

**Ministry of Foreign Trade and Tourism
The Republic of Peru**

Pilot Study for Project Formulation

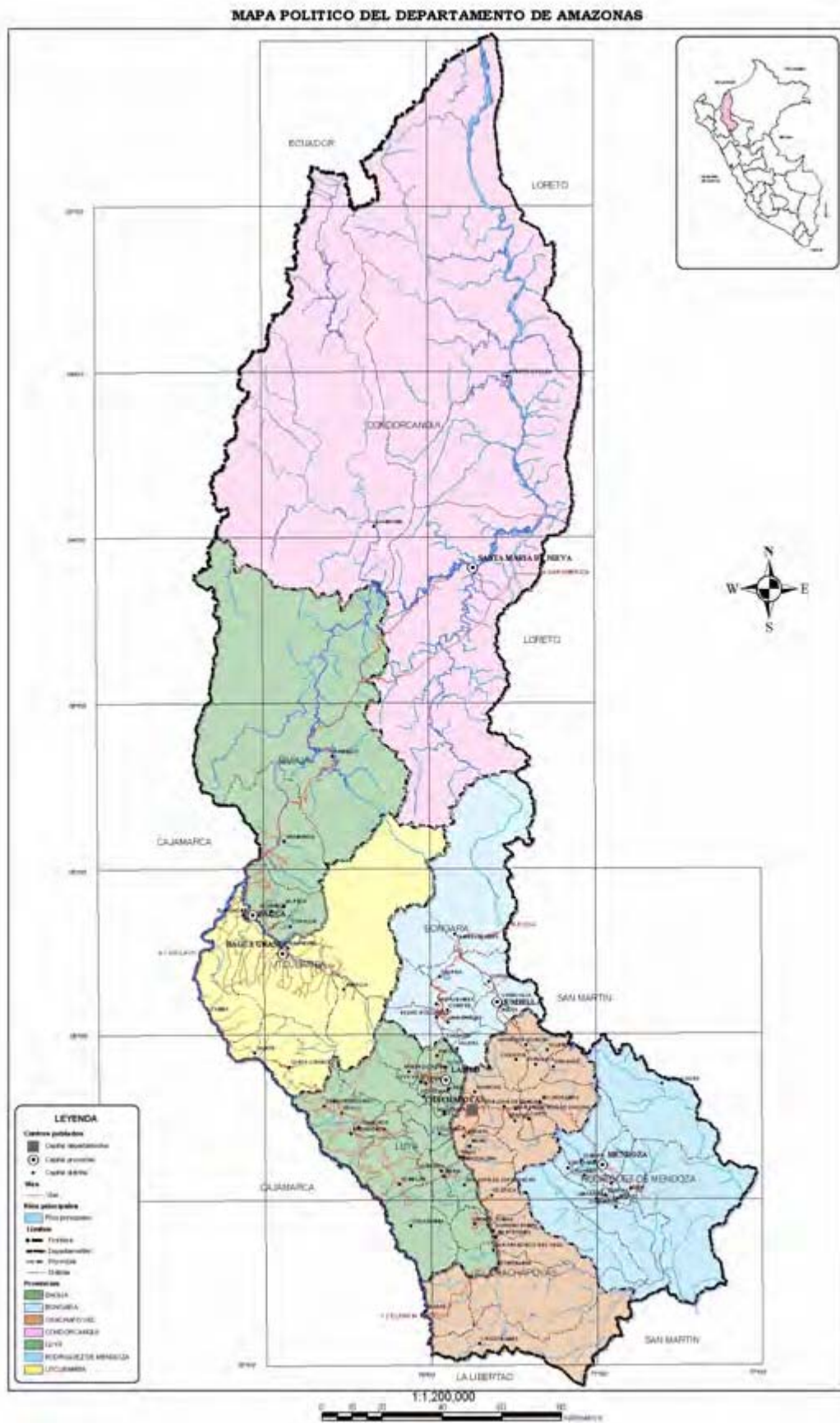
**Rural Development
through Tourism Promotion Project
in
The Republic of Peru**

Final Report

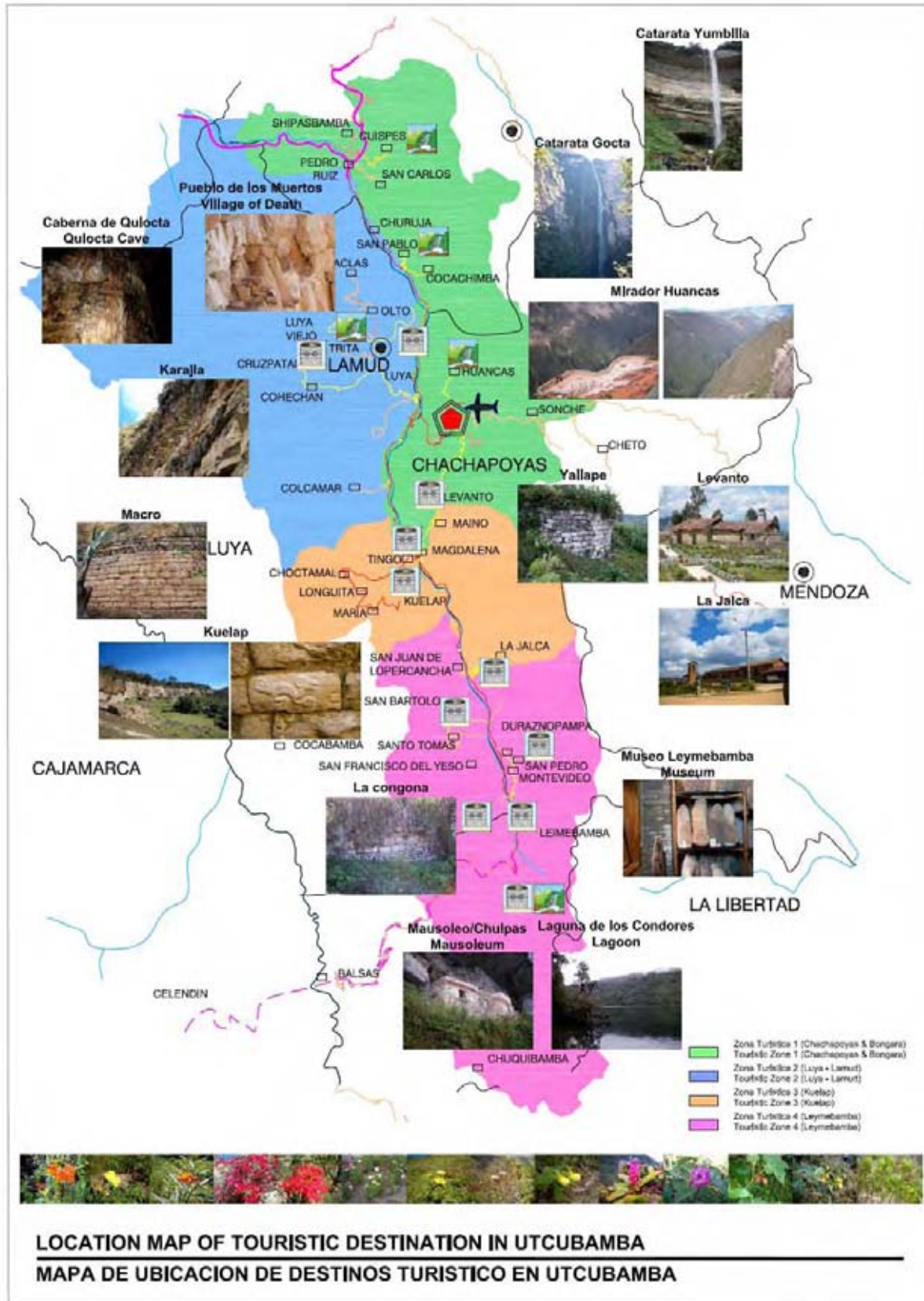
February 2009

JAPAN INTERNATIONAL COOPERATION AGENCY

**Nippon Koei Latin America- Caribbean Co., Ltd.
KRI International Corp.**



Location Map of the Study Area in Amazonas



JICA Pilot Study for Rural Development through Tourism Promotion Final Report

CONTENTS

Location Map

1.	INTRODUCTION	1
1.1	Background	1
1.2	Objective of the Study	1
1.3	Study Area	2
1.4	Execution of the Study	2
1.5	Structure of the Study	4
2.	CURRENT CONDITION OF TOURISM SECTOR IN AMAZONAS	5
2.1	Socioeconomic Condition	5
2.2	Current Condition of Tourism Sector	7
2.3	Current Condition of Cultural Heritage.....	21
2.4	Current Condition of Infrastructure.....	34
2.4.1	Transport.....	34
2.4.2	Water and Sanitation.....	43
2.4.3	Electrification	47
2.4.4	Telecommunication	55
2.4.5	Solid Waste Management	61
2.5	Summary of Current Condition.....	66
3.	BASIC CONCEPT AND STRATEGY FOR RURAL DEVELOPMENT THROUGH TOURISM PROMOTION	69
3.1	Identification of the Priority Sites	69
3.2	Projection of Number of Tourism.....	73
3.3	Basic Concept and Strategy.....	74
3.4	Strucutre of Integrated Rural Development	75
3.5	Concept and Strategy on Tourism Promotion.....	76
3.6	Concept and Strategy on Infrastructure Improvement	78
3.7	Concept and Strategy on Poverty Alleviation	83
3.8	Tourism Promotion Image.....	87
4.	PROPOSED PROGRAM FOR PRIORITY PROJECTS	88
4.1	Sub-Program of Toursim	88
4.1.1	On-Site Value Enhancement.....	89
4.1.2	Off-Site Services and Facilities	103

4.1.3	Tourism Marketing	116
4.2	Sub-Program of Infrastructure.....	120
4.2.1	Transport.....	123
4.2.2	Electricity	127
4.2.3	Water and Sanitation.....	131
4.2.4	Telecommunication	141
4.2.5	Solid Waste Management	145
5.	IMPLEMENTATION PLAN FOR PROPOSED PROGRAM.....	152
5.1	Institutional Setting	152
5.2	Implementation Schedule	155
5.3	Estimated Cost.....	155
6.	PROGRAM EVALUATION	157
6.1	Social Impacts	157
6.2	Environmental Impacts.....	159
6.2.1	Initial Environmental Evaluation	159
6.2.2	Results of Initial Environmental Evaluation	159
6.3	Economic Justification	171
6.4	Risks	172
7.	ALTERNATIVES FOR DEVELOPEMNT PACKAGE	174
7.1	Preconditions	174
7.2	Alternatives for Development Package	176
7.3	Proposed Development Package	180
8.	CONCLUSION AND RECOMMENDATIONS	184
8.1	Conclusion.....	184
8.2	Recommendations	199

ATTACHMENT

Attachment 1	Minutes of Understanding.....	A.1
Attachment 2	Information on Major Tourism Resources in the Study Area.....	A.2
Attachment 3	Information on Water and Sanitation Condition in the Study Area.....	A.3
Attachment 4	Long List Showing Road Improvement Projects/Plans.....	A.4
Attachment 5	Summary List of Priority Projects in the Proposed Program	A.5
Attachment 6	Cost for Vehicles and Equipment	A.6
Attachment 7	Benefit and Cost Calculation.....	A.7
Attachment 8	Presentation Material (December 9, 2008 in Lima)	A.8

Abbreviations and Acronyms

AADT	Annual Average Daily Traffic
ARG	Amazonas Regional Government
B/C	Benefit-Cost Ratio
B-C	Net Present Value (NPV)
CIRA	<i>Certificado de Inexistencia de Restos Arqueologicos(es)</i> Certificate of Non-existence of Archaeological Remains
CNR	<i>Comission Nacional de Arqueologia(es)</i> National Archaeology Commission
CPT	<i>Compania Peruana de Telefonos(es)</i> Peruvian Company of Teleophnes
DF/R	Draft Final Report
DGER	<i>Dirección General de Electrificación Rural(es)</i> General Directory of Rural Electrification
DIGESA	<i>Dirección General de Salud Ambiental, Ministerio de Salud (es)</i> General Directorate of Environmental Health (in Ministry of Health)
DIRCETUR	<i>Dirección Regional de Comercio Exterior y Turismo (es)</i> Regional Office of Foreign Trade and Tourism
DPBP	Development Package for Basic Project
DPTA	Development Package by Tourism Area
EIA	Environmental Impact Assessment
EIRR	Economic Internal Rate of Return
EPS	Empresa Publica de Servicios (es) Public Service Enterprise
FITEL	<i>Fondo de Inversión en Telecomunicaciones (es)</i> Investment Fund in Telecommunications
FONCODES	<i>Fondo de Cooperación para el Desarrollo Social (es)</i> Cooperation Fund for Social Development
F/R	Final Report
F/S	Feasibility Study
GDP	Gross Domestic Product
GoP	Government of Peru
HDI	Human Development Index
IIRSA	Infrastructure Integration of the Region South America
INEI	<i>Instituto Nacional de Estadística e Informática (es)</i> National Institute of Statistics and Information
INC	<i>Institute Nacional de Cultura (es)</i> National Cultural Institute
INRENA	<i>Instituto Nacional de Recursos Naturales(es)</i> <i>Natural Resource Institute</i>
JBIC	Japan Bank for International Cooperation¥
JICA	Japan International Cooperation Agency
JV	Joint Venture
MEF	<i>Ministerio de Economía y Finanzas (es)</i> Ministry of Economy and Finance
MEM	<i>Ministerio de Energía y Minas (es)</i> Ministry of Energy and Mining

Mincetur	<i>Ministerio de Comercio Exterior y Turismo (es)</i> Ministry of Foreign Trade and Tourism
MTC	<i>Ministerio de Transportes y Comunicaciones (es)</i> Ministry of Transport and Communication
MVCS	<i>Ministerio de Vivienda, Construcción y Saneamiento (es)</i> Ministry of Housing, Construction and Sanitation
NGO	Non Governmental Organization
NPV	Net Present Value
OSIPTEL	Supervising Organisation of the Private Investment in Telecommunication
PA	Pan American Highway
PATAU	<i>Acondicionamiento Turístico de los Recursos Arqueológicos del Alto Utcubamba (es)</i> Tourism Conditioning of Alto Utcubamba's Archeological Resources
PEA	<i>Población Económicamente Activa (es)</i> Economically Active Population
PEA	<i>Proyecto de Evaluación Arqueológica(es)</i> Archaeological Evaluation Project
PENTUR	<i>Plan Estratégico Nacional de Turismo (es)</i> National Tourism Strategy Plan
PEK	<i>Proyecto Especial Kuelap(es)</i> Kuelap Special Project
PIGARS	<i>Plan Integral de Gestión Ambiental de los Residuos Sólidos (es)</i> Integral Plan for Environmental Management
PNER	<i>Plan Nacional de Electrificación Rural (es)</i> National Plan for Rural Electrification
PRONASAR	<i>Proyecto Nacional de Agua y Saneamiento Rural (es)</i> National Program for Water and Sanitation in Rural Area
RD	Directorial Resolution
S/.	Peruvian Nuevo Sol
SDH	Synchronous Digital Hierarchy
SEIN	<i>Sistema Eléctrico Interconectado Nacional (es)</i> National Interconnection System of Electrification
SHF	Super High Frequency
SNIP	<i>Sistema Nacional de Inversión Pública (es)</i> National System of Public Investment
SUNASS	<i>Superintendencia Nacional de Servicios de Saneamiento (es)</i> National Superintendence of Sanitation Services
SW	Station Wagon
SWOT	Strength, Weakness, Opportunity and Threat
TDM	Time-Division Multiplexing
TOR	Terms of Reference
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Program
UVSPU	Utcubamba Valley Special Project Unit
WH	World Heritage

Measurement Units

Extent

cm² = Square-centimetres (1.0 cm x 1.0 cm)

m² = Square-meters (1.0 m x 1.0 m)

km² = Square-kilometers (1.0 Km x 1.0 Km)

ha. = Hectares (10,000 m²)

ac = Acres (4,046.8 m² or 0.40468 ha.)

Length

Mm = Millimetres

cm = Centimetres (cm = 10 mm)

m = Meters (m= 100 cm)

km = Kilometres (Km = 1,000 m)

Inch = 2.54 cm

ft = foot (0.3048 m)

Mile = 1,609.34 m

Chs. = 20.11 m

Currency

US\$ = United State Dollars

S./ = Peruvian New Soles

US\$ 1.00 = S/. 2.95 (Rate in September 2008)

S/.1 = US\$ 0.338 (Rate in September 2008)

Volume

cm³ = Cubic-centimetres

(1.0 cm x 1.0 cm x 1.0 cm or 1.0 m-lit.)

M³ = Cubic-meters

(1.0 m x 1.0 m x 1.0 m or 1.0 K-lit.)

Lit. = Litre (1,000 cm³)

MCM = 1,000,000 cu-m = 810.68 acre-ft

ac-ft = 1,233.83 m³

Weight

Gr. = Grams

Kg = Kilograms (1,000 gr.)

ton = Metric tonne (1,000 Kg)

Time and Others

sec. = Seconds

min. = Minutes (60 sec.)

hr. = Hours (60 min.)

cusec. = 28.32 lit/sec

cu-m/s = 35.31 cu-ft/sec

Fiscal Year of Peru

From 1/January to 31/December

1. INTRODUCTION

1.1 Background

In Peru, around half the population lives in poverty, where most are living in rural areas of the country. In order to alleviate the plight of the poor and redress regional inequity, the government of Peru ranks poverty alleviation, through economic development, as one of its priority issues.

Considering the needs and urgency for promoting poverty reduction in rural areas, income generating activities, utilizing locally available resources and regional development through infrastructure improvement, are considered essential means.

Tourism is one of the prominent and potential sectors for regional development in Peru. Rural areas of Peru are rich in natural and cultural assets that can contribute towards sustainable tourism development, and can bring about a positive impact on Peruvian socioeconomic conditions. According to the World Tourism Organization, tourism is the third largest foreign currency earning industry, amounting to eight percent of total Peruvian exports in 2004. The Peruvian government has developed the National Tourism Strategy Plan in order to further promote regional development through tourism by means of infrastructure improvement around tourist sites and by taking advantage of potential natural resources.

However, the lack of funds and human resources hinder addressing the issues and problems of the Peruvian tourism sector. This has also caused underdeveloped medium to long-term tourism promotion strategy. Northern Peru which has a high tourist potential, is suffering from economic inequity and poor tourism, which is lagging behind the southern area, where world's famous sites are located, i.e., Machu Picchu, Cusco and Puno. It must also be pointed out that there are only limited chances for local residents to participate in regional development.

Under these circumstances, it is necessary to consider means of providing assistance in view of poverty reduction and regional inequity alleviation. Tourism development and infrastructure improvement can be the means to achieve such objectives, particularly in northern Peru, where regional development and poverty reduction are urgently necessary.

Based on the agreement between the Ministry of Foreign Trade and Tourism (Mincetur) and Japan Bank for International Cooperation (JBIC which is currently Japan International Cooperation Agency as of October 1, 2008) as of June 11, 2008, (please refer to the copy of enclosed Minutes of Understanding at the end of this report) this study is jointly carried out by experts representing relevant parties, from June 2008 to January 2009.

1.2 Objectives of the Study

Various types of development projects/programs have been prepared by the Peruvian government and foreign donors to promote tourism sector as well as socioeconomic development in the Department of Amazonas.

Most of them are, however, not realized so far due to negative conditions such as limited budget, insufficient implementation of planning and lack of local participation.

The existing projects/programs are, thus, reviewed and integrated as a new development package in consideration of the current condition, balance of hard-components and

soft-components, utilization of Japanese experience on tourism development and local involvement in the Study.

In this condition, the objectives of the Study are as follows:

Objective 1 To explicate the necessity and potentials of tourism development projects in northern Peru in relation with poverty alleviation and economic development,

Objective 2 To identify and draw a comprehensive picture for rural development through tourism promotion in Amazonas, and

Objective 3 To prepare an integrated program profile in compliance with the Peruvian National Public Investment System (SNIP).

1.3 Study Area

All the districts in Amazonas, in particular the Utcamba Valley Corridor (Chachapoyas, Luya and Bongara provinces), form part of the study areas which are among the most underdeveloped areas in Peru.

Table 1.1 Study Area in Amazonas

	Area (km ²)	Population 2005	Population Density	Poverty level*
Amazonas region	39,249	391,705	9.98 / km ²	1.8
- Chachapoyas province	3,312	49,573	14.97 / km ²	1.9
- Bongara province	2,870	24,977	8.70 / km ²	2.0
- Luya province	3,237	49,733	15.36 / km ²	1.7
(3 provinces in total)	9,419	124,283	13.19 / km ²	1.8
All Peru	1,285,220	26,152,444	20.35/ km ²	N/A

* The poverty levels in the Peruvian Poverty Map are divided into 1 (poorer) - 5 (less poor).
 Source: INEI, FONCODES

In addition to the fragile socioeconomic condition, social and economic conditions in Amazonas are lagging behind other areas of Peru¹. Considering its rich natural and cultural assets, however, the potential of the region to be an attractive tourism destination in the future is high. Those natural and cultural resources are not adequately developed for tourism purposes and they are not known to public. Therefore, tourism development in Amazonas is strongly expected as a means of rural development to alleviate poverty and to contribute in redressing regional inequality.

The major tourism sites in the Study area are presented in the map at the beginning of this report.

1.4 Execution of the Study

This Study is being conducted by a team of consultants designated by JICA (Nippon Koei Latin America – Caribbean Co. Ltd. / KRI International Corp.), in close collaboration with experts of

¹ Population served for portable water supply in Amazonas: 67% (national average: 73%), electrification rate in Amazonas: 47% (National average: 73%), Population served for public sewage system in Amazonas: 29% (national average: 53%), Percentage of paved road in Amazonas: 6% (national average: 13%)

the Mincetur, the Amazonas Regional Government and local authorities. This study is a result of the collaboration and cooperation between the central and local experts/officers, local stakeholders and the consultants.

The Study in Peru has been executed since 15 June 2008. In addition to the inception meeting held with the Mincetur on 17 June 2008, and a kick-off discussion with regional stakeholders held in Chachapoyas on 30 June 2008, a workshop was also carried out in Chachapoyas on 14 July 2008. It aims to conduct in-depth discussions related to the screening of the tourism development as short-listed projects and to recognize the application of Japanese experience on rural development such as 'Michinoeki' (road station; Tambo en Peru), 'Isson Ippin (One Village One Product) and 'Livelihood Improvement Program' to rural tourism development in Amazonas. Main issues for tourism promotion were identified as follows.

- Improvement of infrastructure related to tourism is a key issue in strengthening tourism promotion in the Amazonas. Especially, it was recognized that road improvement was indispensable for further tourism development.
- Strengthening tourism promotion is vital in attracting domestic and foreign tourists, in order for them to realize the value of tourism in Amazonas. These can be implemented through international website, publicity materials, TV spot, etc.
- Conservation of cultural and natural heritages are to be conducted in cooperation with community participation, as well as public sector including local authorities and technical specialists.
- Capacity building for tourism services such as tourist guide, hotel, restaurant and handicraft, should be strengthened both in terms of quality and in quantity, in cooperation with public and private sectors.
- Tourism facilities such as information center, sign board, safety fence and promenade are to be set up in consideration of safety and tourist friendliness as well as natural and social environments.

Based on further study in Peru from July to September 2008, the Perfil and a Draft Final Report (DF/R) was compiled at the end of September 2008. This was reviewed and discussed at the workshop in Chachapoyas on 5 December 2008, and on 9 December 2008 in Lima. The Final Report (F/R), composed of a main report and supporting discussions, presents all the results of the Study, planning and evaluation of the development program proposed for rural development through tourism promotion in the Amazonas region of Peru.



Workshop in Chachapoyas in September 2008



Workshop in Lima in December 2008

1.5 Structure of the Study

For better understanding of the Study flow, from background and objectives to conclusions and recommendations, the structure of the F/R is briefly shown below.

Table 1.2 Structure of the F/R

	Summary	Study Objectives
Chapter 1	Introduction of the Study	a)
Chapter 2	Identification of current condition of tourism development, which is composed of socioeconomic condition, tourism sector and infrastructure roughly, in Amazonas to explicate the necessity and potential of tourism development project in northern Peru in relation with poverty alleviation and economic development	a)
Chapter 3	Presentation of basic concepts and strategies to identify and draw a comprehensive picture, which is composed of tourism promotion, infrastructure improvement and poverty alleviation roughly, for rural development through tourism promotion in Amazonas in consideration of the current conditions of tourism development in Amazonas	b)
Chapter 4	Presentation of program for priority projects, which is proposed based on component such as, on-site value enhancement, off-site services and facilities, tourism marketing, transport, electricity, water and sanitation, telecommunication and solid waste management. This is intended to prepare an integrated program profile in compliance with the Peruvian National Public Investment System (SNIP)	b) c)
Chapter 5	Preparation of implementation plan for the proposed program	b) c)
Chapter 6	Program evaluation to justify the proposed program	b) c)
Chapter 7	Presentation of alternatives for development package	b) c)
Chapter 8	Conclusions and recommendations of the Study	a) b) c)

Note: Study Objectives are mentioned in Chapter 1.2 as follows:

- a) To explicate the necessity and potential of tourism development project in northern Peru in relation with poverty alleviation and economic development,
- b) To identify and draw a comprehensive picture for rural development through tourism promotion in Amazonas, and
- c) To prepare an integrated program profile in compliance with the Peruvian National Public Investment System (SNIP).

Source: JICA Study Team

2. CURRENT CONDITION OF TOURISM SECTOR IN AMAZONAS

2.1 Socioeconomic Condition

(1) General Condition

According to the estimates obtained from the last national census in 2005, the total population of Amazonas was 391,705. The population accounts for around 1.5% of the total population in Peru, where more than 75% of the population lives in urban area. Meanwhile, more than half of the population in Amazonas lives in rural areas.

Basic infrastructure in Amazonas is underdeveloped. In particular, condition of paved road, electricity and sewerage system are far behind as compared to that of the national situation. Improvement of basic infrastructure is one of the urgent issues for regional development as well as tourism promotion in Amazonas.

Social indicators such as education and health conditions in Amazonas are also relatively low as compared to the national situation. Poverty alleviation through improvement of the livelihood condition is the key issue considered by the regional government of Amazonas.

Table 2.1 Socioeconomic Condition in Amazonas

Items	Amazonas	National Average
Total Population	391,705	26,152,265
Population in rural area	56%	25%
<i><Infrastructure></i>		
Population served for potable water supply	67%	73%
Electrification rate	47%	73%
Population served for public sewerage system	29%	53%
Percentage of paved road	6%	13%
<i><Social indicator></i>		
Completion rate of primary school	50%	64%
Malnutrition rate (1999)	40%	28%

Source: Poverty Map – FONCODES, Censo de Población y Vivienda del 2005 - INEI

Tourism industry is developing in Amazonas. The service sector including those that support tourism industry is rendered as the most important sector. Around 60% of total regional GDP in Amazonas is contributed by the service sector. It is noted that the mining industry has not been developed in Amazonas so far.

Table 2.2 GDP in Amazonas (Million S/.)

Sector	2004	2005	2006
Agriculture	655 (33%)	545 (27%)	760 (32%)
Construction	127 (6%)	120 (6%)	172 (7%)
Manufacture	35 (2%)	39 (2%)	44 (2%)
Services	1,172 (59%)	1,320 (65%)	1,426 (59%)
Total	1,989 (100%)	2,024 (100%)	2,402 (100%)

Source: Peru en Numeros 2007 – Instituto Cuanto / Proinversion

(2) Poverty Condition

According to the Peruvian poverty map prepared by Cooperation Fund for Social Development (FONCODES), Amazonas is one of the most underdeveloped departments in Peru as indicated in the table below.

Table 2.3 Poverty Map in Peru (2006)

Poverty Level	Department	Total Population
Level 1 (poorer) (0.7206 - 0.9672)**	Amazonas, Apurímac, Ayacucho, Cajamarca, Huancavelica, Huánuco, Loreto, Pasco (8 Departments)	5,115,776 (20%)
Level 2 (0.5604 - 0.7153)**	Cusco, Piura, Puno, San Martín, Ucayali (5 Departments)	5,120,201 (20%)
Level 3 (0.1337 - 0.4961)**	Ancash, Ica, Junín, La Libertad, Lambayeque, Madre de Dios, Tumbes (7 Departments)	5,771,672 (22%)
Level 4 (0.0650 - 0.1042)**	Arequipa, Moquegua, Tacna (3 Departments)	1,574,612 (6%)
Level 5 (less poor) (0.0529 - 0.0549)**	Callao, Lima (2 Departments)	8,630,004 (33%)
Total	25 Departments in Peru	26,152,265 (100%)

* The poverty tendency is similar to the UNDP Human Development Index: Amazonas 0.5535 (Level 1), San Martín 0.5735 (Level 2), La Libertad 0.6046 (Level 3), Arequipa 0.6463 (Level 4), Lima 0.7033 (Level 5)

** Poverty levels in the Peruvian Poverty Map range from 1 (poorest) to 5 (least poor) in calculation of poverty indicators.

Source: FONCODES, 2006

Considering average poverty rates, Chachapoyas, Bongara and Luya, which are covered by the study area and regarded as important tourism area in Amazonas, are determined as among the poorest areas, as shown in the table below. More than 93% of districts in these three provinces are in the poverty level of 1 to 2 (84% of the Amazonas average). In particular, the poverty condition in Luya is indicated as quite severe, that is, in both level 1 and level 2 of the poverty map.

Table 2.4 Number of Districts in Poverty Map of Amazonas (2006)

Poverty Level	Chachapoyas	Bongara	Luya	3 Provinces	Amazonas
Level 1 (poorer)	6 (29 %)	1 (8 %)	8 (35 %)	15 (27 %)	25 (30%)
Level 2	12 (57 %)	10 (83 %)	15 (65 %)	37 (66 %)	45 (54%)
Level 3	2 (10 %)	1 (8 %)	0 (0 %)	3 (5 %)	12 (14%)
Level 4	1 (5 %)	0 (0 %)	0 (0 %)	1 (2 %)	1 (1%)
Level 5 (less poor)	0 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)	0 (0%)
Total	21 (100 %)	12 (100 %)	23 (100 %)	56 (100 %)	83 (100%)

Source: FONCODES, 2006

In accordance with the poverty condition, unemployment rates in the three provinces (27.5%) are quite high as compared to the national average (4.3%). In particular, unemployment rate (31.6%) in Luya is remarkably high.

Job opportunities for permanent positions are very limited in this area. Most people in the rural areas earn their living through small-scale farming for self-consumption and from temporary employments involving occasional construction works as well as from remittances from family members who are working outside of Amazonas.

Table 2.5 Unemployment Rate in Amazonas

(%)	Chachapoyas Province	Bongara Province	Luya province	Three (3) Provinces	Male	Female	Amazonas	Peru
Unemployment rate	24.5	26.5	31.6	27.5	27.2	32.9	28.7	4.3
(worked before)	18.3	21.2	25.1	21.5	20.1	24.2	21.2	-
(assist without salary)	2.8	2.8	5.5	3.7	3.8	5.4	4.2	-
(looking for a job)	3.4	2.5	1.0	2.3	3.3	3.3	3.3	-

Note: Target population is economically active population.

Source: INEI - Censos Nacionales 2007 : XI de Población y VI de Vivienda

In view of this poverty condition, income opportunities are also limited in Amazonas. The most common job opportunities require unskilled labor such as construction worker, house maid and seasonal agricultural worker. More than half of the total economically active population (PEA) in Amazonas earned less than 200 soles/month in 2005, although the country's minimum monthly wage is currently 550 soles.

Table 2.6 Monthly Income Condition in Amazonas (2005)

Monthly Income	Economically Active Population	%
No Income	65,505	26.6
Less than 200 S/.	72,154	29.3
200 – 399 S/.	48,513	19.7
400 – 599 S/.	24,872	10.1
600 – 799 S/.	10,589	4.3
800 – 999 S/.	6,156	2.5
1000 – 1999 S/.	16,745	6.8
2000 – 3999 S/.	1,723	0.7
More than 4000 S/.	492	0.2
Total	246,262	100.0

Source: Ministerio de Trabajo y Promoción del Empleo, 2005

2.2 Current Condition of Tourism Sector

(1) National Tourism Policy

The National Tourism Strategy Plan 2005-2015 (Pentur) prepared by Ministry of Foreign Trade and Tourism (Mincetur) in 2004 and updated and re-designed its goals in the 2008-2018 period in 2008, states that its main objective is to achieve a sustainable tourism in Peru as a means for the socio-economic development of the country. Pentur has four strategic objectives:

- Objective 1:** Promotion of culture of tourism and security for visitors
- Objective 2:** Development of competitiveness and sustainable supply for tourism
- Objective 3:** Promotion of sustainable demand for tourism
- Objective 4:** Strengthening of institutions linked with the tourism activities

Under the PENTUR, Mincetur pays attention to the rural and community tourism development in the North-Eastern Touristic Circuit area including Lambayeque, Cajamarca, La Libertad and Amazonas regions as shown in the figure below. Main reasons to strengthen tourism in the North-Eastern Touristic Circuit area are as follows:

- To contribute to poverty alleviation as well as promote economic development through the activation of tourism industry
- To contribute to decentralization and diversification of tourism in Peru considering that the southern tourism corridor, namely Cusco, Machu Picchu, Titicaca Lake, etc., has oversupply of tourists, as pointed out in the UNESCO documents in 1999 and 2002

Furthermore, Pentur proposes to restructure the tourist supply within the country under the “destination” aspect, focusing on eight conditions that could be fulfilled by the Utcubamba corridor. These conditions are:

- Each tourist destination has a recognized ‘valid territory manager entity’ specializing the field of tourism. The territory’s regions, provinces and districts which are confined, should assign a management and coordination entity. The entity manager will be responsible for tourist development strategic planning for each destination, as well as the implementation required for the improvement of its competitiveness. It should be realized that this entity must develop its own tools in order to function in order to sustain its economy.
- The tourism policy will seek consensus from each destination and Mincetur, regarding what is necessary to maintain including provision of effective flow of communication through the provided tools. These measures will define complementary tourism policies within Peru’s integral destination.
- Each tourist destination has a geographical delimitation defined according to the regional, provincial, or district terms. The territory includes destination composition of a closed geographical continuity with similar geographic and cultural characteristics, as well as a homogeneous tourism identity.
- The destinations should have potentials of articulating competitive advanced products to attract tourists. Hence, it needs sufficient resources and services in terms of quantity and quality in order to promote a competitive commercial supply and with distinct feature.
- Each destination or scenario will have its own tourist development model based on, at least, a specific product that articulate its supply around a thematic axis and a Sale Principal Proposal (PPV). This is intended to promote their identification and possibly obtain a differential position within the Peru destination supply. The destination should identify and define both their main resources which are vital in enhancing and strengthening the value of its main products or in launching new products.
- The tourist products must put on value the destination tourist’s use taking into account the variable in demands. Thus, tourist products should aim at some mainly specific demand (or niches particularly) segments that facilitate and channel their subsequent communication and marketing.

- Each destination must have a tourism development strategic plan that will include an operational plan. Said plan must provide for necessary actions to implement the strategies in the territory in a pragmatic and effective way. The plan must include the actions duly described, budgeted and organized chronologically according to order of importance, to facilitate its implementation in short, medium and long term.
- The destinations should have a defined image in the market that is easily recognizable by consumers, and commensurate with its identity and territory's communicative representative strategy to be used in media.

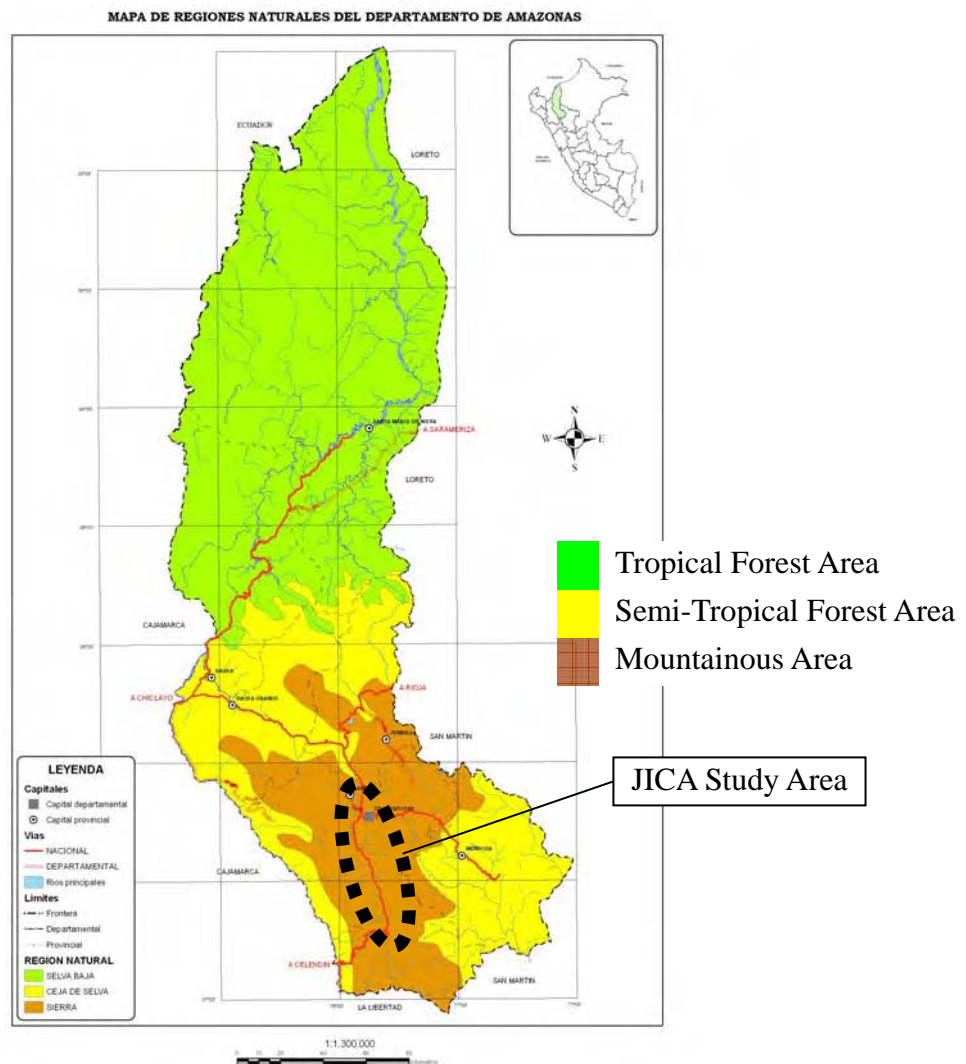


Figure 2.1 North-Eastern Touristic Circuit Area



Source: Mincetur, JICA Study Team

(2) Regional Tourism Policy

The Concerted Regional Development Plan 2007 – 2015 was prepared by the Amazonas regional government in August 2007 to clarify short and medium term plan of regional development in Amazonas.

In the development plan, ‘Tourism and Culture’ sector is regarded as one of the strategic sectors together with the economic infrastructure, social infrastructure and basic services, and territorial planning and environment.

Major points to be strengthened in the tourism and cultural sectors are mentioned in the development plan as follows.

- Restoration and value enhancement of the important archaeological sites
- Appropriate utilization of the important archaeological sites for tourism development
- Provide assistance in attracting tourists to recognize Amazonas as part of the northern tourism circuit in Peru
- Re-establish cultural identity in every district

(3) Current Tourism in Peru

The number of foreign visitors in Peru, who stayed in hotels, was around 3.5 million in 2007. The number of foreign tourists increases steadily every year. The trend shows an increase of over 13 percent from 2006 to 2007. According to the projection of Mincetur, number of foreign tourists will reach more than three million in 2011 and more than five million in 2014.

Table 2.7 Number of Hotel Guests in Peru, Amazonas, Kuelap

Year	Peru			Amazonas			Kuelap		
	Foreign	National	Total	Foreign	National	Total	Foreign	National	Total
2001	-----	-----	-----	-----	-----	-----	1,392	5,877	7,269
2002	803,162	5,192,941	5,996,103	-----	-----	-----	1,466	7,471	8,937
2003	2,370,948	15,615,726	17,986,674	2,575	119,269	121,844	1,687	8,129	9,816
2004	2,725,290	16,176,640	18,901,930	2,210	107,619	109,829	1,683	8,391	10,074
2005	3,033,719	17,890,159	20,923,878	2,848	121,402	124,250	2,250	7,223	9,473
2006	3,025,251	16,699,424	19,724,675	7,162	150,344	157,506	3,334	8,651	11,985
2007	3,451,279	18,730,444	22,181,723	10,756	156,597	167,353	4,133	9,725	13,858

Note: Number of visitors who stayed in the accommodations

Source: INEI Censo Nacional 2007, INEI – Dirección Nacional de Cuentas Nacionales. En nuevos soles a precios corrientes del 2006, MINCETUR 2008. Arribos a establecimientos de hospedaje, MINCETUR 2008

(4) Tourism Promotion in Northern Peru

Northern Peru including Amazonas is one of the priority areas for tourism promotion in line with the national tourism policy.

According to the investment trends of Plan Copesco, which is a national institute under the Mincetur that promotes rural development through tourism promotion in the poorest areas in Peru, the total amount of investment for promoting tourism in the whole Peru in 2003 to 2008, particularly in its north–oriental region including Amazonas (38% of total investment), is relatively high as compared to other regions.

The current investment in Amazonas, which is an underdeveloped tourism area, is around half of the total investment in the north–oriental region according to the Mincetur policy.

**Table 2.8 Investment of Plan Copesco Nacional –Mincetur
for Tourism Promotion by Region in Peru (2003-2008)**

Macro-Region	Investment (S/.)	(ratio)
North-Oriental region (NOR)	37,193,841	38%
(Amazonas)	(17,253,601)	(46% of NOR)
(Cajamarca)	(2,330,459)	(6% of NOR)
(La Libertad)	(4,176,337)	(11% of NOR)
(Lambayeque)	(7,618,996)	(20% of NOR)
(Loreto)	(2,299,682)	(6% of NOR)
(Piura)	(944,492)	(3% of NOR)
(San Martin)	(513,424)	(1% of NOR)
(Tumbes)	(2,056,850)	(6% of NOR)
Central region	19,577,604	20%
South region	33,544,856	34%
National	6,376,926	6%
(Management)	1,530,080	2%
Total	98,223,307	100%

Source: Mincetur, 2008

Year	PROJECT	AMOUNT S/.
2003	Investigation, Preservation and Tourist Fitting of the Kuelap's Fortress	460,058.00
2004	Investigation, Preservation and Tourist Fitting of the Kuelap's Fortress	2,489,281.00
2005	Preservation and Tourist Fitting out of the Archaeological Complex of Revash	70,707.61
2005	Kuelap's Fortress Investigation, Preservation and Tourist Fitting out Emergency Project.	929,747.31
2005	Preservation and tourist Fitting out of the Archaeological Complex of Yalape - Levanto	258,021.56
2005	Improvement of the Access Road to the Wayku Quechua Native Community Populated Center (Lamas)	122,576.78
2005	Value Enhancement of the Old Elementary School, Purification of Culqui Puigui and Paved with Stones of the Street	88,384.52
2005	Restoration, Improvement and Installation of Tap Water System and Sewerage in Kuelap Village	98,427.50
2006	Investigation, Conservation and Tourist Preparation of the Kuelap's Fortress - II Stage	1,631,177.73
2006	Restoration, Improvement and Installation of the Tap Water System and Sewerage in Kuelap Village	91,080.12
2006	Tourist Development Program of the Alto Utcumba	240,675.47
2006	Tourist Fitting out of the Traditional Urban - Architectonic surroundings in Leynebamba	476,804.76
2006	Reconstruction of the Traditional Architecture in the Tourist District of La Jalca in the Alto Utcumbamba Valley, District of La Jalca - Chachapoyas	500,000.00
2006	Tourist Fitting out and Traditional Architecture Locality in Maria	500,000.00
2006	Value Enhancement of Traditional Architecture and Tourist Fitting out of Historical Town of Tingo in the Alto Utcumbamba Valley, District of Tingo - Luya - Amazonas	500,000.00
2006	Recovery of the Historical Town of San Bartolo in the Alto Utcumbamba Valley	500,000.00
2006	Forefall Development in the Tourist Zones of the Alto Utcumbamba	648,930.00
2006	Recovery of the Historical Center of the City of Chachapoyas	940,047.00
2007	Investigation, Preservation and Tourist Fitting out Emergency Project in Kuelap	1,151,141.86
2007	Recovery of the Historical Center of the City of Chachapoyas	264,803.00
2007	Tourist Fitting out of the Archaeological Resources for the Alto Utcumbamba	3,000.00
2007	Improvement of the System of Water Supply and Sewerage in Montevideo	2,850.00
2007	Recovery of the Historical Town of San Bartolo in the Alto Utcumbamba Valley	500,000.00
2008	Consolidation and Tourist Fitting out of Emergency Areas in the Kuelap's Fortress South Wall Sector	500,000.00
2008	Improvement, Restoration and Extension of Water Systems and Sewerage in the River Basin of the Alto Utcumbamba (Maria, Montevideo, San Bartolo, Santo Tomás)	1,367,500.00
	Total	14,335,214.22

Note: The difference of total amount between two tables is the budget (above) and the actual (below).

Source: Mincetur

However, although the number of tourist has smoothly increased in Amazonas, its investment remained unstable due to insufficient allocation of government budgets and changes in national policies.

Table 2.9 Tourists and Investment in Kuelap (2001-2007)

Year	2001	2002	2003	2004	2005	2006
Total tourists in Kuelap	7,269	8,937	9,816	10,074	9,473	11,985
Total Investimet for Kuelap (million S/.)	0	0	460	2,489	1,357	6,029

Source: Mincetur, 2008

(5) Tourism Sector in Amazonas

The characteristics of tourism in Amazonas are summarized in comparison with other major tourism sites in Peru, as shown in the tables below.

When compared to other tourism areas, it is pointed out that one of the strongest points of tourism in Amazonas is as follows:

- It has both cultural and natural tourism resources which can be in the same level of other international tourism resources such as Kuelap (*“Machu Picchu in northern Peru”*), Gocta (*“the third highest waterfall in the world”*) and Leymebamba museum (*“precious mummies and burial offerings unique to the world”*), as presented and detailed in Attachment 2 “Information on Major Tourism Resources in the Study Area “.

On the other hand, it is pointed out that one of the weakest points of tourism in Amazonas when compared to other tourism regions is:

- Accessibility of transportation is underdeveloped. In particular, it is crucial that there are no regular direct flights between Lima and Chachapoyas. In addition, the gateway city of tourism in Amazonas is far from the neighboring airports, i.e., around 7 hours from/to Chiclayo, 5 hours from/to Tarapoto, and 10 hours from/to Cajamarca.

However, it is pointed out that a lot of foreign tourists have visited Machu Pichu, Huascaran and other remote sites in a few days or more similar to the accessibility to tourism sites in Amazonas.

In this situation, a number of foreign tourists as well as national tourists in Amazonas is expected to increase in future with appropriate tourism promotion.

Table 2.10 Characteristics of Major Tourism Sites in Peru (1/2)

Region	Cusco	Ica	Lima	Ancash
Regional capital	Cusco	Ica	Lima	Huaraz
Natural Condition	Mountainous zone	Coastal zone	Coastal zone	Mountainous zone
Population (1993/ 2007 cesnus) (Increase rate '93-'07)	1,028,763 1,171,403 (0.9%)	565,686 711,932 (1.6%)	6,386,308 8,445,211 (2.0%)	955,023 1,063,459 (0.8%)
GDP (million S/.) (1997, 2001, 2005) (% of National GDP)	3,815 (2.4%) 4,602 (2.4%) 6,683 (2.6%)	5,489 (3.5%) 6,680 (3.5%) 9,199 (3.5%)	75,777 (48.1%) 92,477 (48.9%) 123,573 (47.2%)	4,078 (2.6%) 6,263 (3.3%) 10,899 (4.2%)
UNDP HDI (2006)*	0.5377	0.6481	0.7033	0.5776
No. of visitors (2007)	1,404,957	788,103	10,979,141	167,251
(foreign)	890,550 (63%)	147,679 (19%)	1,547,878 (14%)	27,025 (16%)
(national)	514,409 (37%)	640,424 (81%)	9,431,261 (86%)	140,226 (84%)
No. of Hotel (2007)	913	403	3,636	185
Visitors/Hotel	1,539	1,956	3,020	904
Distance (Lima – Regional capital)	1,165 km	300 km	N/A	408 km
Access (air route) (Lima – Regional capital)	75 minutes (regular flight)	45 minutes (charter flight) <i>Not a few incidents of a light aircraft</i>	N/A <i>-Hub-airport in Peru -International airport</i>	70 minutes (regular flight)
Access (land route) (Lima – Regional capital)	19.5 hours	4 hours	N/A	8 hours
Major tourism sites * UNESCO World Heritage - Time from regional capital	(1) Machu Picchu * - 4 hours by train + 1 hour by bus, etc. (2) Cusco historic zone* - in the city (3) Inca trail - 1 hour by land (4 days trekking circuit)	(1) Nasca * - 2 hours by land (2) Paracas - 1 hour by land (3) Wineries - in the city	(1) Lima historic zone * - in the city (2) Pachacamac - 30 min. by land (3) Archaeological/ Historic Museums - 10–30 min. by land	(1) Huascarán - 1.5 - 2.5 hours by land (2) Callejon de Huaylas - 0.5 - 1 hours by land (3) Monterrey - 15 min. by land
Better travel season	April to Novemer (rainy : Dec.-Mar.)	All the yeara round	All the yeara round	April to Novemer (rainy : Dec.-Mar.)
Typical tourist circuits	3 Days Trip: 1st. Day Lima - (air) - Cusco – Cusco city tour 2nd. Day Cusco - (train & bus) - Machu Picchu - (train & bus) - Cusco 3rd. Day Cusco city tour – Cusco –(air)– Lima	1 Day Trip: Lima - (air) – Ica/Nasca – Nasca liners – Ica/Nasca – (air) - Lima	1 Day Trip: Hotel – (land) – Pachacamac – (land) – Museums – Lima historic zone – (land) – Hotel	4 Days Trip: 1st. Day Lima - (midnight bus) - 2nd+3rd Day - (midnight bus) -Huascarán – (bus) – National Park – (bus) Huascarán - (midnight bus) - 4th Day - (midnight bus) – Lima
Highlight of tourism	-Cultural tourism of the Inca Era	-Mysterious Nasca liners	-Gateway city of tourism in Peru	-Nature tourism in the Andes

* HDI: Human Development Index

Source: INEI Censo Nacional 2007, INEI – Dirección Nacional de Cuentas Nacionales. En nuevos soles a precios corrientes del 2006, MINCETUR 2008. Arribos a establecimientos de hospedaje, MINCETUR 2008


























































































Table 2.10 Characteristics of Major Tourism Sites in Peru (2/2)

Region	Lambayeque	La Libertad	Cajamarca	Amazonas
Regional capital	Chiclayo	Trujillo	Cajamarca	Chachapoyas
Natural Condition	Coastal zone	Coastal zone	Mountainous zone	Mountainous zone
Population (1993/ 2007 census) (Increase rate '93-'07)	920,795 1,112,868 (1.3%)	1,270,261 1,617,050 (1.7%)	1,259,808 1,387,809 (0.7%)	336,665 375,993 (0.8%)
GDP (million S/.) (1997, 2001, 2005) (% of National GDP)	5,716 (3.6%) 7,156 (3.8%) 8,435 (3.2%)	8,351 (5.3%) 10,331 (5.5%) 14,535 (5.5%)	3,588 (2.3%) 4,897 (2.6%) 8,877 (3.4%)	1,482 (0.9%) 1,527 (0.8%) 2,040 (0.8%)
UNDP HDI (2006)*	0.6271	0.6046	0.5400	0.5535
No. of visitors (2007)	528,307	950,593	394,134	170,682
(foreign)	21,714 (4%)	31,883 (3%)	12,753 (3%)	8,699 (5%)
(national)	506,593 (96%)	918,710 (97%)	381,381 (97%)	161,556 (95%)
No. of Hotel (2007)	324	587	345	146
Visitors/Hotel	1,631	1,619	1,142	1,169
Distance (Lima – Regional capital)	770 km	561 km	856 km	1,212 km
Access (air route) (Lima – Regional capital)	85 minutes	55 minutes	65 minutes	No Flight
Access (land route) (Lima – Regional capital)	11 hours	8 hours	13.5 hours	20 hours
Major tourism sites * UNESCO World Heritage - Time from regional capital	(1) Sipan - 40 min by land (2) Sican - 1 hour by land (3) Tucume - 30 min. by land	(1) Chan Chan * - 20 min. by land (2) Huaca del sol y la luna - 30 min. by land (3) El Brujo - 1 hour by land	(1) Cajamarca historic zone - in the city (2) Baños de Inca - 15 min. by land (3) Cumbe Mayo - 45 min. by land	(1) Kuelap - 3 hours by land 2) Gocta Fall - 1 hour by land + 2 hours on foot (3) Leymebamba museum - 3 hours by land
Better travel season	All the yeara round	All the yeara round	April to Novemer (rainy : Dec.-Mar.)	April to Novemer (rainy : Dec.-Mar.)
Typical tourist circuits from Lima	3 Days Trip: 1st. Day Lima - (air) – Chiclayo and city tour 2nd. + 3rd. Day Chiclayo - (bus) – Sican/Sipan/Tucum e –(bus) - Chiclayo 3rd. Day Chicalyo – (air) – Lima	3 Days Trip: 1st. Day Lima - (air) – Trujillo – (bus) - Chan Chan – (bus) - Trujillo 2nd. + 3rd. Day Trujillo - (bus) – Huaca del Sol y la Luna/El Brujo –(bus) - Trujillo 3rd. Day Trujillo – (air) – Lima	3 Days Trip: 1st. Day Lima - (air) – Cajamarca and city tours 2nd. + 3rd. Day Cajamarca – (bus) - Cumbre Mayo – (bus) - Baños de Inca – (bus) - Cajamarca 3rd Day Cajamarca - (air) – Lima	4 Days Trip: 1st. Day Lima - (air) – Chiclayo – (bus) - Chachapoyas 2nd. Day Chachapoyas – (bus) - Kuelap – (bus)–Chachapoyas 3rd. Day Chachapoyas - (bus) – Gocta (trekking) – (bus) – Chachapoyas 4th. Day Chachapoyas – (bus) – Chiclayo – (air) - Lima
Highlights of tourism	Cultural tourism of Pre-Inca Era (the Moche)	Cultural tourism of Pre-Inca Era (the Chimú)	Cultural tourism of Inca and Colonial Eras	Cultural (Pre-Inca) & Natural tourism (eco/agro-tourism)

* HDI: Human Development Index

Source: INEI Censo Nacional 2007, INEI – Dirección Nacional de Cuentas Nacionales. En nuevos soles a precios corrientes del 2006, MINCETUR 2008. Arribos a establecimientos de hospedaje, MINCETUR 2008

Table 2.11 Typical Tourism Circuits for Machu Picchu and Amazonas

Site & Area	1 st day	2 nd day	3 rd day	4 th day and more
Machu Picchu & Cusco (actual)	Lima  (75 min.) Cusco Cusco city tour  	Cusco  and  (5 hours in total) Machu Picchu   and  (5 hours in total) Cusco 	Cusco  (75 min.) Lima	
South Peru (Machu Picchu & Cusco & Titicaca Lake) (actual)	Lima  (75 min.) Cusco Cusco city tour  	Cusco  and  (5 hours in total) Machu Picchu   and  (5 hours in total) Cusco 	Cusco  or  (7 hours) Puno 	Puno Titicaca Lake   (1 hour) Juliaca  (2.5 hours) Lima
Amazonas (actual)	Lima  (85 min.) Chiclayo  (10 hours) Chachapoyas 	Chachapoyas  (3 hours) Kuelap   (3 hours) Chachapoyas 	Chachapoyas  (1 hour) Gocta Fall   (1 hour) Chachapoyas 	Chachapoyas  (10 hours) Chiclayo  (85 min.) Lima
Amazonas (after tourism development without air flight between Lima and Chachapoyas)	Lima  (85 min.) Chiclayo  (10 hours) Chachapoyas 	Chachapoyas  (2.5 hours) Kuelap   (1.5 hours) Leymebamba Museum   (2.5 hours) Chachapoyas 	Chachapoyas  (1 hour) Gocta Fall   (1 hour) Chachapoyas  (10 hours) Chiclayo  (85 min.) Lima	
Amazonas (after tourism development with air flight between Lima and Chachapoyas)	Lima  (110 min.) Chachapoyas  (1-3 hours) - Lamud/Luya  - Huancas/Levanto   (1-3 hour) Chachapoyas 	Chachapoyas  (2.5 hours) Kuelap   (1.5 hours) Leymebamba Museum   (2.5 hours) Chachapoyas 	Chachapoyas  (1 hour) Gocta Fall   (1 hour) Chachapoyas  (110 min.) Lima	
North Peru (after tourism development with air flight between Lima and Chachapoyas)	Lima  (110 min.) Chachapoyas  (1-3 hours) - Lamud/Luya  - Huancas/Levanto   (1-3 hour) Chachapoyas 	Chachapoyas  (2.5 hours) Kuelap   (1.5 hours) Leymebamba Museum   (2.5 hours) Chachapoyas 	Chachapoyas  (1 hour) Gocta Fall   (1 hour) Chachapoyas   - Chiclayo/Trujillo - Tarapoto 	Chiclayo/Trujillo (Cultural tourism for Pre-Inca)  Tarapoto (Ecotourism in the tropical zone)   Lima

Note:  Cultural Tourism Site  Natural Tourism Site
 Source: JICA Study Team

Tourism industry in Amazonas has been developed in line with the national investment abovementioned. As a result of the tourism promotion, the number of tourists in Amazonas has increased steadily over the recent years. As an indicator, in 2005 and 2007 there were 124,250 and 167,353 arrivals (nearly 35% of increase in just two years), respectively. This is mostly attributed to national tourists including business travelers (94% of the total tourists), and to foreign tourists which have increased radically from 2,848 in 2005 to 10,756 in 2007. Foreign tourists were mainly from the United States of America, Germany and The United Kingdom.

Table 2.12 Number of Tourists in Amazonas

Year	2005	2006	2007
National tourists	121,402	150,344	156,597
Foreign tourists	2,848	7,162	10,756
(U.S.A.)	536	1,287	1,631
(Germany)	386	1,065	1,765
(U.K.)	333	545	1,620
(France)	231	557	900
(Spain)	100	558	756
(Canada)	89	413	559
(Other countries)	1,173	2,737	3,477
Total	124,250	157,506	167,353

Source: Mincetur, 2008

In contrast to the increase of visitors in Amazonas, hotel development is stagnant. In particular, the number of high-class hotels is quite limited due to slight unwillingness of private investors and lack of basic infrastructure. Based on recent trends, the number of small-scale and high-class pension-style hotel increased in the surrounding tourist sites which adapt to the demand of tourists who desire to commune with nature.

Table 2.13 Accommodations in Major Districts in Amazonas

Province	District	No. of accommodations	No. of rooms	No. of beds
Bongara Chachapoyas	Jazan	6	68	109
	Chachapoyas	27	391	706
	La Jalca	1	8	24
	Leymebamba	10	50	98
	Magdalena	3	23	50
Luya	Lamud	4	30	39
	Longuita	1	6	27
	Luya	1	5	7
	Maria	9	31	57
	Tingo	3	28	45
Total		65	640	1,162

Source: Mincetur 2007 Directory

In line with the increase of number of tourists in Amazonas, the number of tourists who visited the most famous tourist site “Kuelap” increased remarkably from 7,269 in 2001 to 11, 985 in 2006. In particular, the number of foreign tourists continues to grow steadily in part due to advertisements in international TV programs and magazines, presenting not only Kuelap but

also Leymebamba Museum/Laguna de Condres as one of the most favorably important and mysterious cultural heritages in Peru.

Table 2.14 Number of Tourists in Kuelap and Leymebamba

Year	Kuelap			Leymebamba		
	Foreign	Peruvian	Total	Foreign	Peruvian	Total
2001	1,392	5,877	7,269			
2002	1,466	7,471	8,937			
2003	1,687	8,129	9,816			
2004	1,683	8,391	10,074	232	1,464	1,696
2005	2,250	7,223	9,473	273	2,543	2,816
2006	3,334	8,651	11,985	310	1,682	1,992
2007	4,241	10,463	14,704	396	3,029	3,425

Source: Mincetur, 2008

In general, tourists who visit in Amazonas, stay three days in average. It is noted that foreign tourists spend four times more than the national tourists.

Table 2.15 Length of Stay and Daily Expenses for Tourist

Average Length of Stay	
3 days	
Average Daily Expenses per Tourist	
National tourist	S./ 35 per day
Foreign tourist	S./ 141 per day

Source: Dircetur Chachapoyas 2004

(5) Strength / Weakness / Opportunity / Threat (SWOT) Analysis of Tourism in Amazonas

A quick SWOT analysis for tourism in Amazonas was conducted to obtain information on project formulation in this Study, on the basis of opinions from Mincetur, local stakeholders in Amazonas and the Study Team. Results of main points, tourism promotion, tourism resources, tourism services and facilities, institutional building, and human resources, are summarized as follows.

<Tourism Promotion>

Strengths

- Concentration of important archaeological attractions linked with other regions of the northern circuit: La Libertad, Lambayeque, Cajamarca
- Availability of “new” archaeological sites to be investigated and put for public use
- Feasibility of developing Chachapoyas’s route leading to main archeological monuments
- Feasibility of developing high interest routes for bird watchers (in integration with San Martin and Loreto).
- New discoveries such as waterfalls and other rainforest ecological circuits

Weaknesses

- Unclear strategy and vision for tourism development/promotion
- Low investment for social use of important touristic resources
- Insufficient facilities and tourist services at the city of Chachapoyas and smaller towns

- Absence of an integrated museographic product
- Limited investment for tourism facilities
- Uncontrolled predatory practices of settlers and migrants
- Absence of footpaths, observation facilities, interpretation centers, skilled guides and specific materials
- Poor organization for ecotourism and agro-tourism
- Absence of an association with historical cities and towns

Opportunities

- Increasing investment put into social use to regard high importance to tourism resources through promotion and tourist development funds
- Increasing of private sponsorship for the development of natural and cultural tourism projects
- Interest of international donor organizations for tourism development in the area

Threats

- Over-investment in tourism promotion without consideration of cost-benefit balance
- Incompatibility of the non-sustainable extractive activities with the heritage resources preservation
- Spreading excess of investments to support other projects in the region

<Tourism Resources>

Strengths

- Amazonas is a part of the Northern Circuit, regarded as the second tourist destination in Peru
- Increasing visitations to Kuelap which is an archaeological tourist icon of Perú
- Possibility to cooperate with international tourism circuits : Ecuador (Guayaquil, Cuenca) and Brasil (Manaos)
- Accessible segments/niches of specific interest: pre-inca archaeology, museography, historical cities, bird watching, nature-adventure
- Presense of the world's third highest waterfall "Gocta"

Weaknesses

- Lack of specific strategies for Ecuadorean and Brazilian market
- Lack of specific strategies for the specific interest segments/niches
- Limited and conventional promotion at Lima

Opportunities

- Increasing interest of the main off-bound markets in Peru and its pre-Incas and natural components promoted by international TV programs and magazines presenting these as important cultural/natural heritage
- Specialized means of availability for specific segments of interest
- Feasibility for the design of diverse products and of different duration

Threats

- Increasing competition with other Latin American destinations as well as domestic tourism areas

<Tourism Services and Facilities>

Strengths

- Increasing hotels and services in Chachapoyas as a tourism center in Amazonas

- Increasing accommodations for ecotourism and agro-tourism targeted at foreign tourists in rural area
- Itineraries developed for conventional affairs
- Characteristic of local dishes and ingredients

Weaknesses

- Insufficient high quality tour operators and travel agencies
- Scarce of mid-high quality restaurants in most of the towns and villages
- Lack of standardized services in most of travel agencies, hotels and restaurants
- Scarce of professionals for providing tourist guiding services, especially for specific topics of interest
- Shortage of interpretation centers / information centers
- Shortage of itineraries for non-conventional affairs
- Shortage of tourist transport services
- Insufficient security system for tourists, health in particular

Opportunities

- Potential for custom-made packages/programs for tourists with specific interests
- Potential for innovating products with the existing local resources
- Increase of investment for hotel industry

Threats

- Inappropriate control of tourist operations from Lima
- Insufficient number of tourists in certain intermediate destinations

<Institutional Building and Human Resources >

Strengths

- Close cooperation for tourism promotion in the northern circuit: Lambayeque, Cajamarca and Amazonas
- Existing institutional building plans in the Kuelap Master Plan.
- Developing coordination between public and private sectors
- Existing capacity development through local donors including NGOs

Weaknesses

- Insufficient institutional set up for strengthening tourism promotion in local authorities
- Limited know-how for project management in tourism development
- Limited opportunities for trainings in tourism sector both in quality and in quantity
- Limited competition in private sector
- Insufficient investment for strengthening human resources

Opportunities

- Organization of sponsorship system for tourism promotion
- Coordination of local participation between public and private sectors
- Participation of local private enterprises as well as local NGOs

Threats

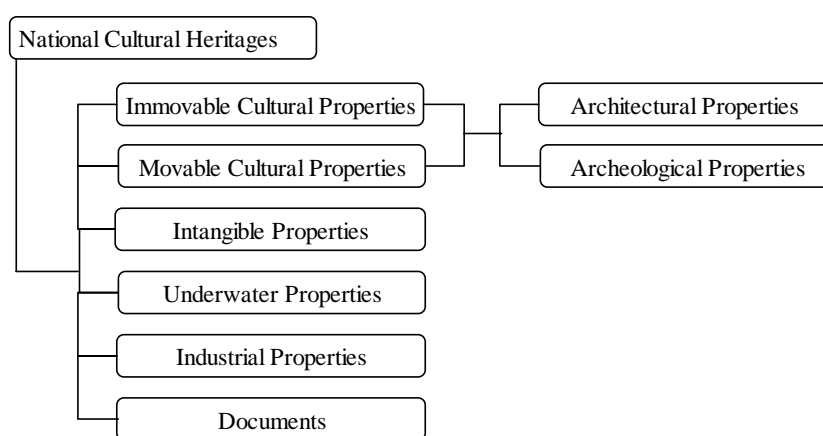
- Differences of interests for tourism promotion with other neighboring regions
- Limited local participation for tourism promotion
- Economic stagnation in tourism sector

2.3 Current Condition of Cultural Heritage

(1) Legal framework for the Protection of Cultural Properties

In Peru, cultural properties are defined and protected under General Law for the Protection of Cultural Heritage (*Ley N-28296 -Ley General del Patrimonio Cultural de la Nación July 21 2004*). It defines the classification of historical properties as shown in the following figure, and it stipulates that the National Institute for Culture (*Instituto Nacional de Cultura, INC*) is responsible for the administration of the cultural heritage sites. Under the law, INC is also responsible for the selection and registration of cultural heritages.

Figure 2.2 Classification of Peru’s Cultural Properties under the Cultural Heritage Law



Source: JICA Study Team

(2) Archaeological Sites

As for archaeological sites in Peru, 4542 properties and sites were designated as National Cultural Heritage as of 2001¹. There are 179 properties and sites in Amazonas, and 167 are located in Province of Chachapoyas, Luya and Bongara, which are the target area of this study as indicated in the following table. However, it is noted that this list does not include all identified archaeological sites. It is also worth mentioning that even when the sites are designated as National Cultural Heritage, actions taken for its protection and conservation are not sufficient, as observed by the Study Team during their field inspection in the Study area. Problems on current conditions of archaeological sites are described in the following sections of this report and in Annex II.

¹ As of September 2008, updated list of the National Cultural Heritage has not been prepared by INC.

Table 2.16 List of National Cultural Heritage (Archaeological Sites) 1/2

No.	Name	District	Province	Department	R.D.N.	Date
2026	Laguna de Pomacochas Natural	Florida	Bongara	Amazonas	196	2003/4/2
1973	Atumpampa	San Carlos	Bongara	Amazonas	196	2003/4/2
1987	Catarata La Chitana	San Carlos	Bongara	Amazonas	196	2003/4/2
2008	Gollón	Balsas	Chachapoyas	Amazonas	196	2003/4/2
2052	Pirca Punta	Balsas	Chachapoyas	Amazonas	196	2003/4/2
2086	Tuen	Balsas	Chachapoyas	Amazonas	196	2003/4/2
1975	Bollaran	Chiliquín	Chachapoyas	Amazonas	196	2003/4/2
1986	Cataquilla	Chiliquín	Chachapoyas	Amazonas	196	2003/4/2
2059	Pucara	Chiliquín	Chachapoyas	Amazonas	196	2003/4/2
2077	Shoimal	Chiliquín	Chachapoyas	Amazonas	196	2003/4/2
2089	Vituya Viejo	Chiliquín	Chachapoyas	Amazonas	196	2003/4/2
1976	Cabildo Pata	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
1984	Casa Blanca	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
1998	Cochabamba	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
2007	Gentil	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
2048	Petaca	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
2073	San Pedro de Hualspa	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
2084	Torre Pucro	Chuquibamba	Chachapoyas	Amazonas	196	2003/4/2
2053	Pirca Pirka	Granada	Chachapoyas	Amazonas	196	2003/4/2
2092	Yambashalca	Granada	Chachapoyas	Amazonas	196	2003/4/2
2002	Cuevas Mashumal Pintura	Huancas	Chachapoyas	Amazonas	196	2003/4/2
2012	Huancaurco	Huancas	Chachapoyas	Amazonas	196	2003/4/2
2042	Nuñurco	Huancas	Chachapoyas	Amazonas	196	2003/4/2
1985	Casa Redonda	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
1990	Chalachin	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
1991	Chambul	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2000	Cuc'crapata	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2003	Culpa	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2013	Hurmi Cucha	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2015	Iglesia Poma	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2019	Jubit	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2030	Llaupin	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2039	Muc'burco	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2040	Muyuc	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2044	Ollape	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2062	Pueblo Viejo	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2066	Putuqero Loma	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
2075	Sec'sto	La Jalca	Chachapoyas	Amazonas	196	2003/4/2
1981	Canal Allpachaca	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2005	Despoblado	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2027	Lancunga	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2032	Lluy	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2035	Machuc Urco	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2064	Puma Urco	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2069	Rosurco	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2091	Yalape	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2094	Yurakurco	Levanto	Chachapoyas	Amazonas	196	2003/4/2
2095	Yutapina	Levanto	Chachapoyas	Amazonas	196	2003/4/2
1946	El Dorado	Leymebamba	Chachapoyas	Amazonas	149	2003/3/25
1972	Atil	Leymebamba	Chachapoyas	Amazonas	196	2003/4/2
2021	La Congona	Leymebamba	Chachapoyas	Amazonas	196	2003/4/2
2023	La Joya	Leymebamba	Chachapoyas	Amazonas	196	2003/4/2
2025	Laguna de las Momias	Leymebamba	Chachapoyas	Amazonas	196	2003/4/2
2049	Petaca	Leymebamba	Chachapoyas	Amazonas	196	2003/4/2
2036	Macro	Magdalena	Chachapoyas	Amazonas	196	2003/4/2
2055	Plaza Pampa	Magdalena	Chachapoyas	Amazonas	196	2003/4/2
2004	Cupi	Maino	Chachapoyas	Amazonas	196	2003/4/2
2056	Plazapampa	Maino	Chachapoyas	Amazonas	196	2003/4/2
1970	Alcalde Urco	Mariscal Castilla	Chachapoyas	Amazonas	196	2003/4/2
2043	Olan	Mariscal Castilla	Chachapoyas	Amazonas	196	2003/4/2
2070	Rumichaca	Mariscal Castilla	Chachapoyas	Amazonas	196	2003/4/2
2071	Rumichaca	Mariscal Castilla	Chachapoyas	Amazonas	196	2003/4/2
2001	Cueva Chivo	Molinopampa	Chachapoyas	Amazonas	196	2003/4/2
2016	Inca Pirka	Molinopampa	Chachapoyas	Amazonas	196	2003/4/2
2033	Locara	Molinopampa	Chachapoyas	Amazonas	196	2003/4/2
2081	Taulia	Molinopampa	Chachapoyas	Amazonas	196	2003/4/2
1971	Arica	Montevideo	Chachapoyas	Amazonas	196	2003/4/2
1983	Carpona	Montevideo	Chachapoyas	Amazonas	196	2003/4/2
2018	Inga Pirka	Montevideo	Chachapoyas	Amazonas	196	2003/4/2
2038	Monja	Montevideo	Chachapoyas	Amazonas	196	2003/4/2
2046	Palpata	Montevideo	Chachapoyas	Amazonas	196	2003/4/2
1977	Cacachaque	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
1995	Chontapampa	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
1996	Churillo	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
2076	Shimal	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
2083	Tehuayco	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
2090	Wishquin	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
2093	Yuna	Quinjálca	Chachapoyas	Amazonas	196	2003/4/2
2065	Purum Llacta	San Juan de Cheto	Chachapoyas	Amazonas	196	2003/4/2
1979	Cambolin	San Juan de Soche	Chachapoyas	Amazonas	196	2003/4/2
2041	Naquñahua	San Juan de Soche	Chachapoyas	Amazonas	196	2003/4/2
2054	Pirka Urco	San Juan de Soche	Chachapoyas	Amazonas	196	2003/4/2

Table 2.16 List of National Cultural Heritage (Archaeological Sites) Continued: 2/2

No.	Name	District	Province	Peapartment	R.D.N.	Date
2082	Techac	San Juan de Soche	Chachapoyas	Amazonas	196	2003/4/2
2074	San Roque	San Juan de Sonche	Chachapoyas	Amazonas	196	2003/4/2
1993	Chaquil	Soloco	Chachapoyas	Amazonas	196	2003/4/2
2009	Gomal	Soloco	Chachapoyas	Amazonas	196	2003/4/2
2078	Shuyacaca	Soloco	Chachapoyas	Amazonas	196	2003/4/2
4194	Cerro Campanas	Camporredondo	Luya	Amazonas	1200	2005/9/1
4195	Cerro Pata	Camporredondo	Luya	Amazonas	1200	2005/9/1
4196	El Metal	Camporredondo	Luya	Amazonas	1200	2005/9/1
4197	El Mirador	Camporredondo	Luya	Amazonas	1200	2005/9/1
4198	Fila Alta	Camporredondo	Luya	Amazonas	1200	2005/9/1
4199	Galeras	Camporredondo	Luya	Amazonas	1200	2005/9/1
2031	Lloran-Sholón	Colcamar	Luya	Amazonas	196	2003/4/2
2063	Puemal	Colcamar	Luya	Amazonas	196	2003/4/2
2067	Quillillie	Colcamar	Luya	Amazonas	196	2003/4/2
2087	Tuente	Colcamar	Luya	Amazonas	196	2003/4/2
70	Lloran-Sholon	Colcamar	Luya	Amazonas	732	2000/6/23
71	Puemal	Colcamar	Luya	Amazonas	732	2000/6/23
72	Tuente	Colcamar	Luya	Amazonas	732	2000/6/23
3813	Chamalca	Colcamar	Luya	Amazonas	1055	2004/10/13
3818	Lemchan Kuluj	Colcamar	Luya	Amazonas	1055	2004/10/13
3819	Melpata	Colcamar	Luya	Amazonas	1055	2004/10/13
3820	Mirador	Colcamar	Luya	Amazonas	1055	2004/10/13
3821	Mishacaca	Colcamar	Luya	Amazonas	1055	2004/10/13
3824	Pucara	Colcamar	Luya	Amazonas	1055	2004/10/13
3825	Pucara Punta	Colcamar	Luya	Amazonas	1055	2004/10/13
3826	Pucashugo	Colcamar	Luya	Amazonas	1055	2004/10/13
3827	Puemal	Colcamar	Luya	Amazonas	1055	2004/10/13
3830	Sholon	Colcamar	Luya	Amazonas	1055	2004/10/13
3831	Solmal	Colcamar	Luya	Amazonas	1055	2004/10/13
3833	Torruco	Colcamar	Luya	Amazonas	1055	2004/10/13
3834	Tuente	Colcamar	Luya	Amazonas	1055	2004/10/13
2029	Lirio	Conila	Luya	Amazonas	196	2003/4/2
2057	Pongumal	Conila	Luya	Amazonas	196	2003/4/2
2011	Gringo Hauyñuna	Inguilpata	Luya	Amazonas	196	2003/4/2
2050	Piedra Grande	Inguilpata	Luya	Amazonas	196	2003/4/2
3817	Dusha	Inguilpata	Luya	Amazonas	1055	2004/10/13
3823	Poterillo	Inguilpata	Luya	Amazonas	1055	2004/10/13
3828	Quepag	Inguilpata	Luya	Amazonas	1055	2004/10/13
3832	Tabacal	Inguilpata	Luya	Amazonas	1055	2004/10/13
1978	Caclic Pintura	Lamud	Luya	Amazonas	196	2003/4/2
1988	Caverna de Quiocota	Lamud	Luya	Amazonas	196	2003/4/2
2028	Lik Lik	Lamud	Luya	Amazonas	196	2003/4/2
2060	Pueblo de los Muertos	Lamud	Luya	Amazonas	196	2003/4/2
2072	San Antonio	Lamud	Luya	Amazonas	196	2003/4/2
1974	Azonada	Longuita	Luya	Amazonas	196	2003/4/2
2006	El Corral	Longuita	Luya	Amazonas	196	2003/4/2
2037	Macro Llaeta	Longuita	Luya	Amazonas	196	2003/4/2
2024	La Muralla	Lonya Chico	Luya	Amazonas	196	2003/4/2
3814	Chipuric	Lonya Chico	Luya	Amazonas	1055	2004/10/13
3815	Chiquero	Lonya Chico	Luya	Amazonas	1055	2004/10/13
3816	Condormarca	Lonya Chico	Luya	Amazonas	1055	2004/10/13
3822	Ojalma	Lonya Chico	Luya	Amazonas	1055	2004/10/13
3829	Quishcamal	Lonya Chico	Luya	Amazonas	1055	2004/10/13
3835	Yojamal	Lonya Chico	Luya	Amazonas	1055	2004/10/13
1994	Chipuric	Luya	Luya	Amazonas	196	2003/4/2
2022	La Cruz	Luya	Luya	Amazonas	196	2003/4/2
2045	Opelan	Luya	Luya	Amazonas	196	2003/4/2
4026	Infiernillo	María	Luya	Amazonas	229	2005/2/25
4027	Intipullo	María	Luya	Amazonas	229	2005/2/25
4028	Llauta	María	Luya	Amazonas	229	2005/2/25
4029	Mashuhuasi	María	Luya	Amazonas	229	2005/2/25
4200	Limadulce	Ocallí	Luya	Amazonas	1200	2005/9/1
4201	Piedra Molde	Ocallí	Luya	Amazonas	1200	2005/9/1
4202	Pueblo Viejo	Ocallí	Luya	Amazonas	1200	2005/9/1
4203	Puka Cushpa	Ocallí	Luya	Amazonas	1200	2005/9/1
4204	Santa Lucía	Ocallí	Luya	Amazonas	1200	2005/9/1
4205	Selcho	Ocallí	Luya	Amazonas	1200	2005/9/1
4206	Selchopuñuna	Ocallí	Luya	Amazonas	1200	2005/9/1
4207	Vista Hermosa	Ocallí	Luya	Amazonas	1200	2005/9/1
2010	Gran Vilaya	Ocumal	Luya	Amazonas	196	2003/4/2
4030	Pirquilla	Pirkilla	Luya	Amazonas	229	2005/2/25
1980	Camino Inca	Pizuquia	Luya	Amazonas	196	2003/4/2
1997	Cipra Chuchu	Pizuquia	Luya	Amazonas	196	2003/4/2
2017	Incapuy	Pizuquia	Luya	Amazonas	196	2003/4/2
2080	Talape	Pizuquia	Luya	Amazonas	196	2003/4/2
4397	Paxamarca	Pizuquia	Luya	Amazonas	1654	2005/12/5
4031	Rayopunta	Rayopunta	Luya	Amazonas	229	2005/2/25
1992	Pinturas Rupestres de Chanqui	San Cristóbal	Luya	Amazonas	196	2003/4/2
1969	Aguas Termales Corontochaca	San Jerónimo	Luya	Amazonas	196	2003/4/2
1989	Cecate	San Jerónimo	Luya	Amazonas	196	2003/4/2
2068	Revash	Santo Tomás	Luya	Amazonas	196	2003/4/2
2020	Kuelap	Tingo	Luya	Amazonas	196	2003/4/2
2079	Taich	Tingo	Luya	Amazonas	196	2003/4/2
69	Conjunto Arqueológico de Kuelap	Tingo	Luya	Amazonas	726	2000/6/19
1982	Carajia	Trita	Luya	Amazonas	196	2003/4/2

Source: INC

(3) Measures for the Protection of Archaeological Properties

Under the General Law for the Protection of the Cultural Heritage (Lay No. 28296), it is obligatory for all development works carried out in Peru to be authorized by INC². In order to obtain such authorization, a Certificate of Non-existence of Archaeological Remains (Certificado de Inexistencia de Restos Arqueologicos, CIRA) has to be obtained for the land concerned, followed by archaeological evaluation of the project (Proyecto de Evaluacion Arqueologica, PEA). PEA and other procedures to obtain CIRA have to be done by project implementing agencies by assigning a RNA certified archaeologist. It should be noted that the policy applies not only to the project site itself but also to temporary structures and facilities. Such structures and facilities include access road to the site, worker's camp, material storage and disposal sites, among others.

Supreme Resolution 004-2000-ED, Resolution for Cultural Heritage Explorations and Excavations, stipulates necessary actions and procedures for obtaining CIRA. Regulation of Archaeological Investigation (Reglamento de investigaciones arqueologica) stipulates the process of PEA, together with other two types of archaeological investigation projects, Archaeological Investigation Project³ and Emergency Project⁴.

At the design phase of any construction project, it is necessary to submit a work plan and proposal for archaeological evaluation of the project (PEA). When the work plan and proposal for PEA is approved by INC, site identification survey and evaluation is carried out. It mainly consists of literature review and field surveys. After this initial survey and evaluation, site evaluation with excavation is carried out. If any archaeological remains are found on this process, it is necessary to report to INC and alter the original site of the undertaking to avoid impact to such remains, or to carry out a data recovery and rescue procedures which involve systematic excavation and documentation. At all phases of field excavation, site visits by INC's archaeologist are required.

Upon completion of the evaluation, a report is submitted to INC for review and approval. INC then prepares recommendation, and National Archaeology Commission (Commission Nacional de Arqueologia, CNA) makes the final decision for the approval of the evaluation, according to INC's recommendation. After obtaining the approval of CNA, INC prepares Directorial Resolution (RD) to authorize the plan.

It is after the issuance of the RD that the project implementation entity can submit a request for CIRA. The CIRA includes spatial information of the respective land, considering that it is illegal to undertake any work beyond the defined area boundaries. It also includes

² The authorization will be carried out by INC in Lima when the development work involves more than 5 hectare of land (or 5 km of stretch). Even when the work involves land less than that, same authorization process is required, but authorization is done by INC regional offices.

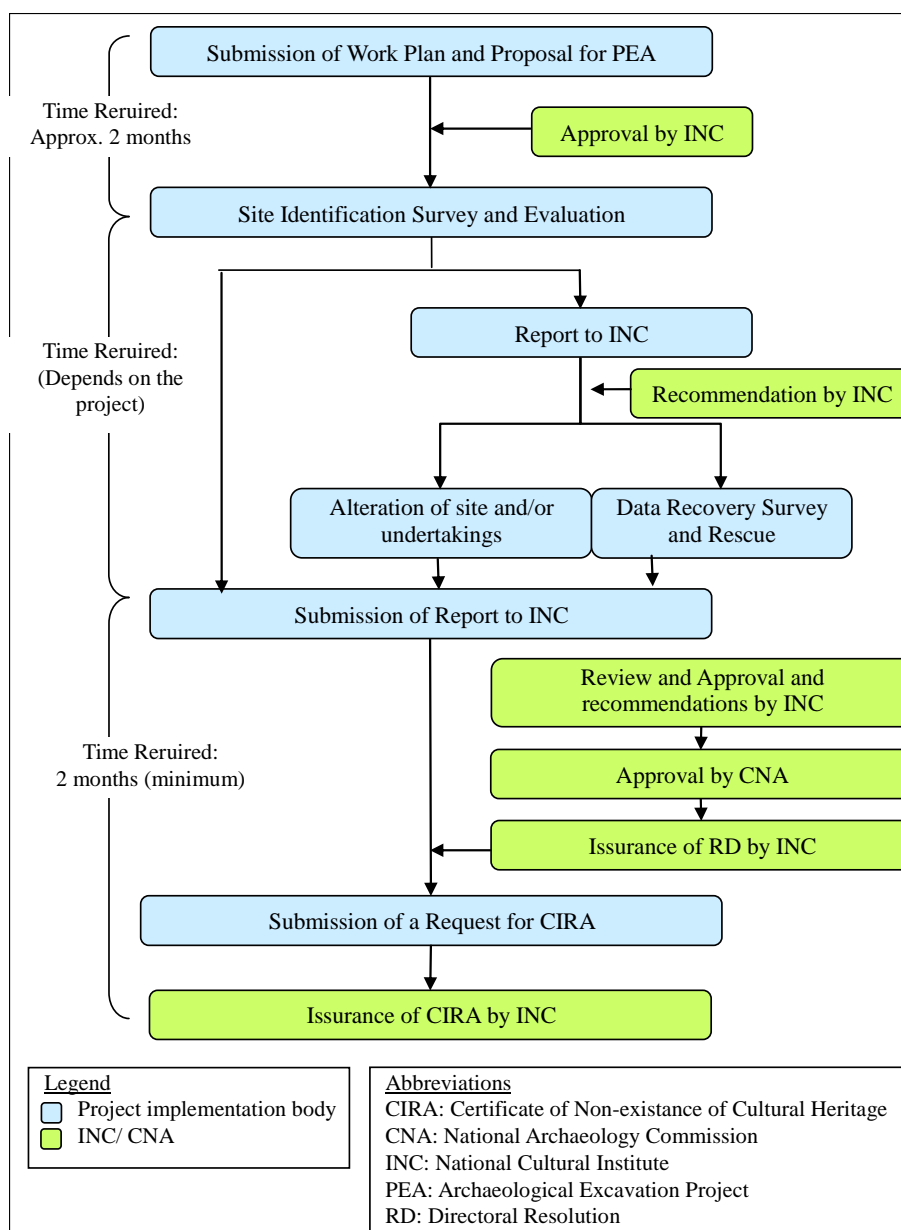
³ Archaeological Investigation Project is carried out in pursue of scientific interest. It is classified as follows by the article 7 of the Regulation of Archaeological Investigations; a. Archaeological investigation projects without excavations (Surveys) b. Archaeological investigation projects with excavations c. Programs of archaeological investigation for integral and multidisciplinary investigations that involve a certain region, or that present programmed investigations in the long term d. Consolidation, conservation, maintenance, and value enhancement projects for archaeological site and its cultural and natural environment, and e. Projects of studies carried out by museum.

⁴ Emergency Project is carried out to protect and recover archaeological elements and information at the risk of disappearance or destruction due to natural disasters and human activities.

recommendations of which the project must comply. These recommendations often require development of cultural heritage monitoring program. If such case is required, another approval from INC for the monitoring program will be necessary.

It takes approximately two months from the submission of a work plan and proposal for the PEA to its commencement. Time required for the PEA may differ depending on site conditions. However, longer period of time will be necessary if a rescue excavation is required. It takes a minimum of two months from the submission of PEA report to obtaining the certification of CIRA. The above process can be summarized as per the following flow chart.

Figure 2.3 Process for CIRA Application



Source: JICA Study Team

If the monitoring program during the implementation of the project is required, the project has to assign a full-time archaeologist for supervision of the work. The archaeologist will be

responsible for documentation and reporting, as per scheduled intervals agreed with INC. The report prepared is subject to INC review and approval.

In a case potential archaeological and paleontological resources were found as a result of the project implementation, the implementing agency will be responsible for reporting to INC. Potential cultural heritages subject to the reporting to INC are defined as follows.

- Artifacts, whole or partial, such as ceramic sheds, stone items, glass fragments, bone, shell, metal, textiles, and plant and animal remains
- Features associated with human occupation such as trash dump, midden, hearths and structural remains (for example fortifications, temples, fences, and shelters or corrals for humans or animals)
- Prehistoric or historic human remains found in formal graves, cemeteries, or as an isolated occurrence
- Paleontological resources such as fossilized plant, animal remains or their impressions.

The decision whether the found object is a potential archaeological or paleontological resource is made by the site archaeologist. If the found object is identified as a “chance find”, work must be ceased and local authorities and INC shall be notified. In this case, it is necessary to carry out proper treatments such as additional archaeological survey, rescue excavation and protective treatment as required by INC to continue the work.

In case of the Study Area, it is evident that it covers rich archaeological resources. Throughout the process, from the design phase to the project implementation phase, it is necessary to assign certified archaeologists to ensure measures for protecting archaeological heritages, and to maintain close coordination with INC. It is also important to allow for necessary steps in the project planning and implementation schedule.

(4) Circumstances Surrounding Archaeological Heritages in Amazonas

As for designated National Cultural Heritages, INC is the responsible body for protection and preservation. However, due to budget constraints INC tends to prioritize the intervention to the World Heritage sites, and thus, interventions to other sites are limited to emergency basis. According to information from INC, it carried out 578 archaeological researches and interventions in all of Peru. Among these researches, only six projects were implemented in Amazonas.

With regard to archeological sites in Amazonas, Kuelap Master Plan points out problems of natural and human factors.

Problems due to natural factors are as follows.

- Natural erosion
- Bush/ undergrowth

Most of the archeological sites in Amazonas are left in nature, even for those registered as National Cultural Heritages. Thus, many sites are facing serious problems of natural

degradation due to erosion and uncontrolled vegetation, cause eventual destruction of the remaining structures.

Figure 2.4 Examples of Natural Degradation of Archeological Sites (La Congona)



Problems due to human factors are as follows.

- Modernization (change of land use, development activities)
- Agriculture (expansion of agricultural land, slash-and-burn, pasturage of livestock)
- Looting/ Vandalism
- Inappropriate use

Most problems caused by human factors are related to land use at site. Many archeological sites are located in private land, where boundary of such sites and its surrounding areas are not defined. The situation is the same for designated National Heritage sites, partly due to demarcation of boundary, which is not being considered a prerequisite in the process of registration. Thus, it is not clear which area is to be protected for alternative use, such as for agricultural and other development activities. As for construction and mining activities, it is necessary to carry out necessary archaeological researches and obtain CIRA before the commencement of related works. Thus, major destruction of the sites due to said activities can be avoided. However, other human activities such as agricultural and pasturing can cause irreversible damages to archaeological sites.

In addition, unlimited and uncontrolled access to and inside most of the archeological sites left in nature, are subject to problems such as looting and vandalism.

Figure 2.5 Traces of Vandalism (Left: Pueblo de los Muertos, Right: Revash)



When considering the potential of these sites for future tourism development, safety of tourist need to be seriously considered, as well as the protection of existing archaeological places. As previously mentioned, many such sites are left in nature. Hence, access to and inside these sites, specifically those which pose danger to visitors, have no provision for safety and protection. Firstly, structural capacity of each site has to be carefully assessed considering visitors' safety and protection of the sites. Then means of access to and inside the sites have to be properly defined and prepared to further promote tourism.

Figure 2.6 Existing Tourist path (Left: Pueblo de los Muertos, Right: Revash)



Other issues have to be pointed out as well related to utilizing the sites for tourism. Except for some sites such as Kuelap, most of the archaeological sites in the Study area are just left in nature with no available facilities provided for tourists. There are no existing toilets, or shops that sell immediate needs such as water and souvenirs. Tourists thus face difficulties or discomfort while visiting the site. Besides, there are no facilities that present site's significant details such as museums which could enhance visitors' appreciation of its historical relevance. Even in the city of Chachapoyas, in spite of it currently serving as entry point to most of archeological sites, no museum exists, which present Amazona's history, culture, nature and environment. Considering that tourists' interest in visiting archaeological sites are to pursue intellectual curiosity, proper means and facilities for interpretation and dissemination of information would be necessary..

Relevant to the interpretation of the value of the archaeological sites, another undeveloped potential is the provision of site guides. In some cases, such as in Pueblo de los Muertos and Laguna de los Condores, it is necessary for all tourists to designate local tourist guides, mainly for security reasons. Apart from the aspect of security, the guides are supposed to help visitors understand the values of the sites as well as the local culture. In terms of protection of archaeological sites, the presence of guides will work positively to avoid vandalism and damage caused by visitors. It should also be realized that local guides, if properly trained, provide additional income opportunity for the local community.

These issues observed in the main archeological sites of the Study's target area are described in Annex II of this report.

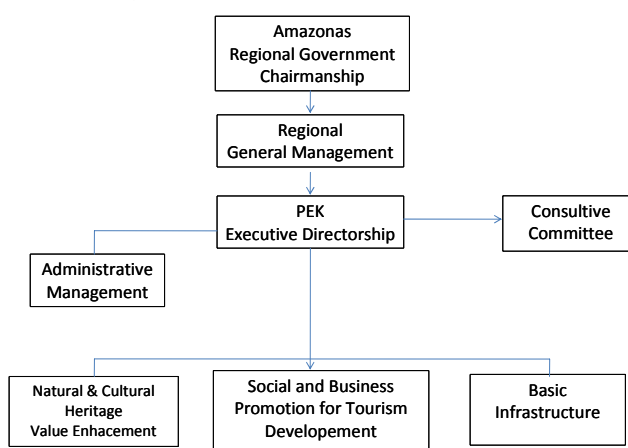
(5) Existing Plans for the Protection and Tourism Development in the Study Area

In terms of activities initiated by national and regional authorities with regards to protection of cultural heritages and the use of these as tourism resources, Kuelap Master Plan was formulated

in July 2003 aiming to contribute to the regional development through promotion of tourism in the provinces of Chachapoyas and Bongara. This can be implemented through the initiative of Mincetur, and provision of necessary funding from Mincetur and ProInversion, a Peruvian agency promoting private sector investment. Kuelap Master Plan identified 93 priority projects in the area of natural and cultural heritage value enhancement, infrastructure and social and business promotion for tourism development.

After the completion of the Master Plan, an administrative unit, Kuelap Special Project (*Project Especial Kuelap*, PEK) was established in 2004 in the regional government of Amazonas. The organization of PEK is as shown in the figure below.

Figure 2.7 Organization Chart of the Kuelap Special Project



Source: JICA Study Team

Originally, PEK is intended to promote the implementation of identified projects in the Master Plan. However, PEK does not have budget for implementing identified projects. Thus, its function is currently limited to monitoring of the overall progress of related projects in the area.

At national level, Mincetur is putting a high priority in the development of North Eastern area including Amazonas as a potential tourism area. The following tables show the amount of planned intervention by Plan COPESCO from 2003 to 2008. Almost 38 percent of the total amount of Plan COPESCO's interventions is planned in North Eastern area of Peru. Out of these, 46 percent, which is more than 17 million Sols, are allocated for Amazonas. Projects of Plan COPESCO cover wide range of sectors, from infrastructure improvement such as roads, water and sanitation, to archaeological conservation and landscape improvement, including traditional and historical architecture and landscape conservation.

Table 2.17 Amount of Intervention by Plan COPESCO 2003-2008 (National)

Area	Planned intervention (S/.)	Percentage to all budget
North East	37,193,841	37.9%
Central	19,577,604	19.9%
South	33,544,856	34.2%
All Peru	6,376,926	6.5%
Administration	1,530,080	1.6%
TOTAL	98,223,307	100.0%

Source: Mincetur

Table 2.18 Amount of Intervention by Plan COPESCO, 2003-2008 (North East)

Region	Planned intervention (S/.)	Percentage to all budget (North East)
Amazonas	17,253,601	46.4%
Cajamarca	2,330,459	6.3%
La Libertad	4,176,337	11.2%
Lambayeque	7,618,996	20.5%
Loreto	2,299,682	6.2%
Piura	944,492	2.5%
San Martin	513,424	1.4%
Tumbes	2,056,850	5.5%
TOTAL	37,193,841	100.0%

Source: Mincetur

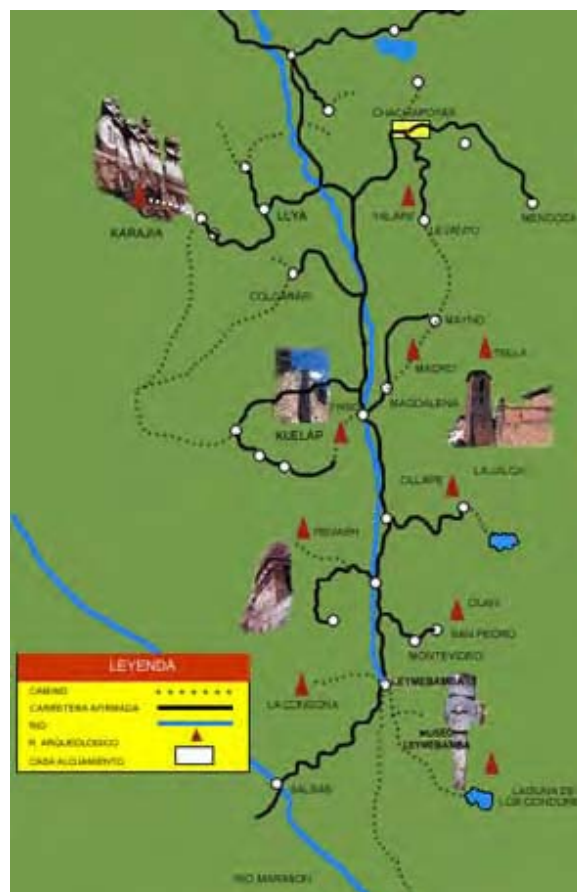
In Utcubamba valley, Mincetur planned its interventions in the region complying with the Master Plan. The project Tourism Conditioning of Alto Utcubamba’s Archeological Resources (*Acondicionamiento Turístico de los recursos Arqueológicos del Alto Utcubamba*, PATAU) is formulated in 2007 as an integrated tourism development plan. The project includes archeological conservation program for ten main archeological sites in the area, basic infrastructure improvement and tourism marketing promotion, taking Kuelap Master Plan into consideration⁵.

Figure 2.8 Target Sites of PATAU

The priority sites of PATAU are as follows.

- Karajia (district of Trita)
- Yalape (district of Levanto)
- Tella (district of Magdalena)
- Macro (district of Magdalena)
- Kuelap (district of Tingo)
- Ollape (district of La Jalca)
- Revash (district of Yerbabuena)
- Olan (district of Mariscal Castilla)
- La Congona (district of Leymebamba)
- Laguna de los Condores (district of Leymebamba)

The project is expected to be executed by Plan COPESCO. Its pre-feasibility study has already been completed in 2008. However, Mincetur considers that the execution of all identified projects could be difficult due to budget constraints.



Source: Mincetur

⁵ Although the province of Luya was not included as target area of the Kuelap Master Plan, PATAU targets upper Utcubamba valley including some sites in Luya as well as Bongara and Chachapoyas province.

(6) World Heritage Sites in Peru

Peru has ten UNESCO World Heritage Sites⁶ as follows.

Table 2.19 List of World Heritage Sites in Peru

Name of the site	Date of inscription	Criteria	Region	Time of Construction/ Culture
City of Cusco	1983	(iii), (iv)	Cusco	-
Historic Sanctuary of Machu Picchu	1983	(i), (iii), (vii), (ix)	Cusco	AD 1460, Inca
Chavin (Archaeological Zone)	1985	(iii)	Ancash	BC 900, Chavín
Huascarán National Park	1985	(vii), (viii)	Ancash	-
Chan Chan Archaeological Zone	1986	(i), (iii)	La Libertad	AD 850, Chimú
Manu National Park	1987	(ix), (x)	Madre de Dios/ Cusco	-
Historic Centre of Lima	1988	(iv)	Lima	-
Río Abiseo National Park	1990	(iii), (vii), (ix), (x)	San Martin	-
Lines and Geoglyphs of Nasca and Pampa de Jumana	1994	(i), (iii), (iv)	Ica	BC 200-BC 700, Nazca
Historic Centre of the City of Arequipa	2000	(i), (iv)	Arequipa	-

Source: UNESCO World Heritage website⁷

World Heritage Convention (Convention Concerning the Protection of World Cultural and Natural Heritage) in 1972 emphasizes that the cultural or natural heritages demonstrate the importance for all peoples of the world and thus should be preserved as part of the world heritage of mankind. Therefore it requires that each state participating in this convention recognize the duty of ensuring the identification, protection, conservation, preservation and transfer to future generations situated on its territory.

⁶ World Heritage sites are selected by the World Heritage Committee, when a site is recognized to have unique and outstanding value in one or more of the following criteria. As of 2008, there are 878 properties and sites in the world designated as World Heritage.

Criteria (i): to represent a masterpiece of human creative genius;

Criteria (ii): to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;

Criteria (iii): to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;

Criteria (iv): to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;

Criteria (v): to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;

Criteria (vi): to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);

Criteria (vii): to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;

Criteria (viii): to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;

Criteria (ix): to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

Criteria (x): to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

⁷ <http://whc.unesco.org/en/statesparties/pe>

Not to mention its implication in terms of the protection of cultural and natural heritage, inscription to the World Heritage has shown significant impact to tourism development. In Peru, as for cultural heritages, most of the World Heritage sites are in the southern part of the country or northern coastal area, which largely reflect the flow of tourists in the country.

INC in Peru also prepares tentative list of cultural and natural heritages for future nomination to the World Heritage. It includes six cultural and natural heritage sites as of 2008.

Figure 2.9 World Heritage Sites in Peru



Table 2.20 Tentative List for World Heritage Sites in Peru

Name of the Site	Date of Inscription	Submission Prepared by:	Region	Time of Construction/ Culture
Archaeological Complex of Pachacamac	1996	-	Lima	AD 200- Wari/ Lima/ Inca
Historic Centre of the City of Trujillo	1996	Cultural Patrimony and Museum's Preservation's Office- INC, La Libertad	La Libertad	-
The Great Inka Trail: state transportation system originally named 'Qhapac Ñan'	2001	Delegacion Permanente del Peru ante la UNESCO	Cusco	BC1100-1400, Inca
The Historic Centre of Cajamarca	2002	Delegacion Permanente del Peru ante la UNESCO	Cajamarca	-
Lake Titicaca	2005	INRENA	Puno	-
Sacred City of Caral- Supe	2005	INC	Lima	BC 2600, Norte Chico

Source: UNESCO World Heritage website

As shown in above tentative list, no site in the Study area or Amazonas are included in the list on the World Heritage Sites. In spite of the richness of archaeological heritages in Amazonas, INC has not been able to carry out major researches and information collection required for the listing so far. According to the information obtained from interviews with INC in Lima, this is mainly due to lack of funds. In addition, considering that there are still as many as six sites on the Tentative List, inscription of another new site to the World Heritage could be time consuming. Nevertheless, some archaeologists continue to perform research on the fortress of Kuelap, and accumulate relevant findings so that it could be included in the future list.

(7) Attractiveness of Kuelap and Other Archaeological and Natural Resources in Amazonas

Even in comparison with the above mentioned world-famous sites in Peru, archaeological resources represented by the fortress of Kuelap and natural resources in Amazonas have distinctive attractions to visitors.

Archaeological resources

- Amazonas is the only area where remains of Chachapoyas Culture, which flourished from around A.D. 800 to 1470's until it was conquered by the Incas, can be observed. The Chachapoyans who created this pre-Inca civilization are sometimes called 'People of the Clouds', as all their remains are found in deep cloud forests in high-altitude mountains. Further excavation and academic research is expected to unveil more of this historic people and civilization. Apart from the uniqueness of the remains, the grandeur of its surrounding mountains seen is breathtaking.

- The fortress of Kuelap, the biggest remains in Chachapoyas Culture with an area of approximately 600 m x 110 m, is more often known as 'Machu Picchu of the Northern Peru' according to international guidebooks, considering its scale and grandeur. The remains of the structure of the actual Machu Picchu however attract more visitors since it was properly preserved and have undergone reconstruction works. Although fortress of Kuelap meanwhile has not been considerably reconstructed its structures, the surrounding stone fortification, which is 20 meters high, is awe-inspiring and appealing as well to tourists.

- Funeral sites, sarchophagi and funeral structures, are also unique in Amazonas. These sites found in the ledge of cliffs convey the customs and traditions related to the life and death of the Chachapoyans and their descendants.

Natural resources

- Gocta and Yumbilla falls are classified as the world's highest waterfalls. However, it is only in the last decade when these falls were recognized internationally.

- A great variety of flora and fauna can be observed in Amazonas depending on the altitude variations, from lowlands to a height of 4,000 meters.

In comparison with other well-known tourism areas in Peru, Amazonas is characterized by the coexistence of the above archaeological and natural resources. Thus, Amazonas distinctive features include its rich historical culture, adventures and natural resources.

2.4 Current Condition of Infrastructures

The current condition of infrastructures in the Study is analyzed based on reviews of existing studies and national policies. Results of field visit were also taken into account. Three sub-sectors namely 1) transportation, 2) water and sanitation and 3) electrification were initially considered for the Study. However, it was judged that telecommunication and solid waste management are also significant sub-sectors based on feedbacks from the workshop in Chachapoyas and the identified necessity for tourism promotion. Thus, a total of five sub-sectors are considered as infrastructures for the Study.

2.4.1 Transport

Air and land transport are considered elements of the transportation sector. As of July 2008, there are no regular flight services to Chachapoyas, making road transportation very important being the only option to access Chachapoyas. The improvement of access to Amazonas is one of the critical issues for obtaining positive results on regional/rural development through tourism promotion.

(1) Current Condition of Air Transportation

In Amazonas, five airports are legally established as indicated in the table below.

Table 2.21 Airport Condition in Peru

Airport	Province	Establishment Law	Elev. (feet/meter)	Temp. (°C)	Runway			Category	Administrator
					Dimension (m)	Surface	Type of Aircraft		
Chachapoyas	Chachapoyas	218-2006-MTC/12	8,333 (2,539)	20.8	1980 x 30	Asphalt	Antonov AN-32	2	ADP
Ciro Alegria	Condorcanqui	076-97-MTC/15.16	590 (180)	---	1600 x 30	Asphalt treatment	Antonov-24	---	CORPAC
Galilea	Condorcanqui	294-2002-MTC/12	597 (182)	---	1500 x 30	Asphalt seal	Antonov	---	CORPAC
Nuevo el Valor	Utcubamba	0015-94-TCC/15.12	1,460 (445)	33.9	2000 x 30	Compacted soil	Antonov	---	State
Rodriguez de Mendoza	Rodriguez de Mendoza	0033-95-MTC/15.12	5,085 (1,550)	---	1800 x 30	Asphalt	Antonov-24	---	CORPAC

Source: MTC

The airport of Chachapoyas is within the Study area (shaded yellow in above table). The airport is located in Chachapoyas suburbs near Huancas, 2,520 m above sea level. The airport's administration is under concession with a private enterprise, ADP. The terminal building, parking lot and rescue equipments were upgraded by the concessionaire. The investment for such upgrade is initially borne by ADP, and repaid by the government during the concession period.

The runway, made up of asphalt pavement, is 1980 m long and 30 m wide. No guide lights are installed along the highway. A radio auxiliary instrument (VOR, D-VOR) is available in the airport.

There are no regular commercial flights to Chachapoyas. Services required are available only upon request from Tarapoto via Aero Diana, costing approximately US\$1,300 for a one way trip. The travel time is one hour. There used to be another service from Chiclayo to Chachapoyas via the same airline which was suspended due to lack of demands.

Figure 2.10 Current condition of Chachapoyas Airport



Runway



Apron & Terminal



New terminal entrance

On the other hand, Peruvian air force provides flight service between Lima and Chachapoyas every two weeks, on first and third Wednesdays of the month. This social service is called “Accion Civica” under Law 28328 of 2004. The ticket price is set S/.100 per person per one-way. The route is Lima – Chachapoyas – Rodriguez de Mendosa – Lima and the aircraft has a capacity of 48 passengers (24 seats are assigned for passengers from Chachapoyas while another half is for those boarding from Rodriguez de Mendosa). According to the law, the service will be exceptional while regular commercial flights are not available.

Thus, in general, tourists travel to Chachapoyas or Amazonas using either a combination of air and land transportation, or only by land. There are three principal cities to fly to through regular commercial flights, and then access land transportation. Travel time for each route including the trip to Chachapoyas, is shown in the table below.

Table 2.22 Trip Time for Tourism in Amazonas

City (Airport)	Flight time from Lima	By private car to Chachapoyas	By Public bus service to Chachapoyas
Chiclayo	1 h 25 min	8 hours	10 hours non stop
Tarapoto	1 h 20 min	6 hours	Needs transfer at Pedro Ruiz
Cajamarca	1 h 35 min	10 hours	No service
Chachapoyas	1 h 50 min	15 min	No service

Note: Time to Chachapoyas is measured from the airport of each city to Chachapoyas downtown (Plaza de las Armas)
 Source: JICA Study Team

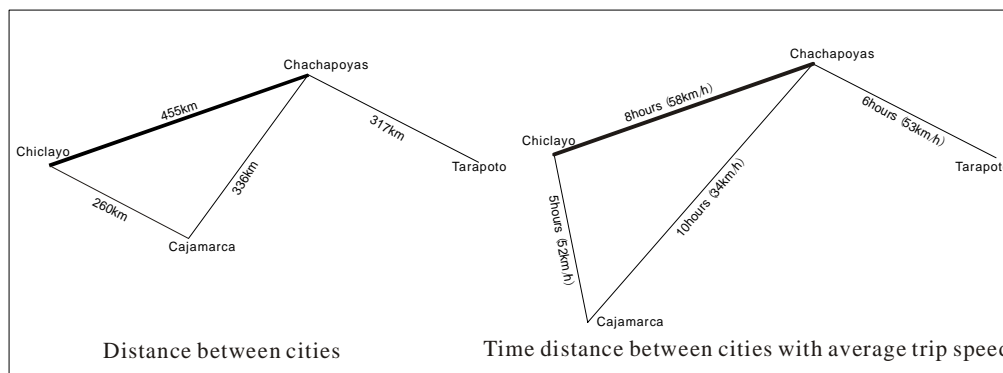
(2) Current Condition of Land Transportation

The figure below shows the relationship between the gate-cities to Chachapoyas in terms of distances (left) and travel time (right).

The most common gate-city to Chachapoyas or Amazonas regions is Chiclayo in the Department of Lambayeque. This is justified based on the average trip velocity of about 60 km/h, even though the distance between Chiclayo to Chachapoyas (455 km) is longer than that of Tarapoto to Chachapoyas (317 km). Additionally, traditional commercial relationships between Amazonas and coast departments such as Lambayeque seem to make travellers more comfortable and safe, than to travel from Tarapoto – rainforest city.

Besides, other routes’ average travel speed is over 50 km/h, while that of the section between Cajamarca and Chachapoyas is 34 km/h. This difference is evident based on the difference between the left and right triangular portion of the diagrams below.

Figure 2.11 Gate-Cities to Chachapoyas in Distance and in Time



Source: JICA Study Team

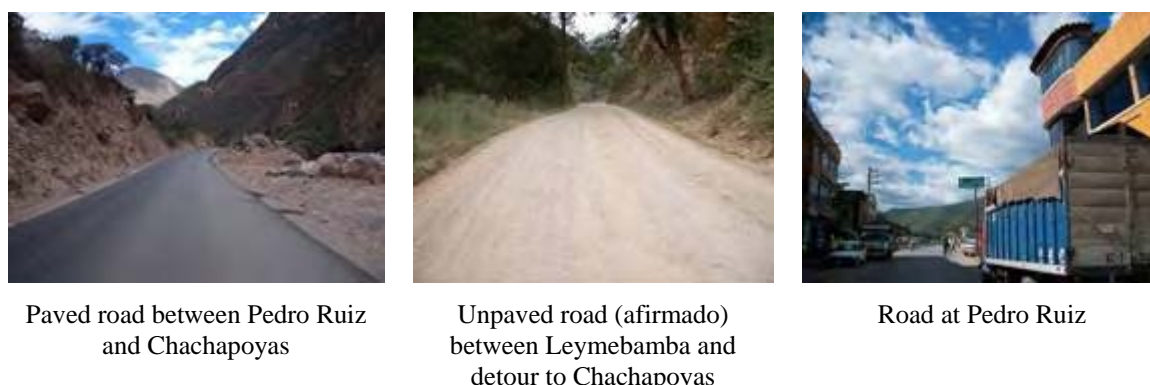
As of July 2008, upgrading, rehabilitation and maintenance works in different road sections are ongoing. The present and future (after improvement work) conditions are summarized as follows.

Table 2.23 Current Road Condition by Section

	Section	Distance	Current	After improvement
1	Chiclayo – Olmos (PA)	97 km	Asphalt pavement	Asphalt pavement
2	Olmos – Pedro Ruiz de Gallo	208 km	Asphalt pavement	Asphalt pavement
3	Pedro Ruiz de Gallo – Chachapoyas	56 km	Partially paved and partially dirt road (afirmado)	Asphalt pavement
4	Chachapoyas – Balsas	171 km	Dirt road (sin afirmar)	Improved dirt road
5	Balsas – Celendin – Cajamarca	161 km	Dirt road (afirmado)	Asphalt pavement
6	Cajamarca – Chepen	175 km	Damaged asphalt pavement	Asphalt pavement
7	Chepen – Chiclayo (PA)	86 km	Asphalt pavement	Asphalt pavement
8	Tarapoto – Chachapoyas	317 km	Asphalt pavement	Asphalt pavement

PA: Pan American highway
 Source: JICA Study Team

Figure 2.12 Current condition of Roads in Study Area



In September 2008 while the study was ongoing, the road access to Chachapoyas was blocked twice due to reasons presented below. This fact confirms the necessity of other mode of transport, i.e., air travel in order to guarantee convenient access for tourists.

Table 2.24 List of Recent Road Blocks to Access Chachapoyas

Location	Cause/ description
At Corral Quemado bridge between Chichalyo and Chachapoyas at border of Cajamarca and Amazonas department	The inhabitants of the zone took control of the bridge as part of their demonstration against government’s decision on the private/communal property use
Road between Pedro Ruiz and Chachapoyas	Big slope failure occurred in a section of the road totally blocked the access. People were obligated to walk for 3-4 hours from the blocked section to Chachapoyas. Transit from Chachapoyas to the coast increased in the route Chachapoyas – Leymebamba – Celendin – Cajamarca.

Source: JICA Study Team

(3) Road Networks

Amazonas region has 39,657.76 km² surface extension and a 2,954.42 km road infrastructure, which is equivalent to 0.07 km/km² road density. Although this is slightly higher than the national average of 0.06 km/km², asphalt paved road length is only 178.29 km, which 6% of the road length in the department, and 13% of the whole of Peru.

The table below shows classification of the road network by type of road surface

Table 2.25 Classification of road network

Region Classificati on	Type of Surface									
	Asphalt		Compacted road		Dirt road		Trail		Total	
	Km.	%	Km.	%	Km.	%	Km.	%	Km.	%
PERÚ	10,189.00	13.0	18,533.00	23.7	13,809.00	17.7	35,596.00	45.6	78,127.00	100.0
National	8,141.00	10.4	6,640.00	8.5	1,860.00	2.4	326.00	0.4	16,967.00	21.7
Dept.	1,106.00	1.4	6,015.00	7.7	4,291.00	5.5	2,839.00	3.6	14,251.00	18.2
Local	942.00	1.2	5,878.00	7.5	7,658.00	9.8	32,431.00	41.5	46,909.00	60.0
REGIÓN	178.29	6.0%	1177.29	39.8%	290.9	9.8%	1307.94	44.3%	2954.42	100.0%
National	175.34	5.9%	518.12	17.5%	31.35	1.1%	11.98	0.4%	736.79	24.9%
Dept.	2.95	0.1%	264.16	8.9%	122.13	4.1%	647.98	21.9%	1037.22	35.1%
Local			395.01	13.4%	137.42	4.7%	647.98	21.9%	1180.41	40.0%
PROVINCE CHACHAP OYAS			461.37	98.2	3.00	0.6	5.70	1.2	470.070	100.0
National			247.80	53.3		0.0			247.80	52.7
Dept.			101.96	21.0		0.0			101.96	21.7
Local			111.61	23.9	3.00	0.6	5.70	1.2	120.31	25.6
PROVINCE LUYA	130.02	17.3	488.82	64.9	81.35	10.8	53.26	7.1	753.44	100.0
National	130.02	17.3	92.70	12.3					222.71	29.6
Dept.			210.52	27.9	71.58	9.5	3.16	0.4	285.26	37.9
Local			185.60	24.6	9.77	1.3	50.10	6.6	245.47	32.6

Source: MTC-Dirección General de Caminos – Amazonas

(4) Responsible Agencies and On-going Project/Program

The road hierarchy in Peru consisted of three road classifications, namely national, departmental and local. National network is under Provias Nacional’s administration while Departmental and Local are administrated by Provias Descentralizado. Both administrations are under the Ministry of Transport and Communication (MTC). The categorization is also under revision by MTC.

Under the administration of the Provias Nacional and Descentralizado, the following projects and programs are currently implemented.

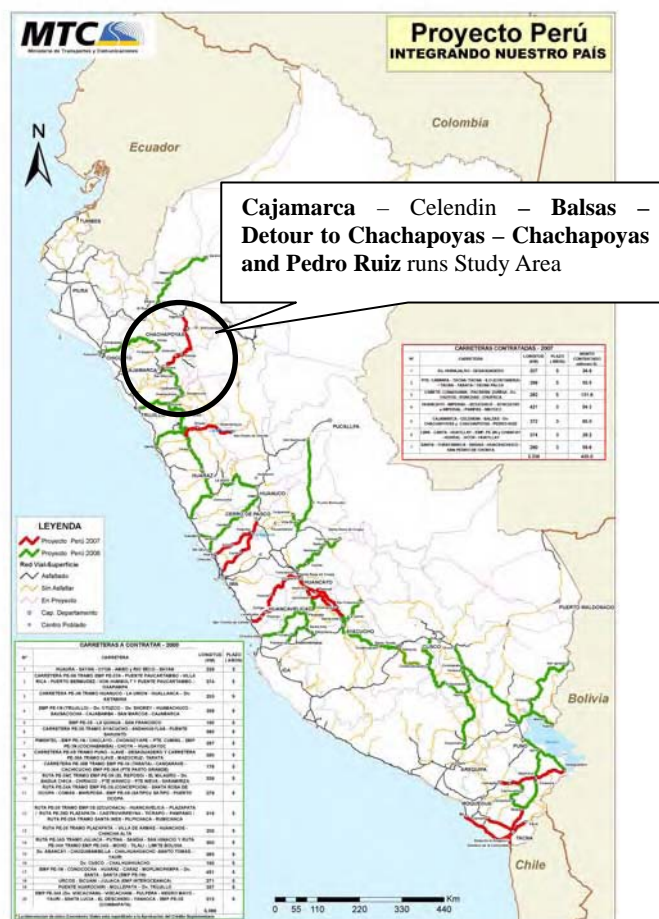
< PROYECTO PERU (N° 223-2007-MTC-02 / N° 408-2007-MTC/02) >

Provias Nacional promotes the Program named “Proyecto Peru” to enhance the regional integration, not only within Peru, but also in South America, through the initiative of Infrastructure Integration of the Region South America (IIRSA). Those roads listed in “Proyecto Peru” will be maintained by the contractor for three to five years, to assure comfortable travel during the period. Improvement projects such as asphalt pavement will be considered when the

traffic volume becomes reaches the required level otherwise, another maintenance or conservation contract will be provided for the next period of maintenance.

The figure below shows the map and list of projects (or contracts) that are included in the “Proyecto Peru”. One of the packages contracted in 2007 is the section Cajamarca – Celendin – Balsas – Detour to Chachapoyas – Chachapoyas and Pedro Ruiz that runs through the Study Area.

Figure 2.13 Road Under Maintenance by Proyecto Peru



< PROGRAMA DE CAMINOS DEPARTAMENTAL >
<PROGRAMA DE TRANSPORTE RURAL DESCENTRALIZADO >

Provias Descentralizado has two programs: one for departmental roads and the other for local roads. List of projects in the program are revised annually, in coordination with local government so that appropriate intervention are provided. Local governments prepare provincial development plans in order to establish the axis of development and establish priorities on development.

According to the Development Plan of Chachapoyas for 2003-2010, there are five axis zones as follows.

- Axis Zone I: Chachapoyas – Rodriguez de Mendoza - Omia - Soritor and Molinopampa – Jumbilla. Economic expansion zone located east of Chachapoyas, connecting the coast with jungle via mountain of Amazonas.

- Axis Zone II: Chachapoyas - Leymebamba - Balsas – Cajamarca. Stagnated area located at the west of Chachapoyas, connecting as same as Axis I, the coast with jungle via mountain of Amazonas.
- Axis Zone III: Chachapoyas - Pedro Ruiz – Tarapoto. Located at north-west and north-east of Chachapoyas, connecting the coast and market in Amazon from other countries – Brazil, Colombia y Ecuador, with the mountain region of Amazonas.
- Axis Zone IV: Chachapoyas - Luya - Lamud and Choctamal – Pizuquia – Ocalli - Lonya Grande- Corral Quemado. Located at north-west of Chachapoyas, connecting the jungle with mountain of Amazonas.
- Axis Zone V: Chachapoyas - Pedro Ruiz – Chiclayo. Located at the north-west of Chachapoyas, connecting the coast with the mountain of Amazonas.

(5) Actual Traffic Situation in the Study Area

Annual average daily traffic (AADT) of principal road in the Study Area is shown in the table below. The AADT shows the importance of each road with respect to the actual traffic.

Table 2.26 Annual Average Daily Traffic

Route	Section	AADT	Type of Vehicle											
			Auto	SW	Panel	PickUp	Combi	Micro	Bus		track			Trailer
	2E								3E	2E	3E	4E		
PE-005N	Bagua Grande - Puente Ingenio	938	72	371	104	7	69		37	17	162	11	4	84
PE-008B	Puente Ingenio - Dv. Chachapoyas	366	115	122	53	4	18		8		39	7		
PE-008	Dv. Chachapoyas - Chachapoyas	594	124	220	65	10	60	2	8		98	7		
PE-008	Tingo - Dv. Chachapoyas	228	9	98	12	6	42	2			59			
PE-008	Emp. R08 Tingo - Leymebamba	92		49	2		26				15			
PE-008	Leymebamba - Balsas	56	26		6		8	2	2		12			
PE-008	Celendín – Balsas	112	27		40				1		43	1		
PE-008	Cajamarca - Celendín	131	4	16	21	1	30	1	6		46	6		

Source: Traffic counting and vehicle classification study - - 2006, Direcciones de Inversiones - OPP - MTC.

In the section Bagua Grande – Puente Ingenio on the road PE-005N that is part of the IIRSA route, the traffic volume is 938 vehicles/day in 2006 including large number of trailers and two-axle trucks. On the other hand, on the road PE-008B/008 towards the south from Pedro Ruiz, light vehicles' volume takes the highest share. In particular, the number of station wagons used as local commercial transport is outstanding. In this section, the traffic volume tends to reduce toward the south. The section with lowest volume of traffic (with six vehicles/day) is between Leymebamba and Balsas, at the border of two regions Amazonas and Cajamarca.

Thirty four sections of local roads are listed in the inventory in Chachapoyas and Luya provinces, totaling to 338.5 km. Thirty two sections with 227.2 km are in the Chachapoyas province while 11 sections with 111.3 km are in the 5 districts of Luya Province.

Traffic flow of these 43 sections is very limited and falls between 0 and 34 vehicles/day as shown below.

- From 26 to 50 vehicle/day : 1 (Tingo-Kuelap)
- From 16 to 25 vehicle/day : 0
- From 06 to 15 vehicle/day : 19
- From 01 to 05 vehicle/day : 21
- 0 vehicle/day : 2

(6) Actual Road Condition in the Study

Area

Total length of the national road network in the Study area is 209.5 km with five sections. Presently, only 8% of the road network is paved in the section from Achamaqui to Chachapoyas. The table below shows the description of sections, length, current situation and comments on roads included in the Study Area.

Figure 2.14 Principal Access



Table 2.27 Inventory of National Road Network

Section	Length	Current situation	Comments
R8B Pedro Ruiz – Achamaqui	38.1 km	Under upgrade to Asphalt pavement	To be included in road conservation by Proyecto Peru
R8 Achamaqui – Chachapoyas	17.0 km	Asphalt paved	Some sections with settlement problem
Achamaqui – Tingo	21.9 km	Dirt road with potholes	To be upgraded to compacted dirt road
Tingo – Leymebamba	43.5 km	Under upgrade to compacted road	To be included in road conservation by Proyecto Peru
Leymebamba – Balsas	89.0 km	Dirt road	To be maintained by road conservation by Proyecto Peru

Source: JICA Study Team based on the Road Inventory of PROVIAS NACIONAL

The current condition of local road network in Chachapoyas and Luya provinces (43 sections with a total length of 338.5 km) are classified as “critical” due to technical deficiencies caused

by deterioration and lack of maintenance. The following tables (2.17-2.19) show the description of sections, length, and type of intervention of roads in the Study Area.

Table 2.28 Inventory of Local Road Network (Chachapoyas Province)

District	Code	Section Description	Km.	Status	Intervention
Magdalena	CH01	EMP.R8 (Tingo Antiguo – Magdalena)	2.600	Critical	Rehab. & Mant.
	CH02	EMP.R51 (Magdalena) – Sector Paduana	6.000	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	8.600		
Mayno	CH03	Mayno – Levanto	3.000	Critical	Rehab. & Mant.
	CH04	EMP.R517 (Magdalena) – Mayno	11.800	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	14.800		
La Jalca	CH05	EMP.R8 (Ubilón) – Jalca Grande	15.800	Critical	Rehab. & Mant.
	CH06	EMP.R8 (Yerbabuena) – La Jalca Grande	19.400	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	35.200		
M. Castilla	CH07	EMP.R8 (Limatambo) – Duraznopampa – S.edro	10.400	Critical	Rehab. & Mant.
	CH08	Q.Magol (EMP.R8 – Duraznopampa) – Shuembel	5.700	Critical	Rehab. & Mant.
	CH09	Km 4.6 (Carretera Tacta) – Cielach	2.150	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	18.250		
Montevideo	CH10	Montevideo - EMP.R8 (Samanga)	6.500	Critical	Rehabilitation
		SUB TOTAL BY DISTRICT	6.500		
S. J.de Cheto	CH11	EMP.R8 (Puente Ollia) – Cheto	7.222	Critical	Rehab. & Mant.
	CH12	Cheto – Huacapampa	6.500	Critical	Rehab. & Mant.
	CH13	Huacapampa – Quitachi	6.350	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	20.072		
Soloco	CH14	EMP.R08 – Soloco	12.000	Critical	Rehab. & Mant.
	CH15	Km 8.8 (Soloco) – Mito	3.000	Critical	Rehab. & Mant.
	CH16	Soloco – Lolto	3.100	Critical	Rehab. & Mant.
	CH17	EMP Carachapampa - S.Juande Oquish.	3.800	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	21.900		
San J.de Sonche	CH18	EMP.R08 (La Colpa) – Sonche	2.460	Critical	Rehab. & Mant.
	CH19	San Juan de Sonche – Proyectada a Vituya	5.975	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	8.435		
Levanto	CH20	Chachapoyas – Levanto	21.100	Critical	Rehab. & Mant.
	CH21	Levanto – Mayno	2.600	Critical	Rehab. & Mant.
	CH22	Collacruz – Quipachacha	4.200	Critical	Rehab. & Mant.
	CH23	Km 14.96 (EMP. Carr. A Levanto)- S. J. de Cachua	5.200	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	33.100		
Huancas	CH24	Km 0.9 (M. Huancas Urcco)– EMP.R109 (Aereopto.)	5.700	Critical	Rehab. & Mant.
	CH25	Huancas – Mirador Cañón de Huancas	0.900	Critical	Rehab. & Mant.
	CH26	Huancas – Mirador Huancas Urcco	4.700	Critical	Rehab. & Mant.
	CH27	Km 3.5 (carretera a Huancas) – Cantera	1.500	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	12.800		
Molinopampa	CH28	EMP.R8 Molinopampa – EMP.R08 (Rollo)	2.180	Critical	Rehab. & Mant.
	CH29	Molinopampa – Carretera Proyectada a Granada	5.700	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	7.880		
Asunción/Quinjalca	CH30	Casha – Goncha – Vista Hermosa	24.450	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	24.450		
Balzas	CH31	Balzas – A Acobamba	1.500	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	1.500		
Chuquibamba	CH32	Pusac – A Chuquibamba	13.700	Critical	Rehab. & Mant.
		SUB TOTAL BY DISTRICT	13.700		
TOTAL OF PROVINCE				227.187	

Source: JICA Study Team based on the Road Inventory of PROVIAS DESCENTRALIZADO

Note: Yellow hatched cells are located within the priority area

Table 2.29 Inventory of Local Road Network (Bongara Province)

District	Code	Section Description	Km	Surface	Status
Jazan, Shipasbamba	AM-513	Emp. PE-5N (Ingenio) - Shipasbamba	8.370	Afirmado	Regular
Jazan, San Carlos	AM-514	Emp. PE- 08B (Pedro Ruiz Gallo) - San Carlos	8.360	Afirmado	Regular
Jazan	AM-515	Emp. PE-5N (Corontachaca) - Chosgon	6.020	Trocha	Malo
Florida, Yambrasbamba	AM-516	Emp. PE-5N - Yambrasbamba	6.800	Afirmado	Bueno
-	AM-518	Emp. PE-08B - San Jerónimo	0.000	-	-
Cuispes	AM-519	Emp. PE-5N – Cuispes	8.360	Afirmado	Malo
Corosha	R02	Emp. AM-106 – Beirut	0.260	Afirmado	B
	R03	Emp. AM-106 – Corosha	1.690	Afirmado	Regular
Chisquilla	R04	Emp. AM-106 – Chilac	0.670	Afirmado	Regular
	R05	Emp. AM-106 – Chisquilla	1.830	Afirmado	Regular
Jumbilla, Recta	R07	Emp. AM-106 – Recta-Emp.R10	6.230	Afirmado	Regular
Recta	R08	Emp. AM-106 – Chuelta	2.030	Afirmado	Regular
	R10	Emp. AM-106 – Teata	1.950	Afirmado	Regular
Valera	R12	Emp. PE-08B – Cocachimba	5.550	Afirmado	Regular
	R14	Emp. R12 - La Coca	0.720	Afirmado	Regular
	AM-517	Emp. PE-08B (Cocahuayco) - San Pablo	6.000	Afirmado	Regular
Jazan	R16	Emp. PE-08B – Guchulia	5.350	Afirmado	Malo
Cuispes	R18	Emp. PE-5N (Suyubamba) - Fanre	7.210	Sin Afirmar	Malo
Florida	R20	Emp. PE-5N (Chido) – San Lorenzo	3.440	Afirmado	Malo
	R22	Emp. PE-5N (Poma-cochas) - Nuevo Gualulo	11.530	Afirmado	Bueno
Shipasbamba	R24	Emp. AM-513 - Laguna Shipasbamba	0.240	Sin Afirmar	Bueno

Source: JICA Study Team based on the Road Inventory of PROVIAS DESCENTRALIZADO

Note: Yellow hatched cells are located within the priority area

Figure 2.15 Current Condition of Access Roads in Study Area



Road to San Carlos



Road to Revash



Road between Tingo and
Kuelap

Table 2.30 Inventory of Local Road Network (Luya Province)

Districts	Code	Section Description	Length	Surface	Status
Lamed	R05	Emp. AM-107 (Lámud) – PC (a C.T. "Ciudad de los Muertos")	9.51	Afirmado	Regular
	R07	Emp. R05 - Mirador Lámud	0.20	Afirmado	Regular
	R09	Emp. R03 - PC (a C.T. "San Antonio")	1.92	Sin Afirmar	Regular
	R10	Emp. AM-107 (Lámud) - PC (a Chepta)	11.68	Afirmado	Regular
	R11	Emp. R10 - Emp. AM-107	0.39	Afirmado	Regular
	R12	Emp. R10 - Capilla Yulcon y PC (C.H a Lámud)	0.20	Afirmado	Regular
	R13	Emp. R10 - Anexo Cuemal	2.11	Afirmado	Regular
	R15	Emp. R10 - PC (C.T. "Cavernas de Quiocta")	0.62	Afirmado	Regular
Colcamar	AM-526	Emp. PE-08A - Colcamar	11.00	Afirmado	Malo
Conila	R23	Emp. AM-103 (Cruce Sitay) - Anexo Nuevo Luya	5.96	Afirmado	Regular
Inguilpata	AM-521	Emp. AM-103 (Lonya Chico) - Anexo Retama	4.68	Afirmado	Regular/Malo
	R02	Emp. AM-103 - Emp. AM-521 (Inguilpata)	2.22	Afirmado	Regular
Lonya Chico	R28	Emp. AM-103 (Merencia) - Anexo Bagazán	2.00	Trocha	Muy Malo
Luya	AM-523	Emp. AM-103 (Cohechan) - Anexo Cruz Pata (C.T. "Karajia")	6.68	Afirmado	Regular
	AM-528	Emp. AM-107 (Luya) - Emp. AM-103	3.89	Afirmado	Regular
	R04	Emp. AM-107 (Luya) - PC (a C.T. "Wanglic")	3.48	Afirmado	Regular
	R06	Emp. AM-107 (Lámud) - Emp. R17 (Anexo Shipata)	12.01	Afirmado	Regular/Malo
	R17	Emp. AM-528 - Emp. a R08 (Trita)	10.17	Afirmado	Regular/Malo
	R19	Emp. R17 - Emp. AM-103	0.18	Afirmado	Regular
Luya Viejo	R01	Emp. AM-527 (Luya Viejo) - PC (a Cruz Pata)	3.54	Sin Afirmar	Inaccessible
	R03	Emp. AM-527 - Emp. R01	0.89	Sin Afirmar	Muy Malo
Ocumal	R14	Emp. AM-110 (Choctamal) - PC (a Minas)	8.15	Afirmado	Regular
San Cristóbal	R22	Emp. AM-107 - PC (C.T. "Chanqui")	5.00		
San Francisco Del Yeso	AM-525	Emp. PE-08A - San Francisco del Yeso	5.18	Afirmado	Malo
	R21	Emp. PE-08A - San Cristobal del Yeso	4.90	Trocha	Muy Malo
San Juan De Lopecancha	R18	Emp. PE-08A – Anexo San Martin del Mango	14.10	Afirmado	Regular
	R25	Emp. R18 - Anexo El Triunfo	0.75	Afirmado	Regular
	R27	Emp. R18 - Anexo San Antonio	2.73	Afirmado	Regular
Santa Catalina	R35	Emp. PE-5N (Aserradero) - Ingenio	28.00	Trocha	Muy Malo
Santo Tomas	AM-522	Emp. PE-08A - Anexo Tin Tin	28.90	Afirmado	Regular/Malo
	R29	Emp. AM-522 – Anexo San Bartolomé	8.46	Afirmado	Regular
	R31	Emp. R29 - Anexo San Miguel de Luvin	0.54	Afirmado	Regular
	R33	Emp. AM-522 – Anexo Laumán	1.83	Afirmado	Regular
Tingo	R16	Emp. PE-08A - Emp. AM-110	3.22	Afirmado	Regular
	R37	Emp. AM-110 (Nuevo Tingo) - Velapata	10.20	Trocha	Muy Malo
Trita	AM-527	Emp. AM-107 (Lámud) - Santa Catalina	27.64	Afirmado	Regular
	R08	Emp. R06 - Emp. R17 (Trita)	2.57	Afirmado	Malo

Source: JICA Study Team based on the Road Inventory of PROVIAS DESCENTRALIZADO

Note: Yellow hatched cells are located within the priority area

2.4.2 Water and Sanitation

Although there are a lot of interventions that have been carried out in the water and sanitation sector in Amazonas, there are still needs to expand the coverage of the service and quality improvement. In general, water supply services are not provided with appropriate treatment process in the Study Area. Most of the waste water is directly discharged to creeks/ rivers without any treatment. In some cases, it is observed that the local people do not pay corresponding fees for water consumption, causing difficulties in sustaining required utility services.

(1) Responsible Agencies

There are five main responsible agencies for water and sanitation sector in Amazonas namely, Ministry of Housing, Construction and Sanitation (MVCS), FONCODES, SUNASS, Plan Conpesco Nacional and Municipalities. The functions of agencies are as follows.

< Municipalities >

The municipalities are responsible for the provision of water supply and sewerage services. In the Study Area, only Chachpoyas has Public Service Enterprise (EPS) which is under the control of central government. Luya - Lamud is under EPS creation process. Other municipalities' services are administrated by the municipality itself, committee, or an individual.

< Ministry of Housing, Construction and Sanitation (MVCS) >

The MVCS is the central agency of water and sanitation sector. Its main roles are to expand the coverage and to improve the services of water supply, sewerage pipes as well as used water and waste treatment.

To realize such roles, the MVCS implements the PRONASAR program (National Program for Water and Sanitation in Rural Area) which aims 1) to construct new potable water system and waste disposal, 2) to improve the quality of the existing services, and 3) to contribute to capacity building of local municipalities for the adequate use of water and sanitation services.

< FONCODES – Ministry of Women and Social Development >

In line with the national plan of poverty alleviation, FONCODES finances to conduct social and economic infrastructure projects in small-medium scale. Water and sanitation services projects financed by FONCODES have been conducted in Amazonas.

< SUNASS – by Decree No. 25965 Ministry of Presidency >

SUNASS has functions to regulate, supervise and control the sanitation service. The organization works also to resolve the related conflicts identified.

< Plan CONPESCO Nacional –MINCETUR >

The functions of Plan CONPESCO Nacional are to conduct public investment projects for tourism development at national level. In the scope of tourism development, water and sanitation projects have been implemented in Amazonas.

(2) Current Situation of Water and Sanitation System

Water and sanitation system is undeveloped in Amazonas. The current condition, sewerage in particular, is quite behind when compared to the national condition. About 67% of the population is served with potable water supply and 29% is served for public sewerage system in Amazonas (national average is 76% and 57%, respectively). According to the National Plan of Sanitation (Plan Nacional de Saneamiento), the target values for water supply and sewer coverage are 82% and 77% in 2015 respectively.

As of July 2008, current condition of water and sanitation services in major tourism areas are identified, as indicated in Table 2.17.

Adequate treatment facilities for water and sewerage are not prepared in most of the tourism areas. Lack of capacity for administration of the system is also identified. The detailed results of diagnosis are presented in Attachment 2.

Figure 2.16 Current Condition of Water and Sanitation Infrastructure



Sewerage Treatment Plant in
Lamud



Malfunctioned oxidizing pond
in Maria



Imhoff type Tank for sewerage
treatment in Leymebamba



Slow Filter for water treatment
in Magdalena



Reservoir tank in Leymebamba



Intake at Ollapata creek in San
Carlos

Table 2.31 Water Supply and Sanitation in Tourist Sites of Amazonas

	Location	Tourist Site	Water Supply		Sanitation	
1	Pedro Ruiz	Waterfalls	Conduction	1.4km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Yes	Admin	Municipality
2	Cuispes	Yumbilla	Conduction	4km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	No	Admin	Municipality
3	San Carlos	Chinata	Conduction	200m	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Yes	Admin	Municipality
4	Cocachimba	Gocta	Conduction	1.5km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	No	Admin	Municipality
5	San Pablo de Valera	Gocta	Conduction	4km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Yes	Admin	Municipality
6	San Miguel de Cruz Pata	Karajia	Conduction	8km	Collection	No
			Reservoir	No	Treatment	No
			Treatment	No	Admin	Committee
7	Lamud	Luya – Lamud	Conduction	5km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Chlorine	Admin	EPS
8	Luya	Luya – Lamud	Conduction	Yes	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Chlorine (manual)	Admin	EPS
9	Levanto	Levanto/ Yallape	Conduction	22km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Chlorine (/ 3month)	Admin	Committee
10	Magdalena	Macro / Kuelap	Conduction	4.3km+1.2km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Yes	Admin	Municipality
11	Tingo	Macro / Kuelap	Conduction	10km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Yes	Admin	
12	Choctamal	Kuelap	Conduction	4km	Collection	Yes
			Reservoir	Yes	Treatment	Septic tank
			Treatment	No	Admin	Committee
13	Maria	Kuelap	Conduction	8km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Filter	Admin	Personal
14	La Jalca	La Jalca / Olan	Conduction	12km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Sedimentation	Admin	Committee
15	Leymebamba	Museum/ La Congona / Lagoon	Conduction	14km	Collection	Yes
			Reservoir	Yes	Treatment	Yes
			Treatment	Filter	Admin	Committee
16	Chachapoyas	Huancas / Levanto	Conduction	22km	Collection	Yes
			Reservoir	Yes	Treatment	No
			Treatment	Yes	Admin	EPS

Source: JICA Study Team

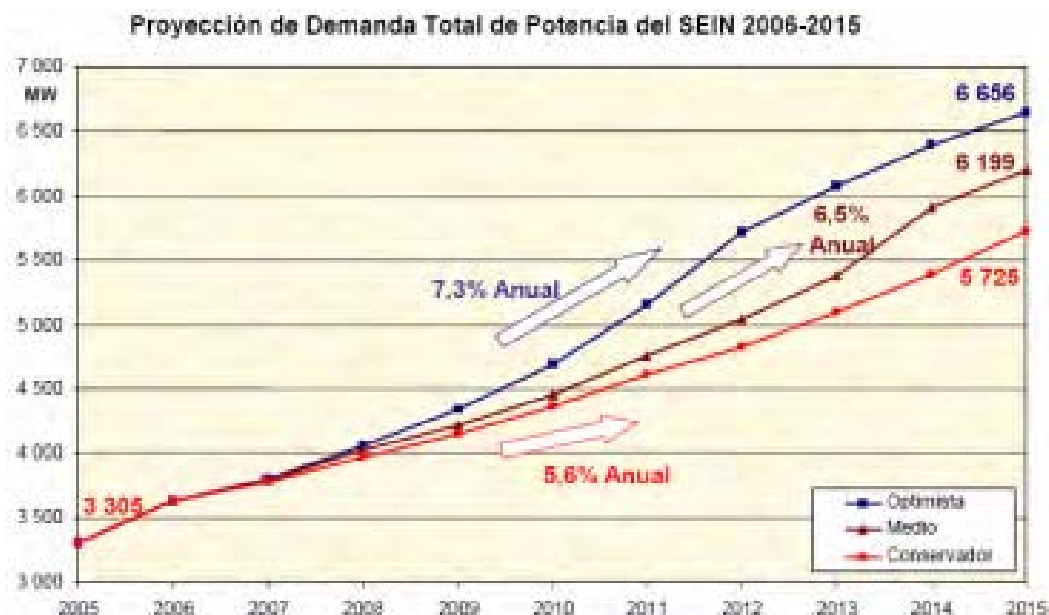
2.4.3 Electrification

(1) General Condition

Electrification is still undeveloped in Amazonas. The current condition is also behind as compared to the national condition. Electrification rate in Amazonas is 47%, while the national average is 73%. Electric supply is provided in the district centers, but it has not reached in/around most of tourism destinations.

To deal with the increase of energy demand in Amazonas in line with the national trend as shown in figure below, development and improvement of energy supply is urgently necessary for both industrial and domestic uses.

Figure 2.17 Projection of Energy Demand in National Grid



Source: MEM

(2) National Grid Expansion

At present, power supply in the study area is provided by an independent hydroelectric plant in Caclic that covers Pedro Ruiz to Leymebamba.

The Ministry of Energy and Mining (MEM), which is in-charge of electrification in Peru, made a national electrification plan “PRE-2006” including a national grid development (National Interconnection System of Electrification or SEIN).

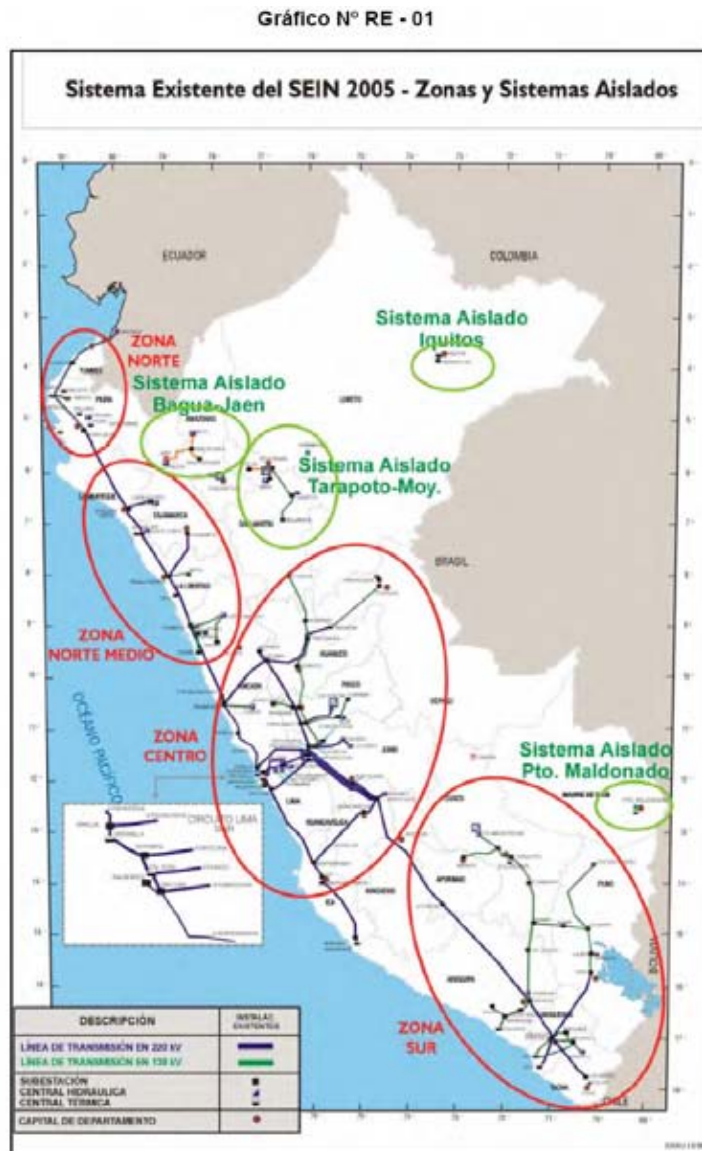
The table below shows the list of projects in PRE-2006 with medium demand increase scenario. Under the SEIN program, Ministry of Electricity and Mining (MEM) plans to connect the Caclic system with the national grid in 2014 as also presented in the table below. It is however noted that financial source is still not defined at present.

Table 2.32 SEIN Project in Amazonas

Target Area	Project	Length (km)	Investment (Million US\$)	Target Year
Tarapoto – Moyobamaba – Bellavista	LT 220kV Cajamarca – Caclic – Moyobamba	246	28.3	2014

Source: MEM

Figure 2.18 Existing National Grid and Isolated Systems



<Current Progress>

The Generation Expansion Plan in the period 2006-2008 is being complied with, except in the case of the Tumbes, Zorritos thermoelectric central, which has been delayed from 2008 to 2010. In fact, the combined cycle of the Ventanilla T.C. and in Chilca, the Enersur turbo-gas (two units) and Kallpa (one unit) have been installed.

Meanwhile, the Transmission Expansion Plan in the period 2006-2008 is being carried out, except for the San Gaban – Mazuko – Pto Maldonado which has been delayed from 2008 to

2009. The transmission lines that link Chilca to San Juan and the second Zapallal – Chimbote transmission line have been completed. The 138 kV Carhuaquero – Jaen transmission line which integrates Jaen and Bagua to the SEIN is being completed.

SEIN demands is growing faster than expected which is 3 580 MW in 2006 and 3 956 MW in 2007. This has generated congestion in the Mantaro–Socabaya and Zapallal–Chimbote transmission lines, which are the central and south systems, and the central to north system, respectively.

Additionally, the current capacity of the coast gas pipeline is reached and the limitation of gas supply to Lima area thermal centrals has been produced.

The Lima area gas supply limitation, as reported by the MINEM, will be overcome by mid-2010 through a parallel gas pipeline, although in 2009, the capacity will be increased through increased pressure in the gas pipeline. In addition, the government is encouraging the use of combined cycles, instead of open cycles, to achieve a more efficient use of the gas pipeline.

The inter systems transmission congestion will be overcome with new transmission links which have already been placed under concession for the Conococha-Huallanca-Cajamarca-Carhuaquero transmission line. This is intended to strengthen the interconnection of the central and north and Mantaro-Caraveli- Montalvo systems, as well as the interconnection of the central and south systems.

Finally, the demand accelerated growth is exceeding the estimated generation growth. This reduces low water periods due to generation of reserved capacity. Consequently, it increases interruption risks due failures of the SEIN equipment. To avoid this risk, the government has authorized ELECTROPERÚ S. A. to rent an additional 300 MW generation capacity.

(3) Rural Electrification

The General Directorate for Rural Electrification (DGER) under the MEM is responsible for rural electrification according to the Law No.28749 “General Law of Rural Electrification,” designated to expand electrification coverage in Peru in coordination with regional and local governments as well as private and public entities.

Realizing the higher rate of rural electrification, DGER implemented related projects under the National Plan for Rural Electrification (PNER), with a total investment of US\$ 928 million until 2015. As a result, the national electrification rate increased from 57% in 1993 to 73% in 2005. Further national electrification rate development of 88% in 2011 and 93% in 2015 was planned under the PNER. However, the electrification coverage as of 2006 was only 55.7% in Amazonas, which is far below than the national average of 78.7%. Amazonas is considered one of the worst five departments in the country due to this aspect.

PNER 2006-2015 has programmed the projects shown in the Table below. The projects shaded yellow are those related to the Study Area.

Table 2.33 List of Programmed Project in PNER 2006-2015

N°	YEAR	PROJECT	FINANCING SOURCE	STUDY CURRENT LEVEL	INVESTMENT (miles US\$)				N° OF LOCALITIES	POPULATION
					TOTAL	STUDIES	WORKS	SUPERVISION		
AMAZONAS										
WORKS DEP/MEN					12.038	420	8.400	588	216	53.914
1	2007	SER NEW SEASME II STAGE	DEP		832				18	3.606
2	2007	SER RODRIGUEZ DE MENDOZA II STAGE	DEP		942				24	4.516
3	2007	ELECTRIFICATION OF LOCALITIES OF LUYA DISTRICT	SHOCK		227				6	1.521
4	2007	ELECTRIFICATION OF CHOCTA ANNEX - LUYA DISTRICT	SHOCK		116				1	650
5	2007	ELECTRIFICATION OF YAMBRASBAMBA DISTRICT AND ANNEXES	SHOCK		513				9	3.236
6	2010	SER INTERCONNECTION- NEW SEASME TO SEIN	WITHOUT FINANCING	BASIC CONFIG	808	36	722	51	6	1.226
7	2010	SER LONYA GRANDE II STAGE	WITHOUT FINANCING	PROFILE	710	32	634	44	19	3.050
8	2011	SER BAGUA II STAGE	WITHOUT FINANCING	PROFILE	789	35	704	49	8	3.150
9	2012	SER CHACHAPOYAS III STAGE	WITHOUT FINANCING	BASIC CONFIG	988	44	882	62	16	4.375
10	2012	SER BAGUA III STAGE	WITHOUT FINANCING	PROFILE	1.449	65	1.284	91	15	6.600
11	2012	SER CHACHAPOYAS IV STAGE	WITHOUT FINANCING	BASIC CONFIG	793	35	708	50	13	2.670
12	2013	SER CHACHAPOYAS V STAGE	WITHOUT FINANCING	BASIC CONFIG	210	9	187	13	8	1.060
13	2013	SER BAGUA IV STAGE	WITHOUT FINANCING	PROFILE	387	17	346	24	7	1.515
14	2013	SER BAGUA V STAGE	WITHOUT FINANCING	BASIC CONFIG	1.448	65	1.293	91	30	7.595
15	2013	SER MUYO-KUZU II STAGE	WITHOUT FINANCING	PROFILE	1.044	47	932	65	16	4.705
16	2014	SER MUYO-KUZU III STAGE	WITHOUT FINANCING	BASIC CONFIG	782	35	698	49	20	3.984
ANOTHER ENTITIES WORKS					8.313	0	0	0	0	0
1	2007	ELECTRIC INTERCONNECTION OF CH GRACIAS A DIOS WITH LUYA SYSTEM	ADINELSA		13					
2	2008	EXTENSION CH MUYO OF 5.4 MW	ADINELSA		100					
3	2008-2009	HYDRIC REINFORCEMENT CH LONYA GRANDE OF 360 KW	ADINELSA		1.200					
4	2008-2010	INTERCONNECTION LINE IN 60 KV CH CALUC BAGUA CHICA	ADINELSA		4.500					
5	2008-2011	EXTENSION OF CH CALUC	ADINELSA		2.500					
REGIONAL GOVERNMENT WORKS					1.898	0	0	0	44	11.912
1	2007	ELECTRIFICATION LA MOLANA-CUMBA SECTOR	REG. GOV		14				1	155
2	2007	RURAL ELECTRIFICATION OF CP TOMOCHO AND VISTA HERMOSA AND THE CASERIOS LIMONYACU, MANANTIAL, SANTA ROSA, SANTA CLARA,ALTO PERU Y ROSAPAMPA	REG. GOV		430				8	2.800
3	2007	RURAL ELECTRIFICATION OF BODOQUE Y PUEBLO NUEVO LOCALITIES, BAGUA GRANDE DISTRICT-UTCUBAMBA	REG. GOV		138				2	841
4	2007	ELECTRIFICATION OF CAYALTI AND CRUCE CAYALTI CASERIOS	REG. GOV		82				2	477
5	2007	RURAL ELECTRIFICATION OF NAZARETH- IMAZA NATIVE COMMUNITY, BAGUA	REG. GOV		44				1	355
6	2007	ELECTRIFICATION OF ALENYA-PALACIOS, SAN ROQUE ANNEX- COPALLIN DISTRICT	REG. GOV		130				2	701
7	2007	RURAL ELECTRIFICATION OF CIELACHI AND SHUEMBE	REG. GOV		74				2	460
8	2007	RURAL ELECTRIFICATION OF EL MOLINO OPELAN SAN ANTONIO AND NUEVA LUYA ANNEXES	REG. GOV		79				4	490
9	2007	RURAL ELECTRIFICATION OF LAS PAMPAS JAHUANGA ANNEX BAGUA GRANDE	REG. GOV		28				1	172
10	2007	ELECTRIFICATION OF SAN ISIDRO DE QUIUCMAL-CONILA ANNEX , LUYA	REG. GOV		49				1	330
11	2007	ELECTRIFICATION OF DISTRIC LOCALITIES OF FLORIDA, POMACOCCHAS,SAN LORENZO CHIBO, BAJO VISTA FLORIDA, GUALULO, MIRAFLORES PORVENIR , SAN JOSE.	REG. GOV		286				7	1.820
12	2007	RURAL ELECTRIFICATION OF POLLAN Y VISTA HERMOSA ANNEX	REG. GOV		49				2	310
13	2007	RURAL ELECTRIFICATION OF LA CURVA DE SANTA CRUZ CASERIO- CAJARURO	REG. GOV		33				1	192
14	2008	ELECTRIFICATION OF SAN JERONIMO CASERIO	REG. GOV		95				1	617
15	2008	ELECTRIFICATION OF PSE PISUQUIA AND ITS 5 ANNEXES	REG. GOV		152				5	805
16	2008	RURAL ELECTRIFICATION OF EL ALISO,PUMAMARCA AND LA FLORIDA ANNEXES	REG. GOV		98				3	595
17	2008	ELECTRIFICATION OF CHOSGON ANNEX	REG. GOV		118				1	792
LOCAL GOVERNMENT WORKS					1.382	0	0	0	23	8.482
1	2007	INTERCONNECTION LINE IN 22.9KV MOLINOPAMPA HYDROELECTRIC POWER STATION OF SAN ANTONIO	LOCAL GOV.		485				1	2.5
2	2007	IMPLEMENTATION OF PSE LIMABAMBA PROJECT	LOCAL GOV.		272				4	1.695
3	2007	ELECTRIFICATION PROJECT IMPLEMENTATION OF VALERA DISTRICT AND ANNEXES, BONGARA PROVINCE, AMAZONAS REGION	LOCAL GOV.		326				6	1.336
4	2007	ELECTRIFICATION PROJECT IMPLEMENTATION OF LOCALITIES OF CONILA COHECHAN DISTRICT	LOCAL GOV.		62				4	490
5	2007	RURAL ELECTRIFICATION SYSTEM INSTALLATION OF PORVENIR, NUEVA ALIANZA, FANRRE AND CUISPES, CUISPES, BONGARA , AMAZONAS DISTRICTS	LOCAL GOV.		98				4	440
6	2007	ELECTRIC SYSTEM REHABILITATION OF MARIA DISTRICT, MARIA, CUCHAPAMPA AND QUIZANGO LOCALITIES	LOCAL GOV.		80				2	786
7	2007	RURAL ELECTRIFICATION SYSTEM INSTALLATION OF SANTA ROSA AND VISTA ALEGRE ANNEXES, OCALLI- LUYA- AMAZONAS DISTRICT	LOCAL GOV.		59				2	1.235
TOTAL					23.632	420	8.400	588	283	74.308

(4) Electric System in Chachapoyas

The coverage ratio varies from province to province as shown in the table below, with Amazonas having average electrification coverage of 55.5%.

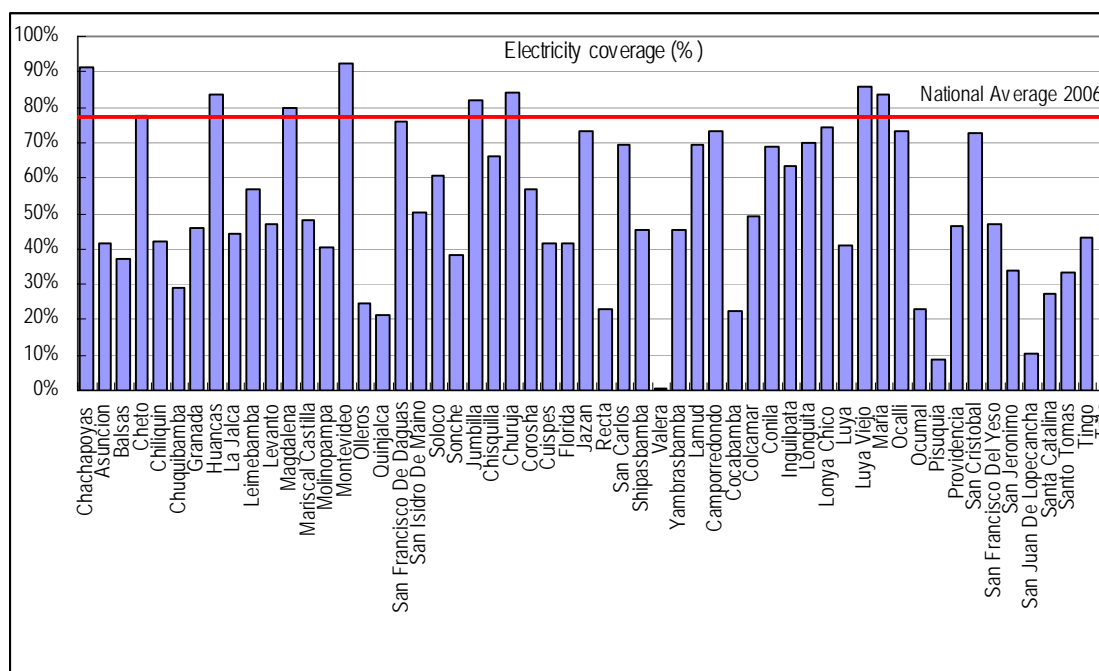
Table 2.34 Acutal electrification coverage of Provinces in Study Area

Department	Province	Coverage (%)
Amazonas		55.5
	Chachapoyas	79.9
	Bagua	77.3
	Bongara	60.4
	Condorcanqui	9.7
	Luya	38.4
	Rodriguez de Mendoza	29.1
	Utcamba	56.0

Source: JICA Study Team

Chachapoyas' coverage ratio of 79.9% exceeds the national average. Bongara's 60.4 % is also higher than the departmental average. Luya on the otherhand has 38.4% average which is far below than the departmental average. At the district level, it is observed that very few exceed the national average such as Chchapoyas, Huancas, Motevideo, Maria and others. Majority are far below as indicated in the graph below. Regardless of the fact that the average coverage does not exceed both the national or departmental levels, it is observed that all the districts included in the Study area are supplied with electricity. According to site visits and interviews with district chiefs, residents without electricity services are located in so-called annexes, which are in the remote zones of the districts.

Figure 2.19 Electricity Coverage in Study Area (FONCODES, 2006)

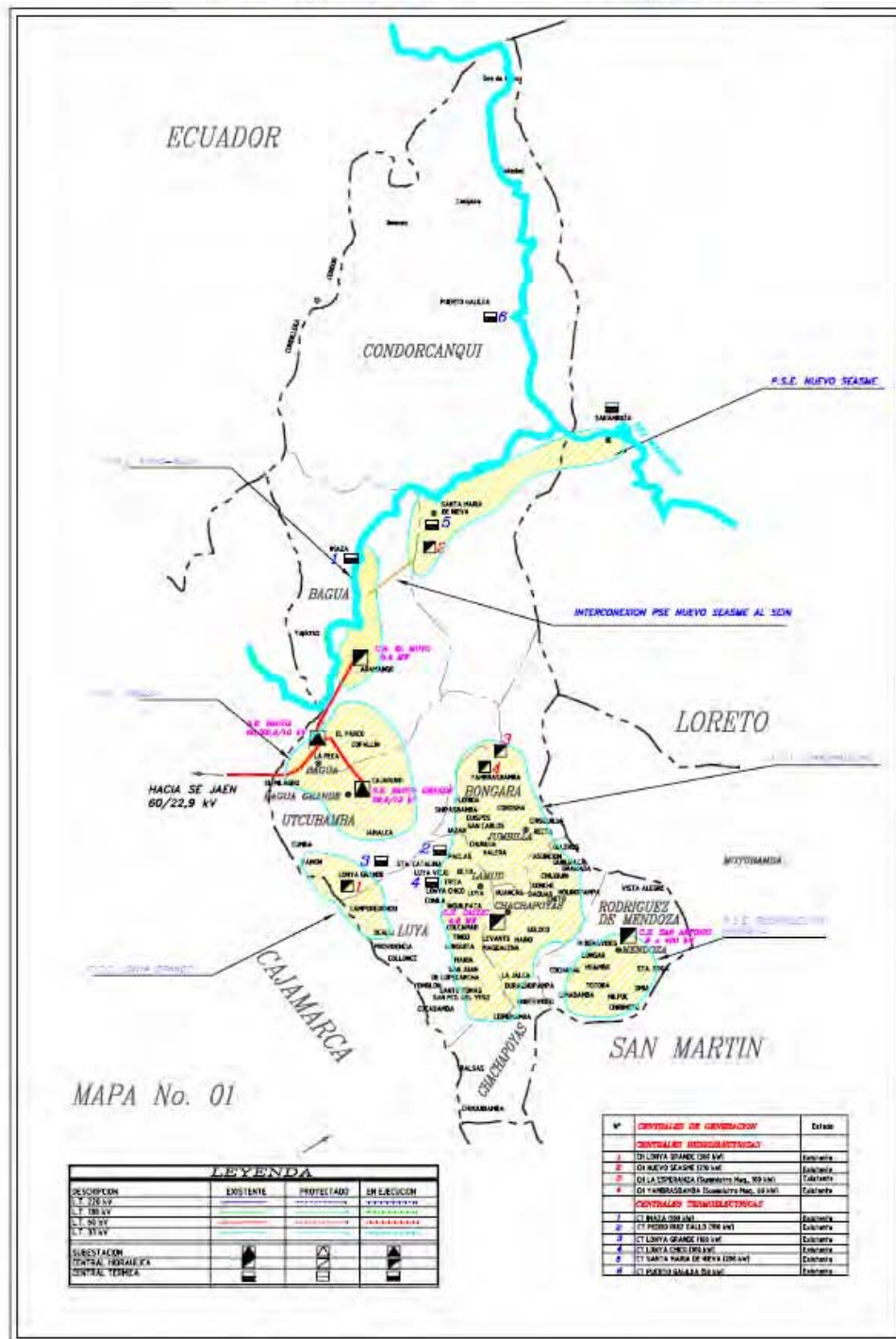


Source: FONCODES

The following map shows the small electric systems that have been constituted in the department of Amazonas and its influence areas. The small system of Chachapoyas indicated in the map covers a wide range of the Study area.

Figure 2.20 Electrification Expansion Plan in Amazonas

**AMPLIACION DE LA FRONTERA ELECTRICA
 DEPARTAMENTO DE AMAZONAS**



Within the study area, the electric service is provided with a small electric system from Chachapoyas (PSE Chachapoyas). This is sourced from the generation of a hydroelectric plant in Caclic, located in Chachapoyas, Luya, Bogara and Rodriguez de Mendoza provinces.

<Caclic Hydroelectric Plant>

Caclic Hydroelectric Plant plant is located in Luya District, Luya Province at coordinates of UTM 178.284 E, 9,315,868 N, and about 10 km from Chachapoyas. The plant utilizes the Uctubamba River energy through a fall of 70 m and a 8.5 m³/s flow. It has four units, each providing 1.2 MW effective power. The generation voltage is 4.16 kV.

There are two 3.0 MVA transformers provided for each unit, with a transforming ratio of 4.16/22.9 kV. There are three tension cable circuits of 22.9 kV, which feed the area loads.

<Circuit to Chachapoyas>

This circuit is the main one that supplies power to the town of Chachapoyas. It extends up to the town of Molinopampa. In the present year, this circuit will extend to the province of Rodríguez Mendoza which will increase its demand by 0.8 MW.

<Circuit to Luya-Lamud>

This circuit feeds the towns of Luya, Lamud and Pedro Ruiz. Its length also reaches the town of Pomacochas. In this circuit it is planned to connect a load of approximately 0.25 MW during the present year which is intended for the annexes of Chosgon, Cuchulia, Palo Seco, La Union, Ishanga, San Geronimo and Señor de los Milagros. The sector of Pomacochas area include the San Lorenzo, Chido Bajo, Chido Alto, Gualulo, Mraflones, Porvenir and San Jose towns.

<Circuit to Leymebamba>

This circuit feeds the Uctubamba valley localities, reaching its extension until Leymebamba locality. In the present year, in this circuit is scheduled to connect a load of approximately 0.15 MW and correspond to the localities of St. Thomas, San José Lauman, San Salvador, San Miguel de Luvin and San Bartolo.

(5) Demand forecast in the Study Area

The maximum demand of Chachapoyas PSE in 2007 was 3.11 MW. The circuits to Chachapoyas, Luya-Lamud and Leymebamba registered in the same year, highest demands of 1.97MW, 0.78MW and 0.39MW respectively. The load factor of Chachapoyas PSE is around 45%. In 2007 however, a 46% load was recorded.

Table 2.23 shows the demand projection of Chachapoyas PSE for a period of 20 years, between 2008 and 2028. Increments of 0.8 MW, 0.25 MW and 0.15 MW were considered in 2008.. For the rest of the period a constant growth of 2.65% was assumed.

Table 2.35 Estimation of Demand and Balance for PSE Chachapoyas

(Unit: MW)

Year	C. Chachapoyas	C. Luya-Lamud	C. Leymebamba	Total	Supply	Balance
	CAC201	CAC202	CAC203	Sim F. 0.992		Supply - Demand
2007	1.97	0.78	0.39	3.11	4.80	1.69
2008	2.77	1.03	0.54	4.31	4.80	0.49
2009	2.84	1.06	0.55	4.41	4.80	0.39
2010	2.92	1.09	0.56	4.53	4.80	0.27
2011	3.00	1.12	0.57	4.65	4.80	0.15
2012	3.08	1.15	0.59	4.78	4.80	0.02
2013	3.16	1.18	0.61	4.91	4.80	-0.11
2014	3.24	1.21	0.63	5.04	4.80	-0.24
2015	3.33	1.24	0.65	5.18	4.80	-0.38
2016	3.42	1.27	0.67	5.32	4.80	-0.52
2017	3.51	1.30	0.69	5.46	4.80	-0.66
2018	3.60	1.33	0.71	5.59	4.80	-0.79
2019	3.70	1.37	0.73	5.75	4.80	-0.95
2020	3.80	1.41	0.75	5.91	4.80	-1.11
2021	3.90	1.45	0.77	6.07	4.80	-1.27
2022	4.00	1.49	0.79	6.23	4.80	-1.43
2023	4.11	1.53	0.81	6.40	4.80	-1.60
2024	4.22	1.57	0.83	6.57	4.80	-1.77
2025	4.33	1.61	0.85	6.74	4.80	-1.94
2026	4.44	1.65	0.87	6.90	4.80	-2.10
2027	4.56	1.69	0.89	7.08	4.80	-2.28
2028	4.68	1.73	0.91	7.26	4.80	-2.46

Source: JICA Study Team

As shown, Chachapoyas PSE demand would increase by approximately 3 MW (from 4.31 MW to 7.26 MW) in a period of 20 years, if current conditions are maintained. However, if tourism demands as well as commercial activities progress with the related projects, higher growth rates are expected. For example, a growth rate of 3% demand would increase by approximately 3.5 MW in a period of 20 years. Based on optimistic considerations with the assumption that the growth rate will reach 4%, the demand would correspondingly increase by about 5.1 MW.

It implies that from year 2008, all four units should be operated at peak hour demands which will affect the maintenance activities. At year 2013, the balance remains to be negative, indicating that a new generation is required to meet the demands during peak hours.

The small electrical system of Chachapoyas will have serious problems on accommodating the electric load when the Caclic Hydroelectric Power Station fails to provide power. Consequently, the entire population will suffer electricity blackout since there is no backup facility provided. During the site visit of the Study Team, a blackout took place in Chachapoyas on August 20, 2008. It lasted for six hours, from 15:00 to 21:00. This situation will be aggravated by the additional demands in the future, with the Caclic Hydroelectric Power Station operating at maximum capacity and the maintenance of the units will require power outages that will suspend electricity supply to some sectors..

2.4.4 Telecommunication

(1) Evolution of telecommunication policy in Peru

Until year 1991, the telecommunication systems in Peru were under the administration of two state companies namely, the Peruvian Company of Telephones (CPT) and the National Company of Telecommunications (Entel Peru). These are maintained under a monopoly of fixed telephony services, in respective areas of concession. Entel Peru had monopolized the long distance telecommunication services. Due to this situation telecommunication sector remained with very limited capacity and a recorded coverage telephone density of 2.94 connections/100 houses in 1993, which was behind Ecuador and Bolivia. According to a World Bank report, Lima has the least communication facilities among the cities of Latin America. Only about 35 to 40% of the communication facilities were completed satisfactorily.

In 1994 the privatization of the state companies CPT and Entel Peru were acquired by the Telefonica del Peru Company, which put up important investments for modernization, infrastructure improvement and expansion of the telecommunications network in all of Peru.

Since then, with the introduction of technologies such as the MAR systems and the satellite network, the situation of the rural telecommunications in the country has changed. To date, there are more than 10,000 telephones in operation that covers around 7,000 rural localities in the country. However, current effort made is still short considering that only a 10% out of the 70,000 existing localities were served with the telephone services.

After the privatization in 1994, the concession contract between the state and Telefonica includes an obligation to provide for 1,526 rural localities. The process was completed with the creation of the Telecommunications Investment Fund (FITEL), created by the Telecommunications Law, which was previously administrated by OSIPTEL. Lately this is under the administration of the Ministry of Telecommunications (MTC).

FITEL through the collected contributions of the operating companies by Law has financed projects totaling the amount of more than 52 million dollars. This benefits around 6,000 localities in the country with the installation of 6,499 public telephones and 515 internet cabins.

(2) Relevant organizations

< MTC >

MTC is the governing agency in-charge of regulating policies on telecommunications in the country (Art. 75 of the ordered Text of the Law of Telecommunications).

The instruments that MTC uses are:

“Ordered Unique Text of the Telecommunications Law”,	Supreme Decree N° 013-93-TCC “
”Ordered Unique Text of the General Regulation of the Telecommunications Law”,	Supreme Decree N° 020-2007-MTC.

<Organization Supervisor of the Private Investment in Telecommunications (OSIPTEL)>

OSIPTEL was created by the Telecommunications Law in 1993, as an organization whose main function is to regulate and supervise the operating companies of public telecommunication services, control tariffs, monitor the quality and efficiency of the public services offered, as well as relations between operators.

<Investment Fund in Telecommunications (FITEL)>

FITEL is a fund constituted by a percentage of the annual invoicing of the operating telecommunication companies. This must be exclusively allocated for the financing of services in rural areas and preferred places of social interest. FITEL is sustained through a contribution of 1% of the gross income of the operating telecommunications companies.

<Services of Operating Telecommunications Companies>

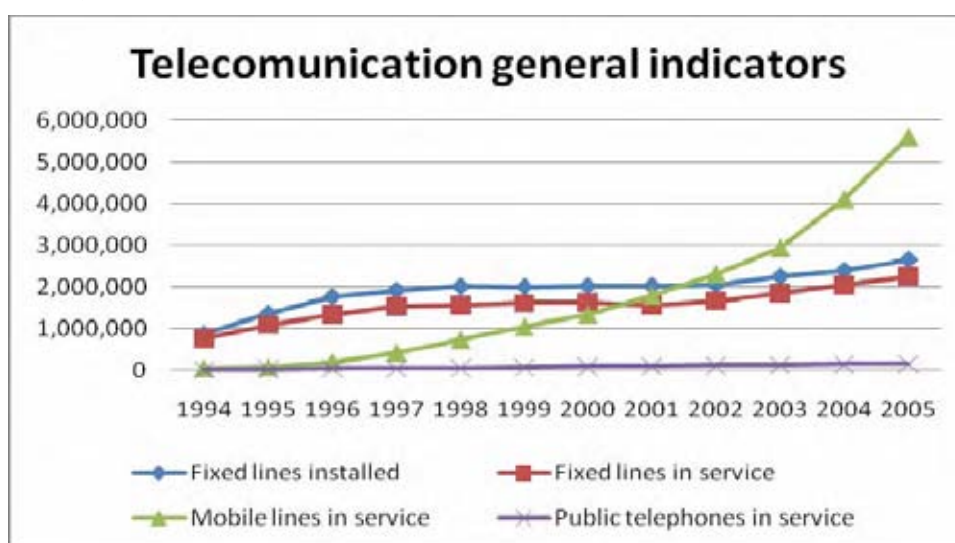
In 2006, OSIPTEL reports that the following operating telecommunications companies providing services in the Peruvian market are:

- Telefónica del Perú
- Telmex
- Telefónica Móviles
- America Móvil
- Nextel del Perú
- Americatel
- Impsat
- Millicom
- Gilat To Home
- Infoductos

(3) Current condition of telecommunication in Peru

According to the information published by OSIPTEL, as of 30 December 2006, Peru has 2,400,512 national level fixed lines which are in good condition. Of these, 1,525,256 supply service to the Lima Department and Constitutional Province of Callao (63.54%) while 875,256 (36.46%) serve the Departments of the Interior. Also, considering mobile services, 8,772,479 service lines are provided, of which 5,203,601 (59.32%) is allotted to the Department of Lima and 3,568,828 (40.68%) to the other departments of the country. Mobile services cover 2.4 times more than that of the local fixed telephone lines.

Figure 2.21 General Indicators of Telecommunication Sector in Peru



Source: OSIPTEL. Información estadística de Telecomunicaciones

(4) Current condition of telecommunication in Amazonas

For year 2006, OSIPTEL reports that the Department of Amazonas has 6,300 fixed lines in good condition and 22,007 lines of mobile service. This indicates that the mobile service has 3.5 times more subscribers than the fixed lines, which is almost equivalent to the country’s rate of subscribers (3.6 times).

OPSITEL reports that in year 2006, there are 88,823 public telephones (telephone booths) in good condition in the entire country. Of these, 863 public telephones are in Amazonas, equivalent to about 2.1 phones per thousand users. This is four times less than that in Lima and Callao which is 9.8 phones per thousand users.

The companies that operate telecommunication services in Amazonas are as follows.

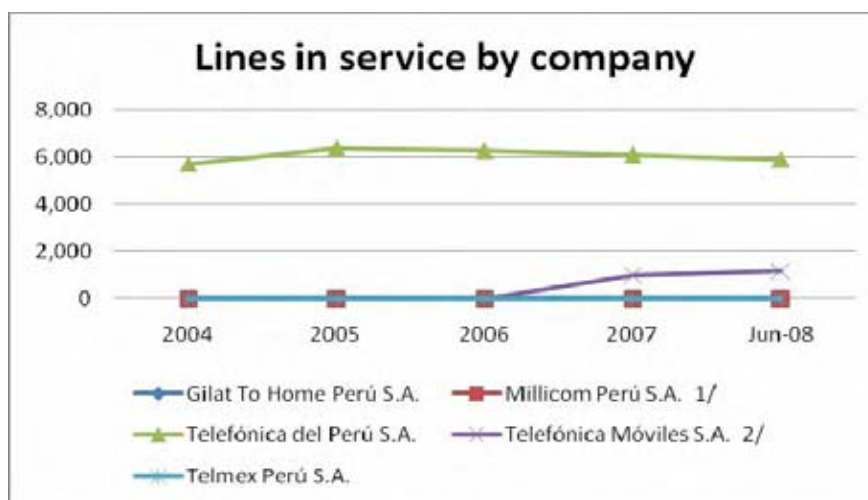
Table 2.36 List of Telecom service providers in Study Area

Service Provider	Description
Telefonica del Peru	Provides local, long distance and mobile telephone services, and internet communications in Bagua and Chachapoyas
Claro	Provides mobile telephone service in Chachapoyas
Gilat to Home	Provides telephone and internet services through satellite in Chachapoyas
Cablevision Chachapoyas	Provides cable television services in Chachapoyas
TV Cable Satellite Bagua	Provides cable television services by cable in Bagua
Julio Cesar Silva Reina	Provides cable television services in Chachapoyas

Source: JICA Study Team

The quality of the public telephone booths is generally poor. Locations where these are provided are not suitable and in some cases, its components (parabola antenna) are not properly protected. Nearby residents/users also misuse the structural supports of the booths by leaning on it or to hang clothings. According to the administrators of the booth stations, the technical attention is not provided efficiently. When service is interrupted due to some malfunctions, considerable delays (days, sometimes weeks) to required services is experienced. Consequently, feasibility of concessionaires’ business is affected.

Figure 2.22 Lines in Service by Company in Amazonas Department



Source: OSIPTEL. Informacion estadistica de Telecomunicaciones. Indicadores del servicio telefonico fijo.

(5) Current condition of telecommunication in Study Area (by district)

◆ Chachapoyas

Within the Study area, fixed telephone line services are only available in Chachapoyas City. There are 39 public telephone booths in Chachapoyas City which are provided by Telefonica del Peru (27 booths) and Gilat to Home (12 booths). In the same manner, internet cabins are available in Chachapoyas where services are provided by Telefonica del Peru (6 cabins) and Gilat to Home (9 cabins).

◆ San Pablo

Service	Description
Telephone Booth	No.813067 operated by Gilat Gilat Card of S/.2,5 & 10 are available It costs S/.1.00 to receive a call
Internet Cabin	Not in service
Mobile phone	Not available

◆ Cocachimba

Service	Description
Telephone Booth	Not available
Internet Cabin	Not available
Mobile phone	Movister (limited to non-chip phones)

◆ Cuispes

Service	Description
Telephone Booth	No.813060 operated by Gilat Gilat Card of S/.2,5 & 10 are available (no coins) It costs S/.1.00 to receive a call
Internet Cabin	By Gilat (1 PC)
Mobile phone	Movister & Claro

◆ Huancas

Service	Description
Telephone Booth	No.813018 operated by Gilat Gilat Card of S/.2,5 & 10 are available (no coins) It costs S/.1.00 to receive a call
Internet Cabin	Not available
Mobile phone	Movister & Claro

Municipality has two telephones numbers, 47041 and 478857, installed with a voice link provided by Telefónica del Perú (Rural Telephony), through a directional antenna of Yagui type. They also have internet services connected to three computers and a network with a speed of 600 Kbps. The service access seems slow according to the secretary of the municipality.

◆ Cruzpata

Service	Description
Telephone Booth	No.813117 operated by Telefonica Gilat Card of S/.2,5 & 10 are available (no coins) It costs S/.1.00 to receive a call
Internet Cabin	Not available
Mobile phone	Not available

◆ Lamud

Service	Description
Telephone Booth	7 cabins operated by Telefonica. Telefonica rural has two numbers and Hotel Kuelap also has two.
Internet Cabin	Not available
Mobile phone	Not available

◆ Luya

Service	Description
Telephone Booth	3 cabins operated by Telefonica.
Internet Cabin	8 PCs
Mobile phone	Not available

◆ Tingo Nuevo

Service	Description
Telephone Booth	2 cabins operated by Gilat
Internet Cabin	1 PC
Mobile phone	Claro

◆ Magdalena

Service	Description
Telephone Booth	1 cabin operated by Telefonica.
Internet Cabin	Under test by Telefonica
Mobile phone	Claro

◆ Choctamal

Service	Description
Telephone Booth	1 in hotel choctamal by Gilat
Internet Cabin	Not available
Mobile phone	Claro

◆ Longita

Service	Description
Telephone Booth	1 cabin operated by Gilat.
Internet Cabin	1 cabin
Mobile phone	Claro

◆ Maria

Service	Description
Telephone Booth	1 cabin operated by Gilat
Internet Cabin	1 cabin
Mobile phone	Claro

◆ Leymebamba

Service	Description
Telephone Booth	4 cabins
Internet Cabin	3 cabins with 8 PCs
Mobile phone	Movister

◆ La Jalca

Service	Description
Telephone Booth	1 cabin operated by Telefonica
Internet Cabin	1 cabin by Gilat

◆ Santo Tomas

Service	Description
Telephone Booth	1 cabin operated by Telefonica and 1 by Gilat
Internet Cabin	Not available

◆ San Isidro de Maino

Service	Description
Telephone Booth	2 cabins operated by Gilat
Internet Cabin	1 cabin by Gilat

◆ Levanto

Service	Description
Telephone Booth	1 cabin operated by Gillat and 1 by Telefonica
Internet Cabin	4 PCs in (of) university

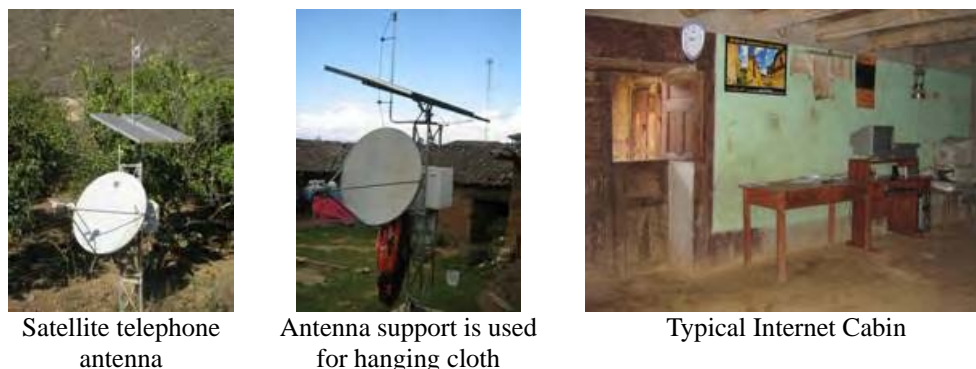
◆ San Isidro de Maino

Service	Description
Telephone Booth	2 cabins operated by Gilat
Internet Cabin	1 cabin by Gilat

◆ Cohechan

Service	Description
Telephone Booth	1 cabin operated by Telefonica
Internet Cabin	1 cabin by Gilat

Figure 2.23 Current Condition of Telecommunication Service in Study Area



(6) Existing projects

Peruvian, American JV CIFSA Telecom SAC and STM Wireless Inc recently coordinated to provide public telecommunication services in the rural areas in North Center (departments of Ancash, the Libertada, Lambayeque), Center East (departments of Huanuco, Junín, Lima, Pasco and Ucayali) and North (departments of Piura, Cajamarca, Amazonas).

The contract includes an initial investment and 20 years of operation and maintainance (O&M) services. In Amazonas, 22 localities (seven in the Study area) are included in the contract.

Table 2.37 List of Localities to be covered by O&M Concession

Region	Province	District	Locality
AMAZONAS	CHACHAPOYAS	LEIMEBAMBA	PALMIRA
AMAZONAS	CHACHAPOYAS	LEIMEBAMBA	DOS DE MAYO
AMAZONAS	CHACHAPOYAS	LEVANTO	LEVANTO
AMAZONAS	CHACHAPOYAS	MAGDALENA	MAGDALENA
AMAZONAS	LUYA	CONILA	COHECHAN
AMAZONAS	LUYA	SAN FRANCISCO DEL YESO	SAN FRANCISCO DEL YESO
AMAZONAS	LUYA	SANTO TOMAS	SANTO TOMAS

Source: JICA Study Team

2.4.5 Solid Waste Management

Any interventions have not been initiated to resolve solid waste management issues in Amazonas. Both local residents and garbage collectors dump trash at public places such as river banks and road sides. Hence, this affects scences of touris sites.

In addition to physical infrastructure improvement, the capacity development for operation and management is essential to assure the sustainability of the management system for beautification within tourist sites.

(1) Guidelines

A methodology guideline for the formulation of Integral Plan for Environmental Management (PIGARS), published by National Environmental Council (actual Ministry of Environment) in 2002, is available.

(2) Relevant organizations and current initiatives

The General Law of Solid Waste No. 27314, modified by DL No.1065 on June 2008, established responsible agencies for solid waste infrastructures such as land fill and/or recycle plants.

Table 2.38 Responsible Entity for Solid Waste Management

Entity	Function
Provincial municipalities	Approvals for the location of infrastructures and definitive project
DIGESA (General Directorate of Environmental Health in Ministry of Health)	Approvals for the EIA and provide favorable opinion on the definitive project
INRENA (Natural Resource Institute)	Authorization in the safeguard of Protected Natural Resources
INC (National Cultural Institute)	Certificate of inexistence of archaeological ruins

Source: JICA Study Team

The regional government can implement the solid waste infrastructure and transfer it to the provincial municipality so that the latter can operate and maintain the infrastructures with prior agreement.

The following are some of the initiatives undertaken in the area:

In Cocachimba and Quiocta, the NGO known as CARITAS, financed by Fondo Italo-Peruano, has developed PROMARTUC project in which an adequate waste management at tourist sites are included.

In Chachapoyas, a NGO known as APECO is preparing the provincial agency PIGARS. This includes the formulation of a series of projects in this province in order to improve the quality of solid waste management.

(3) Current condition in the Study Area

According to the study of characterization of the Chachapoyas province in 2008, the per capita generation of solid wastes in the Chachapoyas is at a range of 0.30 kg/person/day to

0.51kg/person/day. For calculation purposes in this Study, an average value of 0.405 kg/capita/day is used.

The table below shows an estimate of the generated domiciled solid waste which totals about 23 ton/day. This is used to estimate the overall total quantity of 29 ton/day.

Table 2.39 Estimate of Solid Waste Generation in Study Area

District	Population (2005)	Domicile Solid Waste Generated (T/d)	Total generated Solid Wastes (T/d)
Cuispes	797	0.323	0.42
San Pablo	402	0.162	0.21
Huancas	805	0.326	0.42
Chachapoyas	22493	10.436	13.56
Levanto	1053	0.426	0.55
Lamud	2550	1.032	1.34
Luya	4330	1.753	2.27
Cohechan	2750	1.113	1.44
Cruzpata	420	0.170	0.22
Magdalena	880	0.356	0.46
Tingo	1202	0.486	0.63
Longuita	948	0.384	0.49
María	945	0.382	0.49
La Jalca	5245	2.124	2.76
Santo Tomas	4008	1.623	2.11
Leymebamba	3896	1.578	2.05
TOTAL		22.674	29.48

Source: JICA Study Team

(4) Type of solid wastes

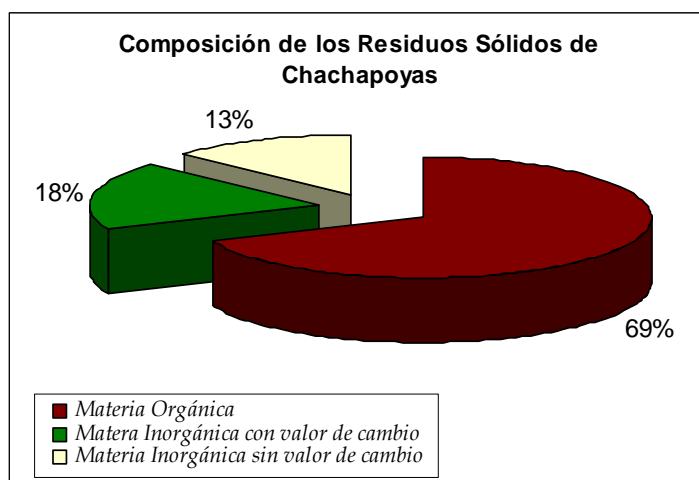
Based on the characterization study and site visits, it is estimated that more than 60% of solid wastes is organic materials. In Chachapoyas, solid waste composition is shown in table below.

Table 2.40 Physical Composition of Solid Waste in Chachapoyas

Type	Weight (Kg.)	%	Weight (T)
Organic material	560.29	68.54	9.87
Plastic (bags & wrapper)	42.14	5.16	0.74
Disposable diaper	37.06	4.53	0.65
Soil	25.39	3.11	0.45
Paperboard	24.88	3.04	0.44
Toilet paper	21.28	2.60	0.37
Can	18.42	2.25	0.32
Glass	14.32	1.75	0.25
Plastic PET (voltees)	13.06	1.60	0.23
White paper	9.82	1.20	0.17
Hard plastic	9.23	1.13	0.16
Color paper	8.52	1.04	0.15
Cloth	7.75	0.95	0.14
Plastic Field	7.13	0.87	0.13
Teknopor	2.03	0.25	0.04
Tetra pack	1.02	0.12	0.02
Word	0.7	0.09	0.01
Metal	0.57	0.07	0.01
Others	13.8	1.69	0.24
TOTAL	817.408	100	14.40

Source: PIGARS Chachapoyas (under elaboration)

Figure 2.24 Composition of Solid Waste in Chachapoyas



Source: JICA Study Team



Organic garbage stored in house

(5) Solid waste collection

There are different methods of waste collection implemented in the Study Area. These are by manual collection method, wheelbarrow and 12-ton compaction truck. It is noted that the only district with a compaction truck is Chachapoyas.

In Chachapoyas, a daily service of garbage collection and transportation is provided by two trucks. In Luya, Huancas and Lamud, collection by pickup type trucks is carried out twice a week. A van is used to collect wastes in Levanto, on a weekly basis. In other districts in the Study area, collection is done once or twice a week by non-motorized vehicles such as wheelbarrows and tricycles.

Figure 2.25 Current Condition of Solid Waste Management in Study Area



Garbage Truck in Chachapoyas



Garbage Truck in Balsas



Garbage Truck in Levanto

(6) Recycling

Except in Chachapoyas, recycling and commercialization are not implemented. Waste separation and recycling process is not well promoted in the Study area. This situation may be attributed to the few quantity of generated waste or the elevated cost of transportation traveling a long haul distance. In small districts, organic materials are utilized as fertilizer for the farms.

In Chachapoyas, there exists an informal market for reutilization of recyclable solid wastes. During the site visit, three establishments were identified buying metals, plastic bottles, glasses

and other reusable articles recovered from garbage by informal workers. At least ten families are engaged in informal segregation work, exposed to infection and contamination in Atajo zone.

Although 18% of inorganic materials can be sold as recycled material such as plastics, metals, papers, paperboards, rubbers and tetrapak (paper box), the market price in Chachapoyas is around half of that in Lima.

(7) Final Dump Site of solid waste

The final dump site of waste material is a critical issue of the solid waste management in the Study area. Currently, 100% of the designated dump site area utilizes open air ground space. Since available land fill area is not sufficient for dumping, some people either bury or burn their solid wastes in order to prolong the capacity of the designated dump site.

In localities adjacent to rivers, it is frequently observed that wastes are dumped into the river, causing contamination of the water.

Figure 2.26 Current Condition of Solid Waste Dump yard in Study Area



Garbage from medical center
in Cocachimba

Open garbage yard in Luya

Disposal area of Chachapoyas

(8) Identification of Needs (result of interview)

Solid waste management is one of the important issues for tourism development in Amazonas as confirmed in the JICA workshop in Chachapoyas. This was reconfirmed through interviews carried out during site visits with designated representatives from different municipalities. Even though the inhabitants confirm the necessity and importance of solid waste management, no relevant projects have been undertaken except for a few initiatives initiated by NGOs. Therefore, any such project should be prepared from scratch.

Table 2.33 shows the result of interview. According to the result, the following six aspects are prioritized.

- Finance (The current budget is not enough to cover the cost of operation, maintenance and administration of the public cleaning service. The interviewees deemed this as one of the high priority issues since inhabitants are not paying for the services rendered and the municipalities do not provide adequate resources.
- Capacity development of staff (In general, the person in charge of the service has not undergone technical or administrative trainings although they have gain experience through their job. The municipalities do not have an appropriately structured training plan.)

- People's Participation (Actually, residents do not participate in the service in an organized manner. The room for collaboration or participation with municipalities is very little. This fact is reflected in the residents' improper hygiene)
- Equipment (The equipment/devices for public cleaning are either insufficient or obsolete. These include the equipments for collection and road cleaning accessories such as carretillas, escobas, etc, and occupational hygiene devices such as gloves, masks, uniforms etc)
- Peoples' motivation (People are not motivated to improve the current situation. Interviewed people suggest the necessity of offering personal incentives to persuade participation)
- Internal organization (The municipality does not have any procedure for clearly and explicitly established task distribution. The staffs are delegated with tasks in a general from, without determining the efficiency and mechanism for continuous improvement)












Table 2.41 Priorities in the Issue Related to the Public Cleaning

<i>Municipality</i>	<i>Equipment</i>	<i>Finance</i>	<i>Internal organization</i>	<i>Bureaucracy</i>	<i>Capacity development of staff</i>	<i>Peoples motivation</i>	<i>Institutional coordination</i>	<i>Participation of inhabitants</i>	<i>Legislation</i>	<i>Other (specify)</i>
Cuzpes	1	2	3	1	3	3	2	2	1	-
San Pablo	3	3	3	1	3	3	3	3	3	3 (compost), 3 (plastic bottle recycling)
Huancas	1	3	1	1	2	2	1	3	1	-
Chachapoyas	3	3	3	3	3	3	3	2	1	3 (Land fill)
Levanto	1	3	1	2	1	2	1	2	1	-
Lamud	3	3	2	0	3	3	2	3	3	3 (land fill)
Luya	3	3	3	1	2	2	2	3	1	3 (land fill) 3 (tratamiento)
Cohechan	2	3	1	1	2	0	3	0	1	3 (land fill)
Cruzpata	3	3	2	1	3	3	3	3	3	-
Magdalena	3	3	2	0	3	2	1	3	0	-
Tingo	3	3	3	2	3	3	3	3	3	3 (land fill)
Longuita	3	3	3	0	3	3	3	3	3	3 (land fill) 3 (payment)
María	1	3	1	2	2	1	1	1	1	3 (land fill)
La Jalca	2	3	2	3	3	1	1	1	1	-
Santo Tomas	1	2	1	2	1	1	1	2	1	-
Leymebamba	1	3	2	1	3	2	1	1	1	-
TOTAL	34	45	33	21	43	34	31	35	25	

Importance Level : High Priority (3), Medium Priority (2), Low priority (1), Null Priority (0)











Source: JICA Study Team

Table 2.42 Summary of Current Condition of Tourism Promotion (1/2)

<Tourism>	
<u>Bottlenecks</u>	
Tourism Resources	<ul style="list-style-type: none"> - Lack of maintenance and management which leads to deterioration of archaeological sites. - Limited national/ international recognition due to limited marketing activities and limited means of access from Lima
Tourism Services and Facilities	<ul style="list-style-type: none"> - Lack of tourism facilities in number and variety - Limited quality and variety of tourism services - Limited participation of local residents <div style="display: flex; justify-content: space-around; align-items: center;">   </div>
Tourism Marketing	<ul style="list-style-type: none"> - Lack of awareness for the need of marketing activities - Lack of tourism development strategy and plans <div style="display: flex; justify-content: space-around; align-items: center;">  </div>
<u>Potentials</u>	
Tourism Resources	<ul style="list-style-type: none"> - Rich archaeological and natural resources - Increasing international recognition and number of visitors, partly due to international media
Tourism Services and Facilities	<ul style="list-style-type: none"> - Local residents' welcoming attitude toward tourists and expectation for tourism development - Rich local culture still observed in food, handicraft etc <div style="display: flex; justify-content: space-around; align-items: center;">  </div>
Tourism Marketing	<ul style="list-style-type: none"> - Marketing activities for media and tour operators can have positive impact as is already proved by some examples, such as Laguna de los Condores and Gocta Falls.
<u>Needs</u>	
Tourism Resources	<ul style="list-style-type: none"> - Research, management and maintenance of archaeological and natural resources - Proper means of exhibition and provision of information to attract visitors <div style="display: flex; justify-content: space-around; align-items: center;">    </div>
Tourism Services and Facilities	<ul style="list-style-type: none"> - Increase in number and variety in tourism facilities such as information center and museums - Improvement in quality and variety in tourism related services - Development of tourism related services and products by local residents <div style="display: flex; justify-content: space-around; align-items: center;">     </div>
Tourism Marketing	<ul style="list-style-type: none"> - Awareness for need of tourism marketing activities - Mid- to long-term tourism development and marketing strategy - Active promotion activities to gain national/ international recognition to rich natural and cultural resources in Amazonas

Source: JICA Study Team

Table 2.42 Summary of Current Condition of Tourism Promotion (1/2)

<Infrastructure>	
<u>Bottlenecks</u>	
Transport	- Unsecured access from out of Pedro Ruiz and Balsas to Chachapoyas
Electricity	- Bad condition of access roads to tourism destinations
Water/Sanitation	- Unstable energy supply
Telecommunication	- Low quality and coverage of water supply
Solid Waste	- Discharge of untreated sewerage
	- Limited capacity of telephone service
	- Limited internet service (no broadband)
	- No landfill site in the area
	- Limited capacity of labors
	 <i>Dangerous road</i>  <i>Contaminated water</i>  <i>Deep access road</i>  <i>Solid waste along road</i>
<u>Potentials</u>	
Transport	- More tourists by better access
Electricity	- Small hydroelectric generation
Water/Sanitation	- More consciousness of inhabitants on environment
Telecommunication	- High potential users
Solid Waste	- Illegal workers in recycling
	- More consciousness of inhabitants on environment
	 <i>Small-scale bridge</i>  <i>Micro hydro system</i>  <i>Satellite Communication system</i>  <i>Recycling system</i>
<u>Needs</u>	
Transport	- Improvement of surface course of accesses
Electricity	- Routine maintenance for both national and rural roads
Water/Sanitation	- Connection to national grid
Telecommunication	- More coverage and better quality of water supply
Solid Waste	- Treat waste water before discharging to river
	- Introduction of broadband internet service
	- Establishment of landfill site
	- Coordination among regional and municipality governments
	 <i>Renewal airport</i>  <i>Emergency system</i>

Source: JICA Study Team

3. BASIC CONCEPT AND STRATEGY FOR RURAL DEVELOPMENT THROUGH TOURISM PROMOTION

As noted in Chapter 1, this Study aims to propose an integrated program for rural development through tourism promotion in the Utcubamba valley area, namely Chachapoyas, Bongara and Luya provinces in the central and south part of Amazonas. The main focus is on infrastructure improvement related to tourism and its development.

Overall goal of the proposed program is:

- to contribute to poverty alleviation in Amazonas

Program purposes are:

- to activate regional economy through promotion of tourism industry
- to supply better livelihood condition through infrastructure improvement

Following the overall goals and the program purposes, (i) structure of integrated rural development, (ii) basic concept and strategy in general, and (iii) basic concept and strategy on tourism, infrastructure and poverty alleviation in the proposed program are described below.

3.1 Identification of Priority Sites

As mentioned Chapter 1.3 of this report, the Study covers the Utcubamba Valley area as the priority, consisting of the provinces of Chachapoyas, Luya and Bongara.

Geographically, this area is characterized by a valley that runs from south to north, with Utcubamba river running at the bottom of the valley. There is a road (PE-005N and PE-008) running along the Utcubamba river, connecting to Pedro Luiz and Chiclayo on the north side and to Celendin and Cajamarca on the south side.

Another distinctive characteristic of this region is the existence of rich cultural heritages and natural resources. Cultural heritages in the area mostly consists of archaeological remains of Chachapoyas culture, represented by the fortress of Kuelap. Chachapoyas culture is one of the Pre-Inca cultures which could have flourished from around 800 A.C. to around the time of Spanish conquest.

Main natural resources in the Study area include waterfalls, caves, canyons and lakes. Gocta and Yumbilla falls are considered as among the world's highest waterfalls. By improving facilities at these sites, it is expected that visitors to the area covered by the Study are either interested in archaeological/ cultural tourism or natural/ adventure tourism. The following table 4.0.1 shows main archaeological sites and natural resources in the area.

The number of visitors to the fortress of Kuelap is increasing in recent years, wholesome natural resources in the Study area, such as Laguna de los Condores and Gocta falls, are gaining more popularity among tourists, following worldwide publicity of these sites through the media¹.

¹ Laguna de los Condores is a lake located about 40 km east of Leymebamba. In 1996, ancient funerary site was discovered together with 219 mummies and over 2000 artifacts. An international TV channel, Discovery Channel, made a documentary on the discovery. Gocta falls, which have 771m height and are believed to be the third-highest in the world, have really been known except for local residents due to their remote location. It was only since 2002 when a German explorer first visited the site that the falls are recognized internationally. Although the data on actual number of tourists are not available, local authorities and residents confirm that the number of tourists increased remarkably since those sites became to be known internationally.

However, other archaeological sites and surrounding nature also have potential as tourism resources if conditions are consequently improved.

Table 3.1 Main Archaeological Sites and Natural Resources in the Study Area

Province	Archaeological Sites		Natural Resource
BONGARA			Gocta Falls Yumbilla Falls Chinata Falls Shigual Cave
CHACHAPOYAS	Yalape Levanto Molinopampa Collacruz Purumllacta Macro Machupirca Ollape Ollan Casa Redonda Tella Pumacacha	Torre de Piedra Alcalde Urco Carpona Sucsho La Petaca Lluy La Joya Chuquibamba Diablo Huasi Pueblo de Boveda Mausoleum of Laguna de los Condores	Laguna Mamacocha Laguna de los Condores Canyon del Sonche
LUYA	Sarcophagus of Karajia Pueblo de los Muertos America Imperio Intipuyo Kuelap	Gran Vilaya Revash La Congona Molinete Cataneo	Quiocta Caves Huaylla Belen Valley Laguna de Cuchacuella

Source: JICA Study Team

As mentioned above, main tourism attractions of the study area include the fortress of Kuelap, Gocta falls and Laguna de los Condores. These three sites are located at the northern and southern edges (Gocta falls and Laguna de los Condores, respectively), and at the center of the Study area (Kuelap).

According to interviews with local authorities, most tourists visiting Gocta falls and Kuelap stays in Chachapoyas, the regional capital and gateway city of Amazonas, Meanwhile it was also revealed that those visiting Laguna de los Condores stay in Leymebamba. In order to promote tourism in regions with less developed archaeological and natural sites, and to extend opportunities for tourism sector services to other smaller towns and villages for promoting further regional development, the Study Team tentatively set four tourism zones and gateway cities as follows.

Table 3.2 Identified Tourism Zones

Zone	Location	Province	Potential Gateway Cities
Zone 1	North eastern section of the study area	Chachapoyas Bongara	Chachapoyas
Zone 2	North western section of the study area	Luya	Lamud Luya
Zone 3	Center Of the study area	Chachapoyas Luya	Magdalena, Maria, Tingo, Choctamal
Zone 4	Southern section Of the study area	Chachapoyas Luya	Leymebamba

Source: JICA Study Team

Subsequently, the Study Team selected priority tourism cores based on prioritized natural and archaeological sites in each tourism zone. The criteria for the selection of these cores are as follows.

- Proximity to the main road (PE-005N and PE-008) and its feeder roads
- Proximity to towns and/or villages that have potential for accommodating tourists, by providing related services
- Existence of several natural/ archaeological resources as means of attracting tourists while staying in the gateway city of the zone, thus providing economical benefits to the surrounding area

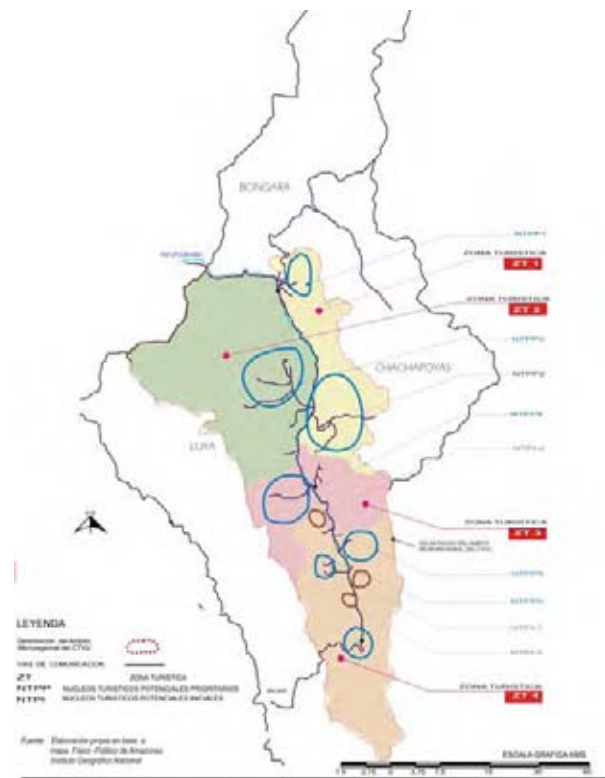
The following Table 3.3 shows selected priority cores and sites in each tourism zone.

Figure 3.1 Map of Identified Tourism Zones



Source: JICA Study Team

Figure 3.2 Selected Tourism Cores in Each Tourism Zone



Source: JICA Study Team

Table 3.3 Selected Tourism Cores and Priority Sites

Zone	Tourism Cores	Identified Priority Sites: Archaeological (Ar) / Nature (Na)	Towns/ Villages	Provinces
1	TC-1	GOCTA (Na)	Cocachimba San Pablo	Bongará
		<u>YUMBILLA (Na)</u>	Cuispes Pedro Ruiz	
		<u>CHINATA (Na)</u>	San Carlos	
	TC-2	CAÑON DEL SONCHE (Na)	Chachapoyas Huancas	Chachapoyas
YALAPE (Ar) CAPAQ NAM (Ar)		Levanto		
2	TC-3	KARAJIA (Ar) CHIPRIC (Ar)	Cruzpata	Luya
		<u>PUEBLO DE LOS MUERTOS (Ar)</u> QUIOCTA (Na)	Lámud Luya	
3	TC-4	TELLA (Ar) MACRO (Ar)	Magdalena	Chachapoyas
		<u>KUELAP (Ar)</u>	Tingo, Choctamal Lónguita, Maria	Luya
4	TC-5	OLLAPE (Ar)	La Jalca	Chachapoyas
		<u>OLAN (Ar)</u>		
	TC-6	REVASH (Ar)	San Bartolo	Luya
4	TC-7	LA CONGONA (Ar) LAGUNA DE LOS CONDORES (Ar)	Leymebamba	Chachapoyas
4 Zones	7 Cores	13 Archaeological Sites + 5 Nature Sites	19 Towns/ Villages	3 Provinces

Source: JICA Study Team

By improving facilities and carrying out promotion in abovementioned seven tourism cores, it is expected that tourists traveling along the main road (PE-005N and PE-008) will increase as compared to the tourists tends who opt to stay only in Chachapoyas and Leymebamba at present. It is also expected that the tourists will stay for a longer time in the area if more variety of choices are available.

Another expected benefit in promoting these seven cores can be pointed out from the aspect of regional development. Together with the promotion of the additional tourists traveling along the main road, new economic opportunities are expected to be developed throughout the Utcbamba Valley.

Furthermore, among all priority sites, the Study Team set the first priority to those presented in the following table, based on Tourism Zone. Different kinds of resources (natural resources, settlement archaeological sites and a funerary archaeological site) are identified for each zone in order to provide a wider range of choices for tourists. Among the archaeological sites, historical relevance and appeal to tourists in terms of facility provided for describing the sites, are taken into consideration in the selection.

Table 3.4 Selected First Priority Site for Each Tourism Zone

Tourism Zone	First Priority Site	Resource
Tourism Zone 1	Chinata and Yumbilla falls	Natural Resource
Tourism Zone 2	Pueblo de los Muertos	Archaeological Site (Funerary site)
Tourism Zone 3	Kuelap	Archaeological Site (Settlement)
Tourism Zone 4	Olan	Archaeological Site (Settlement)

Source : JICA Study Team

3.2 Projection of Number of Toursits

On the basis of actual number of tourists in 2003 to 2007, projected number of tourists with/without the proposed program in Amazonas as well as in Chachapoyas, the most important tourism province in Amaoznas, are calculated in the table below.

According to the projections, the number of tourists in Amazonas as well as in Chachapoyas will remarkably increase with the implementation of the proposed program. The projected number of tourists in Amaoznas is around 496 thousand in 2018, from 187 thousand in 2007 without the proposed program, will reach around 582 thousand in 2018 if program is proposed. The projected number of tourists in Chachapoyas is 287 thousand in 2018 from 69 thousand in 2007 with the proposed program, while 248 thousand is projected in 2018 if no program is proposed.

Table 3.5 Projection of Number of Hotel Guests in Amazonas

Year	Amazonas		Chachapoyas		Peru (foreign visitors)
2003	127,472		49,625		1,070,000
2004	116,291		38,379		1,280,000
2005	142,459		48,105		1,490,000
2006	181,073		59,403		1,630,000
2007	187,837		69,551		1,810,000
	Without Proposed Program	With Proposed Program	Without Proposed Program	With Proposed Program	
2008	192,197	234,796	69,484	83,853	2,064,202
2009	217,904	240,246	82,440	86,830	2,354,106
2010	248,872	272,380	100,867	103,050	2,684,724
2011	279,841	311,090	119,294	126,084	3,061,776
2012	310,810	349,801	137,721	149,118	3,491,782
2013	341,778	388,512	156,149	172,152	3,982,179
2014	372,747	427,223	174,576	195,186	4,541,449
2015	403,716	465,934	193,003	218,220	5,179,265
2016	434,684	504,644	211,430	241,254	5,906,659
2017	465,653	543,355	229,857	264,288	6,736,209
2018	496,621	582,066	248,285	287,322	7,682,265

Source: Mincetur- Sistema Estadístico de Turismo, JICA Study Team (Perfil)

3.3 Basic Concept and Strategy

In accordance with the overall goals and the program purposes, the following points are taken into account in formulating the integrated program for rural development through tourism promotion.

(1) Integrated tourism program

Most of the projects/programs in Amazonas have not been conducted as part of an integrated tourism program due to several constraints such as limited budget, unconsidered planning and poor coordination between local stakeholders. As a result, limited benefits affected the rural development as well as tourism promotion. In this context, it is essential to make the integrated tourism program for realizing sustainable rural development through tourism promotion.

(2) Infrastructure improvement for tourism and basic human needs

Infrastructure such as roads, electricity, water, sewerage and telecommunications should be improved with high priority on tourism promotion as well as basic human needs. One of the major reasons why tourism in Amazonas could not develop is the existing poor social infrastructure in the rural area. In addition, poverty condition in Amazonas is stagnant and in a quite a low level as compared to the condition of the national average. In this context, it is inevitable and urgent to improve and construct such social infrastructure related to tourism promotion.

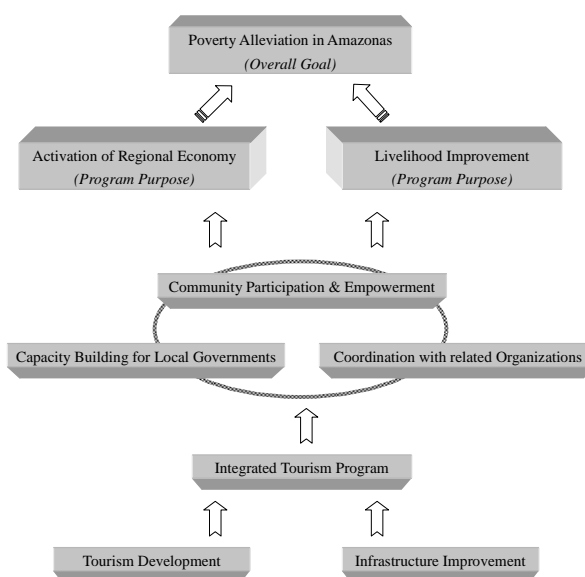
(3) Community empowerment

One of the difficulties in handing over the management of tourism project and the infrastructure systems to local communities is the lack of effort from local people due to considerable intervention of local officials, donors, NGOs, etc. in the administrative works. Hence, the local people becomes dependent on the government and donors. In order to overcome this syndrome, self-reliance shall be developed among people as a community and as individuals.

(4) Capacity building for local governments

It is realized that local government officials, especially those in the field, possess lack of capability as there has been limited opportunity to undergo training and skills upgrading. In this context, the integrated program should provide various training programs and mobilization facilities to promote capacity building of officials related to rural tourism development.

Figure 3.3 Conceptual Diagram of Basic Concept/Strategy for the Proposed Program



Source: JICA Study Team

(5) Coordination with related organizations

The program is planned as an integrated program through tourism promotion and infrastructure improvement. Thus, it should be operated in close coordination with other organizations related to tourism sector as well as rural development. Coordination is made through the Mincetur at the national level, the Amazonas regional government at the regional level, and municipalities at the district level.

3.4 Structure of Integrated Rural Development

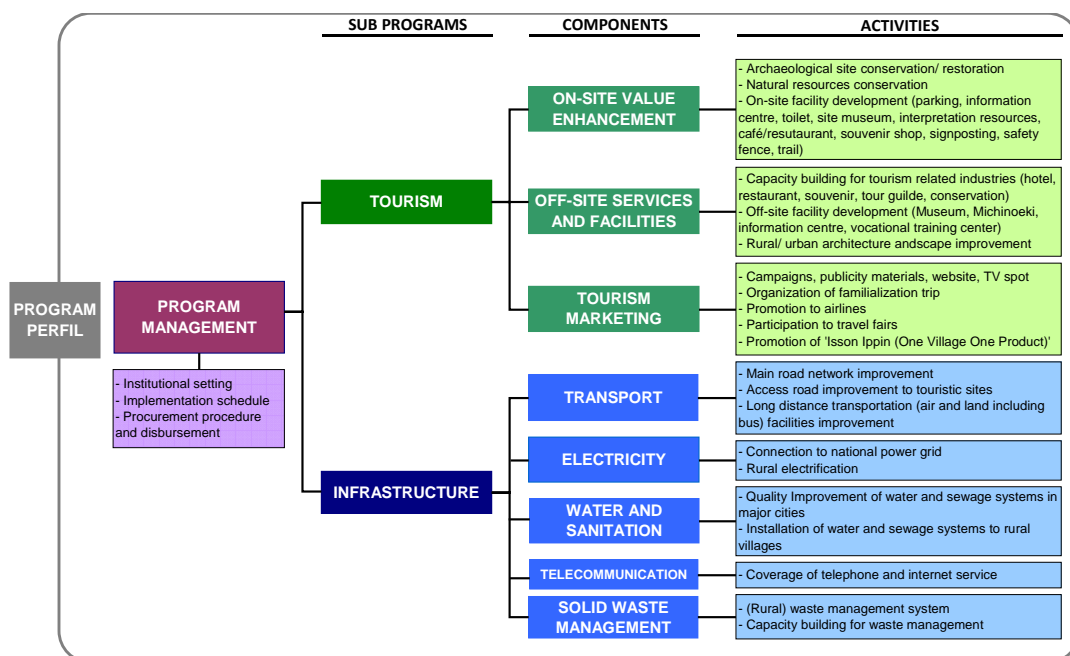
Based on the objectives of the Study, a basic structure presented in the figure below is considered for the preparation of an integrated program for rural development through tourism promotion.

Sub-programs of the proposed program are categorized into tourism and infrastructure.

- The sub-programs of tourism are composed of three components: (i) On-site value enhancement, (ii) Off-site services and facilities, and (iii) Tourism marketing.
- The sub-programs of infrastructure are composed of five components: (i) Transport, (ii) Electricity, (iii) Water and Sanitation, (iv) Telecommunication, and (v) Solid waste management.

Main activities of each component presented in the figure below, are essential to tackle the major issues on rural development through tourism promotion in the Utcubamba valley area.

Figure 3.4 Structure of Rural Development through Tourism Promotion



Source: JICA Study Team

3.5 Concept and Strategy on Tourism Promotion

(1) Archaeological and Natural Conservation

The central sales point of the Utcubamba valley tourist destination is archaeology, particularly, the Kuelap Fortress. It is essential to realize the value of tourism on the main archaeological attractions in the area. This means consideration of several aspects. Firstly, there is a need to ensure conservation of the archaeological remains to be visited. It should prioritize historical heritage conservation of all Peruvians from any tourist activity. This implies that the activity is carried based on forecasts made by a team of archaeologists, which are designated to perform scientific investigations and ensure conservation of its architecture features, anticipating the future tourist flow. Consequently, it will lead to obtaining additional income source for the local population as well as gaining related training for conservation of other archaeological works and monuments.

The second aspect is constituted by putting up properly supporting infrastructure at the site, with minimum impact to the old existing ones, and the Amazonas' traditional landscape, providing safety and comfort to visitors. This infrastructure, in most cases must include parking facilities, ticketing office, information signs, guide paths, site museums (if necessary), interpretation centers, snack and souvenir shops, restrooms, and others

Finally, archaeological improvement work must contribute to education on monument monitoring for both foreign and national tourists. This will involve joint work between archaeologists, anthropologists, tourist guides and educators, to raise general awareness in relation to protecting the monuments and determine other forms income to support the population.

(2) Tourism Facilities and Services

The current tourism trends indicate significance of the value of the tourist attractions as well as relevance of the elements that will contribute to the visitor's quality of experience to be gained. For that reason, this program considers three key aspects:

<Conditioning of tourist facilities>

This aspect proposes construction of local cultural museum for Chachapoyas, including related equipment and implementation activities that will contribute to the dissemination of local people's cultural knowledge. It also involves plans to provide training facility in various tourism places of the project area and improve access to various attractions, both archaeological features and surrounding natural sceneries. It also considers prioritizing the proper provision of "Michinoeki" (tourist roadside station) in various routes in the program's area, intended for visitors traveling long distance to visit the tourist attractions.

<Tourist Development and Environmental Sustainability>

Tourism and rural territorial management work should be planned at district levels in the program area, especially for the prioritized main tourist areas. It also intended to give special attention to landscape and biodiversity, through expansion initiatives of forests coverage with the implementation of reforestation projects.

<Urban-rural Centers Strengthening as Tourism support means>

This aspect involves initiating establishment of a historic center in Chachapoyas City for the conservation and revitalization of tourist attractions, as well as of related urban elements in various towns. This includes improvement of public ornaments, churches and other Amazonas cultural heritage components. These projects will encourage visitors to regularly visit the tourist attractions and improve quality of life and self-esteem of local population.

(3) Tourism Marketing

Tourism marketing is a vital issue. However, it has been found that there are no existing coordinated project plan for tourism marketing in Amazonas. Furthermore, an integrated tourism promotion strategy has not been defined.

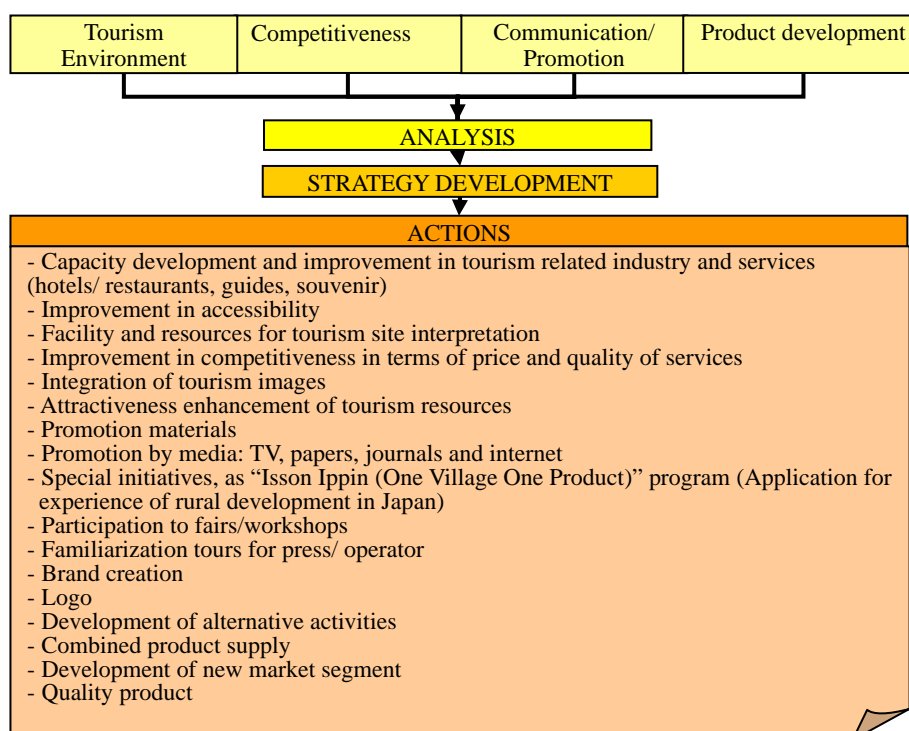
In this situation, it is necessary to immediately commence relative initial actions to achieve the following two main objectives:

- To stimulate desire and motivation of local and domestic tourists in visiting Amazonas through presentation of different alternatives that can be found.
- To stimulate the planning process of tour operators, allowing them to provide offers which satisfy the demands of tourist clients.

By achieving the above objectives, increase in number of foreign and national tourists tourists is expected. In Peru, foreign tourists, especially long haul tourists, usually spend more during their stay. However, the required services are not sufficient to meet tourist demands. Thus, it should be realized that capacity building and improvement on the side of service provider is necessary, together with the strengthening of the tourism marketing activities. Moreover, coordination between national and local tourism authorities, universities and private sectors, as well as creation of integrated strategies and action plans will be indispensable.

The following figure shows necessary steps and actions for tourism promotion and marketing.

Figure 3.5 Necessary Steps for Tourism Promotion/Tourism Marketing



Source: JICA Study Team

3.6 Concept and Strategy on Infrastructure Improvement

This chapter includes projects that is needed to implement efficiently tourism strategies and actions for long, medium and short terms. For better understanding, related projects are classified into five sub-sectors namely, transportation, water and sanitation, energy and electrification, telecommunication, and solid waste management. Each sub-sector has been analyzed independently.

(1) Transport

1) Improvement of accessibility

From the macro point of view such as access from Lima, Northern Tourism Circuit and IIRSA, the land and the air transportation are considered as the principal mode. To get to Chachapoyas, either mode of transport or combination of both can be used.

Although there are no regular commercial flights to the city (as of July 2008), it is expected that such service will be available in the near future as tourist demand rises. It is however anticipated that a considerable investment will be necessary due to the existing form of terrains which require expanded runway length in order for bigger aircrafts to be accommodated. Basic infrastructures will also be necessary related to the operation of the commercial flights. Related facilities are also necessary for carrying out promotions that will persuade international airlines to introduce new routes to Chachapoyas even with small capacity aircrafts. This issue is further covered in Chapter 4 as part of “Tourism Promotion”.

In the same manner, improvement of the road condition to access Amazonas and to facilitate travel within the tourism area is essential for tourists to reach their intended destinations.

As identified in the previous chapter, travel speed from Cajamarca to Chachapoyas needs to be improved. The first aim is to achieve an average travel velocity of 60 km/h from the three airports Chiclayo, Tarapoto and Cajamarca. The current (as of July 2008) and the target values are shown in the Table 4.9. Through development of roadways, it will become possible for tourists to visit more than one destination on the same day, during their arrival to Amazonas.

Table 3.6 Strategies and Necessary Actions/Tactics for Tourism Promotion

From (to Chachapoyas)	Length	Current situation	Target	Measures
Chiclayo	455 km	58 km/h 8 hours	60 km/h 7.5 hours	Maintenance
Tarapoto	317 km	53 km/h 6 hours	60 km/h 5.5 hours	Maintenance
Cajamarca	336 km	34 km/h 10 hours	60 km/h 5.6 hours	Maintenance and partially asphalt pavement

Source: JICA Study Team

The accessibility to the tourist sites also needs to be improved. The selection of roads to be developed will be examined based on the priority destinations described in this chapter. The target velocity for such roads is between 30 to 40 km/h.

2) Nuclear Development to Outer Destination Deployment

It is important to recognize that information on new tourist attractions are discovered frequently in different places in Amazonas. However, the target for this Study is limited to 18 destinations which are currently considered as priority tourist attraction zones. Because the accessibility to such principal destinations is not well developed yet, it is necessary to concentrate the resources for its improvement.

Once access to those destinations have reached the expected level of development, the budget should then be allocated to other destinations. For example, it is reported that the vehicle access to Chuquibamba, which is located the far South of Amazonas region bordering with La Libertad, is limited with the only route through Balsas. In order to integrate Chuquibamba with the Utcubamba Valley tourism development, it will be necessary to construct a straight access from Leymebamba.

The actual link to the cities and tourist destinations is through radial directions, with Chachapoyas as the center. Some strategic circumferential routes have to be identified in order to develop alternate routes, making travel inside the Amazonas more convenient.

Possible alternatives are as follows.

- Montevideo – Duraznopampa: 5.5 km
- Duraznopampa – La Jalca: 6.7 km
- Tramo Magdalena – Soloco: 13.4 km
- Levanto – Mayno: 9.6 km
- Emp. PE-008 (Lopecancho) – Kuélap: 7.9 km.
- La Jalca – Mendoza

3) Traffic Signs

In the study area, quite limited number of traffic signs is found. As the number of tourists increases due to tourism promotion, more visitors without knowledge of the local travel zone are expected to visit. Traffic signs will serve as guides to these visitors during their travel. It is recommended to include the installation of traffic signs as part of the road construction or maintenance contract.

Minimum information expected to be installed are:

- Name of place (this sign is generally found)
- Directions to major destinations with corresponding distances

4) Michinoeki

During the field survey and workshop held on 14 July 2008 in Chachapoyas, the idea on the development of Michinoeki (a road side station for rest and getting traffic/tourism information and buying local products) was discussed among the stakeholders. The concept of road side station is very well accepted by representatives from the local governments. An interesting fact is that such a system was commonly used during the Pre-Hispanic era so called “Tambo”.

Besides the acceptability of the concept, it is necessary to establish development mechanism that ensures participation of the local community. The related facilities to be included should

also be examined. A basic outline of Michinoeki to be applied to tourism in Amazonas is presented in the Attachment 8 used as presentation material for the workshop in Chachapoyas.

With this proposed development of Michinoeki, which is not common in Peru, it is expected that the Study area becomes an example of local economic development resulting from tourism. From the success of this development, due to its nature, the local inhabitants will gain benefits and improvement of quality of life. Furthermore, the visitors will also benefit from obtaining desired tourism and local information. It is also expected to provide better security for the visitors.

In the Study area, where four tourist zones are identified, five principal Michinoeki may be constructed. The locations of principal Michinoeki are indicated as follows with its reasons.

Table 3.7 Candidate locations of Michinoeki

Location	Description
Caclic	As the north entrance to the Utcubamba Valley Tourist Zone along the main road and the river
Chachapoyas	As the entrance to the gateway city
Luya-Lamud	As the entrance to the gateway city of tourist attractive
Tingo	As the entrance to the Kuelap, along the main road and the river
Leymebamba	As the entrance to the Utcubamba Valley Tourist Zone, along the main road and the river

Figure 3.6 Candidate site of Michinoeki



Note: ● : candidate locations of principal Michinoeki

Principal components that these Michinoeki should include are indicated as follows.

- Place to stop over, free of charge (parking lot, restrooms, space for resting)
- Information center (tourist and traffic, internet communication, emergency communication)
- Community Activities (local product sales – Isson-Ippoin or otherwise known as one village - one product, community meetings, capacity building including through broad band internet access, local food restaurant etc)

Additional functions that can be included in the development of Michinoeki are as follows.

- Education and Training Center: training programs that are proposed as off-site component in this study can be carried out in Michinoeki
- Base camp to attend natural disasters: Communications and provisional refugee centers
- Restaurants
- Long distance transportation terminal

Minor (or satellite) Michinoeki may be useful to install nearby tourist destinations, to facilitate matters such as emergency that needs to be communicated, taking rests, etc. The detailed discussion about Michinoeki will be done in the chapter related to off-site component.

(2) Water and Sanitation

Each district is conscious of their own needs including their annex communities, with respect to water supply and sanitation system. The inadequate coverage and quality and the weak capacity to administrate water supply system should be developed.

It should be noted that the existing studies are carried out based on the historical trends of demand and do not include future tourism demands. Review of values used for the existing studies was done in comparison with the estimated demand generated by the additional visitors resulting from tourism development in the region.

(3) Energy and Electrification

It is essential to ensure a stable energy supply to both the residents and tourists in order to make the visitors stay comfortable. Power and lighting supply services need to be improved particularly for restaurants and shops (at night) which should be free from any electricity failure. In this way, the main cities and/or districts such as Chachapoyas, Luya-Lamud, Leymebamba and Tingo-Magdalena, where tourist accommodations are located, need to have a stable energy supply.

On the other hand, although the electrification coverage is not broad in the Amazonas, it is not justified to invest in this sector for tourism project alone. It is expected that once the regional economy is improved by tourism development, the municipalities and Amazonas regional government will further invest in electrification of other areas in the future, as an outcome of the project within the context of PNER.

(4) Telecommunication

Although telecommunication development is a very important issue for tourism development in Amazonas as confirmed in the JICA workshop in Chachapoyas, there were no existing projects/plans related to telecommunication for project prioritization in this Study.

Through the workshop and the field surveys, different needs related to telecommunication were identified as follows.

- Installation of emergency communication system in the priority sites/areas in the Study
- Improvement of internet/telephone communication service for tourists

Some groups who participated in the workshop mentioned the necessity of assurance of safety to tourists, not only in the populated towns but also along the access roads to tourist destinations, where, in some cases located far from populated areas.

On the other hand, frequent usage of internet service by foreign tourists was pointed out as issue in the workshop and the lack of such infrastructure was a consensus among participants. Furthermore, the utilization of internet service for community activities and tourism promotion were discussed as possible usage of telecommunication tools as a result of the workshop.

For emergency communications, it is preferred to install a device which provides voice communication from remote sites to district center / michinoeki in order to get help when necessary. This system will assure tourists' security within the tourist area.

For the improvement of internet/telephone communication service, a broadband internet connection (2 Mbps/user) is considered which also provides telephone service. It is expected to improve the coverage of telephone and internet services through broad band network in different locations, within the study area. The service is provided in Michinoekis for public and private use. Some uses of broad band internet service are as follows:

- Tourism information of the Study are for tourism promotion, including short videos
- Information on natural disaster and traffic controls
- Conferences and educational purpose use (remote education) for community activity
- Facility for tourists to chat, email and search required information

It is recommended that training program should be carried out simultaneously with the installation of the facilities, in order to improve capacity of private companies in providing services. It also aims to motivate establishment of new businesses using the telecommunication facility.

Expected results from the development are:

- Increase in tourism activities by local and foreign tourists, offering a better service of telecommunication and broad band internet system
- Reduction of time and cost of paper works.
- Increase in access to the better service provision by private and public sectors (health, education, tourism, domestic security etc)

(5) Solid Waste Management

The provision of integral system on solid waste management for municipal and tourist destinations will prevent diseases and the environmental contamination. This will also contribute to the development of the eco-touristic corridor in the Study area.

The solid waste management plan (PMRS) will cover the study area (Ecoturistic Corridor of Alto Utcubamba). The projection of the plan is ten years and will include solid wastes generated by municipalities and tourism activities. It is expected that the execution period of the plan is for three years.

<Comparison between multiple micro landfills and one medium size landfill (in Chachapoyas)>

It is evaluated during the project elaboration, the two alternatives of landfill locations. Technically, it is possible to implement small landfills in each district to avoid long haul distance. But the only one medium size landfill in Chachapoyas is proposed because of following reasons.

- Difficulties in identifying appropriate site for small landfills in different districts
- A social risk syndrome known as NIMBY (Not in My Backyard) exists. Many people refuse allocation of a disposal site landfill near their community.
- Difficulty to guarantee the sustainability of the service in particular for the minor communities because they do not charge for public cleaning. This will continue if the new landfill is managed individually.
- Big challenge in finding qualified skilled workers. As the sites are located far from the center of the regional government, inefficiency in disseminating news on related problems and technical failures is an issue.
- Some experience of micro landfill in the region, for example Suyo at the border between Peru and Ecuador, Cusco, opened as public work with international cooperation, and eventually closed due to operational and maintenance problems on sustainability. (see pictures below)



Micro Landfill in Yuncachahuayco, Urubamba, Cusco (closed by failure)

3.7 Concept and Strategy on Poverty Alleviation

To realize the overall goal of the proposed program which is “to contribute to poverty alleviation in Amazonas,”, the following points are taken into account in formulating a rural development program:

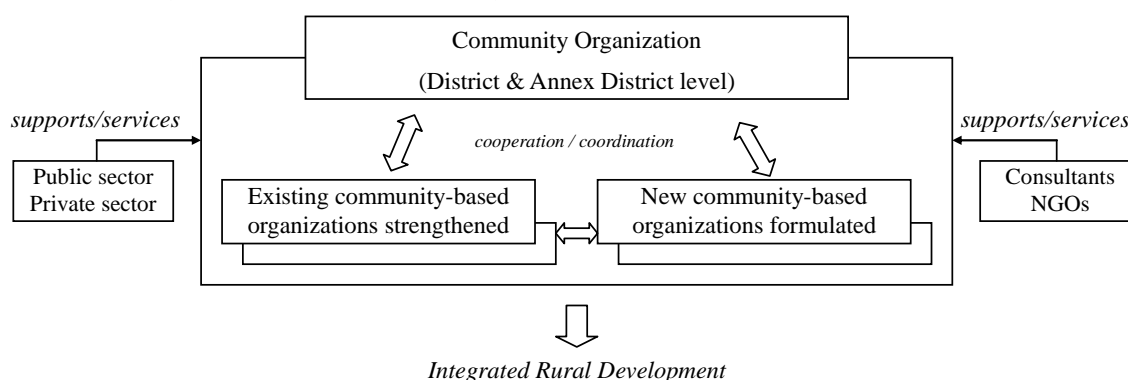
(1) Community-driven Approach

Local communities in the Study area are often handicapped due to poor community-based or weak institutions that do not have the capacity to effectively interrelate with both the public and private sectors. This institutional weakness keeps local communities socially and economically marginalized and makes them dependent on external organizations for supporting services and development assistance.

In view of this situation, community participation should be promoted through the provision of social sector program, including livelihood improvement, leading to sustainable development without excessive dependence to the public sector and external assistance. A community-driven approach is, thus, one of the key strategies in the promotion of rural tourism and livelihood improvement.

In taking the community-driven approach, community-based organizations should be newly organized and/or strengthened, having various functions on related development with support from local governments, consultants and NGOs.

Figure 3.7 Conceptual Diagram of the Community-driven Approach



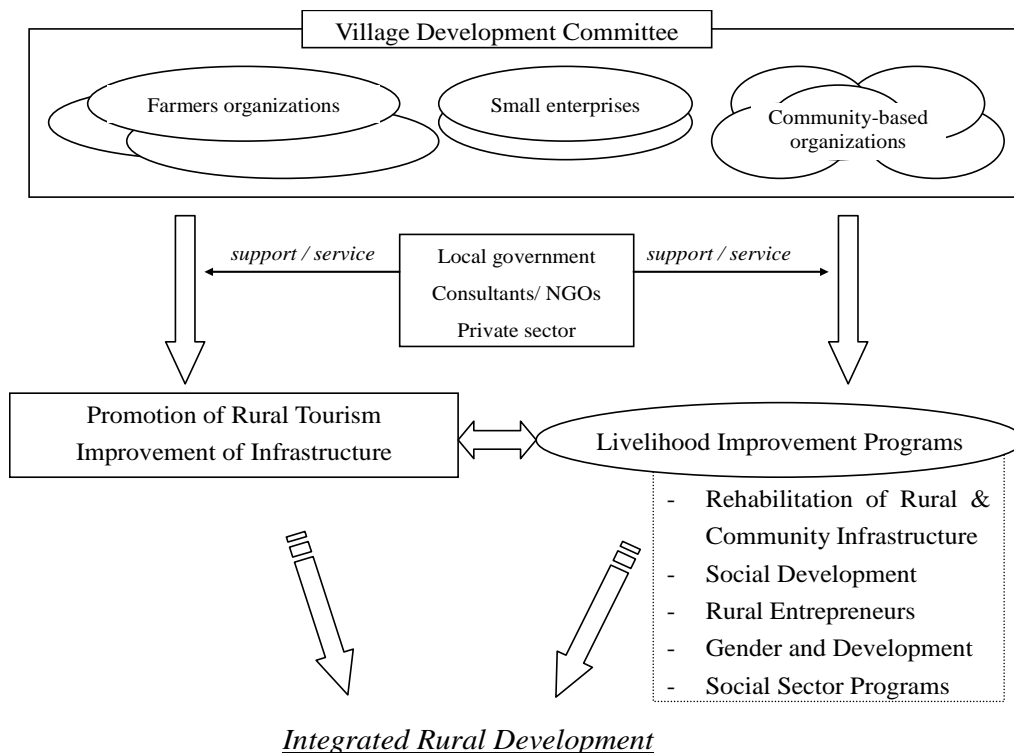
Source: JICA Study Team

(2) Livelihood Improvement Approach

Livelihood improvement covers every aspect of living conditions such as economy, health, education and social welfare besides domestic duties. Promotion of integrated rural development is to be programmed along with livelihood improvement, promotion of rural tourism and so on. However, local human resources have limited capacity to tackle every issue on livelihood improvement in the study area. In particular, rural people lack the capacity to analyze living conditions as a whole and scientifically. Hence enlightenment on their livelihood improvement is usually left to their own initiative.

In view of this situation, various community-based organizations, where each has a specific function for livelihood improvement, as well as farmers' organizations and small enterprises should be mobilized for enhancement of living conditions. This shall be under the coordination of a village development committee with the support of external organizations.

Figure 3.8 Conceptual Diagram of the Livelihood Improvement Approach



Source: JICA Study Team

(3) Empowerment of Rural Women

Women's activities in the study area are focused on three important domains, i.e., household/reproductive, productive and community. Their roles are not confined to the traditional domains such as household duties since they are also exposed to other significant productive activities (income earning) and community participation. The proposed program should take all three aspects into account. The following diagram summarizes the specific program approaches by different domains.

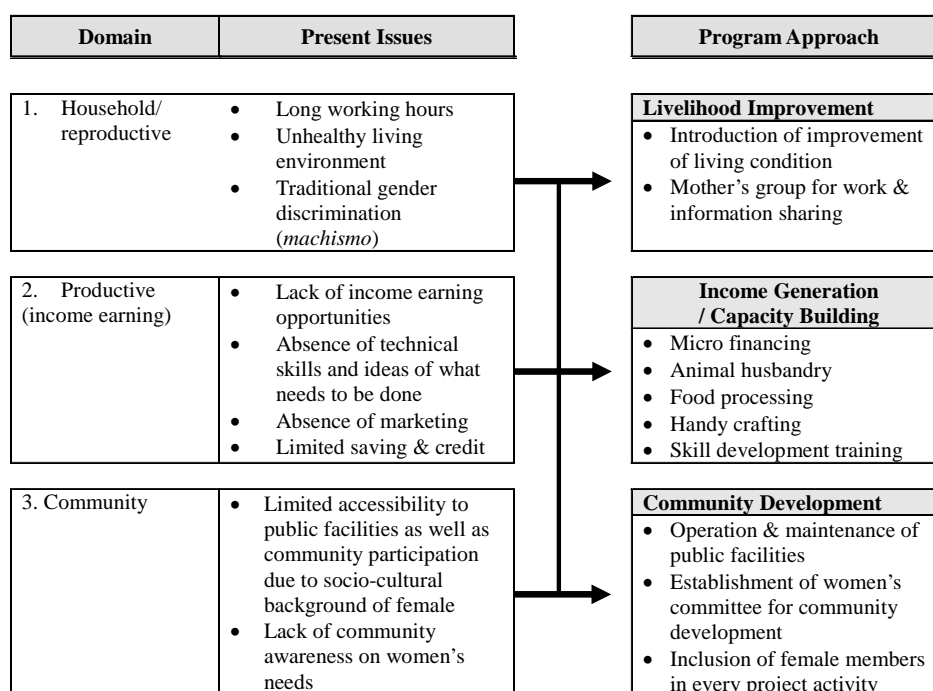


Handicraft Group in Leymebamba



Handicraft Group in Huancas

Figure 3.9 Proposed Approach for Women’s Activities



Source: JICA Study Team

(4) Japanese Experience of Rural Development

In the workshop which was held in Chachapoyas on 14 July 2008, most of the participants recognized that it was useful to apply Japanese’ experience on rural development to rural tourism development in Amazonas.

The proposed program takes into account aspects of Japanese experience on rural development. The following table summarizes the specific program approaches.

Table 3.8 Summary of Rural Development Program in Japan

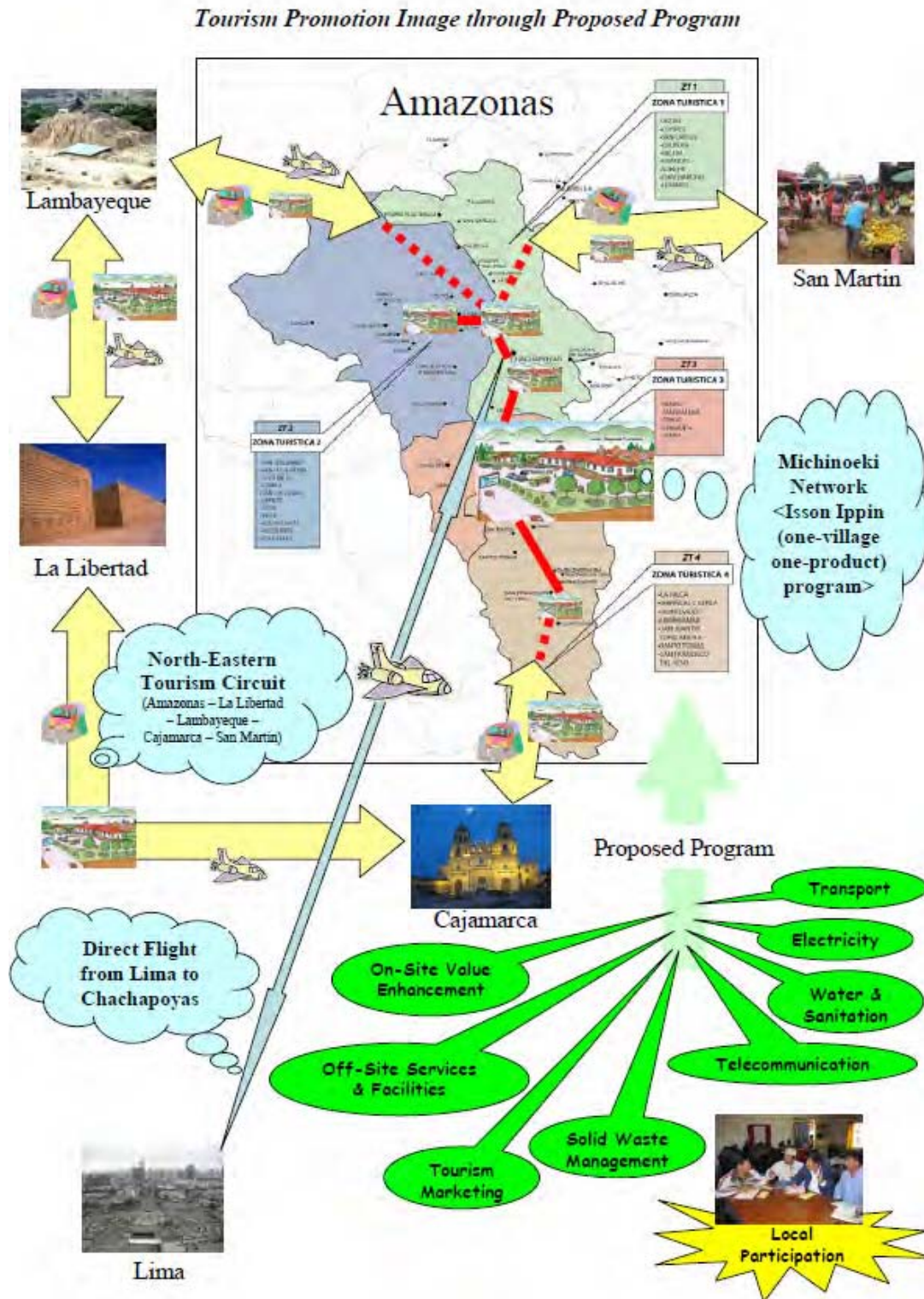
Program	Basic Concept and Main Functions
Michinoeki (Road station) (Tambo en Peru)	A program which takes advantage of main roads system to distribute public services and promote community-driven development. Main functions are public transport stop, rest/toilet facilities for travelers, restaurants, specialty shops selling products unique to the area, information centers for local products, cultural features and places of tourist interests, training centers.
Isson Ippin (One-Village One-Product)	A program which is a rural development at district level with the following objectives: <ul style="list-style-type: none"> - to fulfil the potential of a village and its residents - to select and deliver competitive products made from local materials and using local wisdom, creativity and unique skills with true value intended for both domestic and global markets - to include the commitment and involvement of central/local governments
Livelihood Improvement Program	A program which is a multi-sectoral social development related to livelihood condition mainly targeting small-scale rural women’s groups for awakening self-reliance and for economic self-sustenance with the support of livelihood extension workers.

Source: JICA Study Team

3.8 Tourism Promotion Image

On basis of the concepts and strategies abovementioed, a tourism promotion image is expected through the implementation of the proposed program, as presented in the figure below.

Figure 3.10 Tourism Promotion Image through Proposed Program



Source: JICA Study Team