LCSHroad076	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.200 km	B
LCSHroad077	Nam Ma PF	Sin Ho	Nam Tam	C to C	Soil to concrete	35.000 km	B
LCSHroad078	Nam Ma PF	Sin Ho	Nam Tam	V to V	Soil to concrete	3.200 km	B
LCSHroad079	Nam Ma PF	Sin Ho	Nam Tam	V to V	Soil to concrete	3.200 km	B
LCSHroad089	Nam Ma PF	Sin Ho	Pa Khoa	V to V	Soil to concrete	1.100 km	A
LCSHroad090	Nam Ma PF	Sin Ho	Pa Khoa	V to V	Soil to concrete	1.100 km	A
LCSHroad091	Nam Ma PF	Sin Ho	Pa Khoa	VR	Soil to concrete	1.500 km	A
LCSHroad092	Nam Ma PF	Sin Ho	Pa Khoa	VR	Soil to concrete	1.100 km	A
LCSHroad093	Nam Ma PF	Sin Ho	Pa Khoa	VR	Soil to concrete	1.100 km	A
LCSHroad094	Nam Ma PF	Sin Ho	Phang So Lin	V to V	Soil to concrete	2.150 km	B
LCSHroad095	Nam Ma PF	Sin Ho	Phang So Lin	V to V	Soil to concrete	2.150 km	B
LCSHroad096	Nam Ma PF	Sin Ho	Phang So Lin	FR	Soil to concrete	1.500 km	B
LCSHroad097	Nam Ma PF	Sin Ho	Phang So Lin	FR	Soil to concrete	1.500 km	B
LCSHroad098	Nam Ma PF	Sin Ho	Phang So Lin	C to C	Soil to concrete	25.000 km	A
LCSHroad099	Nam Ma PF	Sin Ho	Phang So Lin	VR	Soil to concrete	10.000 km	B
LCSHroad102	Nam Ma PF	Sin Ho	Pu Sam Cap	C to C	Soil to concrete	2.400 km	A
LCSHroad103	Nam Ma PF	Sin Ho	Pu Sam Cap	VR	Soil to concrete	0.500 km	A
LCSHroad104	Nam Ma PF	Sin Ho	Pu Sam Cap	FR	Soil to concrete	3.000 km	A
LCSHroad105	Nam Ma PF	Sin Ho	Pu Sam Cap	FR	Soil to concrete	3.000 km	A
LCSHroad106	Nam Ma PF	Sin Ho	Pu Sam Cap	FR	Soil to concrete	1.200 km	A
LCSHroad107	Nam Ma PF	Sin Ho	Pu Sam Cap	V to V	Soil to concrete	8.000 km	A
LCSHroad108	Nam Na PF	Sin Ho	De Phin	C to C	Soil to concrete	18.000 km	A
LCSHroad109	Nam Na PF	Sin Ho	De Phin	V to V	Soil to concrete	5.000 km	B
LCSHroad110	Nam Na PF	Sin Ho	Lang Mo	V to V	Soil to concrete	3.500 km	A
LCSHroad111	Nam Na PF	Sin Ho	Lang Mo	V to V	Soil to concrete	3.500 km	B
LCSHroad112	Nam Na PF	Sin Ho	Lang Mo	V to V	Soil to concrete	3.500 km	B
LCSHroad113	Nam Na PF	Sin Ho	Lang Mo	VR	Soil to concrete	1.000 km	A
LCSHroad114	Nam Na PF	Sin Ho	Lang Mo	VR	Soil to concrete	1.100 km	A
LCSHroad115	Nam Na PF	Sin Ho	Lang Mo	VR	Soil to concrete	0.600 km	A
LCSHroad116	Nam Na PF	Sin Ho	Lang Mo	VR	Soil to concrete	0.800 km	A

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-4 The long-list of rural small-scale infrastructure in Sin Ho District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
LCSHroad117	Nam Na PF	Sin Ho	Lang Mo	VR	Soil to concrete	0.800 km	A
LCSHroad118	Nam Na PF	Sin Ho	Lang Mo	V to V	Soil to concrete	6.000 km	A
LCSHroad119	Nam Na PF	Sin Ho	Lang Mo	V to V	Soil to concrete	6.000 km	B
LCSHroad120	Nam Na PF	Sin Ho	Pa Tan	V to V	Soil to concrete	12.000 km	B
LCSHroad121	Nam Na PF	Sin Ho	Pa Tan	V to V	Soil to concrete	12.000 km	B
LCSHroad122	Nam Na PF	Sin Ho	Pa Tan	V to V	Soil to concrete	12.000 km	B
LCSHroad123	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	0.500 km	A
LCSHroad124	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	1.300 km	A
LCSHroad125	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	0.400 km	A
LCSHroad126	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	1.500 km	A
LCSHroad127	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	1.700 km	A
LCSHroad128	Nam Na PF	Sin Ho	Pa Tan	VR	Soil to concrete	1.400 km	A
LCSHroad129	Nam Na PF	Sin Ho	Pa Tan	C to C	Soil to concrete	2.000 km	A
LCSHroad130	Nam Na PF	Sin Ho	Pa Tan	V to V	Soil to concrete	10.000 km	A
LCSHroad131	Nam Na PF	Sin Ho	Pa Tan	FR	Soil to concrete	2.000 km	B
LCSHroad132	Nam Na PF	Sin Ho	Pa Tan	C to C	Soil to concrete	12.000 km	A
LCSHroad133	Nam Na PF	Sin Ho	Pa Tan	V to V	Soil to concrete	15.000 km	B
LCSHroad134	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	4.500 km	A
LCSHroad135	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	3.400 km	A
LCSHroad136	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	3.400 km	B
LCSHroad137	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	6.000 km	B
LCSHroad138	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	4.000 km	B
LCSHroad139	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	3.400 km	B
LCSHroad140	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	6.000 km	B
LCSHroad141	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	4.000 km	B
LCSHroad142	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	6.000 km	B
LCSHroad143	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	4.000 km	B
LCSHroad144	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	2.000 km	B
LCSHroad145	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	1.200 km	A
LCSHroad146	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	0.500 km	A
LCSHroad147	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	2.000 km	A
LCSHroad148	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	1.000 km	A
LCSHroad149	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	0.800 km	A
LCSHroad150	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	1.000 km	A
LCSHroad151	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	1.200 km	B
LCSHroad152	Nam Na PF	Sin Ho	Ta Ngao	V to V	Soil to concrete	35.000 km	B
LCSHroad159	Nam Na PF	Sin Ho	Tua Sin Chai	C to C	Soil to concrete	5.500 km	A
LCSHroad160	Nam Na PF	Sin Ho	Tua Sin Chai	V to V	Soil to concrete	5.500 km	B
LCSHroad161	Nam Na PF	Sin Ho	Tua Sin Chai	V to V	Soil to concrete	3.700 km	B
LCSHroad162	Nam Na PF	Sin Ho	Tua Sin Chai	V to V	Soil to concrete	3.700 km	B
LCSHroad163	Nam Na PF	Sin Ho	Tua Sin Chai	VR	Soil to concrete	1.000 km	A
LCSHroad164	Nam Na PF	Sin Ho	Tua Sin Chai	VR	Soil to concrete	1.000 km	A
LCSHroad165	Nam Na PF	Sin Ho	Tua Sin Chai	VR	Soil to concrete	1.000 km	A
LCSHroad166	Nam Na PF	Sin Ho	Tua Sin Chai	VR	Soil to concrete	1.000 km	A
LCSHroad167	Nam Na PF	Sin Ho	Tua Sin Chai	VR	Soil to concrete	1.200 km	A
LCSHroad168	Nam Na PF	Sin Ho	Tua Sin Chai	V to V	Soil to concrete	10.000 km	A
LCSHroad169	Nam Na PF	Sin Ho	Tua Sin Chai	C to C	Soil to concrete	17.000 km	B

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-4 The long-list of rural small-scale infrastructure in Sin Ho District

Irrigation Works

Lai Chau Province Sin Ho District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefiseries (Chan Nua):	641	(HH)
Number of Benefiseries (De Phin):	1,101	(HH)
Number of Benefiseries (Hong Thu):	936	(HH)
Number of Benefiseries (Lang Mo):	337	(HH)
Number of Benefiseries (Lung Thang):	795	(HH)
Number of Benefiseries (Ma Quai):	916	(HH)
Number of Benefiseries (Nam Cha):	1,142	(HH)
Number of Benefiseries (Nam Cuoi):	1,310	(HH)
Number of Benefiseries (Nam Han):	461	(HH)
Number of Benefiseries (Nam Ma):	1,032	(HH)
Number of Benefiseries (Nam Tam):	877	(HH)
Number of Benefiseries (Noong Heo):	1,630	(HH)
Number of Benefiseries (Pa Khoa):	1,252	(HH)
Number of Benefiseries (Pa Tan):	976	(HH)
Number of Benefiseries (Phang So Lin):	479	(HH)
Number of Benefiseries (Phin Ho):	885	(HH)
Number of Benefiseries (Pu Sam Cap):	541	(HH)
Number of Benefiseries (Sin Ho Town):	729	(HH)
Number of Benefiseries (Ta Ngao):	1,127	(HH)
Number of Benefiseries (Ta Phin):	111	(HH)
Number of Benefiseries (Tua Sin Chai):	659	(HH)

Code	PFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Period (by District Office)
LCSHirri001	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	A
LCSHirri003	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri005	Nam Na PF	Sin Ho	Pa Tan	Upgrade/ repair	3.500 km	1 nos	A
LCSHirri006	Nam Ma PF	Sin Ho	Nam Cuoi	Upgrade/ repair	0.769 km	1 nos	A
LCSHirri007	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri009	Nam Na PF	Sin Ho	Pa Tan	Upgrade/ repair	3.500 km	1 nos	A
LCSHirri010	Nam Ma PF	Sin Ho	Nam Cuoi	New construction	0.769 km	1 nos	A
LCSHirri014	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri016	Nam Na PF	Sin Ho	Pa Tan	Upgrade/ repair	3.500 km	1 nos	A
LCSHirri017	Nam Ma PF	Sin Ho	Nam Cuoi	New construction	0.769 km	1 nos	A
LCSHirri021	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri023	Nam Ma PF	Sin Ho	Pu Sam Cap	Upgrade/ repair	2.470 km	1 nos	B
LCSHirri024	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri025	Nam Na PF	Sin Ho	De Phin	New construction	3.000 km	1 nos	B
LCSHirri029	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri031	Nam Ma PF	Sin Ho	Pu Sam Cap	Upgrade/ repair	2.470 km	1 nos	B
LCSHirri032	Nam Ma PF	Sin Ho	Pa Khoa	New construction	2.000 km	1 nos	B
LCSHirri033	Nam Na PF	Sin Ho	De Phin	New construction	3.000 km	1 nos	B
LCSHirri035	Nam Na PF	Sin Ho	Lang Mo	New construction	1.500 km	1 nos	A
LCSHirri036	Nam Na PF	Sin Ho	Ta Ngao	New construction	3.000 km	1 nos	A
LCSHirri037	Nam Na PF	Sin Ho	De Phin	New construction	2.000 km	1 nos	A
LCSHirri038	Nam Na PF	Sin Ho	De Phin	Upgrade/ repair	1.200 km	1 nos	A
LCSHirri041	Nam Ma PF	Sin Ho	Pa Khoa	Upgrade/ repair	1.000 km	1 nos	A
LCSHirri044	Nam Na PF	Sin Ho	Lang Mo	New construction	1.500 km	1 nos	A
LCSHirri045	Nam Na PF	Sin Ho	Ta Ngao	New construction	3.000 km	1 nos	A
LCSHirri046	Nam Na PF	Sin Ho	De Phin	New construction	2.000 km	1 nos	A

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table F-4 The long-list of rural small-scale infrastructure in Sin Ho District

Code	PFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Period (by District Office)
LCSHirri047	Nam Na PF	Sin Ho	De Phin	Upgrade/ repair	1.200 km	1 nos	A
LCSHirri050	Nam Ma PF	Sin Ho	Pa Khoa	Upgrade/ repair	1.000 km	1 nos	A
LCSHirri053	Nam Ma PF	Sin Ho	Nam Cuoi	New construction	2.500 km	1 nos	B
LCSHirri054	Nam Ma PF	Sin Ho	Nam Cuoi	New construction	2.500 km	1 nos	B
LCSHirri055	Nam Na PF	Sin Ho	Tua Sin Chai	New construction	2.500 km	1 nos	B
LCSHirri056	Nam Ma PF	Sin Ho	Pu Sam Cap	New construction	4.000 km	1 nos	B
LCSHirri057	Nam Na PF	Sin Ho	Tua Sin Chai	New construction	2.500 km	1 nos	B
LCSHirri058	Nam Ma PF	Sin Ho	Pu Sam Cap	New construction	4.000 km	1 nos	B
LCSHirri060	Nam Na PF	Sin Ho	Lang Mo	Upgrade/ repair	2.500 km	1 nos	B
LCSHirri061	Nam Ma PF	Sin Ho	Nam Cuoi	New construction	3.000 km	1 nos	B
LCSHirri063	Nam Ma PF	Sin Ho	Phang So Lin	New construction	NA	NA	A
LCSHirri064	Nam Ma PF	Sin Ho	Pu Sam Cap	New construction	NA	NA	A
LCSHirri065	Nam Ma PF	Sin Ho	Nam Tam	Upgrade/ repair	NA	NA	B
LCSHirri067	Nam Ma PF	Sin Ho	Pu Sam Cap	New construction	NA	NA	A
LCSHirri070	Nam Ma PF	Sin Ho	Phang So Lin	New construction	NA	NA	B
LCSHirri071	Nam Ma PF	Sin Ho	Phang So Lin	New construction	NA	NA	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-4 The long-list of rural small-scale infrastructure in Sin Ho District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Water Supply Works

Lai Chau Province

Sin Ho District

Objectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Period (by District Office)
LCSHwater001	Nam Ma PF	Sin Ho	Nam Tam	New construction	1 system	15	B
LCSHwater002	Nam Ma PF	Sin Ho	Nam Tam	New construction	1 system	15	B
LCSHwater004	Nam Ma PF	Sin Ho	Pu Sam Cap	Repair/ Upgrade	1 system	66	A
LCSHwater009	Nam Na PF	Sin Ho	Tua Sin Chai	Repair/ Upgrade	1 system	110	B
LCSHwater010	Nam Ma PF	Sin Ho	Pu Sam Cap	Repair/ Upgrade	1 system	70	B
LCSHwater011	Nam Na PF	Sin Ho	Lang Mo	New construction	1 system	60	B
LCSHwater012	Nam Ma PF	Sin Ho	Nam Han	Repair/ Upgrade	1 system	60	B
LCSHwater013	Nam Na PF	Sin Ho	Lang Mo	New construction	1 system	60	B
LCSHwater014	Nam Ma PF	Sin Ho	Nam Cui	New construction	1 system	725	A

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-5 The long-list of rural small-scale infrastructure in Tan Uyen District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Road Works

Lai Chau Province Tan Uyen District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ho Mit):	529 (HH)
Number of Benefisheries (Muong Khoa):	763 (HH)
Number of Benefisheries (Nam Can):	363 (HH)
Number of Benefisheries (Nam So):	714 (HH)
Number of Benefisheries (Pac Ta):	464 (HH)
Number of Benefisheries (Phuc Khoa):	485 (HH)
Number of Benefisheries (Ta Mit):	280 (HH)
Number of Benefisheries (Tan Uyen town):	597 (HH)
Number of Benefisheries (Trung Dong):	634 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)
LCTUroad001	Tan Uyen PF	Tan Uyen	Ho Mit	V to V	New construction	1.500 km	A
LCTUroad002	Tan Uyen PF	Tan Uyen	Ho Mit	VR	New construction	1.500 km	A
LCTUroad003	Tan Uyen PF	Tan Uyen	Ho Mit	FR	New construction	2.000 km	A
LCTUroad004	Tan Uyen PF	Tan Uyen	Ho Mit	V to V	New construction	0.060 km	B
LCTUroad005	Tan Uyen PF	Tan Uyen	Ho Mit	VR	New construction	1.000 km	B
LCTUroad006	Tan Uyen PF	Tan Uyen	Ho Mit	V to V	New construction	4.000 km	B
LCTUroad007	Tan Uyen PF	Tan Uyen	Muong Khoa	V to V	Upgrade/ repair soil road	2.000 km	A
LCTUroad008	Tan Uyen PF	Tan Uyen	Muong Khoa	V to V	Upgrade/ repair soil road	2.000 km	A
LCTUroad009	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	0.700 km	B
LCTUroad010	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.300 km	B
LCTUroad011	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad012	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.200 km	B
LCTUroad013	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.200 km	B
LCTUroad014	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.100 km	B
LCTUroad015	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad016	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad017	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.200 km	B
LCTUroad018	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.500 km	B
LCTUroad019	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad020	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad021	Tan Uyen PF	Tan Uyen	Muong Khoa	VR	New construction	1.000 km	B
LCTUroad022	Tan Uyen PF	Tan Uyen	Nam Can	V to V	New construction	1.000 km	A
LCTUroad023	Tan Uyen PF	Tan Uyen	Nam Can	V to V	New construction	1.000 km	A
LCTUroad024	Tan Uyen PF	Tan Uyen	Nam So	V to V	Upgrade/ repair soil road	2.200 km	A
LCTUroad025	Tan Uyen PF	Tan Uyen	Nam So	V to V	New construction	9.000 km	A
LCTUroad026	Tan Uyen PF	Tan Uyen	Nam So	V to V	New construction	9.000 km	A
LCTUroad027	Tan Uyen PF	Tan Uyen	Nam So	V to V	New construction	9.000 km	A
LCTUroad028	Tan Uyen PF	Tan Uyen	Nam So	V to V	New construction	6.000 km	B
LCTUroad029	Tan Uyen PF	Tan Uyen	Nam So	VR	New construction	1.000 km	B
LCTUroad030	Tan Uyen PF	Tan Uyen	Nam So	VR	New construction	1.000 km	B
LCTUroad031	Tan Uyen PF	Tan Uyen	Nam So	VR	New construction	1.000 km	B
LCTUroad044	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	0.500 km	A
LCTUroad045	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	0.500 km	A
LCTUroad046	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	0.500 km	A
LCTUroad047	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	0.200 km	B
LCTUroad048	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	0.200 km	B
LCTUroad049	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	2.000 km	B
LCTUroad050	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	1.000 km	B
LCTUroad051	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	1.000 km	B
LCTUroad052	Tan Uyen PF	Tan Uyen	Ta Mit	VR	New construction	2.000 km	B
LCTUroad053	Tan Uyen PF	Tan Uyen	Tan Uyen town	V to V	New construction	0.748 km	A
LCTUroad054	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.200 km	A
LCTUroad055	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.300 km	A

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-5 The long-list of rural small-scale infrastructure in Tan Uyen District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)
LCTUroad056	Tan Uyen PF	Tan Uyen	Tan Uyen town	FR	New construction	1.000 km	B
LCTUroad057	Tan Uyen PF	Tan Uyen	Tan Uyen town	FR	New construction	1.000 km	B
LCTUroad058	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.300 km	B
LCTUroad059	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.300 km	B
LCTUroad060	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.350 km	B
LCTUroad061	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	1.200 km	B
LCTUroad062	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.300 km	B
LCTUroad063	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	0.300 km	B
LCTUroad064	Tan Uyen PF	Tan Uyen	Tan Uyen town	VR	New construction	1.200 km	B

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-5 The long-list of rural small-scale infrastructure in Tan Uyen District

Irrigation Works

Lai Chau Province Tan Uyen District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ho Mit): 529 (HH)

Number of Benefisheries (Muong Khoa): 763 (HH)

Number of Benefisheries (Nam Can): 363 (HH)

Number of Benefisheries (Nam So): 714 (HH)

Number of Benefisheries (Pac Ta): 464 (HH)

Number of Benefisheries (Phuc Khoa): 485 (HH)

Number of Benefisheries (Ta Mit): 280 (HH)

Number of Benefisheries (Tan Uyen town): 597 (HH)

Number of Benefisheries (Trung Dong): 634 (HH)

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type of Construction	Quantity (Canal) (unit)	Cost (by District Office)	Period (by District Office)
LCTUirri001	Tan Uyen PF	Tan Uyen	Ho Mit	New construction	2.000 km	2,200	A
LCTUirri002	Tan Uyen PF	Tan Uyen	Ho Mit	New construction	2.000 km	2,200	A
LCTUirri003	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.100 km	1,393	A
LCTUirri004	Tan Uyen PF	Tan Uyen	Ho Mit	New construction	2.000 km	2,200	A
LCTUirri005	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.400 km	1,000	B
LCTUirri006	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.100 km	1,393	A
LCTUirri007	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.400 km	1,000	B
LCTUirri008	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.100 km	1,393	A
LCTUirri009	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	5.400 km	1,544	A
LCTUirri010	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	5.400 km	1,544	A
LCTUirri011	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	1.600 km	2,000	B
LCTUirri012	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	2.800 km	800	B
LCTUirri013	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	3.800 km	800	B
LCTUirri014	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	1.800 km	800	B
LCTUirri015	Tan Uyen PF	Tan Uyen	Muong Khoa	New construction	2.000 km	2,500	B
LCTUirri016	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	1.600 km	2,000	B
LCTUirri017	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	2.800 km	800	B
LCTUirri018	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	3.800 km	800	B
LCTUirri019	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	1.800 km	800	B
LCTUirri020	Tan Uyen PF	Tan Uyen	Muong Khoa	New construction	2.000 km	2,500	B
LCTUirri021	Tan Uyen PF	Tan Uyen	Muong Khoa	New construction	1.000 km	1,256	B
LCTUirri022	Tan Uyen PF	Tan Uyen	Nam Can	New construction	3.000 km	4,000	A
LCTUirri023	Tan Uyen PF	Tan Uyen	Nam Can	New construction	3.000 km	4,000	A
LCTUirri024	Tan Uyen PF	Tan Uyen	Nam Can	New construction	3.000 km	4,000	A
LCTUirri025	Tan Uyen PF	Tan Uyen	Nam Can	Repair/ Upgrade	1.900 km	400	B
LCTUirri026	Tan Uyen PF	Tan Uyen	Nam Can	Repair/ Upgrade	1.900 km	400	B
LCTUirri027	Tan Uyen PF	Tan Uyen	Nam So	New construction	2.000 km	2,700	A
LCTUirri028	Tan Uyen PF	Tan Uyen	Nam So	Repair/ Upgrade	3.300 km	600	A
LCTUirri029	Tan Uyen PF	Tan Uyen	Nam So	New construction	2.500 km	3,400	B
LCTUirri042	Tan Uyen PF	Tan Uyen	Ta Mit	New construction	1.300 km	1,700	B
LCTUirri043	Tan Uyen PF	Tan Uyen	Ta Mit	New construction	1.200 km	1,600	B
LCTUirri044	Tan Uyen PF	Tan Uyen	Tan Uyen town	New construction	1.200 km	1,500	A
LCTUirri045	Tan Uyen PF	Tan Uyen	Tan Uyen town	New construction	1.200 km	1,500	A

Note:

C to C: Commune to commune

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-5 The long-list of rural small-scale infrastructure in Tan Uyen District

Water Supply Works

Lai Chau Province

Tan Uyen District

Objectives: To improve the live level for livelihood improvement in the commune

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Period (by District Office)
LCTUwater001	Tan Uyen PF	Tan Uyen	Nam Can	repair	1 system	78	A
LCTUwater002	Tan Uyen PF	Tan Uyen	Nam Can	repair	1 system	85	A
LCTUwater003	Tan Uyen PF	Tan Uyen	Nam So	construction	1 system	35	A
LCTUwater004	Tan Uyen PF	Tan Uyen	Nam So	repair	1 system	56	B
LCTUwater005	Tan Uyen PF	Tan Uyen	Nam So	repair	1 system	47	B
LCTUwater008	Tan Uyen PF	Tan Uyen	Ta Mit	repair	1 system	150	A
LCTUwater009	Tan Uyen PF	Tan Uyen	Ta Mit	repair	1 system	50	B

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-6 The long-list of rural small-scale infrastructure in Than Uyen District

Road Works

Lai Chau Province Than Uyen District

Objectives: To improve the mobility in the commune

Number of Benefiseries (Hua Na): 529 (HH)

Number of Benefiseries (Khoen On): 763 (HH)

Number of Benefiseries (Muong Kim): 363 (HH)

Number of Benefiseries (Muong Mit): 714 (HH)

Number of Benefiseries (Pha Mu): 464 (HH)

Number of Benefiseries (Pha Mu): 485 (HH)

Number of Benefiseries (Phuc Than): 280 (HH)

Number of Benefiseries (Ta Gia): 597 (HH)

Number of Benefiseries (Ta Hua): 634 (HH)

Number of Benefiseries (Ta Mung): 634 (HH)

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Cost (by District Office)	Period (by District Office)
LCTHroad005	Than Uyen PF	Than Uyen	Muong Mit	V to V	Upgrade soil road	2.500 km	3,000	A
LCTHroad006	Than Uyen PF	Than Uyen	Muong Mit	V to V	Upgrade soil road	1.600 km	1,950	A
LCTHroad009	Than Uyen PF	Than Uyen	Pha Mu	V to V	Upgrade soil road	5.400 km	12,000	A
LCTHroad010	Than Uyen PF	Than Uyen	Pha Mu	V to V	Upgrade soil road	1.700 km	3,500	B
LCTHroad018	Than Uyen PF	Than Uyen	Ta Mung	V to V	Upgrade soil road	2.100 km	3,200	B
LCTHroad019	Than Uyen PF	Than Uyen	Ta Mung	V to V	Upgrade soil road	2.000 km	3,100	B

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-6 The long-list of rural small-scale infrastructure in Than Uyen District

Irrigation Works

Lai Chau Province

Than Uyen District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ho Mit):	529 (HH)
Number of Benefisheries (Muong Khoa):	763 (HH)
Number of Benefisheries (Nam Can):	363 (HH)
Number of Benefisheries (Nam So):	714 (HH)
Number of Benefisheries (Pac Ta):	464 (HH)
Number of Benefisheries (Phuc Khoa):	485 (HH)
Number of Benefisheries (Ta Mit):	280 (HH)
Number of Benefisheries (Tan Uyen town):	597 (HH)
Number of Benefisheries (Trung Dong):	634 (HH)

Code	PFMB	District	Commune	Type of Construction	Quantity (Canal) (unit)	Period (by District Office)
LCTHirri007	Than Uyen PF	Than Uyen	Ta Mung	New construction	1.000 km	B
LCTHirri008	Than Uyen PF	Than Uyen	Pha Mu	New construction	1.000 km	A
LCTHirri014	Than Uyen PF	Than Uyen	Muong Mit	Repair/ Upgrade	0.700 km	B

Table E-6 The long-list of rural small-scale infrastructure in Than Uyen District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement
 Water Supply Works
 Lai Chau Province Than Uyen District
 Objectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)		Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
LCTHwater009	Than Uyen PF	Than Uyen	Muong Mit	New construction	1	system	65	855	A
LCTHwater010	Than Uyen PF	Than Uyen	Muong Mit	New construction	1	system	100	790	A
LCTHwater021	Than Uyen PF	Than Uyen	Ta Mung	New construction	1	system	20	500	A
LCTHwater022	Than Uyen PF	Than Uyen	Ta Mung	New construction	1	system	43	705	A

Table E-7 The long-list of rural small-scale infrastructure in Quynh Nhai District

Road Works

Son La Province Quynh Nhai District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ca Nang) 1,001 (HH)

Number of Benefisheries (Muong Chien) 406 (HH)

Number of Benefisheries (Muong Giang) 2,600 (HH)

Number of Benefisheries (Muong Sai) 888 (HH)

Number of Benefisheries (Pa Ma Pha Kinh) 790 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
SLQNroad001	Quynh Nhai PF	Quynh Nhai	Muong Giang	V to V	New construction	10.000 km	NA
SLQNroad002	Quynh Nhai PF	Quynh Nhai	Muong Giang	V to V	New construction	6.000 km	NA
SLQNroad003	Quynh Nhai PF	Quynh Nhai	Muong Giang	V to V	New construction	14.000 km	NA
SLQNroad004	Quynh Nhai PF	Quynh Nhai	Muong Sai	V to V	New construction	6.500 km	NA
SLQNroad005	Quynh Nhai PF	Quynh Nhai	Muong Sai	V to V	New construction	4.000 km	NA
SLQNroad006	Quynh Nhai PF	Quynh Nhai	Muong Sai	V to V	Upgrade/ repair	4.000 km	NA
SLQNroad007	Quynh Nhai PF	Quynh Nhai	Muong Giang	V to V	Upgrade/ repair	2.000 km	NA

Table E-7 The long-list of rural small-scale infrastructure in Quynh Nhai District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Irrigation Works

Son La Province Quynh Nhai District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ca Nang): 1,001 (HH)

Number of Benefisheries (Muong Giang): 406 (HH)

Number of Benefisheries (Muong Chien): 2,600 (HH)

Number of Benefisheries (Pa Ma Pha): 888 (HH)

Number of Benefisheries (Chieng Bang): 790 (HH)

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type of Construction	Quantity (unit)	with/ without Reservoir	Cost (by District Office)	Period (by District Office)
SLQNirri001	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1.700 km	without	3,000	NA
SLQNirri002	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1.300 km	without	2,250	NA
SLQNirri005	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1.650 km	without	1,500	NA
SLQNirri007	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1.500 km	without	1,800	NA
SLQNirri009	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	0.750 km	without	800	NA

Table E-7 The long-list of rural small-scale infrastructure in Quynh Nhai District

Water Supply Works

Son La Province

Quynh Nhai District

Ojectives: To improve the live level for livelihood improvement in the commune

Code	PFMB	District	Commune	Type	Quantity	(unit)	Number of Beneficiaries (HH)	Period (by District Office)
SLQNwater002	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1	system	45	NA
SLQNwater003	Quynh Nhai PF	Quynh Nhai	Muong Giang	Upgrade	1	system	193	NA
SLQNwater004	Quynh Nhai PF	Quynh Nhai	Muong Giang	New construction	1	system	47	NA
SLQNwater005	Quynh Nhai PF	Quynh Nhai	Muong Sai	New construction	1	system	85	NA
SLQNwater006	Quynh Nhai PF	Quynh Nhai	Muong Sai	New construction	1	system	120	NA

Table E-8 The long-list of rural small-scale infrastructure in Moc Chau District

Road Works

Son La Province Moc Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Son): 456 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
SLMCroad001	Xuan Nha	Moc chau	Chieng Son	V to V	Soil to concrete	0.500 km	A
SLMCroad002	Xuan Nha	Moc chau	Chieng Son	VR	Soil to concrete	1.200 km	A
SLMCroad003	Xuan Nha	Moc chau	Chieng Son	VR	Soil to concrete	2.000 km	A
SLMCroad004	Xuan Nha	Moc chau	Chieng Son	V to V	Soil to concrete	3.500 km	B
SLMCroad005	Xuan Nha	Moc chau	Chieng Son	V to V	Soil to concrete	1.500 km	B
SLMCroad006	Xuan Nha	Moc chau	Chieng Son	V to V	Soil to concrete	1.500 km	B
SLMCroad007	Xuan Nha	Moc chau	Chieng Son	VR	Soil to concrete	1.500 km	B

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Road Works

Son La Province Thuan Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Bon 1,482 (HH)

Number of Benefisheries (Co Ma): 1,532 (HH)

Number of Benefisheries (Long He): 985 (HH)

Number of Benefisheries (Ban Lam): 3,681 (HH)

Number of Benefisheries (Muong Ban 2,174 (HH)

Number of Benefisheries (Nam Lau): 1,843 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad001	Copia	Thuan Chau	Chieng Bom	C to C	Soil to concrete	3.000 km	NA
SLTCroad002	Copia	Thuan Chau	Chieng Bom	C to C	Soil to concrete	2.000 km	NA
SLTCroad003	Copia	Thuan Chau	Chieng Bom	C to C	Soil to concrete	3.000 km	NA
SLTCroad004	Copia	Thuan Chau	Chieng Bom	C to C	Soil to concrete	2.000 km	NA
SLTCroad005	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	3.000 km	NA
SLTCroad006	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	5.000 km	NA
SLTCroad007	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.300 km	NA
SLTCroad008	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad009	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad010	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad011	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.300 km	NA
SLTCroad012	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad013	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad014	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad015	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.200 km	NA
SLTCroad016	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad017	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.200 km	NA
SLTCroad018	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad019	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad020	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.400 km	NA
SLTCroad021	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad022	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad023	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad024	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad025	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	0.300 km	NA
SLTCroad026	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad027	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad028	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad029	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	2.000 km	NA
SLTCroad030	Copia	Thuan Chau	Chieng Bom	V to V	Soil to concrete	1.000 km	NA
SLTCroad031	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad032	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad033	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad034	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad035	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad036	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad037	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad038	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad039	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad040	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad041	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad042	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	2.000 km	NA
SLTCroad043	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad044	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad045	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad046	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad047	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad048	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	0.400 km	NA
SLTCroad049	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad050	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	0.300 km	NA
SLTCroad051	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad052	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad053	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad054	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	0.400 km	NA
SLTCroad055	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad056	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad057	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad058	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad059	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad060	Copia	Thuan Chau	Chieng Bom	VR	Soil to concrete	1.000 km	NA
SLTCroad061	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad062	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad063	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad064	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad065	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad066	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad067	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad068	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad069	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad070	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad071	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad072	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad073	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	7.000 km	NA
SLTCroad074	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	2.000 km	NA
SLTCroad075	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	3.000 km	NA
SLTCroad076	Copia	Thuan Chau	Chieng Bom	FR	Soil to concrete	1.000 km	NA
SLTCroad077	Copia	Thuan Chau	Co Ma	C to C	Soil to concrete	14.400 km	NA
SLTCroad078	Copia	Thuan Chau	Co Ma	V to V	Soil to concrete	1.000 km	NA
SLTCroad079	Copia	Thuan Chau	Co Ma	V to V	Soil to concrete	38.760 km	NA
SLTCroad080	Copia	Thuan Chau	Co Ma	V to V	Soil to concrete	37.730 km	NA
SLTCroad081	Copia	Thuan Chau	Co Ma	VR	Soil to concrete	12.070 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad082	Copia	Thuan Chau	Co Ma	FR	Soil to concrete	77.300 km	NA
SLTCroad083	Copia	Thuan Chau	Co Ma	V to V	soil fo concrete	3.400 km	NA
SLTCroad084	Copia	Thuan Chau	Long He	C to C	Soil to concrete	8.700 km	NA
SLTCroad085	Copia	Thuan Chau	Long He	C to C	Soil to concrete	14.000 km	NA
SLTCroad086	Copia	Thuan Chau	Long He	C to C	Soil to concrete	6.500 km	NA
SLTCroad087	Copia	Thuan Chau	Long He	C to C	Soil to concrete	5.000 km	NA
SLTCroad088	Copia	Thuan Chau	Long He	C to C	Soil to concrete	2.600 km	NA
SLTCroad089	Copia	Thuan Chau	Long He	C to C	Soil to concrete	3.600 km	NA
SLTCroad090	Copia	Thuan Chau	Long He	C to C	Soil to concrete	3.000 km	NA
SLTCroad091	Copia	Thuan Chau	Long He	C to C	Soil to concrete	6.000 km	NA
SLTCroad092	Copia	Thuan Chau	Long He	C to C	Soil to concrete	2.500 km	NA
SLTCroad093	Copia	Thuan Chau	Long He	C to C	Soil to concrete	7.000 km	NA
SLTCroad094	Copia	Thuan Chau	Long He	C to C	Asphalt to concrete	2.000 km	NA
SLTCroad095	Copia	Thuan Chau	Long He	C to C	Asphalt to concrete	2.000 km	NA
SLTCroad096	Copia	Thuan Chau	Long He	C to C	Soil to concrete	4.000 km	NA
SLTCroad097	Copia	Thuan Chau	Long He	C to C	Soil to concrete	5.000 km	NA
SLTCroad098	Copia	Thuan Chau	Long He	C to C	Asphalt to concrete	6.300 km	NA
SLTCroad099	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.530 km	NA
SLTCroad100	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.790 km	NA
SLTCroad101	Copia	Thuan Chau	Long He	V to V	Soil to concrete	2.700 km	NA
SLTCroad102	Copia	Thuan Chau	Long He	V to V	Soil to concrete	6.000 km	NA
SLTCroad103	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.100 km	NA
SLTCroad104	Copia	Thuan Chau	Long He	V to V	Soil to concrete	2.150 km	NA
SLTCroad105	Copia	Thuan Chau	Long He	V to V	Soil to concrete	2.700 km	NA
SLTCroad106	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.300 km	NA
SLTCroad107	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.200 km	NA
SLTCroad108	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.980 km	NA
SLTCroad109	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.530 km	NA
SLTCroad110	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.930 km	NA
SLTCroad111	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.620 km	NA
SLTCroad112	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.250 km	NA
SLTCroad113	Copia	Thuan Chau	Long He	V to V	Soil to concrete	2.650 km	NA
SLTCroad114	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.500 km	NA
SLTCroad115	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.250 km	NA
SLTCroad116	Copia	Thuan Chau	Long He	V to V	Soil to concrete	2.250 km	NA
SLTCroad117	Copia	Thuan Chau	Long He	V to V	Soil to concrete	0.700 km	NA
SLTCroad118	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.980 km	NA
SLTCroad119	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.530 km	NA
SLTCroad120	Copia	Thuan Chau	Long He	VR	Soil to concrete	2.530 km	NA
SLTCroad121	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.620 km	NA
SLTCroad122	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.790 km	NA
SLTCroad123	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.930 km	NA
SLTCroad124	Copia	Thuan Chau	Long He	VR	Soil to concrete	2.150 km	NA
SLTCroad125	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.200 km	NA
SLTCroad126	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.030 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad127	Copia	Thuan Chau	Long He	VR	Soil to concrete	2.700 km	NA
SLTCroad128	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.250 km	NA
SLTCroad129	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.500 km	NA
SLTCroad130	Copia	Thuan Chau	Long He	VR	Soil to concrete	2.650 km	NA
SLTCroad131	Copia	Thuan Chau	Long He	VR	Soil to concrete	2.250 km	NA
SLTCroad132	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.250 km	NA
SLTCroad133	Copia	Thuan Chau	Long He	VR	Soil to concrete	6.000 km	NA
SLTCroad134	Copia	Thuan Chau	Long He	VR	Soil to concrete	0.700 km	NA
SLTCroad135	Copia	Thuan Chau	Long He	VR	Soil to concrete	1.000 km	NA
SLTCroad136	Copia	Thuan Chau	Long He	VR	Soil to concrete	1.000 km	NA
SLTCroad137	Copia	Thuan Chau	Long He	FR	Soil to concrete	15.300 km	NA
SLTCroad138	Copia	Thuan Chau	Long He	FR	Soil to concrete	8.300 km	NA
SLTCroad139	Copia	Thuan Chau	Long He	FR	Soil to concrete	2.000 km	NA
SLTCroad140	Copia	Thuan Chau	Long He	FR	Soil to concrete	12.000 km	NA
SLTCroad141	Copia	Thuan Chau	Long He	FR	Soil to concrete	4.000 km	NA
SLTCroad142	Copia	Thuan Chau	Long He	FR	Soil to concrete	1.900 km	NA
SLTCroad143	Copia	Thuan Chau	Long He	FR	Soil to concrete	6.200 km	NA
SLTCroad144	Copia	Thuan Chau	Long He	FR	Soil to concrete	10.200 km	NA
SLTCroad145	Copia	Thuan Chau	Long He	FR	Soil to concrete	4.200 km	NA
SLTCroad146	Copia	Thuan Chau	Long He	FR	Soil to concrete	0.100 km	NA
SLTCroad147	Copia	Thuan Chau	Long He	FR	Soil to concrete	0.100 km	NA
SLTCroad148	Copia	Thuan Chau	Long He	FR	Soil to concrete	7.700 km	NA
SLTCroad149	Copia	Thuan Chau	Long He	FR	Soil to concrete	3.500 km	NA
SLTCroad150	Copia	Thuan Chau	Long He	FR	Soil to concrete	8.500 km	NA
SLTCroad151	Copia	Thuan Chau	Long He	FR	Soil to concrete	3.700 km	NA
SLTCroad152	Copia	Thuan Chau	Long He	FR	Soil to concrete	1.000 km	NA
SLTCroad153	Copia	Thuan Chau	Long He	FR	Soil to concrete	6.000 km	NA
SLTCroad154	Copia	Thuan Chau	Long He	FR	Soil to concrete	8.000 km	NA
SLTCroad155	Copia	Thuan Chau	Long He	FR	Soil to concrete	4.500 km	NA
SLTCroad156	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	1.285 km	NA
SLTCroad157	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	2552.000 km	NA
SLTCroad158	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	1629.000 km	NA
SLTCroad159	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	1200.000 km	NA
SLTCroad160	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	0.708 km	NA
SLTCroad161	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	1.151 km	NA
SLTCroad162	Thuan Chau	Thuan Chau	Ban Lam	C to C	Soil to concrete	10.787 km	NA
SLTCroad163	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	1.035 km	NA
SLTCroad164	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	1.396 km	NA
SLTCroad165	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	6.699 km	NA
SLTCroad166	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.392 km	NA
SLTCroad167	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.496 km	NA
SLTCroad168	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.535 km	NA
SLTCroad169	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.838 km	NA
SLTCroad170	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.678 km	NA
SLTCroad171	Thuan Chau	Thuan Chau	Ban Lam	V to V	Soil to concrete	0.278 km	NA

Note:

C to C: Commune to commune

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad172	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.761 km	NA
SLTCroad173	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	1.728 km	NA
SLTCroad174	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.708 km	NA
SLTCroad175	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.369 km	NA
SLTCroad176	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.636 km	NA
SLTCroad177	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.686 km	NA
SLTCroad178	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.956 km	NA
SLTCroad179	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	1.181 km	NA
SLTCroad180	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	1.007 km	NA
SLTCroad181	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.941 km	NA
SLTCroad182	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.400 km	NA
SLTCroad183	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	1.164 km	NA
SLTCroad184	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.875 km	NA
SLTCroad185	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.471 km	NA
SLTCroad186	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.036 km	NA
SLTCroad187	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.611 km	NA
SLTCroad188	Thuan Chau	Thuan Chau	Ban Lam	VR	Soil to concrete	0.328 km	NA
SLTCroad189	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	1.692 km	NA
SLTCroad190	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	5.749 km	NA
SLTCroad191	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	1.968 km	NA
SLTCroad192	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	3.339 km	NA
SLTCroad193	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	4.233 km	NA
SLTCroad194	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	7.092 km	NA
SLTCroad195	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	4.544 km	NA
SLTCroad196	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	3.047 km	NA
SLTCroad197	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	2.036 km	NA
SLTCroad198	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	3.579 km	NA
SLTCroad199	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	2.971 km	NA
SLTCroad200	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	17.687 km	NA
SLTCroad201	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.350 km	NA
SLTCroad202	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.582 km	NA
SLTCroad203	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	1.463 km	NA
SLTCroad204	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	3.884 km	NA
SLTCroad205	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	6.237 km	NA
SLTCroad206	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.297 km	NA
SLTCroad207	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.107 km	NA
SLTCroad208	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.058 km	NA
SLTCroad209	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.298 km	NA
SLTCroad210	Thuan Chau	Thuan Chau	Ban Lam	FR	Soil to concrete	0.142 km	NA
SLTCroad211	Thuan Chau	Thuan Chau	Muong Bam	C to C	Soil to concrete	12.000 km	NA
SLTCroad212	Thuan Chau	Thuan Chau	Muong Bam	C to C	Soil to concrete	7.000 km	NA
SLTCroad213	Thuan Chau	Thuan Chau	Muong Bam	C to C	Soil to concrete	17.000 km	NA
SLTCroad214	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	9.000 km	NA
SLTCroad215	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	9.000 km	NA
SLTCroad216	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	21.000 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad217	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	12.000 km	NA
SLTCroad218	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	5.500 km	NA
SLTCroad219	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad220	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.500 km	NA
SLTCroad221	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	8.000 km	NA
SLTCroad222	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	8.000 km	NA
SLTCroad223	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	2.500 km	NA
SLTCroad224	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad225	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	2.100 km	NA
SLTCroad226	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	2.000 km	NA
SLTCroad227	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.500 km	NA
SLTCroad228	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad229	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	2.500 km	NA
SLTCroad230	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad231	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.200 km	NA
SLTCroad232	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.800 km	NA
SLTCroad233	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad234	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	2.000 km	NA
SLTCroad235	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.000 km	NA
SLTCroad236	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.800 km	NA
SLTCroad237	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	3.800 km	NA
SLTCroad238	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.000 km	NA
SLTCroad239	Thuan Chau	Thuan Chau	Muong Bam	V to V	Soil to concrete	1.000 km	NA
SLTCroad240	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.400 km	NA
SLTCroad241	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.750 km	NA
SLTCroad242	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.000 km	NA
SLTCroad243	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	4.500 km	NA
SLTCroad244	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.700 km	NA
SLTCroad245	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	2.500 km	NA
SLTCroad246	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	1.750 km	NA
SLTCroad247	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.300 km	NA
SLTCroad248	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	2.080 km	NA
SLTCroad249	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	4.900 km	NA
SLTCroad250	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.000 km	NA
SLTCroad251	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.050 km	NA
SLTCroad252	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.500 km	NA
SLTCroad253	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.300 km	NA
SLTCroad254	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	6.000 km	NA
SLTCroad255	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	1.060 km	NA
SLTCroad256	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	1.570 km	NA
SLTCroad257	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	2.100 km	NA
SLTCroad258	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	1.000 km	NA
SLTCroad259	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.580 km	NA
SLTCroad260	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.600 km	NA
SLTCroad261	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	1.200 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad262	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	5.500 km	NA
SLTCroad263	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	0.650 km	NA
SLTCroad264	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	3.000 km	NA
SLTCroad265	Thuan Chau	Thuan Chau	Muong Bam	VR	Soil to concrete	2.000 km	NA
SLTCroad266	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.500 km	NA
SLTCroad267	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	6.500 km	NA
SLTCroad268	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.000 km	NA
SLTCroad269	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.000 km	NA
SLTCroad270	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	2.000 km	NA
SLTCroad271	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	6.500 km	NA
SLTCroad272	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	8.000 km	NA
SLTCroad273	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	4.000 km	NA
SLTCroad274	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	7.500 km	NA
SLTCroad275	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	6.000 km	NA
SLTCroad276	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	2.000 km	NA
SLTCroad277	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	2.000 km	NA
SLTCroad278	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	2.200 km	NA
SLTCroad279	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	4.000 km	NA
SLTCroad280	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	4.700 km	NA
SLTCroad281	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	7.200 km	NA
SLTCroad282	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	5.000 km	NA
SLTCroad283	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.900 km	NA
SLTCroad284	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	9.500 km	NA
SLTCroad285	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	1.500 km	NA
SLTCroad286	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	1.600 km	NA
SLTCroad287	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.000 km	NA
SLTCroad288	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	14.400 km	NA
SLTCroad289	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.000 km	NA
SLTCroad290	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	6.500 km	NA
SLTCroad291	Thuan Chau	Thuan Chau	Muong Bam	FR	Soil to concrete	3.000 km	NA
SLTCroad292	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	4.578 km	NA
SLTCroad293	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	7.377 km	NA
SLTCroad294	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	7.718 km	NA
SLTCroad295	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	32.402 km	NA
SLTCroad296	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	4.198 km	NA
SLTCroad297	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	3.907 km	NA
SLTCroad298	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.752 km	NA
SLTCroad299	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.878 km	NA
SLTCroad300	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.664 km	NA
SLTCroad301	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.898 km	NA
SLTCroad302	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.976 km	NA
SLTCroad303	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.892 km	NA
SLTCroad304	Thuan Chau	Thuan Chau	Nam Lau	V to V	Soil to concrete	0.558 km	NA
SLTCroad305	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.142 km	NA
SLTCroad306	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.956 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad307	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.174 km	NA
SLTCroad308	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.529 km	NA
SLTCroad309	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	2.279 km	NA
SLTCroad310	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.467 km	NA
SLTCroad311	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.405 km	NA
SLTCroad312	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.526 km	NA
SLTCroad313	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.596 km	NA
SLTCroad314	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.669 km	NA
SLTCroad315	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.206 km	NA
SLTCroad316	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.287 km	NA
SLTCroad317	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.686 km	NA
SLTCroad318	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.974 km	NA
SLTCroad319	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.204 km	NA
SLTCroad320	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.540 km	NA
SLTCroad321	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.683 km	NA
SLTCroad322	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.163 km	NA
SLTCroad323	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.529 km	NA
SLTCroad324	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.934 km	NA
SLTCroad325	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.142 km	NA
SLTCroad326	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.846 km	NA
SLTCroad327	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.383 km	NA
SLTCroad328	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.456 km	NA
SLTCroad329	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.833 km	NA
SLTCroad330	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.089 km	NA
SLTCroad331	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.309 km	NA
SLTCroad332	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	1.796 km	NA
SLTCroad333	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.585 km	NA
SLTCroad334	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.984 km	NA
SLTCroad335	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	7.690 km	NA
SLTCroad336	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.847 km	NA
SLTCroad337	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.968 km	NA
SLTCroad338	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.707 km	NA
SLTCroad339	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	4.242 km	NA
SLTCroad340	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.336 km	NA
SLTCroad341	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	1.215 km	NA
SLTCroad342	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	9.983 km	NA
SLTCroad343	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.458 km	NA
SLTCroad344	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	12.011 km	NA
SLTCroad345	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.140 km	NA
SLTCroad346	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.858 km	NA
SLTCroad347	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	1.190 km	NA
SLTCroad348	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	1.540 km	NA
SLTCroad349	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.510 km	NA
SLTCroad350	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.319 km	NA
SLTCroad351	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.325 km	NA

Note:

C to C: Commune to commune

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Period (by District Office)
SLTCroad352	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	5.339 km	NA
SLTCroad353	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.509 km	NA
SLTCroad354	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	1.916 km	NA
SLTCroad355	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	3.708 km	NA
SLTCroad356	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	4.485 km	NA
SLTCroad357	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	2.808 km	NA
SLTCroad358	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	10.324 km	NA
SLTCroad359	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	7.017 km	NA
SLTCroad360	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	18.501 km	NA
SLTCroad361	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	15.348 km	NA
SLTCroad362	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	8.961 km	NA
SLTCroad363	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	7.724 km	NA
SLTCroad364	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	10.666 km	NA
SLTCroad365	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.212 km	NA
SLTCroad366	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.348 km	NA
SLTCroad367	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.262 km	NA
SLTCroad368	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.153 km	NA
SLTCroad369	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.323 km	NA
SLTCroad370	Thuan Chau	Thuan Chau	Nam Lau	FR	Soil to concrete	0.758 km	NA

Note:

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Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Road Works

Son La Province Thuan Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Bom): 1,482 (HH)

Number of Benefisheries (Co Ma): 1,532 (HH)

Number of Benefisheries (Long He): 985 (HH)

Number of Benefisheries (Ban Lam): 920 (HH)

Number of Benefisheries (Muong Ban): 2,174 (HH)

Number of Benefisheries (Nam Lau): 1,843 (HH)

Code	PF/SFUMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Period (by District Office)
SLTCirri001	Copia	Thuan Chau	Chieng Bom	Upgrade	0.300 km	1 nos	NA
SLTCirri002	Copia	Thuan Chau	Chieng Bom	Upgrade	0.220 km	1 nos	NA
SLTCirri003	Copia	Thuan Chau	Chieng Bom	Upgrade	0.510 km	1 nos	NA
SLTCirri004	Copia	Thuan Chau	Chieng Bom	Upgrade	1.100 km	1 nos	NA
SLTCirri005	Copia	Thuan Chau	Chieng Bom	Upgrade	0.000 km	1 nos	NA
SLTCirri006	Copia	Thuan Chau	Chieng Bom	Upgrade	0.390 km	1 nos	NA
SLTCirri007	Copia	Thuan Chau	Chieng Bom	Upgrade	0.410 km	1 nos	NA
SLTCirri008	Copia	Thuan Chau	Chieng Bom	Upgrade	0.500 km	1 nos	NA
SLTCirri009	Copia	Thuan Chau	Chieng Bom	Upgrade	0.390 km	1 nos	NA
SLTCirri010	Copia	Thuan Chau	Chieng Bom	Upgrade	0.450 km	1 nos	NA
SLTCirri011	Copia	Thuan Chau	Chieng Bom	Upgrade	0.560 km	1 nos	NA
SLTCirri012	Copia	Thuan Chau	Chieng Bom	Upgrade	0.390 km	1 nos	NA
SLTCirri013	Copia	Thuan Chau	Chieng Bom	Upgrade	0.450 km	1 nos	NA
SLTCirri014	Copia	Thuan Chau	Chieng Bom	Upgrade	0.460 km	1 nos	NA
SLTCirri015	Copia	Thuan Chau	Chieng Bom	Upgrade	0.450 km	1 nos	NA
SLTCirri016	Copia	Thuan Chau	Chieng Bom	Upgrade	1.000 km		NA
SLTCirri017	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri018	Copia	Thuan Chau	Chieng Bom	Upgrade	1.000 km		NA
SLTCirri019	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri020	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri021	Copia	Thuan Chau	Chieng Bom	Upgrade	0.500 km		NA
SLTCirri022	Copia	Thuan Chau	Chieng Bom	Upgrade	0.500 km		NA
SLTCirri023	Copia	Thuan Chau	Chieng Bom	Upgrade	0.500 km		NA
SLTCirri024	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri025	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri026	Copia	Thuan Chau	Chieng Bom	Upgrade	0.400 km		NA
SLTCirri027	Copia	Thuan Chau	Chieng Bom	Upgrade	0.300 km		NA
SLTCirri028	Copia	Thuan Chau	Long He	Upgrade	5.000 km	1 nos	NA
SLTCirri029	Copia	Thuan Chau	Long He	Upgrade	3.000 km	1 nos	NA
SLTCirri030	Copia	Thuan Chau	Long He	Upgrade	1.600 km	1 nos	NA
SLTCirri031	Copia	Thuan Chau	Long He	Upgrade	6.500 km	1 nos	NA
SLTCirri032	Copia	Thuan Chau	Long He	Upgrade	2.500 km	1 nos	NA
SLTCirri033	Copia	Thuan Chau	Long He	Upgrade	7.000 km	1 nos	NA
SLTCirri034	Copia	Thuan Chau	Long He	Upgrade	5.200 km	1 nos	NA
SLTCirri035	Copia	Thuan Chau	Long He	Upgrade	3.300 km	1 nos	NA
SLTCirri036	Copia	Thuan Chau	Long He	Upgrade	2.800 km	1 nos	NA
SLTCirri037	Copia	Thuan Chau	Long He	Upgrade	1.500 km	1 nos	NA
SLTCirri038	Copia	Thuan Chau	Long He	Upgrade	2.400 km	1 nos	NA
SLTCirri039	Copia	Thuan Chau	Long He	Upgrade	1.100 km	1 nos	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PF/SUFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Period (by District Office)
SLTCirri040	Copia	Thuan Chau	Long He	Upgrade	2.000 km	1 nos	NA
SLTCirri041	Copia	Thuan Chau	Long He	Upgrade	7.000 km	1 nos	NA
SLTCirri042	Copia	Thuan Chau	Long He	Upgrade	2.000 km	1 nos	NA
SLTCirri043	Copia	Thuan Chau	Long He	Upgrade	5.000 km		NA
SLTCirri044	Copia	Thuan Chau	Long He	Upgrade	3.000 km	0 nos	NA
SLTCirri045	Copia	Thuan Chau	Long He	Upgrade	1.600 km	0 nos	NA
SLTCirri046	Copia	Thuan Chau	Long He	Upgrade	6.500 km		NA
SLTCirri047	Copia	Thuan Chau	Long He	Upgrade	2.500 km	0 nos	NA
SLTCirri048	Copia	Thuan Chau	Long He	Upgrade	7.000 km		NA
SLTCirri049	Copia	Thuan Chau	Long He	Upgrade	5.200 km		NA
SLTCirri050	Copia	Thuan Chau	Long He	Upgrade	3.300 km		NA
SLTCirri051	Copia	Thuan Chau	Long He	Upgrade	2.800 km	0 nos	NA
SLTCirri052	Copia	Thuan Chau	Long He	Upgrade	1.500 km	0 nos	NA
SLTCirri053	Copia	Thuan Chau	Long He	Upgrade	2.400 km	0 nos	NA
SLTCirri054	Copia	Thuan Chau	Long He	Upgrade	1.100 km	0 nos	NA
SLTCirri055	Copia	Thuan Chau	Long He	Upgrade	2.000 km	0 nos	NA
SLTCirri056	Copia	Thuan Chau	Long He	Upgrade	7.000 km		NA
SLTCirri057	Copia	Thuan Chau	Long He	Upgrade	2.000 km	0 nos	NA
SLTCirri058	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	7.500 km	1 nos	NA
SLTCirri059	Thuan Chau	Thuan Chau	Chieng Bom	Upgrade	3.026 km	1 nos	NA
SLTCirri060	Thuan Chau	Thuan Chau	Muong Bam	Upgrade	1.360 km	1 nos	NA
SLTCirri061	Thuan Chau	Thuan Chau	Muong Bam	New construction	NA km	1 nos	NA
SLTCirri062	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	7.500 km	1 nos	NA
SLTCirri063	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.571 km	1 nos	NA
SLTCirri064	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	3.800 km	1 nos	NA
SLTCirri065	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	2.500 km	1 nos	NA
SLTCirri066	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	5.100 km	1 nos	NA
SLTCirri067	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	4.300 km	1 nos	NA
SLTCirri068	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	2.500 km	1 nos	NA
SLTCirri069	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	0.600 km	1 nos	NA
SLTCirri070	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	1.200 km	1 nos	NA
SLTCirri071	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	1.900 km	1 nos	NA
SLTCirri072	Thuan Chau	Thuan Chau	Muong Bam	New construction	1.330 km	1 nos	NA
SLTCirri073	Thuan Chau	Thuan Chau	Muong Bam	New construction	1.330 km	1 nos	NA
SLTCirri074	Thuan Chau	Thuan Chau	Muong Bam	New construction	1.230 km	1 nos	NA
SLTCirri075	Thuan Chau	Thuan Chau	Muong Bam	New construction	2.400 km	1 nos	NA
SLTCirri076	Thuan Chau	Thuan Chau	Muong Bam	New construction	3.230 km	1 nos	NA
SLTCirri077	Thuan Chau	Thuan Chau	Muong Bam	New construction	1.800 km	1 nos	NA
SLTCirri078	Thuan Chau	Thuan Chau	Muong Bam	Upgrade	4.394 km	1 nos	NA
SLTCirri079	Thuan Chau	Thuan Chau	Muong Bam	Upgrade	4.200 km	1 nos	NA
SLTCirri080	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.100 km	0 nos	NA
SLTCirri081	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	0.600 km	0 nos	NA
SLTCirri082	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.600 km	0 nos	NA
SLTCirri083	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.900 km	0 nos	NA
SLTCirri084	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	0.600 km	0 nos	NA
SLTCirri085	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.500 km	0 nos	NA
SLTCirri086	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.100 km	0 nos	NA

Note:

C to C: Commune to commue

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Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Period (by District Office)
SLTCirri087	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	0.300 km	0 nos	NA
SLTCirri088	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	0.500 km	0 nos	NA
SLTCirri089	Thuan Chau	Thuan Chau	Nam Lau	New construction	2.800 km		NA
SLTCirri090	Thuan Chau	Thuan Chau	Nam Lau	New construction	3.900 km		NA
SLTCirri091	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.900 km		NA
SLTCirri092	Thuan Chau	Thuan Chau	Nam Lau	New construction	2.400 km		NA
SLTCirri093	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.600 km		NA
SLTCirri094	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.500 km		NA
SLTCirri095	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.600 km		NA
SLTCirri096	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.400 km		NA
SLTCirri097	Thuan Chau	Thuan Chau	Nam Lau	New construction	3.100 km		NA
SLTCirri098	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.300 km		NA
SLTCirri099	Thuan Chau	Thuan Chau	Nam Lau	New construction	5.200 km		NA
SLTCirri100	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.900 km		NA
SLTCirri101	Thuan Chau	Thuan Chau	Nam Lau	New construction	5.700 km		NA
SLTCirri102	Thuan Chau	Thuan Chau	Nam Lau	New construction	2.700 km		NA
SLTCirri103	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.300 km		NA
SLTCirri104	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.400 km		NA
SLTCirri105	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.300 km		NA
SLTCirri106	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.800 km		NA
SLTCirri107	Thuan Chau	Thuan Chau	Nam Lau	New construction	2.000 km		NA
SLTCirri108	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.500 km		NA
SLTCirri109	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.600 km		NA
SLTCirri110	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.300 km		NA
SLTCirri111	Thuan Chau	Thuan Chau	Nam Lau	New construction	3.600 km		NA
SLTCirri112	Thuan Chau	Thuan Chau	Nam Lau	New construction	0.900 km		NA
SLTCirri113	Thuan Chau	Thuan Chau	Nam Lau	New construction	5.000 km		NA
SLTCirri114	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.600 km		NA
SLTCirri115	Thuan Chau	Thuan Chau	Nam Lau	New construction	2.400 km		NA
SLTCirri116	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.800 km		NA
SLTCirri117	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.200 km		NA
SLTCirri118	Thuan Chau	Thuan Chau	Nam Lau	New construction	1.300 km		NA

Note:

C to C: Commune to commue

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Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement
 Water Supply Works
 Son La Province Thuan Chau District
 Objectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

Code	PF/SUFMB	District	Commune	Type	Quantity	(unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
SLTCwater001	Thuan Chau PF	Thuan Chau	Ban Lam	construction	1 system		NA		NA
SLTCwater002	Thuan Chau PF	Thuan Chau	Ban Lam	construction	1 system		NA		NA
SLTCwater003	Thuan Chau PF	Thuan Chau	Ban Lam	construction	1 system		NA		NA
SLTCwater004	Thuan Chau PF	Thuan Chau	Ban Lam	construction	1 system		NA		NA
SLTCwater005	Thuan Chau PF	Thuan Chau	Ban Lam	construction	1 system		NA		NA
SLTCwater006	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater007	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater008	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater009	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater010	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater011	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system		NA		NA
SLTCwater012	Thuan Chau PF	Thuan Chau	Ban Lam	Upgrade	1 system				NA
SLTCwater013	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		58	580	NA
SLTCwater014	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		58	580	NA
SLTCwater015	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		34	340	NA
SLTCwater016	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		34	340	NA
SLTCwater017	Copia	Thuan Chau	Chieng Bom	construction	1 system		60	1,200	NA
SLTCwater018	Copia	Thuan Chau	Chieng Bom	construction	1 system		29	580	NA
SLTCwater019	Copia	Thuan Chau	Chieng Bom	construction	1 system		36	720	NA
SLTCwater020	Copia	Thuan Chau	Chieng Bom	construction	1 system		54	1,080	NA
SLTCwater021	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		57	570	NA
SLTCwater022	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		65	650	NA
SLTCwater023	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		60	600	NA
SLTCwater024	Copia	Thuan Chau	Chieng Bom	construction	1 system		46	920	NA
SLTCwater025	Copia	Thuan Chau	Chieng Bom	construction	1 system		54	1,080	NA
SLTCwater026	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		25	500	NA
SLTCwater027	Copia	Thuan Chau	Chieng Bom	construction	1 system		40	800	NA
SLTCwater028	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		40	400	NA
SLTCwater029	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		46	640	NA
SLTCwater030	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		36	360	NA
SLTCwater031	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		94	940	NA
SLTCwater032	Copia	Thuan Chau	Chieng Bom	construction	1 system		17	340	NA
SLTCwater033	Copia	Thuan Chau	Chieng Bom	construction	1 system		31	620	NA
SLTCwater034	Copia	Thuan Chau	Chieng Bom	construction	1 system		16	320	NA
SLTCwater035	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		27	270	NA
SLTCwater036	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		25	250	NA
SLTCwater037	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		30	300	NA
SLTCwater038	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		34	340	NA
SLTCwater039	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		28	280	NA
SLTCwater040	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		46	460	NA
SLTCwater041	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		24	240	NA
SLTCwater042	Copia	Thuan Chau	Chieng Bom	construction	1 system		40	800	NA
SLTCwater043	Copia	Thuan Chau	Chieng Bom	Upgrade	1 system		1	1,800	NA
SLTCwater044	Copia	Thuan Chau	Chieng Bom	construction	Valves, 67 Outlet posts		105	3,000	NA
SLTCwater045	Copia	Thuan Chau	Co Ma	Upgrade	Tanks, 5 Valve, 100		80 HH + 7	2,000	NA
SLTCwater046	Copia	Thuan Chau	Long He	construction	1 system		25	800	NA
SLTCwater047	Copia	Thuan Chau	Long He	construction	1 system		70	800	NA
SLTCwater048	Copia	Thuan Chau	Long He	construction	1 system		36	800	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PF/SUFMB	District	Commune	Type	Quantity	(unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
SLTCwater049	Copia	Thuan Chau	Long He	Upgrade	1 system		28	800	NA
SLTCwater050	Copia	Thuan Chau	Long He	Upgrade	1 system		70	800	NA
SLTCwater051	Copia	Thuan Chau	Long He	construction	1 system		22	800	NA
SLTCwater052	Copia	Thuan Chau	Long He	construction	1 system		20	800	NA
SLTCwater053	Copia	Thuan Chau	Long He	construction	1 system		21	800	NA
SLTCwater054	Copia	Thuan Chau	Long He	construction	1 system		38	800	NA
SLTCwater055	Copia	Thuan Chau	Long He	construction	1 system		52	800	NA
SLTCwater056	Copia	Thuan Chau	Long He	construction	1 system		22	800	NA
SLTCwater057	Copia	Thuan Chau	Long He	construction	1 system		54	800	NA
SLTCwater058	Copia	Thuan Chau	Long He	construction	1 system		21	800	NA
SLTCwater059	Copia	Thuan Chau	Long He	construction	1 system		120	800	NA
SLTCwater060	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		12	360	NA
SLTCwater061	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		50	1,500	NA
SLTCwater062	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		38	1,140	NA
SLTCwater063	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		60	1,800	NA
SLTCwater064	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		60	1,800	NA
SLTCwater065	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		44	1,320	NA
SLTCwater066	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		69	2,070	NA
SLTCwater067	Thuan Chau PF	Thuan Chau	Muong Bam	construction	1 system		17	510	NA
SLTCwater068	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		69	345	NA
SLTCwater069	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		67	335	NA
SLTCwater070	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		84	420	NA
SLTCwater071	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		69	345	NA
SLTCwater072	Thuan Chau PF		Muong Bam	Upgrade	1 system		98	490	NA
SLTCwater073	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		120	600	NA
SLTCwater074	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		114	570	NA
SLTCwater075	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		106	530	NA
SLTCwater076	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		36	180	NA
SLTCwater077	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system		81	405	NA
SLTCwater078	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	03 Valve, 80 Outlet			1,000	NA
SLTCwater079	Thuan Chau PF	Thuan Chau	Muong Bam	construction	Valves, 35 Outlet posts			1,000	NA
SLTCwater080	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater081	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater082	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater083	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater084	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater085	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater086	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater087	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater088	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater089	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater090	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater091	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater092	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater093	Thuan Chau PF	Thuan Chau	Nam Lau	Upgrade	1 system		NA	700	NA
SLTCwater094	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater095	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater096	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater097	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater098	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater099	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA
SLTCwater100	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system		NA	1,300	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-9 The long-list of rural small-scale infrastructure in Thuan Chau District

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
SLTCwater101	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system	NA	1,300	NA
SLTCwater102	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system	NA	1,300	NA
SLTCwater103	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system	NA	1,300	NA
SLTCwater104	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system	NA	1,300	NA
SLTCwater105	Thuan Chau PF	Thuan Chau	Nam Lau	construction	1 system	NA	1,300	NA

Note:

C to C: Commune to commune

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-10 The long-list of rural small-scale infrastructure in Van Ho District

Road Works

Son La Province Van Ho District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Xuan) 721 (HH)

Number of Benefisheries (Tan Xuan) 1,081 (HH)

Number of Benefisheries (Xuan Nha) 970 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
SLVHroad004	Xuan Nha	Van Ho	Chieng Xuan	V to V	Soil to concrete	11.620 km	B
SLVHroad005	Xuan Nha	Van Ho	Chieng Xuan	VR	Soil to concrete	14.160 km	B
SLVHroad006	Xuan Nha	Van Ho	Chieng Xuan	FR	Soil to concrete	36.400 km	B
SLVHroad007	Xuan Nha	Van Ho	Tan Xuan	C to C	Soil to concrete	27.000 km	B
SLVHroad008	Xuan Nha	Van Ho	Tan Xuan	V to V	Soil to concrete	6.760 km	B
SLVHroad009	Xuan Nha	Van Ho	Tan Xuan	VR	Soil to concrete	6.174 km	B
SLVHroad010	Xuan Nha	Van Ho	Tan Xuan	FR	Soil to concrete	42.350 km	B

Note:

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-10 The long-list of rural small-scale infrastructure in Van Ho District

Son La Province

Irrigation Works

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Chieng Xuan) 721 (HH)

Number of Benefisheries (Tan Xuan) 1,081 (HH)

Number of Benefisheries (Xuan Nha) 970 (HH)

Code	PF/SUFMB	District	Commune	Type of Construction	Quantity (unit)	Period (by District Office)
SLVHirri004	Xuan Nha	Van Ho	Chieng Xuan	construction	1.989 km	
SLVHirri005	Xuan Nha	Van Ho	Chieng Xuan	construction	0.389 km	
SLVHirri006	Xuan Nha	Van Ho	Chieng Xuan	construction	3.165 km	

Note:

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-10 The long-list of rural small-scale infrastructure in Van Ho District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement
 Son La Province Water Supply Works
 Objectives: To improve the live level for livelihood improvement in the commune

Code	PF/SUFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Period (by District Office)
SLVHwater008	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	129	A
SLVHwater009	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	31	A
SLVHwater010	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	72	A
SLVHwater011	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	77	A
SLVHwater012	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	33	A
SLVHwater013	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	88	B
SLVHwater014	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	71	B
SLVHwater015	Xuan Nha	Van Ho	Chieng Xuan	New construction	1 system	120	B
SLVHwater016	Xuan Nha	Van Ho	Tan Xuan	New construction	1 system	29	A
SLVHwater017	Xuan Nha	Van Ho	Tan Xuan	New construction	2 system	58	A
SLVHwater018	Xuan Nha	Van Ho	Tan Xuan	New construction	3 system	116	A
SLVHwater019	Xuan Nha	Van Ho	Tan Xuan	New construction	4 system	136	A
SLVHwater020	Xuan Nha	Van Ho	Tan Xuan	New construction	5 system	85	A
SLVHwater021	Xuan Nha	Van Ho	Tan Xuan	New construction	6 system	110	B
SLVHwater022	Xuan Nha	Van Ho	Tan Xuan	New construction	7 system	134	B
SLVHwater023	Xuan Nha	Van Ho	Tan Xuan	New construction	8 system	162	B

Note:
 Period: A (anterior half of 5 years plan),
 B (last half of 5 year plan)

Table E-11 The long-list of rural small-scale infrastructure in Da Bac District

Road Works

Hoa Binh Province Da Bac District

Objectives: To improve the mobility in the commune

Number of Benefiseries (Dong Nghe):	757 (HH)
Number of Benefiseries (Suoi Nanh):	836 (HH)
Number of Benefiseries (Muong Tuong):	456 (HH)
Number of Benefiseries (Dong Chum):	544 (HH)
Number of Benefiseries (Muong Chieng):	611 (HH)
Number of Benefiseries (Tan Pheo):	288 (HH)
Number of Benefiseries (Doan Ket):	319 (HH)
Number of Benefiseries (Yen Hoa):	1,003 (HH)
Number of Benefiseries (Dong Ruong):	580 (HH)
Number of Benefiseries (Vay Nua):	660 (HH)
Number of Benefiseries (Tien Phong):	407 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Priond (by District Office)
HBDBroad001	Phu Chan	Da Bac	Doan Ket	V to V	Soil to concrete	3.500 km	A
HBDBroad002	Phu Chan	Da Bac	Doan Ket	FR	Soil to concrete	2.000 km	B
HBDBroad003	Phu Chan	Da Bac	Doan Ket	FR	Soil to concrete	2.200 km	B
HBDBroad004	Phu Chan	Da Bac	Doan Ket	VR	Soil to concrete	2.000 km	B
HBDBroad005	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	6.800 km	A
HBDBroad006	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	VR	Soil to concrete	3.000 km	B
HBDBroad007	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	6.000 km	B
HBDBroad008	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	5.000 km	B
HBDBroad009	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	7.000 km	B
HBDBroad010	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	8.000 km	B
HBDBroad011	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	5.000 km	B
HBDBroad012	Phu Chan SUF, Da River PF	Da Bac	Dong Chum	V to V	Soil to concrete	7.000 km	B
HBDBroad013	Da River PF	Da Bac	Dong Nghe	V to V	Soil to concrete	3.000 km	B
HBDBroad014	Da River PF	Da Bac	Dong Nghe	V to V	Soil to concrete	2.500 km	B
HBDBroad015	Da River PF	Da Bac	Dong Nghe	V to V	Soil to concrete	6.000 km	B
HBDBroad016	Da River PF	Da Bac	Dong Nghe	VR	Soil to concrete	1.000 km	B
HBDBroad017	Da River PF	Da Bac	Dong Nghe	V to V	Soil to concrete	7.000 km	B
HBDBroad018	Phu Chan SUF, Da River PF	Da Bac	Dong Ruong	C to C	Soil to concrete	2.650 km	A
HBDBroad019	Phu Chan SUF, Da River PF	Da Bac	Dong Ruong	VR	Soil to concrete	2.300 km	B
HBDBroad020	Phu Chan SUF, Da River PF	Da Bac	Dong Ruong	V to V	Soil to concrete	3.000 km	B

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-11 The long-list of rural small-scale infrastructure in Da Bac District

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Period (by District Office)
HBDBroad021	Phu Chan SUF Da River PF	Da Bac	Dong Ruong	V to V	Soil to concrete	5.000 km	B
HBDBroad022	Da River PF	Da Bac	Muong Chieng	V to V	New construction	2.000 km	A
HBDBroad023	Da River PF	Da Bac	Muong Chieng	V to V	Soil to concrete	3.500 km	B
HBDBroad024	Da River PF	Da Bac	Muong Chieng	VR	Soil to concrete	1.500 km	B
HBDBroad025	Da River PF	Da Bac	Muong Chieng	V to V	New construction	1.500 km	B
HBDBroad026	Da River PF	Da Bac	Muong Chieng	V to V	Soil to concrete	6.000 km	B
HBDBroad027	Da River PF	Da Bac	Muong Chieng	FR	New construction	2.000 km	B
HBDBroad028	Da River PF	Da Bac	Muong Chieng	V to V	Soil to concrete	7.000 km	B
HBDBroad029	Da River PF	Da Bac	Muong Chieng	V to V	Soil to concrete	12.000 km	B
HBDBroad030	Da River PF	Da Bac	Muong Chieng	V to V	Soil to concrete	9.000 km	B
HBDBroad031	Da River PF	Da Bac	Muong Tuong	VR	Soil to concrete	2.000 km	B
HBDBroad032	Da River PF	Da Bac	Muong Tuong	FR	New construction	2.000 km	B
HBDBroad033	Da River PF	Da Bac	Muong Tuong	VR	Soil to concrete	1.200 km	B
HBDBroad034	Da River PF	Da Bac	Muong Tuong	C to C	Soil to concrete	5.000 km	B
HBDBroad035	Da River PF	Da Bac	Suoi Nanh	FR	New construction	4.000 km	B
HBDBroad036	Da River PF	Da Bac	Suoi Nanh	FR	New construction	4.200 km	B
HBDBroad037	Da River PF	Da Bac	Suoi Nanh	VR	New construction	1.500 km	B
HBDBroad038	Da River PF	Da Bac	Suoi Nanh	V to V	Soil to concrete	2.000 km	B
HBDBroad039	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	2.000 km	B
HBDBroad040	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	1.500 km	B
HBDBroad041	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	1.600 km	B
HBDBroad042	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	2.100 km	B
HBDBroad043	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	2.500 km	B
HBDBroad044	Da River PF	Da Bac	Tien Phong	VR	New construction	2.500 km	A
HBDBroad045	Da River PF	Da Bac	Tien Phong	V to V	Soil to concrete	1.000 km	B
HBDBroad046	Da River PF	Da Bac	Tien Phong	V to V	Soil to concrete	3.000 km	B
HBDBroad047	Da River PF	Da Bac	Tien Phong	V to V	Soil to concrete	3.000 km	B
HBDBroad048	Da River PF	Da Bac	Tien Phong	C to C	Soil to concrete	6.000 km	B
HBDBroad049	Da River PF	Da Bac	Tien Phong	V to V	Soil to concrete	9.000 km	B
HBDBroad050	Da River PF	Da Bac	Vay Nua	FR	New construction	3.000 km	B
HBDBroad051	Da River PF	Da Bac	Vay Nua	FR	New construction	3.000 km	B

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-11 The long-list of rural small-scale infrastructure in Da Bac District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Irrigation Works

Hoa Binh Province Da Bac District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefiseries (Dong Nghe):	757 (HH)
Number of Benefiseries (Suoi Nanh):	836 (HH)
Number of Benefiseries (Muong Tuong):	456 (HH)
Number of Benefiseries (Dong Chum):	544 (HH)
Number of Benefiseries (Muong Chieng):	611 (HH)
Number of Benefiseries (Tan Pheo):	288 (HH)
Number of Benefiseries (Doan Ket):	319 (HH)
Number of Benefiseries (Yen Hoa):	1,003 (HH)
Number of Benefiseries (Dong Ruong):	580 (HH)
Number of Benefiseries (Vay Nua):	660 (HH)
Number of Benefiseries (Tien Phong):	407 (HH)

Code	PF/SUFME	District	Commune	Type of Construction	Irrigation Area (ha)	Qt (Canal)	Qt (Reservoir)	Period (by District Office)
HBDBirri001	Da River PF	Da Bac	Phong	New construction	9	0.863 km	-	A
HBDBirri002	Da River PF	Da Bac	Tan Pheo	New construction	28	1.750 km	-	B
HBDBirri003	Phu Chan	Da Bac	Tan Pheo	New construction	24	1.500 km	-	B

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-11 The long-list of rural small-scale infrastructure in Da Bac District

Water Supply Works

Hoa Binh Province Da Bac District

Objectives: To improve the live level for livelihood improvement in the commune

Type 1

Type 2

Code	PFMB	District	Commune	Type	Quantity	Number of Beneficiaries (HH)	Period (by District Office)
HBDBwater00	Da River PF	Da Bac	Dong Nghe	Upgrade/repair	1 system	200	A
HBDBwater00	Da River PF	Da Bac	Muong Chieng	Upgrade/repair	1 system	600	B
HBDBwater00	Da River PF	Da Bac	Suoi Nanh	New construction	1 system	300	B
HBDBwater00	Da River PF	Da Bac	Vay Nua	Upgrade/repair	1 system	150	A

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-12 The long-list of rural small-scale infrastructure in Mai Chau District

Road Works

Hoa Binh Province Mai Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ba Khan):	402 (HH)
Number of Benefisheries (Bao La):	597 (HH)
Number of Benefisheries (Cun Pheo):	529 (HH)
Number of Benefisheries (Dong Bang):	485 (HH)
Number of Benefisheries (Hang Kia):	763 (HH)
Number of Benefisheries (Pa Co):	714 (HH)
Number of Benefisheries (Phuc San):	464 (HH)
Number of Benefisheries (Pieng Ve):	634 (HH)
Number of Benefisheries (Tan Dan):	560 (HH)
Number of Benefisheries (Tan My):	311 (HH)
Number of Benefisheries (Tan Son):	280 (HH)

PF/SUFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	1.250 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.800 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.120 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.750 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.750 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	NA	Upgrade/ repair soil road	0.500 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.650 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	1.600 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.500 km	NA
Hang Kia-Pa Co	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.700 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	1.000 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	1.000 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.500 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.810 km	NA
Da River PF	Mai Chau	Ba Khan	VR	New Construction	0.200 km	NA
Da River PF	Mai Chau	Ba Khan	VR	New Construction	0.300 km	NA
Da River PF	Mai Chau	Ba Khan	VR	New Construction	0.300 km	NA
Da River PF	Mai Chau	Ba Khan	VR	New Construction	0.550 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	1.800 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.250 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.300 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.400 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.600 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.700 km	NA
Da River PF	Mai Chau	Ba Khan	C to C	Upgrade/ repair soil road	1.200 km	NA
Da River PF	Mai Chau	Ba Khan	V to V	Upgrade/ repair soil road	0.500 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.500 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.600 km	NA
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	1.000 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.600 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.500 km	NA
Da River PF	Mai Chau	Tan Dan	VR	NA	0.280 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.600 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.500 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-12 The long-list of rural small-scale infrastructure in Mai Chau District

PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.200 km	NA
Da River PF	Mai Chau	Tan Dan	VR	Upgrade/ repair soil road	2.000 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.600 km	NA
Da River PF	Mai Chau	Tan Dan	VR	New Construction	0.600 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-12 The long-list of rural small-scale infrastructure in Mai Chau District

Irrigation Works

Hoa Binh Province Mai Chau District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ba Khan):	402 (HH)
Number of Benefisheries (Bao La):	597 (HH)
Number of Benefisheries (Cun Pheo):	529 (HH)
Number of Benefisheries (Dong Bang):	485 (HH)
Number of Benefisheries (Hang Kia):	763 (HH)
Number of Benefisheries (Pa Co):	714 (HH)
Number of Benefisheries (Phuc San):	464 (HH)
Number of Benefisheries (Pieng Ve):	634 (HH)
Number of Benefisheries (Tan Dan):	560 (HH)
Number of Benefisheries (Tan My):	311 (HH)
Number of Benefisheries (Tan Son):	280 (HH)

PFMB	District	Commune	Type of Construction	Quantity (unit)	Period (by District Office)
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	0.700 km	NA
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	0.500 km	NA
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	1.000 km	NA
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	0.400 km	NA
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	0.400 km	NA
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade canal	0.400 km	NA
Da River PF	Mai Chau	Tan Dan	new construction of canal	0.800	NA
Da River PF	Mai Chau	Tan Dan	new construction of canal	0.310	NA
Da River PF	Mai Chau	Tan Dan	new construction of canal	0.310	NA
Da River PF	Mai Chau	Tan Dan	Repair/ upgrade canal	0.900	NA
Da River PF	Mai Chau	Tan Dan	Repair/ upgrade canal	0.900	NA
Da River PF	Mai Chau	Tan Dan	Repair/ upgrade canal	0.900	NA

Note:

C to C: Commune to commune

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-12 The long-list of rural small-scale infrastructure in Mai Chau District

Water Supply Works

Hoa Binh Province Mai Chau District

Objectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

PF/SUFME	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
Da River PF	Mai Chau	Ba Khan	Reapir/ upgrade	1 system	75	1,500	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	75	2,500	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	20	250	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	20	300	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	20	250	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	15	200	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	10	180	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	10	180	NA
Da River PF	Mai Chau	Tan Dan	New construction	1 system	15	200	NA
Hang Kia-Pa Co SUF	Mai Chau	Hang Kia	New construction	1 system	NA (only tank)	70	A
Hang Kia-Pa Co SUF	Mai Chau	Hang Kia	New construction	1 system	NA (only tank)	50	A
Hang Kia-Pa Co SUF	Mai Chau	Pa Co	New construction	1 system	NA (only tank)	50	A

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-13 The long-list of rural small-scale infrastructure in Cao Phong District

Road Works

Hoa Binh Province

Cao Phong District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Thung Nai):

480 (HH)

Number of Benefisheries (Binh Thanh):

648 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Period (by District Office)
HBCProad009	Da River Watershed PFMB	Cao Phong	Thung Nai	C to C	New construction	11.300 km	NA
HBCProad010	Da River Watershed PFMB	Cao Phong	Thung Nai	V to V	New construction	5.000 km	NA
HBCProad011	Da River Watershed PFMB	Cao Phong	Thung Nai	V to V	New construction	5.000 km	NA
HBCProad012	Da River Watershed PFMB	Cao Phong	Thung Nai	V to V	New construction	4.000 km	NA
HBCProad013	Da River Watershed PFMB	Cao Phong	Thung Nai	FR	New construction	19.000 km	NA
HBCProad014	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	New construction	3.000 km	NA
HBCProad015	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	New construction	1.900 km	NA
HBCProad016	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	New construction	5.000 km	NA
HBCProad017	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	New construction	1.500 km	NA
HBCProad018	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	New construction	0.600 km	NA
HBCProad019	Da River Watershed PFMB	Cao Phong	Thung Nai	VR	Upgrade	5.500 km	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-13 The long-list of rural small-scale infrastructure in Cao Phong District

Irrigation Works

Hoa Binh Province

Cao Phong District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Thung Nai): 480 (HH)

Number of Benefisheries (Binh Thanh): 648 (HH)

1

Code	PFMB	District	Commune	Type of Construction	Quantity	(unit)	Period (by District Office)
HBCPirri005	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri006	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri007	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri008	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri009	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri010	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA
HBCPirri011	Da River Watershed PFMB	Cao Phong	Thung Nai	New construction	1	system	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-13 The long-list of rural small-scale infrastructure in Cao Phong District

Water Supply Works

Hoa Binh Province

Cao Phong District

Objectives: To improve the live level for livelihood improvement in the commune

Code	PFMB	District	Commune	Type of Construction	Proposed Quantity	Number of Beneficiaries (HH)	Period (by District Office)
HBCPwater001	Da River Watershed PFMB	Cao Phong	Thung Nai	Upgrade	1 system	150	NA

Note:

C to C: Commune to commue

V to V: Village to village

VR: inside of village

FR: Village to cultivation field

Table E-14 The long-list of rural small-scale infrastructure in Lac Son District

Road Works

Hoa Binh Province Lac Son District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ngoc Lau): 702 (HH)

Number of Benefisheries (Ngoc Son): 620 (HH)

Number of Benefisheries (Tu Do): 613 (HH)

Number of Benefisheries (Tan My): 1,653 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Cost (by District Office)	Period (by District Office)
HBLsroad005	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Son	V to V	Soil to concrete	8.000 km	4,922	NA
HBLsroad006	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Son	FR	Soil to concrete	3.000 km	1,361	NA
HBLsroad007	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Lau	C to C	Soil to concrete	2.000 km	4,200	NA
HBLsroad008	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Lau	V to V	Soil to concrete	5.000 km	3,360	NA
HBLsroad009	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Lau	VR	Soil to concrete	3.000 km	1,575	NA
HBLsroad010	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Lau	FR	Soil to concrete	3.000 km	1,575	NA
HBLsroad011	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	C to C	Soil to concrete	3.000 km	6,300	NA
HBLsroad012	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	V to V	Soil to concrete	6.000 km	5,040	NA
HBLsroad013	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	VR	Soil to concrete	3.000 km	2,310	NA
HBLsroad014	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	FR	Soil to concrete	3.000 km	2,310	NA

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-14 The long-list of rural small-scale infrastructure in Lac Son District

Irrigation Works

Hoa Binh Province

Lac Son District

Ojectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ngoc Lau): 702 (HH)

Number of Benefisheries (Ngoc Son): 620 (HH)

Number of Benefisheries (Tu Do): 613 (HH)

Number of Benefisheries (Tan My): 1,653 (HH)

Cost unit: ('000,000 VTD)

Code	PF/SUFMB	District	Commune	Type of Construction	Quantity	(unit)	Cost (by District Office)	Period (by District Office)
HBLSirri001	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Lau	Canal upgrade/ repair	2.000	km	5,040	NA
HBLSirri001	Ngoc Son-Ngo Luong SUF	Lac Son	Ngoc Son	Canal upgrade/ repair	0.800	km	2,041	NA
HBLSirri001	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	New construction	1	Reservoir	420	NA
HBLSirri001	Ngoc Son-Ngo Luong SUF	Lac Son	Tu Do	Canal upgrade/ repair	1.000	km	3,150	NA

Note:

C to C: Commune to commue, V to V: Village to village, VR: inside of village,

FR: Village to cultivation field

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-15 The long-list of rural small-scale infrastructure in Tan Lac District

Hoa Binh Province

Road Works

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ngoi Hoa): 353 (HH)

Number of Benefisheries (Trung Hoa): 593 (HH)

Number of Benefisheries (Bac Son): 360 (HH)

Number of Benefisheries (Nam Son): 403 (HH)

Number of Benefisheries (Ngo Luong): 395 (HH)

Code	PF/SUFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Period (by District Office)
HBTLroad001	Ngoc Son -Ngo Luong SUF	Tan Lac	Bac Son	C to C	Soil to concrete	13.000 km	NA
HBTLroad002	Ngoc Son -Ngo Luong SUF	Tan Lac	Bac Son	V to V	Soil to concrete	5.000 km	NA
HBTLroad003	Ngoc Son -Ngo Luong SUF	Tan Lac	Nam Son	V to V	Soil to concrete	4.600 km	NA
HBTLroad004	Ngoc Son -Ngo Luong SUF	Tan Lac	Nam Son	VR	Soil to concrete	1.000 km	NA
HBTLroad005	Ngoc Son -Ngo Luong SUF	Tan Lac	Ngo Luong	V to V	Soil to concrete	1.000 km	NA
HBTLroad006	Da River PF	Tan Lac	Ngoi Hoa	C to C	New Construction	3.000 km	NA
HBTLroad007	Da River PF	Tan Lac	Ngoi Hoa	C to C	Soil to concrete	7.000 km	NA
HBTLroad008	Da River PF	Tan Lac	Ngoi Hoa	V to V	Soil to concrete	2.000 km	NA
HBTLroad009	Da River PF	Tan Lac	Trung Hoa	V to V	Soil to concrete	1.000 km	NA
HBTLroad010	Da River PF	Tan Lac	Trung Hoa	C to C	Soil to concrete	5.500 km	NA
HBTLroad011	Da River PF	Tan Lac	Trung Hoa	V to V	Soil to concrete	2.000 km	NA

Note:

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-15 The long-list of rural small-scale infrastructure in Tan Lac District

Irrigation Works

Hoa Binh Province

Tan Lac District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ngoi Hoa): 353 (HH)

Number of Benefisheries (Trung Hoa): 593 (HH)

Number of Benefisheries (Bac Son): 360 (HH)

Number of Benefisheries (Nam Son): 403 (HH)

Number of Benefisheries (Ngo Luong): 395 (HH)

Code	PFMB	District	Commune	Type of Construction	Quantity (unit)	Period (by District Office)
HBTLirri001	Da River PF	Tan Lac	Trung Hoa	Repair/ Upgrade	1 reservoir, 1km canal	NA
HBTLirri002	Ngoc Son -Ngo Luong NR	Tan Lac	Nam Son	Repair/ Upgrade	1 reservoir, 0.2km canal	NA

Note:

Period: A (anterior half of 5 years plan),

B (last half of 5 year plan)

Table E-15 The long-list of rural small-scale infrastructure in Tan Lac District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Hoa Binh Province Water Supply Works

Objectives: To improve the live level for livelihood improvement in the commune

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type of Construction	Quantity	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)
HBTLwater001	Da River PF	Tan Lac	Ngoi Hoa	New construction	1 system	353	20,000	NA

Note:

Period: A (anterior half of 5 years plan),
B (last half of 5 year plan)

Table E-16 The short-list of rural small-scale infrastructure in Dien Bien District

Summary of Short List of Rural Small-Scale Infrastructure in Dien Bien District, Dien Bien Province (Without VAT)

('000,000 VND)

Province	District	FMB	Commune	Rural Road			Irrigation system				Water supply system				Total Construction Cost	
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost		
Dien Bien	Dien Bien	Mung PhangNR	Muong Phang	2	1.000	1,798	0	0	0.000	0	0	0	0	0	1,798	
			Pa Khoang	1	0.500	899	1	0	1.150	1,244	0	0	0	0	0	2,143
			Subtotal	3	1.500	2,697	1	0	1.150	1,244	0	0	0	0	0	3,941
		Dien Bien PF	Muong Nha	1	0.500	899	2	0	1.000	1,082	0	0	0	0	0	1,981
			Na Tong	2	1.000	1,798	2	0	1.000	1,082	0	0	0	0	0	2,880
			Phu Long	4	1.500	2,698	0	0	0.000	0	0	0	0	0	0	2,698
			Subtotal	7	3.000	5,395	4	0	2.000	2,164	0	0	0	0	0	7,559
Dien Bien	Dien Bien	Subtotal		10	4.500	8,092	5	0	3.150	3,408	0	0	0	0	11,500	

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Dien Bien	Dien Bien	Subtotal	Cost	510	310	0	820

Total Cost w/o OM cost

Province	District	Cost ('000,000 VND)
Dien Bien	Dien Bien	12,320

Note:

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-16 The short-list of rural small-scale infrastructure in Dien Bien District

Road Works

Dien Bien Province Dien Bien District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)

Number of Benefisheries (Pa Khoang): 1,078 (HH)

Number of Benefisheries (Muong Nha): 901 (HH)

Number of Benefisheries (Na Tong): 1,033 (HH)

Number of Benefisheries (Phu Long): 518 (HH)

Unit Cost ('000,000 VND/km) 1,798.725

Code	PFMB	District	Commune	Type of Road	Type of Construction	Quantity (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Cost ('000,000 VND)
DBDBroad013	Muong Phang NR	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.500 km	B	A		0.500 km	899
DBDBroad018	Muong Phang NR	Dien Bien	Muong Phang	V to V	Upgrade: Soild to Concrete	0.500 km	B	A		0.500 km	899
DBDBroad028	Muong Phang NR	Dien Bien	Pa Khoang	V to V	Soil to concrete	0.500 km	NA	A		0.500 km	899
DBDBroad183	Dien Bien PF	Dien Bien	Muong Nha	VR	Soil to concrete	0.500 km	B	A		0.500 km	899
DBDBroad275	Dien Bien PF	Dien Bien	Na Tong	V to V	Upgrade soil road to concrete	0.500 km	B	A		0.500 km	899
DBDBroad345	Dien Bien PF	Dien Bien	Na Tong	FR	Upgrade soil road to concrete	0.500 km	B	A		0.500 km	899
DBDBroad379	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.200 km	B	A		0.200 km	360
DBDBroad383	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.300 km	B	A		0.300 km	540
DBDBroad387	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.500 km	B	A		0.500 km	899
DBDBroad393	Dien Bien PF	Dien Bien	Phu Long	VR	Upgrade: Soil to concrete	0.500 km	B	A		0.500 km	899
Total										4.500 km	8,092

Note:

Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table F-16 The short-list of rural small-scale infrastructure in Dien Bien District

Irrigation Works

Dien Bien Province Dien Bien District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Muong Phang): 1,166 (HH)
 Number of Benefisheries (Pa Khoang): 1,078 (HH)
 Number of Benefisheries (Muong Nha): 901 (HH)
 Number of Benefisheries (Na Tong): 1,033 (HH)
 Number of Benefisheries (Phu Long): 518 (HH)

Unit Cost (Canal) ('000,000 VND/km) 1,081.793
 Unit Cost (Reservoir) ('000,000 VND/nos) 273.397

PFMB	District	Commune	Name of Sub Project	Quantity (unit)	Period (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
Muong Phang NR	Dien Bien	Pa Khoang	Upgrade existing canal for irrigation	1.150 km	NA	A			1.150 km	1,244
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B	A			0.500 km	541
Dien Bien PF	Dien Bien	Muong Nha	Upgrade existing canal for irrigation	0.500 km	B	A			0.500 km	541
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B	A			0.500 km	541
Dien Bien PF	Dien Bien	Na Tong	Upgrade existing canal for irrigation	0.500 km	B	A			0.500 km	541
Total								0	3.150 km	3,408

Note:
 Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-17 The short-list of rural small-scale infrastructure in Muong Cha district

Summary of Short List of Rural Small-Scale Infrastructure in Muong Cha District, Dien Bien Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Dien Bien	Muong Cha	Muong Cha PF	Muong Tung	2	0.600	1,079	2	0	0.900	974	0	0	0	0	2,053
Dien Bien	Muong Cha	Total		2	0.600	1,079	2	0	0.900	974	0	0	0	0	2,053

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Dien Bien	Muong Cha	Subtotal	Cost	68	89	0	157

Total Cost w/o OM Cost

Province	District	Cost ('000,000 VND)
Dien Bien	Muong Cha	2,210

Table E-17 The short-list of rural small-scale infrastructure in Muong Cha district

Road Works

Dien Bien Province Muong Cha District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Muong Tung):

952 (HH)

Cost unit: ('000,000 VTD)

Unit Cost ('000,000 VND/km)

1,798.725

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Cost (by District Office)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Cost ('000,000 VND)
DBMCroad021	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.500 km	1,200	B	A		0.500 km	899
DBMCroad029	Muong Cha PF	Muong Cha	Muong Tung	VR	Soil to concrete	0.100 km	240	B	A		0.100 km	180
Total											0.600 km	1,079

Table E-17 The short-list of rural small-scale infrastructure in Muong Cha district

Irrigation Works

Dien Bien Province Muong Cha District

Ojectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Muong Tung): 952 (HH)

Unit Cost (Canal) ('000,000 VND/km) 1,081.793

Unit Cost (Reservoir) ('000,000 VND/nos) 273.397

Code	PFMB	District	Commune	Type of Construction	Proposed Qt (canal) (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (reservoir) (unit)	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
DBMCirri007	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.500 km	B	A			0.500 km	541
DBMCirri017	Muong Cha PF	Muong Cha	Muong Tung	Canal upgrade/ repair	0.400 km	B	A			0.400 km	433
Total									0 nos	0.900 km	974

Table E-18 The short-list of rural small-scale infrastructure in Tuan Giao district

Summary of Short List of Rural Small-Scale Infrastructure in Tuan Giao District, Dien Bien Province (Without VAT) (‘000,000 VND)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system			Total	
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	Construction Cost
Dien Bien	Tuan Giao	Tuan Giao PF	Phinh Sang	3	1.400	2,518	0	0	0.000	0	0	0	0	0	2,518
			Ta Ma	2	1.000	1,798	1	0	0.700	757	0	0	0	0	2,555
			Subtotal	5	2.400	4,316	1	0	0.700	757	0	0	0	0	5,073
Dien Bien	Tuan Giao	Subtotal		5	2.400	4,316	1	0	0.700	757	0	0	0	5,073	

Survey and design cost (‘000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Dien Bien	Tuan Giao	Subtotal	Cost	272	69	0	341

Total Cost w/o OM Cost

Province	District	Cost (‘000,000 VND)
Dien Bien	Tuan Giao	5,414

Table E-18 The short-list of rural small-scale infrastructure in Tuan Giao district

Road Works

Dien Bien Province Tuan Giao District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ta Ma) 829 (HH)

Number of Benefisheries (Phinh Sang) 1,203 (HH)

Unit Cost ('000,000 VND/km) 1,798.725

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Cost ('000,000 VND)
DBTGroad006	Tuan Giao PF	Tuan Giao	Ta Ma	V to V	Soil to concrete	0.500 km	B	A		0.500	899
DBTGroad020	Tuan Giao PF	Tuan Giao	Ta Ma	VR	Soil to concrete	0.500 km	B	A		0.500 km	899
DBTGroad045	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.500 km	B	A		0.500 km	899
DBTGroad054	Tuan Giao PF	Tuan Giao	Phinh Sang	VR	soil to concrete	0.300 km	B	A		0.300	540
DBTGroad089	Tuan Giao PF	Tuan Giao	Phinh Sang	FR	soil to concrete	0.600 km	B	A		0.600 km	1,079
Total										2.400 km	4,316

Table E-18 The short-list of rural small-scale infrastructure in Tuan Giao district

Irrigation Works

Dien Bien Province Tuan Giao District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisherries (Ta Ma) 829 (HH)

Number of Benefisherries (Phinh Sang) 1,203 (HH)

Unit Cost (Canal) ('000,000 VND/km) 1,081.793

Unit Cost (Reservoir) ('000,000 VND/nos) 273.397

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (reservoir) (unit)	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
DBTGir006	Tuan Giao PF	Tuan Giao	Ta Ma	Upgrade existing canal for irrigation	0.700 km	B	A			0.700 km	757
Total									0 nos	0.700 km	757

Table E-19 The short-list of rural small-scale infrastructure in Sin Ho District

Summary of Short List of Rural Small-Scale Infrastructure in Sin Ho District, Lai Chau Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-project	Qt (km)	Construction Cost	No. of sub-project	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-project	No. of Beneficiaries (HHs)	Qt (system)	Construction Cost	
Lai Chau	Sin Ho	Nam Ma PF	Hong Thu	1	1.000	1,937									1,937
			Nam Cui	2	1.700	3,292									3,292
			Nam Han	1	1.000	1,937					1	60	1	581	2,518
			Nam Tam	1	1.200	2,324									2,324
			Pa Khoa												
			Phang So Lin	1	1.500	2,905									2,905
			Pu Sam Cap				1	1	2,470	2,971	1	70	1	581	3,552
			Subtotal	6	6.400	12,395	1	1	2,470	2,971	2	130	2	1,162	16,528
		Nam Na PF	Chan Nua												
			De Phin	1	1.500	2,905									2,905
			Lang Mo				1	1	2,500	3,004					3,004
			Pa Tan	1	1.000	1,937									1,937
			Ta Ngao	1	1.200	2,324									2,324
			Tua Sin Chai								1	110	1	775	775
			Subtotal	3	3.700	7,166	1	1	2,500	3,004	1	110	1	775	10,945
Lai Chau	Sin Ho	Subtotal	9	10.100	19,561	2	2	4,970	5,975	3	240	3	1,937	27,473	

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Lai Chau	Sin Ho	Subtotal	Cost	1,232	544	122	1,898

Total Cost w/o OM Cost

Province	District	Cost ('000,000 VND)
Lai Chau	Sin Ho	29,371

Table E-19 The short-list of rural small-scale infrastructure in Sin Ho District

Road Works

Lai Chau Province Sin Ho District

Objectives: To improve the mobility in the commune

Number of Benefiseries (Chan Nua):	641 (HH)
Number of Benefiseries (De Phin):	1,101 (HH)
Number of Benefiseries (Hong Thu):	936 (HH)
Number of Benefiseries (Lang Mo):	337 (HH)
Number of Benefiseries (Lung Thang):	795 (HH)
Number of Benefiseries (Ma Quai):	916 (HH)
Number of Benefiseries (Nam Cha):	1,142 (HH)
Number of Benefiseries (Nam Cuoi):	1,310 (HH)
Number of Benefiseries (Nam Han):	461 (HH)
Number of Benefiseries (Nam Ma):	1,032 (HH)
Number of Benefiseries (Nam Tam):	877 (HH)
Number of Benefiseries (Noong Heo):	1,630 (HH)
Number of Benefiseries (Pa Khoa):	1,252 (HH)
Number of Benefiseries (Pa Tan):	976 (HH)
Number of Benefiseries (Phang So Lin):	479 (HH)
Number of Benefiseries (Phin Ho):	885 (HH)
Number of Benefiseries (Pu Sam Cap):	541 (HH)
Number of Benefiseries (Sin Ho Town):	729 (HH)
Number of Benefiseries (Ta Ngao):	1,127 (HH)
Number of Benefiseries (Ta Phin):	111 (HH)
Number of Benefiseries (Tua Sin Chai):	659 (HH)

Unit Cost: ('000,000 VTD) 1,936.945

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
LCSHroad005	Nam Ma PF	Sin Ho	Hong Thu	V to V	Soil to concrete	3.000 km	B	B	Long length	1.000 km	1,937
LCSHroad044	Nam Ma PF	Sin Ho	Nam Cuoi	VR	Soil to concrete	0.500 km	B	A		0.500 km	968
LCSHroad045	Nam Ma PF	Sin Ho	Nam Cuoi	VR	Soil to concrete	1.200 km	B	B	Long length	1.200 km	2,324
LCSHroad053	Nam Ma PF	Sin Ho	Nam Han	V to V	Soil to concrete	5.000 km	B	B	Long length	1.000 km	1,937
LCSHroad076	Nam Ma PF	Sin Ho	Nam Tam	VR	Soil to concrete	1.200 km	B	B	Long length	1.200 km	2,324
LCSHroad096	Nam Ma PF	Sin Ho	Phang So Lin	FR	Soil to concrete	1.500 km	B	B	Long length	1.500 km	2,905
LCSHroad109	Nam Na PF	Sin Ho	De Phin	V to V	Soil to concrete	5.000 km	B	B	Long length	1.500 km	2,905
LCSHroad131	Nam Na PF	Sin Ho	Pa Tan	FR	Soil to concrete	2.000 km	B	B	Long length	1.000 km	1,937
LCSHroad151	Nam Na PF	Sin Ho	Ta Ngao	VR	Soil to concrete	1.200 km	B	B	Long length	1.200 km	2,324
Total										10.100 km	19,561

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village, FR: Village to cultivation field
 Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-19 The short-list of rural small-scale infrastructure in Sin Ho District

Irrigation Works

Lai Chau Province Sin Ho District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Chan Nua):	641	(HH)
Number of Benefisheries (De Phin):	1,101	(HH)
Number of Benefisheries (Hong Thu):	936	(HH)
Number of Benefisheries (Lang Mo):	337	(HH)
Number of Benefisheries (Lung Thang):	795	(HH)
Number of Benefisheries (Ma Quai):	916	(HH)
Number of Benefisheries (Nam Cha):	1,142	(HH)
Number of Benefisheries (Nam Cuoi):	1,310	(HH)
Number of Benefisheries (Nam Han):	461	(HH)
Number of Benefisheries (Nam Ma):	1,032	(HH)
Number of Benefisheries (Nam Tam):	877	(HH)
Number of Benefisheries (Noong Heo):	1,630	(HH)
Number of Benefisheries (Pa Khoa):	1,252	(HH)
Number of Benefisheries (Pa Tan):	976	(HH)
Number of Benefisheries (Phang So Li):	479	(HH)
Number of Benefisheries (Phin Ho):	885	(HH)
Number of Benefisheries (Pu Sam Cap):	541	(HH)
Number of Benefisheries (Sin Ho Town):	729	(HH)
Number of Benefisheries (Ta Ngao):	1,127	(HH)
Number of Benefisheries (Ta Phin):	111	(HH)
Number of Benefisheries (Tua Sin Cha):	659	(HH)

Code	PFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (reservoir)	Planned Qt (canal)	Planned Cost ('000,000 VND)
LCSHiiri023	Nam Ma Ph	Sin Ho	Pu Sam Cap	Upgrade/ repair	2.470 km	1 nos	B	A		1	2.47	2,971
LCSHiiri060	Nam Na Ph	Sin Ho	Lang Mo	Upgrade/ repair	2.500 km	1 nos	B	A		1	2.5	3,004
Total										2	4.970	5,975

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village, FR: Village to cultivation field
 Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-19 The short-list of rural small-scale infrastructure in Sin Ho District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement
 Water Supply Works
 Lai Chau Province Sin Ho District
 Objectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 581.441
 Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 774.788

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Prion (by District Office)	Priority	Evaluation	Planned Qt	Type	Planning Cost ('000,000 VND)
LCSHwater009	Nam Na PH	Sin Ho	Tua Sin Chai	Repair/ Upgrade	1 system	110	B	A		1	2	775
LCSHwater010	Nam Ma PH	Sin Ho	Pu Sam Cap	Repair/ Upgrade	1 system	70	B	A		1	1	581
LCSHwater012	Nam Ma PH	Sin Ho	Nam Han	Repair/ Upgrade	1 system	60	B	A		1	1	581
Total										3		1,937

Note:

C to C: Commune to commune, V to V: Village to village, VR: inside of village, FR: Village to cultivation field
 Period: A (anterior half of 5 years plan), B (last half of 5 year plan)

Table E-20 The short-list of rural small-scale infrastructure in Tan Uyen District

Summary of Short List of Rural Small-Scale Infrastructure in Tan Uyen District, Lai Chau Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Constructi on Cost
				No. of sub- projects	Qt (km)	Constructi on Cost	No. of sub- projects	Qt (reservoir) (nos)	Qt (canal) (km)	Constructi on Cost	No. of sub- projects	No. of Beneficiari es	Qt (system)	Constructi on Cost	
Lai Chau	Tan Uyen	Tan Uyen PF													
			Ho Mit	0	0.000	0	1	1	1.400	1,806	0	0	0	0	1,806
			Muong Khoa	1	1.000	1,937	1	1	2.800	3,331	0	0	0	0	5,268
			Nam Can	0	0.000	0	1	1	1.900	2,350	0	0	0	0	2,350
			Nam So	1	1.500	2,905	0	0	0.000	0	2	103	2	1,162	4,067
			Ta Mit	0	0.000	0	0	0	0.000	0	1	50	1	581	581
			Tan Uyen town	0	0.000	0	0	0	0.000	0	0	0	0	0	0
Lai Chau	Tan Uyen	Tan Uyen PF	Subtotal	2	2.500	4,842	3	3	6.100	7,487	3	153	3	1,743	14,072

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Lai Chau	Tan Uyen	Subtotal	Cost	305	681	110	1,096

Total Cost w/o OM Cost

Province	District	Cost (‘000,000 VND)
Lai Chau	Tan Uyen	15,168

Table E-20 The short-list of rural small-scale infrastructure in Tan Uyen District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Road Works

Lai Chau Province Tan Uyen District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ho Mit): 529 (HH)

Number of Benefisheries (Muong Khoa): 763 (HH)

Number of Benefisheries (Nam Can): 363 (HH)

Number of Benefisheries (Nam So): 714 (HH)

Number of Benefisheries (Pac Ta): 464 (HH)

Number of Benefisheries (Phuc Khoa): 485 (HH)

Number of Benefisheries (Ta Mit): 280 (HH)

Number of Benefisheries (Tan Uyen town): 597 (HH)

Number of Benefisheries (Trung Dong): 634 (HH)

Unit Cost ('000,000 VND/km) 1,936.945

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
LCTUroad007	Tan Uyen PF	Tan Uyen	Muong Khoa	V to V	Upgrade/ repair soil road	2.000 km	A		Long length	1.000 km	1,937
LCTUroad024	Tan Uyen PF	Tan Uyen	Nam So	V to V	Upgrade/ repair soil road	2.200 km	A	B	Period is not adequate	1.500 km	2,905

Table E-20 The short-list of rural small-scale infrastructure in Tan Uyen District

Irrigation Works

Lai Chau Province Tan Uyen District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ho Mit): 529 (HH)

Number of Benefisheries (Muong Khoa): 763 (HH)

Number of Benefisheries (Nam Can): 363 (HH)

Number of Benefisheries (Nam So): 714 (HH)

Number of Benefisheries (Pac Ta): 464 (HH)

Number of Benefisheries (Phuc Khoa): 485 (HH)

Number of Benefisheries (Ta Mit): 280 (HH)

Number of Benefisheries (Tan Uyen town): 597 (HH)

Number of Benefisheries (Trung Dong): 634 (HH)

Canal Unit Cost ('000,000 VND/km) 1,089.036

Cost unit: ('000,000 VTD)

Reservoir Unit Cost ('000,000 VND/nos) 281.266

Code	PFMB	District	Commune	Type of Construction	Quantity		Cost (by District Office)	Period (by District Office)	Priority	Evaluation	Planned Qt		Planned Cost ('000,000 VND)
					(Canal)	(unit)					(reservoir)	(unit)	
LCTUirri005	Tan Uyen PF	Tan Uyen	Ho Mit	Repair/ Upgrade	1.400 km		1,000	B	A		1 nos	1.400 km	1,806
LCTUirri017	Tan Uyen PF	Tan Uyen	Muong Khoa	Repair/ Upgrade	2.800 km		800	B	A		1 nos	2.800 km	3,331
LCTUirri026	Tan Uyen PF	Tan Uyen	Nam Can	Repair/ Upgrade	1.900 km		400	B	A		1 nos	1.900 km	2,350

Table E-20 The short-list of rural small-scale infrastructure in Tan Uyen District

Water Supply Works

Lai Chau Province

Tan Uyen District

Ojectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 581.441

Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 774.788

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Type	Planning Cost ('000,000 VND)
LCTUwater004	Tan Uyen PF	Tan Uyen	Nam So	Upgrade/ repair	1 system	56	B	A		1	1	581
LCTUwater005	Tan Uyen PF	Tan Uyen	Nam So	Upgrade/ repair	1 system	47	B	A		1	1	581
LCTUwater009	Tan Uyen PF	Tan Uyen	Ta Mit	Upgrade/ repair	1 system	50	B	A		1	1	581

Table E-21 The short-list of rural small-scale infrastructure in Than Uyen District

Summary of Short List of Rural Small-Scale Infrastructure in Than Uyen District, Lai Chau Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Lai Chau	Than Uyen	Than Uyen PF													
			Hua Na	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Khoen On	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Muong Kim	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Muong Mit	1	1.000	1,937	1	0	0.700	762	0	0	0	0	2,699
			Muong Than	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Pha Mu	1	1.000	1,937	0	0	0.000	0	0	0	0	0	1,937
			Phuc Than	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Ta Gia	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Ta Hua	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Ta Mung	1	1.000	1,937	0	0	0.000	0	0	0	0	0	1,937
Lai Chau	Than Uyen	Subtotal		3	3.000	5,811	1	0	0.700	762	0	0	0	0	6,573

Survey and design cost

('000,000 VND)

Province	District		Rural Road		Irrigation system		Water supply system		Total
			Percentage		Percentage		Percentage		
Lai Chau	Than Uyen	Subtotal	Cost	366	Cost	69	Cost	0	435

Total Cost w/o OM Cost

Province	District	Cost ('000,000 VND)
Lai Chau	Than Uyen	7,008

Table E-21 The short-list of rural small-scale infrastructure in Than Uyen District

Road Works

Lai Chau Province Than Uyen District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Hua Na): 529 (HH)

Number of Benefisheries (Khoen On): 763 (HH)

Number of Benefisheries (Muong Kim): 363 (HH)

Number of Benefisheries (Muong Mit): 714 (HH)

Number of Benefisheries (Muong Than): 464 (HH)

Number of Benefisheries (Pha Mu): 485 (HH)

Number of Benefisheries (Phuc Than): 280 (HH)

Number of Benefisheries (Ta Gia): 597 (HH)

Number of Benefisheries (Ta Hua): 634 (HH)

Number of Benefisheries (Ta Mung): 634 (HH)

Cost unit: ('000,000 VTD)

Unit Cost ('000,000 VND/km)

1,936.945

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Cost (by District Office)	Priond (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
LCTHroad006	Than Uyen PF	Than Uyen	Muong Mit	V to V	Upgrade soil road	1.600 km	1,950	A			1.000 km	1,937
LCTHroad010	Than Uyen PF	Than Uyen	Pha Mu	V to V	Upgrade soil road	1.700 km	3,500	B	B	Long length	1.000 km	1,937
LCTHroad019	Than Uyen PF	Than Uyen	Ta Mung	V to V	Upgrade soil road	2.000 km	3,100	B	B	Long length	1.000 km	1,937

Table E-21 The short-list of rural small-scale infrastructure in Than Uyen District

Irrigation Works

Lai Chau Province

Than Uyen District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefiseries (Ho Mit): 529 (HH)

Number of Benefiseries (Muong Khoa): 763 (HH)

Number of Benefiseries (Nam Can): 363 (HH)

Number of Benefiseries (Nam So): 714 (HH)

Number of Benefiseries (Pac Ta): 464 (HH)

Number of Benefiseries (Phuc Khoa): 485 (HH)

Number of Benefiseries (Ta Mit): 280 (HH)

Number of Benefiseries (Tan Uyen town): 597 (HH)

Number of Benefiseries (Trung Dong): 634 (HH)

Canal Unit Cost ('000,000 VND/km) 1,089.036

Reservoir Unit Cost ('000,000 VND/nos) 281.266

Code	PFMB	District	Commune	Type of Construction	Quantity (Canal) (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (reservoir)	Planned Qt (canal)	Planned Cost (‘000,000 VND)
LCTHirri014	Than Uyen PF	Than Uyen	Muong Mit	Repair/ Upgrade	0.700 km	B	A		0	0.700	762

Table E-22 The short-list of rural small-scale infrastructure in Quynh Nhai District

Summary of Short List of Rural Small-Scale Infrastructure in Quynh Nhai District, Son La Province (Without VAT) ('000,000 VND)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Son La	Quynh Nhai	Quynh Nyai PF													
			Muong Giang	1	1.000	1,945	0	0	0.000	0	1	193	1	755	2,700
			Muong Sai	1	1.000	1,945	0	0	0.000	0	0	0	0	0	1,945
Son La	Quynh Nhai	Subtotal		2	2.000	3,890	0	0	0.000	0	1	193	1	755	4,645

Survey and design cost ('000,000 VND)

Province	District		Rural Road			Irrigation system			Water supply system			Total
			Percentage	6.3 %		Percentage	9.1 %		Percentage	6.3 %		
Son La	Quynh Nhai	Subtotal	Cost	245		0			48			293

Total Cost w/o OM cost

Province	District	Cost ('000,000 VND)
Son La	Quynh Nhai	4,938

Table E-22 The short-list of rural small-scale infrastructure in Quynh Nhai District

Road Works

Son La Province Quynh Nhai District

Objectives: To improve the mobility in the commune

Number of Benefiseries (Ca Nang) 1,001 (HH)

Number of Benefiseries (Muong Chien) 406 (HH)

Number of Benefiseries (Muong Giang) 2,600 (HH)

Number of Benefiseries (Muong Sai) 888 (HH)

Number of Benefiseries (Pa Ma Pha Kinh) 790 (HH)

Unit Cost ('000,000 VND/km) 1,945.453

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
SLQNroad006	Quynh Nhai PF	Quynh Nhai	Muong Sai	V to V	Upgrade/ repair	4.000 km	NA	B	Long length	1.000 km	1,945
SLQNroad007	Quynh Nhai PF	Quynh Nhai	Muong Giang	V to V	Upgrade/ repair	2.000 km	NA	B	Long length	1.000 km	1,945

Table E-22 The short-list of rural small-scale infrastructure in Quynh Nhai District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement

Irrigation Works

Son La Province Quynh Nhai District

Objectives: To improve the productivity for livelihood improvement in the commune

Number of Benefiseries (Ca Nang): 1,001 (HH)

Number of Benefiseries (Muong Giang): 406 (HH)

Number of Benefiseries (Muong Chien): 2,600 (HH)

Number of Benefiseries (Pa Ma Pha): 888 (HH)

Number of Benefiseries (Chieng Bang): 790 (HH)

Cost unit: ('000,000 VTD)

Canal Unit Cost ('000,000 VND/km) 1,182.313

Reservoir Unit Cost ('000,000 VND/nos) 305.627

Code	PFMB	District	Commune	Type of Construction	Quantity (unit)	with/ without Reservoir	Cost (by District Office)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Qt (unit)	Planned Cost ('000,000 VND)
SLQNirri004	Quynh Nhai PF	Quynh Nhai	Ca Nang	Upgrade	1.100 km	without	1,500	NA	A		nos	1.100 km	1,301
Total											- nos	1.100 km	1,301

Table E-22 The short-list of rural small-scale infrastructure in Quynh Nhai District

Water Supply Works

Son La Province

Quynh Nhai District

Objectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 573.144

Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 755.370

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Period (by District Office)	Priority	Evaluation	Planned Qt	(unist)	Type	Planning Cost ('000,000 VND)
SLQNwater003	Quynh Nhai PF	Quynh Nhai	Muong Giang	Upgrade	1 system	193	NA	A	Period is not adequate	1	system	2	755

Table E-23 The short-list of rural small-scale infrastructure in Moc Chau District

Summary of Short List of Rural Small-Scale Infrastructure in Moc Chau District, Son La Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system			Water supply system		Total
				No. of sub-projects	Qt (km)	Construction Cost	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	Qt (system)	Construction Cost	Construction Cost
Son La	Moc Chau	Xuan Nha NR	Chieng Son	1	1.500	2,918	0	0.000	0	0	0	2,918
Son La	Moc Chau	Subtotal		1	1.500	2,918	0	0.000	0	0	0	2,918

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
				Percentage	Percentage	Percentage	
Son La	Moc Chau	Subtotal	Cost	6.3 %	9.1 %	6.3 %	184
				184	0	0	184

Total Cost w/o OM Cost

Province	District	Cost ('000,000 VND)
Son La	Moc Chau	3,102

Table E-23 The short-list of rural small-scale infrastructure in Moc Chau District

Road Works

Son La Province Moc Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Son): 456 (HH)

Unit Cost ('000,000 VND/km) 1,945.453

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Cost ('000,000 VND)
SLMCroad006	Xuan Nha NR	Moc chau	Chieng Son	V to V	Soil to concrete	1.500 km	B	B	Long length	1.500 km	2,918
Total										1.500 km	2,918

Table E-24 The short-list of rural small-scale infrastructure in Thuan Chau District

Summary of Short List of Rural Small-Scale Infrastructure in Thuan Chau District, Son La Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir (nos))	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Son La	Thuan Chau	Copia NR	Chieng Bom	1	0.400	778	1	1	0.510	909	1	65	1	573	2,260
			Co Ma	1	1.500	2,918	0	0	0.000	0	0	0	0	0	2,918
			Long He	0	0.000	0	1	1	1.100	1,606	1	70	1	573	2,179
			Subtotal	2	1.900	3,696	2	2	1.610	2,515	2	135	2	1,146	7,357
		Thuan Chau PF	Ban Lam	0	0.000	0	1	1	2.500	3,261	0	0	0	0	3,261
			Muong Bam	0	0.000	0	0	0	0.000	0	2	183	2	1,328	1,328
			Nam Lau	1	0.456	887	1	0	1.500	1,773	0	0	0	0	2,660
Subtotal	1	0.456	887	2	1	4.000	5,034	2	183	2	1,328	7,249			
Son La	Thuan Chau	Subtotal		3	2.356	4,583	4	3	5.610	7,549	4	318	4	2,474	14,606

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Son La	Thuan Chau	Subtotal	Cost	289	687	156	1,132

Total Cost (w/o OM cost)

Province	District	Cost ('000,000 VND)
Son La	Thuan Chau	15,738

Table E-24 The short-list of rural small-scale infrastructure in Thuan Chau District

Road Works

Son La Province Thuan Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Bon 1,482 (HH)

Number of Benefisheries (Co Ma): 1,532 (HH)

Number of Benefisheries (Long He): 985 (HH)

Number of Benefisheries (Ban Lam): 3,681 (HH)

Number of Benefisheries (Muong Ban 2,174 (HH)

Number of Benefisheries (Nam Lau): 1,843 (HH)

Unit Cost: ('000,000 VTD) 1,945.453

Code	PFMB	District	Commune	Type of Road	Type of construction	Quantity (Unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
SLTCroad020	Copia NR	Thuan Chau	Chieng Bon	V to V	Soil to concrete	0.400 km	NA	A		0.400 km	778
SLTCroad081	Copia NR	Thuan Chau	Co Ma	VR	Soil to concrete	12.070 km	NA	B	3 lines	1.500 km	2,918
SLTCroad328	Thuan Chau	Thuan Chau	Nam Lau	VR	Soil to concrete	0.456 km	NA	A		0.456 km	887
Total										2.356 km	4,583

Table E-24 The short-list of rural small-scale infrastructure in Thuan Chau District

Road Works

Son La Province Thuan Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Bom): 1,482 (HH)

Number of Benefisheries (Co Ma): 1,532 (HH)

Number of Benefisheries (Long He): 985 (HH)

Number of Benefisheries (Ban Lam): 920 (HH)

Number of Benefisheries (Muong Ban): 2,174 (HH)

Number of Benefisheries (Nam Lau): 1,843 (HH)

Unit Cost (Canal) ('000,000 VND/km) 1,182.313

Unit Cost (Reservoir) ('000,000 VND/nos) 305.627

Code	PFMB	District	Commune	Type of Construction	Qt (canal) (unit)	Qt (reservoir) (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (reservoir) (unit)	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
SLTCirri003	Copia NR	Thuan Chau	Chieng Bom	Upgrade	0.510 km	1 nos	NA	A		1 nos	0.510 km	909
SLTCirri039	Copia NR	Thuan Chau	Long He	Upgrade	1.100 km	1 nos	NA	A		1 nos	1.100 km	1,606
SLTCirri065	Thuan Chau	Thuan Chau	Ban Lam	Upgrade	2.500 km	1 nos	NA	A		1 nos	2.500 km	3,261
SLTCirri085	Thuan Chau	Thuan Chau	Nam Lau	Upgrade	1.500 km	0 nos	NA			0 nos	1.500 km	1,773
Total										3 nos	5.610 km	7,549

Table E-24 The short-list of rural small-scale infrastructure in Thuan Chau District

List of the Proposed Rural Infrastructure Development for Livelihood Improvement
 Water Supply Works
 Son La Province Thuan Chau District
 Objectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 573.144
 Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 755.370

Cost unit: ('000,000 VTD)

Code	PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Type	Planning Cost ('000,000 VND)
SLTCwater022	Copia NR	Thuan Chau	Chieng Bom	Upgrade	1 system	65	650	NA	A		1 system	1	573
SLTCwater050	Copia NR	Thuan Chau	Long He	Upgrade	1 system	70	800	NA	A		1 system	1	573
SLTCwater068	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system	69	345	NA	A		1 system	1	573
SLTCwater074	Thuan Chau PF	Thuan Chau	Muong Bam	Upgrade	1 system	114	570	NA	A		1 system	2	755
Total											4 system		2,474

Table E-25 The short-list of rural small-scale infrastructure in Van Ho District

Summary of Short List of Rural Small-Scale Infrastructure in Vn Ho District, Son La Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Son La	Van Ho	Xuan Nha NR													
			Chieng Xuan	1	2.500	4,864	0	0	0.000	0	0	0	0	0	4,864
			Tan Xuan	0	0.000	0	0	0	0.000	0	0	0	0	0	0
Son La	Van Ho	Subtotal		1	2.500	4,864	0	0	0.000	0	0	0	0	0	4,864

Survey and design cost

('000,000 VND)

Province	District		Rural Road		Irrigation system		Water supply system		Total
			Percentage		Percentage		Percentage		
Son La	Van Ho	Subtotal	Cost	306	0	0	0	306	

Total Cost w/o OM cost

Province	District	Cost ('000,000 VND)
Son La	Van Ho	5,170

Table E-25 The short-list of rural small-scale infrastructure in Van Ho District

Road Works

Son La Province Van Ho District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Chieng Xuan) 721 (HH)

Number of Benefisheries (Tan Xuan) 1,081 (HH)

Number of Benefisheries (Xuan Nha) 970 (HH)

Unit Cost ('000,000 VND/km) 1,945.453

PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Priod (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
Xuan Nha NR	Van Ho	Chieng Xuan	V to V	Soil to concrete	11.620 km	B	B	Long length	2.500 km	4,864

Table E-26 The short-list of rural small-scale infrastructure in Da Bac District

Summary of Short List of Rural Small-Scale Infrastructure in Da Bac District, Hoa Binh Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Construction Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Hoa Binh	Da Bac	Phu Canh NR													
			Doan Ket	1	2.000	3,089	0	0	0.000	0	0	0	0	0	3,089
			Dong Chum	1	2.500	3,861	0	0	0.000	0	0	0	0	0	3,861
			Dong Ruong	1	2.300	3,553	0	0	0.000	0	0	0	0	0	3,553
			Tan Pheo	1	1.500	2,317	0	0	0.000	0	0	0	0	0	2,317
			Subtotal	4	8.300	12,820	0	0	0.000	0	0	0	0	0	12,820
		Da River PF													
			Dong Nghe	1	1.000	1,545	0	0	0.000	0	0	0	0	0	1,545
			Muong Chieng	1	1.500	2,317	0	0	0.000	0	0	0	0	0	2,317
			Muong Tuong	1	1.200	1,853	0	0	0.000	0	0	0	0	0	1,853
			Suoi Nanh	1	2.000	3,089	0	0	0.000	0	0	0	0	0	3,089
			Tien Phong	1	1.000	1,545	0	0	0.000	0	0	0	0	0	1,545
			Vay Nua	0	0.000	0	0	0	0.000	0	1	150	1	757	757
			Subtotal	5	6.700	10,349	0	0	0.000	0	1	150	1	757	11,106
Hoa Binh	Da Bac	Subtotal		9	15.000	23,169	0	0	0.000	0	1	150	1	757	23,926

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
		Percentage		6.3 %	9.1 %	6.3 %	
Hoa Binh	Da Bac	Subtotal	Cost	1,460	0	48	1,508

Total Cost

Province	District	Cost ('000,000 VND)
Hoa Binh	Da Bac	25,434

Table E-26 The short-list of rural small-scale infrastructure in Da Bac District

Road Works

Hoa Binh Province Da Bac District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Dong Nghe): 757 (HH)
 Number of Benefisheries (Suoi Nanh): 836 (HH)
 Number of Benefisheries (Muong Tuong): 456 (HH)
 Number of Benefisheries (Dong Chum): 544 (HH)
 Number of Benefisheries (Muong Chieng): 611 (HH)
 Number of Benefisheries (Tan Pheo): 288 (HH)
 Number of Benefisheries (Doan Ket): 319 (HH)
 Number of Benefisheries (Yen Hoa): 1,003 (HH)
 Number of Benefisheries (Dong Ruong): 580 (HH)
 Number of Benefisheries (Vay Nua): 660 (HH)
 Number of Benefisheries (Tien Phong): 407 (HH)

Unit Cost ('000,000 VND) 1,544.572

Code	PFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Prion (by District Office)	Priority	Planned Qt (unit)	Planning Cost ('000,000 VND)
HBDBroad004	Phu Chan NR	Da Bac	Doan Ket	VR	Soil to concrete	2.000 km	B	B	2.000 km	3,089
HBDBroad006	Phu Chan NR, Da River PF	Da Bac	Dong Chum	VR	Soil to concrete	3.000 km	B	B	2.500 km	3,861
HBDBroad016	Da River PF	Da Bac	Dong Nghe	VR	Soil to concrete	1.000 km	B	A	1.000 km	1,545
HBDBroad019	Phu Chan NR, Da River PF	Da Bac	Dong Ruong	VR	Soil to concrete	2.300 km	B	B	2.300 km	3,553
HBDBroad024	Da River PF	Da Bac	Muong Chieng	VR	Soil to concrete	1.500 km	B	A	1.500 km	2,317
HBDBroad033	Da River PF	Da Bac	Muong Tuong	VR	Soil to concrete	1.200 km	B	A	1.200 km	1,853
HBDBroad038	Da River PF	Da Bac	Suoi Nanh	V to V	Soil to concrete	2.000 km	B	B	2.000 km	3,089
HBDBroad040	Phu Chan NR	Da Bac	Tan Pheo	FR	Soil to concrete	1.500 km	B	B	1.500 km	2,317
HBDBroad045	Da River PF	Da Bac	Tien Phong	V to V	Soil to concrete	1.000 km	B	A	1.000 km	1,545

Table E-26 The short-list of rural small-scale infrastructure in Da Bac District

Water Supply Works

Hoa Binh Province Da Bac District

Ojectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 571.149

Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 757.180

Code	PFMB	District	Commune	Type	Quantity	Number of Beneficiaries (HH)	Period (by District Office)	Priority	Evaluation point	Planned Qt (unit)	Type	Planning Cost ('000,000 VND)
HBDBwater00	Da River PF	Da Bac	Vay Nua	Upgrade/repair	1 system	150	A	B	- Period is not adequate	1 system	2	757
Total										1		757

Table E-27 The short-list of rural small-scale infrastructure in Mai Chau District

Summary of Short List of Rural Small-Scale Infrastructure in Mai Chau District, Hoa Binh Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total Cost
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries	Qt (system)	Construction Cost	
Hoa Binh	Mai Cahu	Da River PF													
			Ba Khan	3	1.400	2,162	1	0	0.400	407	1	75	1	571	3,140
			Tan Dan	0	0.000	0	3	0	2.700	2,745	0	0	0	0	2,745
			Tan My	0	0.000	0	0	0	0.000	0	0	0	0	0	0
			Subtotal	3	1.400	2,162	4	0	3.100	3,152	1	75	1	571	5,885
		Hang Kia-Pa Co NR													
			Hang Kia	4	2.500	3,861	0	0	0.000	0	0	0	0	0	3,861
			Subtotal	4	2.500	3,861	0	0	0.000	0	0	0	0	0	3,861
Hoa Binh	Mai Cahu	Subtotal		7	3.900	6,023	4	0	3.100	3,152	1	75	1	571	9,746

Survey and design cost

('000,000 VND)

Province	District			Rural Road		Irrigation system		Water supply system	Total
			Percentage	6.3 %		9.1 %		6.3 %	
Hoa Binh	Mai Cahu	Subtotal	Cost	379		287		36	702

Total Cost

Province	District	Cost ('000,000 VND)
Hoa Binh	Mai Cahu	10,448

Table E-27 The short-list of rural small-scale infrastructure in Mai Chau District

Road Works

Hoa Binh Province Mai Chau District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ba Khan): 402 (HH)

Number of Benefisheries (Bao La): 597 (HH)

Number of Benefisheries (Cun Pheo): 529 (HH)

Number of Benefisheries (Dong Bang): 485 (HH)

Number of Benefisheries (Hang Kia): 763 (HH)

Number of Benefisheries (Pa Co): 714 (HH)

Number of Benefisheries (Phuc San): 464 (HH)

Number of Benefisheries (Pieng Ve): 634 (HH)

Number of Benefisheries (Tan Dan): 560 (HH)

Number of Benefisheries (Tan My): 311 (HH)

Number of Benefisheries (Tan Son): 280 (HH)

Unit Cost: ('000,000 VTD) 1,544.572

PFMB	District	Commune	Type of Road	Type of construction	Quantity (unit)	Period (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
Hang Kia-Pa Co NR	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.800 km	NA	A		0.800 km	1,236
Hang Kia-Pa Co NR	Mai Chau	Hang Kia	NA	Upgrade/ repair soil road	0.500 km	NA	A		0.500 km	772
Hang Kia-Pa Co NR	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.500 km	NA	A		0.500 km	772
Hang Kia-Pa Co NR	Mai Chau	Hang Kia	VR	Upgrade/ repair soil road	0.700 km	NA	A		0.700 km	1,081
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.400 km	NA	A		0.400 km	618
Da River PF	Mai Chau	Ba Khan	V to V	Upgrade/ repair soil road	0.500 km	NA	A		0.500 km	772
Da River PF	Mai Chau	Ba Khan	VR	Upgrade/ repair soil road	0.500 km	NA	A		0.500 km	772
Total									3.900 km	6,023

Table E-27 The short-list of rural small-scale infrastructure in Mai Chau District

Irrigation Works

Hoa Binh Province Mai Chau District

Ojectives: To improve the productivity for livelihood improvement in the commune

Number of Benefiseries (Ba Khan): 402 (HH)

Number of Benefiseries (Bao La): 597 (HH)

Number of Benefiseries (Cun Pheo): 529 (HH)

Number of Benefiseries (Dong Bang): 485 (HH)

Number of Benefiseries (Hang Kia): 763 (HH)

Number of Benefiseries (Pa Co): 714 (HH)

Number of Benefiseries (Phuc San): 464 (HH)

Number of Benefiseries (Pieng Ve): 634 (HH)

Number of Benefiseries (Tan Dan): 560 (HH)

Number of Benefiseries (Tan My): 311 (HH)

Number of Benefiseries (Tan Son): 280 (HH)

Unit Cost (Canal) ('000,000 VND/km) 1,017.056

Unit Cost (Reservoir) ('000,000 VND/nos) 252.277

PFMB	District	Commune	Type of Construction	Quantity (unit)	Period (by District Office)	Priority	Evaluation	Planned Qt (reservoir) (unit)	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
Da River PF	Mai Chau	Ba Khan	Reapir/ upgrade canal	0.400 km	NA	A			0.400 km	407
Da River PF	Mai Chau	Tan Dan	Reapir/ upgrade canal	0.900	NA	A			0.900 km	915
Da River PF	Mai Chau	Tan Dan	Reapir/ upgrade canal	0.900	NA	A			0.900 km	915
Da River PF	Mai Chau	Tan Dan	Reapir/ upgrade canal	0.900	NA	A			0.900 km	915
							Total	-	3.100	3,152

Table E-27 The short-list of rural small-scale infrastructure in Mai Chau District

Water Supply Works

Hoa Binh Province Mai Chau District

Objectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 571.149

Cost unit: ('000,000 VTD) Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 757.180

PFMB	District	Commune	Type	Quantity (unit)	Number of Beneficiaries (HH)	Cost (by District Office)	Period (by District Office)	Priority	Evaluation	Planned Qt (unit)	Type	Planning Cost ('000,000 VND)
Da River PF	Mai Chau	Ba Khan	Repair/ upgrade	1 system	75	1,500	NA	A		1 system	1	571
Total										1 system		571

Table E-28 The short-list of rural small-scale infrastructure in Cao Phong District

Summary of Short List of Rural Small-Scale Infrastructure in Cao Phong District, Hoa Binh Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system				Total
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	No. of sub-projects	No. of Beneficiaries (HHs)	Qt (system)	Construction Cost	Construction Cost
Hoa Binh	Cao Phong	Da River Watershed PFMB	Thung Nai	1	1.000	1,545	0	0	0.000	0	1	150	1	757	2,302
Hoa Binh	Cao Phong	Subtotal		1	1.000	1,545	0	0	0.000	0	1	150	1	757	2,302

Survey and design cost

(‘000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system		Total
				Percentage	Percentage	Percentage	Percentage	
Hoa Binh	Cao Phong	Subtotal	Cost	97	0		48	145

Total Cost w/o OM cost

Province	District	Cost (‘000,000 VND)
Hoa Binh	Cao Phong	2,447

Table E-28 The short-list of rural small-scale infrastructure in Cao Phong District

Road Works

Hoa Binh Province Cao Phong District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Thung Nai): 480 (HH)

Number of Benefisheries (Binh Thanh): 648 (HH)

Unit Cost ('000,000 VND/km) 1,544.572

PFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
Da River Watershed PFMB	Cao Phong	Thung Nai	VR	Upgrade	5.500 km	NA	B	Long length	1.000 km	1,545

Table E-28 The short-list of rural small-scale infrastructure in Cao Phong District

Water Supply Works

Hoa Binh Province

Cao Phong District

Objectives: To improve the live level for livelihood improvement in the commune

Type 1 (50-100HHs) Unit Cost ('000,000 VND/system) 571.149

Type 2 (100-150HHs) Unit Cost ('000,000 VND/system) 757.180

PFMB	District	Commune	Type of Construction	Proposed Quantity	Number of Beneficiaries (HH)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Type	Planning Cost ('000,000 VND)
Da River Watershed PFMB	Cao Phong	Thung Nai	Upgrade	1 system	150	NA	A		1 system	2	757

Table E-29 The short-list of rural small-scale infrastructure in Lac Son District

Summary of Short List of Rural Small-Scale Infrastructure in Tan Lac District, Hoa Binh (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system		Total
				No. of sub-projects	Qt (km)	Construction Cost	No. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	Qt (system)	Cost	Cost
Hoa Binh	Lac Son	Ngoc Son-Ngo Luong NR											
			Ngoc Lau	1	1.500	2,317	0	0	0.000	0	0	0	2,317
			Ngoc Son	1	1.000	1,545	1	0	0.800	814	0	0	2,359
			Tu Do	1	1.000	1,545	1	0	1.000	1,017	0	0	2,562
Hoa Binh	Lac Son	Subtotal		3	3.500	5,407	2	0	1.800	1,831	0	0	7,238

Survey and design cost

(‘000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Hoa Binh	Lac Son	Subtotal	Cost	341	167	0	508

Total Cost w/o OM cost

Province	District	Cost (‘000,000 VND)
Hoa Binh	Lac Son	7,746

Table E-29 The short-list of rural small-scale infrastructure in Lac Son District

Road Works

Hoa Binh Province

Lac Son District

Objectives: To improve the mobility in the commune

Number of Benefisheries (Ngoc Lau): 702 (HH)

Number of Benefisheries (Ngoc Son): 620 (HH)

Number of Benefisheries (Tu Do): 613 (HH)

Number of Benefisheries (Tan My): 1,653 (HH)

Code	PFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Cost (by District Office)	Prion (by District Office)	Priority	Evaluation point	Planned Qt (unit)	Planning Cost ('000,000 VND)
HBLsroad006	Ngoc Son-Ngo Luong NR	Lac Son	Ngoc Son	FR	Soil to concrete	3.000 km	1,361	NA	B	Long length can be devided	1.000 km	1,545
HBLsroad009	Ngoc Son-Ngo Luong NR	Lac Son	Ngoc Lau	VR	Soil to concrete	3.000 km	1,575	NA	B	Long length can be devided	1.500 km	2,317
HBLsroad012	Ngoc Son-Ngo Luong NR	Lac Son	Tu Do	V to V	Soil to concrete	6.000 km	5,040	NA	B	Long length	1.000 km	1,545
Total											3.500	5,407

Table E-29 The short-list of rural small-scale infrastructure in Lac Son District

Irrigation Works

Hoa Binh Province

Lac Son District

Ojectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ngoc Lau): 702 (HH)

Number of Benefisheries (Ngoc Son): 620 (HH)

Number of Benefisheries (Tu Do): 613 (HH)

Number of Benefisheries (Tan My): 1,653 (HH)

Cost unit: ('000,000 VTD)

Unit Cost (Canal) ('000,000 VND/km) 1,017.056

Unit Cost (Reservoir) ('000,000 VND/nos) 252.277

Code	PFMB	District	Commune	Type of Construction	Quantity	(unit)	Cost (by District Office)	Period (by District Office)	Priority	Evaluation	Planned Qt (canal) (unit)	Planned Cost ('000,000 VND)
HBLSirri001	Ngoc Son-Ngo Luong NR	Lac Son	Ngoc Son	Canal upgrade/ repair	0.800	km	2,041	NA	A		0.800 km	814
HBLSirri001	Ngoc Son-Ngo Luong NR	Lac Son	Tu Do	Canal upgrade/ repair	1.000	km	3,150	NA	A		1.000 km	1,017
Total											1.800	1,831

Table E-30 The short-list of rural small-scale infrastructure in Tan Lac District

Summary of Short List of Rural Small-Scale Infrastructure in Tan Lac District, Lai Chau Province (Without VAT)

Province	District	FMB	Commune	Road			Irrigation system				Water supply system		Total
				no. of sub-projects	Qt (km)	Construction Cost	no. of sub-projects	Qt (reservoir) (nos)	Qt (canal) (km)	Construction Cost	Qt (system)	Cost	Construction Cost
Hoa Binh	Tan Lac	Ngoc Son -Ngo Luong NR											
			Bac Son	1	1.500	2,317	0	0	0.000	0	0	0	2,317
			Nam Son	1	1.000	1,545	1	1	0.200	456	0	0	2,001
			Ngo Luong	1	1.000	1,545	0	0	0.000	0	0	0	1,545
			Subtotal	3	3.500	5,407	1	1	0.200	456	0	0	5,863
		Da River PF											
			Ngoi Hoa	1	2.000	3,089	0	0	0.000	0	0	0	3,089
			Trung Hoa	1	1.000	1,545	1	1	1.000	1,269	0	0	2,814
			Subtotal	2	3.000	4,634	2	1	1.000	1,269	0	0	5,903
Hoa Binh	Tan Lac	Subtotal		5	6.500	10,041	3	2	1.200	1,725	0	0	11,766

Survey and design cost

('000,000 VND)

Province	District			Rural Road	Irrigation system	Water supply system	Total
			Percentage	6.3 %	9.1 %	6.3 %	
Hoa Binh	Tan Lac	Subtotal	Cost	633	157	0	790

Total Cost w/o OM cost

Province	District	Cost ('000,000 VND)
Hoa Binh	Tan Lac	12,556

Table E-30 The short-list of rural small-scale infrastructure in Tan Lac District

Hoa Binh Province Road Works
 Objectives: To improve the mobility in the commune

Number of Benefisheries (Ngoi Hoa): 353 (HH)
 Number of Benefisheries (Trung Hoa): 593 (HH)
 Number of Benefisheries (Bac Son): 360 (HH)
 Number of Benefisheries (Nam Son): 403 (HH)
 Number of Benefisheries (Ngo Luong): 395 (HH)

Unit Cost ('000,000 VND/km) 1,544.572

Code	PFMB	District	Commune	Type of Road	Type of construction	Proposed Qt (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planning Cost ('000,000 VND)
HBTLroad002	Ngoc Son -Ngo Luong NR	Tan Lac	Bac Son	V to V	Soil to concrete	5.000 km	NA	B	Long length	1.500 km	2,317
HBTLroad004	Ngoc Son -Ngo Luong NR	Tan Lac	Nam Son	VR	Soil to concrete	1.000 km	NA	A		1.000 km	1,545
HBTLroad005	Ngoc Son -Ngo Luong NR	Tan Lac	Ngo Luong	V to V	Soil to concrete	1.000 km	NA	A		1.000 km	1,545
HBTLroad008	Da River PF	Tan Lac	Ngoi Hoa	V to V	Soil to concrete	2.000 km	NA	B	Long length	2.000 km	3,089
HBTLroad009	Da River PF	Tan Lac	Trung Hoa	V to V	Soil to concrete	1.000 km	NA	A		1.000 km	1,545

Table E-30 The short-list of rural small-scale infrastructure in Tan Lac District

Irrigation Works

Hoa Binh Province

Tan Lac District

Ojectives: To improve the productivity for livelihood improvement in the commune

Number of Benefisheries (Ngoi Hoa): 353 (HH)

Number of Benefisheries (Trung Hoa): 593 (HH)

Number of Benefisheries (Bac Son): 360 (HH)

Number of Benefisheries (Nam Son): 403 (HH)

Unit Cost ('000,000 VND/km) 1,017.056

Number of Benefisheries (Ngo Luong): 395 (HH)

Unit Cost ('000,000 VND/reservoir) 252.277

Code	PFMB	District	Commune	Type of Construction	Quantity (unit)	Prion (by District Office)	Priority	Evaluation	Planned Qt (unit)	Planned Qt (unit)	Planning Cost ('000,000 VND)
HBTLirri001	Da River PF	Tan Lac	Trung Hoa	Repair/ Upgrade	1 reservoir, 1km canal	NA	A		1 nos	1.000 km	1,269
HBTLirri002	Ngoc Son -Ngo Luong NR	Tan Lac	Nam Son	Repair/ Upgrade	1 reservoir, 0.2km canal	NA	A		1 nos	0.200 km	456
Total									2 nos	1.200 km	1,725

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:	Rural Road
Province:	Dien Dien
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m x 4 nos.
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Earth works				239,950,458
1	AB.64113	Diking road by concrete vibrator 9 ton, tight requirement K = 0.95	100m3	1.5714	1,634,034	2,567,721
2	AB.65130	Diking by jump-concrete vibrator, tight requirement K = 0.95	100m3	0.0159	5,036,708	80,084
3	AB.31133	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3	1.6358	2,917,598	4,772,607
4	AB.11713	Digging the expansion road, soil level III	m3	1.6500	276,057	455,494
5	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3	2.6431	3,638,192	9,616,105
6	AB.11714	Digging the expansion road, soil level IV	m3	2.6750	407,635	1,090,424
7	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3264	12,227,595	52,901,467
8	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3750	956,629	4,185,252
9	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4685	16,198,826	23,787,976
10	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4875	1,081,751	1,609,105
11	AB.31133	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3		2,917,598	
12	AB.11823	Digging road pattern, drainage, fishbone trench, depth <= 30 cm, soil level III	m3		327,655	
13	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3	0.2875	3,638,192	1,045,980
14	AB.11824	Digging road pattern, drainage, fishbone trench, depth <= 30 cm, soil level IV	m3	0.2875	376,674	108,294
15	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	0.3089	12,227,595	3,777,104
16	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	0.3125	956,629	298,947
17	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	0.1040	16,198,826	1,684,678
18	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	0.1000	1,081,751	108,175
19	AE.11124	Build rubble, build foundation, thickness >60 cm, cement mortar mark 75	m3		1,439,494	
20	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2		119,523	
21	AB.31133	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3		2,917,598	
22	AB.11833	Digging road pattern, drainage, fishbone trench, depth > 30 cm, soil level III	m3		301,857	
23	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck,	100m3	4.1136	3,638,192	14,966,067
24	AB.11834	Digging road pattern, drainage, fishbone trench, depth > 30 cm, soil level IV	m3	4.1500	345,715	1,434,717
25	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3069	12,227,595	52,663,029
26	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3500	956,629	4,161,336
27	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4391	16,198,826	23,311,730
28	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4500	1,081,751	1,568,539
29	AB.41123	Transportation soil by self - pouring truck, distance <= 300m, car 7T, soil level III	100m3		1,294,699	
30	AB.41124	Transportation soil by self - pouring truck, distance <= 300m, car 7T, soil level IV	100m3	3.4870	1,417,170	4,941,672
31	AB.52121	Moving stone to transportation by excavator <=1,25m3	100m3	6.0361	2,647,428	15,980,140
32	AB.53121	Transportation soil by self - pouring truck, distance <= 300m, car 7T	100m3	6.0373	2,125,754	12,833,815
II		Pavement				1,337,161,401
33	AD.11212	Make stabilized aggregate base course, bottom layer, road renewal, thickness 10cm	100m3	3.6415	32,062,194	116,754,479
34	AL.16210	Laying isolated oil-paper	100m2	30.4150	912,716	27,760,257
35	AF.82411	Concrete pavement framework	100m2	3.2057	4,180,384	13,401,057
36	AF.15433	Concrete produced by mixer, cast manually, pavement concrete, stone 2x4,	m3	486.6400	2,067,051	1,005,909,699
37	AL.24111	Make shrinked slot concrete yard, pavement	m	738.6500	183,527	135,562,219
38	AL.24113	Make vertical slot for concrete yard, pavement	m	25.0000	297,114	7,427,850
39	AL.24112	Make dilative slot concrete yard, pavement	m	60.0000	505,764	30,345,840
III		Culvert (D=1.0m)				271,235,361
40	AB.11373	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level III	m3	3.5253	281,216	991,371
41	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.6689	3,479,299	2,327,303
42	AB.51214	Digging stone foundation by driller D42mm, stone level IV	100m3	0.2632	12,840,068	3,379,506
43	AB.65130	Diking by jump-concrete vibrator, tight requirement K = 0.95	100m3	0.3739	5,036,708	1,883,225
44	AA.22121	Dismantling brick stone structure by hammer	m3	32.5223	219,167	7,127,815
45	AB.13411	Embanking foundation with sand	m3	6.5938	419,393	2,765,394
46	AE.12110	Arrange dry stone without pointing, premises	m3	5.9583	766,909	4,569,474
47	AE.12315	Build rubble, build ditch, cement mortar mark 100	m3	98.2721	1,916,334	188,322,166
48	AE.11925	Build rubble, build vertical slope roof, cement mortar mark 100	m3	3.5849	1,604,979	5,753,689
49	AK.21234	Plaster inside wall, thickness 2,0 cm, cement mortar mark 75	m2	0.5958	89,914	53,571
50	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2	24.4290	119,523	2,919,827
51	AL.15112	Make and drop rock gabion, type 2x1x1m on ground	Cage	2.0000	2,322,462	4,644,924
52	AG.13311	Produce, install precast concrete steel reinforced, sewer, buy pipe steel reinforced,	Tons	0.5857	22,031,298	12,903,731
53	AG.11513	Produce precast concrete structure, sewer concrete, stone 1x2, mark 200	m3	5.5611	1,985,226	11,040,040
54	AG.32211	Produce, install, demount precast concrete framework, metal framework, other	100m2	1.0979	10,338,767	11,350,932
55	AG.42141	Install precast concrete components, install precast concrete components manually,	Piece	16.0000	262,166	4,194,656
56	AK.95121	Scan asphalt to waterproof and sewer joint, sewer diameter 1,00m	segment	12.0000	482,390	5,788,680

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:	Rural Road
Province:	Dien Dien
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m x 4 nos.
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
57	AB.52111	Moving stone to transportation by using excavator <=0,8m3	100m3	0.2632	2,408,924	634,029
58	AB.53111	Moving stone by self-pouring truck 5 tons with distance <=300m	100m3	0.2632	2,222,751	585,028
IV		Drainage system				23,522,937
59	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	67.5372	348,296	23,522,937
60	AB.13411	Embanking foundation with sand	m3		419,393	
61	AF.13212	Concrete produced by mixer, cast manually, cable trench concrete, water ditch	m3		1,884,864	
62	AF.81611	Framework for at-spot concrete, timber framework, canals bank framework	100m2		8,801,605	
V		Road safety facilities				30,627,386
63	AD.31121	Make column km with concrete	Piece	1.0000	661,841	661,841
64	AB.11413	Diging foundation column, cylinder, test pit, wide <= 1 m, depth <= 1 m, soil level III	m3	4.6800	490,193	2,294,103
65	AG.11112	Produce precast concrete structure, pile, column concrete, stone 1x2, mark 150	m3	2.8900	1,787,702	5,166,459
66	AG.31121	Produce, install, demount precast concrete framework, timber framework, pile,	100m2	0.4338	7,999,151	3,470,032
67	AK.83421	Paint kinds of iron, steel with 2 layers	m2	54.9700	42,563	2,339,688
68	AB.65130	Diking by jump-concretevibrator , tight requirement K = 0.95	100m3		5,036,708	
69	AG.42111	Install precast concrete components, install precast concrete components manually,	Piece		48,288	
70	AG.42121	Install precast concrete components, install precast concrete components manually,	Piece		79,330	
71	AD.32421	Produce, install reflective signs, rounded signs diameter 70 cm, octagonal form with	Piece	2.0000	1,000,870	2,001,740
72	AD.32322	Produce, install circulation board type square, triangle, rectangle	Piece	1.0000	1,486,155	1,486,155
73	AD.32431	Produce, install reflective signs, triangular form with edge 70cm	Piece	6.0000	685,016	4,110,096
74	AD.32131	Produce, install head to support name of street board, circulation board, type of	Piece	9.0000	1,010,808	9,097,272
Total						1,902,497,543
Round Total						1,902,498,000

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Dam and Intake structure				
1		Dam				
1	AB.13211	Embanking canal, density <= 1.45 T/m3	m3	10.	146,365.	1,463,650.
2	BB.19202	Installing PVC plastic pipe form mouth bowl, by gasket method, length of pipe 6 m, diameter of pipe d=150mm	100m	0.3	13,358,641.	4,007,592.3
3	AB.12113	Breaking stone manually, stone layer thickness <= 0.5 m, stone level III	m3	12.98	1,074,854.	13,951,604.9
4	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	3.24	964,612	3,125,342.9
5	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	23.31	1,967,271.	45,857,087.
6	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	10.31	1,967,271.	20,282,564.
7	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0677	18,771,979.	1,270,863.
8	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.6365	14,218,942.	9,050,356.6
9	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	7.14	877,228.	6,263,407.9
10	TT	Phai gô	0	0.084	6,121,638.	514,217.6
11	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0144	18,771,979.	270,316.5
12	TT	Anchored Driller D42	0	2.1	1,634,477.	3,432,401.7
13	TT	Cement mortar M250	0	0.0029	3,060,819.	8,876.4
14	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,796,451.	335,574.1
15	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0064	14,218,942.	91,001.2
16	TT	Plate steel with thickness 6mm	kg	0.03	17,140.	514.2
17	TT	Shape steel C80x40x4,5	kg	28.83	17,140.	494,146.2
18	TT	Closed and opened machine V1	bô	1.	6,060,421.	6,060,421.
19	TT	Conner Steel CN0 10	kg	38.22	17,140.	655,090.8
20	TT	Pipe steel D32	kg	8.11	24,487.	198,589.6
2		First Canal (main intake from Dam)	0			
21	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,796,451.	335,574.1
22	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.01	14,218,942.	142,189.4
23	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.22	2,796,451.	615,219.2
24	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.003	18,874,427.	56,623.3
25	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0087	18,874,427.	164,207.5
26	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.005	18,874,427.	94,372.1
27	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.0144	16,376,536.	235,822.1
28	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	0.036	877,228.	31,580.2
29	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	Items	2.	140,788.	281,576.
3		Second Canal, Slope Canal L=22.5m, Span 7.5m	0			
30	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.93	16,376,536.	15,230,178.5
31	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.818	2,796,451.	16,269,751.9
32	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1884	18,874,427.	3,555,942.
33	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1916	18,874,427.	3,616,340.2
34	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=18 mm, wall height <=4m	Tons	0.1933	19,036,345.	3,679,725.5
35	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.62	877,228.	1,421,109.4
4		Supporting Slope Canal M1	0			
36	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.51	318,407.	480,794.6
37	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.06	3,440,627.	206,437.6
38	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.13	495,584.	560,009.9
39	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.05	3,845,001.	192,250.1
40	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	5.66	964,612	5,459,703.9
41	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	10.87	935,453.	10,168,374.1
42	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.34	1,609,868.	547,355.1
43	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,967,271.	236,072.5
44	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	8.16	1,755,295.	14,323,207.2
5		Supporting Slope Canal M2	0			
45	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.14	318,407.	362,984.
46	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.05	3,440,627.	172,031.4

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
47	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.85	495,584	421,246.4
48	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.03	3,845,001	115,350.
49	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	4.26	3,845,001	16,379,704.3
50	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	8.4937	935,453.	7,945,457.1
51	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.27	1,609,868.	434,664.4
52	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,967,271.	236,072.5
53	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	5.	1,755,295.	8,776,475.
6		Supporting Slope Canal M3	0			
54	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.88	318,407.	280,198.2
55	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.04	3,440,627.	137,625.1
56	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.59	495,584.	292,394.6
57	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.02	3,845,001.	76,900.
58	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	2.3457	935,453.	2,194,292.1
59	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.12	1,609,868.	193,184.2
60	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,967,271.	236,072.5
61	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	1.77	1,755,295.	3,106,872.2
7		Overflow Structure	0			
62	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.05	2,656,247.	132,812.4
63	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	1.14	210,559.	240,037.3
64	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.18	3,440,627.	619,312.9
65	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	4.57	318,407.	1,455,120.
66	AB.65110	Diking by jump-concretevibrator, tight requirement K = 0.85	100m3	0.03	3,826,394.	114,791.8
67	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.4208	1,609,868.	677,432.5
68	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.171	2,796,451.	8,867,546.1
69	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.1093	14,218,942.	1,554,130.4
70	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1772	18,874,427.	3,344,548.5
71	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	0.495	935,453.	463,049.2
72	TT	Wood plate	m3	0.02	6,121,638.	122,432.8
8		Third Canal BxH = 0.4x0.6m (L=30m)	0			
73	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.02	2,656,247.	53,124.9
74	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.49	210,559.	103,173.9
75	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.08	3,440,627.	275,250.2
76	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.97	318,407.	627,261.8
77	AB.65110	Diking by jump-concretevibrator, tight requirement K = 0.85	100m3	0.078	3,826,394.	298,458.7
78	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.9	1,609,868.	1,448,881.2
79	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.52	2,796,451.	15,436,409.5
80	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0882	18,874,427.	1,664,724.5
81	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.126	18,874,427.	2,378,177.8
82	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.799	14,218,942.	11,360,934.7
83	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.52	877,228.	1,333,386.6
II		Canal BxH: 45x40, L=1000m	0			
84	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	317.4885	318,407.	101,090,560.8
85	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	56.0345	964,612.	54,051,551.1
86	AB.65110	Diking by jump-concretevibrator, tight requirement K = 0.85	100m3	3.3103	3,826,394.	12,666,512.1
87	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	30.	1,609,868.	48,296,040.
88	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	151.0345	2,796,451.	422,360,578.6
89	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	2.3333	18,874,427.	44,039,700.5
90	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	3.5	18,874,427.	66,060,494.5
91	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	20.	14,218,942.	284,378,840.
92	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	61.1494	877,228.	53,641,965.9
93	BB.19501	Installing 1-layer twisted tendon plastic pipe HDPE, having thorn connector, length of pipe 5 m, diameter of pipe d=100mm	100m	0.6897	34,124,344.	23,535,560.1
		Box Culvert (reinforced concrete) (bxh: 0.45x0.5m); (02 culverts)	0			
94	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	4.896	318,407.	1,558,920.7
95	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	0.86	964,612.	829,566.3
96	AB.65110	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	0.28	3,826,394.	1,071,390.3
97	AF.81311	Diking by jump-concretevibrator, tight requirement K = 0.85	100m3	0.36	14,218,942.	5,118,819.1

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
98	AE.12120	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.26	935,453.	243,217.8
99	AF.11111	Arrange dry stone without pointing, vertical slope roof	m3	0.48	1,609,868.	772,736.6
100	AF.11313	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	6.26	1,967,271.	12,315,116.5
101	AF.61311	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.5102	18,874,427.	9,629,732.7
102	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1336	19,036,345.	2,543,255.7
TOTAL						1,433,375,115
ROUND TOTAL						1,433,375,000

Dam construction work	289,170,556.
Irrigation Canal work	1,144,204,559.3

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Pipe line				
1	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.045	25,784,471.	1,160,301.2
2	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	2.95	20,267,503.	59,789,133.9
3	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	14.7	13,913,073.	204,522,173.1
4	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	10.93	10,286,144.	112,427,553.9
5	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	15.79	5,976,972.	94,376,387.9
6	BB.36604	Installing lace valve, diameter of valve d=50mm	set	2.	180,359.	360,718.
7	BB.36603	Installing lace valve, diameter of valve d=40mm	set	1.	148,608.	148,608.
8	BB.36201	Installing valve to exhaust gas, diameter of valve d=25mm	set	2.	157,797.	315,594.
9	BB.36604	Installing lace valve, diameter of valve d=50mm	set	6.	180,359.	1,082,154.
10	BB.36603	Installing lace valve, diameter of valve d=40mm	set	4.	148,608.	594,432.
11	BB.36601	Installing lace valve, diameter of valve d<=25mm	set	8.	88,613.	708,904.
12	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	3.	51,572.	154,716.
13	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	1.	36,042.	36,042.
14	BB.29404	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=32mm	set	6.	25,691.	154,146.
15	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	10.	51,572.	515,720.
16	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	15.	36,042.	540,630.
17	TT	Connector HDPE D63x2"	set	18.	74,799.	1,346,382.
18	TT	Connector HDPE D50x1-1/2"	set	8.	42,484.	339,872.
19	TT	Connector HDPE D32x1"	set	18.	20,563.	370,134.
20	TT	Step Connector HDPE D63x50	set	3.	97,398.	292,194.
21	TT	Step Connector HDPE D50x32	set	3.	56,156.	168,468.
22	BB.38106	Installing plastic knot connecting sleeve, diameter of knot d=50mm	set	4.	22,306.	89,224.
23	BB.38104	Installing plastic knot connecting sleeve, diameter of knot d=32mm	set	1.	16,491.	16,491.
24	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	8.	36,042.	288,336.
25	TT	Transportation for Pipe lines	ship	1.	1,933,572.	1,933,572.
26	AB.11612	Digging ground set pipe, cable with open talus, soil level II	m3	299.498	362,073.	108,440,139.4
27	AB.13121	Embanking pipe foundation, sewer, tight requirement of K = 0.85	m3	290.93	153,338.	44,610,624.3
II		Pumping station	0			
28	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	6.0222	1,727,056.	10,400,676.6
29	AE.21114	Build brick (6,5x10,5x22), build foundation, thickness <= 33cm, cement mortar mark 75	m3	1.9166	1,590,955.	3,049,224.4
30	AK.21124	Plaster outside wall, thickness 1.5 cm, cement mortar mark 75	m2	63.6996	93,140.	5,932,980.7
31	AF.11322	Concrete produced by mixer, cast manually, base concrete, stone 2x4, mark 150	m3	1.357	1,522,203.	2,065,629.5
32	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.008	2,339,810.	18,718.5
33	AF.12213	Concrete produced by mixer, cast manually, column concrete, stone 1x2, column section <=0.1m2, height <=4m, mark 200	m3	0.5811	2,602,713.	1,512,436.5
34	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	0.9688	1,989,834.	1,927,751.2
35	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.9295	2,312,811.	2,149,757.8
36	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.2132	1,336,639.	284,971.4
37	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.108	14,544,560.	1,570,812.5
38	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.077	18,376,912.	1,415,022.2
39	AF.81211	Framework for at-spot concrete, timber framework, framework for base, yard, concrete pavement, slope and similar concrete structure	100m2	0.0361	9,238,467.	333,508.7

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
40	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0016	14,026,099.	22,441.8
41	AF.81132	Framework for at-spot concrete, timber framework, square, rectangle column framework	100m2	0.0492	15,612,293.	768,124.8
42	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	Tons	0.0377	18,949,291.	714,388.3
43	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	Tons	0.025	19,377,563.	484,439.1
44	AF.61521	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=18 mm, height <=4m	Tons	0.0817	18,529,589.	1,513,867.4
45	AF.61411	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=10 mm, column and post height <=4m	Tons	0.0042	19,015,491.	79,865.1
46	AF.61421	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=1 mm, column and post height <=4m	Tons	0.0288	18,538,876.	533,919.6
47	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	0.48	1,317,097.	632,206.6
48	TT	Steel Door (U shape 3mm thickness)	no	1.	2,334,660.	2,334,660.
49	TT	Door bar lock	no	1.	48,741.	48,741.
50	TT	Minh Khai - Copper lock 10E for Door	no	1.	407,950.	407,950.
51	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,359.	180,359.
52	TT	Bolt M16-200	no	4.	12,186.	48,744.
53	AB.13411	Embanking foundation with sand	m3	3.51	296,964.	1,042,343.6
54	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	31.908	161,005.	5,137,347.5
55	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	3.832	143,116.	548,420.5
III		Slow Filtering Tank	0			
56	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	3.5584	1,827,697.	6,503,677.
57	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	1.575	1,869,685.	2,944,753.9
58	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.6019	2,312,811.	1,392,080.9
59	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	8.2041	1,727,056.	14,168,940.1
60	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	4.883	1,317,097.	6,431,384.7
61	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	Tons	0.1872	18,038,992.	3,376,899.3
62	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	Tons	0.2055	19,549,729.	4,017,469.3
63	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	Tons	0.0712	19,377,563.	1,379,682.5
64	AK.21124	Plaster outside wall, thickness 1.5 cm, cement mortar mark 75	m2	41.04	93,140.	3,822,465.6
65	AK.21124	Plaster outside wall, thickness 1.5 cm, cement mortar mark 75	m2	28.118	93,140.	2,618,910.5
66	AK.41215	Glaze colored base, floor, thickness 2.0 cm, cement mortar mark 100	m2	10.488	59,136.	620,218.4
67	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.034	9,515,710.	323,534.1
68	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0421	18,376,912.	773,668.
69	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.123	7,056,062.	867,895.6
70	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	Items	30.	138,651.	4,159,530.
71	AK.96110	Make filter-bed by sand	100m3	0.0497	21,659,006.	1,076,452.6
72	AK.96131	Make filter-bed by madacam 1x2	100m3	0.029	41,527,893.	1,204,308.9
73	TT	Net Filter inox D=2mm	m2	16.56	60,927.	1,008,951.1
74	BB.29405	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=40mm	set	2.	31,347.	62,694.
75	BB.36606	Installing lace valve, diameter of valve d=76mm	set	2.	250,754.	501,508.
76	BB.36603	Installing lace valve, diameter of valve d=40mm	set	2.	148,608.	297,216.
77	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.18	16,783,449.	3,021,020.8

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
78	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.18	29,817,998.	5,367,239.6
79	BB.26108	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=76mm	set	12.	125,798.	1,509,576.
80	BB.38209	Installing knot to plug zinc coated steel pipe, diameter of knot d=89mm	set	2.	151,430.	302,860.
81	BB.38205	Installing knot to plug zinc coated steel pipe, diameter of knot d=40mm	set	12.	61,466.	737,592.
IV		Middle Tank 50m3	0			
82	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	4.506	1,989,834.	8,966,192.
83	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	2.229	2,312,811.	5,155,255.7
84	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	9.6477	1,827,697.	17,633,072.3
85	AG.11414	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 250	m3	0.054	1,978,167.	106,821.
86	AF.12112	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 150	m3	0.22	2,376,562.	522,843.6
87	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	Tons	0.6239	18,038,992.	11,254,527.1
88	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	Tons	0.1801	18,949,291.	3,412,767.3
89	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	Tons	0.1508	19,377,563.	2,922,136.5
90	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	Tons	0.0052	19,549,729.	101,658.6
91	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.4022	14,544,560.	5,849,822.
92	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0918	18,376,912.	1,687,000.5
93	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0598	9,515,710.	569,039.5
94	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0023	7,056,062.	16,228.9
95	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0388	14,026,099.	544,212.6
96	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	12.	1,727,056.	20,724,672.
97	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	15.3799	1,317,097.	20,256,820.2
98	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.16	93,140.	5,789,582.4
99	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	44.204	93,140.	4,117,160.6
100	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	36.	59,136.	2,128,896.
101	AK.41115	Glaze colorless base, floor, thickness 2,0 cm, cement mortar mark 100	m2	44.4	51,814.	2,300,541.6
102	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.05	25,784,471.	1,289,223.6
103	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.044	16,783,449.	738,471.8
104	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	4.	110,524.	442,096.
105	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	2.	102,166.	204,332.
106	BB.36605	Installing lace valve, diameter of valve d=67mm	set	2.	203,345.	406,690.
107	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,359.	180,359.
108	BB.36603	Installing lace valve, diameter of valve d=40mm	set	3.	148,608.	445,824.
109	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
110	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
111	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	1.	102,166.	102,166.
112	TT	Connector HDPE D63x2-1/2'	no	2.	74,799.	149,598.

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
113	TT	Connector HDPE D50x2"	no	1.	42,484.	42,484.
114	TT	Filter for Pipe D80 dài 40cm	no	2.	365,558.	731,116.
115	TT	Metal sheet cover for tanks	no	3.	182,779.	548,337.
116	TT	Hinger	no	6.	60,927.	365,562.
117	TT	Minh Khai - Copper locks for Door	no	3.	48,741.	146,223.
118	TT	Project Information Board	no	1.	609,263.	609,263.
119	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	54.73	161,005.	8,811,803.7
120	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	5.97	143,116.	854,402.5
V		Valve discharge raw waste	0			
121	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,567,369.	251,088.7
122	AK.21224	Plaster inside wall, thickness 1.5 cm, cement mortar mark 75	m2	0.84	75,532.	63,446.9
123	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	1,869,685.	97,036.7
124	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,532,768.	132,584.4
125	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0022	7,056,062.	15,523.3
126	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,515,710.	35,208.1
127	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	Tons	0.0054	19,549,729.	105,568.5
128	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
129	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VI		Air Valves	0			
130	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,567,369.	251,088.7
131	AK.21224	Plaster inside wall, thickness 1.5 cm, cement mortar mark 75	m2	0.84	75,532.	63,446.9
132	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	1,869,685.	97,036.7
133	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,532,768.	132,584.4
134	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0022	7,056,062.	15,523.3
135	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,515,710.	35,208.1
136	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	Tons	0.0054	19,549,729.	105,568.5
137	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
138	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VII		Flow Regulation Valve Boxes	0			
139	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,567,369.	251,088.7
140	AK.21224	Plaster inside wall, thickness 1.5 cm, cement mortar mark 75	m2	0.84	75,532.	63,446.9
141	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	1,869,685.	97,036.7
142	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,532,768.	132,584.4
143	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0022	7,056,062.	15,523.3
144	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,515,710.	35,208.1
145	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	Tons	0.0054	19,549,729.	105,568.5
146	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
147	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
VIII		Water Distribution Posts	0			
148	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.216	1,532,768.	331,077.9
149	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.07	2,339,810.	163,786.7
150	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0202	9,515,710.	192,217.3
151	BB.14301	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=25mm	100m	0.0202	11,651,972.	235,369.8
152	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
153	TT	Connector HDPE D32mmx1"	no	1.	20,563.	20,563.
154	BB.36601	Installing lace valve, diameter of valve d=<25mm	set	1.	88,613.	88,613.
155	BB.36601	Installing lace valve, diameter of valve d=<25mm	set	1.	88,613.	88,613.
156	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
157	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
158	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	1.	45,538.	45,538.
159	BB.35101	Installing flow meter, specifications <=50mm	set	1.	931,817.	931,817.
160	TT	Lock Box KT(20x20x30)cm	no	1.	146,223.	146,223.
161	TT	Minh Khai - Copper Lock for Door	no	1.	48,741.	48,741.
162	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.2578	209,561.	54,024.8
TOTAL						883,910,105
ROUND TOTAL						883,910,000

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I Intake Tank						
1	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.16	316,898.	1,952,091.7
2	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.23	493,236.	606,680.3
3	AB.11311	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level I	m3	2.05	143,116.	293,387.8
4	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.36	1,336,639.	481,190.
5	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.24	2,484,177.	8,048,733.5
6	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.58	2,312,811.	1,341,430.4
7	AK.96110	Make filter-bed by sand	100m3	0.03	21,659,006.	649,770.2
8	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	41,527,893.	415,278.9
9	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.27	14,026,099.	3,787,046.7
10	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	Tons	0.05	18,038,992.	901,949.6
11	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.06	29,817,998.	1,789,079.9
12	TT	Junction D65	no	2.	187,653.	375,306.
13	TT	Installing Core Filter D100	no	1.	322,909.	322,909.
II Regulator						
14	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.53	316,898.	2,069,343.9
15	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	2.18	143,116.	311,992.9
16	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.07	1,336,639.	93,564.7
17	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	0.15	1,569,159.	235,373.9
18	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.36	2,484,177.	894,303.7
19	AF.12513	Concrete produced by mixer, cast manually, lintel concrete, lintel closed cornice, water gutters, overhang, stone 1x2, mark 200	m3	0.12	2,351,906.	282,228.7
20	AF.81152	Framework for at-spot concrete, timber framework, lintel framework, lintel closed cornice, water gutters, plate	100m2	0.59	14,989,968.	8,844,081.1
21	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.04	14,026,099.	561,044.
22	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	Tons	0.01	19,377,563.	193,775.6
23	BB.36605	Installing lace valve, diameter of valve d=67mm	set	3.	203,345.	610,035.
III Filter Tank						
24	AB.11374	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level IV	m3	34.31	408,900.	14,029,359.
25	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	11.44	143,116.	1,637,247.
26	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	1.56	1,336,639.	2,085,156.8
27	AF.11243	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width >250cm, mark 200	m3	3.5	1,784,240.	6,244,840.
28	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	1.48	1,569,159.	2,322,355.3
29	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	7.19	2,484,177.	17,861,232.6
30	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	1.9	2,312,811.	4,394,340.9
31	AK.96110	Make filter-bed by sand	100m3	0.03	21,659,006.	649,770.2
32	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	41,527,893.	415,278.9
33	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.	75,532.	4,682,984.
34	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	40.88	93,140.	3,807,563.2
35	AK.81130	Scan cement water with 2 layers	m2	15.18	11,086.	168,285.5
36	AK.81130	Scan cement water with 2 layers	m2	0.07	11,086.	776.
37	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.97	14,026,099.	13,605,316.
38	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.14	14,544,560.	2,036,238.4

Table E-31 Typical Cost Estimation for Construction of Rural Infrastructure in Dien Bien Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Dien Bien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
39	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.36	18,672,619.	6,722,142.8
40	AF.61621	Produce and install steel reinforced concrete at spot, steel reinforced lintel closed cornice, water gutters, diameter >10 mm, height <=4m	Tons	0.53	21,427,920.	11,356,797.6
41	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	0.06	20,267,503.	1,216,050.2
42	BB.36604	Installing lace valve, diameter of valve d=50mm	set	7.	180,359.	1,262,513.
43	TT	Junction D50	no	4.	115,150.	460,600.
44	TT	Installing Core Filter D100	no	1.	322,909.	322,909.
IV		Pipe lines	0			
45	AB.11512	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level II	m3	88.57	232,562.	20,598,016.3
46	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	259.29	345,010.	89,457,642.9
47	AB.11514	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level IV	m3	84.3	526,459.	44,380,493.7
48	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	432.16	143,116.	61,849,010.6
49	BB.19409	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=89mm	100m	1.22	26,045,427.	31,775,420.9
50	BB.19408	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	4.68	18,785,418.	87,915,756.2
51	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	4.02	13,913,077.	55,930,569.5
52	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	1.45	10,286,144.	14,914,908.8
53	BB.19405	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	5.84	8,227,065.	48,046,059.6
54	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	2.91	5,976,970.	17,392,982.7
55	BB.19402	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=20mm	100m	0.	4,757,203.	0.
56	TT	Angle Connector D90	set	2.	487,853.	975,706.
57	TT	Angle Connector D75	set	3.	264,198.	792,594.
58	TT	Angle Connector D65	set	4.	165,719.	662,876.
59	TT	Angle Connector D50	set	2.	89,174.	178,348.
60	TT	Angle Connector D40	set	5.	139,245.	696,225.
61	TT	Initial Connector D63-40, D40-32, D32-20	set	75.	58,489.	4,386,675.
TOTAL						610,295,639
ROUND TOTAL						610,296,000

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:	Rural Road
Province:	Dien Dien
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
		Earth works				233,124,526
1	AB.64113	Diking road by concrete vibrator \rightarrow ton, tight requirement $K = 0.95$	100m3	1.5714	1,541,761	2,422,723
2	AB.65130	Diking by jump-concrete vibrator, tight requirement $K = 0.95$	100m3	0.0159	4,722,807	75,093
3	AB.31133	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level III	100m3	1.6358	2,820,165	4,613,226
4	AB.11713	Digging the expansion road, soil level III	m3	1.6500	276,056	455,492
5	AB.31134	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level IV	100m3	2.6431	3,508,225	9,272,589
6	AB.11714	Digging the expansion road, soil level IV	m3	2.6750	407,635	1,090,424
7	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3264	12,148,121	52,557,631
8	AB.51614	Digging stone, thickness ≤ 0.5 m with hammer, stone level IV	m3	4.3750	817,758	3,577,691
9	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4685	15,946,923	23,418,056
10	AB.51613	Digging stone, thickness ≤ 0.5 m with hammer, stone level III	m3	1.4875	927,242	1,379,272
11	AB.31133	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level III	100m3		2,820,165	
12	AB.11823	Digging road pattern, drainage, fishbone trench, depth ≤ 30 cm, soil level III	m3		327,655	
13	AB.31134	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level IV	100m3	0.2875	3,508,225	1,008,615
14	AB.11824	Digging road pattern, drainage, fishbone trench, depth ≤ 30 cm, soil level IV	m3	0.2875	376,674	108,294
15	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	0.3089	12,148,121	3,752,555
16	AB.51614	Digging stone, thickness ≤ 0.5 m with hammer, stone level IV	m3	0.3125	817,758	255,549
17	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	0.1040	15,946,923	1,658,480
18	AB.51613	Digging stone, thickness ≤ 0.5 m with hammer, stone level III	m3	0.1000	927,242	92,724
19	AE.11124	Build rubble, build foundation, thickness >60 cm, cement	m3		1,580,119	
20	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2		128,505	
21	AB.31133	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level III	100m3		2,820,165	
22	AB.11833	Digging road pattern, drainage, fishbone trench, depth > 30 cm, soil level III	m3		301,857	
23	AB.31134	Digging road by excavator ≤ 1.25 m3, bulldozer ≤ 110 CV, then pouring onto truck, soil level IV	100m3	4.1136	3,508,225	14,431,434
24	AB.11834	Digging road pattern, drainage, fishbone trench, depth > 30 cm, soil level IV	m3	4.1500	345,715	1,434,717
25	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3069	12,148,121	52,320,742
26	AB.51614	Digging stone, thickness ≤ 0.5 m with hammer, stone level IV	m3	4.3500	817,758	3,557,247
27	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4391	15,946,923	22,949,217
28	AB.51613	Digging stone, thickness ≤ 0.5 m with hammer, stone level III	m3	1.4500	927,242	1,344,501
29	AB.41123	Transportation soil by self - pouring truck, distance ≤ 300 m, car 7T, soil level III	100m3		1,183,745	
30	AB.41124	Transportation soil by self - pouring truck, distance ≤ 300 m, car 7T, soil level IV	100m3	3.4870	1,295,721	4,518,179
31	AB.52121	Moving stone to transportation by excavator ≤ 1.25 m3	100m3	6.0361	2,500,967	15,096,087

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:	Rural Road
Province:	Dien Dien
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
32	AB.53121	Transportation soil by self - pouring truck, distance <= 300m, car 7T	100m3	6.0373	1,943,582	11,733,988
		Pavement				1,465,874,461
33	AD.11212	Make stabilized aggregate base course, bottom layer, road renewal, thickness 10cm	100m3	3.6415	35,506,665	129,297,521
34	AL.16210	Laying isolated oil-paper	100m2	30.4150	1,326,866	40,356,629
35	AF.82411	Concrete pavement framework	100m2	3.2057	4,309,481	13,814,903
36	AF.15433	Concrete produced by mixer, cast manually, pavement concrete, stone 2x4, pavement thickness <= 25cm, mark 200, thickness 16cm	m3	486.6400	2,281,857	1,110,442,890
37	AL.24111	Make shrinked slot concrete yard, pavement	m	738.6500	181,850	134,323,503
38	AL.24113	Make vertical slot for concrete yard, pavement	m	25.0000	292,063	7,301,575
39	AL.24112	Make dilative slot concrete yard, pavement	m	60.0000	505,624	30,337,440
		Culvert (D=1.0m)				293,411,907
40	AB.11373	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil	m3	3.5253	281,216	991,371
41	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.6689	3,361,400	2,248,440
42	AB.51214	Digging stone foundation by driller D42mm, stone level IV	100m3	0.2632	12,755,365	3,357,212
43	AB.65130	Diking by jump-concretevibrator , tight requirement K = 0.95	100m3	0.3739	4,722,807	1,765,858
44	AA.22121	Dismantling brick stone structure by hammer	m3	32.5223	187,340	6,092,728
45	AB.13411	Embanking foundation with sand	m3	6.5938	831,805	5,484,756
46	AE.12110	Arrange dry stone without pointing, premises	m3	5.9583	829,412	4,941,886
47	AE.12315	Build rubble, build ditch, cement mortar mark 100	m3	98.2721	2,077,739	204,183,775
48	AE.11925	Build rubble, build vertical slope roof, cement mortar mark 100	m3	3.5849	1,756,535	6,297,002
49	AK.21234	Plaster inside wall, thickness 2,0 cm, cement mortar mark 75	m2	0.5958	98,898	58,923
50	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2	24.4290	128,505	3,139,249
51	AL.15112	Make and drop rock gabion, type 2x1x1m on ground	Cage	2.0000	2,447,749	4,895,498
52	AG.13311	Produce, install precast concrete steel reinforced, sewer, buy pipe steel reinforced, diameter <=10mm	Tons	0.5857	26,218,645	15,356,260
53	AG.11513	Produce precast concrete structure, sewer concrete, stone 1x2, mark 200	m3	5.5611	2,216,147	12,324,215
54	AG.32211	Produce, install, demount precast concrete framework, metal framework, other components framework	100m2	1.0979	10,456,485	11,480,175
55	AG.42141	Install precast concrete components, install precast concrete components manually, weight >250kg	Piece	16.0000	268,529	4,296,464
56	AK.95121	Scan asphalt to waterproof and sewer joint, sewer diameter 1,00m	segment	12.0000	447,709	5,372,508
57	AB.52111	Moving stone to transportation by using excavator <=0,8m3	100m3	0.2632	2,264,631	596,051
58	AB.53111	Moving stone by self-pouring truck 5 tons with distance <=300m	100m3	0.2632	2,011,914	529,536
		Drainage system				23,522,937
59	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	67.5372	348,296	23,522,937
60	AB.13411	Embanking foundation with sand	m3		831,805	
61	AF.13212	Concrete produced by mixer, cast manually, cable trench concrete, water ditch concrete, stone 1x2, mark 150	m3		2,102,636	

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:		Rural Road
Province:		Dien Dien
Specification:	Length	1.0 km
	Width	4.0 m, Grade C
	Sub-base	Stabilized aggregate base course, 10cm thickness
	Pavement	3.0m width, Concrete, 16cm thickness
	Related Structure	Concrete Pipe Culvert D=1.0m
	Drainage	Soil Channel
	Transportation Safety	Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
62	AF.81611	Framework for at-spot concrete, timber framework, canals bank framework	100m2		9,215,463	
		Road safety facilities				32,757,965
63	AD.31121	Make column km with concrete	Piece	1.0000	687,809	687,809
64	AB.11413	Diging foundation column, cylinder, test pit, wide <= 1 m, depth <= 1 m, soil level III	m3	4.6800	490,193	2,294,103
65	AG.11112	Produce precast concrete structure, pile, column concrete, stone 1x2, mark 150	m3	2.8900	1,996,140	5,768,845
66	AG.31121	Produce, install, demount precast concrete framework, timber framework, pile, column framework	100m2	0.4338	8,027,385	3,482,280
67	AK.83472	Paint kinds of iron, steel with 2 layers	m2	54.9700	32,665	1,795,595
68	AB.65130	Diking by jump-concretevibrator , tight requirement K = 0.95	100m3		4,722,807	
69	AG.42111	Install precast concrete components, install precast concrete components manually, weight <=50kg	Piece		49,518	
70	AG.42121	Install precast concrete components, install precast concrete components manually, weight <=100kg	Piece		82,528	
71	AD.32421	Produce, install reflective signs, rounded signs diameter 70 cm, octagonal form with edge 25cm	Piece	2.0000	857,531	1,715,062
72	AD.32322	Produce, install circulation board type square, triangle, rectangle	Piece	1.0000	1,123,466	1,123,466
73	AD.32431	Produce, install reflective signs, triangular form with edge 70cm	Piece	6.0000	614,007	3,684,042
74	AD.32131	Produce, install head to support name of street board, circulation board, type of head is tubular iron diameter 80mm	Piece	9.0000	1,356,307	12,206,763
Tổng cộng						2,048,691,796
Làm tròn						2,048,692,000

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Dien Dien

STT	Mã số	Description	Unit	Khối lượng	Đơn giá	Thành tiền
I		Dam and Intake structure				2,521,959,755.4
		Dam				
1	AB.13211	Embanking canal, density <= 1.45 T/m3	m3	10.	146,365.	1,463,650.
2	BB.19202	Installing PVC plastic pipe form mouth bowl, by gasket method, length of pipe 6 m, diameter of pipe d=150mm	100m	0.3	15,866,688.	4,760,006.4
3	AB.12113	Breaking stone manually, stone layer thickness <= 0.5 m, stone level III	m3	12.98	1,074,854.	13,951,604.9
4	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	3.24	964,612.	3,125,342.9
5	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	23.31	2,128,823.	49,622,864.1
6	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	10.31	2,128,823.	21,948,165.1
7	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0677	22,893,783.	1,549,909.1
8	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.6365	13,744,194.	8,748,179.5
9	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	7.14	296,193.	2,114,818.
10	TT	Phai gỗ	m2	0.084	6,121,638.	514,217.6
11	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0144	22,893,783.	329,670.5
12	TT	Anchored Driller D42	m	2.1	1,634,477.	3,432,401.7
13	TT	Cement mortar M250	m3	0.0029	3,060,819.	8,876.4
		Gate		0		
14	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,938,464.	352,615.7
15	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0064	13,744,194.	87,962.8
16	TT	Plate steel with thickness 6mm	kg	0.03	17,140.	514.2
17	TT	Shape steel C80x40x4,5	kg	28.83	17,140.	494,146.2
18	TT	Closed and opened machine V1	set	1.	6,060,421.	6,060,421.
19	TT	Conner Steel CNO 10	kg	38.22	17,140.	655,090.8
20	TT	Pipe steel D32	kg	8.11	24,487.	198,589.6
		First Canal (main intake from Dam)				
21	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,938,464.	352,615.7
22	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.01	13,744,194.	137,441.9
23	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.22	2,938,464.	646,462.1
24	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.003	22,980,614.	68,941.8
25	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0087	22,980,614.	199,931.3
26	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.005	22,980,614.	114,903.1
27	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.0144	16,012,938.	230,586.3
28	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	0.036	296,193.	10,662.9
29	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	Items	2.	144,302.	288,604.
		Second Canal, Slope Canal L=22,5m, Span 7,5m				
30	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.93	16,012,938.	14,892,032.3
31	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.818	2,938,464.	17,095,983.6
32	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1884	22,980,614.	4,329,547.7

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Dien Dien

STT	Mã số	Description	Unit	Khối lượng	Đơn giá	Thành tiền
33	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1916	22,980,614.	4,403,085.6
34	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=18 mm, wall height <=4m	Tons	0.1933	23,120,688.	4,469,229.
35	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.62	296,193.	479,832.7
		Supporting Slope Canal M1	0			
36	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.51	318,407.	480,794.6
37	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.06	3,350,683.	201,041.
38	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.13	495,584.	560,009.9
39	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.05	3,740,699.	187,035.
40	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	5.66	964,612.	5,459,703.9
41	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	10.87	1,009,657.	10,974,971.6
42	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.34	1,748,710.	594,561.4
43	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,128,823.	255,458.8
44	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	8.16	1,838,289.	15,000,438.2
		Supporting Slope Canal M2	0			
45	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.14	318,407.	362,984.
46	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.05	3,350,683.	167,534.2
47	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.85	495,584.	421,246.4
48	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.03	3,740,699.	112,221.
49	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	4.26	3,740,699.	15,935,377.7
50	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	8.4937	1,009,657.	8,575,723.7
51	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.27	1,748,710.	472,151.7
52	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,128,823.	255,458.8
53	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	5.	1,838,289.	9,191,445.
		Supporting Slope Canal M3	0			
54	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.88	318,407.	280,198.2
55	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.04	3,350,683.	134,027.3
56	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.59	495,584.	292,394.6
57	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.02	3,740,699.	74,814.
58	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	2.3457	1,009,657.	2,368,352.4
59	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.12	1,748,710.	209,845.2
60	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,128,823.	255,458.8
61	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	1.77	1,838,289.	3,253,771.5
		Overflow Structure	0			
62	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.05	2,591,903.	129,595.2
63	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	1.14	210,559.	240,037.3
64	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.18	3,350,683.	603,122.9
65	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	4.57	318,407.	1,455,120.
66	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.03	3,701,426.	111,042.8
67	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.4208	1,748,710.	735,857.2

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Dien Dien

STT	Mã số	Description	Unit	Khối lượng	Đơn giá	Thành tiền
68	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.171	2,938,464.	9,317,869.3
69	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.1093	13,744,194.	1,502,240.4
70	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1772	22,980,614.	4,072,164.8
71	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	0.495	1,009,657.	499,780.2
72	TT	Wood plate	m3	0.02	6,121,638.	122,432.8
		Third Canal BxH = 0,4x0,6m (L=30m)	0			
73	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.02	2,591,903.	51,838.1
74	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.49	210,559.	103,173.9
75	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.08	3,350,683.	268,054.6
76	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.97	318,407.	627,261.8
77	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.078	3,701,426.	288,711.2
78	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.9	1,748,710.	1,573,839.
79	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.52	2,938,464.	16,220,321.3
80	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0882	22,980,614.	2,026,890.2
81	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.126	22,980,614.	2,895,557.4
82	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.799	13,744,194.	10,981,611.
83	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.52	296,193.	450,213.4
II		Canal BxH: 45x40, L=1000m	0			1,151,864,716.2
84	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	317.4885	318,407.	101,090,560.8
85	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	56.0345	964,612.	54,051,551.1
86	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	3.3103	3,701,426.	12,252,830.5
87	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	30.	1,748,710.	52,461,300.
88	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	151.0345	2,938,464.	443,809,441.
89	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	2.3333	22,980,614.	53,620,666.6
90	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	3.5	22,980,614.	80,432,149.
91	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	20.	13,744,194.	274,883,880.
92	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	61.1494	296,193.	18,112,024.2
93	BB.19501	Installing 1-layer twisted tendon plastic pipe HDPE, having thorn connector , length of pipe 5 m, diameter of pipe d=100mm	100m	0.6897	34,124,344.	23,535,560.1
94	AB.11313	Công hợp BTCT (btx: 0.45x05m); (Số lượng 02 cái)	0	4.896	318,407.	1,558,920.7
95	AB.12114	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.86	964,612.	829,566.3
96	AB.65110	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	0.28	3,701,426.	1,036,399.3
97	AF.81311	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.36	13,744,194.	4,947,909.8
98	AE.12120	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.26	1,009,657.	262,510.8
99	AF.11111	Arrange dry stone without pointing, vertical slope roof	m3	0.48	1,748,710.	839,380.8
100	AF.11313	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	6.26	2,128,823.	13,326,432.

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Dien Dien

STT	Mã số	Description	Unit	Khối lượng	Đơn giá	Thành tiền
101	AF.61311	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.5102	22,980,614.	11,724,709.3
102	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1336	23,120,688.	3,088,923.9
TOTAL						1,449,357,376.4
ROUND TOTAL						1,449,357,000

Dam construction work	297,492,660.2
Irrigation Canal work	1,151,864,716.2

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Pipe line				
1	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.045	20,300,653.	913,529.4
2	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	2.95	15,243,696.	44,968,903.2
3	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	14.7	11,827,891.	173,869,997.7
4	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	10.93	8,340,176.	91,158,123.7
5	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	15.79	4,448,645.	70,244,104.6
6	BB.36604	Installing lace valve, diameter of valve d=50mm	set	2.	180,870.	361,740.
7	BB.36603	Installing lace valve, diameter of valve d=40mm	set	1.	149,019.	149,019.
8	BB.36201	Installing valve to exhaust gas, diameter of valve d=25mm	set	2.	169,984.	339,968.
9	BB.36604	Installing lace valve, diameter of valve d=50mm	set	6.	180,870.	1,085,220.
10	BB.36603	Installing lace valve, diameter of valve d=40mm	set	4.	149,019.	596,076.
11	BB.36601	Installing lace valve, diameter of valve d<25mm	set	8.	88,876.	711,008.
12	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	3.	51,572.	154,716.
13	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	1.	36,042.	36,042.
14	BB.29404	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=32mm	set	6.	25,691.	154,146.
15	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	10.	51,572.	515,720.
16	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	15.	36,042.	540,630.
17	TT	Connector HDPE D63x2"	set	18.	74,799.	1,346,382.
18	TT	Connector HDPE D50x1-1/2"	set	8.	42,484.	339,872.
19	TT	Connector HDPE D32x1"	set	18.	20,563.	370,134.
20	TT	Step Connector HDPE D63x50	set	3.	97,398.	292,194.
21	TT	Step Connector HDPE D50x32	set	3.	56,156.	168,468.
22	BB.38106	Installing plastic knot connecting sleeve, diameter of knot d=50mm	set	4.	22,306.	89,224.
23	BB.38104	Installing plastic knot connecting sleeve, diameter of knot d=32mm	set	1.	16,491.	16,491.
24	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	8.	36,042.	288,336.
25	TT	Transportation for Pipe lines	ship	1.	1,933,572.	1,933,572.
26	AB.11612	Digging ground set pipe, cable with open talus, soil level II	m3	299.498	362,073.	108,440,139.4
27	AB.13121	Embanking pipe foundation, sewer, tight requirement of K = 0.85	m3	290.93	153,338.	44,610,624.3
II		Pumping station				
28	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	6.0222	2,113,262.	12,726,486.4
29	AE.21114	Build brick (6,5x10,5x22), build foundation, thickness <= 33cm, cement mortar mark 75	m3	1.9166	1,958,770.	3,754,178.6
30	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	63.6996	98,484.	6,273,391.4
31	AF.11322	Concrete produced by mixer, cast manually, base concrete, stone 2x4, mark 150	m3	1.357	1,780,687.	2,416,392.3
32	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.008	2,581,159.	20,649.3

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price VND	Amount (VND)
33	AF.12213	Concrete produced by mixer, cast manually, column concrete, stone 1x2, column section <=0,1m2, height <=4m, mark 200	m3	0.5811	2,873,395.	1,669,729.8
34	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	0.9688	2,267,953.	2,197,192.9
35	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.9295	2,590,929.	2,408,268.5
36	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.2132	1,573,634.	335,498.8
37	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.108	14,017,526.	1,513,892.8
38	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.077	17,727,499.	1,365,017.4
39	AF.81211	Framework for at-spot concrete, timber framework, framework for base, yard, concrete pavement, slope and similar concrete structure	100m2	0.0361	8,806,279.	317,906.7
40	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0016	13,580,171.	21,728.3
41	AF.81132	Framework for at-spot concrete, timber framework, square, rectangle column framework	100m2	0.0492	15,131,094.	744,449.8
42	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.0377	20,092,326.	757,480.7
43	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.025	20,520,598.	513,015.
44	AF.61521	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=18 mm, height <=4m	ton	0.0817	19,456,804.	1,589,620.9
45	AF.61411	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=10 mm, column and post height <=4m	ton	0.0042	20,158,525.	84,665.8
46	AF.61421	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=1 mm, column and post height <=4m	ton	0.0288	19,466,113.	560,624.1
47	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	0.48	1,496,827.	718,477.
48	TT	Steel Door (U shape 3mm thickness)	nos	1.	2,334,660.	2,334,660.
49	TT	Door bar lock	nos	1.	48,741.	48,741.
50	TT	Minh Khai - Copper lock 10E for Door	nos	1.	407,950.	407,950.
51	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,870.	180,870.
52	TT	Bolt M16-200	nos	4.	12,186.	48,744.
53	AB.13411	Embanking foundation with sand	m3	3.51	645,123.	2,264,381.7
54	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	31.908	161,005.	5,137,347.5
55	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	3.832	143,116.	548,420.5
III		Slow Filtering Tank				
56	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	3.5584	2,099,544.	7,471,017.4
57	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	1.575	2,143,766.	3,376,431.5
58	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.6019	2,590,929.	1,559,480.2
59	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	8.2041	2,113,262.	17,337,412.8
60	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	4.883	1,496,827.	7,309,006.2
61	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.1872	19,182,027.	3,590,875.5

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price VND	Amount (VND)
62	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.2055	20,767,465.	4,267,714.1
63	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.0712	20,520,598.	1,461,066.6
64	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	41.04	98,484.	4,041,783.4
65	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	28.118	98,484.	2,769,173.1
66	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	10.488	62,339.	653,811.4
67	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.034	9,067,682.	308,301.2
68	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0421	17,727,499.	746,327.7
69	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.123	7,014,789.	862,819.
70	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	items	30.	142,562.	4,276,860.
71	AK.96110	Make filter-bed by sand	100m3	0.0497	67,365,097.	3,348,045.3
72	AK.96131	Make filter-bed by madacam 1x2	100m3	0.029	63,947,543.	1,854,478.7
73	TT	Net Filter inox D=2mm	m2	16.56	60,927.	1,008,951.1
74	BB.29405	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=40mm	set	2.	31,347.	62,694.
75	BB.36606	Installing lace valve, diameter of valve d=76mm	set	2.	251,538.	503,076.
76	BB.36603	Installing lace valve, diameter of valve d=40mm	set	2.	149,019.	298,038.
77	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.18	12,183,337.	2,193,000.7
78	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.18	23,710,744.	4,267,933.9
79	BB.26108	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=76mm	set	12.	125,798.	1,509,576.
80	BB.38209	Installing knot to plug zinc coated steel pipe, diameter of knot d=89mm	set	2.	183,493.	366,986.
81	BB.38205	Installing knot to plug zinc coated steel pipe, diameter of knot d=40mm	set	12.	61,466.	737,592.
IV		Middle Tank 50m3				
82	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	4.506	2,267,953.	10,219,396.2
83	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	2.229	2,590,929.	5,775,180.7
84	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	9.6477	2,099,544.	20,255,770.6
85	AG.11414	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 250	m3	0.054	2,265,874.	122,357.2
86	AF.12112	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 150	m3	0.22	2,625,539.	577,618.6
87	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.6239	19,182,027.	11,967,666.6
88	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.1801	20,092,326.	3,618,627.9
89	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.1508	20,520,598.	3,094,506.2
90	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0052	20,767,465.	107,990.8

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price VND	Amount (VND)
91	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.4022	14,017,526.	5,637,849.
92	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0918	17,727,499.	1,627,384.4
93	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0598	9,067,682.	542,247.4
94	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0023	7,014,789.	16,134.
95	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0388	13,580,171.	526,910.6
96	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	12.	2,113,262.	25,359,144.
97	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	15.3799	1,496,827.	23,021,049.6
98	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.16	98,484.	6,121,765.4
99	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	44.204	98,484.	4,353,386.7
100	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	36.	62,339.	2,244,204.
101	AK.41115	Glaze colorless base, floor, thickness 2,0 cm, cement mortar mark 100	m2	44.4	54,937.	2,439,202.8
102	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.05	20,300,653.	1,015,032.7
103	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.044	12,183,337.	536,066.8
104	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	4.	110,524.	442,096.
105	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	2.	102,166.	204,332.
106	BB.36605	Installing lace valve, diameter of valve d=67mm	set	2.	204,019.	408,038.
107	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,870.	180,870.
108	BB.36603	Installing lace valve, diameter of valve d=40mm	set	3.	149,019.	447,057.
109	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
110	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
111	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	1.	102,166.	102,166.
112	TT	Connector HDPE D63x2-1/2"	nos	2.	74,799.	149,598.
113	TT	Connector HDPE D50x2"	nos	1.	42,484.	42,484.
114	TT	Filter for Pipe D80 dài 40cm	nos	2.	365,558.	731,116.
115	TT	Metal sheet cover for tanks	nos	3.	182,779.	548,337.
116	TT	Hinger	nos	6.	60,927.	365,562.
117	TT	Minh Khai - Copper locks for Door	nos	3.	48,741.	146,223.
118	TT	Project Information Board	nos	1.	609,263.	609,263.
119	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	54.73	161,005.	8,811,803.7
120	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	5.97	143,116.	854,402.5
V		Valve discharge raw waste				
121	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,329,073.	227,783.3
122	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	80,875.	67,935.
123	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,143,766.	111,261.5
124	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,790,008.	154,835.7
125	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	7,014,789.	15,432.5

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price VND	Amount (VND)
126	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,067,682.	33,550.4
127	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,767,465.	112,144.3
128	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
129	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VI		Air Valves				
130	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,329,073.	227,783.3
131	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	80,875.	67,935.
132	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,143,766.	111,261.5
133	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,790,008.	154,835.7
134	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	7,014,789.	15,432.5
135	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,067,682.	33,550.4
136	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,767,465.	112,144.3
137	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
138	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VII		Flow Regulation Valve Boxes				
139	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,329,073.	227,783.3
140	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	80,875.	67,935.
141	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,143,766.	111,261.5
142	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,790,008.	154,835.7
143	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	7,014,789.	15,432.5
144	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	9,067,682.	33,550.4
145	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,767,465.	112,144.3
146	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
147	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VIII		Water Distribution Posts				
148	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.216	1,790,008.	386,641.7
149	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.07	2,581,159.	180,681.1
150	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0202	9,067,682.	183,167.2
151	BB.14301	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=25mm	100m	0.0202	8,244,258.	166,534.
152	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
153	TT	Connector HDPE D32mmx1"	nos	1.	20,563.	20,563.
154	BB.36601	Installing lace valve, diameter of valve d<=25mm	set	1.	88,876.	88,876.
155	BB.36601	Installing lace valve, diameter of valve d<=25mm	set	1.	88,876.	88,876.
156	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
157	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau Province

Type of Infrastructure:
Province:

Water Supply (Medium size: 137 HHs)
Lai Chau

No	Code	Description	Unit	Quantity	Unit Price VND)	Amount (VND)
158	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	1.	45,538.	45,538.
159	BB.35101	Installing flow meter, specifications <=50mm	set	1.	945,709.	945,709.
160	TT	Lock Box KT(20x20x30)cm	nos	1.	146,223.	146,223.
161	TT	Minh Khai - Copper Lock for Door	nos	1.	48,741.	48,741.
162	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.2578	209,561.	54,024.8
Total						819,486,317
Round Total						819,486,000

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau

Province Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Lai Chau

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
1	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.16	316,898.	1,952,091.7
2	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.23	493,236.	606,680.3
3	AB.11311	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level I	m3	2.05	143,116.	293,387.8
4	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.36	1,573,634.	566,508.2
5	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.24	2,746,611.	8,899,019.6
6	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.58	2,590,929.	1,502,738.8
7	AK.96110	Make filter-bed by sand	100m3	0.03	67,365,097.	2,020,952.9
8	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	62,460,943.	624,609.4
9	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.27	13,580,171.	3,666,646.2
10	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.05	19,286,430.	964,321.5
11	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.06	23,710,744.	1,422,644.6
12	TT	Junction D65	nos	2.	187,653.	375,306.
13	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
14	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.53	316,898.	2,069,343.9
15	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	2.18	143,116.	311,992.9
16	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.07	1,573,634.	110,154.4
17	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	0.15	1,833,953.	275,093.
18	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.36	2,746,611.	988,780.
19	AF.12513	Concrete produced by mixer, cast manually, lintel concrete, lintel closed cornice, water gutters, overhang, stone 1x2, mark 200	m3	0.12	2,630,025.	315,603.
20	AF.81152	Framework for at-spot concrete, timber framework, lintel framework, lintel closed cornice, water gutters, plate	100m2	0.59	14,462,934.	8,533,131.1
21	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.04	13,580,171.	543,206.8
22	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.01	20,625,001.	206,250.
23	BB.36605	Installing lace valve, diameter of valve d=67mm	set	3.	204,019.	612,057.
24	AB.11374	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level IV	m3	34.31	408,900.	14,029,359.
25	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	11.44	143,116.	1,637,247.
26	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	1.56	1,573,634.	2,454,869.
27	AF.11243	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width >250cm, mark 200	m3	3.5	2,048,152.	7,168,532.
28	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	1.48	1,833,953.	2,714,250.4
29	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	7.19	2,746,611.	19,748,133.1
30	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	1.9	2,590,929.	4,922,765.1
31	AK.96110	Make filter-bed by sand	100m3	0.03	67,365,097.	2,020,952.9
32	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	62,460,943.	624,609.4
33	AK.21224	Plaster inside wall, thickness 1.5 cm, cement mortar mark 75	m2	62.	80,875.	5,014,250.
34	AK.21124	Plaster outside wall, thickness 1.5 cm, cement mortar mark 75	m2	40.88	98,484.	4,026,025.9
35	AK.81130	Scan cement water with 2 layers	m2	15.18	11,400.	173,052.
36	AK.81130	Scan cement water with 2 layers	m2	0.07	11,400.	798.
37	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.97	13,580,171.	13,172,765.9
38	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.14	14,017,526.	1,962,453.6
39	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	ton	0.36	19,920,057.	7,171,220.5
40	AF.61621	Produce and install steel reinforced concrete at spot, steel reinforced lintel closed cornice, water gutters, diameter >10 mm, height <=4m	ton	0.53	22,424,723.	11,885,103.2

Table E-32 Typical Cost Estimation for Construction of Rural Infrastructure in Lai Chau

Province Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Lai Chau

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
41	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	0.06	15,243,696.	914,621.8
42	BB.36604	Installing lace valve, diameter of valve d=50mm	set	7.	180,870.	1,266,090.
43	TT	Junction D50	nos	4.	115,150.	460,600.
44	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
45	AB.11512	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level II	m3	88.57	232,562.	20,598,016.3
46	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	259.29	345,010.	89,457,642.9
47	AB.11514	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level IV	m3	84.3	526,459.	44,380,493.7
48	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	432.16	143,116.	61,849,010.6
49	BB.19409	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=89mm	100m	1.22	23,276,281.	28,397,062.8
50	BB.19408	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	4.68	16,421,808.	76,854,061.4
51	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	4.02	11,827,895.	47,548,137.9
52	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	1.45	8,340,176.	12,093,255.2
53	BB.19405	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	5.84	6,311,361.	36,858,348.2
54	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	2.91	4,448,643.	12,945,551.1
55	BB.19402	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=20mm	100m	11.35	3,298,483.	37,437,782.1
56	TT	Angle Connector D90	set	2.	487,853.	975,706.
57	TT	Angle Connector D75	set	3.	264,198.	792,594.
58	TT	Angle Connector D65	set	4.	165,719.	662,876.
59	TT	Angle Connector D50	set	2.	89,174.	178,348.
60	TT	Angle Connector D40	set	5.	139,245.	696,225.
61	TT	Initial Connector D63-40, D40-32, D32-20	set	75.	58,489.	4,386,675.
Total						614,985,822
Round Total						614,986,000

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:	Rural Road
Province:	Son La
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m 1 lane x 1 nos.
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
		Earth works				214,048,841
1	AB.64113	Diking road by concrete vibrator 9 ton, tight requirement K = 0.95	100m3	1.5714	1,493,183	2,346,388
2	AB.65130	Diking by jump-concrete vibrator, tight requirement K = 0.95	100m3	0.0159	4,356,688	69,271
3	AB.31133	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	1.6358	2,696,269	4,410,557
4	AB.11713	Digging the expansion road, soil level III	m3	1.6500	276,056	455,492
5	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	2.6431	3,342,908	8,835,640
6	AB.11714	Digging the expansion road, soil level IV	m3	2.6750	407,635	1,090,424
7	AB.51314	Digging stone canal, road foundation by driller D42mm, stone	100m3	4.3264	11,102,249	48,032,770
8	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3750	719,396	3,147,358
9	AB.51313	Digging stone canal, road foundation by driller D42mm, stone	100m3	1.4685	14,437,816	21,201,933
10	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4875	817,595	1,216,173
13	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	0.2875	3,342,908	961,086
14	AB.11824	Digging road pattern, drainage, fishbone trench, depth <= 30 cm,	m3	0.2875	376,674	108,294
15	AB.51314	Digging stone canal, road foundation by driller D42mm, stone	100m3	0.3089	11,102,249	3,429,485
16	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	0.3125	719,396	224,811
17	AB.51313	Digging stone canal, road foundation by driller D42mm, stone	100m3	0.1040	14,437,816	1,501,533
18	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	0.1000	817,595	81,760
23	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	4.1136	3,342,908	13,751,386
24	AB.11834	Digging road pattern, drainage, fishbone trench, depth > 30 cm,	m3	4.1500	345,716	1,434,721
25	AB.51314	Digging stone canal, road foundation by driller D42mm, stone	100m3	4.3069	11,102,249	47,816,276
26	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3500	719,396	3,129,373
27	AB.51313	Digging stone canal, road foundation by driller D42mm, stone	100m3	1.4391	14,437,816	20,777,461
28	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4500	817,595	1,185,513
30	AB.41124	Transportation soil by self - pouring truck, distance <= 300m, car	100m3	3.4870	1,183,240	4,125,958
31	AB.52121	Moving stone to transportation by excavator <= 1,25m3	100m3	6.0361	2,319,348	13,999,816
32	AB.53121	Transportation soil by self - pouring truck, distance <= 300m, car	100m3	6.0373	1,774,860	10,715,362
		Pavement				1,486,232,089
33	AD.11212	Make stabilized aggregate base course, bottom layer, road	100m3	3.6415	31,757,530	115,645,045
34	AL.16210	Laying isolated oil-paper	100m2	30.4150	912,716	27,760,257
35	AF.82411	Concrete pavement framework	100m2	3.2057	4,158,942	13,332,320
36	AF.15433	Concrete produced by mixer, cast manually, pavement concrete,	m3	486.6400	2,386,503	1,161,367,820
37	AL.24111	Make shrinked slot concrete yard, pavement	m	738.6500	179,332	132,463,582
38	AL.24113	Make vertical slot for concrete yard, pavement	m	25.0000	293,653	7,341,325
39	AL.24112	Make dilative slot concrete yard, pavement	m	60.0000	472,029	28,321,740
		Culvert (D=1.0m)				302,775,879
40	AB.11373	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level	m3	3.5253	281,216	991,371
41	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil	100m3	0.6689	3,239,217	2,166,712
42	AB.51214	Digging stone foundation by driller D42mm, stone level IV	100m3	0.2632	11,655,192	3,067,647
43	AB.65130	Diking by jump-concrete vibrator, tight requirement K = 0.95	100m3	0.3739	4,356,688	1,628,966
44	AA.22121	Dismantling brick stone structure by hammer	m3	32.5223	167,974	5,462,901
45	AB.13411	Embanking foundation with sand	m3	6.5938	951,231	6,272,227
46	AE.12110	Arrange dry stone without pointing, premises	m3	5.9583	971,376	5,787,750
47	AE.12315	Build rubble, build ditch, cement mortar mark 100	m3	98.2721	2,166,353	212,892,059
48	AE.11925	Build rubble, build vertical slope roof, cement mortar mark 100	m3	3.5849	1,839,738	6,595,277
49	AK.21234	Plaster inside wall, thickness 2,0 cm, cement mortar mark 75	m2	0.5958	100,559	59,913
50	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2	24.4290	130,158	3,179,630
51	AL.15112	Make and drop rock gabion, type 2x1x1m on ground	qđ	2.0000	2,584,363	5,168,726
52	AG.13311	Produce, install precast concrete steel reinforced, sewer, buy	đơn	0.5857	23,400,348	13,705,584
53	AG.11513	Produce precast concrete structure, sewer concrete, stone 1x2,	m3	5.5611	2,314,186	12,869,420
54	AG.32211	Produce, install, demount precast concrete framework, metal	100m2	1.0979	10,296,017	11,303,997
55	AG.42141	Install precast concrete components, install precast concrete	cái	16.0000	267,460	4,279,360
56	AK.95121	Scan asphalt to waterproof and sewer joint, sewer diameter	1 ống	12.0000	524,588	6,295,056

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:		Rural Road
Province:		Son La
Specification:	Length	1.0 km
	Width	4.0 m, Grade C
	Sub-base	Stabilized aggregate base course, 10cm thickness
	Pavement	3.0m width, Concrete, 16cm thickness
	Related Structure	Concrete Pipe Culvert D=1.0m 1 lane x 1 nos.
	Drainage	Soil Channel
	Transportation Safety	Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
57	AB.52111	Moving stone to transportation by using excavator <=0,8m3	100m3	0.2632	2,113,452	556,261
58	AB.53111	Moving stone by self-pouring truck 5 tons with distance <=300m	100m3	0.2632	1,873,183	493,022
		Drainage system				23,522,937
59	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil	m3	67.5372	348,296	23,522,937
		Road safety facilities				31,111,069
63	AD.31121	Make column km with concrete	cái	1.0000	696,351	696,351
64	AB.11413	Diging foundation column, cylinder, test pit, wide <= 1 m, depth	m3	4.6800	490,193	2,294,103
65	AG.11112	Produce precast concrete structure, pile, column concrete, stone	m3	2.8900	2,083,600	6,021,604
66	AG.31121	Produce, install, demount precast concrete framework, timber	100m2	0.4338	7,953,746	3,450,335
67	AK.83421	Paint kinds of iron, steel with 2 layers	m2	54.9700	37,855	2,080,889
71	AD.32421	Produce, install reflective signs, rounded signs diameter 70 cm,	cái	2.0000	996,420	1,992,840
72	AD.32322	Produce, install circulation board type square, triangle, rectangle	m2	1.0000	1,480,175	1,480,175
73	AD.32431	Produce, install reflective signs, triangular form with edge 70cm	cái	6.0000	680,566	4,083,396
74	AD.32131	Produce, install head to support name of street board, circulation	cái	9.0000	1,001,264	9,011,376
Total						2,057,690,815
Round Total						2,057,691,000

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Dam and Intake structure				323,259,132.2
		Dam				
1	AB.13211	Embanking canal, density <= 1.45 T/m3	m3	10.	151,524.	1,515,240.
2	BB.19202	Installing PVC plastic pipe form mouth bowl, by gasket method, length of pipe 6 m, diameter of pipe d=150mm	100m	0.3	11,421,321.	3,426,396.3
3	AB.12113	Breaking stone manually, stone layer thickness <= 0.5 m, stone level III	m3	12.98	1,112,742.	14,443,391.2
4	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	3.24	998,615.	3,235,512.6
5	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	23.31	2,323,784.	54,167,405.
6	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	10.31	2,323,784.	23,958,213.
7	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0677	20,780,126.	1,406,814.5
8	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.6365	14,732,109.	9,376,987.4
9	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	7.14	970,101.	6,926,521.1
10	TT	Phai gđ	m2	0.084	6,337,425.	532,343.7
11	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	Tons	0.0144	20,780,126.	299,233.8
12	TT	Anchored Driller D42	m	2.1	1,692,093.	3,553,395.3
13	TT	Cement mortar M250	m3	0.0029	3,168,713.	9,189.3
		Gate				
14	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	3,184,278.	382,113.4
15	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0064	14,732,109.	94,285.5
16	TT	Plate steel with thickness 6mm	kg	0.03	17,745.	532.4
17	TT	Shape steel C80x40x4.5	kg	28.83	17,745.	511,588.4
18	TT	Closed and opened machine V1	set	1.	6,274,051.	6,274,051.
19	TT	Conner Steel CN0 10	kg	38.22	17,745.	678,213.9
20	TT	Pipe steel D32	kg	8.11	25,350.	205,588.5
		First Canal (main intake from Dam)				
21	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	3,184,278.	382,113.4
22	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.01	14,732,109.	147,321.1
23	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.22	3,184,278.	700,541.2
24	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.003	20,862,610.	62,587.8
25	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0087	20,862,610.	181,504.7
26	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.005	20,862,610.	104,313.1
27	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.0144	16,965,082.	244,297.2
28	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	0.036	970,101.	34,923.6
29	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	Items	2.	149,988.	299,976.
		Second Canal, Slope Canal L=22,5m, Span 7,5m				
30	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.93	16,965,082.	15,777,526.3
31	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.818	3,184,278.	18,526,129.4
32	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1884	20,862,610.	3,930,515.7

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
33	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1916	20,862,610.	3,997,276.1
34	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=18 mm, wall height <=4m	Tons	0.1933	20,821,101.	4,024,718.8
35	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.62	970,101.	1,571,563.6
Supporting Slope Canal M1						
36	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.51	329,630.	497,741.3
37	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.06	3,561,909.	213,714.5
38	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.13	513,053.	579,749.9
39	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.05	3,980,536.	199,026.8
40	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	5.66	998,615.	5,652,160.9
41	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	10.87	1,124,059.	12,218,521.3
42	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.34	1,927,581.	655,377.5
43	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,323,784.	278,854.1
44	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	8.16	2,118,299.	17,285,319.8
Supporting Slope Canal M2						
45	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.14	329,630.	375,778.2
46	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.05	3,561,909.	178,095.5
47	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.85	513,053.	436,095.1
48	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.03	3,980,536.	119,416.1
49	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	4.26	3,980,536.	16,957,083.4
50	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	8.4937	1,124,059.	9,547,419.9
51	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.27	1,927,581.	520,446.9
52	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,323,784.	278,854.1
53	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	5.	2,118,299.	10,591,495.
Supporting Slope Canal M3						
54	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.88	329,630.	290,074.4
55	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.04	3,561,909.	142,476.4
56	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.59	513,053.	302,701.3
57	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.02	3,980,536.	79,610.7
58	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	2.3457	1,124,059.	2,636,705.2
59	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.12	1,927,581.	231,309.7
60	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	2,323,784.	278,854.1
61	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	1.77	2,118,299.	3,749,389.2
Overflow Structure						
62	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.05	2,749,881.	137,494.1
63	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	1.14	217,982.	248,499.5
64	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.18	3,561,909.	641,143.6
65	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	4.57	329,630.	1,506,409.1
66	AB.65110	Diking by jump-concrete vibrator , tight requirement K = 0.85	100m3	0.03	3,942,937.	118,288.1
67	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.4208	1,927,581.	811,126.1

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
68	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.171	3,184,278.	10,097,345.5
69	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.1093	14,732,109.	1,610,219.5
70	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1772	20,862,610.	3,696,854.5
71	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	0.495	1,124,059.	556,409.2
72	TT	Wood plate	m3	0.02	6,337,425.	126,748.5
		Third Canal BxH = 0,4x0,6m (L=30m)				
73	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.02	2,749,881.	54,997.6
74	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.49	217,982.	106,811.2
75	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.08	3,561,909.	284,952.7
76	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.97	329,630.	649,371.1
77	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.078	3,942,937.	307,549.1
78	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.9	1,927,581.	1,734,822.9
79	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.52	3,184,278.	17,577,214.6
80	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.0882	20,862,610.	1,840,082.2
81	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.126	20,862,610.	2,628,688.9
82	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.799	14,732,109.	11,770,955.1
83	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.52	970,101.	1,474,553.5
II		Canal BxH: 45x40, L=1000m				1,250,522,965.7
84	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	317.4885	329,630.	104,653,734.3
85	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	56.0345	998,615.	55,956,892.2
86	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	3.3103	3,942,937.	13,052,304.4
87	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	30.	1,927,581.	57,827,430.
88	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	151.0345	3,184,278.	480,935,835.6
89	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	2.3333	20,862,610.	48,678,727.9
90	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	3.5	20,862,610.	73,019,135.
91	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	20.	14,732,109.	294,642,180.
92	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	61.1494	970,101.	59,321,094.1
93	BB.19501	Installing 1-layer twisted tendon plastic pipe HDPE, having thorn connector , length of pipe 5 m, diameter of pipe d=100mm	100m	0.6897	35,327,227.	24,365,188.5
94	AB.11313	Cống hộp BTCT (bxh: 0.45x0.5m): (Số lượng 02 cái)	0	4.896	329,630.	1,613,868.5
95	AB.12114	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.86	998,615.	858,808.9
96	AB.65110	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	0.28	3,942,937.	1,104,022.4
97	AF.81311	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.36	14,732,109.	5,303,559.2
98	AE.12120	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.26	1,124,059.	292,255.3
99	AF.11111	Arrange dry stone without pointing, vertical slope roof	m3	0.48	1,927,581.	925,238.9

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Dien Dien

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
100	AF.11313	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	6.26	2,323,784.	14,546,887.8
101	AF.61311	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.5102	20,862,610.	10,644,103.6
102	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	Tons	0.1336	20,821,101.	2,781,699.1
TOTAL						1,573,782,098.1
ROUND TOTAL						1,573,782,000

Dam construction work	323,259,132.2
Irrigation Canal work	1,250,522,965.7

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
I		Pipe line				
1	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.045	19,372,286.	871,752.9
2	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	2.95	14,802,004.	43,665,911.8
3	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	14.7	11,280,664.	165,825,760.8
4	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	10.93	8,086,923.	88,390,068.4
5	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	15.79	4,296,471.	67,841,277.1
6	BB.36604	Installing lace valve, diameter of valve d=50mm	set	2.	180,359.	360,718.
7	BB.36603	Installing lace valve, diameter of valve d=40mm	set	1.	148,608.	148,608.
8	BB.36201	Installing valve to exhaust gas, diameter of valve d=25mm	set	2.	157,797.	315,594.
9	BB.36604	Installing lace valve, diameter of valve d=50mm	set	6.	180,359.	1,082,154.
10	BB.36603	Installing lace valve, diameter of valve d=40mm	set	4.	148,608.	594,432.
11	BB.36601	Installing lace valve, diameter of valve d<25mm	set	8.	88,613.	708,904.
12	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	3.	51,572.	154,716.
13	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	1.	36,042.	36,042.
14	BB.29404	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=32mm	set	6.	25,691.	154,146.
15	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	10.	51,572.	515,720.
16	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	15.	36,042.	540,630.
17	TT	Connector HDPE D63x2"	set	18.	74,799.	1,346,382.
18	TT	Connector HDPE D50x1-1/2"	set	8.	42,484.	339,872.
19	TT	Connector HDPE D32x1"	set	18.	20,563.	370,134.
20	TT	Step Connector HDPE D63x50	set	3.	97,398.	292,194.
21	TT	Step Connector HDPE D50x32	set	3.	56,156.	168,468.
22	BB.38106	Installing plastic knot connecting sleeve, diameter of knot d=50mm	set	4.	22,306.	89,224.
23	BB.38104	Installing plastic knot connecting sleeve, diameter of knot d=32mm	set	1.	16,491.	16,491.
24	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	8.	36,042.	288,336.
25	TT	Transportation for Pipe lines	ship	1.	1,933,572.	1,933,572.
26	AB.11612	Digging ground set pipe, cable with open talus, soil level II	m3	299.498	362,073.	108,440,139.4
27	AB.13121	Embanking pipe foundation, sewer, tight requirement of K = 0.85	m3	290.93	153,338.	44,610,624.3
II		Pumping station				
28	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	6.0222	1,947,162.	11,726,199.
29	AE.21114	Build brick (6,5x10,5x22), build foundation, thickness <= 33cm, cement mortar mark 75	m3	1.9166	1,800,579.	3,450,989.7
30	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	63.6996	99,672.	6,349,066.5
31	AF.11322	Concrete produced by mixer, cast manually, base concrete, stone 2x4, mark 150	m3	1.357	1,734,797.	2,354,119.5
32	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.008	2,519,541.	20,156.3

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
33	AF.12213	Concrete produced by mixer, cast manually, column concrete, stone 1x2, column section <=0,1m2, height <=4m, mark 200	m3	0.5811	2,804,057.	1,629,437.5
34	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	0.9688	2,204,868.	2,136,076.1
35	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.9295	2,527,845.	2,349,631.9
36	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.2132	1,531,203.	326,452.5
37	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.108	13,466,531.	1,454,385.3
38	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.077	17,045,910.	1,312,535.1
39	AF.81211	Framework for at-spot concrete, timber framework, framework for base, yard, concrete pavement, slope and similar concrete structure	100m2	0.0361	8,358,450.	301,740.
40	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0016	13,107,758.	20,972.4
41	AF.81132	Framework for at-spot concrete, timber framework, square, rectangle column framework	100m2	0.0492	14,623,375.	719,470.1
42	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.0377	20,194,227.	761,322.4
43	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.025	20,622,499.	515,562.5
44	AF.61521	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=18 mm, height <=4m	ton	0.0817	19,560,115.	1,598,061.4
45	AF.61411	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=10 mm, column and post height <=4m	ton	0.0042	20,260,426.	85,093.8
46	AF.61421	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=1 mm, column and post height <=4m	ton	0.0288	19,569,068.	563,589.2
47	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	0.48	1,518,985.	729,112.8
48	TT	Steel Door (U shape 3mm thickness)	nos	1.	2,334,660.	2,334,660.
49	TT	Door bar lock	nos	1.	48,741.	48,741.
50	TT	Minh Khai - Copper lock 10E for Door	nos	1.	407,950.	407,950.
51	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,359.	180,359.
52	TT	Bolt M16-200	nos	4.	12,186.	48,744.
53	AB.13411	Embanking foundation with sand	m3	3.51	775,677.	2,722,626.3
54	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	31.908	161,005.	5,137,347.5
55	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	3.832	143,116.	548,420.5
III		Slow Filtering Tank				
56	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	3.5584	2,032,425.	7,232,181.1
57	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	1.575	2,081,606.	3,278,529.5
58	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.6019	2,527,845.	1,521,509.9
59	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	8.2041	1,947,162.	15,974,711.8
60	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	4.883	1,518,985.	7,417,203.8
61	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.1872	19,283,927.	3,609,951.1

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
62	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.2055	20,869,366.	4,288,654.7
63	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.0712	20,622,499.	1,468,321.9
64	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	41.04	99,672.	4,090,538.9
65	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	28.118	99,672.	2,802,577.3
66	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	10.488	66,386.	696,256.4
67	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.034	8,596,155.	292,269.3
68	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0421	17,045,910.	717,632.8
69	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.123	6,971,925.	857,546.8
70	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	items	30.	142,294.	4,268,820.
71	AK.96110	Make filter-bed by sand	100m3	0.0497	70,208,052.	3,489,340.2
72	AK.96131	Make filter-bed by madacam 1x2	100m3	0.029	48,564,717.	1,408,376.8
73	TT	Net Filter inox D=2mm	m2	16.56	60,927.	1,008,951.1
74	BB.29405	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=40mm	set	2.	31,347.	62,694.
75	BB.36606	Installing lace valve, diameter of valve d=76mm	set	2.	250,754.	501,508.
76	BB.36603	Installing lace valve, diameter of valve d=40mm	set	2.	148,608.	297,216.
77	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.18	11,852,008.	2,133,361.4
78	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.18	22,562,332.	4,061,219.8
79	BB.26108	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=76mm	set	12.	125,798.	1,509,576.
80	BB.38209	Installing knot to plug zinc coated steel pipe, diameter of knot d=89mm	set	2.	180,285.	360,570.
81	BB.38205	Installing knot to plug zinc coated steel pipe, diameter of knot d=40mm	set	12.	60,442.	725,304.
IV		Middle Tank 50m3				
82	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	4.506	2,204,868.	9,935,135.2
83	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	2.229	2,527,845.	5,634,566.5
84	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	9.6477	2,032,425.	19,608,226.7
85	AG.11414	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 250	m3	0.054	2,198,585.	118,723.6
86	AF.12112	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 150	m3	0.22	2,551,337.	561,294.1
87	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.6239	19,283,927.	12,031,242.1
88	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.1801	20,194,227.	3,636,980.3
89	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.1508	20,622,499.	3,109,872.8
90	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0052	20,869,366.	108,520.7

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
91	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.4022	13,466,531.	5,416,238.8
92	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0918	17,045,910.	1,564,814.5
93	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0598	8,596,155.	514,050.1
94	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0023	6,971,925.	16,035.4
95	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0388	13,107,758.	508,581.
96	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	12.	1,947,162.	23,365,944.
97	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	15.3799	1,518,985.	23,361,837.4
98	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.16	99,672.	6,195,611.5
99	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	44.204	99,672.	4,405,901.1
100	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	36.	66,386.	2,389,896.
101	AK.41115	Glaze colorless base, floor, thickness 2,0 cm, cement mortar mark 100	m2	44.4	59,000.	2,619,600.
102	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.05	19,372,286.	968,614.3
103	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.044	11,852,008.	521,488.4
104	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	4.	110,524.	442,096.
105	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	2.	102,166.	204,332.
106	BB.36605	Installing lace valve, diameter of valve d=67mm	set	2.	203,345.	406,690.
107	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	180,359.	180,359.
108	BB.36603	Installing lace valve, diameter of valve d=40mm	set	3.	148,608.	445,824.
109	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
110	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	110,524.	110,524.
111	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	1.	102,166.	102,166.
112	TT	Connector HDPE D63x2-1/2"	nos	2.	74,799.	149,598.
113	TT	Connector HDPE D50x2"	nos	1.	42,484.	42,484.
114	TT	Filter for Pipe D80 dài 40cm	nos	2.	365,558.	731,116.
115	TT	Metal sheet cover for tanks	nos	3.	182,779.	548,337.
116	TT	Hinger	nos	6.	60,927.	365,562.
117	TT	Minh Khai - Copper locks for Door	nos	3.	48,741.	146,223.
118	TT	Project Information Board	nos	1.	609,263.	609,263.
119	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	54.73	161,005.	8,811,803.7
120	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	5.97	143,116.	854,402.5
V		Valve discharge raw waste				
121	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,150,443.	210,313.3
122	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	82,063.	68,932.9
123	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,081,606.	108,035.4
124	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,744,340.	150,885.4

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
125	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	6,971,925.	15,338.2
126	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	8,596,155.	31,805.8
127	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,869,366.	112,694.6
128	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
129	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VI		Air Valves				
130	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,150,443.	210,313.3
131	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	82,063.	68,932.9
132	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,081,606.	108,035.4
133	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,744,340.	150,885.4
134	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	6,971,925.	15,338.2
135	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	8,596,155.	31,805.8
136	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,869,366.	112,694.6
137	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
138	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VII		Flow Regulation Valve Boxes				
139	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	2,150,443.	210,313.3
140	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	82,063.	68,932.9
141	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	2,081,606.	108,035.4
142	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,744,340.	150,885.4
143	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf	100m2	0.0022	6,971,925.	15,338.2
144	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	8,596,155.	31,805.8
145	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter	ton	0.0054	20,869,366.	112,694.6
146	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
147	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VIII		Water Distribution Posts				
148	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.216	1,744,340.	376,777.4
149	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.07	2,519,541.	176,367.9
150	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0202	8,596,155.	173,642.3
151	BB.14301	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=25mm	100m	0.0202	7,857,181.	158,715.1
152	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
153	TT	Connector HDPE D32mmx1"	nos	1.	20,563.	20,563.
154	BB.36601	Installing lace valve, diameter of valve d<=25mm	set	1.	88,613.	88,613.
155	BB.36601	Installing lace valve, diameter of valve d<=25mm	set	1.	88,613.	88,613.

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Cost (VND)	Amount (VND)
156	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
157	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	45,538.	91,076.
158	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	1.	45,538.	45,538.
159	BB.35101	Installing flow meter, specifications <=50mm	set	1.	931,817.	931,817.
160	TT	Lock Box KT(20x20x30)cm	nos	1.	146,223.	146,223.
161	TT	Minh Khai - Copper Lock for Door	nos	1.	48,741.	48,741.
162	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.2578	209,561.	54,024.8
Total						798,949,060
Round Total						798,949,000

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
1	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.16	316,898.	1,952,091.7
2	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.23	493,236.	606,680.3
3	AB.11311	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level I	m3	2.05	143,116.	293,387.8
4	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.36	1,683,710.	606,135.6
5	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.24	2,830,705.	9,171,484.2
6	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.58	2,686,125.	1,557,952.5
7	AK.96110	Make filter-bed by sand	100m3	0.03	80,045,211.	2,401,356.3
8	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	60,016,298.	600,163.
9	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.27	13,201,563.	3,564,422.
10	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.05	19,353,837.	967,691.9
11	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.06	22,562,289.	1,353,737.3
12	TT	Junction D65	nos	2.	187,653.	375,306.
13	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
14	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.53	316,898.	2,069,343.9
15	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	2.18	143,116.	311,992.9
16	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.07	1,683,710.	117,859.7
17	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	0.15	1,932,468.	289,870.2
18	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.36	2,830,705.	1,019,053.8
19	AF.12513	Concrete produced by mixer, cast manually, lintel concrete, lintel closed cornice, water gutters, overhang, stone 1x2, mark 200	m3	0.12	2,725,221.	327,026.5
20	AF.81152	Framework for at-spot concrete, timber framework, lintel framework, lintel closed cornice, water gutters, plate	100m2	0.59	14,021,785.	8,272,853.2
21	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.04	13,201,563.	528,062.5
22	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.01	20,692,408.	206,924.1
23	BB.36605	Installing lace valve, diameter of valve d=67mm	set	3.	203,345.	610,035.
24	AB.11374	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level IV	m3	34.31	408,900.	14,029,359.
25	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	11.44	143,116.	1,637,247.
26	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	1.56	1,683,710.	2,626,587.6
27	AF.11243	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width >250cm, mark 200	m3	3.5	2,151,212.	7,529,242.
28	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	1.48	1,932,468.	2,860,052.6
29	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	7.19	2,830,705.	20,352,769.
30	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	1.9	2,686,125.	5,103,637.5
31	AK.96110	Make filter-bed by sand	100m3	0.03	80,045,211.	2,401,356.3
32	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	60,016,298.	600,163.
33	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.	83,912.	5,202,544.
34	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	40.88	101,522.	4,150,219.4
35	AK.81130	Scan cement water with 2 layers	m2	15.18	11,439.	173,644.
36	AK.81130	Scan cement water with 2 layers	m2	0.07	11,439.	800.7
37	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.97	13,201,563.	12,805,516.1
38	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.14	13,576,376.	1,900,692.6
39	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	ton	0.36	19,987,464.	7,195,487.
40	AF.61621	Produce and install steel reinforced concrete at spot, steel reinforced lintel closed cornice, water gutters, diameter >10 mm, height <=4m	ton	0.53	22,529,453.	11,940,610.1
41	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	0.06	14,802,059.	888,123.5
42	BB.36604	Installing lace valve, diameter of valve d=50mm	set	7.	180,359.	1,262,513.

Table E-33 Typical Cost Estimation for Construction of Rural Infrastructure in Son La Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Son La

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
43	TT	Junction D50	nos	4.	115,150.	460,600.
44	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
45	AB.11512	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level II	m3	88.57	232,562.	20,598,016.3
46	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	259.29	345,010.	89,457,642.9
47	AB.11514	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level IV	m3	84.3	526,459.	44,380,493.7
48	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	432.16	143,116.	61,849,010.6
49	BB.19409	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=89mm	100m	1.22	21,937,445.	26,763,682.9
50	BB.19408	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	4.68	15,558,359.	72,813,120.1
51	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	4.02	11,280,668.	45,348,285.4
52	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	1.45	8,086,917.	11,726,029.7
53	BB.19405	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	5.84	6,133,128.	35,817,467.5
54	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	2.91	4,296,476.	12,502,745.2
55	BB.19402	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=20mm	100m	11.35	3,197,442.	36,290,966.7
56	TT	Angle Connector D90	set	2.	487,853.	975,706.
57	TT	Angle Connector D75	set	3.	264,198.	792,594.
58	TT	Angle Connector D65	set	4.	165,719.	662,876.
59	TT	Angle Connector D50	set	2.	89,174.	178,348.
60	TT	Angle Connector D40	set	5.	139,245.	696,225.
61	TT	Initial Connector D63-40, D40-32, D32-20	set	75.	58,489.	4,386,675.
		TỔNG CỘNG				606,210,298
		LÀM TRÒN				606,210,000

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:	Rural Road
Province:	Hoa Binh
Specification:	Length 1.0 km
	Width 4.0 m, Grade C
	Sub-base Stabilized aggregate base course, 10cm thickness
	Pavement 3.0m width, Concrete, 16cm thickness
	Related Structure Concrete Pipe Culvert D=1.0m 1 lane x 1 nos.
	Drainage Soil Channel
	Transportation Safety Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
		Earth works				227,113,787
1	AB.64113	Diking road by concrete vibrator 9 ton, tight requirement K = 0.95	100m3	1.5714	1,659,378	2,607,547
2	AB.65130	Diking by jump-concrete vibrator, tight requirement K = 0.95	100m3	0.0159	4,733,421	75,261
3	AB.31133	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck, soil level III	100m3	1.6358	2,825,477	4,621,915
4	AB.11713	Digging the expansion road, soil level III	m3	1.6500	265,678	438,369
5	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then pouring onto truck, soil level IV	100m3	2.6431	3,525,733	9,318,865
6	AB.11714	Digging the expansion road, soil level IV	m3	2.6750	392,307	1,049,421
7	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3264	11,619,188	50,269,255
8	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3750	812,717	3,555,637
9	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4685	15,043,822	22,091,853
10	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4875	921,642	1,370,942
13	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	0.2875	3,525,733	1,013,648
14	AB.11824	Digging road pattern, drainage, fishbone trench, depth <= 30 cm, soil level IV	m3	0.2875	362,513	104,222
15	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	0.3089	11,619,188	3,589,167
16	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	0.3125	812,717	253,974
17	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	0.1040	15,043,822	1,564,557
18	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	0.1000	921,642	92,164
23	AB.31134	Digging road by excavator <= 1.25 m3, bulldozer <= 110 CV, then	100m3	4.1136	3,525,733	14,503,455
24	AB.11834	Digging road pattern, drainage, fishbone trench, depth > 30 cm, soil level IV	m3	4.1500	332,717	1,380,776
25	AB.51314	Digging stone canal, road foundation by driller D42mm, stone level IV	100m3	4.3069	11,619,188	50,042,681
26	AB.51614	Digging stone, thickness <= 0.5 m with hammer, stone level IV	m3	4.3500	812,717	3,535,319
27	AB.51313	Digging stone canal, road foundation by driller D42mm, stone level III	100m3	1.4391	15,043,822	21,649,564
28	AB.51613	Digging stone, thickness <= 0.5 m with hammer, stone level III	m3	1.4500	921,642	1,336,381
30	AB.41124	Transportation soil by self - pouring truck, distance <= 300m, car	100m3	3.4870	1,336,242	4,659,476
31	AB.52121	Moving stone to transportation by excavator <= 1.25m3	100m3	6.0361	2,632,229	15,888,397
32	AB.53121	Transportation soil by self - pouring truck, distance <= 300m, car 7T	100m3	6.0373	2,004,363	12,100,941
		Pavement				1,221,625,416
33	AD.11212	Make stabilized aggregate base course, bottom layer, road renewal, thickness 10cm	100m3	3.6415	36,235,863	131,952,895
34	AL.16210	Laying isolated oil-paper	100m2	30.4150	901,273	27,412,218
35	AF.82411	Concrete pavement framework	100m2	3.2057	3,976,576	12,747,710
36	AF.15433	Concrete produced by mixer, cast manually, pavement concrete, stone 2x4, pavement thickness <= 25cm, mark 200, thickness	m3	486.6400	1,820,227	885,795,267
37	AL.24111	Make shrinked slot concrete yard, pavement	m	738.6500	176,540	130,401,271
38	AL.24113	Make vertical slot for concrete yard, pavement	m	25.0000	284,411	7,110,275
39	AL.24112	Make dilative slot concrete yard, pavement	m	60.0000	436,763	26,205,780
		Culvert (D=1.0m)				231,013,584
40	AB.11373	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level III	m3	3.5253	270,644	954,101
41	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.6689	3,353,248	2,242,988
42	AB.51214	Digging stone foundation by driller D42mm, stone level IV	100m3	0.2632	12,224,202	3,217,410

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:	Rural Road	
Province:	Hoa Binh	
Specification:	Length	1.0 km
	Width	4.0 m, Grade C
	Sub-base	Stabilized aggregate base course, 10cm thickness
	Pavement	3.0m width, Concrete, 16cm thickness
	Related Structure	Concrete Pipe Culvert D=1.0m 1 lane x 1 nos.
	Drainage	Soil Channel
	Transportation Safety	Km Signs, Sign Board

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
43	AB.65130	Diking by jump-concretevibrator , tight requirement K = 0.95	100m3	0.3739	4,733,421	1,769,826
44	AA.22121	Dismantling brick stone structure by hammer	m3	32.5223	189,648	6,167,789
45	AB.13411	Embanking foundation with sand	m3	6.5938	383,569	2,529,177
46	AE.12110	Arrange dry stone without pointing, premises	m3	5.9583	625,746	3,728,382
47	AE.12315	Build rubble, build ditch, cement mortar mark 100	m3	98.2721	1,585,744	155,834,393
48	AE.11925	Build rubble, build vertical slope roof, cement mortar mark 100		3.5849	1,298,571	4,655,247
49	AK.21234	Plaster inside wall, thickness 2,0 cm, cement mortar mark 75	m2	0.5958	75,679	45,090
50	AK.21134	Plaster outside wall, thickness 2,0 cm, cement mortar mark 75	m2	24.4290	104,314	2,548,287
51	AL.15112	Make and drop rock gabion, type 2x1x1m on ground	cái	2.0000	1,962,054	3,924,108
52	AG.13311	Produce, install precast concrete steel reinforced, sewer, buy pipe steel reinforced, diameter <=10mm	lần	0.5857	21,965,804	12,865,371
53	AG.11513	Produce precast concrete structure, sewer concrete, stone 1x2, mark 200	m3	5.5611	1,761,172	9,794,054
54	AG.32211	Produce, install, demount precast concrete framework, metal framework, other components framework	100m2	1.0979	10,011,795	10,991,950
55	AG.42141	Install precast concrete components, install precast concrete components manually, weight >250kg	cái	16.0000	254,000	4,064,000
56	AK.95121	Scan asphalt to waterproof and sewer joint, sewer diameter 1,00m		12.0000	373,942	4,487,304
57	AB.52111	Moving stone to transportation by using excavator <=0,8m3	100m3	0.2632	2,388,507	628,655
58	AB.53111	Moving stone by self-pouring truck 5 tons with distance <=300m	100m3	0.2632	2,148,373	565,452
		Drainage system				22,638,537
59	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	67.5372	335,201	22,638,537
		Road safety facilities				25,541,325
63	AD.31121	Make column km with concrete	cái	1.0000	614,413	614,413
64	AB.11413	Diging foundation column, cylinder, test pit, wide <= 1 m, depth <= 1 m, soil level III	m3	4.6800	471,765	2,207,860
65	AG.11112	Produce precast concrete structure, pile, column concrete, stone 1x2, mark 150	m3	2.8900	1,569,205	4,535,002
66	AG.31121	Produce, install, demount precast concrete framework, timber framework, pile, column framework	100m2	0.4338	7,793,541	3,380,838
67	AK.83421	Paint kinds of iron, steel with 2 layers	m2	54.9700	27,419	1,507,222
68	AB.65130	Diking by jump-concretevibrator , tight requirement K = 0.95	100m3		4,733,421	
69	AG.42111	Install precast concrete components, install precast concrete components manually, weight <=50kg	cái		46,174	
70	AG.42121	Install precast concrete components, install precast concrete components manually, weight <=100kg	cái		76,957	
71	AD.32421	Produce, install reflective signs, rounded signs diameter 70 cm, octagonal form with edge 25cm	cái	2.0000	920,724	1,841,448
72	AD.32322	Produce, install circulation board type square, triangle, rectangle	m2	1.0000	1,022,771	1,022,771
73	AD.32431	Produce, install reflective signs, triangular form with edge 70cm	cái	6.0000	626,770	3,760,620
74	AD.32131	Produce, install head to support name of street board, circulation board, type of head is tubular iron diameter 80mm	cái	9.0000	741,239	6,671,151
Total						1,727,932,649
Round Total						1,727,933,000

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Dam and Intake structure				266,831,021.2
		Dam				
1	AB.13211	Embanking canal, density <= 1.45 T/m3	m3	10.	146,365.	1,463,650.
2	BB.19202	Installing PVC plastic pipe form mouth bowl, by gasket method, length of pipe 6 m, diameter of pipe d=150mm	100m	0.3	13,242,484.	3,972,745.2
3	AB.12113	Breaking stone manually, stone layer thickness <= 0.5 m, stone level III	m3	12.98	1,074,854.	13,951,604.9
4	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	3.24	964,612.	3,125,342.9
5	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	23.31	1,736,026.	40,466,766.1
6	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	10.31	1,736,026.	17,898,428.1
7	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	tấn	0.0677	19,372,590.	1,311,524.3
8	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.6365	15,243,769.	9,702,659.
9	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	7.14	278,159.	1,986,055.3
10	TT	Phai gỗ	0	0.084	6,121,638.	514,217.6
11	AF.61721	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter >10 mm	tấn	0.0144	19,372,590.	278,965.3
12	TT	Anchored Driller D42	0	2.1	1,634,477.	3,432,401.7
13	TT	Cement mortar M250	0	0.0029	3,060,819.	8,876.4
		Gate				
14	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,598,652.	311,838.2
15	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0064	15,243,769.	97,560.1
16	TT	Plate steel with thickness 6mm	kg	0.03	17,140.	514.2
17	TT	Shape steel C80x40x4,5	kg	28.83	17,140.	494,146.2
18	TT	Closed and opened machine V1	bộ	1.	6,060,421.	6,060,421.
19	TT	Conner Steel CNO 10	kg	38.22	17,140.	655,090.8
20	TT	Pipe steel D32	kg	8.11	24,487.	198,589.6
		First Canal (main intake from Dam)				
21	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.12	2,598,652.	311,838.2
22	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.01	15,243,769.	152,437.7
23	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.22	2,598,652.	571,703.4
24	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.003	19,012,891.	57,038.7
25	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.0087	19,012,891.	165,412.2
26	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.005	19,012,891.	95,064.5
27	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.0144	17,303,198.	249,166.1
28	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	0.036	278,159.	10,013.7
29	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	cái	2.	140,936.	281,872.
		Second Canal, Slope Canal L=22,5m, Span 7,5m				
30	AF.81312	Framework for at-spot concrete, timber framework, vertical wall framework, thickness > 45cm	100m2	0.93	17,303,198.	16,091,974.1
31	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.818	2,598,652.	15,118,957.3
32	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.1884	19,012,891.	3,582,028.7
33	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.1916	19,012,891.	3,642,869.9

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
34	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=18 mm, wall height <=4m	tấn	0.1933	18,637,893.	3,602,704.7
35	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.62	278,159.	450,617.6
V						
Supporting Slope Canal M1						
36	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.51	318,407.	480,794.6
37	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.06	3,440,975.	206,458.5
38	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.13	495,584.	560,009.9
39	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.05	3,845,403.	192,270.2
40	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	5.66	964,612.	5,459,703.9
41	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	10.87	795,494.	8,647,019.8
42	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.34	1,428,631.	485,734.5
43	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,736,026.	208,323.1
44	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	8.16	1,462,083.	11,930,597.3
Supporting Slope Canal M2						
45	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.14	318,407.	362,984.
46	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.05	3,440,975.	172,048.8
47	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.85	495,584.	421,246.4
48	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.03	3,845,403.	115,362.1
49	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	4.26	3,845,403.	16,381,416.8
50	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	8.4937	795,494.	6,756,687.4
51	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.27	1,428,631.	385,730.4
52	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,736,026.	208,323.1
53	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	5.	1,462,083.	7,310,415.
Supporting Slope Canal M3						
54	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.88	318,407.	280,198.2
55	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.04	3,440,975.	137,639.
56	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	0.59	495,584.	292,394.6
57	AB.25114	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level IV	100m3	0.02	3,845,403.	76,908.1
58	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	2.3457	795,494.	1,865,990.3
59	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.12	1,428,631.	171,435.7
60	AF.11313	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	m3	0.12	1,736,026.	208,323.1
61	AE.11215	Build rubble, build vertical wall, thickness <=60 cm, height <=2m, cement mortar mark 100	m3	1.77	1,462,083.	2,587,886.9
Overflow Structure						
62	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.05	2,656,496.	132,824.8
63	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	1.14	210,559.	240,037.3
64	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.18	3,440,975.	619,375.5
65	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	4.57	318,407.	1,455,120.
66	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.03	3,754,049.	112,621.5
67	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.4208	1,428,631.	601,167.9
68	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.171	2,598,652.	8,240,325.5
69	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.1093	15,243,769.	1,666,144.

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Irrigation (Dam and Canal)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
70	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.1772	19,012,891.	3,369,084.3
71	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	0.495	795,494.	393,769.5
72	TT	Wood plate	m3	0.02	6,121,638.	122,432.8
Third Canal BxH = 0,4x0,6m (L=30m)						
73	AB.25112	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level II	100m3	0.02	2,656,496.	53,129.9
74	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.49	210,559.	103,173.9
75	AB.25113	Digging foundation, wide <= 6 m, using excavator <= 0.8 m3, soil level III	100m3	0.08	3,440,975.	275,278.
76	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	1.97	318,407.	627,261.8
77	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	0.078	3,754,049.	292,815.8
78	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.9	1,428,631.	1,285,767.9
79	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	5.52	2,598,652.	14,344,559.
80	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.0882	19,012,891.	1,676,937.
81	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.126	19,012,891.	2,395,624.3
82	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.799	15,243,769.	12,179,771.4
83	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	1.52	278,159.	422,801.7
II	Canal BxH: 45x40, L=1000m					1,075,731,989.4
84	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	317.4885	318,407.	101,090,560.8
85	AB.12114	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	m3	56.0345	964,612.	54,051,551.1
86	AB.65110	Diking by jump-concretevibrator , tight requirement K = 0.85	100m3	3.3103	3,754,049.	12,427,028.4
87	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	30.	1,428,631.	42,858,930.
88	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	151.0345	2,598,652.	392,486,105.5
89	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	2.3333	19,012,891.	44,362,778.6
90	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	3.5	19,012,891.	66,545,118.5
91	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	20.	15,243,769.	304,875,380.
92	AK.94241	Scan asphalt bitumen and paste oiled paper, 3-layer sacks, scan 4-layer asphalt	m2	61.1494	278,159.	17,009,256.
93	BB.19501	Installing 1-layer twisted tendon plastic pipe HDPE, having thorn connector , length of pipe 5 m, diameter of pipe d=100mm	100m	0.6897	10,363,070.	7,147,409.4
94	AB.11313	Cống hộp BTCT (bxh: 0.45x05m): (Số lượng 02 cái)	m3	4.896	318,407.	1,558,920.7
95	AB.12114	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	0.86	964,612.	829,566.3
96	AB.65110	Breaking stone manually, stone layer thickness <= 0.5 m, stone level IV	100m3	0.28	3,754,049.	1,051,133.7
97	AF.81311	Diking by jump-concretevibrator , tight requirement K = 0.85	100m2	0.36	15,243,769.	5,487,756.8
98	AE.12120	Arrange dry stone without pointing, vertical slope roof	m3	0.26	795,494.	206,828.4
99	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.48	1,428,631.	685,742.9
100	AF.11313	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	6.26	1,736,026.	10,867,522.8
101	AF.61311	Concrete produced by mixer, cast manually, base concrete, stone 1x2, mark 200	tấn	0.5102	19,012,891.	9,700,377.
102	AF.61321	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	tấn	0.1336	18,637,893.	2,490,022.5
TỔNG CỘNG						1,342,563,010.4

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:
Province:

Irrigation (Dam and Canal)
Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
LÀM TRÒN						1,342,563,000

Dam construction work	266,831,021.2
Irrigation Canal work	1,075,731,989.4

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
I		Pipe line				
1	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.045	19,335,730.	870,107.9
2	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	2.95	14,574,229.	42,993,975.6
3	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	14.7	11,225,258.	165,011,292.6
4	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	10.93	7,950,010.	86,893,609.3
5	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	15.79	4,276,141.	67,520,266.4
6	BB.36604	Installing lace valve, diameter of valve d=50mm	set	2.	831,626.	1,663,252.
7	BB.36603	Installing lace valve, diameter of valve d=40mm	set	1.	657,195.	657,195.
8	BB.36201	Installing valve to exhaust gas, diameter of valve d=25mm	set	2.	4,677,100.	9,354,200.
9	BB.36604	Installing lace valve, diameter of valve d=50mm	set	6.	831,626.	4,989,756.
10	BB.36603	Installing lace valve, diameter of valve d=40mm	set	4.	657,195.	2,628,780.
11	BB.36601	Installing lace valve, diameter of valve d<25mm	set	8.	297,264.	2,378,112.
12	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	3.	166,432.	499,296.
13	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	1.	111,814.	111,814.
14	BB.29404	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=32mm	set	6.	56,582.	339,492.
15	BB.29407	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=67mm	set	10.	166,432.	1,664,320.
16	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	15.	111,814.	1,677,210.
17	TT	Connector HDPE D63x2"	set	18.	74,799.	1,346,382.
18	TT	Connector HDPE D50x1-1/2"	set	8.	42,484.	339,872.
19	TT	Connector HDPE D32x1"	set	18.	20,563.	370,134.
20	TT	Step Connector HDPE D63x50	set	3.	97,398.	292,194.
21	TT	Step Connector HDPE D50x32	set	3.	56,156.	168,468.
22	BB.38106	Installing plastic knot connecting sleeve, diameter of knot d=50mm	set	4.	73,676.	294,704.
23	BB.38104	Installing plastic knot connecting sleeve, diameter of knot d=32mm	set	1.	31,145.	31,145.
24	BB.29406	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=50mm	set	8.	111,814.	894,512.
25	TT	Transportation for Pipe lines	ship	1.	1,933,572.	1,933,572.
26	AB.11612	Digging ground set pipe, cable with open talus, soil level II	m3	299.498	362,073.	108,440,139.4
27	AB.13121	Embanking pipe foundation, sewer, tight requirement of K = 0.85	m3	290.93	153,338.	44,610,624.3
II		Pumping station				
28	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	6.0222	1,641,629.	9,886,218.2
29	AE.21114	Build brick (6,5x10,5x22), build foundation, thickness <= 33cm, cement mortar mark 75	m3	1.9166	1,509,596.	2,893,291.7
30	AK.21124	Plaster outside wall, thickness 1.5 cm, cement mortar mark 75	m2	63.6996	91,631.	5,836,858.
31	AF.11322	Concrete produced by mixer, cast manually, base concrete, stone 2x4, mark 150	m3	1.357	1,444,873.	1,960,692.7
32	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.008	2,298,662.	18,389.3
33	AF.12213	Concrete produced by mixer, cast manually, column concrete, stone 1x2, column section <=0.1m2, height <=4m, mark 200	m3	0.5811	2,520,054.	1,464,403.4
34	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	0.9688	1,892,380.	1,833,337.7
35	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.9295	2,215,356.	2,059,173.4
36	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.2132	1,267,974.	270,332.1
37	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.108	15,776,900.	1,703,905.2
38	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.077	19,893,451.	1,531,795.7
39	AF.81211	Framework for at-spot concrete, timber framework, framework for base, yard, concrete pavement, slope and similar concrete structure	100m2	0.0361	10,284,330.	371,264.3

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
40	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0016	15,082,617.	24,132.2
41	AF.81132	Framework for at-spot concrete, timber framework, square, rectangle column framework	100m2	0.0492	16,745,330.	823,870.2
42	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.0377	19,013,288.	716,801.
43	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.025	19,441,560.	486,039.
44	AF.61521	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=18 mm, height <=4m	ton	0.0817	18,099,304.	1,478,713.1
45	AF.61411	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=10 mm, column and post height <=4m	ton	0.0042	19,079,487.	80,133.8
46	AF.61421	Produce and install steel reinforced concrete at spot, steel reinforced column, post, diameter <=1 mm, column and post height <=4m	ton	0.0288	18,108,539.	521,525.9
47	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	0.48	1,252,666.	601,279.7
48	TT	Steel Door (U shape 3mm thickness)	nos	1.	2,334,660.	2,334,660.
49	TT	Door bar lock	nos	1.	48,741.	48,741.
50	TT	Minh Khai - Copper lock 10E for Door	nos	1.	407,950.	407,950.
51	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	831,626.	831,626.
52	TT	Bolt M16-200	nos	4.	12,186.	48,744.
53	AB.13411	Embanking foundation with sand	m3	3.51	351,965.	1,235,397.2
54	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	31.908	161,005.	5,137,347.5
55	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	3.832	143,116.	548,420.5
II		Slow Filtering Tank				
56	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	3.5584	1,740,246.	6,192,491.4
57	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	1.575	1,773,698.	2,793,574.4
58	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.6019	2,215,356.	1,333,422.8
59	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	8.2041	1,641,629.	13,468,088.5
60	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	4.883	1,252,666.	6,116,768.1
61	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.1872	18,102,988.	3,388,879.4
62	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	ton	0.2055	19,590,458.	4,025,839.1
63	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.0712	19,441,560.	1,384,239.1
64	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	41.04	91,631.	3,760,536.2
65	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	28.118	91,631.	2,576,480.5
66	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	10.488	58,510.	613,652.9
67	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.034	10,568,317.	359,322.8
68	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0421	19,893,451.	837,514.3
69	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.123	7,154,056.	879,948.9
70	AG.42131	Install precast concrete components, install precast concrete components manually, weight <=250kg	items	30.	141,229.	4,236,870.
71	AK.96110	Make filter-bed by sand	100m3	0.0497	29,653,371.	1,473,772.5
72	AK.96131	Make filter-bed by madacam 1x2	100m3	0.029	34,439,627.	998,749.2
73	TT	Net Filter inox D=2mm	m2	16.56	60,927.	1,008,951.1
74	BB.29405	Installing plastic cudgel connected by sleeve method, diameter of cudgel d=40mm	set	2.	84,734.	169,468.
75	BB.36606	Installing lace valve, diameter of valve d=76mm	set	2.	1,855,765.	3,711,530.
76	BB.36603	Installing lace valve, diameter of valve d=40mm	set	2.	657,195.	1,314,390.
77	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.18	11,681,561.	2,102,681.

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
78	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.18	22,602,256.	4,068,406.1
79	BB.26108	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=76mm	set	12.	159,548.	1,914,576.
80	BB.38209	Installing knot to plug zinc coated steel pipe, diameter of knot d=89mm	set	2.	275,512.	551,024.
81	BB.38205	Installing knot to plug zinc coated steel pipe, diameter of knot d=40mm	set	12.	81,582.	978,984.
IV		Middle Tank 50m3				
82	AF.12413	Concrete produced by mixer, cast manually, camp ceiling concrete, stone 1x2, mark 200	m3	4.506	1,892,380.	8,527,064.3
83	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	2.229	2,215,356.	4,938,028.5
84	AF.11223	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width >250cm, mark 200	m3	9.6477	1,740,246.	16,789,371.3
85	AG.11414	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 250	m3	0.054	1,871,742.	101,074.1
86	AF.12112	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 150	m3	0.22	2,325,022.	511,504.8
87	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.6239	18,102,988.	11,294,454.2
88	AF.61711	Produce and install steel reinforced concrete at spot, steel reinforced camp ceiling, height <=16m, diameter <=10 mm	ton	0.1801	19,013,288.	3,424,293.2
89	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.1508	19,441,560.	2,931,787.2
90	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	ton	0.0052	19,590,458.	101,870.4
91	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.4022	15,776,900.	6,345,469.2
92	AF.81141	Framework for at-spot concrete, timber framework, beam, tie framework	100m2	0.0918	19,893,451.	1,826,218.8
93	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0598	10,568,317.	631,985.4
94	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0023	7,154,056.	16,454.3
95	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.0388	15,082,617.	585,205.5
96	AE.22214	Build brick (6,5x10,5x22), build vertical wall, thickness <= 33cm, height <=4m, cement mortar mark 75	m3	12.	1,641,629.	19,699,548.
97	AE.11114	Build rubble, build foundation, thickness <=60 cm, cement mortar mark 75	m3	15.3799	1,252,666.	19,265,877.8
98	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.16	91,631.	5,695,783.
99	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	44.204	91,631.	4,050,456.7
100	AK.41215	Glaze colored base, floor, thickness 2,0 cm, cement mortar mark 100	m2	36.	58,510.	2,106,360.
101	AK.41115	Glaze colorless base, floor, thickness 2,0 cm, cement mortar mark 100	m2	44.4	51,237.	2,274,922.8
102	BB.14305	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	0.05	19,335,730.	966,786.5
103	BB.14303	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	0.044	11,681,561.	513,988.7
104	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	4.	128,978.	515,912.
105	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	2.	98,409.	196,818.
106	BB.36605	Installing lace valve, diameter of valve d=67mm	set	2.	1,696,441.	3,392,882.
107	BB.36604	Installing lace valve, diameter of valve d=50mm	set	1.	831,626.	831,626.
108	BB.36603	Installing lace valve, diameter of valve d=40mm	set	3.	657,195.	1,971,585.
109	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	128,978.	128,978.
110	BB.26107	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=67mm	set	1.	128,978.	128,978.
111	BB.26106	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=50mm	set	1.	98,409.	98,409.
112	TT	Connector HDPE D63x2-1/2"	nos	2.	74,799.	149,598.

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
113	TT	Connector HDPE D50x2"	nos	1.	42,484.	42,484.
114	TT	Filter for Pipe D80 dài 40cm	nos	2.	365,558.	731,116.
115	TT	Metal sheet cover for tanks	nos	3.	182,779.	548,337.
116	TT	Hinger	nos	6.	60,927.	365,562.
117	TT	Minh Khai - Copper locks for Door	nos	3.	48,741.	146,223.
118	TT	Project Information Board	nos	1.	609,263.	609,263.
119	AB.11352	Digging foundation buttress, wide > 3 m, depth <= 1 m, soil level II	m3	54.73	161,005.	8,811,803.7
120	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	5.97	143,116.	854,402.5
V		Valve discharge raw waste				
121	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	1,995,274.	195,137.8
122	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	74,022.	62,178.5
123	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	1,773,698.	92,054.9
124	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,455,824.	125,928.8
125	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0022	7,154,056.	15,738.9
126	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	10,568,317.	39,102.8
127	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	ton	0.0054	19,590,458.	105,788.5
128	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
129	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VI		Air Valves				
130	AE.22117	Xây gạch chỉ đặc 6,5x10,5x22, xây tường thẳng, chiều dày <=11 cm, cao <=4 m, vữa TH mác 75	m3	0.0978	1,995,274.	195,137.8
131	AK.21224	Trát tường trong, dày 1,5 cm, vữa XM mác 75	m2	0.84	74,022.	62,178.5
132	AG.11413	Sản xuất cấu kiện bê tông đúc sẵn, bê tông tấm đan, mái hắt, lanh tô, đá 1x2, mác 200	m3	0.0519	1,773,698.	92,054.9
133	AF.11232	Bê tông sản xuất bằng máy trộn - đổ bằng thủ công, bê tông móng, đá 2x4 chiều rộng <=250 cm, mác 150	m3	0.0865	1,455,824.	125,928.8
134	AG.31311	Sản xuất, lắp dựng, tháo dỡ ván khuôn bê tông đúc sẵn, ván khuôn gỗ, ván khuôn nắp đan, tấm chóp	100m2	0.0022	7,154,056.	15,738.9
135	AF.81111	Ván khuôn cho bê tông đổ tại chỗ, ván khuôn gỗ, ván khuôn móng dài, bê máy	100m2	0.0037	10,568,317.	39,102.8
136	AG.13221	Sản xuất, lắp đặt cốt thép bê tông đúc sẵn, cốt thép tấm đan, hàng rào, cửa sổ, lá chóp, nan hoa con sơn	ton	0.0054	19,590,458.	105,788.5
137	AB.11312	Đào móng băng, rộng <=3 m, sâu <=1 m, đất cấp II	m3	0.484	209,561.	101,427.5
138	AB.13111	Đắp đất nền móng công trình, độ chặt yêu cầu K=0.85	m3	0.242	143,116.	34,634.1
VII		Flow Regulation Valve Boxes				
139	AE.22117	Build brick (6,5x10,5x22), build vertical wall, thickness <=11 cm, height <=4m, TH mortar mark 75	m3	0.0978	1,995,274.	195,137.8
140	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	0.84	74,022.	62,178.5
141	AG.11413	Produce precast concrete structure, plate, eaves, lintel concrete, stone 1x2, mark 200	m3	0.0519	1,773,698.	92,054.9
142	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.0865	1,455,824.	125,928.8
143	AG.31311	Produce, install, demount precast concrete framework, timber framework, plate cover and leaf framework	100m2	0.0022	7,154,056.	15,738.9
144	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0037	10,568,317.	39,102.8
145	AG.13221	Produce, install precast concrete steel reinforced, plate, barriers, window, draft excluder, overhanging beam steel reinforced, diameter >10mm	ton	0.0054	19,590,458.	105,788.5
146	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.484	209,561.	101,427.5
147	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	0.242	143,116.	34,634.1
VIII		Water Distribution Posts				

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (Medium size: 137 HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
148	AF.11232	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width <=250cm, mark 150	m3	0.216	1,455,824.	314,458.
149	AF.12152	Concrete produced by mixer, cast manually, straight wall concrete, stone 2x4, thickness <=45cm, height <=4m, mark 150	m3	0.07	2,298,662.	160,906.3
150	AF.81111	Framework for at-spot concrete, timber framework, long foundation framework, machine foundation	100m2	0.0202	10,568,317.	213,480.
151	BB.14301	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=25mm	100m	0.0202	7,922,023.	160,024.9
152	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	51,442.	102,884.
153	TT	Connector HDPE D32mmx1"	set	1.	20,563.	20,563.
154	BB.36601	Installing lace valve, diameter of valve d=<25mm	set	1.	297,264.	297,264.
155	BB.36601	Installing lace valve, diameter of valve d=<25mm	set	1.	297,264.	297,264.
156	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	51,442.	102,884.
157	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	2.	51,442.	102,884.
158	BB.26103	Installing zinc coated cudgel by sleeve method, diameter of cudgel d=25mm	set	1.	51,442.	51,442.
159	BB.35101	Installing flow meter, specifications <=50mm	set	1.	963,050.	963,050.
160	TT	Lock Box KT(20x20x30)cm	nos	1.	146,223.	146,223.
161	TT	Minh Khai - Copper Lock for Door	nos	1.	48,741.	48,741.
162	AB.11312	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level II	m3	0.2578	209,561.	54,024.8
Total						800,864,179
Round Total						800,864,000

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

Province:

Hoa Binh

No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
1	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.16	316,898.	1,952,091.7
2	AB.11314	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level IV	m3	1.23	493,236.	606,680.3
3	AB.11311	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level I	m3	2.05	143,116.	293,387.8
4	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.36	1,267,974.	456,470.6
5	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	3.24	2,422,316.	7,848,303.8
6	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	0.58	2,215,356.	1,284,906.5
7	AK.96110	Make filter-bed by sand	100m3	0.03	29,653,371.	889,601.1
8	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	34,439,627.	344,396.3
9	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.27	15,082,617.	4,072,306.6
10	AF.61110	Produce and install steel reinforced concrete at spot, steel reinforced foundation, diameter <= 10 mm	ton	0.05	18,102,988.	905,149.4
11	BB.14306	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	0.06	22,602,262.	1,356,135.7
12	TT	Junction D65	nos	2.	187,653.	375,306.
13	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
14	AB.11313	Digging foundation buttress, wide <= 3 m, depth <= 1 m, soil level III	m3	6.53	316,898.	2,069,343.9
15	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	2.18	143,116.	311,992.9
16	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	0.07	1,267,974.	88,758.2
17	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	0.15	1,481,926.	222,288.9
18	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	0.36	2,422,316.	872,033.8
19	AF.12513	Concrete produced by mixer, cast manually, lintel concrete, lintel closed cornice, water gutters, overhang, stone 1x2, mark 200	m3	0.12	2,254,452.	270,534.2
20	AF.81152	Framework for at-spot concrete, timber framework, lintel framework, lintel closed cornice, water gutters, plate	100m2	0.59	16,222,308.	9,571,161.7
21	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.04	15,082,617.	603,304.7
22	AF.61511	Produce and install steel reinforced concrete at spot, steel reinforced beam, tie, diameter <=10 mm, height <=4m	ton	0.01	19,441,560.	194,415.6
23	BB.36605	Installing lace valve, diameter of valve d=67mm	set	3.	1,696,441.	5,089,323.
24	AB.11374	Digging foundation buttress, wide > 3 m, depth <= 3 m, soil level IV	m3	34.31	408,900.	14,029,359.
25	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	11.44	143,116.	1,637,247.
26	AF.11111	Concrete produced by mixer, cast manually, concrete lined foundation, stone 4x6, width <=250cm, mark 100	m3	1.56	1,267,974.	1,978,039.4
27	AF.11243	Concrete produced by mixer, cast manually, foundation concrete, stone 2x4, width >250cm, mark 200	m3	3.5	1,707,361.	5,975,763.5
28	AF.11212	Concrete produced by mixer, cast manually, foundation concrete, stone 1x2, width <=250cm, mark 150	m3	1.48	1,481,926.	2,193,250.5
29	AF.12113	Concrete produced by mixer, cast manually, straight wall concrete, stone 1x2, thickness <=45cm, height <=4m, mark 200	m3	7.19	2,422,316.	17,416,452.
30	AF.12313	Concrete produced by mixer, cast manually, beam concrete, house tie, stone 1x2, mark 200	m3	1.9	2,215,356.	4,209,176.4
31	AK.96110	Make filter-bed by sand	100m3	0.03	29,653,371.	889,601.1
32	AK.96132	Make filter-bed by madacam 2x4	100m3	0.01	34,439,627.	344,396.3
33	AK.21224	Plaster inside wall, thickness 1,5 cm, cement mortar mark 75	m2	62.	74,022.	4,589,364.
34	AK.21124	Plaster outside wall, thickness 1,5 cm, cement mortar mark 75	m2	40.88	91,631.	3,745,875.3
35	AK.81130	Scan cement water with 2 layers	m2	15.18	10,893.	165,355.7
36	AK.81130	Scan cement water with 2 layers	m2	0.07	10,893.	762.5
37	AF.81311	Framework for at-spot concrete, timber framework, verticle wall framework, thickness <= 45cm	100m2	0.97	15,082,617.	14,630,138.5
38	AF.81151	Framework for at-spot concrete, timber framework, floor, roof framework	100m2	0.14	15,776,900.	2,208,766.
39	AF.61311	Produce and install steel reinforced concrete at spot, steel reinforced wall, diameter <=10 mm, wall height <=4m	ton	0.36	18,736,616.	6,745,181.8
40	AF.61621	Produce and install steel reinforced concrete at spot, steel reinforced lintel closed cornice, water gutters, diameter >10 mm, height <=4m	ton	0.53	20,997,671.	11,128,765.6
41	BB.14304	Installing zinc coated steel pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	0.06	14,574,194.	874,451.6
42	BB.36604	Installing lace valve, diameter of valve d=50mm	set	7.	831,626.	5,821,382.

Table E-34 Typical Cost Estimation for Construction of Rural Infrastructure in Hoa Binh Province

Type of Infrastructure:

Water Supply (small-scale: 75HHs)

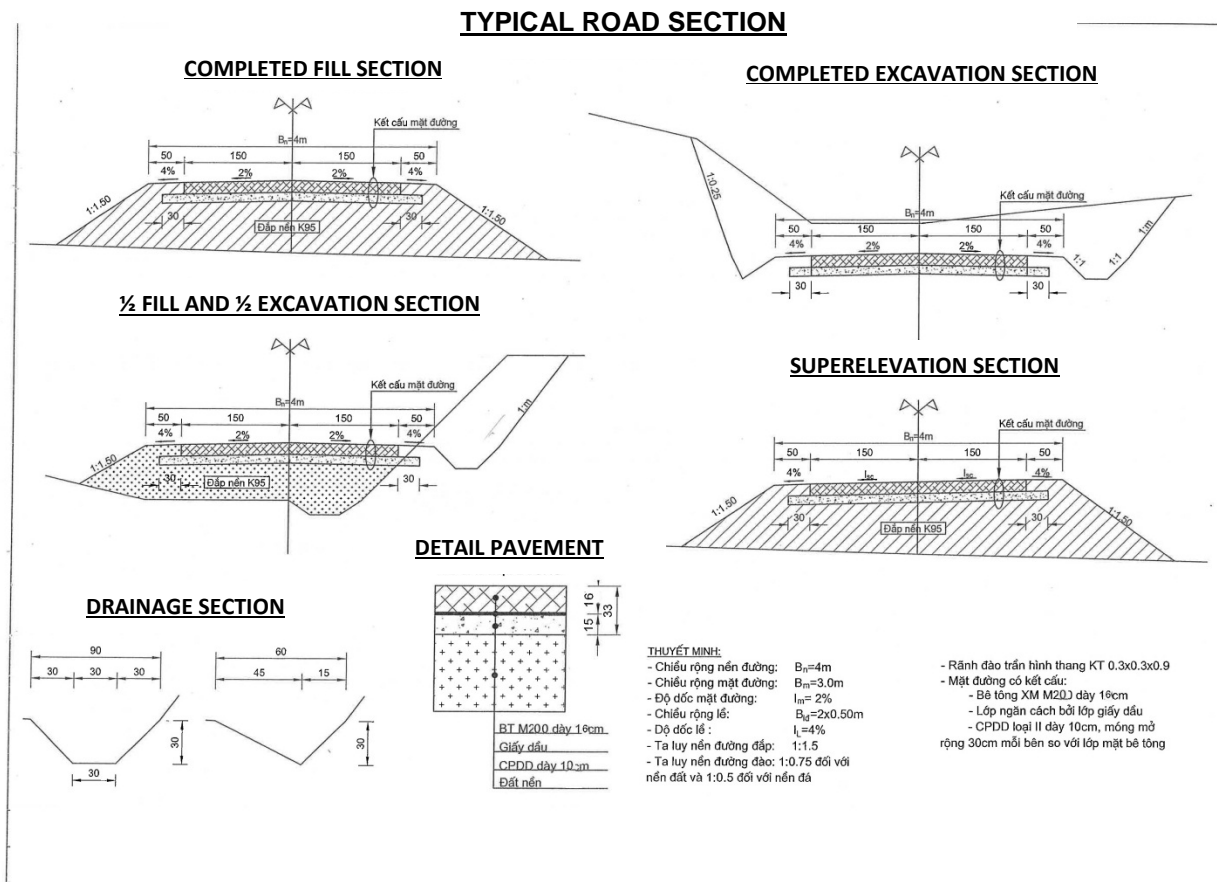
Province:

Hoa Binh

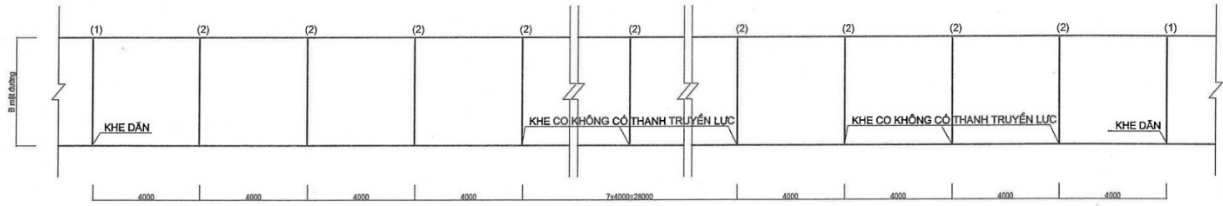
No	Code	Description	Unit	Quantity	Unit Price (VND)	Amount (VND)
43	TT	Junction D50	nos	4.	115,150.	460,600.
44	TT	Installing Core Filter D100	nos	1.	322,909.	322,909.
45	AB.11512	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level II	m3	88.57	232,562.	20,598,016.3
46	AB.11513	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level III	m3	259.29	345,010.	89,457,642.9
47	AB.11514	Digging canal, drainage ditch, wide <= 3 m, depth <= 1 m, soil level IV	m3	84.3	526,459.	44,380,493.7
48	AB.13111	Embanking foundation, tight requirement of K = 0.85	m3	432.16	143,116.	61,849,010.6
49	BB.19409	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=89mm	100m	1.22	22,012,308.	26,855,015.8
50	BB.19408	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=76mm	100m	4.68	15,578,770.	72,908,643.6
51	BB.19407	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=67mm	100m	4.02	11,232,898.	45,156,250.
52	BB.19406	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=50mm	100m	1.45	7,956,377.	11,536,746.7
53	BB.19405	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=40mm	100m	5.84	6,054,478.	35,358,151.5
54	BB.19404	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=32mm	100m	2.91	4,280,945.	12,457,550.
55	BB.19402	Installing plastic pipe connected by sleeve method, length of pipe 8 m, diameter of pipe d=20mm	100m	11.35	3,214,363.	36,483,020.1
56	TT	Angle Connector D90	set	2.	487,853.	975,706.
57	TT	Angle Connector D75	set	3.	264,198.	792,594.
58	TT	Angle Connector D65	set	4.	165,719.	662,876.
59	TT	Angle Connector D50	set	2.	89,174.	178,348.
60	TT	Angle Connector D40	set	5.	139,245.	696,225.
61	TT	Initial Connector D63-40, D40-32, D32-20	set	75.	58,489.	4,386,675.
		Total				604,100,604
		Round Total				604,101,000

Figures

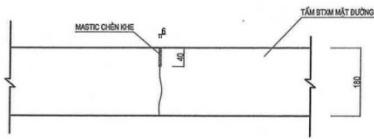
Figure E-1 Typical drawing of the small-scale rural infrastructure: Rural road



THERMAL EXPANSION AND SHRINK SLIT LAYOUT PLAN



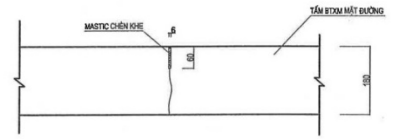
DETAIL SHRINK SLIT



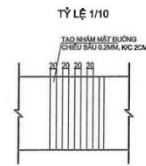
DETAIL EXPANSION SLIT



DETAIL HORIZONTAL SLIT

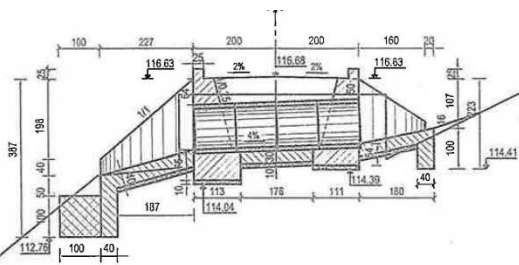


DETAIL ROUGH SURFACE

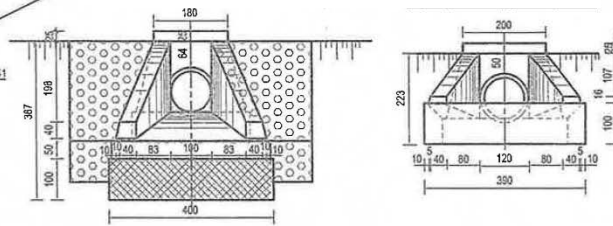


DETAIL TYPICAL CULVERT, D 100

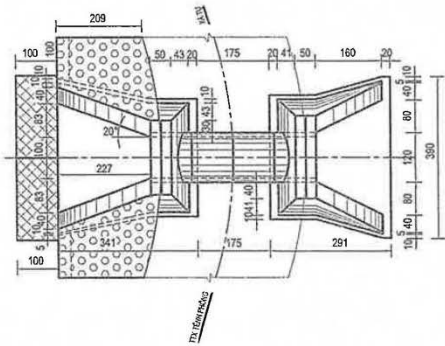
HORIZONTAL SECTION



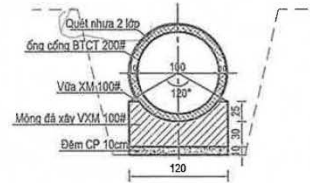
VERTICAL SECTION



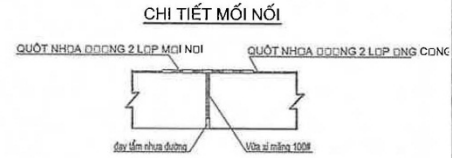
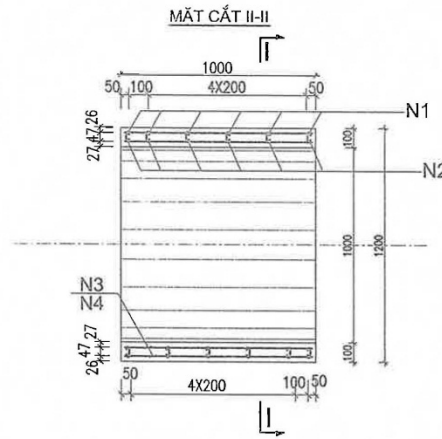
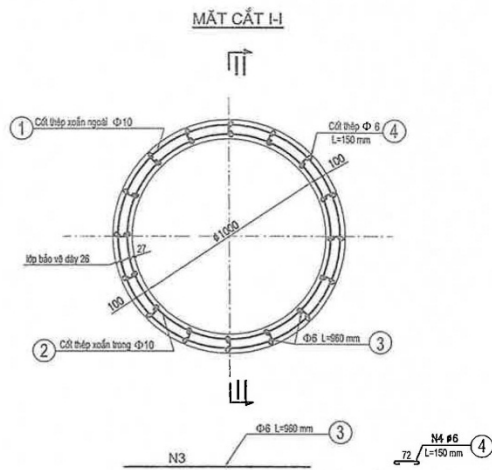
LAYOUT PLAN



CENTER CROSS SECTION



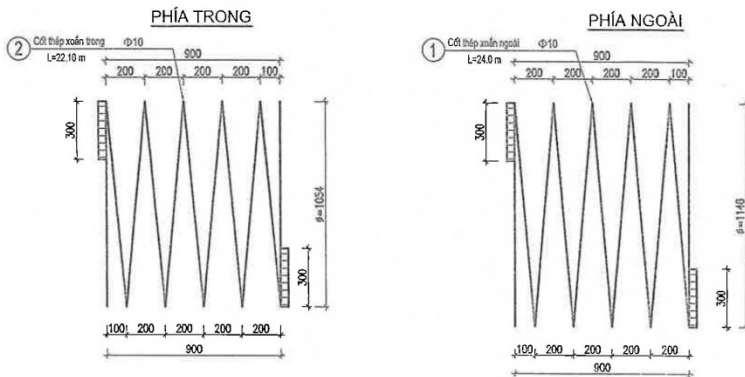
BỐ TRÍ CỐT THÉP CỐNG TRÒN $\Phi 100\text{CM}$ CHIỀU DÀY 10CM (1/20).



GHI CHÚ

- Bê tông ống cống M200.
- Những thanh cốt thép được hàn nối bằng hàn tiếp xúc.
- Lần kết những đầu thanh cốt thép xoắn được kết liên hình bằng hàn hay buộc.
- Kích thước bản vẽ ghi mm.
- Đường kính các vòng cốt thép hình xoắn ốc tính từ tâm cốt thép.

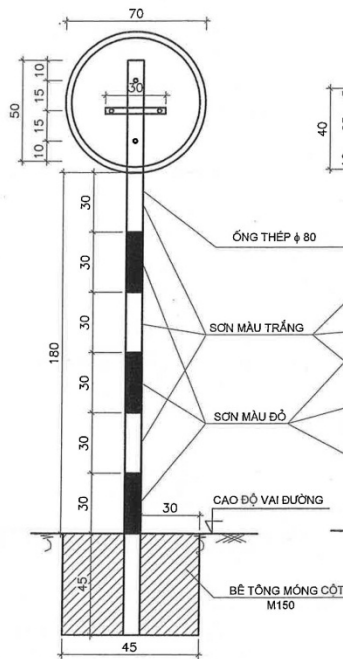
CỐT THÉP HÌNH XOẮN ỐC



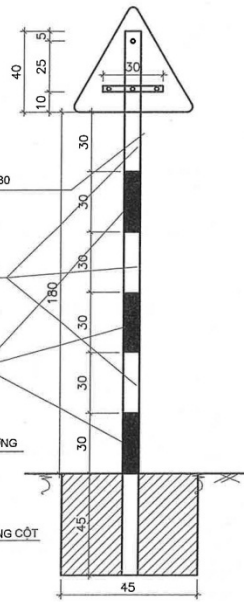
BẢNG TÍNH CỐT THÉP CHO MỘT ĐỐT CỐNG

chiều dày	Chiều dài ống cống	Số hiệu thanh (h)	Đường kính (cm)	Chiều dài 1 thanh (mm)	Số lượng thanh	Tổng Chiều dài (m)	tr lượng mỗi dài (kg)	Tổng Kh. lg (kg)	B.T M200 (m ³)	
10cm	1000	1	$\Phi 10$	24000	1	24,00				
		2	$\Phi 10$	22100	1	22,10				
				$\Phi 10$ (CT3)			48,10	0,817	28,44	
		3	$\Phi 6$	960	32	30,72				
		4	$\Phi 6$	150	48	7,20				
				$\Phi 6$ (CT3)			37,92	0,222	8,42	
		Tổng cộng						36,86	0,35	

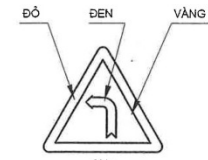
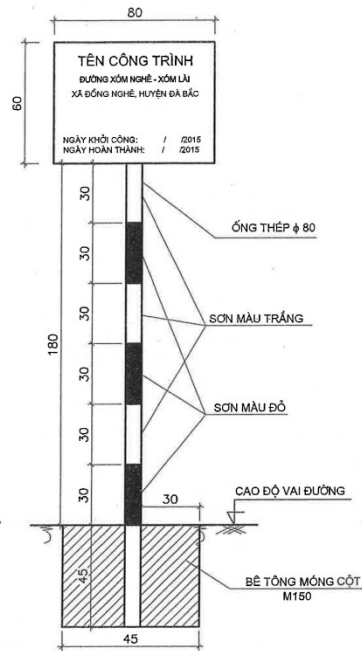
BIỂN BÁO TẢI TRỌNG



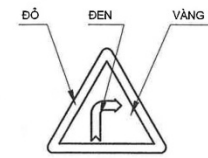
BIỂN BÁO NGUY HIỂM



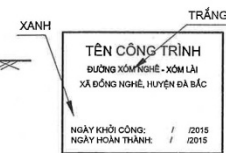
BIỂN CHỈ DẪN



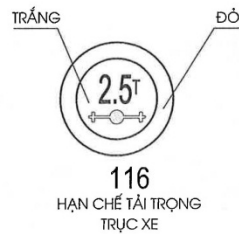
201a

CHỖ NGOẶT NGUY HIỂM
VÒNG BÊN TRÁI

201b

CHỖ NGOẶT NGUY HIỂM
VÒNG BÊN PHẢI414b
BIỂN CHỈ DẪNBẢNG TỔNG HỢP KHỐI LƯỢNG VẬT LIỆU
TÍNH CHO MỘT CẤU KIỆN

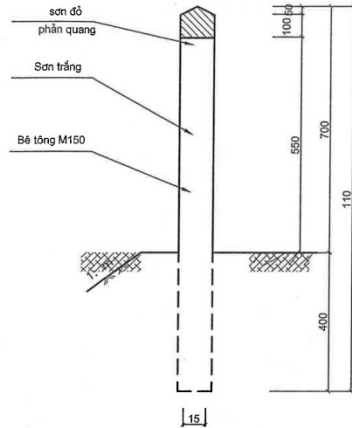
STT	HẠNG MỤC	ĐƠN VỊ	KHỐI LƯỢNG
BIỂN BÁO			
1	BÊ TÔNG M150	m ³	0.170
2	ĐÀO MÓNG ĐẤT C3	m ³	0.221
3	ĐÁP ĐẤT C3	m ³	0.051



GHI CHÚ

- KÍCH THƯỚC CỦA CÁC LOẠI BIỂN BÁO GHI TRÊN HÌNH VẼ LÀ KÍCH THƯỚC TIÊU CHUẨN, TRONG TRƯỜNG HỢP CẦN MỞ RỘNG KÍCH THƯỚC XEM CHI TIẾT TRONG "QUY CHUẨN KỸ THUẬT QUỐC GIA VỀ BẢO HIỆU ĐƯỜNG BỘ" - QCVN 41:2012/BGTVT.
- CÁC YÊU CẦU VỀ VỊ TRÍ ĐẶT CỌC, KHOẢNG CÁCH ... XEM TRONG "QUY CHUẨN KỸ THUẬT QUỐC GIA VỀ BẢO HIỆU ĐƯỜNG BỘ" - QCVN 41:2012/BGTVT.

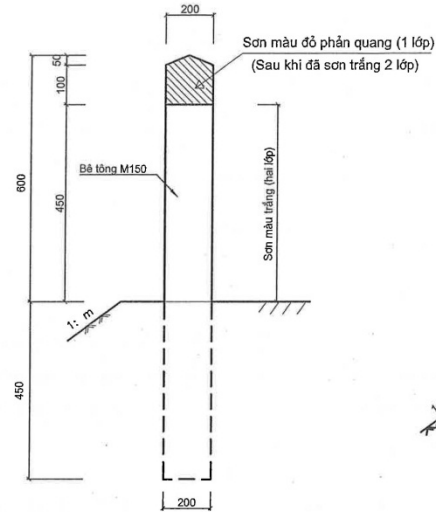
MẶT ĐỨNG CỌC TIÊU



MẶT BẰNG



STT	Hạng mục	Đơn vị	Khối lượng
1	Đào đất	m3	0.04
2	Bê tông 150#	m3	0.02
3	Sơn trắng 2 lớp	m2	0.44
4	Sơn xanh 1 lớp	m2	0.44

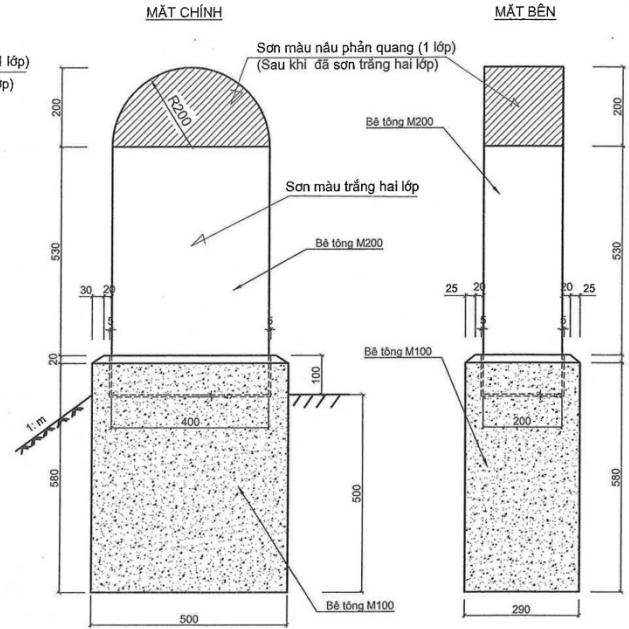
CỌC H
CẤU TẠO CỌC H

MẶT BẰNG

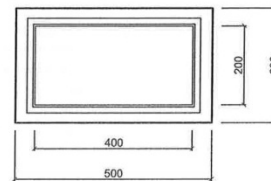


STT	Hạng mục	Đơn vị	Khối lượng
1	Đào đất	m3	0.07
2	Bê tông 150#	m3	0.04
3	Sơn trắng 2 lớp	m2	0.52
4	Sơn xanh 1 lớp	m2	0.52

CỘT KILÔMÉT



MẶT BẰNG

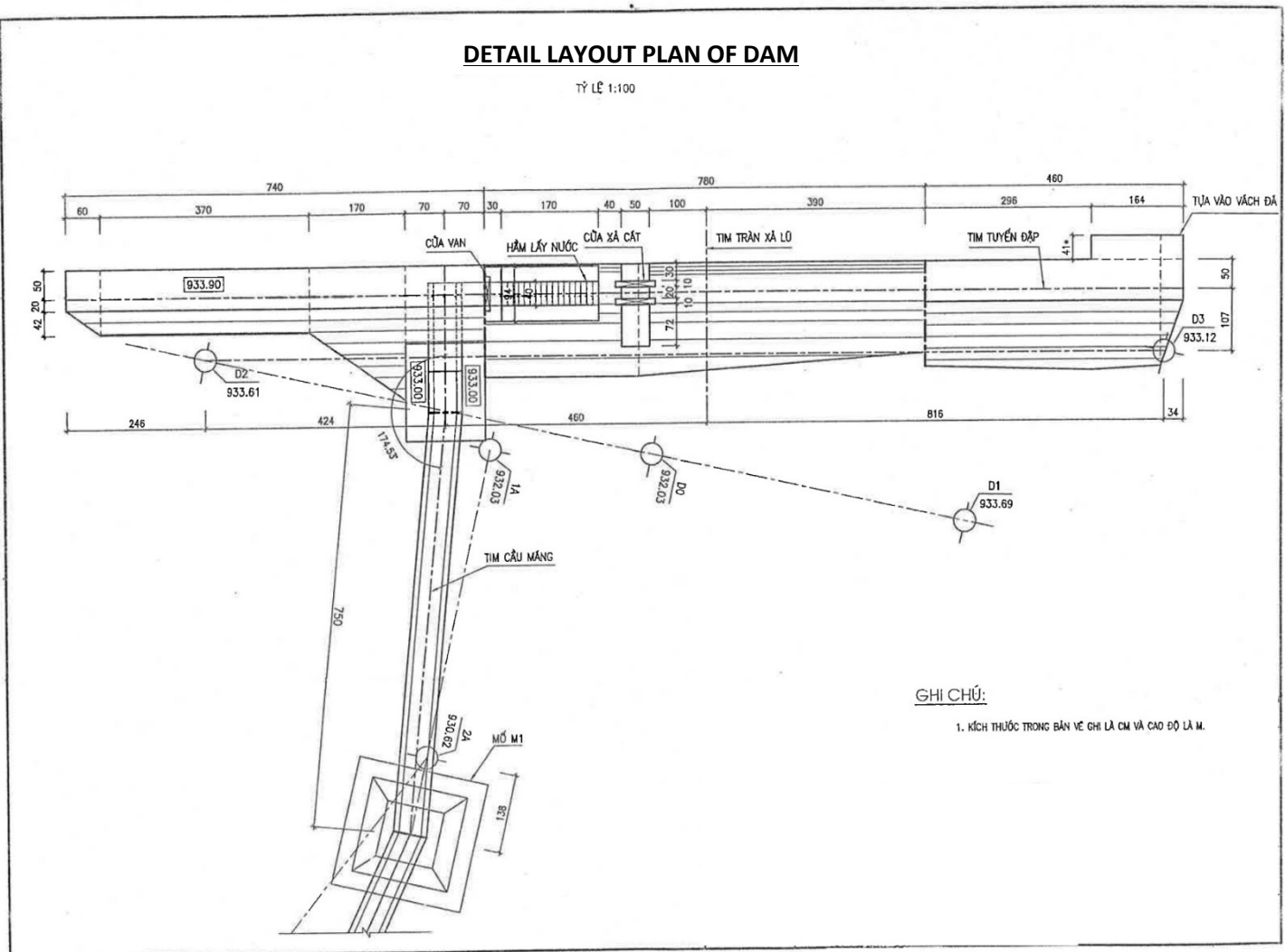


BẢNG TỔNG HỢP KHỐI LƯỢNG 1 CỘT KILÔMÉT

STT	Hạng mục	Đơn vị	Khối lượng
1	Đào đất	m3	0.172
2	Đắp đất	m3	0.099
3	Bê tông 150#	m3	0.084
4	Bê tông 200#	m3	0.077
5	Vữa xây 100#	m3	0.001
6	Sơn trắng 2 lớp	m2	1.523
7	Sơn xanh 1 lớp	m2	0.128

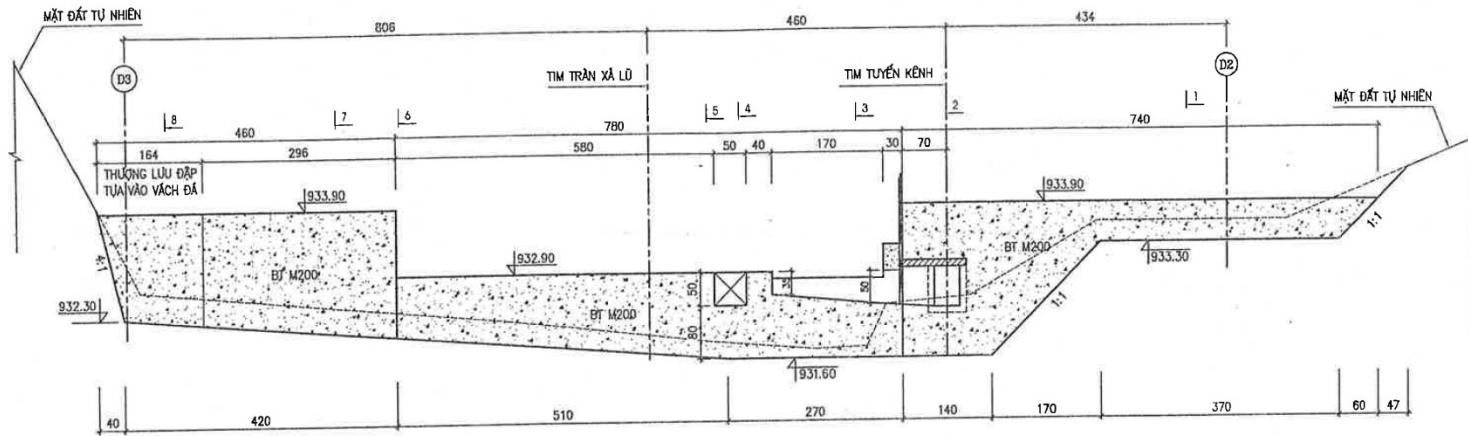
Figure E-2 Typical drawing of the small-scale rural infrastructure: Irrigation system (Dam and Canal)

I. Dam and related structures



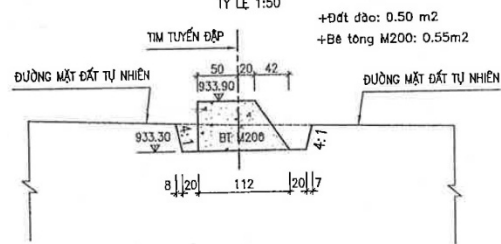
DAM HORIZONTAL SECTION

TỶ LỆ 1:100



SECTION 1-1

TỶ LỆ 1:50



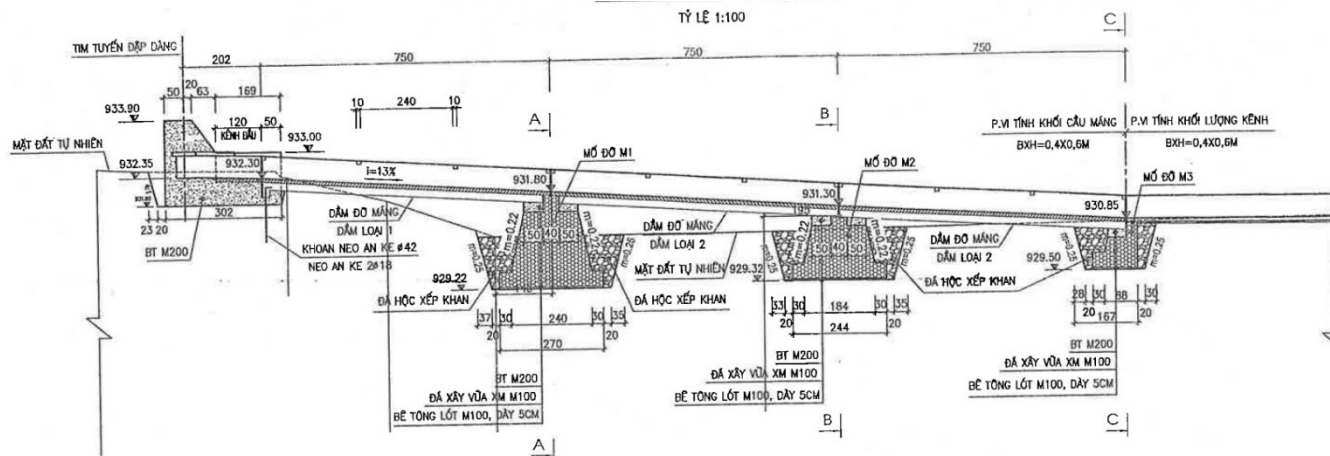
+Đất đập: 0.50 m²
 +Bê tông M200: 0.55m²

CHỈ CHÚ:

1. KÍCH THƯỚC TRONG BẢN VẼ CHỈ LÀ CM VÀ CAO ĐỘ LÀ M.

SLOPE CANAL SECTION

TỶ LỆ 1:100

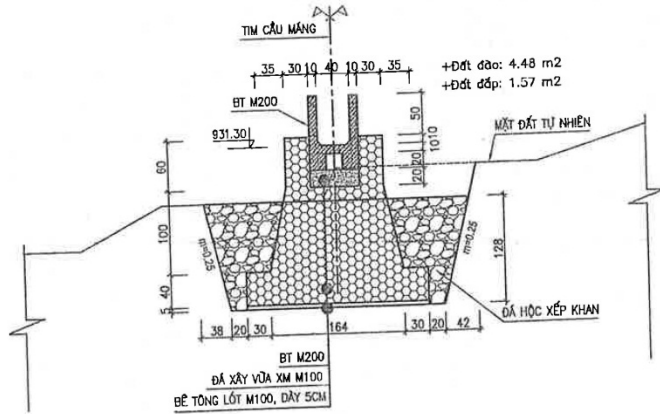


GHI CHÚ:

1. KÍCH THƯỚC TRONG BẢN VẼ GHI LÀ CM VÀ CAO ĐỘ LÀ M.

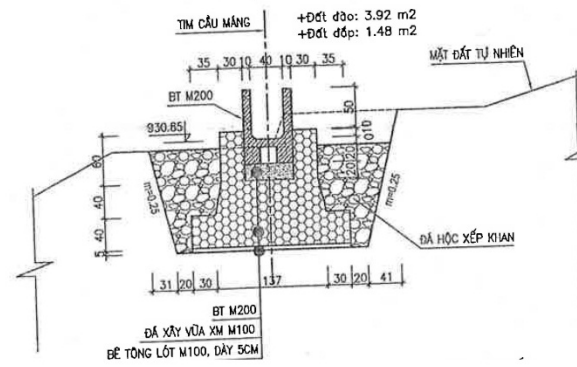
SECTION B-B

TỶ LỆ 1:50



SECTION C C

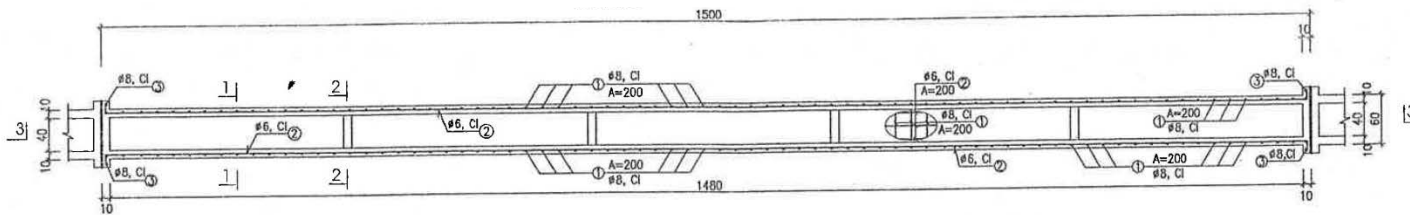
TỶ LỆ 1:50



GHI CHÚ:

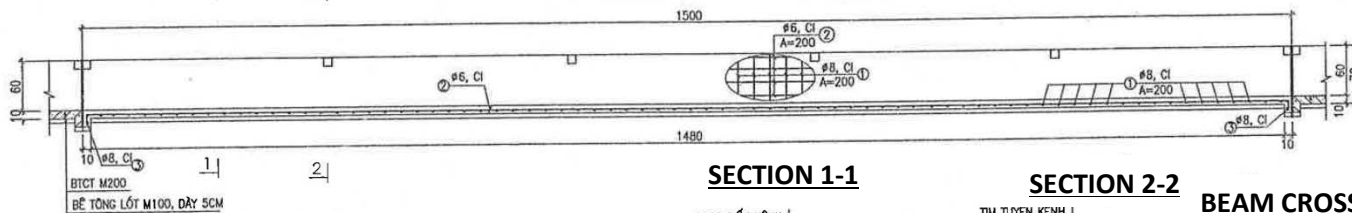
1. KÍCH THƯỚC TRONG BẢN VẼ GHI LÀ CM VÀ CAO ĐỘ LÀ A

LAYOUT PLAN OF CANAL BxH = 0,4 x 0,6 M



SECTION 3-3

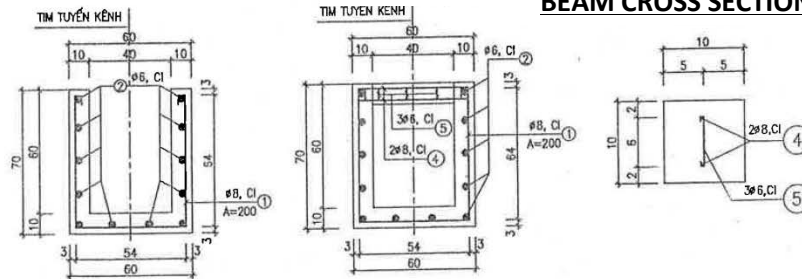
TỶ LỆ 1:50



SECTION 1-1

SECTION 2-2

BEAM CROSS SECTION



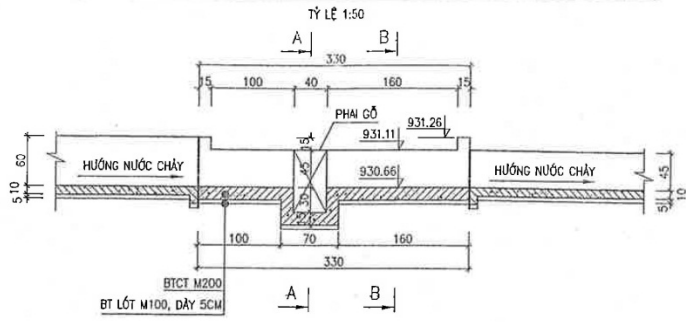
BẢNG THỐNG KÊ CỐT THÉP TÍNH CHO 1 ĐỐT KÈNH DÀI 15M

STT	Hình dạng	φ (mm)	n (thanh)	L (cm)	Σ L (m)	G (kg)	Ghi chú
01		φ8	76	194	147.44	58.18	Cốt thép kênh Σ #6 = 40.59KG Σ #8 = 58.87KG
02		φ6	12	1524	182.88	40.59	
03		φ8	2	214	4.28	1.69	
04		φ8	2	66	4.28	0.62	Cốt thép giằng kênh Σ #6 = 0.10KG Σ #8 = 0.52KG
05		φ6	3	15	4.28	0.1	

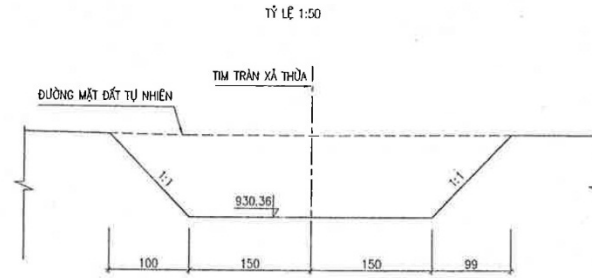
GHI CHÚ:

1. KÍCH THƯỚC TRONG BẢN VẼ GHI LÀ CM VÀ CAO ĐỘ LÀ M.

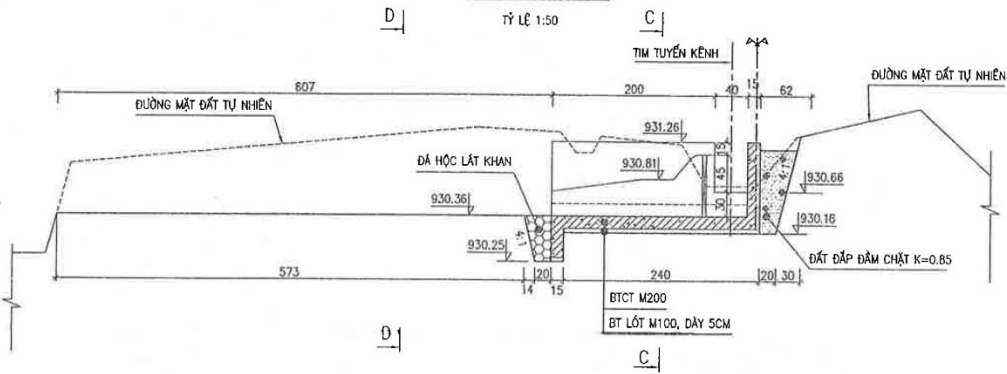
HORIZONTAL SECTION OF OVER FLOODING



SECTION D-D



SECTION A-A

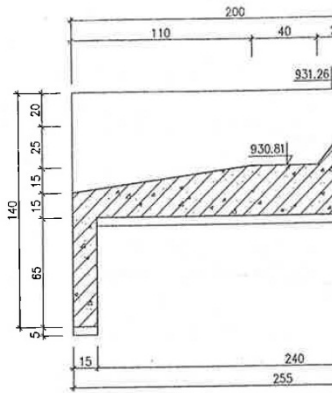


GHI CHÚ:

1. ĐƠN VỊ GHI TRONG BẢN VẼ LÀ CM VÀ CAO ĐỘ TRONG BẢN VẼ LÀ M.

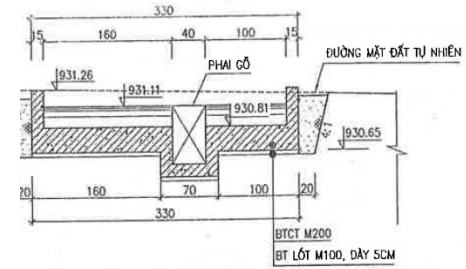
SECTION B-B

TỶ LỆ 1:50



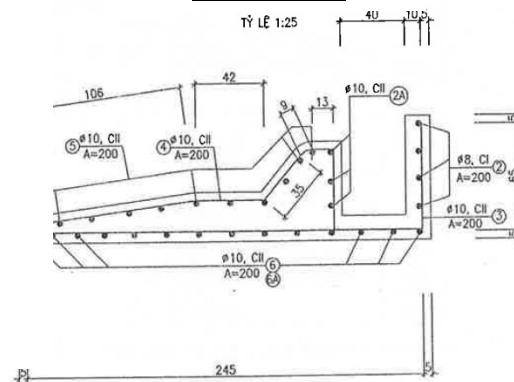
SECTION C-C

TỶ LỆ 1:50



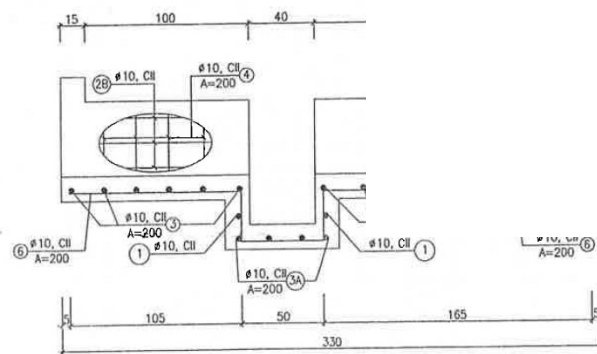
SECTION B-B

TỶ LỆ 1:25



CHI TIẾT CỐT THÉP CẮT ĐỌC TRẦN

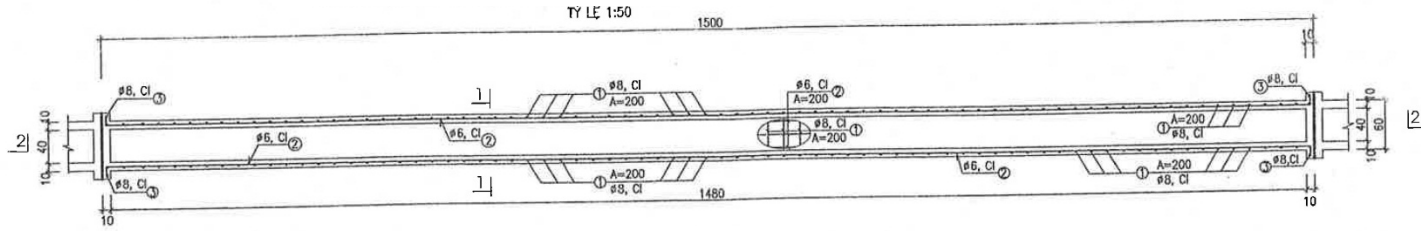
TỶ LỆ 1:25



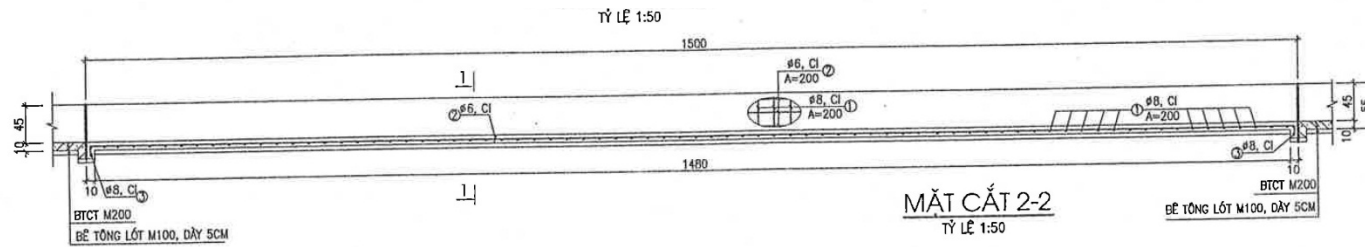
GHI CHÚ:

1. ĐƠN VỊ ĐO LÀ CM, CAO ĐỘ TRONG BẢN VẼ LÀ M.
2. ĐƠN VỊ KÍCH THƯỚC THÉP KHOẢNG CÁCH THÉP LÀ MM
3. DUNG CỐT THÉP: $\phi \geq 10$ DÙNG THÉP C11
 $\phi < 10$ DÙNG THÉP C1
($R_A=2100\text{KG}/\text{CM}^2, R_A = 2700\text{KG}/\text{CM}^2$)
4. BÊ TÔNG DÙNG BÊ TÔNG M200, XI MĂNG PC30

LAYOUT PLAN OF TYPICAL CANAL BxH=0,4x0,45M

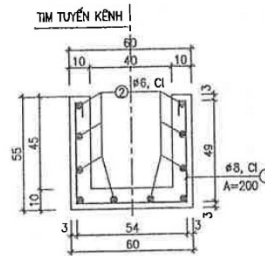


SECTION 2-2



MẶT CẮT 2-2

TỶ LỆ 1:50



BẢNG THỐNG KÊ CỐT THÉP TÍNH CHO 1 ĐỐT KÊNH DÀI 15M

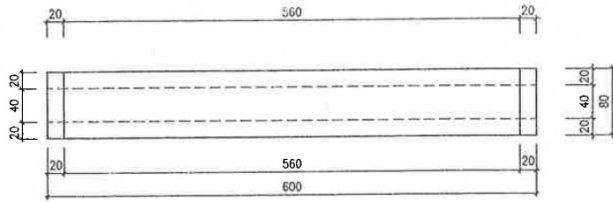
STT	Hình dạng	φ (mm)	n (thanh)	L (cm)	Σ L (m)	G (kg)	Ghi chú
01		φ8	76	164	124.64	49.18	Cốt thép kênh Σ φ6 = 33.83KG Σ φ8 = 50.79KG
02		φ6	10	1524	152.40	33.83	
03		φ8	2	204	4.08	1.61	

GHI CHÚ:

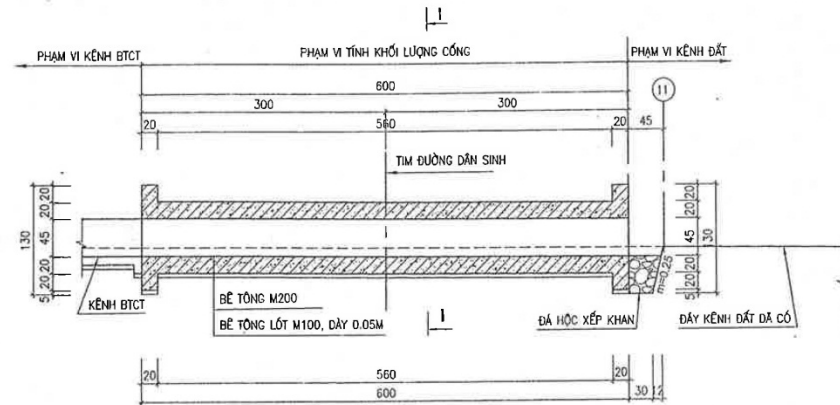
1. KÍCH THƯỚC TRONG BẢN VẼ GHI LÀ CM VÀ CAO ĐỘ LÀ M.

LAYOUT PLAN OF CULVERT

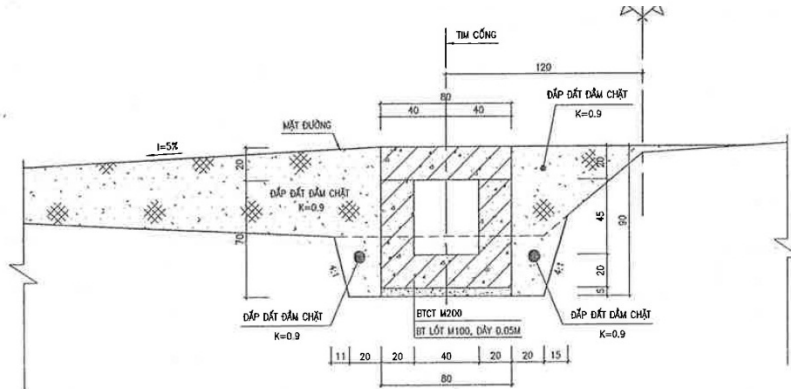
TỶ LỆ 1:50



HORIZONTAL SECTION



SECTION 1-1



GHI CHÚ:

1. KÍCH THƯỚC TRONG BẢN VẼ GHI LÀ CM, CAO ĐỘ LÀ M.

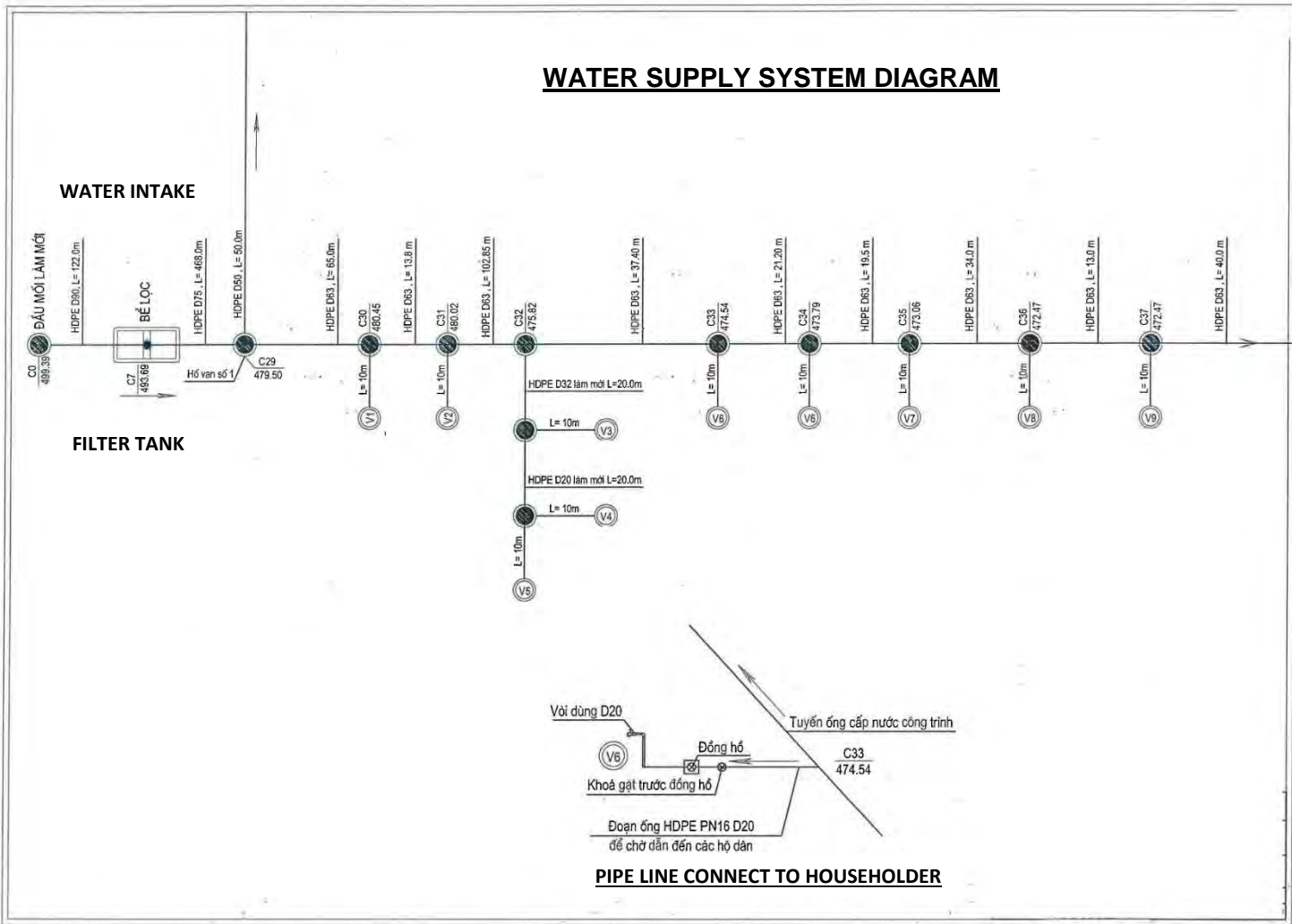
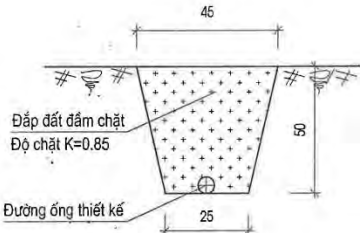


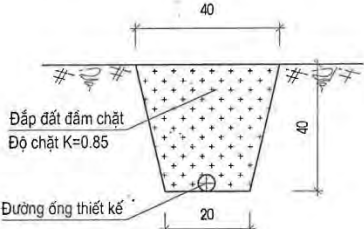
Figure E-3 Typical drawing of the small-scale rural infrastructure: Water supply system

PIPE LINE SECTION

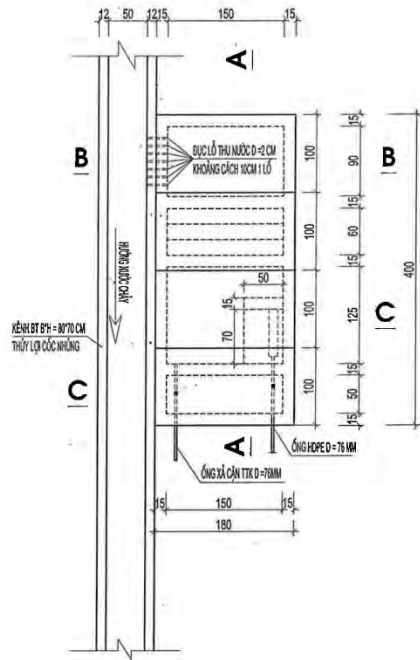
MAIN PIPE LINE SECTION



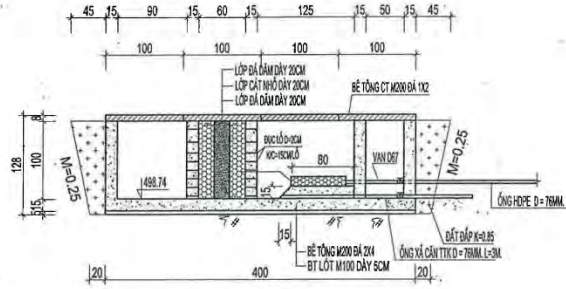
BRANCH PIPE LINE SECTION



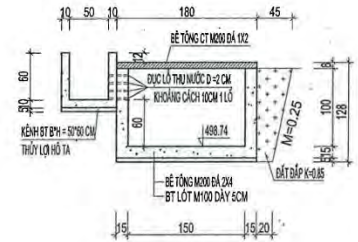
INTAKE TANKS



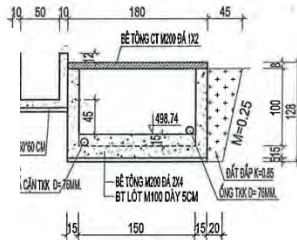
SECTION A-A



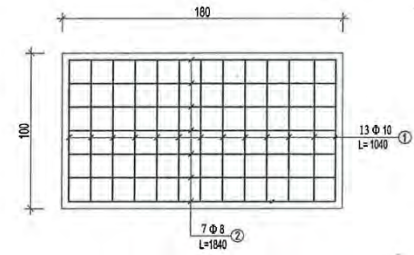
SECTION B-B



SECTION C-C

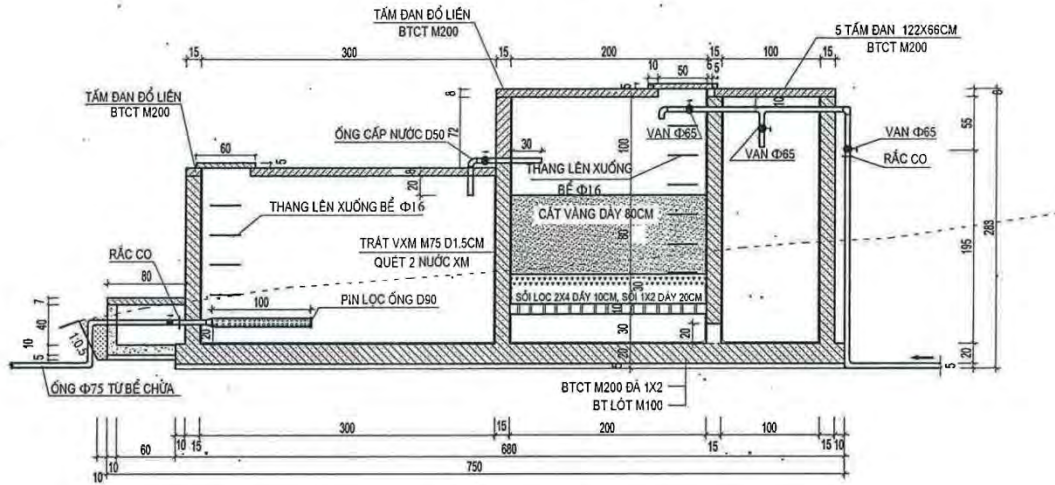


DETAIL COVER PLATE



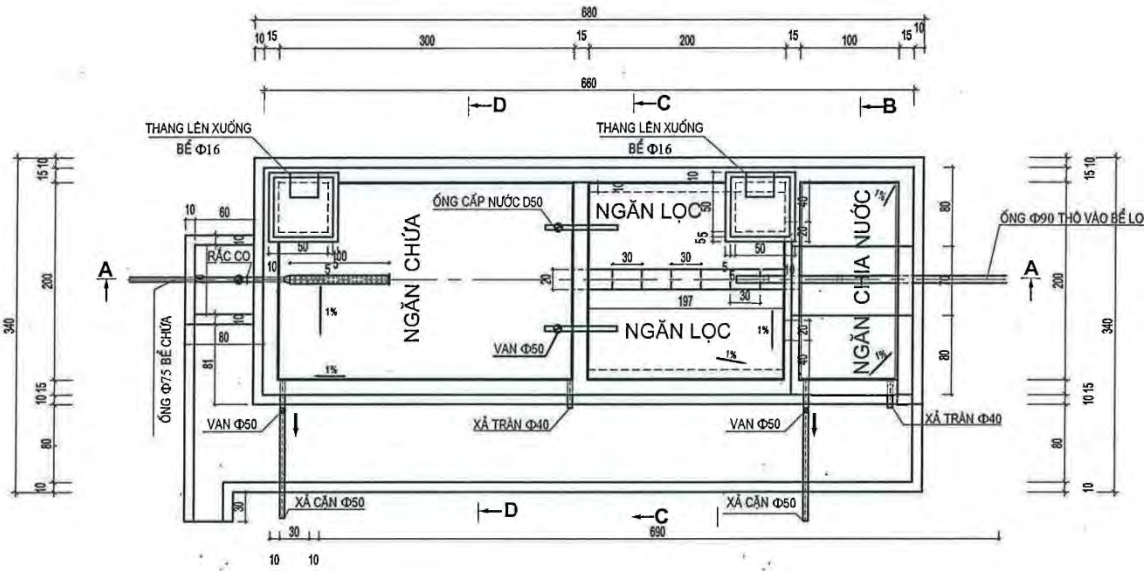
1. TẤT CẢ CÁC SỐ ĐƯỢC GHI BẰNG CM
 2. TẤT CẢ CÁC SỐ ĐƯỢC GHI BẰNG M
 3. CHỖ ĐÁ 1X2, DÙNG XI MĂNG PC30 NGÀY SỬ DỤNG
 4. NGÀY KÉ TỪ NGÀY SẢN XUẤT ĐƯỢC GHI TRÊN VỎ BAO
 5. CÔNG HOÁ VÀ CUỘI SỎI LÔNG SƯỜI DÀY TRUNG BÌNH 1.5M
 6. HẠT VỚI DT 1.5 T/M3
 7. CÁT ĐÁ TRƯỚC KHI ĐỔ BÊ TÔNG
 8. M CÙNG CÁC BẢN VẼ KHÁC CÓ LIÊN QUAN

HORIZONTAL SECTION A-A

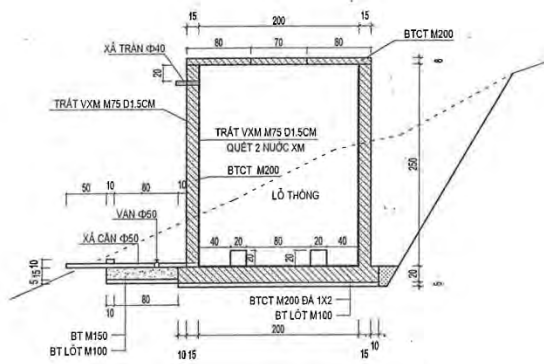


FILTER TANK LAYOUT PLAN

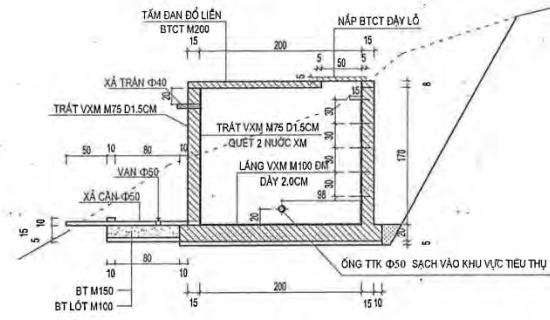
TỶ LỆ: 1/50



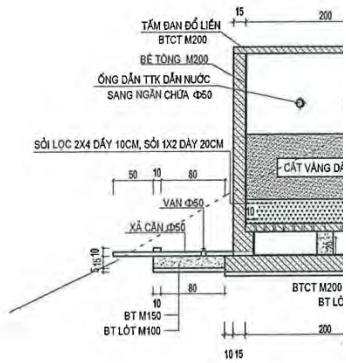
SECTION B-B



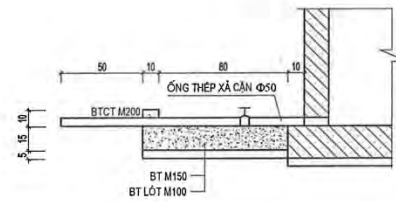
SECTION D-D



SECTION C-C



DETAIL GROUND PLATFORM

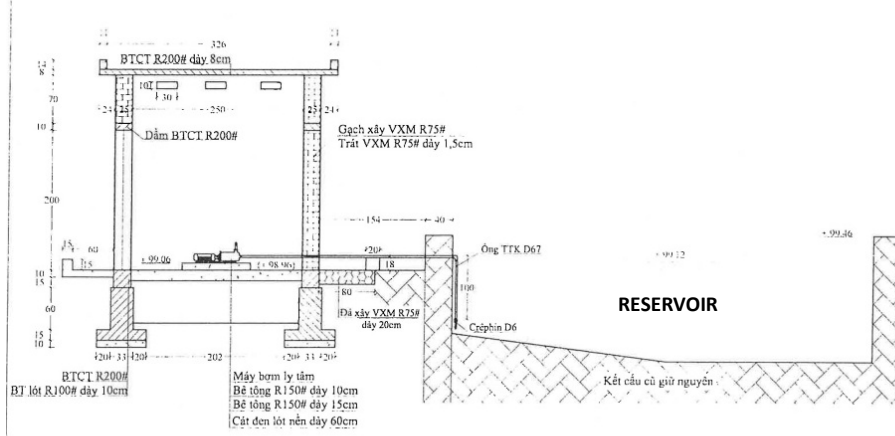


I CHỮ

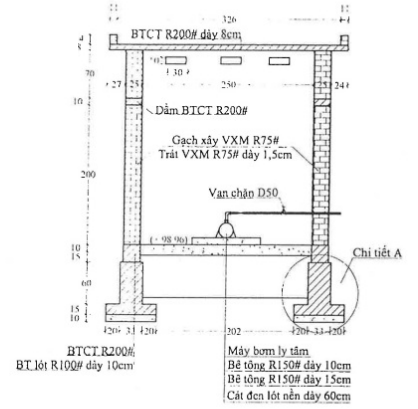
- TẤM NÁP ĐẦY NGĂN CHIA LÀ 5 TẤM KÍCH THƯỚC 122X68CM
- TẤM NÁP ĐẦY NGĂN LỌC VÀ NGĂN CHỮA ĐỔ LIỀN
- SỢI LỌC DÂY 30CM CƠ HẠT
 - CƠ HẠT 1X2CM DÂY 20CM
 - CƠ HẠT 2X4CM DÂY 10CM
- CÁT LỌC DÂY 80 CM CƠ HẠT
 - CƠ HẠT 0,5 - 1MM DÂY 50CM
 - CƠ HẠT 1 - 2MM DÂY 30CM
- PHI LỌC Ø67 DÂY 70CM
- BT 1 ĐẦU KHÓA LỖ Ø4 MM KHOẢNG CÁCH 10MM

PUMPING STATION

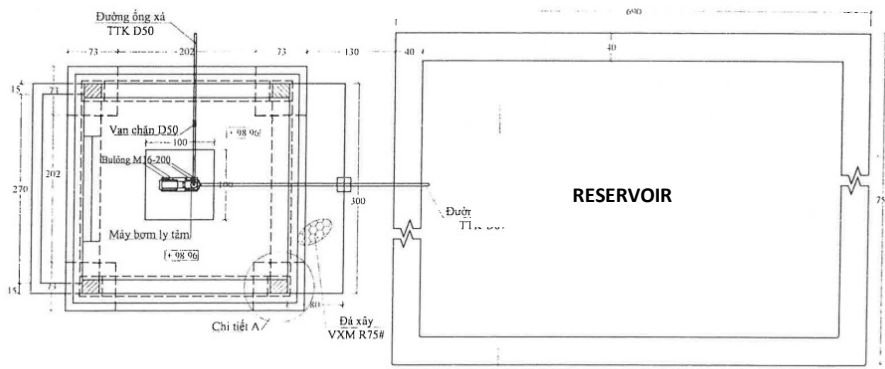
HORIZONTAL SECTION



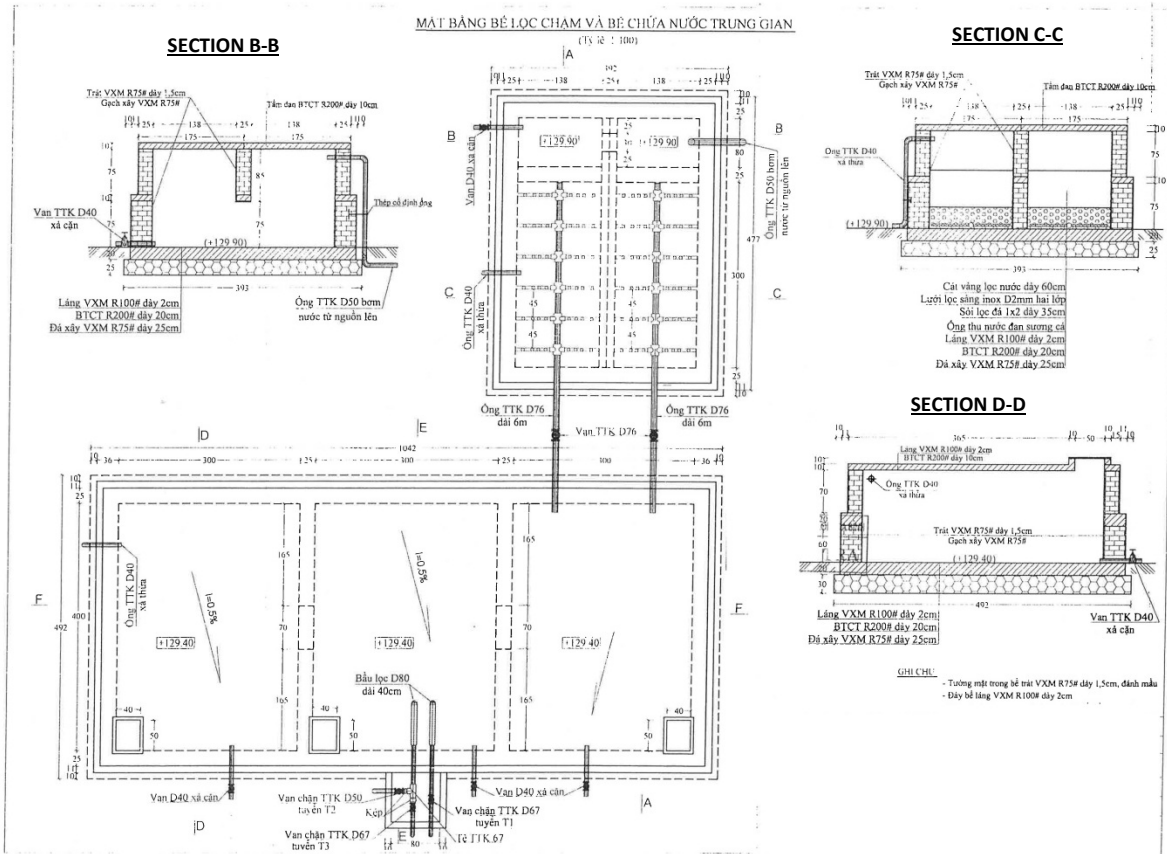
CROSS SECTION

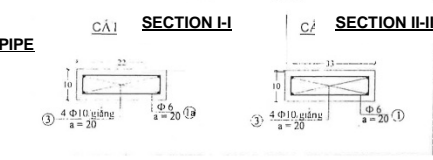
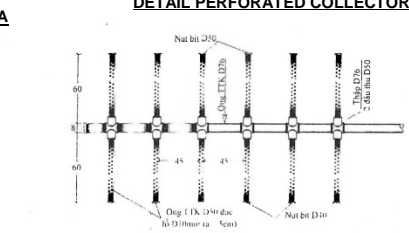
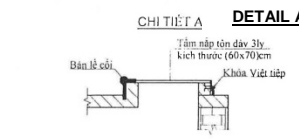
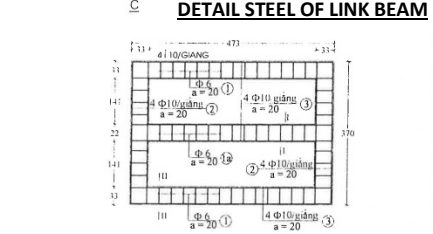
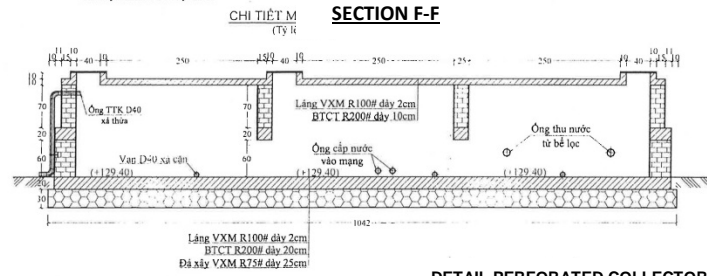
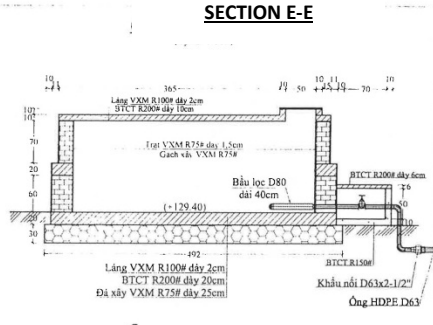
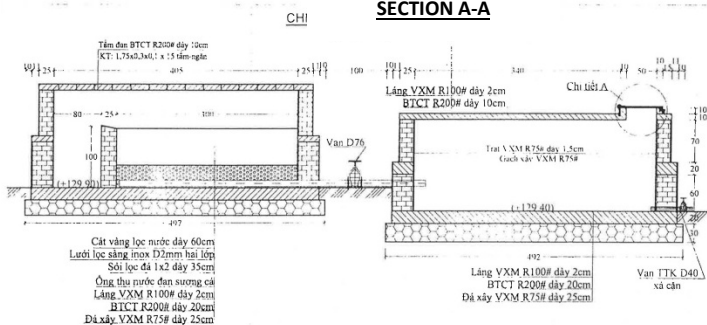


LAYOUT PLAN

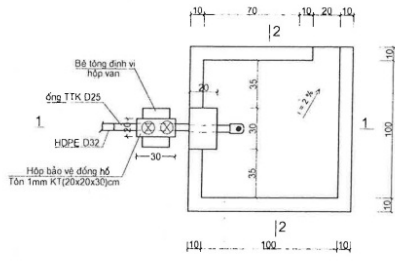


SLOW FILTER TANK AND MIDDLE TANK

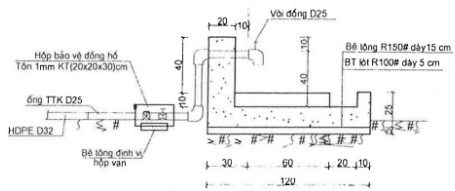




DISTRIBUTION POST

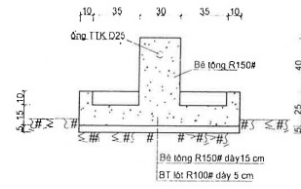


SECTION 1-1

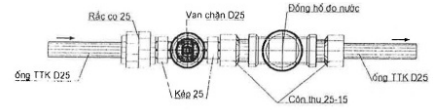


CHI TIẾT:

SECTION 2-2



DETAIL CONNECTION



DETAIL CONNECTING PLASTIC PIPE WITH STEEL PIPE

