VOLUME 6

Evaluation of Pilot Projects

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CHAPTER 1 BACKGROUND OF EVALUATION

In response to the reconstruction needs of victims of the earthquake of August 2007, JICA Study Team has implemented three Pilot Projects between the months of August and November, 2008. These projects were designed to investigate components of best practices and modus operandi that make the strongest impact for the future full-scale assistance project to facilitate the reconstruction of housing of the earthquake victims whose houses were lost in the earthquake.

In order to determine these components and make a recommendation for the full-scale assistance project to be implemented by the Government of Peru, project evaluation was conducted after completing the Pilot Projects 2.1 and 2.2 and Pilot Project 3 in November 2008.

Owing to the nature of the three different Pilot Projects, quantitative and qualitative analysis were applied to the projects. Pilot Project 1 was focused on capacity building of the Municipality officers who are responsible for construction. Therefore, evaluation results were analyzed and measured through quantitative aspects, such as increase in the number of permanent houses which have been reconstructed (including under construction) by BONO 6000 and the number of permanent houses with approval of building permit which have been inspected upon construction, etc.

For Pilot Projects 2.1, 2.2 and 3, the focus was on awareness raising and capacity building of the earthquake affected population. The evaluation survey was done to the pilot project participated population and non-participated population to assess the impact of the project. Also, the conditions in districts where projects were not implemented were appraised as a "control" for the survey. The results of the evaluation were analyzed by qualitative aspects, such as "Did the pilot projects contribute to the dissemination of knowledge of safer housing construction?" and "Did the Pilot Projects contribute to dissemination of government programs supporting housing reconstruction?"

Also interviews surveys with *albañiles* were done to grasp the reconstruction situation through the eyes of the actors of the construction sector.

Limitation of this Evaluation

This evaluation was conducted just one week after the project completion. It takes sometime for the project impact to have influence and change beneficiary's actions. Therefore, it is difficult to grasp a full picture and measure the full impact of the Pilot Project in this exercise. In addition, from the survey the affected population pointed out lack of funds or less income as the most hindering reasons for the delays of housing reconstruction, even though those people are desperately willing to reconstruct them.

CHAPTER 2 METHODOLOGY OF EVALUATION OF THE BUILDING SURVEY

2.1. General

The evaluation and impact of the Pilot Project 1 are studied based on the building surveys for the 33 district municipalities and social surveys carried out in May and November 2008. Outcomes of the pilot projects also show the impacts.

The following are the explanations of the building survey for the 33 district municipalities held in November 2008.

2.2. Conduct of the Building Survey

The following describes the conduct of the building survey.

(1) Survey Area

The survey areas are the 33 district municipalities located in the three provinces of Chincha, Pisco and Ica.

(2) Survey Method

The method of the building survey for the 33 district municipalities in November 2008 (see Annex Volume 1) is the same as the one carried out in May 2008.

(3) Survey Items

The questionnaire items are as follows.

A. Data Collection

A.1 Housing conditions before the earthquake

(a) Number of beneficiaries which have already been registered in BONO 6000

(b) Number of beneficiaries which have already been registered in Techo Propio BFH

(c) Number of permanent houses which have been reconstructed (including under construction) by BONO 6000

(d) Number of permanent houses which have been reconstructed (including under construction) by Techo Propio BFH

(e) Number of permanent houses which have been reconstructed (including under construction) by both BONO 6000 and Techo Propio BFH

(f) Number of permanent houses which have already been applied building permits

(g) Number of permanent houses with approval of building permit which have been inspected upon construction

(h) Number of standard house designs which have already been approved and included in the project bank by the municipalities

(i) Number of permanent houses which have already been reconstructed (including under

construction) by the standard designs

A.2 Other conditions

(a) Ratio of land registered

(b) Ratio of house registered

B Site Observations and Analysis of One or Two Examples of Confined Masonry House Reconstruction

B.1 Points of construction accuracy or mistakes by contractor or construction artisan

B.1.1 General condition

(a) Site conditions such as possibility of liquefaction and weak sub-soil, location in hill

(b) Availability of drawings and B/Q

(c) Availability of construction tool such as plumb bob, bending iron and measuring tool of construction material (cement, sand, water, etc.)

(d) Quality and quantity of construction materials

(sand: gravel: rock: cement: steel bar: brick: plywood for forms)

(e) Suitability of floor plan in terms of openings symmetry and dimensions, density of walls and eccentricity of the structure

(Symmetrical or Nonsymmetrical) (Floor area enclosed by walls: sq.m)

(Eccentricity:)

B.1.2 Construction

(a) Hand mixing of concrete

(b) Cutting and filling for foundation

(c) Depth and width of foundation

(d) Tamping the base of foundation

(e) Joint between column and foundation, or between column and ring beam

(f) Placing reinforcement

(g) Hoop and stirrup

(h) Header for opening

(i)Joint between column and wall

(j) Anchorage of corner

(k)Brace

(l) Protective concrete depth of RC

B.2 Points of observation

Taking pictures or sketches of critical points as requiring seismic resistance

(4) Survey Schedule

The building survey was carried out according to the schedule shown in Table 2.1.

Table 2.1 Actual Schedule of Building Survey for 33 District Municipalities in November 2008

Surveyor			Gustavo Quijada Kida	Jhon Bemard Urdanegui	Joan Hugo Guarda
No.	Date		CHINCHA	ICA	PISCO
1	Mon	10	(Sn Pedro de Huacarpana) (2:00 p.m.)		Huancano (10:00 a.m.)
2	Tue	11	Sunampe (9:00 a.m.)	Santiago (9:00 a.m.), Tate (12:30 p.m.), Pachacutec (2:30 p.m.)	*(Salas Guadalupe (9:30 a.m.), Sn Juan Bautista (1:30 p.m.))*
3	Wed	12	(Chavin) (2:00 p.m.), Tambo de Mora (3:00 p.m.), Chincha Alta (p.m.)	Ica (9:00 a.m.)	Paracas (9:30 a.m.)
4	Thu	13	(Sn Pedro de Huacarpana) (11:00 a.m.), (Sn Juan de Yanac) (2:00 p.m.)	Ocucaje (11:50 a.m.), Pueblo Nuevo (2:00 p.m.), Los Aquijes (2:45 p.m.)	Tupac Amaru (9:00 a.m.), Sn Clemente (12:00 p.m.)
5	Fri	14	Pueblo Nuevo (p.m.)	Parcona (9:00 a.m.), La Tinguiña (10:00 a.m.), Subtanjalla (2:00 p.m.)	Humay (9:30 a.m.), Independencia (1:00 p.m.)
6	Sat	15	Observations at construction sites		
7	Sun	16			
8	Mon	17	Chincha Baja (9:00 a.m.)	Yauca del Rosario (9:00 a.m.)	(Sn Jose de los Molinos) (10:00 a.m.)
9	Tue	18	El Carmen (9:00 a.m.) ,Grocio Prado (2:00 p.m.)	Yauca del Rosario (2:00 p.m.)	*Pisco(9:00 a.m.), Sn Andres (1:00 p.m.)*
10	Wed	19	Alto Laran (9:00 a.m.)	Ica (9:00 a.m.)	
11	Thu	20	Pueblo Nuevo (10:00 a.m.)	Ica (9:00 a.m.)	
14	Sun	23		Yauca del Rosario (9:00 a.m.)	

Remark1) The surveyor cannot go to Sn Pedro de Huacarpana, Sn Juan de Yanac and Chavin. So the surveyor shall ask the mayors to come to Hotel Seville in Chincha Alta in order to ask the questionnaire.
Remark2) 15th (Sat.)and 16th (Sun.) is the days of observing the housing construction at the sites in case that the surveyors could not complete the obsevations.
Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

2.3. Results of Comparison of the Pilot Project

The building surveys were made before and after the pilot projects, which were implemented in October and November, 2008. The building survey in November was made by using some questions selected from the building survey in May. It means that the comparison of results of the two surveys can show impact of the projects. The results from May to November are shown by some major questions in Table 2.2.

(1) Registered number of BONO 6000

- Pueblo Nuevo: from 7,035 to 3,950. These numbers which show significant decrease are not considered accurate.
- La Tinguiña: from 1,205 to 3,600. The number of beneficiaries increased three times.
- Independencia: from 1,320 to 1,336. There is only minimal increase.
- Other districts: 5 districts have no changes, 9 districts have increased figures, and 8 districts have no accurate data.

There are inaccurate data in some districts; however, the registration number of BONO 6000 has been up. Mass registration of BONO 6000 based on MVCS's policy on the 15th of August 2008 was reflected in the survey result.

(2) Registered number of Tech Propio program applicants

- Pueblo Nuevo: from 160 to 1,000
- La Tinguiña: from 50 to 400
- Independencia: from 0 to 50
- Other districts: 15 districts show an increase.

The number of beneficiaries of Techo Propio shows a general increase. The beneficiaries are limited to house owners who ask construction companies to construct their houses, according to the regulation of Techo Propio. It means that participation of construction companies in the housing reconstruction increases.

(3) Reconstructed houses (including under construction) by using BONO 6000

- Pueblo Nuevo: from 480 to 0. These numbers which indicate no reconstruction activity within a 6-month period are considered not accurate.
- La Tinguiña: from 0 to 700
- Independencia: from 300 to 900
- Other districts: 18 districts showed an increase.

It shows that the housing reconstruction by using BONO 6000 has progressed.

(4) Applied number of building permits

- Pueblo Nuevo: from 160 to 1,073
- La Tinguiña: from 50 to 400
- Independencia: from 0 to 15
- Other districts: 5 districts have no changes and 15 districts show an increase.

It shows that the building permit application has increased.

(5) Available standard designs and/or project bank in the municipality

- Pueblo Nuevo: from (standard design was available) to (project bank is created). The project bank was created by the pilot project 1.
- La Tinguiña: from (standard design was available) to (standard design is available). It is going to create a bank project by the pilot project 1 soon.
- Independencia: from (standard design was NOT available) to (project bank is created).

The project bank was created by the pilot project 1.

- Other districts: 9 districts have no changes and 7 districts create project banks.

Out of three pilot project districts, two districts created project banks and one is going to create a project bank. This is a great outcome of the pilot project.

(6) Number of reconstructed houses (including under construction) by standard designs and/or project bank

- Pueblo Nuevo: from (constructed by standard design) to (not yet constructed by project bank).
- La Tinguiña: from (not constructed by standard design) to (not constructed by project bank).
- Independencia: from (not constructed by standard design) to (not yet constructed by project bank).
- Other districts: 9 districts have no changes (as not constructed by standard designs or drawings of project bank) and 15 districts constructed by drawings of project bank.

(7) Quality of bricks at construction site

- Pueblo Nuevo: from bad quality to good quality
- La Tinguiña: from appropriate and good quality
- Independencia: from bad quality to bad quality
- Other districts: 10 districts raised the quality of bricks used, 11 districts have no change (as good quality) and 3 districts show bad quality. Lower priced bricks of inferior quality are sold in the markets of the three districts and house owners bought them.

(8) Concrete mixture proportion at construction site

- Pueblo Nuevo: from 1:7:5 to 1:7:3 or 1:4:2
- La Tinguiña: from 1:1:1 to 1:3:2 or 1:3:3
- Independencia: from 1:3:3 to 1:2:3 (this is the appropriate proportion.)
- Other districts: There are disparities in the results of the mixture proportion between the three provinces. All districts in Pisco province show the appropriate proportions, which could be attributed to the intensive training by SENCICO for skilled labor on concrete after the earthquake of 2007. However, Ica province has not many districts which used the appropriate proportion. The worse province is the Chincha province which uses inappropriate proportions beyond the minimum requirements of concrete mixture proportions. There are many skilled workers in Chincha province who still use the previous standard where less proportion of cement was used in concrete mixture

nationwide. They have never been trained by SENCICO.

Based on the above results, the affirmative change from May to November is summarized as follows.

- Due to mass registration of BONO 6000 on the 15th of August 2008, house owners with construction budgets increased. It facilitated to reconstruct the collapsed houses.
- The participation of construction companies in the housing reconstruction increased the housing reconstruction by use of Techo Propio BFH.
- Project banks were created in the district municipalities of the pilot project by their approvals of the prototype drawings for safer housing prepared by the Pilot project 1. It facilitates to reconstruct houses through the appropriate procedure of building permits.
- Intensive training proved to control and raise the quality of housing construction.

Table 2.2 Comparison Results of Building Survey for 33 District Municipalities

Province	No.	District	(1) Number of beneficiaries which have been already registered in Bono 6,000		(2) Number of beneficiaries which have been already registered in Techo Propio BFH		(3) reconstructed houses		(4) Number of permanent houses which have been already applied to building permit		(5) Standard house designs or project bank		(6) Permanent houses which have been already reconstructed (including under construction) by the standard designs or project bank		(7) Calidad y cantidad del ladrillo cocido			(8) Mezcla de concreto en volumen		
			May survey	November Survey	May survey	November Survey	May survey	November Survey	May survey	November Survey	May survey	November Survey	May survey	November Survey	May survey	November Survey	November Survey	May survey	November Survey	November Survey
			(beneficiaries)	*(beneficiaries)*	*(beneficiaries)*	*(beneficiaries)*	*(houses)*	*(houses)*	*(houses)*	*(houses)*	*(available)*	*(available)*	*(available)*	*(available)*	*good, bad and sufficient, insufficient)*	*good, bad and sufficient, insufficient)*	*good, bad and sufficient, insufficient)*	*cement : sand : gravel*	*cement : sand : gravel*	*cement : sand : gravel*
Chincha	1	Alto Laran	600	596	20	n.d.	40	230	20	216	Not	Not	Not	Not	Bad quality, artesanal fabrication	good sufficient	good sufficient	1 : 4 : 6	1:6:2	1:6:2
	2	Chavin	71	71	0	0	0	n.d.	0	n.d.	Not	n.d.	Not	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	8300	6332	150	400	580	0	150	271	Yes	Yes	Yes	Yes	Bad quality, artesanal fabrication with sand soils	good sufficient	good sufficient	1 : 5 : 5	1:4:2	1:4:2
	4	Chincha Baja	1200	1926	20	28	400	9	20	n.d.	Yes	Not	Not	Not	Bad quality, artesanal fabrication	good sufficient	good sufficient	: 2.5 : 2.5	1:10:6	1:6:3
	5	El Carmen	2400	486	0	175	120	960	0	230	Not	Not	Not	Not	Bad quality, artesanal fabrication	good sufficient	good sufficient	1 : 4 : 4	1:6:3	1:6:3
	6	Grocio Prado	4500	2291	100	124	100	1268	100	724	Yes	Not	Not	Not	Bad quality, artesanal fabrication	good sufficient	good sufficient	: 2.5 : 2.5	1:6:3	1:6:3
	7	Pueblo Nuevo	7035	3950	160	1000	480	0	160	1073	Yes	Not	Yes	Not	Bad quality, artesanal fabrication with sand soils	good sufficient	good sufficient	1 : 7 : 5	1:7:3	1:4:2
	8	San Juan de Yanac	n.d.	n.d.	n.d.	n.d.	0	n.d.	n.d.	n.d.	n.d.	n.d.	Not	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	39	39	0	0	0	0	0	25	Not	Not	Not	Yes	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	3800	n.d.	220	n.d.	370	n.d.	220	n.d.	Yes	n.d.	Yes	n.d	Bad quality, bad burning	good sufficient	good sufficient	1 : 6 : 4	1:6:3	1:4:2
	11	Tambo de Mora	850	850	0	0	35	n.d.	0	3	Not	Not	Yes	0	Bad quality, artesanal fabrication	good sufficient	good sufficient	1 : 4 : 6	1:6:3	1:4:2
ICA	1	Ica	6500	n.d.	100	n.d.	0	n.d.	100	247	Not	Yes	0	Yes	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 2 : 3	1:3:3	1:3:2
	2	La Tinguina	1205	3600	50	400	0	700	50	400	Yes	Not	0	Not	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 1 : 1	1:3:2	1:3:3
	3	Los Aquijes	2225	3272	600	3000	1720	1781	600	400	Not	Yes	0	Yes	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 2 : 1	1:3:7	1:4:6
	4	Ocucaje	500	454	0	50	0	166	0	0	Not	Not	0	Not	Appropiate and limited(KK)	good sufficient	good sufficient	1 : 2 : 2	1:3:3	1:3:2
	5	Pachacutec	1800	800	30	500	500	440	30	500	Yes	Yes	Yes	Yes	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 2 : 3	1:4:3	1:4:4
	6	Parcona	4000	3601	0	1900	0	1800	0	870	Yes	Yes	0	Not	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 2 : 3	1:3:3	1:3:2
	7	Pueblo Nuevo	1200	213	9	n.d.	24	n.d.	9	140	Yes	Not	Yes	Not	Appropiate and enough(KK)	good sufficient	good sufficient	1 : 2 : 2	1:4:3	1:4:4
	8	Salas Guadalup	1000	2112	n.d.	60	0	100	n.d.	90	Not	Yes	Not	Yes	Artesanal bricks	good sufficient	good sufficient	1 : 3 : 4	1 : 2 : 4	1 : 2 : 4
	9	San Jose de Los Molinos	600	869	0	73	20	223	0	76	Not	Yes	Not	Yes	Artesanal bricks in big quantities and in regular state	good sufficient	good sufficient	1 : 3 : 4	1 : 2 : 4	1 : 2 : 4
	10	San Juan Bautista	n.d.	2000		800	n.a.	1300		100	n.d.	Yes	n.d.	Yes	Artesanal bricks in big quantities and in regular state	bad / sufficiente	bad / sufficiente	1 : 3 : 4	1 : 2 : 3	1 : 2 : 3
	11	Santiago	2362	3000	1	237	1	900	1	110	Yes	Yes	Yes	Yes	Appropiate and enough (18 holes)	good sufficient	good sufficient	1 : 2 : 2	1:3:3	1:3:4
	12	Subtanjalla	2000	12552	0	566	0	2220	0	800	Yes	Yes	Yes	Yes	No	good sufficient	good sufficient	1 : 2 : 2	1:2:3	1:2:3
	13	Tate	505	310	0	105	0	330	0	105	Not	Not	Not	Yes	Appropiate and enough	good sufficient	good sufficient	1 : 2 : 3	1:6:7	1:4:6
	14	Yauca del Rosario	204	440	0	0	0	56	0	0	Not	Not	Not	Not					no confined masonry houses under construction	no confined masonry houses under construction
PISCO	1	Huancano	350	554	0	0	10	354	0	0	Not	Not	Not	Not	Artesanal bricks	bad /	bad /	1.5 : 5 : 6	1:2:3	1 : 2 : 4
	2	Humay	1089	1400	0	20	0	1000	0	0	Not	Not	Not	Not	King kong	good sufficient	good sufficient	1 : 5 : 5	1 : 2 : 4	1 : 2 : 4
	3	Independencia	1320	1336	0	50	300	900	0	15	Not	Yes	Not	Yes	Artesanal bricks	bad / sufficiente	bad / sufficiente	1 : 3 : 3	1:2:3	1 : 2 : 3
	4	San Andres	872	2444	4	250	58	1434	4	79	Not	Yes	Not	Yes	King kong artesanal bricks 18 holes. Bad quality, content of salts	good sufficient	good sufficient	1 : 4 : 4	1:2:3	1 : 2 : 3
	5	San Clemente	1595	1300	n.d.	1140	263	934	n.d.	140	Yes	Yes	Not	Yes	King kong	bad /	bad / sufficiente	1 : 3 : 4	1:2:3	1 : 2 : 3
	6	Tupac Amaru Inca	1400	1000	354	200	45	100	354	5	Yes	Not	Not	Not	Industrial bricks Lark Company. 18 holes. Good condition	good sufficient	good sufficient	25 : 2 : 1.5	1 : 2 : 2	1 : 2 : 3
	7	Paracas	100	112	0	0	70	40	0	0	Yes	Not	Not	Not	Industrial bricks Lark Company. 18 holes. Good condition	bad / insufficient	bad / insufficient	1 : 3.5 : 3	1 : 2 : 2	1 : 2 : 2
	8	Pisco	8000	7000	n.d.	900	1750	3500	n.d.	450	Not	Yes	Not	Not	King kong artesanal bricks 18 holes. Bad quality, content of salts	good sufficient	good sufficient	1 : 3 : 3	1 : 2 : 4	1 : 2 : 4

Source: Study on Housing Reconstruction with Seismic-resistant House in the Republic of Peru, JICA Study Team

CHAPTER 3 INTERVIEW SURVEY

In the Pilot Project 2.1, Pilot Project 2.2 and Pilot Project 3, projects consist of awareness raising and capacity building information dissemination campaign through participatory manners of Construction Training by SENCICO, One Day Training, Theater Play and Mobile .

3.1. Objectives

The objectives of this evaluation are to analyze whether the three Pilot Projects of 2.1, 2.2 and 3 have contributed to make an impact on the project beneficiaries, i.e. earthquake-affected population by focusing on the qualitative indicators of the results.

For detail results, please refer to the annex of the report.

Those selected qualitative indicators are as follows:

- Dissemination of knowledge on safer housing
- Dissemination of housing reconstruction support programs
- Encouraging participation of professionals in housing reconstruction
- Strengthening the capacity of local governments

3.2. Methodology for the Evaluation

The open questions and comments were compiled by province and sub-compiled by participants and non-participants.

(1) Survey Target

In this evaluation two different groups were surveyed to appraise the project impact.

- *Participating (P) population* (including municipality officers responsible for the building permit), who took part in the Pilot Projects implemented in Pueblo Nuevo, Independecia and La Tinguiña.
- *Non-participating (NP) population*, who are from the districts where the Pilot Projects were conducted as well as from other districts where none of the projects were implemented.

The total number of population belonging to these two groups that were surveyed is shown in Table 3.1.

Note: All tables are produced based on interview survey results. This section, therefore source of the tables is JICA Study Team.

Table 3.1 Total Surveyed Population by District

Table 01 Total of people surveyed by Province

Province	Participants	Non participants	Total
Chincha	100	25	125
Pisco	22	20	42
Ica	19	20	39
Total	**141**	**65**	**206**

Source: JICA Study Team survey, November 2008

The evaluation was done in three provinces of the Ica Region, namely Chincha, Pisco and Ica, in the first and the second week of November. The complete schedule is shown in Table 3.2.

Table 3.2 Schedule of Pilot Projects Implementation by District and by Municipality

Table 02 Places and dates of survey conducted

District	Municipalit	Dates visited	Remarks
Chincha	Pueblo Nuevo	Nov. 10 – 13	Project Participants
		Nov. 12	Albañil
		Nov. 13	Municipality employees
	Tambo de Mora	Nov. 9	Non- Project Participants
Pisco	Independencia	Nov. 7 and 8	Project Participants
		Nov. 7	Municipality employees
	San Clemente	Nov. 8	Non- Project Participants
Ica	La Tinguiña	Nov. 6	Municipality employees
		Nov. 6	Project Participants
	Salas	Nov. 5	Non- Project Participants

(2) Questionnaires

Questionnaires included both closed and multiple choice questions to evaluate the project and its impact in depth. It was done through an independent interview with a random selection from Pilot Project participants and non-participants. Also, questionnaires were developed to understand the different aspects of the impact of the Pilot Projects by different target groups. Therefore, four types of questionnaires were developed; i) for participants of any one of the pilot projects, ii) for municipality officers who participated in the activity of Pilot Project 1, iii) for non-participants of the Pilot Projects and iv) for albañiles.

The questionnaire for Pilot Project participants has 37 questions divided into six sections; general information, livelihood, opinions for pilot projects, situation of housing reconstruction, opinions of assistance and comments.

The second questionnaire, for municipality officers, consists of 29 questions divided into six sections: general information, opinion on the job training by JICA Study Team, situation on building permit, situation on housing reconstruction, situation on assistance of the government and comments.

The third questionnaire was asked to non-participants from the district where the pilot projects were implemented (Pueblo Nuevo, Independencia and La Tinguiña) and from districts where none of the projects were implemented (Tambo de Mora, San Clemente and Salas Guadalupe). This questionnaire has 29 questions divided into six sections: general information, livelihood, knowledge about safer housing, situation on assistance and comments.

The last questionnaire was for albañiles. This questionnaire contains seven open questions which are related to working experience, training and reconstruction process.

(3) Implementation of the Evaluation

On November 5th the evaluation started in Ica, then the JICA Study Team moved to Pisco and then to Chincha. On November 13th the evaluation in the field was completed.

In total, 206 people participated in this evaluation. Table 3.3 shows that 141 were people who had participated in at least one of the projects (65 were people who had not participated in any of the projects).

Table 3.3 No. of Surveyed Population by Type of Project Participation

Table 03 Participants surveyed

Project	Chincha	Pisco	Ica	Total
One Day Training	40			**40**
Theater presentation	20			**20**
Kiosk	10	10	10	**30**
SENCICO training	18			**18**
Workshop with employees	10	10	7	**27**
Training employees	2	2	2	**6**
Total	**100**	**22**	**19**	**141**

Source: JICA Study Team survey. November 2008

(4) Analysis of the Results

The method to analyze survey results is by comparing the interview results of project participants and non-participants using the four qualitative indicators categorically mentioned in section 3.1.

3.3. Survey Results

3.3.1. Summary of the Survey Results

Survey results were analyzed by the set four indicators to measure the impact of the Pilot Projects.

(1) Indicator A: Dissemination of knowledge on safer housing

According to the surveyed participants they consider that three years would be a prudential time needed to rebuild their houses and to have all back to normal. In the workshops by JICA Study Team, conducted at each of the municipalities, the population considered the received information was important, understandable and brought awareness of how participation and supervision are important to safer housing construction. Now they know that they can use 64 prototype drawings that can be obtained at the municipality, according to their needs.

Participants in SENCICO course consider that the projects were excellent and were well organized. They came to know the importance of building a safer house in theory and in practice. They learned about Minimum Requirements and the importance of applying for a building permit, which requires submission of the drawings of structural sections. They say that they will share what they have learned to friends and relatives. Also they mentioned that they could work in construction utilizing the received knowledge.

For the one day training the comments were similar and participants pointed out that now they are able to supervise and give instructions to the albañiles (including those of Techo Propio), because now they know when something is not done right about the construction of their house. Some participants mentioned what they learned: i) how to build; ii) what to do at the municipality; iii) to identify good quality materials; iv) what to do in case of earthquake; v) to perform technical supervision over the house construction; vi) bad construction could kill people, vii) that houses should be constructed using proper drawings.

Finally, participants liked the theater presentation and enjoyed it, specially the children. The people think the message in the play was good. It was the first time they saw something like this and after this activity they considered they are well aware of the needs to supervise the construction of their houses and importance of the minimum requirements.

On the other hand, the majority of non-participants interviewed commented that they seek orientation from the albañiles. In order to build safer houses, they defined them as the ones with good foundation, with more cement and steel mesh, secured roof, good drawings with correct sections and well positioned columns. However, they think lighter houses, like those of quincha or mats, are safer because if they collapse, no one would get hurt.

Interviewed population mentioned that there are different types of soil with particular conditions by district so they give peculiar condition for safer houses, i.e. San Clemente and

Tambo de Mora. The two municipalities have given instructions for the population to go on with the reconstruction and start the building permit procedures after they finish the construction.

(2) Indicator B: Dissemination of Housing Reconstruction Support Programs

Participants considered that the information provided is important for the future because for now, they work just for food and therefore they are relying on the disbursement of the BONO 6000. Before the implementation of the pilot projects, they received differing information, depending on the source and they got confused and lost too much time verifying. The most common reason impeding the population to have access to this subsidy was that they lacked legal documents. The same happens with the Bono Familiar Habitacional; not having a property certificate and the land title made it difficult for them to access Techo Propio (TP). After visiting the mobile some participants went to Techo Propio office to get more information. The participant population also requested another type of information such as the building permit process.

Persons who did not participate in this project said that BONO 6000 has not helped those who really need it and that it was due to political reasons. They feel the reconstruction process has stopped after delivery of BONO 6000. In some districts BONO disbursement is over. Others say BONO is still being delivered in alphabetical order. It confuses populations and causes people to lose their patience because they want an official answer by the Government about BONO 6000. Those who already used it said that it is sufficient just to build one 21 m2 room, without considering the cost of labor to build it that is around S/1,500. Additionally, they indicate that the price of construction material increased by 20 percent when BANMAT card is used instead of cash. Others interviewed said that they are still in debt.

Interviewed persons who could have linked with BONO 6000 and TP (S/13,400) did not apply for it because: i) they did not want to be in debt with a loan, ii) the model houses were not adequate to their needs; iii) they already have existing mortgages. Some are not confident with construction companies in TP because: i) the houses they build seem weak, ii) the materials used are not good, iii) the model miniatures shown were good but the real construction was bad; iv) they do not provide the building permit and drawings; v) delays of construction; and vi) improper charges.

(3) Indicator C: Encouraging Participation of Professionals in Housing Reconstruction

There was no project exclusively directed to construction professionals and technicians. However, a group of them was interviewed.

This group is an experienced group with more than 10 years of experience in the construction business; some are accredited by SENCICO. Most of them know about confined masonry. Presently they work for their families doing jobs contracted with either public or private sector. Their contracts depend on the size of the work they execute. Now, all of those interviewed are working in housing reconstruction but most of the families have done so with their own money and very few used the support programs provided by the Government. They say that a higher quality of work is demanded to build seismic-resistant structures. The most important points to be good albañiles are the ability to read drawings, experience and fast worker.

(4) Indicator D: Strengthening the Capacity of Local Governments

JICA Study Team trained the municipality officers and they acknowledge the importance of such type of activities as construction processes, confined masonry, the importance to monitor construction and the creation of project banks. They say their knowledge has improved. Also they say building permit procedures is faster than before. They find it gratifying to see how the interest in building permit increased. Concerning the prototype drawings, nothing can be commented yet.

3.3.2. Evaluation of Pilot Projects by Indicator

The effectiveness and impact of the pilot projects were evaluated based on the participants' and non-participants' answers to the indicator subjects.

(1) Dissemination of Knowledge of Safer Housing Construction:

Did the pilot projects contribute to the dissemination of knowledge on safer housing construction?

The relevant questions for evaluation of the pilot projects using this indicator are questions 9, 12, 14, 15, 18, 19, 25, 27 and 31 of the participants questionnaire. For the non-participants questionnaire, they are question numbers 8, 9, 15, 16 and 24.

a. Participants

Participants were asked the reason why they attended the pilot projects. Pilot Project 3 was conducted in the districts of La Tinguiña and Independencia, as well as Pilot Project 1. JICA members were working closely with the district municipalities, training their technical personnel and promoting workshops to the local population concerning construction of safer

housing and introducing prototype drawings at the Municipality project bank. Moreover, at the district of Pueblo Nuevo in Chincha, Pilot Project 2 was also implemented and included several activities to raise awareness of the population in respect of constructing safer houses through workshops, "One Day Training", theatre presentation "My Safer House" and the construction training course with SENCICO.

From the question, why did you participate in the pilot project?" (P9):

It was found that 51.30 percent of the interviewed people in the three districts participated because they wanted to know about the construction of safer houses. Another group of 18.26 percent said that the words "safer houses" called their attention.

A third group of interviewed people gave reasons such as: they were invited, curious, had heard about the Japanese aid and how the experts were renowned in this field and considered that more information about BONO and land title would be provided.

In Pueblo Nuevo, there were more activities about construction for safer housing that caught the attention of the population. The information that Pilot Project 2 was implemented by a well known institution, i.e. SENCICO, which constructed the cut model house, and that basic information on safer housing construction would be provided were determining factors.

Table 3.4 Result of Question P9

Table 04 Result of question No. 09 (participants)

Why did you participate in the Pilot Project?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Want to know about safer house	23.38	22.09		18.26
Want to know about constructing safer house	53.38	65.95	12.5	51.30
Others	69.23	13.95	87.5	30.43
Total by District	100	100	100	100

Source: JICA Study Team survey: November 2008

From the question, what will be the most useful for rebuilding houses in the activities? (P12).

This question was asked of the participating population to find the most useful component of the Pilot Projects.

Participants were asked to find the most important part of the Pilot Projects; the three pilot projects provided knowledge of both legal (land title and building permit) and technical information at different levels to the population.

To this question, the majority of participants (67.83 percent) answered "minimum requirements".

The term Minimum Requirements was deeply imbedded in the participants' minds, because at the moment of the interview they mentioned the quality of the materials and the connection between the structural sections, columns and beams, which are the main components for safer housing.

Table 3.5 Result of Question P12

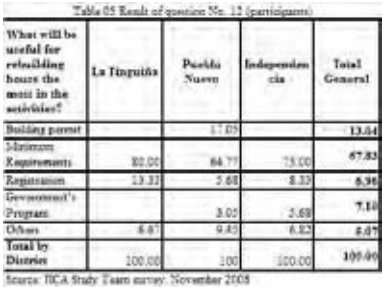

Table 05 Result of question No. 12 (participants)

What will be useful for rebuilding house the most in the activities?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Building permit		17.05		13.64
Minimum Requirements	80.00	64.77	75.00	67.83
Registration	13.33	5.68	8.33	6.96
Government's Program		3.02	5.68	7.14
Others	6.67	9.43	8.82	8.07
Total by District	100.00	100	100.00	100.00

Source: JICA Study Team survey. November 2008

Secondly, only in the district of Pueblo Nuevo, the population considered the building permit as the most useful information. This could be explained by the fact that there is information coming from other districts that building permits can be "acknowledged" after the construction.

Another group of people indicated that the most useful or important thing they learned by participating in these projects was the importance of land title registration.

When they were asked what they did after receiving the information (P-Q14), 80.49 percent answered that they shared the information with relatives and/or friends; 16.26 percent did nothing; and 3.25 percent decided to go to the municipality to obtain more information.

Table 3.6 Result of Question P14

Table 06 Result of question No. 14 (participants)

What did you do after the activity?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Nothing	25.00	17.80		**16.26**
Shared info with family or friends	75.00	78.90	94.10	**80.49**
Asked municipality for more info		3.30	5.90	**3.25**
Total by district	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

From Question No. 15, 26.67 percent decided to attend the other activities implemented by the JICA Study Team.

Table 3.7 Result of Question P15

Table 07 Result of question No. 15 (participants)

Participated in more projects?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Yes		40.20	5.60	**26.67**
No	58.80	57.50	38.90	**59.26**
Did nothing	41.20	1.10	55.60	**13.33**
Rebuilt my house		1.10		**0.74**
Total by District	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

From the question, are you going to make your house? (P19):

Most of the participants (86.67 percent) answered that they will rebuild their houses considering safety against earthquakes. Others answered they did not know how to make their house safer against earthquakes or that they would not build safer houses due to economic reasons. Nevertheless in Pueblo Nuevo, where the three pilot projects were implemented simultaneously, the percentage of people who would build safer houses was higher due to their heightened awareness for safer housing.

Table 3.8 Result of Question P19

Table 08 Result of question No. 19 (participants)

Are you going to make your house earthquake safer?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Yes	64.71	90.82	85.00	86.67
No	17.65	4.08	5.00	5.93
Don't know	17.65	5.10	10.00	7.41
Total by District	100.00	100.00	100.00	100.00

Source: JICA Study Team survey. November 2008

From the question, by what type of housing do you want to rebuild? (P18):

When it was asked what type of material they would use to reconstruct their house with, 92.59 percent answered confined masonry, with a high quality of material, with proper foundation, columns and beams.

In all districts of intervention, families of limited economic resources, although having the intention to reconstruct their houses in confined masonry, will be forced to construct in adobe, which is the only affordable form for them.

Table 3.9 Result of Question P18

Table 09 Result of question No. 18 (participants)

By what type of housing do you want to rebuild?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Not answered		6.12		**4.44**
Adobe	5.88	3.06		**2.96**
Confined masonry	94.12	90.82	100.00	**92.59**
Total by District	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

Other need identified was the lack of land and the land registration. Question No. 25 shows that apart from funds (90.91 percent), the people also need land (3.79 percent) and registration documents (3.03 percent).

Table 3.10 Result of Question P25

Table 10 Result of question No. 25 (participants)

What do you the need the most to rebuild your house?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Land		4.17	5.00	**3.79**
Funds	93.75	89.58	95.00	**90.91**
Materials		2.08		**1.52**
Technical advice		1.04		**0.76**
Documents	6.25	3.13		**3.03**
Total by District	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

From the question, if you have started reconstruction, did you apply for the building permit at the municipality? (P27):

More than half of the interviewed people knew about the building permit, especially in Pueblo Nuevo, since it was mentioned in the projects that it would be beneficial to get a permit, the approved prototype drawings and technical assistance.

Table 3.11 Result of Question P27

Table 11 Result of question No. 27 (participants)

Do you know about the Building Permit?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Yes	29.41	64.29	20.00	**53.33**
No	70.59	26.53	80.00	**40.00**
Not answered		9.18		**6.67**
Total by District	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

From the question, did you use Prototype drawings? (P31):

However, at the end of this evaluation, by the beginning of November of 2008, prototype drawings prepared by JICA had not been approved and available at the project bank of the municipalities. The result was that only 7.69 percent of participated population said they will use JICA prototype drawings.

It is very possible that the use of these prototype increases in time by greater information dissemination from the municipalities, because some officers of the municipality indicated in the interviews that many persons came to the municipality for more information but none applied for building permits so far.

Table 3.12 Result of Question P31

Table 12 Result of question No. 31 (participants)

Did you use Proto Type drawing?	La Tinguiña	Pueblo Nuevo	Independencia	Total General
Yes		8.30		**7.69**
No	100.00	91.70	100.00	**92.31**
Total by District	100.00	100.00	100.00	**100.00**

Source: JICA Study Team survey. November 2008

b. Non-Participants

From the question, do you want to make your house safer against earthquakes? (NP 8):

When applying a similar survey to the non-participants in the same districts and non-participants in other three districts of "control districts", the results were as follows.

All those who answered in the affirmative to the question of wanting to build safer houses against earthquakes admitted to not knowing how (NP9); percentages varied from only 10 percent to 50 percent. For the population of five of the six surveyed districts, they know

more about safer houses. It was in Pueblo Nuevo that half of the surveyed population did not know about the subject.

Table 3.13 Result of Question NP8

Table 13 Result of question No. 8 (non participants)

Do you want make your house safer to earthquake?	Yes	No	Total by Districts
La Tinguiña	100.00	0	100.00
Pueblo Nuevo	100.00	0	100.00
Independencia	100.00	0	100.00
San Clemente	100.00	0	100.00
Salas Guadalupe	100.00	0	100.00
Tambo de Mora	90.00	10.00	100.00
Total General	**98.33**	**1.67**	**100.00**

Source: JICA Study Team survey November 2008

Do you know about "safer houses"?

Table 3.14 Result of Question NP9

Table 14 Result of question No. 9 (non participants)

Do you know about "safer houses"?	Yes	No	Total by Districts
La Tinguiña	60.00	40.00	100.00
Pueblo Nuevo	50.00	50.00	100.00
Independencia	70.00	30.00	100.00
San Clemente	80.00	20.00	100.00
Salas Guadalupe	70.00	30.00	100.00
Tambo de Mora	90.00	10.00	100.00
Total General	**70.00**	**30.00**	**100.00**

Source: JICA Study Team survey. November 2008

From the question, are you going to make your house safer? (NP 16):

In the same way "non-participant" indicated that they will build safer houses against earthquakes. The types of houses they want to reconstruct in order of preference are: confined masonry, simple masonry, wood and adobe.

Table 3.15 Result of Question NP16

Table 15 Result of question No. 16 (non participants)

Are you going to make your house earthquake safer?	Yes	No	Don't know	Total by Districts
La Tinguiña	77.78	11.11	11.11	100
Salas Guadalupe	100.00	0	0	100
Independencia	90.00	3.33	6.67	100
San Clemente	90.00	10	0	100
Pueblo Nuevo	88.79	6.54	4.67	100
Tambo de Mora	100.00	0	0	100
Total General	**86.67**	**5.93**	**7.41**	**100**

Source: JICA Study Team survey. November 2008

The results by province differ; in Ica (La Tinguiña and Salas Guadalupe) people prefer confined masonry to the adobe construction and they did not mention the simple masonry and wood.

Table 3.16 Result of Question NP15

Table 16 Result of question No. 15 (non participants)

By what type of housing do you want to rebuild?	Adobe	Confined masonry	Masonry	Wood	Total by District
La Tinguiña		100			100
Salas Guadalupe	10	90			100
Independencia	10	70	10	10	100
San Clemente		90		10	100
Pueblo Nuevo		77.8	11.1	11.1	100
Tambo de Mora		100			100
Total General	**1.33**	**88.33**	**1.33**	**5**	**100**

Source: JICA Study Team survey. November 2008

In Independencia in spite of people preferring confined masonry houses, an equivalent number of people would build by adobe, simple masonry or wood. In San Clemente, they prefer to build in confined masonry or wood; they indicated wood because they consider that, as it does not weigh much, it is safer.

In the case of Tambo de Mora, given the peculiarity of the condition of the land on which the population is living, i.e. marshland, all those people interviewed answered they prefer confined masonry. However they think that a preliminary soil survey should be conducted, or that the house should be reinforced with steel mesh and cement, because they saw that even houses build in confined masonry could collapse.

From the question No.15 in Pueblo Nuevo district, non-participants surveyed, 77.8 percent wanted to construct with confined masonry. A minority of non-participants will build with adobe, simple masonry or wood due to economic conditions.

From the Question, do you know about the Building Permit? (NP 24):

Non-participants had less knowledge about building permits than pilot project participants. At Ica province, the knowledge of non -participants twice as much as participants'; in Pisco it was the same level at 20 percent. And in Chincha, not many people at Pueblo Nuevo and Tambo de Mora know about the building permit.

Table 3.17 Result of Question NP24

Table 17 Result of question No. 24 (non participants)

Do you know about the Building Permit?	Yes	No	Total by District
La Tinguiña	60.00	40.00	100
Salas Guadalupe	60.00	40.00	100
Independencia	20.00	80.00	100
San Clemente	20.00	80.00	100
Pueblo Nuevo	11.11	88.89	100
Tambo de Mora	36.36	63.64	100
Total General	**35.00**	**65.00**	**100**

Source: JICA Study Team survey. November 2008

(2) Dissemination of Housing Reconstruction Support Programs:

Did the pilot projects contribute to dissemination of government programs supporting housing reconstruction?

The level of dissemination of information of the government reconstruction programs by the pilot projects were evaluated using questions 16, 22, 23, 25, 34 and 35 of participants questionnaire and questions 15, 16 and 24 of non-participants questionnaire.

a. Participants

From the question, do you have enough information on the support program of rebuilding houses? (Techo Propio, etc) (P35)

Pilot Project 3 was specifically designed for the dissemination of programs for subsidy and loans provided by the Government. The projects were implemented in the districts of La Tinguiña in Ica, Independencia in Pisco and Pueblo Nuevo in Chincha. This project, using a small unit of mobile booth that visited different towns, populated centers, slums, etc., provided basic information about Techo Propio program and importance of land registration through four facilitators.

Of the interviewed population, 60.61 percent indicated that the information given them was sufficient; nevertheless almost 40 percent did not consider it so.

The 7.1 percent of the people who attended the project in Pueblo Nuevo and Independencia said that the government housing programs are the most important issue for housing reconstruction.

A greater percentage of interviewed people in La Tinguiña and Pueblo Nuevo said that they had sufficient information about programs like Techo Propio. In the district of Independencia, however, the answer was different and the majority of interviewed persons said they did not receive sufficient information.

This could be explained by the fact that La Tinguiña and Pueblo Nuevo are closer to the capital of the province and therefore, they have easier access to Techo Propio program agencies. In addition to the case of La Tinguiña, there are two construction companies that are offering projects linked to this program located near the Municipality. In Pueblo Nuevo, also there were a couple of real estate companies working with the program.

On the other hand, the district of Independencia is mainly rural and far from the provincial capital. This could explain why the population felt the information provided by the mobile booth project was not enough and so the people of Independencia demanded more information. However, the main problem in this district is that very few people have land title, which is the first requisite to apply to the Techo Propio program.

Table 3.18 Result of Question P35

Table 18 Result of question No. 35 (participants)

Do you have enough information on the support program of rebuilding houses? (Techo Propio, etc)	Yes	No	Total by Districts
La Tinguiña	76,47	23,53	100,00
Pueblo Nuevo	61,05	38,95	100,00
Independencia	45,00	55,00	100,00
Total General	**60,61**	**39,39**	**100,00**

Source: JICA Study Team survey: November 2008

(3) Encouraging Participation of Professionals in Housing Reconstruction

Did the pilot projects contribute to encouraging participation of professionals such as albañiles in housing reconstruction?

In evaluating the effectiveness of the pilot projects using this indicator, answers to the following questions were used: questions 16, 22, 23, 25 and 35 of the participants questionnaire and questions 13, 19, 20, 22 and 28 of the non-participants questionnaire.

a. Participants

From the question, who is going to build the house? (P 22:)

People in the area of intervention of the pilot projects had partial or totally destroyed houses because they built their houses without proper technical assistance. They still recognize the albañiles as the right persons for the construction, primarily because these people have participated in the projects work or have relatives who work as albañiles, and they will be selected by the people to start reconstruction.

The construction companies are recognized as institutions that could build people's houses as long as people have the BONO that could be used with Techo Propio's BONO part.

Table 3.19 Result of Question P22

Table 19 Result of question No. 22 (participants)

Who is going to build the house?	La Tinguiña	Pueblo Nuevo	Independencia	Total by Districts
Construction company	23,53	2,04		**4,44**
Albañil	58,82	56,12	100	**62,96**
Myself and family	17,65	15,31		**13.13**
Engineer		15,31		**11,11**
Architect		2,04		**1,48**
Not answered		9,18		**6,67**
Total by Districts	100	100	100	**100**

Source: JICA Study Team survey: November 2008

From the question: Who is going to design or designed your house? (P23)

The theme of the question seems to be understood more as a distribution of spaces rather than an architectural and structural one.

It is difficult to choose professionals such as engineers or construction companies to oversee the house construction because it is thought that the cost will be higher, and they do not have adequate funds.

Table 3.20 Result of Question P23

Table 20 Result of question No. 23 (participants)

Who is going to design or designed your house?	La Tinguiña	Pueblo Nuevo	Independencia	Total by Districts
Don't know	17,65	2,04	0	**3,7**
Construction company	17,65	3,06	0	**4,44**
Albañil	17,65	22,45	15	**20,74**
Myself and family	23,53	23,47	15	**22,22**
Prototype	5,88	18,37	40	**20**
Engineer	0	11,22	25	**11,85**
Architect	0	4,08	0	**2,96**
Not answered	5,88	15,31	0	**11,85**
Without plan	11,76	0	5	**2,22**
Total by Districts	100	100	100	**100**

Source: JICA Study Team survey: November 2008

when are you going to build your house? (P16):

The issue of reconstruction is a very sensitive question that goes hand in hand with the economic aspect and therefore, families do not have a date yet to rebuild their houses. Most of them have no plans of building their houses in the near future. By contrast, 70 percent of the families of La Tinguiña, Pueblo Nuevo and Independencia believe it will be longer than a year before they start thinking of rebuilding.

Table 3.21 Result of Question P16

Table 21 Result of question No. 16 (participants)

When are you going to build your house?	La Tinguiña	Pueblo Nuevo	Independencia	Total by Districts
Under contruction		4,1		**2,96**
Within a month	5,9	3,1	5	**3,7**
In 3 months	5,9	1		**1,48**
In 6 months	11,8	5,1	5	**5,93**
In a year		10,2	10	**8,89**
More	70,6	70,4	70	**70,37**
Not answered		6,1		**4,44**
Have already built	5,9		10	**2,22**
Total by Districts	100	100	100	**100**

Source: JICA Study Team survey: November 2008

From the question: What do you the need the most to rebuild your house? (P25)

Many earthquake affected population needs funds (66.67 percent). These families are also waiting for BONO and other aid from the government or any other institution to provide them support in the reconstruction.

Table 3.22 Result of Question P25

Table 22 Result of question No. 25 (participants)

What do you the need the most to rebuild your house?	La Tinguiña	Pueblo Nuevo	Independencia	Total by Districts
Others		2,04		**1,48**
Land		11,22	35	**13,33**
Funds	64,71	70,41	50	**66,67**
Materials	35,29	16,33	10	**17,78**
Technical advice			5	**0,74**
Total by Districts	100	100	100	**100**

Source: JICA Study Team survey. November 2008

what assistance do you need to rebuild your house? (P 34):

Most of the affected population needs to have funds for reconstruction.

Table 3.23 Result of Question P34

Table 23 Result of question No. 34 (participants)

What assistance do you need to rebuild your house?	La Tinguiña	Pueblo Nuevo	Independencia	Total by Districts
Land registration		4,08	40	**8,89**
Funds	88,24	67,35	35	**65,19**
Building permit		1,02	10	**2,22**
Technical advice	5,88	3,06		**2,96**
All the above	5,88	24,49	15	**20,74**
Total by Districts	100	100	100	**100**

Source: JICA Study Team survey. November 2008

b. Non-Participants

From the question, who is going to build the house? (NP19):

More than 81 percent indicated that his/her house will be built by albañil. Constructions in these areas were always done by albañiles. Another reason to decide in favor of albañil is the availability of workforce in the area and income of these families.

In the districts of La Tinguiña, Pueblo Nuevo, Independencia, San Clemente and Tambo de Mora, over 70 percent of those interviewed acknowledge the albañil as the right person to build their house. While in Salas Guadalupe, 40 percent said the mason, and 30 percent answered engineers.

The other options (construction companies) were recently recognized and this may be due to absence or inexperience in these areas that have the presence of them in construction.

Table 3.24 Result of Question NP19

Table 24 Result of question No. 19 (non participants)

Who is going to build the house?	La Tinguiña	Pueblo Nuevo	Independencia	San Clemente	Salas Guadalupe	Tambo de Mora	Total by Districts
Don't know		11.11	10				3.33
Construction company			10		20		5
Albañil	100	88.89	70	100	40	90.91	3.33
Myself					10	9.08	81.67
Engineer			10		30		6.67
Total by Districts	100	100	100	100	100	100	100

Source: JICA Study Team survey, November 2008

From the question, who is going to design or designed your house? (NP 20):

According to the survey, families feel that with the design of the houses they can do the construction by themselves (23 percent). This answer suggests that non-participating families are not considering the construction of their houses according to a structural design that allows making them safe against disaster, but on the contrary, their interest is just to have a roof over their head, a simple house where they can live in.

Table 3.25 Result of Question NP20

Table 25 Result of question No. 20 (non participants)

Who is going to design or designed your house?	La Tinguiña	Pueblo Nuevo	Independencia	San Clemente	Salas Guadalupe	Tambo de Mora	Total by Districts
Don't know	10	22.22	20				8.33
Construction company		11.11			30		6.67
Albañil	40	22.22	20	60	20	45.45	35
Myself	30	11.11	20	30	30	18.18	23.33
Prototype	10	0	10				3.33
Engineer	10	22.22	20	10	20	18.18	16.67
Architect						9.09	1.67
Nobody		11.11	10			9.09	5
Total by Districts	100	100	100	100	100	100	100

Source: JICA Study Team survey, November 2008

From the question, when are you going to build your house? (NP13)

Like the families of the pilot project participants, 83 percent of non-participants' indicated that they will need a longer time of up to one year in order to build their houses because of the few economic resources they have and little support from the Government and other institutions to rebuild their houses.

These results are general ideas of the families of La Tinguiña, Pueblo Nuevo, Independencia, San Clemente, Guadalupe Salas and Tambo de Mora.

Table 3.26 Result of Question NP13

Table 26 Result of question No. 13 (non participants)

When are you going to build your house?	La Tinguiña	Pueblo Nuevo	Independencia	San Clemente	Salas Guadalupe	Tambo de Mora	Total by Districts
Under construction		11.1					1.67
Within a month					10		1.67
In 3 months			10			9.1	3.33
In 6 months	10		10		10		5
In a year	10		10	10			5
More	80	88.9	70	90	80	90.9	83.33
Total by Districts	100	100	100	100	100	100	100

Source: JICA Study Team survey, November 2008

From the questions, what do you need the most to rebuild your house? (NP 22) and what assistance do you need to rebuild your house? (NP28):

As mentioned earlier, the participants of the project pointed out the need for the economic reconstruction before the housing reconstruction. The same is true for the non-participants' Even the rising price of construction materials such as bricks and iron these days is making it difficult for them to start the reconstruction soon.

Table 3.27 Result of Question NP22

Table 27 Result of question No. 22 (non participants)

What do you the need the most to rebuild your house?	La Tinguiña	Pueblo Nuevo	Independencia	San Clemente	Salas Guadalupe	Tambo de Mora	Total by Districts
Land	10			10		9.09	5
Funds	80	77.78	80	30	40	72.73	63.33
Materials		11.11	10	60	60	18.18	26.67
Technical advice		11.11	10				3.33
Land title	10						1.67
Total by Districts	100	100	100	100	100	100	100

Source: JICA Study Team survey, November 2008

Table 3.28 Result of Question NP28

Table 28 Result of question No. 28 (non participants)

What assistance do you need to rebuild your house?	La Tinguiña	Pueblo Nuevo	Independencia	San Clemente	Salas Guadalupe	Tambo de Mora	Total by Districts
Land registration	10	11.11	10	10	10		8.33
Funds	80	77.78	80	80	40	90.91	75
Building permit	10						1.67
Technical advice		11.11	10	10	30		10
All the above					10	9.09	3.33
Others					10		1.67
Total by Districts	100	100	100	100	100	100	100

Source: JICA Study Team survey, November 2008

(4) Strengthening the Capacity of Local Governments:

Did the pilot projects contribute to strengthening the capacity of local governments in housing reconstruction?

The project impact was measured by this fifth indicator and analyzed by the above question.

The JICA Study Team, through the Pilot Project 1, trained officials in several workshops to provide better service to people in their respective districts on the issue of building permit and minimum requirements.

They are officers who recognize the usefulness of such activity in the constructive processes, primarily in confined masonry, as well as the importance of "surveillance" (supervision) and the registration of prototype drawings to the bank project, besides pointing out the importance of having JICA team members who have strengthened the skills of municipality staff.

Another important aspect is the application of the participants of the training they have received in the work in their municipalities. The building permit processing averaged one to two months before and now it takes just about a week for the permit to be processed.

The Municipality of Independencia says the increase in applications of building permit came from construction companies that have been working with Techo Propio. In the meantime, individuals are not doing this procedure.

They say that the effect of the prototype cannot be evaluated in this assessment, but already there are people who come to municipalities seeking information.

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APPENDIX

Appendix Table 1 Housing Reconstruction Progress by District

(Bono 6000 and Techo Propio)

Province	No.	District	(1) Number of beneficiaries which have been already registered in Bono 6,000		(2) Number of beneficiaries which have been already registered in Techo Propio BFH		(c) Number of permanent houses which have been reconstructed (including under construction) by Bone 6,000		(e) Number of permanent houses which have been reconstructed (including under construction) by both of Bono 6,000 and Techo Propio BFH	(3) reconstructed houses		(4) Number of permanent houses which have been already applied to building permit	
			Survey on April	Survey on November	Survey on April	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on April	Survey on November
			(beneficiaries)	*(beneficiaries)*	*beneficiaries*	*(beneficiaries)*	*(houses)*	*(houses)*	*(houses)*	*(houses)*	*(houses)*	*(houses)*	*(houses)*
Chincha	1	Alto Laran	600	596	20	n.d.	40	230	0	40	230	20	216
	2	Chavin	71	71	0	0	0	n.d.	n.d.	0	n.d.	0	n.d.
	3	Chincha Alta	8300	6332	150	400	580	0	0	580	0	150	271
	4	Chincha Baja	1200	1926	20	28	400	9	0	400	9	20	n.d.
	5	El Carmen	2400	486	0	175	120	480	480	120	960	0	230
	6	Grocio Prado	4500	2291	100	124	100	1268	0	100	1268	100	724
	7	Pueblo Nuevo	7035	3950	160	1000	480	0	0	480	0	160	1073
	8	San Juan de Yanac	n.d.	n.d.	n.d.	n.d.	0	n.d.	n.d.	0	n.d.	n.d.	n.d.
	9	San Pedro de Huacarpana	39	39	0	0	0	0	0	0	0	0	25
	10	Sunampe	3800	n.d.	220	n.d.	370	n.d.	n.d.	370	n.d.	220	n.d.
	11	Tambo de Mora	850	850	0	0	35		n.d.	35	n.d.	0	3
ICA	1	Ica	6500	n.d.	100	n.d.	0	n.d.	n.d.	0	n.d.	100	247
	2	La Tinguina	1205	3600	50	400	0	700	0	0	700	50	400
	3	Los Aquijes	2225	3272	600	3000	1720	1493	288	1720	1781	600	400
	4	Ocucaje	500	454	0	50	0	126	40	0	166	0	0
	5	Pachacutec	1800	800	30	500	500	420	20	500	440	30	500
	6	Parcona	4000	3601	0	1900	0	1800	n.d.	0	1800	0	870
	7	Pueblo Nuevo	1200	213	9	n.d.	24	n.d.	n.d.	24	n.d.	9	140
	8	Salas Guadalupe	1000	2112	n.d.	60	0	90	10	0	100	n.d.	90
	9	San Jose de Los Molinos	600	869	0	73	20	150	73	20	223	0	76
	10	San Juan Bautista	n.d.	2000		800	n.d.	1200	100	n.d.	1300		100
	11	Santiago	2362	3000	1	237	1	800	100	1	900	1	110
	12	Subtanjalla	2000	12552	0	566	0	2220	n.d.	0	2220	0	800
	13	Tate	505	310	0	105	0	155	175	0	330	0	105
	14	Yauca del Rosario	204	440	0	0	0	56	0	0	56	0	0
PISCO	1	Huancano	350	554	0	0	10	354	0	10	354	0	0
	2	Humay	1089	1400	0	20	0	1000	0	0	1000	0	0
	3	Independencia	1320	1336	0	50	300	900	0	300	900	0	15
	4	San Andres	872	2444	4	250	58	1434	0	58	1434	4	79
	5	San Clemente	1595	1300	n.d.	1140	263	934	0	263	934	n.d.	140
	6	Tupac Amaru Inca	1400	1000	354	200	45	100	0	45	100	354	5
	7	Paracas	100	112	0	0	70	40	0	70	40	0	0
	8	Pisco	8000	7000	n.d.	900	1750	3500	0	1750	3500	n.d.	450
Total			67622	64910	1818	11978	6886	19459	1286	6886	20745	1818	7069

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Tabla 2 Housing Reconstruction Progress by District

(Building permit and project bank)

Province	No.	District	(g) Number of permanent houses with approval of building permit which have been inspected the construction	(h) Number of standard house designs which have already been approved as a project bank by the municipalities		(i) Number of permanent houses which have been already reconstructed (including under construction) by the standard designs	
			Survey on November	Survey on April	Survey on November	Survey on April	Survey on November
			(houses)	(houses)	(houses)	(houses)	(houses)
Chincha	1	Alto Laran	15	0	0	0	0
	2	Chavin	n.d.	0	n.d.	0	n.d.
	3	Chincha Alta	n.d.	190	3	8	3
	4	Chincha Baja	n.d.	10	0	0	0
	5	El Carmen	170	0	0	0	0
	6	Grocio Prado	0	6	0	0	0
	7	Pueblo Nuevo	48	300	0	7	0
	8	San Juan de Yanac	n.d.	n.d.	n.d.	0	n.d.
	9	San Pedro de Huacarpana	25	0	0	0	25
	10	Sunampe	n.d.	4	n.d.	3	n.d.
	11	Tambo de Mora	0	0	0	3	0
ICA	1	Ica	150	0	6	0	90
	2	La Tinguina	onstruction doesnt begin	4	0	0	no project bank
	3	Los Aquijes	50	0	4	0	288
	4	Ocucaje	0	0	0	0	no project bank
	5	Pachacutec	500	3	1	31	500
	6	Parcona	400	5	6	0	no project bank
	7	Pueblo Nuevo	100	6	0	9	0
	8	Salas Guadalupe	30	0	4	0	30
	9	San Jose de Los Molinos	50	0	3	0	73
	10	San Juan Bautista	25	n.d.	3	n.d.	25
	11	Santiago	40	4	4	1	40
	12	Subtanjalla	200	4	8	10	800
	13	Tate	2	0	no project bank	0	20
	14	Yauca del Rosario	0	0	no project bank	0	no project bank
PISCO	1	Huancano	0	0	0	0	0
	2	Humay	0	0	0	0	0
	3	Independencia	10	0	4	0	6
	4	San Andres	79	0	7	0	79
	5	San Clemente	5	1	5	0	5
	6	Tupac Amaru Inca	5	1	0	0	0
	7	Paracas	0	3	0	0	0
	8	Pisco	90	0	60	0	12

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 3 Other conditions

(Ratios of lands and houses registered)

Province	No.	District	(a) Ratio of land registered (No. of registered land lots/No. of total land lots)		(b) Ratio of house registered (No. of registered houses/No. of total houses)	
			Survey on April	Survey on November	Survey on April	Survey on November
			%	%	%	%
Chincha	1	Alto Laran	80	n.d.	60	n.d.
	2	Chavin	2	n.d.	0	n.d.
	3	Chincha Alta	n.d.	n.d.	n.d.	n.d.
	4	Chincha Baja	80	n.d.	100	n.d.
	5	El Carmen	2.53	n.d.	3.82	n.d.
	6	Grocio Prado	50	n.d.	40	n.d.
	7	Pueblo Nuevo	77	n.d.	88	n.d.
	8	San Juan de Yanac	5	n.d.	5	n.d.
	9	San Pedro de Huacarpana	0.05	n.d.	0.05	n.d.
	10	Sunampe	75	n.d.	82	n.d.
	11	Tambo de Mora	10	n.d.	90	n.d.
ICA	1	Ica	75	90	75	90
	2	La Tinguina	80	95	80	25
	3	Los Aquijes	50	90	80	90
	4	Ocucaje	60	50	60	50
	5	Pachacutec	70	70	50	30
	6	Parcona	60	70	60	40
	7	Pueblo Nuevo	90	50	90	30
	8	Salas Guadalupe	30	70	60	70
	9	San Jose de Los Molinos	20	20	30	20
	10	San Juan Bautista	n.d.	70	n.a	70
	11	Santiago	50	60	50	40
	12	Subtanjalla	80	50	80	50
	13	Tate	60	70	60	70
	14	Yauca del Rosario	30	30	0	5
PISCO	1	Huancano	n.a	10	9.48	10
	2	Humay	n.a	20	n.a	10
	3	Independencia	100	20	20	35
	4	San Andres	n.d.	40	80	50
	5	San Clemente	40	60	60	0
	6	Tupac Amaru Inca	n.d.	40	n.d.	60
	7	Paracas	10	40	60	80
	8	Pisco	n.d.	75	n.d.	75

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 4 (1/3) General condition of reconstruction with confined masonry by district

(Points of construction accuracy or mistakes by contractor or construction artisan)

Province	No.	District	a) posibility of liquefaction			b) weak sub-soil			c) location in hill			d) Availability of drawings			e) Availability of B/Q		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November
			(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)	(yes o no)
Chincha	1	Alto Laran	No	no	no	Yes	no	no	No	no	no	No	yes	yes	No	yes	yes
	2	Chavin	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.
	3	Chincha Alta	No	no	no	Yes	yes	yes	No	no	no	No	yes	yes	No	no	no
	4	Chincha Baja	No	no	no	No	no	no	No	no	no	No	yes	yes	No	yes	yes
	5	El Carmen	No	no	no	No	no	no	No	no	no	No	no	yes	No	no	yes
	6	Grocio Prado	No	no	no	Yes	yes	yes	No	no	no	No	yes	yes	No	no	no
	7	Pueblo Nuevo	No	no	no	Yes	yes	yes	No	no	no	No	yes	no	No	no	no
	8	San Juan de Yanac	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.
	9	San Pedro de Huacarpana	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.	System not used	n.d.	n.d.
	10	Sunampe	No	no	no	Yes	yes	yes	No	no	no	No	no	yes	No	no	no
	11	Tambo de Mora	Yes	yes	yes	Yes	yes	yes	No	yes	yes	No	no	yes	No	no	yes
ICA	1	Ica	No	no	no	No	no	no	No	no	no	Yes	yes	yes	Yes	yes	no
	2	La Tinguina	No	no	no	No	no	no	No	no	no	No	no	yes	No	no	no
	3	Los Aquijes	No	no	no	No	no	no	No	no	no	No	yes	no	No	yes	no
	4	Ocucaje	No	no	no	No	no	no	No	no	no	No	no	no	No	no	no
	5	Pachacutec	No	no	no	No	no	no	No	no	no	No	yes	yes	No	no	no
	6	Parcona	No	no	no	No	no	no	No	no	no	Yes	no	no	Yes	no	no
	7	Pueblo Nuevo	No	no	no	No	no	no	No	no	no	No	no	no	No	no	no
	8	Salas Guadalupe	No	yes	No	No	yes	No	No	No	No	No	yes	yes	No	yes	yes
	9	San Jose de Los Molinos	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	10	San Juan Bautista	No	yes	yes	No	yes	yes	No	No	No	No	No	yes	No	No	yes
	11	Santiago	No	no	no	No	yes	yes	No	no	no	Yes	yes	no	Yes	yes	no
	12	Subtanjalla	No	no	no	No	no	no	No	no	no	Yes	yes	no	Yes	no	no
	13	Tate	No	no	no	No	yes	yes	No	no	no	Yes	yes	no	Yes	yes	no
	14	Yauca del Rosario	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
PISCO	1	Huancano	No	No	No	No	No	No	No	No	No	No	No	yes	No	No	yes
	2	Humay	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	3	Independencia	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
	4	San Andres	Yes	yes	yes	Yes	yes	yes	No	No	No	No	No	No	No	No	No
	5	San Clemente	No	No	No	No	No	No	No	No	No	Yes	No	No	Yes	No	No
	6	Tupac Amaru Inca	Yes	No	No	No	No	No	No	No	No	Yes	No	No	No	No	No
	7	Paracas	Yes	No	No	Yes	No	No	No	No	No	Yes	No	No	Yes	No	No
	8	Pisco	No	yes	yes	No	yes	yes	No	No	No	No	yes	No	No	yes	No

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 4 (2/3) General condition of reconstruction with confined masonry by district

(Points of construction accuracy or mistakes by contractor or construction artisan)

Province	No.	District	f) Availability of construction tool such as plumb bob, bending iron and measuring tool of construction material			g) Quality and quantity of sand			h) Quality and quantity of gravel			i) Quality and quantity of rock			j) Quality and quantity of cement		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on Novembery	Survey on April	Survey on November	Survey on November
			(list available tools)	(list available tools)	(list available tools)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)	(good, bad and sufficient, insufficient)
Chincha	1	Alto Laran	Shovel, pick, plumb bob, gimlet, wheelbarrow	Shovel, pick, plumb bob, gimlet, wheelbarrow	Shovel, pick, string, gimlet. Dosification by buckets	High content of salts	good sufficient	good sufficient	High content of salts	good sufficient	good sufficient	High content of salts	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
	2	Chavin	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Good quality	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	Minimun necessary	level, plumb bob, badilejos, flexometro	wheelbarrow, cilindro, plumb bob, shovel, pick, cordel,etc.	High content of salts, except in the river	good sufficient	good sufficient	High content of salts, except in the river	good sufficient	good sufficient	High content of salts, except in the river	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
	4	Chincha Baja	Shovel, pick, string, gimlet. Dosification by buckets	Shovel, pick, string, gimlet. Dosification by buckets	Shovel, pick, string, gimlet. Dosification by buckets	Presence of salts	good sufficient	good sufficient	Presence of salts	good sufficient	good sufficient	Presence of salts	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
	5	El Carmen	Shovel, pick, plumb bob, gimlet, wheelbarrow	Concrete mixer, vibrator, compactor, bucket, pick, etc	Plumb bob, steel bending, shovel, pick, bucket, badilejo, wheelbarrow, etc	Presence of salts and slims	good sufficient	good sufficient	High content of salts, except in the river	good sufficient	good sufficient	High content of salts, except in the river	good sufficient	bad sufficient	Normal	good sufficient	good sufficient
	6	Grocio Prado	No available	Dobladores, plumb bobs, buckets, shovel, cilindro, etc.	Dobladores, plumb bobs, buckets, shovel, cilindro, etc.	High contents of slims	good sufficient	good sufficient	Presence of salts	good sufficient	good sufficient	High contents of salts, except in the river	bad sufficient	good sufficient	Normal	good sufficient	good sufficient
	7	Pueblo Nuevo	No available	vel, pick, wheelbarrow, plumb	wheelbarrow, cilindro, plumb bob, shovel, pick, cordel,etc.	Hight contents of salts	good sufficient	good sufficient	Hight contents of salts	good sufficient	good sufficient	Hight contents of salts	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
	8	San Juan de Yanac	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	Minimun necessary	level, plumb bob, badilejos, flexometro	Hammer, shovel, pick, wheelbarrow, plumb bob, buckets	Contents of salts	good sufficient	good sufficient	Contents of salts	good sufficient	good sufficient	Contents of salts	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
	11	Tambo de Mora	Minimun necessary	Dobladores, plumb bobs, buckets, shovel, cilindro, etc.	level, plumb bob, badilejos, flexometro	Hight contents of salts	good sufficient	good sufficient	Hight contents of salts	good sufficient	good sufficient	Hight contents of salts	bad sufficient	bad sufficient	Normal	good sufficient	good sufficient
ICA	1	Ica	Hammer, shovel, pick, wheelbarrow, plumb bob, buckets	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Inappropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Atlas)	good sufficient	good sufficient
	2	La Tinguina	Shovel, pick, wheelbarrow, steel bending, buckets	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	bad sufficient	Inappropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Atlas)	good sufficient	good sufficient
	3	Los Aquijes	Plumb bob, steel bending, shovel, pick, bucket, wheelbarrow, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Inappropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Sol)	good sufficient	good sufficient
	4	Ocucaje	Wheelbarrow, shovel, pick, steel bending, bucket, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and limited	good sufficient	good sufficient	Appropiate and limited	good sufficient	good sufficient	Appropiate and limited	good sufficient	good sufficient	Appropiate and limited	good sufficient	good sufficient
	5	Pachacutec	Plumb bob, steel bending, shovel, pick, bucket, badilejo, wheelbarrow, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Inappropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Atlas)	good sufficient	good sufficient
	6	Parcona	Plumb bob, steel bending, shovel, pick, bucket, badilejo, wheelbarrow, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	bad insufficient	Inappropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Atlas)	good sufficient	good sufficient
	7	Pueblo Nuevo	Plumb bob, steel bending, shovel, pick, bucket, badilejo, wheelbarrow, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Sol)	good sufficient	good sufficient
	8	Salas Guadalupe	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, rulers, saw, hammer. Measurement tools: shovel and wheelbarrow	Badilejo, plumb bob, comba, pick, shovel, cilindro,etc.	Badilejo, cincel, comba, pick, shovel, wheelbarrow,etc.	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	bad / sufficient	bad / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	9	San Jose de Los Molinos	Shovel, pick, wheelbarrow, concrete mixer, hand level, plumb bob, badijejo, rulers, saw, hammer. Measurement tools: shovel and wheelbarrow	shovel, pick, wheelbarrow, buckets, plumb bob, etc.	shovel, pick, wheelbarrow, buckets, plumb bob, etc.	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	10	San Juan Bautista	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, rulers, saw, hammer. Measurement tools: shovel and wheelbarrow	Buggi, comba, cincel, pick, shovel, cilindro,etc.	wheelbarrow, cincel, comba, pick, shovel, badilejo,etc.	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	good / sufficient	good / sufficient	From Desaguadero in Trapiche quarry. Good quality	bad / sufficient	bad / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	11	Santiago	Concrete mixer, vibrator, compactor, bucket, pick, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Sol)	good sufficient	good sufficient
	12	Subtanjalla	Shovel, pick, wheelbarrow, concrete mixer, hand level, plumb bob, badijejo	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Sol)	good sufficient	good sufficient
	13	Tate	Concrete mixer, vibrator, compactor, bucket, pick, etc	level, plumb bob, badilejos, flexometro	level, plumb bob, badilejo, flexometro	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough	good sufficient	good sufficient	Appropiate and enough(Sol)	good sufficient	good sufficient
	14	Yauca del Rosario	No reconstructing in adobe nor confined masonry	no se pudo apreciar													
PISCO	1	Huancano	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, rulers, hammer. Measurement tools: shovel and wheelbarrow. Mixing in buckets	plumb bobs, badilejo, shovels, wheelbarrow, cilindro, pick, etc.	plumb bobs,doblador,shovels, buggi, cilindro, pick, etc.	Extracted from one quarry in Chincha	good / Insufficient	good / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Sol Cement. Good	good / Insufficient	good / Insufficient
	2	Humay	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer. Measurement tools: shovel and wheelbarrow. Mixing in wheelbarrow	Plumb bobs, buckets, shovel, cilindro, etc.	Dobladores, plumb bobs, buckets, shovel, cilindro, etc.	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	3	Independencia	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer. Measurement tools: shovel and wheelbarrow.	wheelbarrow, buckets, cilindro, shovel, pick, badilejo,etc.	wheelbarrow, buckets, cilindro, shovel, pick, badilejo,etc.	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	bad / sufficient	bad / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	4	San Andres	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer. Measurement tools: shovel and wheelbarrow and buckets for water	Buggi, comba, cincel, pick, shovel, cilindro,etc.	Buggi, comba, cincel, pick, shovel, cilindro,etc.	Extracted from one quarry in Chincha	good / Insufficient	good / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Sol Cement. Good	good / sufficient	good / sufficient
	5	San Clemente	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer	wheelbarrow, cilindro, plumb bob, shovel, pick, cordel,etc.	pick, shovel, buckets, cordel, badilejo, wheelbarrow, etc.	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good /sufficient	good /sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Sol Cement. Good	good / sufficient	good / sufficient
	6	Tupac Amaru Inca	Steel bendings, rulers, hammer, hand level, shovel, pick, plumber bob. Measurement with shovel and wheelbarrow	shovel, pick, wheelbarrow, buckets, plumb bob, etc.	shovel, pick, wheelbarrow, buckets, plumb bob, etc.	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	bad / sufficient	bad / sufficient	Sol Cement. Good, fresh cement	good / sufficient	good / sufficient
	7	Paracas	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer	Cilindro, buckets, shovel, pick martillo, wheelbarrow, etc.	Cilindro, buckets, shovel, pick martillo, wheelbarrow, etc.	Extracted Cabeza de Toro quarry. Good quality	bad / Insufficient	bad / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Extracted Cabeza de Toro quarry. Good quality	good / Insufficient	good / Insufficient	Sol Cement. Good, fresh cement	good / Insufficient	good / Insufficient
	8	Pisco	Shovel, pick, wheelbarrow, concrete mixer, hand level, badijejo, hammer. Measurement tools: shovel and wheelbarrow and buckets for water	plumb bobs, badilejo, shovels, wheelbarrow, cilindro, pick, etc.	plumb bobs, badilejo, shovels, wheelbarrow, cilindro, pick, etc.	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Extracted Cabeza de Toro quarry. Good quality	good / sufficient	good / sufficient	Sol Cement. Good, fresh cement	good/ sufficient	good / sufficient

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 4 (3/3) General condition of reconstruction with confined masonry by district

(Points of construction accuracy or mistakes by contractor or construction artisan)

Provincia	No.	Distrito	k) calidad y cantidad del acero			l) calidad y cantidad del ladrillo cocido			m) calidad y cantidad de la madera para el encofrado			n) calidad y cantidad de otros materiales		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November
			(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)	(buena, mala y suficiente,insuficiente)
Chincha	1	Alto Laran	Normal	good suficient	good suficient	Bad quality, artesanal fabrication	good suficient	good suficient	Bad quality, generally too many used	bad suficient	bad suficient	Guayaquil cane, cana brava, mud	no hay info	
	2	Chavin	Don't use	no hay info	good suficient	Don't use	no hay info	no hay info	Don't use	bad suficient	no hay info	Don't use	no hay info	no hay info
	3	Chincha Alta	Normal	good suficient	good suficient	Bad quality, artesanal fabrication with sand soils	good suficient	good suficient	Normally used	bad suficient	bad suficient	Guayaquil cane, cana brava, mud	bad suficient	bad suficient
	4	Chincha Baja	Normal	good suficient	good suficient	Bad quality, artesanal fabrication	good suficient	good suficient	Don't use	bad suficient	bad suficient	Guayaquil cane, cana brava, mud	no hay info	
	5	El Carmen	Normal	good suficient	good suficient	Bad quality, artesanal	good suficient	good suficient	Don't use	bad suficient	bad suficient	Guayaquil cane, cana brava,	no hay info	
	6	Grocio Prado	Normal	good suficient	good suficient	Bad quality, artesanal fabrication	good suficient	good suficient	Don't use	bad suficient	bad suficient	Cana brava, Guayaquil cane	bad suficient	bad suficient
	7	Pueblo Nuevo	Normal	good suficient	good suficient	Bad quality, artesanal fabrication with sand soils	good suficient	good suficient	Don't use	bad suficient	bad suficient	Guayaquil cane, cana brava, mud	bad suficient	bad suficient
	8	San Juan de Yanac	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info
	9	San Pedro de Huacarpana	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info	Don't use	no hay info	no hay info
	10	Sunampe	Normal	good suficient	good suficient	Bad quality, bad burning	good suficient	good suficient	Don't use	bad suficient	bad suficient	Guayaquil cane, cana brava, mud	bad suficient	bad suficient
	11	Tambo de Mora	Normal	good suficient	good suficient	Bad quality, artesanal fabrication	good suficient	good suficient	Don't use	good suficient	bad suficient	Guayaquil cane, cana brava, mud	no hay info	
ICA	1	Ica	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	good suficient	buena insuficiente	Appropiate and enough	buena suficiente	buena suficiente
	2	La Tinguina	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	bad suficient	buena insuficiente	Water from river	buena suficiente	buena suficiente
	3	Los Aquijes	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	bad suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	4	Ocucaje	Appropiate and limited	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	bad suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	5	Pachacutec	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	bad suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	6	Parcona	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	good suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	7	Pueblo Nuevo	Appropiate and enough	good suficient	good suficient	Appropiate and enough(KK)	good suficient	good suficient	Don't use	good suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	8	Salas Guadalupe	Steel from Aceros	good suficient	good suficient	Artesanal bricks in big	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	9	San Jose de Los Molinos	Steel from Aceros Arequipa Company. 1/2" for columns and 1/4" in hoops. Some presence of oxidation in steel bars	good suficient	good suficient	Artesanal bricks in big quantities and in regular state	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	10	San Juan Bautista	Steel from Aceros Arequipa Company. 1/2" for columns and 1/4" in hoops	good suficient	good suficient	Artesanal bricks in big quantities and in regular state	Mala / Suficiente	Mala / Suficiente	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	11	Santiago	Appropiate and enough	good suficient	buena insuficiente	Appropiate and enough (18 holes)	good suficient	good suficient	Don't use	bad suficient	bad suficient	Wood appropiate and enough	buena suficiente	buena suficiente
	12	Subtanjalla	Appropiate and enough	good suficient	buena insuficiente	No	good suficient	good suficient	Don't use	good suficient	bad suficient	Cement brick appropiate and enough	buena suficiente	buena suficiente
	13	Tate	Appropiate and enough	good suficient	buena insuficiente	Appropiate and enough	good suficient	good suficient	Don't use	bad suficient	bad suficient	Appropiate and enough	buena suficiente	buena suficiente
	14	Yauca del Rosario		no se pudo apreciar										
PISCO	1	Huancano	Steel from Sideperu Company. 1/2" for columns and 1/4" in hoops. Presence of oxidation	good suficient	good suficient	Artesanal bricks from San Clemente. Bad quality	Mala / Insuficiente	Mala / Insuficiente	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	2	Humay	Steel from Sideperu	good suficient	good suficient	King kong artesanal	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	3	Independencia	Steel from Aceros	good suficient	good suficient	Artesanal bricks	Mala / Suficiente	Mala / Suficiente	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	4	San Andres	Steel from Aceros Arequipa Company. 1/2" for columns and 1/4" in hoops. Presence of oxidation	good suficient	good suficient	King kong artesanal bricks 18 holes. Bad quality, content of salts	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	5	San Clemente	Steel from Aceros	good suficient	good suficient	King kong artesanal	Mala / Suficiente	Mala / Suficiente	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	6	Tupac Amaru Inca	Steel from Aceros	good suficient	good suficient	Industrial bricks Lark	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente
	7	Paracas	Steel from Aceros	good suficient	good suficient	Industrial bricks Lark	Mala / Insuficiente	Mala / Insuficiente	Don't use	Buena / Insuficiente	Buena / Insuficiente		Buena / Insuficiente	Buena / Insuficiente
	8	Pisco	Steel from Aceros Arequipa Company. 1/2" for columns and 1/4" in hoops. Presence of oxidation	good suficient	good suficient	King kong artesanal bricks 18 holes. Bad quality, content of salts	good suficient	good suficient	Don't use	good suficient	good suficient		Buena / Suficiente	Buena / Suficiente

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 5 General condition of reconstruction with confined masonry by district

(Floor plan)

Province	No.	District	(a) Floor plan yesmmetric			(b) Floor area enclosed by walls			c) Eccentric		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November
			(yes o no)	(yes o no)	(yes o no)	(m2)	(m2)	(m2)	(yes o no)	(yes o no)	(yes o no)
Chincha	1	Alto Laran	Yes	yes	yes	30	24.75	42.00	Yes	no	no
	2	Chavin	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	No	no	yes	40-50	84.00	180.00	No	yes	no
	4	Chincha Baja	Yes	yes	yes	20			Yes	no	no
	5	El Carmen	Yes	yes	yes	30	176.00	200.00	Yes	no	no
	6	Grocio Prado	No	yes	yes	40	63.75		Yes	no	no
	7	Pueblo Nuevo	Yes	yes	no	20	125.00	16.00	Yes	no	yes
	8	San Juan de Yanac	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	Yes	yes	no	16	35.00	60.00	Yes	no	yes
	11	Tambo de Mora	Yes	no	no	17	25.00	130	Yes	yes	yes
ICA	1	Ica	Yes	yes	yes	25.4	68	60	No	no	no
	2	La Tinguina	Yes	yes	yes	24	48	60	No	no	no
	3	Los Aquijes	Yes	yes	yes	50	60	80	No	no	no
	4	Ocucaje	Yes	yes	yes	37.8	40	30	No	no	no
	5	Pachacutec	Yes	yes	yes	27	60	48	No	no	no
	6	Parcona	Yes	yes	yes	24	48	40	No	no	no
	7	Pueblo Nuevo	Yes	yes	yes	9.92	60	40	No	no	no
	8	Salas Guadalupe	No	yes	yes	192	45	42	Not proportional. The building will have a large living room of 15mx24m and other little rooms next to it	No	No
	9	San Jose de Los Molinos	Yes	yes	yes	40	36	30	No	No	No
	10	San Juan Bautista	No	yes	yes	98	36	48	No	No	No
	11	Santiago	Yes	yes	yes	9.8	50	40	No	no	no
	12	Subtanjalla	Yes	yes	yes	12	60	40	No	no	no
	13	Tate	Yes	yes	yes	15	75	30	No	no	no
	14	Yauca del Rosario		Dont use							
PISCO	1	Huancano	Yes	yes	yes	56	36	75	No	No	No
	2	Humay	Yes	yes	yes	40	40	30	No	No	No
	3	Independencia	Yes	yes	yes	42	36	40	No	No	No
	4	San Andres	Yes	yes	yes	24	35	36	Good distribution. Simmetry and good wall density	No	No
	5	San Clemente	Yes	yes	yes	200	36	40	Good distribution. Simmetry and good wall density. Good distribution of windows and doors	No	No
	6	Tupac Amaru Inca		yes	yes		36	35		No	No
	7	Paracas	Yes	yes	yes	120	32	35	Good distribution of spaces. Simmetry. It's being supervised by an engineer	No	No
	8	Pisco	Yes	yes	yes	100	66	50	Simmetry in floor plan.	No	No

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Apendix Table 6 General condition of reconstruction with confined masonry by district

(hand mixing of concrete)

Provincia	No.	Distrito	a) mezcla de concreto en volumen			b) mezcla de concreto en volumen			c) mezcla de mortero en volumen			d) mezcla de mortero en volumen		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on Novembery	Survey on November	Survey on April	Survey on November	Survey on November
			cemento : arena : grava	cemento : arena : grava	cemento : arena : grava	cemento : arena : grava : agua	cemento : arena : grava : agua	cemento : arena : grava : agua	cemento : arena	cemento : arena	cemento : arena	cemento : arena : agua	cemento : arena : agua	cemento : arena : agua
Chincha	1	Alto Laran	1 : 4 : 6	1:6:2	1:6:2	1 : 4 : 6 : 25lts	1:6:2:2	1:2:3:2	1 : 8	1 : 5	1 : 6	1 : 8 : 20lts	1:5:1	1 : 6 : 2
	2	Chavin	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	1 : 5 : 5	1:4:2	1:4:2	1 : 5 : 5 : 25lts	1:4:2:2	1:2:3:2	1 : 5	1 : 6	1 : 4	1 : 5 : 15lts	1:6:1	1 : 4 : 2
	4	Chincha Baja	1 : 2.5 : 2.5	1:10:6	1:6:3	1 : 2.5 : 2.5 : 18lts	1:10:6:3	1:3:3:2	1 : 3.5	1:4	1:5	1 : 3.5 : 8lts	1:4:2	1 : 5 :1
	5	El Carmen	1 : 4 : 4	1:6:3	1:6:3	1 : 4 : 4 : 20lts	1 : 3 : 3 : 1.3	1:3:3:2	1 : 8	1 : 6	1 : 9	1 : 8 : 15lts	1:6:2	1 : 9 : 2
	6	Grocio Prado	1 : 2.5 : 2.5	1:6:3	1:6:3	1 : 2.5 : 2.5 : 21lts	1:6:3:2	1:4:2:2	1 : 5	1 : 6	1 : 6	1 : 5 : 18lts	1:6:2	1 : 6 : 1
	7	Pueblo Nuevo	1 : 7 : 5	1:7:3	1:4:2	1 : 7 : 5 : 28lts	1:7:3:2	1:11:5:2	1 : 8	1:4	1 : 6	1 : 8 : 15lts	1:5:2	1 : 6 : 1
	8	San Juan de Yanac	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	1 : 6 : 4	1:6:3	1:4:2	1 : 6 : 4 : 25lts	1:6:3:2	1:6:2:2	1 : 8	1 : 6	1:5	1 : 8 : 13lts	1:6:2	1 : 4 : 2
	11	Tambo de Mora	1 : 4 : 6	1:6:3	1:4:2	1 : 4 : 6 : 25lts	1:6:3:2	1:4:3:2	2 : 8	1 : 6	1 : 6	1 : 8 : 17lts	1:6:2	1 : 6 : 2
ICA	1	Ica	1 : 2 : 3	1:3:3	1:3:2	1 : 2 : 3 : 2	1:3:3:3	1:3:2:2	1 : 4	1:4	1:4	1 : 4 : 2	1 : 4 : 2	1 : 4 : 2
	2	La Tinguina	1 : 1 : 1	1:3:2	1:3:3	1 : 1 : 1 : 1	1:3:2:2	1:3:3:2	1 : 2	1:4	1:3	1 : 2 : 2	1 : 4 : 2	1 : 3 : 3
	3	Los Aquijes	1 : 2 : 1	1:3:7	1:4:6	1 : 2 : 1 : 2	1:3:7:3	1:4:6:3	1 : 3	1:5	1:4	1 : 3 : 2	1 : 5 : 3	1 : 4 : 3
	4	Ocucaje	1 : 2 : 2	1:3:3	1:3:2	1 : 2 : 2 : 3	1:3:3:1	1:3:2:2	1 : 4	1:3	1:3	1 : 4 : 3	1 : 3 : 1	1 : 3 : 1
	5	Pachacutec	1 : 2 : 3	1:4:3	1:4:4	1 : 2 : 3 : 1.5	1:4:3:2	1:4:4:3	1 : 4	1:4	1:3	1 : 4 : 2	1 : 4 : 3	1 : 3 : 2
	6	Parcona	1 : 2 : 3	1:3:3	1:3:2	1 : 2 : 3 : 4	1:3:3:2	1:3:2:2	1 : 4	1:3	1:3	1 : 4 : 4	1 : 3 : 2	1 : 3 : 2
	7	Pueblo Nuevo	1 : 2 : 2	1:4:3	1:4:4	1 : 2 : 2 : 3	1:4:3:3	1:4:4:3	1 : 4	1:4	1:5	1 : 4 : 1	1 : 4 : 2	1 : 5 : 3
	8	Salas Guadalupe	1 : 3 : 4	1 : 2 : 4	1 : 2 : 4	1 : 3 : 4 : 0.60	1 : 2 : 4 : 1	1:2:4:1	1 : 5	1 : 4	1 : 4	1 : 5 : 0.30	1 : 4 : 1	1 : 4 : 1
	9	San Jose de Los Molinos	1 : 3 : 4	1 : 2 : 4	1 : 2 : 4	1 : 3 : 4 : 0.65	1 : 2 : 4 : 1	1:2:4:1	1 : 5	1 : 4	1 : 4	1 : 5 : 0.33	1 : 4 : 1	1 : 4 : 1
	10	San Juan Bautista	1 : 3 : 4	1 : 2 : 3	1 : 2 : 3	1 : 3 : 4 : 0.66	1 : 2 : 3 : 1	1:2:3:1	1 : 4	1 : 4	1 : 4	1 : 5 : 0.30	1 : 4 : 1	1 : 4 : 1
	11	Santiago	1 : 2 : 2	1:3:3	1:3:4	1 : 2 : 2 : 3	1:3:3:2	1:3:4:2	1 : 4	1:4	1:3	1 : 4 : 4	1 : 4 : 2	1 : 3 : 2
	12	Subtanjalla	1 : 2 : 2	1:2:3	1:2:3	1 : 2 : 2 : 3	1:2:3:2	1:2:3:2	1 : 4	1:3	1:4	1 : 4 : 3	1 : 3 : 2	1 : 4 : 2
	13	Tate	1 : 2 : 3	1:6:7	1:4:6	1 : 2 : 3 : 3	1:6:7:2	1:4:6:3	1 : 2.5	1:6	1:4	1 : 2.5 : 3	1 : 6 : 2	1 : 4 : 2
	14	Yauca del Rosario		no hay casas de albañileria en cosntruccion	no hay casas de albañ ileria en cosntruccion		no hay casas de albañ ileria en cosntruccion	no hay casas de albañileria en cosntruccion		no hay casas de albañileria en cosntruccion	no hay casas de albañ ileria en cosntruccion		no hay casas de albañ ileria en cosntruccion	no hay casas de albañileria en cosntruccion
PISCO	1	Huancano	1.5 : 5 : 6	1:2:3	1 : 2 : 4	1.5 : 5 : 6 : 0.8	1 : 2 : 3 : 1	1 : 2 : 4 : 1	1 : 3	1 : 4	1 : 4	1 : 3 : 0.30	1 : 4 : 1	1 : 4 : 1
	2	Humay	1 : 5 : 5	1 : 2 : 4	1 : 2 : 4	1 : 5 : 5 : 0.50	1 : 2 : 4 : 1	1 : 2 : 4 : 1	1 : 3	1 : 4	1 : 4	1 : 3 : 0.35	1 : 4 : 1	1 : 4 : 1
	3	Independencia	1 : 3 : 3	1:2:3	1 : 2 : 3	1 : 3 : 3 : 0.66	1 : 2 : 3 : 1	1 : 2 : 3 : 1	1 : 4	1 : 4	1 : 4	1 : 4 : 0.33	1 : 4 : 1	1 : 4 : 1
	4	San Andres	1 : 4 : 4	1:2:3	1 : 2 : 3	1 : 4 : 4 : 0.55	1 : 2 : 3 : 1	1 : 2 : 3 : 1	1 : 3	1 : 4	1 : 4	1 : 3 : 0.35	1 : 4 : 1	1 : 4 : 1
	5	San Clemente	1 : 3 : 4	1:2:3	1 : 2 : 3	1 : 3 : 4 : 0.60	1 : 2 : 3 : 1	1 : 2 : 3 : 1	1 : 2	1 : 4	1 : 4	1 : 2 : 0.35	1 : 4 : 1	1 : 4 : 1
	6	Tupac Amaru Inca	1.25 : 2 : 1.5	1 : 2 : 2	1 : 2 : 3	1.25 : 2 : 1.5 : 0.57	1 : 2 : 2 : 1	1 : 2 : 3 : 1	1 : 3	1 : 3	1 : 3	1 : 3 : 0.35	1 : 3 : 1	1 : 3 : 1
	7	Paracas	1 : 3.5 : 3	1 : 2 : 2	1 : 2 : 2	1 : 3.5 : 3 : 0.60	1 : 2 : 2 : 1	1 : 2 : 2 : 1	1 : 2	1 : 2	1 : 2	1 : 2 : 0.30	1 : 2 : 1	1 : 2 : 1
	8	Pisco	1 : 3 : 3	1 : 2 : 4	1 : 2 : 4	1 : 3 : 3 : 0.50	1 : 2 : 4 : 1	1 : 2 : 4 : 1	1 : 3	1 : 4	1 : 4	1 : 3 : 0.35	1 : 4 : 1	1 : 4 : 1

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 7 (1/2) General condition of reconstruction with confined masonry by district

Other aspects

Province	No.	District	a) Cutting and filling for foundation			b) Depth of foundation			c) width of foundation			d) Tamping the base of foundation			e) Joint between column and foundation			f) Joint between column and ring beam		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November
			(Cutting or Filling)	(Cutting or Filling	(Cutting or Filling	(cm)	(cm)	(cm)	(cm)	(cm)	(cm)	Tamped or Not tamped	amped or Not tampe	Tamped or Not tamped	(good and bad)	(good and bad)	(good and bad)	(good and bad)	(good and bad)	(good and bad)
Chincha	1	Alto Laran	Cutting	cutting	cutting	70	80	75	50	50	40	Tamped	not tamped	not tamped	Good	bad	bad	Good	bad	bad
	2	Chavin	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	Cutting	cutting	cutting	80	120	90	50	120	50	Tamped	tamped	tamped	Good	bad	bad	Good	bad	bad
	4	Chincha Baja	Cutting	cutting	cutting	120	80	80	90	60	60	Tamped	tamped	tamped	Bad	bad	bad	Bad	bad	bad
	5	El Carmen	Cutting	cutting	cutting	80	80	120	55	50	45	Tamped	tamped	tamped	Bad	bad	bad	Bad	bad	bad
	6	Grocio Prado	Cutting	cutting	cutting	80	150	0.80	45	120	0.50	Tamped	tamped	tamped	Good	bad	bad	Good	bad	bad
	7	Pueblo Nuevo	Cutting	cutting	cutting	100	90	70	40	50	50	Tamped	tamped	tamped	Good	bad	bad	Good	bad	bad
	8	San Juan de Yanac	Cutting	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	Cutting	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	Cutting	cutting	cutting	75	70	110	40	45	110	Tamped	tamped	tamped, 10 cm	Good	bad	regular	Good	bad	regular
	11	Tambo de Mora	Cutting	cutting	cutting	100	60	120, 80	50	40	60, 40	Tamped	tamped	tamped	Bad	bad	bad	Bad	bad	bad
ICA	1	Ica	Cutting	cutting	cutting	80	80	80	80	60	60	Tamped	tamped	solo en columnas	Good	good	good	In process	good	good
	2	La Tinguina	Cutting	cutting	cutting	90	80	80	70	50	40	Tamped	not tamped	no	Good	good	good	Good	good	good
	3	Los Aquijes	Cutting	cutting	cutting	90	80	85	50	60	50	Tamped	not tamped	si	Good	good	good	Good	good	good
	4	Ocucaje	Cutting	cutting	cutting	70	60	80	60	40	60	Not tamped	not tamped	solo en columnas	Good	good	good	Bad	good	good
	5	Pachacutec	Cutting	cutting	cutting	80	80	80	60	40	50	Tamped	not tamped	no	Good	good	good	Good	good	good
	6	Parcona	Cutting	cutting	cutting	80	80	60	60	60	40	Tamped	not tamped	no	Good	good	good	In process	good	good
	7	Pueblo Nuevo	Cutting	cutting	cutting	60	60	80	40	40	60	Not tamped	not tamped	no	Good	good	good	Good	good	no realizan
	8	Salas Guadalupe	Cutting	cutting	cutting	80	80	80	70	60	50	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	9	San Jose de Los Molinos	Cutting	cutting	cutting	80	70	80	70	60	50	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	10	San Juan Bautista	Cutting	cutting	cutting	120	80	80	60	40	60	Tamped	not tamped	not tamped	Good	bad	good	Good	bad	good
	11	Santiago	Cutting	cutting	cutting	70	80	80	50	60	50	Tamped	not tamped	no	Good	good	good	Good	good	good
	12	Subtanjalla	Cutting	cutting	cutting	80	80	80	60	60	40	Tamped	not tamped	no	Good	good	good	Good	good	good
	13	Tate	Cutting	cutting	cutting	110	80	80	80	60	60	Tamped	not tamped	no	Good	good	good	In process	good	good
	14	Yauca del Rosario																		
PISCO	1	Huancano	Cutting	cutting	cutting	100	120	80	40	50	60	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	2	Humay	Cutting	cutting	cutting	120	90	80	60	80	60	Tamped	not tamped	not tamped	Good	good	bad	Good	good	good
	3	Independencia	Cutting	cutting	cutting	100	80	80	60	60	60	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	4	San Andres	Cutting	cutting	cutting	120	160	90	40	50	50	Tamped	not tamped	not tamped	Good	bad	good	Good	bad	good
	5	San Clemente	Cutting	cutting	cutting	100	90	90	60	50	60	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	6	Tupac Amaru Inca	Cutting	cutting	cutting	120	90	80	60	50	60	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	7	Paracas	Cutting	cutting	cutting	70	80	80	40	40	50	Tamped	not tamped	not tamped	Good	good	good	Good	good	good
	8	Pisco	Cutting	cutting	cutting	100	120	100	40	80	60	Tamped	tamped	not tamped	Good	good	good	Good	good	good

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 7 (2/2) Condiciones generales de reconstruccion con albañileria confinada por Distrito

Otros aspectos

Province	No.	District	g) placing reinforcement			h) interval of hoop			i) bending degree of hoop			j) interval of stirrup			k) bending degree of stirrup			l) Header for opening			m) Joint between column and wall		n) Anchorage of corner			(o) Brace			(p) Protective concrete depth of RC		
			Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November	Survey on April	Survey on November	Survey on November
			(Appropriate or Inappropriate)	(Appropriate or Inappropriate)	(Appropriate or Inappropriate)	(cm)	(cm)	(cm)	(•)	(•)	(•)	(cm)	(cm)	(cm)	(•)	(•)	(•)	(Available or Not available)	(Available or Not available)	(Available or Not available)	(Type of joint)	(Type of joint)	(Type of joint)	(Appropriate or Inappropriate)	(Appropriate or Inappropriate)	(Appropriate or Inappropriate)	(Available or Not available)	(Available or Not available)	(Available or Not available)	(cm)	(cm)	(cm)
Chincha	1	Alto Laran	Appropiate	appropiate	appropiate	20	1@0.05, 4@0.10, r@0.20	1@0.5, 3@0.10, r@0.18	30	135°	135°	25	1@0.5, 4@0.10, r@0.20	1@0.5, 3@0.10, r@0.18	30	135°	135°		not available	not available		connection steel bars/inappropiate	connection steel bars/inappropiate	Appropiate	appropiate	inappropiate	Available	not available	not available	2.5	2.5	2.5
	2	Chavin	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.		n.d.	n.d.		n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	3	Chincha Alta	Inappropiate	inappropiate	inappropiate	40	6@0.10, 3@0.15, r@0.20	1@0.05, 3@0.10, 2@0.15, r@0.20	45	135°	135°	40	6@0.10, 3@0.15, r@0.20	1@0.05, 3@0.10, 2@0.15, r@0.20	45	135°	135°		not available	not available		connection steel bars/inappropiate	connection steel bars/inappropiate	Inappropiate	inappropiate	inappropiate	Not available	not available	not available	1.5 a 2.0	5	2
	4	Chincha Baja	Appropiate	appropiate		15	1@0.05, 6@0.10, r@0.20	1@0.05, 5@0.10, r@0.20	45	135°	135°	20	1@0.05, 6@0.10, r@0.20	1@0.05, 5@0.10, r@0.20	45	135°	135°		not available	not available		none	none	Appropiate	appropiate	inappropiate	Not available	not available	not available	1.5	2.5	2.5
	5	El Carmen	Inappropiate	appropiate	appropiate	20	4@0.05, 1@0.10, r@0.18	4@0.10, r@0.20	45	135°	135°	15	4@0.05, 1@0.10, r@0.18	4@0.10, r@0.20	45	135°	135°		not available	not available		none	geared/appropiate	Inappropiate	inappropiate	inappropiate	Not available	not available	not available	1.5	2.5	2
	6	Grocio Prado	Appropiate	inappropiate	inappropiate	25	2@0.05, 3@0.10, r@0.20	1@0.05, 2@0.10, 2@0.15, r@0.20	45	135°	135°	20	2@0.05, 3@0.10, r@0.20	1@0.05, 2@0.10, 2@0.15, r@0.20	45	135°	135°		not available	not available		none	none	Inappropiate	inappropiate	inappropiate	Not available	not available	not available	2.5	2.5	2.5
	7	Pueblo Nuevo	Appropiate	inappropiate	inappropiate	20	1@0.05, 4@0.10, r@0.20	3@0.05, 2@0.10, 2@0.15, r@0.20	45	135°	135°	20	1@0.05, 4@0.10, r@0.20	3@0.05, 2@0.10, 2@0.15, r@0.20	45	135°	135°		not available	not available		connection steel bars/geared/appropiate	connection steel bars/inappropiate	Appropiate	inappropiate	inappropiate	Available	not available	not available	2	2.5	2.5
	8	San Juan de Yanac	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.		n.d.	n.d.		n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	9	San Pedro de Huacarpana	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.		n.d.	n.d.		n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.	Don't use	n.d.	n.d.
	10	Sunampe	Appropiate	inappropiate	inappropiate	15	3@0.05, 3@0.10, 2@0.15, r@0.20	2@0.05, 3@0.10, 2@0.15, r@0.20	45	135°	135°	20	3@0.05, 3@0.10, 2@0.15, r@0.20	2@0.05, 3@0.10, 2@0.15, r@0.20	45	135°	135°		not available	not available		none	connection steel bars/inappropiate	Inappropiate	inappropiate	inappropiate	Available	not available	not available	2	2	2.5
	11	Tambo de Mora	Appropiate	appropiate	inappropiate	25	1@0.05, 3@0.10, r@0.20	estribos medida uniforme	45	135°	135°	20	1@0.05, 3@0.10, r@0.21	1@0.05, 5@0.10, r@0.20	45	135°	135°		not available	not available		connection steel bars/inappropiate	connection steel bars/inappropiate	Inappropiate	inappropiate	inappropiate	Available	not available	not available	2	2	2
ICA	1	Ica	Appropiate	appropiate	appropiate	10	1@0.05, 3@0.10, r@0.20	1@0.05, 5@0.10, r@0.20	90	135°	135°	In process	2@0.05, 4@0.10, r@0.20	2@0.05, 4@0.10, r@0.20	0	135°	135°		si	si		connection steel bars/inappropiate	geared/appropiate	Appropiate	appropiate	appropiate	Available	si	si	In process	3	2.5
	2	La Tinguina	Appropiate	appropiate	appropiate	10	1@0.05, 4@0.10, r@0.20	1@0.05, 4@0.10, r@0.20	90	no realizan	135°	10	no realizan	2@0.05, 4@0.10, r@0.20	90	no realizan	135°		no	no		geared/appropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Available	si	si	Don't use	2	2
	3	Los Aquijes	Appropiate	appropiate	appropiate	10	2@0.05, 4@0.10, r@0.20	1@0.05, 3@0.10, r@0.20	90	135°	135°	10	2@0.05, 4@0.10, r@0.20	2@0.05, 4@0.10, r@0.20	90	135°	135°		no	no		connection steel bars/inappropiate	none	Appropiate	appropiate	appropiate	Available	si	si	In process	2	2
	4	Ocucaje	Inappropiate	appropiate	appropiate	15	1@0.05, 4@0.10, r@0.25	1@0.05, 3@0.10, r@0.20	90	135°	135°	15	2@0.05, 4@0.10, r@0.25	2@0.05, 4@0.10, r@0.20	90	135°	135°		no	no		none	none	Inappropiate	inappropiate	inappropiate	Not available	no	no	2	2	2
	5	Pachacutec	Appropiate	appropiate	appropiate	15	1@0.05, 3@0.10, r@0.20	2@0.05, 4@0.10, r@0.20	90	no realizan	135°	In process	no realizan	no realizan	0	no realizan	no realizan		no	no		none	geared/appropiate	Appropiate	inappropiate	appropiate	Available	no	si	Don't use	3	3
	6	Parcona	Appropiate	appropiate	appropiate	10	1@0.05, 4@0.10, r@0.20	2@0.05, 4@0.10, r@0.20	90	no realizan	135°	In process	no realizan	2@0.05, 4@0.10, r@0.20	0	no realizan	135°		no	no		connection steel bars/inappropiate	geared/appropiate	Appropiate	appropiate	appropiate	Available	si	si	In process	2	2
	7	Pueblo Nuevo	Appropiate	appropiate	appropiate	5	1@0.05, 3@0.10, r@0.20	1@0.05, 5@0.10, r@0.20	90	135°	135°	In process	2@0.05, 4@0.10, r@0.20	no realizan	0	45	no realizan		si	no		none	geared/inappropiate	Appropiate	inappropiate	appropiate	Available	no	si		2	2
	8	Salas Guadalupe	Appropiate	Inappropiate	Inappropiate	10	Todo a 10	2@5,2@15,R@25	90	0	135°	10	Todo a 10	2@5,2@15,R@25	90	0	135°		not available	Disponoble		none	none	Inappropiate	Inappropiate	Inappropiate	Not available	not available	not available	1.5	1.5	1.5
	9	San Jose de Los Molinos	Appropiate	appropiate	appropiate	15	2@5,2@10,R@20	2@5,2@10,R@20	135	135°	135°	15	2@5,2@10,R@20	2@,2@10,R@20	135	135°	135°		available	available		geared/appropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Not available	available	available	1.5	1.5	1.5
	10	San Juan Bautista	Appropiate	appropiate	appropiate	10	2@5,1@10,R@20	2@5,1@10,R@20	135	135°	0	10	2@5,1@10,R@20	2@5,1@10,R@20	135	135°	0		not available	Disponoble		geared/appropiate	geared/appropiate	Appropiate	appropiate	appropiate	Not available	not available	not available	1.5	2	2
	11	Santiago	Appropiate	appropiate	appropiate	10	1@0.05, 3@0.10, r@0.20	2@0.05, 4@0.10, r@0.20	90	135°	135°	10	2@5,2@10,R@20	no realizan	90	135°	no realizan		si	no		connection steel bars/inappropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Available	si	si	Don't use	2	2
	12	Subtanjalla	Appropiate	appropiate	appropiate	10	2@0.05, 4@0.10, r@0.20	1@0.05, 4@0.10, r@0.25	90	135°	135°	10	2@5,2@10,R@20	no realizan	90	135°	no realizan		no	no		connection steel bars/inappropiate	geared/appropiate	Appropiate	appropiate	appropiate	Available	si	si	0	2	2
	13	Tate	Appropiate	appropiate	appropiate	15	1@0.05, 5@0.10, r@0.20	1@0.05, 3@0.10, r@0.20	90	135°	135°	In process	2@5,2@10,R@20	2@0.05, 4@0.10, r@0.20	0	135°	135°		si	no		connection steel bars/inappropiate	none	Appropiate	appropiate	appropiate	Available	si	no	In process	4	3
	14	Yauca del Rosario		no se pudo apreciar																												
PISCO	1	Huancano	Appropiate	appropiate	appropiate	10	1@5,5@10,R@20	2@5,3@10,R@20	135	135°	60	10	1@5,5@10,R@20	2@,3@10,R@20	135	135°	60		not available	not available		geared/appropiate	geared/appropiate	Inappropiate	appropiate	appropiate	Not available	not available	available	2	1.5	1.5
	2	Humay	Appropiate	appropiate	Inappropiate	10	2@5,1@10,R@20	3@5, R@20	135	135°	135°	10	2@5,1@10,R@20	3@5, R@20	135	135°	135°		available	not available		geared/appropiate	none	Appropiate	appropiate	Inappropiate	Not available	available	available	1.5	2.5	2
	3	Independencia	Appropiate	appropiate	appropiate	10	1@5,3@10,R@20	1@5,3@10,R@20	135	135°	135°	10	1@5,3@10,R@20	1@5,3@10,R@20	135	135°	135°		available	available		none	connection steel bars/inappropiate	Inappropiate	Inappropiate	appropiate	Not available	available	available	1.5	2	2
	4	San Andres	Appropiate	appropiate	appropiate	10	Todo a 20	1@5,2@10,R@20	135	135°	135°	10	Todo a 20	1@5,2@10,R@20	135	135°	135°		available	not available		geared/appropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Not available	available	not available	2	2	2
	5	San Clemente	Appropiate	appropiate	appropiate	10	1@5,2@15,R@20	2@5,2@10,R@20	135	0	135°	10	1@5,2@15,R@20	2@5,2@10,R@20	135	0	135°		not available	not available		connection steel bars/inappropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Not available	not available	not available	1.5	2	2
	6	Tupac Amaru Inca	Appropiate	appropiate	appropiate	10	1@5,2@10,R@20	1@5,2@10,R@20	135	135°	135°	10	1@5,2@10,R@20	1@5,2@10,R@20	135	135°	135°		available	available		geared/appropiate	geared/appropiate	Appropiate	appropiate	appropiate	Not available	not available	not available	2	1.5	2
	7	Paracas	Appropiate	appropiate	appropiate	10	Todo a 15	Todo a 15	135	135°	135°	10	Todo a 15	Todo a 15	135	135°	135°		not available	not available		geared/appropiate	connection steel bars/inappropiate	Appropiate	appropiate	appropiate	Not available	not available	not available	2	2	2
	8	Pisco	Appropiate	appropiate	appropiate	10	2@10,R@20	1@5,2@10,R@20	135	135°	135°	10	2@10,R@20	1@5,2@10,R@20	135	135°	135°		available	available		none	geared/appropiate	Appropiate	Inappropiate	Inappropiate	Not available	not available	not available	1.5	1.5	2

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Appendix Table 8 critical points of confined masonry house by District

Province	No.	District	a) Comments on the critical points as seismic resistance		
			Survey on April	Survey on November	Survey on November
Chincha	1	Alto Laran	Improvement of structural issues. Lack of knowledge and aplication of the Code. In the same way, there are too many houses that don't have structural design.	the hoops are placed since the bottom of the foundation, the columns are filled since the bottom of the foundation with 4 steel bars of 1/2".	the hoops are placed since the bottom of the foundation, the columns are filled since the bottom of the foundation with 4 steel bars of 1/2".
	2	Chavin	Don't use this structural system.	n.d.	n.d.
	3	Chincha Alta	Majority of houses have inadequate confinement. In many cases the concrete is not hidrated that's because it don't get the requiered resistance.	the hoops are placed since the bottom of the foundation or middle of tie beam. The horizontal reinforcement in the joint column-wall is not bended on corners.	The horizontal reinforcement in the joint column-wall is not bended on corners.
	4	Chincha Baja	There are not an adequate building process. Lack of vertical and horizontals reinforcement elements. Shear failure of walls.	The joint between wall and column is inadequate (no geared, no steel bars). The quantity of steel bars in columns is not enough. Walls are less than 1.20m without confinement in frontage. Inadequate aggregate for foundation	The quantity of steel bars in columns is not enough. Walls are less than 1.20m without confinement in frontage. Tie beam without reinforcements
	5	El Carmen	Bad vibration in filling of columns and beams. The 90% of RC buildings are not properly hidrated and the reinforcemet steel bars are not properly protected having corrosion on it.	Tie beam without reinforcement with soils with clay. Drawings are not availables. Inappropiate placing of hoops. Bad connection wall-column	Excesive steel bars in columns. Tie beam without reinforcement with soils with clay. Adecuate joint between wall and column geared
	6	Grocio Prado	Bad conection between foundation and wall. Lack of vertical and horizontal reinforcement. In a seismic event because of the lack of rigid diaphragm each wall will vibrate independently. The vibration out of the plane of orthogonal walls generate a concentration of stress in traction in upper zones of the corners in the walls generating a vertical crack from the up to the low zone of the wall.	Excesive steel bars in columns. Bad connection in wall-columns. Bad distribution of hoops.	Confined masonry house with footings (innecesary structural element). Excesive quantity of steel bars in columns. Bad connection in wall-columns.
	7	Pueblo Nuevo	There are housing that doesn't have adequate structural reinforcements. Poor concrete mixings because of the lack of knowledge in seismic resistant buildings. Dont use minimun steel area in RC sections.	the hoops are placed since the bottom of the foundation or middle of tie beam. The horizontal reinforcement in the joint column-wall is not bended on corners.	The horizontal reinforcement in the joint column-wall is not bended on corners.
	8	San Juan de Yanac	Don't use this structural system.	n.d.	n.d.
	9	San Pedro de Huacarpana	Don't use this structural system.	n.d.	n.d.
	10	Sunampe	Lack of knowledge in seismic resistant design of public officials. Theres no supervision on self-constructions.	4 steel bars of 3/8" are used in columns. Horizontal steel bars are not bended.	4 steel bars of 1/2" in columns, 6 steel bars of 1/2" in ring beams. Horizontal steel bars of conection without bending.
	11	Tambo de Mora	It's a land with hight presence of salts. Bad buiding processes. Houses without special foundations despite of its bad soil condition.	Clay soils with posibility of liquefaction. Drawings are not availables. Inadequate aggregate for foundation. Bad placing of stirrups in hoops. Inadequate aggregate for foundation. Tie beam without reinforcement	Bad soil. Liquefaction. Inadequate aggregate for foundation. Bad placing of stirrups in hoops. Tie beam without reinforcement. High vulnerability of housing
ICA	1	Ica	Construction with building permit. Continue thecnical support. Three story housing project.	The owners said that there is not enough supervision by municipality and also it's difficult to gel the building permit	
	2	La Tinguina	Without thecnical support. Two story housing project. Use of RC beams to confinement.	the interviewed people said that they use water until get proper mixing.	
	3	Los Aquijes	Without thecnical support. Three story housing project. No drawings.	The owners dont protect the steel bars of columns, and these oxidize.	
	4	Ocucaje	Without thecnical support. No drawings availables. Excesive distance between walls.	Because of the distance, the cost of the materials are increased for the transportation.	
	5	Pachacutec	Without thecnical support. Three story housing project. No drawings.	The steel bars for joint wall and column are not long enoug. Bad placing of hoops.	
	6	Parcona	Partial thecnical support. Project in process of building permit.	The mortar between bricks are irregulars	
	7	Pueblo Nuevo	Without thecnical support. No drawings available. Manual mixing of concrete.	The municipality officer show lack of interest in the visit to the site .	
	8	Salas Guadalupe	Low density of walls is a strong point, besides of this, the lack of reinforcement in corners.	disponibility of drawings but these are not folllowed by constructors.	disponibility of drawings but these are not folllowed by constructors.
	9	San Jose de Los Molinos	Good wall density of walls. Simmetry. Problem with too long windows and door in front of the house. Bad quality of materials. Presence of oxidation.	Adequate disponibility of materials and good quality. Good constructive process.	Disponibility of materials and good quality. Good constructive process.
	10	San Juan Bautista	Long windows and doors are principal points of vulnerability of the house.	The constructions are stopped for the lack of money. The remain materials are not protected and are perishing.	The constructions are stopped for the lack of money. The remain materials are not protected and are perishing.
	11	Santiago	Thecnical support. Structural design for two stories.	The bricks are artesanals and bad quality with deformations.	
	12	Subtanjalla	Estándar model aprobed by municipality.	The cost of materials are increased by transportation. Bad constructive process .	
	13	Tate	Thecnical support enough.	The owners dont protect the steel bars of columns, and these oxidize.	
	14	Yauca del Rosario	No reconstructing in adobe nor confined masonry.	District has 22 villages very far away among them, 99% of housing are of adobe, no data of confined masonry houses . Many people moved to Ica city.	
PISCO	1	Huancano	Bad quality of steel reinforcement bars used in beams, foundation and columns. Bad quality of bricks. Lack of reinforcement of column and wall with steel reinforcement bars.	There are no agregate quarry near. The cost of materials are increased by transportation. Lack of water.	There are no agregate quarries. Cost of materials araised by transportation. Lack of water.
	2	Humay	Anchorage with reinforcement bars are each 7 layers of bricks.	Constructions without supervision nor drawings. However, the contruction process is adequate.	Constructions without supervision nor drawings. However, the contruction process is adequate.
	3	Independencia	Union between column and wall have steel bar of 1/4" each 6 layers. Good anchorages in corners.	Construction stopped. The BONO was not enough. However, the structure nor materials have no protection.	Difficulty to get good quality of bricks; the majority are artesanal and bad quality.
	4	San Andres	Simmetry in the floor plan. Inadecuate quality of materials.	No technical supervision. Excesive depth of foundation. Bad distribution of hoops.	Lack of technical supervision. The steel bar of conections are small. No header for opening.
	5	San Clemente	Bad quality of materials (bricks with presence of salts and oxidate steel bars).	Constructive process too slow. No technical supervision. Bad quality of bricks.	Constructions without supervision nor drawings. Conection wall-column inadequate.
	6	Tupac Amaru Inca	Large area (160m2) Good distribution, have set of plans and good distribtuion in floor plan.	Lack of drawings. No technical supervision. Constrution in charge of mason. Regular construction process.	The construction is stopped for lack of money. No protection of structures. Adequate constructive process.
	7	Paracas	Construction with supervising of an engineer. Special fundation with foots and beam connecting all the fundation.	Lack of materials. Materials cost high.	Lack of materials. Raising of cost of materials because of the transportation .
	8	Pisco	Bad quality of materials (bricks with presence of salts and oxidate steel bars) Simmetrical plan.	Bad constructive process. Bad connections of structural elements. No supervision. Bad soil.	Adecuate excavation for foundation. Bad conection between structures. Bad soil (contents of water).

Source) Study on Housing Reconstruction with Seismic-resistance Houses in the Republic of Peru, JICA Study Team

Questionnaire for the Pilot Project Evaluation (participated)

Place Date Interviewer
Name: Age: Sex: M/F Marital Stat: Occupation:
Condition of the House: Totally Damaged Partially Damaged (repairable)
House makeup: ___bedrooms Materials used for building Construction Date of Damaged house: / /
Constructed by: Materials used for repairing
Owner of the house: Owner of the land: Rent per month (S/)
Land registration date: / / Bono received date: / / Application to Techo Propio: Date: / /

1 Livelihoods

1 How many family/households lives in the house?
2 How many people live in the house? Male: Female:
3 Who has income in the family and what is it? (describe)
4 What is your family's monthly income before EQ? After EQ?
5.1 Do you and your family can eat enough compared before EQ?
5.2 If no, why you cannot eat enough? (less income/high price/food unavailable/etc)
6.1 How is your family's health and psychological condition after EQ? (same/worse)
6.2 If worse, what's wrong? (describe)
7 What do need the most now? (house/money/health care/work/etc)

2 Pilot Projects

8 Which Pilot Projects did you participate?
(1)Municipality Workshop (2)SENCICO training (3)JICA One day training (4)Theatre (5)Mobile kiosk)
9 Why did you participate in the Pilot Project? (Want to know about safe house/Want to know about constructing safer house
10 Want to know about earthquake/etc)
11 How did you know (1)～(5)activities? (fliers/poster/seeing project site/friends・family/invitation/media (describe))
12 What will be useful for rebuilding house the most in the activities? (Building permit/minimum requirements/land registration/etc)
13 If not useful, why? (too difficult to use/too technical to use/too little information to use/etc)
14 What did you do after the activity? (Shared info with family, friends/Asked municipality for more info/
15 Participated more projects(1)～(5)/Did nothing/rebuilt house/etc)

3 Rebuilding houses

16 When are you going to build your house? (within a month/in 3 months/in 6 months/in a year/etc)
17 If you cannot set the building date, why?
18 By what type of housing do you want to rebuild? (adobe/concrete/confined masonry/stones/etc
19 Are you going to make your house safer by the info given by activities of (1)～(5)?
20 If yes, what info of (1)～(5) are you going to use to rebuild safer house?
(Building permit/minimum requirements/land registration/etc)
21 What kind of facilities do you like to have the most in new house?
(Water/electricity/larger space/ventilated kitchen/more bedrooms/flush toilet/sewage/etc)
22 Who is going to build the house? (construction company/yourself and family/albanir/etc)
23 Who is going to design or designed your house? (construction company/albanir/myself/Proto Type/etc)
24 What material became expensive the most after EQ? (cement/stones/timber/steel rod/bricks/etc)
25 What do you the need the most to rebuild your house? (land/funds/materials/technical advice/etc)
26 What is the problem affecting you to reconstruct house the most?

4 Assistance and info

27 If you have started reconstruction, did you apply for the building permit at the municipality?
28 If yes, how was the process? (Smooth/slow than expected/cannot say/etc)
29 If no, why? (I don't know about it/It takes too long to have it/it's too expensive/I don't see a need for it/etc)
30 How long was it to have a building permit?
31 Did you use Proto Type drawing?
32 If yes, Proto Type Drawing why did you use it? (describe)
33 What kind of technical advice do you need for safer house?(masonry/construction/minimum requirements/etc)
34 What assistance do you need to rebuild your house? (Land registration/credit/building permit/etc)
35 Do you have enough information on the support program of rebuilding houses? (Techo Propio,etc)
36 If yes, where did you get the information? (Municipality Workshop/SENCICO training/One day training
(4)Theatre (5) Mobile kiosk(6) from friends or family attended one of them

5 Comments and Salient Findings

Questionnaire for the Pilot Project Evaluation (municipality staff)

Municipality Date: / / Interviewer

Name Title Section OJT Participated Date: / /

1Training

1.1 Was the activity useful?

1.2 If yes, which part of the contents was useful the most? (describe)

1.3 If no, why it was not useful? (describe)

1.4 What was the result after the OJT? (a)I know more about Building Permit (b)I can assist the people more on Building Permit (c) I can process more Building Permit than before (d) Same as before (e) etc (describe)

2 What was useful for you by having a JICA project staff the most in your office? (a) Increase in manpower (b) Increase in technical advise (c) Same (d) etc

3 Do you need more training?

4 If yes, on what subject?

5 What is needed to increase the capacity of your section? (a)training (b)more manpower (c)more funds (d)equipments (e) Nothing

6.1 For whom answered (a)Training, what subject is needed for training?

6.2 For whom answered (b)More manpower, what kind of manpower is needed?

6.3 For whom answered (c)More funds, why?

6.4 For whom answered (d) Equipments, what kind of equipments are needed?

2 Building Permit

7 Is there increase in building permit application after Oct 2008?

8 If yes, how many?

9 What is the reason for it?

10 What type of housing are applied the most?

11 How long the building permit will take to be granted?

12 Is it shorter or longer before OJT?

13 What is the reason for it?

14 What is the effect of Proto Type Drawing on application of the permit positive or negative?

15 What is the reason for it?

16 What is the reason for people to come to your office? (a) technical assistance (b) Building Permit related (c) don't come (d)etc

3. Rebuilding

17 By what type of housing people are rebuilding? (adobe/concrete/confined masonry/stones/etc

18 Are people building safer houses?

18 If yes, how?

19 Who is going to build the house? (construction company/people and family/etc)

20 Who designed their house? (construction company/albanir/people themselves/Proto Type/etc)

21 By how much is the price of materials is getting expensive after EQ?

4 Assistance and info

22 What is the problem affecting the people to reconstruct houses the most?

23 What can be done to increase the people to reconstruct houses the most?

24 What can be done to increase the reconstruction of houses the most by your section? (a) speed up the process (b) technical advice (c) nothing (d) etc

25 What do you know about etc studies done in your District? (INDECI/UNICA/CISMID/UNDP/etc)

26 Are you using those outputs?

27 If yes, why?

28 If no, why?

5 Comments and Salient Findings

Questionnaire for the Pilot Project Evaluation (Non-participated)

Place Date Interviewer

Name: Age: Sex: M Marital Stat: Occupation:

Condition of the House: Totally Damaged Partially Damaged (repairable)

House makeup: ___bedrooms Materials used for building Construction Date of Damaged house: / /

Constructed by: Materials used for repairing

Owner of the house: Owner of the land: Rent per month (S/)

Land registration date: / / Bono received date: / / Application to Techo Propio: Date: / /

1 Livelihoods

1 How many family/households lives in the house?

2 How many people live in the house? Male: Female:

3 Who has income in the family and what is it? (describe)

4 What is your family's monthly income before EQ? After EQ?

5.1 Do you and your family can eat enough compared before EQ?

5.2 If no, why you cannot eat enough? (less income/high price/food unavailable/etc)

6.1 How is your family's health and psychological condition after EQ? (same/worse)

6.2 If worse, what's wrong? (describe)

7 What do you want to do to improve the current living condition? (describe)

2 Knowledge of Safer Houses

8 Do you want make your house safer to earthquake?

9 Do you know about "safer houses"?

10 If yes, how did you know? (TV/radio/newspaper/etc)

11 If no, you want to participate in a workshop/training for safer houses?

12 If no, why? (not interested/too busy/cannot afford/already made safer/etc)

3 Rebuilding houses

13 When are you going to build your house? (within a month/in 3 months/in 6 months/in a year/etc)

14 If you cannot set the building date, why?

15 By what type of housing do you want to rebuild? (adobe/concrete/confined masonry/stones/etc)

16 Are you going to make your house earthquake safer?

17 If yes, how?

18 What kind of facilities do you like to have the most in new house?
(Water/electricity/larger space/ventilated kitchen/more bedrooms/flush toilet/sewage/etc)

19 Who is going to build the house? (construction company/yourself and family/albanir/etc)

20 Who is going to design or designed your house? (construction company/albanir/myself/Proto Type/etc)

21 What material became expensive the most after EQ? (cement/stones/timber/steel rod/bricks/etc)

22 What do you the need the most to rebuild your house? (land/funds/materials/technical advice/etc)

23 What is the problem affecting you to reconstruct house the most?

4 Assistance and info

24 Do you konw about the Building Permit?

25 If yes, how was the process of the building permit at the municipality?
(Smooth/slow than expected/same/cannot say/etc)

26 How long the building permit took to be granted?

27 What kind of advice do you need to build safer house?(construction/minimum requirements/building permit/etc)

28 What assistance do you need to rebuild your house? (Land registration/funds/building permit/technical advice/etc)

29 What kind of information do you need to rebuild your house?(land registration/funds/materials/technical advice/etc)

5 Comments and Salient Findings

Appendix 11: Questionnaire for Municipality Officers

Date: / / Interviewer
Title Section OJT Participated Date: / /
Was the activity useful? If yes, which part of the contents was useful the most? (describe) If no, why it was not useful? (describe) What was the result after the OJT? (a)I know more about Building Permit (b)I can assist the people more on Building Permit (c) I can process more Building Permit than before (d) Same as before (e) etc (describe) What was useful for you by having a JICA project staff the most in your office? (a) Increase in manpower (b) Increase in technical advise (c) Same (d) etc Do you need more training? If yes, on what subject? What is needed to increase the capacity of your section? (a)training (b)more manpower (c)more funds (d)equipments (e) Nothing For whom answered (a)Training, what subject is needed for training? For whom answered (b)More manpower, what kind of manpower is needed? For whom answered (c)More funds, why? For whom answered (d) Equipments, what kind of equipments are needed?
Is there increase in building permit application after Oct 2008? If yes, how many? What is the reason for it? What type of housing are applied the most? How long the building permit will take to be granted? Is it shorter or longer before OJT? What is the reason for it? What is the effect of Proto Type Drawing on application of the permit positive or negative? What is the reason for it? What is the reason for people to come to your office? (a) technical assistance (b) Building Permit related (c) don't come (d)etc
By what type of housing people are rebuilding? (adobe/concrete/confined masonry/stones/etc Are people building safer houses? If yes, how? Who is going to build the house? (construction company/people and family/etc) Who designed their house? (construction company/albanir/people themselves/Proto Type/etc) By how much is the price of materials is getting expensive after EQ?
What is the problem affecting the people to reconstruct houses the most? What can be done to increase the people to reconstruct houses the most? What can be done to increase the reconstruction of houses the most by your section? (a) speed up the process (b) technical advice (c) nothing (d) etc What do you know about etc studies done in your District? (INDECI/UNICA/CISMID/UNDP/etc) Are you using those outputs? If yes, why? If no, why?

Appendix 12: Questionnaire for *Albaniles*

1. Please give your age. _____ and how many years do you have experience as *Albanil*? _____

2. Do you have a certificate of *Albanil* issued by SENCICO? _____
   What types of construction skills did you learn in SENCICO?
   _____

3. What type of building construction are you now working, i.e., individual housing, apartment housing, public building or others? _____
   Give the location of construction site where you are now working: name of district of the construction site _____
   Who is the client, i.e., individual house owner, construction company or others?
   _____
   How long is your present contract, for example 10 days, one month, or 2-3 months?
   _____

4. What type of material used for the building construction that you are now working: (a) Reinforced Concrete, (b) Confined Masonry, (c) Masonry without Concrete Frame, (d) Adobe, (e) Quincha or (f) Others?
   _____

5. Do you have a request or job of individual housing construction from earthquake victims? _____
   If you are working on individual housing construction for earthquake victims, is it funded by BONO 6000, Techo Propio, combined both of them, or other loans?
   _____

6. Are there any differences in your job as *Albanil* before and after the August 15, 2007 earthquake, i.e., quantity and quality of building construction?
   _____

7. What is the most important skill needed for *Albanil* ? _____

Thank you!

Appendix13: Tables and Figures of Questionnaire for Participants

Table 01: General Results (Participants)

Place	Frequency	Percent
La Tinguina	17	12.59
Pueblo Nuevo	98	72.59
Independencia	20	14.81
Total	135	100

Source: JICA Study Team survey, November 2008

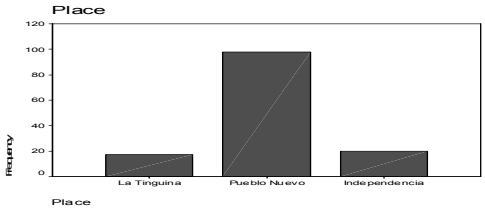


Table 02: General Results (Participants)

Age Range	Frequency	Percent
18 - 20 years	26	19.26
21 - 30 years	23	17.04
31 - 40 years	28	20.74
41 - 50 years	22	16.30
51 - 60 years	17	12.59
61 - 70 years	8	5.93
More than 71 years	2	1.48
Not answered	9	6.67
Total	135	100

Source: JICA Study Team survey, November 2008

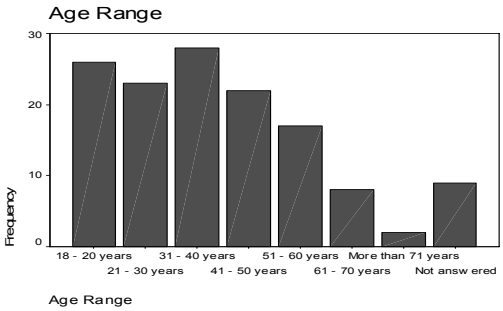


Table 03: General Results (Participants)

Sex	Frequency	Percent
Male	45	33.33
Female	90	66.67
Total	135	100.00

Source: JICA Study Team survey, November 2008

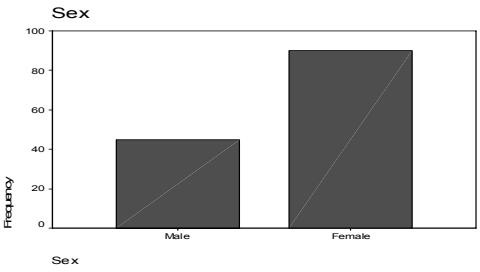


Table 04 : General Results (Participants)

Marital Status	Frequency	Percent
Single	42	31.11
Married	58	42.96
Live-in partner	24	17.78
Widow	6	4.44
Not answered	5	3.70
Total	135	100.00

Source: JICA Study Team survey, November 2008

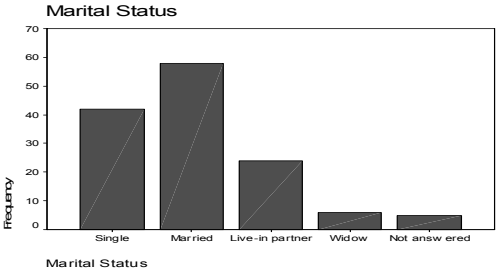


Table 05: General Results (Participants)

Ocupation	Frequency	Percent
Housewife	59	43.70
Worker but not job fix	10	7.41
Worker with a job fix	12	8.89
Farmer	5	3.70
Student	25	18.52
Others	10	7.41
Pensioner	1	0.74
Retailer	6	4.44
Employee	5	3.70
Not answered	2	1.48
Total	135	100

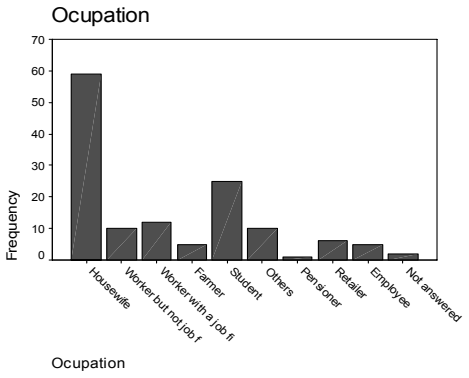


Table 06: General Results (Participants)

Condition of the House	Frequency	Percent
Destroyed	72	53.33
Inhabitable	28	20.74
Afectted	32	23.70
Not affected	2	1.48
Not answered	1	0.74
Total	135	100

Source: JICA Study Team survey, November 2008

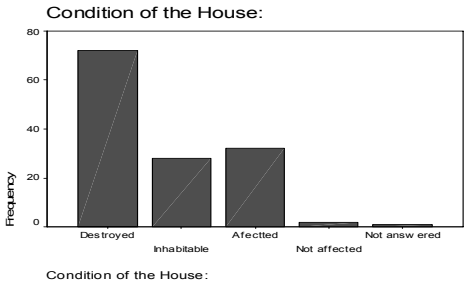


Table 07: General Results (Participants)

Room in House	Frequency	Percent
1-2 rooms	25	18.52
3-4 rooms	58	42.96
5-6 rooms	34	25.19
More than 7 rooms	18	13.33
Total	135	100

Source: JICA Study Team survey, November 2008

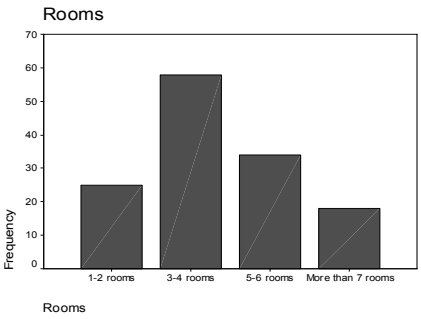


Table 08: General Results (Participants)

Materials used for building	Frequency	Percent
Adobe	102	75.56
Cement	8	5.93
Adobe and cement or bricks	17	12.59
Others	3	2.22
Not answered	5	3.70
Total	135	100

Source: JICA Study Team survey, November 2008

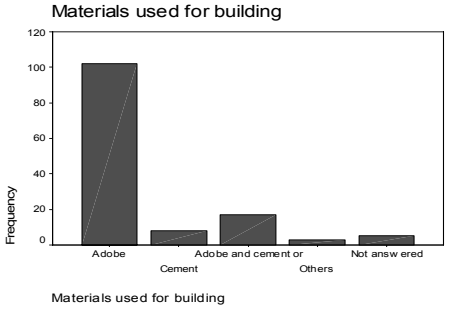


Table 09: General Results (Participants)

Construction date	Frequency	Percent
Don´t remember/ Don´t know	42	31.11
1-15 years	24	17.78
16-30 years	38	28.15
31-45 years	22	16.30
46-60 years	5	3.70
More than 61 years	1	0.74
Total	132	97.78
System	3	2.22
	135	100

Source: JICA Study Team survey, November 2008

Table 10: General Results (Participants)

Constructed by:	Frequency	Percent
Albañil	90	66.6666667
Parents	4	2.96296296
Others	4	2.96296296
I don't remember/I don´t know	37	27.4074074
Total	135	100

Source: JICA Study Team survey, November 2008

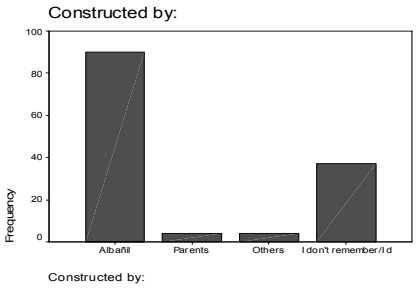


Table 11: General Results (Participants)

Materials used for repairing	Frequency	Percent
Not yet	77	57.04
Adobe with cement	5	3.70
Bricks and cement	40	29.63
Adobe	2	1.48
NA - Tenat	11	8.15
Total	135	100.00

Source: JICA Study Team survey, November 2008

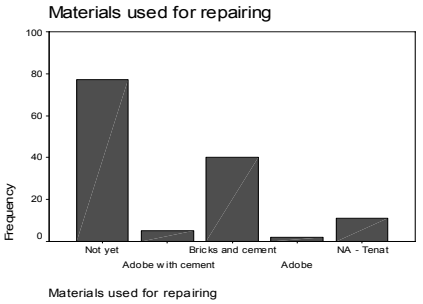


Table 12: General Results (Participants)

Owner of the house	Frequency	Percent
Yes	67	49.6296296
No	68	50.3703704
Total	135	100

Source: JICA Study Team survey, November 2008

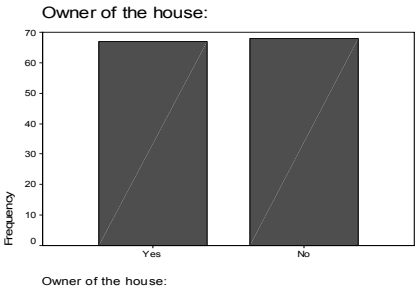


Table 13: General Results (Participants)

No, Who?	Frequency	Percent
A relative	23	17.04
Lessor	41	30.37
Nonapplicable	66	48.89
Not answered	5	3.70
Total	135	100.00

Source: JICA Study Team survey, November 2008

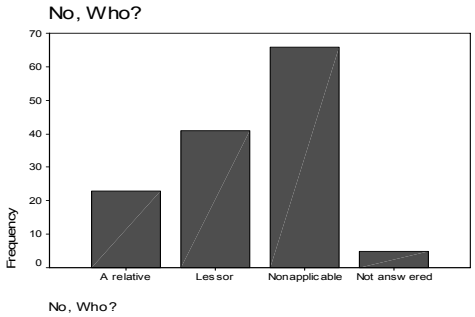


Table 14: General Results (Participants)

Owner of the Land	Frequency	Percent
Yes	66	48.89
No	69	51.11
Total	135	100.00

Source: JICA Study Team survey, November 2008

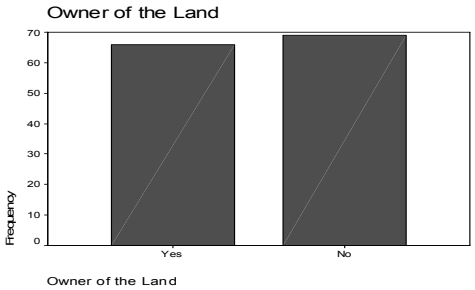


Table 15: General Results (Participants)

Who is the owner of the land?	Frequency	Percent
Lessor	40	29.63
A relative	25	18.52
Nonapplicable	66	48.89
Not answered	4	2.96
Total	135	100

Source: JICA Study Team survey, November 2008

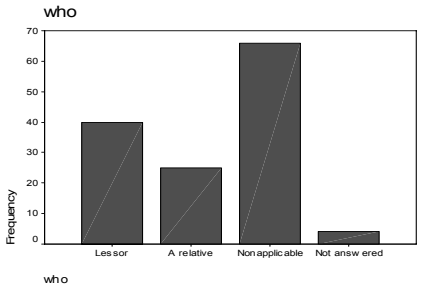


Table 16: General Results (Participants)

Rent	Frequency	Percent
Less than 250 nuevos soles	15	11.11
251-500 nuevos soles	37	27.41
501-750 nuevos soles	14	10.37
751-1000 nuevos soles	10	7.41
More than 1001 nuevos soles	6	4.44
No income	34	25.19
Not answered	19	14.07
Total	135	100.00

Source: JICA Study Team survey, November 2008

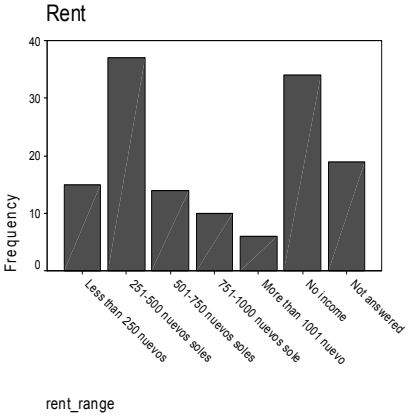


Table 17: General Results (Participants)

Land registration	Frequency	Percent
Yes	69	51.11
No	50	37.04
Not answered	16	11.85
Total	135	100

Source: JICA Study Team survey, November 2008

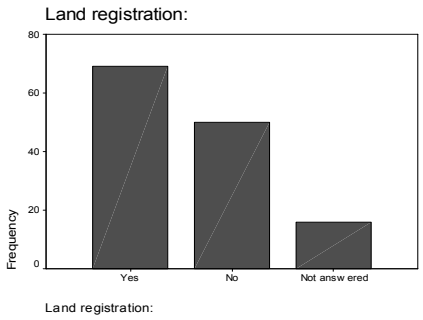


Table 18: General Results (Participants)

Receive Bono6000	Frequency	Percent
Yes	10	7.41
No	117	86.67
Not answered	8	5.93
Total	135	100

Source: JICA Study Team survey, November 2008

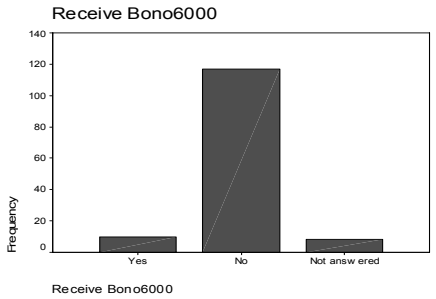


Table 19: General Results (Participants)

Application to Techo Propio	Frequency	Percent
Yes	6	4.44
No	121	89.63
Not answered	8	5.93
Total	135	100

Source: JICA Study Team survey, November 2008

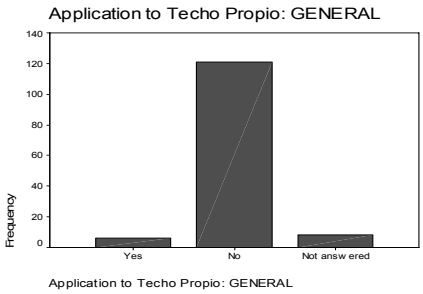


Table 20: Results of question N°1 (Participants)

Family range	Frequency	Percent
1-2 families	106	78.52
3-4 families	13	9.63
More than 5 families	3	2.22
Not answered	13	9.63
Total	135	100.00

Source: JICA Study Team survey, November 2008

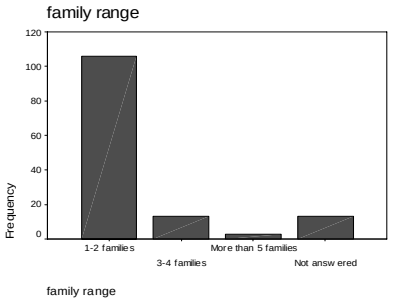


Table 21: Results of question N°2 (Participants)

N° of people	Frequency	Percent
1-3 people	24	17.78
4-6 people	73	54.07
7-9 people	24	17.78
More than 10 people	11	8.15
Not answered	3	2.22
Total	135	100.00

Source: JICA Study Team survey, November 2008

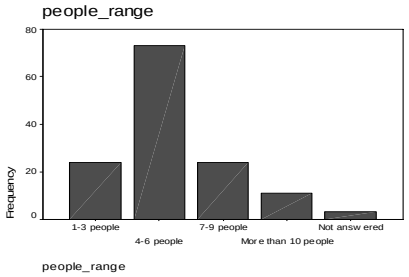


Table 22: Results of question N°2 (Participants)

Men	Frequency	Percent
1-2 men	60	44.44
3-4 men	52	38.52
More than 5 men	17	12.59
Not answered	3	2.22
No men	3	2.22
Total	135	100.00

Source: JICA Study Team survey, November 2008

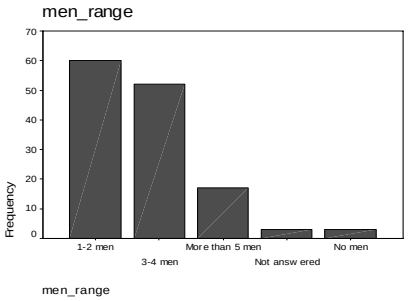


Table 23: Results of question N°2 (Participants)

Women	Frequency	Percent
1-2 women	56	41.48
3-4 women	61	45.19
More than 5 women	14	10.37
Not answered	3	2.22
No women	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

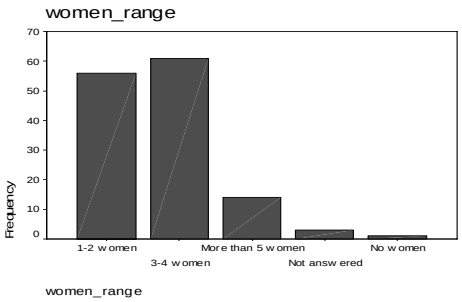


Table 24: Results of question N°4 (Participants)

Income before the EQ	Frequency	Percent
Less than 250 Nuevos Soles	8	5.93
251-500 Nuevos Soles	49	36.30
501-750 Nuevos Soles	21	15.56
751-1000 Nuevos Soles	13	9.63
More than 1001	11	8.15
Not answered	33	24.44
Total	135	100.00

Source: JICA Study Team survey, November 2008

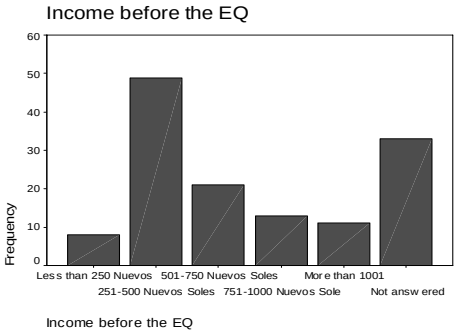


Table 25: Results of question N°4 (Participants)

Income after the EQ	Frequency	Percent
Less than 250 Nuevos Soles	10	7.41
251-500 Nuevos Soles	42	31.11
501-750 Nuevos Soles	22	16.30
751-1000 Nuevos Soles	15	11.11
More than 1001	9	6.67
Not answered	37	27.41
Total	135	100.00

Source: JICA Study Team survey, November 2008

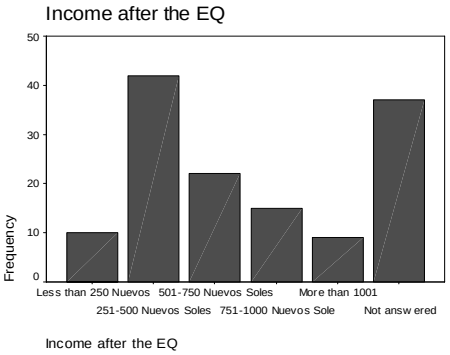


Table 26: Results of question N°5.1 (Participants)

In the present day, Is your income more, less or equal compared to the EQ?	Frequency	Percent
More	23	17.04
Equal	54	40.00
Less	21	15.56
Not answered	37	27.41
Total	135	100.00

Source: JICA Study Team survey, November 2008

Table 27: Results of question N°5.1 (Participants)

Do you and your family can eat enough compared before EQ?	Frequency	Percent
Yes	53	39.26
No	75	55.56
Not answered	7	5.19
Total	135	100.00

Source: JICA Study Team survey, November 2008

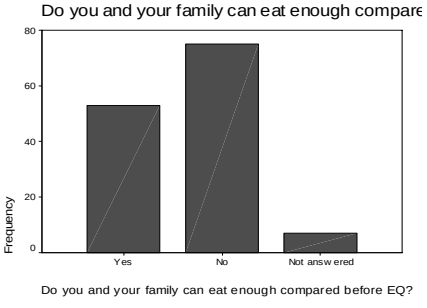


Table 28: Results of question N°5.2 (Participants)

If no, why you cannot eat enough?	Frequency	Percent
Less income	12	8.89
High price	65	48.15
Food unavailable	1	0.74
Others	2	1.48
Nonapplicable	53	39.26
Not answered	2	1.48
Total	135	100

Source: JICA Study Team survey, November 2008

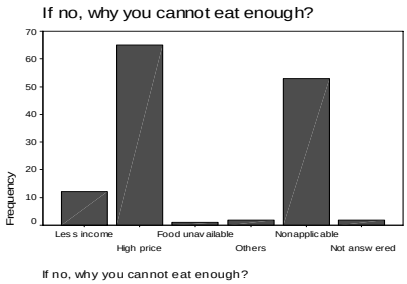


Table 29: Results of question N°6.1 (Participants)

How is your family's health condition after EQ? (same/worse)	Frequency	Percent
Same	121	89.63
Bad	11	8.15
Worse	2	1.48
Not answered	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

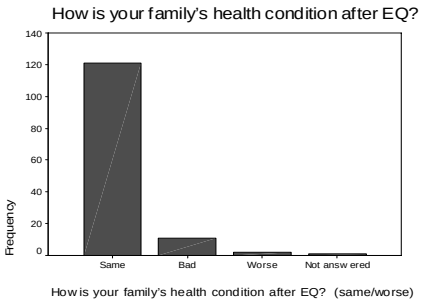


Table 30: Results of question N°6.1 (Participants)

How is your family's psychological condition after EQ? (same/worse)	Frequency	Percent
Same	89	65.93
Bad	34	25.19
Worse	11	8.15
Not answered	1	0.74
Total	135	100

Source: JICA Study Team survey, November 2008

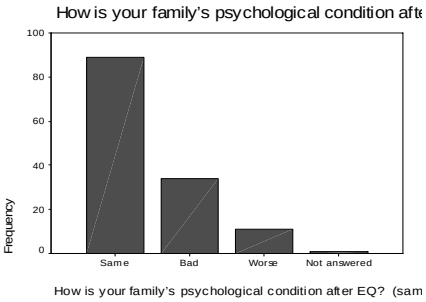


Table 31: Results of question N°6.2 (Participants)

If worse, what's wrong? (describe)	Frequency	Percent
Depression	2	1.48
Injured in the EQ	2	1.48
Nervous	43	31.85
Nonapplicable	88	65.19
Total	135	100

Source: JICA Study Team survey, November 2008

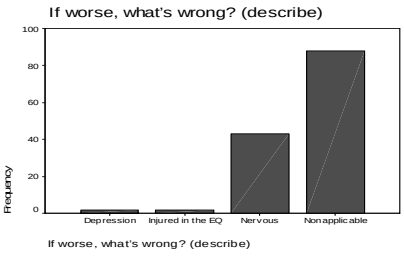


Table 32: Results of question N°7 (Participants)

What do you want to do to improve the current living condition? (describe)	Frequency	Percent
Have a better income	2	1.48
Have a bussines	1	0.74
Have a house	24	17.78
Have a job	15	11.11
Have a land	1	0.74
Land registration	1	0.74
Not answered	64	47.41
Nothing	2	1.48
Public services	4	2.96
Receive Bono 6000	2	1.48
Work stability	19	14.07
Total	135	100.00

Source: JICA Study Team survey, November 2008

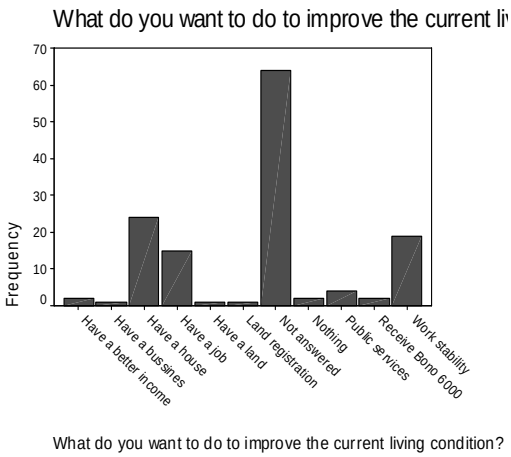


Table 33: Results of question N°9 (Participants)

	Project					Total
Why did you participate in the Pilot Project?	WWP	ODT	Kiosk	Theater	SENCICO	
Want to know about safe house	5	6	5	5	3	24
Want to know about constructing safer house	4	29	3	11	15	62
What is an earthquake	1		2			3
All the above		4				4
I was invited	13	1	8	4		26
Want to know about Goverments info			5			5
Not answered	2		7			9
Want to know about plans	2					2
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

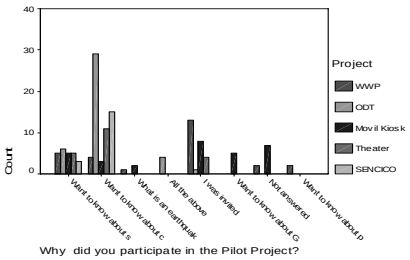


Table 34: Results of question N°11 (Participants)

	Project					Total
How did you know the projects?	WWP	ODT	Kiosk	Theater	SENCICO	
Poster			3		2	5
Seeing project site				2		2
Friends and family	3	5	2	4	1	15
Invitation	18	35	11	13		77
Media	2			1	15	18
I was passing by	3		7			10
Not answered	1		7			8
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

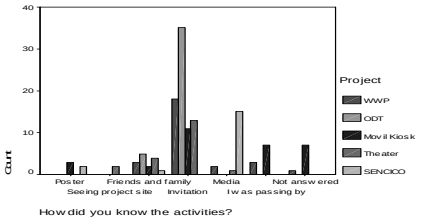


Table 35: Results of question N°11 (Participants)

	Project					Total
Throught wich the media	WWP	ODT	Kiosk	Theater	SENCICO	
Nonapplicable	27	40	30	19	3	119
Radio				1		1
TV Chanel 10					15	15
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

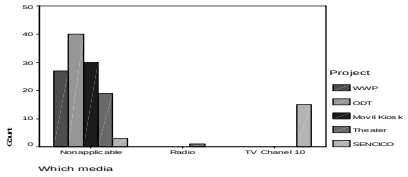


Table 36: Results of question N°14 (Participants)

	Project					Total
What did you do after the activity?	WWP	ODT	Kiosk	Theater	SENCICO	
Nothing	1	13	11	6	1	32
Shared info with family or friends	25	25	19	14	16	99
Asked municipality for more info	1	2			1	4
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

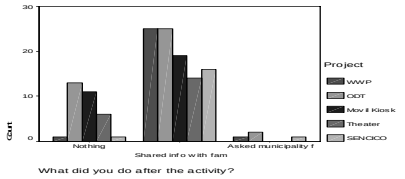


Table 37: Results of question N°15 (Participants)

	Project					Total
Participated more projects?	WWP	ODT	Kiosk	Theater	SENCICO	
Yes	3	6	4	13	10	36
No	5	33	23	4	2	67
Did nothing	19		3	3	6	31
Rebuilt my house		1				1
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

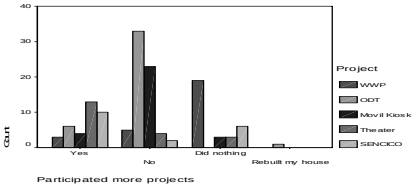


Table 38: Results of question N°15 (Participants)

	Project					Total
What projects?	WWP	ODT	Kiosk	Theater	SENCICO	
Municipality´s training			1		10	11
ADRA´s training	1		2	11		14
Movil kiosk	1			1		2
ADRA´s training and theater	1		1	1		3
Nonapplicable	15	34	23	4	8	84
Not answered	9	6	3	3		21
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

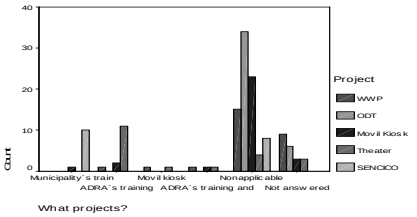


Table 39: Results of question N°12 (Participants)

	Project					Total
What will be useful for rebuilding house the most in the activities?	WWP	ODT	Kiosk	Theater	SENCICO	
Building permit	1	14		2		17
Minimum Requirements	17	15	15	16	18	81
Land Registration	2	4	7			13
All the above		3		1		4
Not answered	2	4	3	1		10
Techo Propio´s information	5		5			10
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

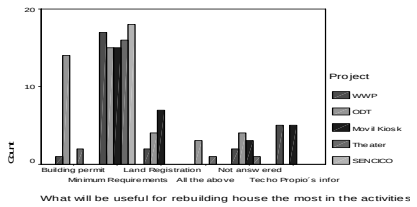


Table 40: Results of question N°13 (Participants)

	Project					Total
If not useful, why?	WWP	ODT	Kiosk	Theater	SENCICO	
Too difficult to use			1			1
Too technical to use		2	1		3	6
Too little information to use		1	2			3
Nonapplicable	22	28	13	17	15	95
Not answered	5	9	13	3		30
	27	40	30	20	18	135

Source: JICA Study Team survey, November 2008

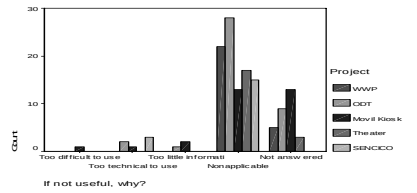


Table 41: Result of question N°16 (Participants)

When are you going to build your house?	Frequency	Percent
Within a month	5	3.70
In 3 months	2	1.48
In 6 months	8	5.93
In a year	12	8.89
More	95	70.37
Not answered	13	9.63
Total	135	100.00

Source: JICA Study Team survey, November 2008

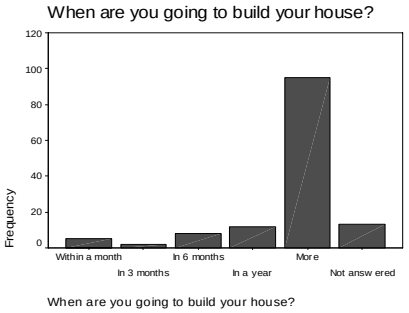


Table 42: Result of question N°17 (Participants)

If you cannot set the building date, why?	Frecuency	Percent
Expecting Bono6000	9	6.67
No money	82	60.74
Nonapplicable	25	18.52
Not answered	18	13.33
Waiting for building company to construct	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

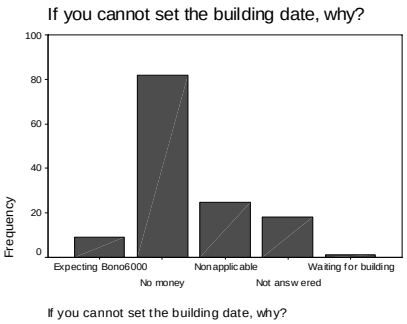


Table 43: Result of question N°18 (Participants)

By what type of housing do you want to rebuild?	Frequency	Percent
Adobe	4	2.96
Confined masonry	125	92.59
Not answered	6	4.44
Total	135	100.00

Source: JICA Study Team survey, November 2008

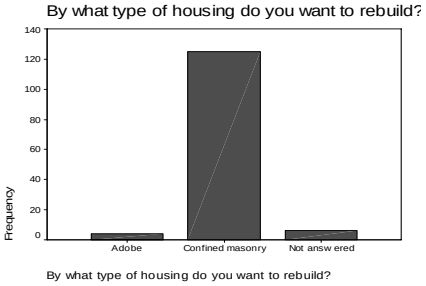


Table 44: Resul of question N°19 (Participants)

Are you going to make your house earthquake safer?	Frequency	Percent
Yes	117	86.67
No	8	5.93
Do not know	10	7.41
Total	135	100.00

Source: JICA Study Team survey, November 2008

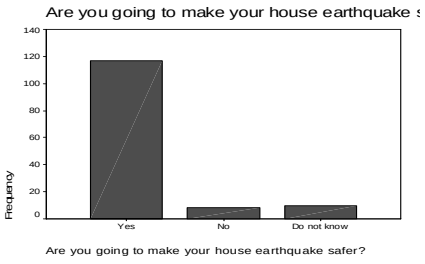


Table 45: Result of question N°20 (Participants)

If yes, how?	Frequency	Percent
Bricks, cement and steel var	11	8.15
Like I learnt in SENCICO´s training	2	1.48
Nonapplicable	18	13.33
Not answered	65	48.15
Using a plan	2	1.48
Using confined masonry	1	0.74
Using masonry	12	8.89
Using Minimun Requirements	23	17.04
With the bono 6000	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

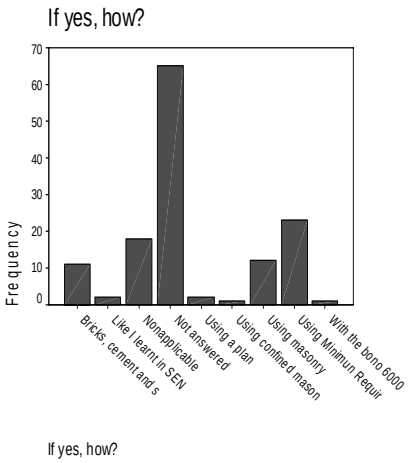


Table 46: Result of question N°19 (Participants)

		Project					Total
Are you going to make your house earthquake safer?		WWP	ODT	Kiosko	Theater	SENCICO	
Yes	Count	20	39	24	17	17	117
	% of Total	14.81	28.89	17.78	12.59	12.59	86.67
No	Count	3	1	2	1	1	8
	% of Total	2.22	0.74	1.48	0.74	0.74	5.93
Do not know	Count	4		4	2		10
	% of Total	2.96		2.96	1.48		7.41
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November

Table 47: Result of question N°20 (Participants)

		Project					Total
If yes, how?		WWP	ODT	Movil Kiosk	Theater	SENCICO	
Bricks, cement and steel var	Count	2		9			11
	% of Total	1.48		6.67			8.15
Like I learnt in SENCICO´s training	Count					2	2
	% of Total					1.48	1.48
Nonapplicable	Count	7	1	6	3	1	18
	% of Total	5.19	0.74	4.44	2.22	0.74	13.33
Not answered	Count	8	39	1	17		65
	% of Total	5.93	28.89	0.74	12.59		48.15
Using Minimun Requirements	Count	9				14	23
	% of Total	6.67				10.37	17.04
Using a plan	Count	1		1			2
	% of Total	0.74		0.74			1.48
Using confined masonry	Count					1	1
	% of Total					0.74	0.74
Using masonry	Count			12			12
	% of Total			8.89			8.89
With the bono 6000	Count			1			1
	% of Total			0.74			0.74
	Count	27	40	30	20	18	135
	% of Total	20.00	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

Table 48: Result of question N°21 (Participants)

What kind of facilities do you like to have the most in new house?	Frequency	Percent
Water	30	22.22
Electricity	6	4.44
Larger space	20	14.81
Ventilated kitchen	5	3.70
More bedrooms	27	20.00
Flush toilet	4	2.96
Sewage	6	4.44
All the above	23	17.04
Not answered	14	10.37
Total	135	100.00

Source: JICA Study Team survey, November 2008

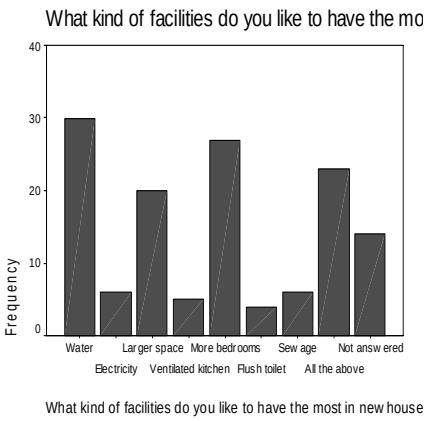


Table 49: Resul of question N°22 (Participants)

Who is going to build the house?	Frequency	Percent
Construction company	6	4.44
Yourself and family	18	13.33
Albañil	85	62.96
Engineer	15	11.11
Architect	2	1.48
Not answered	9	6.67
Total	135	100.00

Source: JICA Study Team survey, November 2008

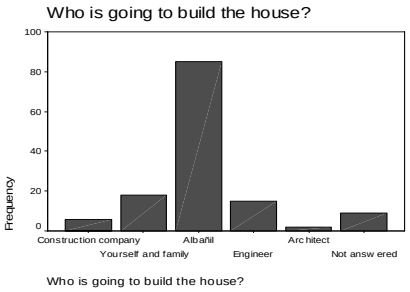


Table 50: Resul of question N°23 (Participants)

Who is going to design or designed your house?	Frequency	Percent
Construction company	6	4.4
Albañil	28	20.7
Myself	30	22.2
Prototype	27	20.0
Don´t know	5	3.7
Architect	4	3.0
Engineer	16	11.9
Not answered	16	11.9
Without plan	3	2.2
Total	135	100.00

Source: JICA Study Team survey, November 2008

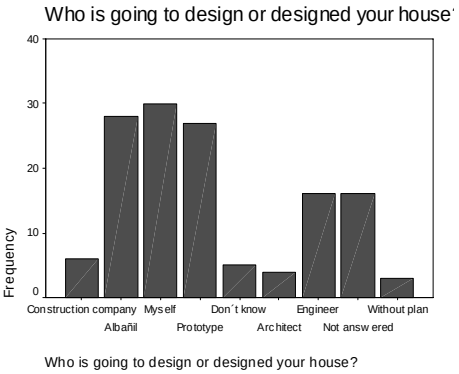


Table 51: Resul of question N°24 (Participants)

Materials more expensive	Frequency	Percent
Steel bar	35	25.93
Cement	1	0.74
Bricks	11	8.15
Bricks and steel	28	20.74
Cement and steel	2	1.48
All materials	52	38.52
Not answered	6	4.44
Total	135	100.00

Source: JICA Study Team survey, November 2008

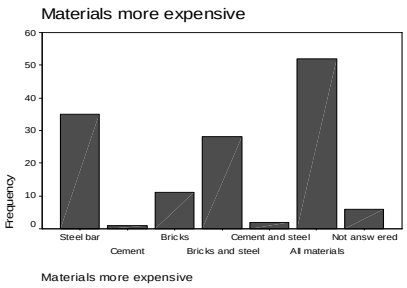


Table 52: Result of question N°25 (Participants)

What do you the need the most to rebuild your house?	Frequency	Percent
Others	2	1.48
Land	18	13.33
Funds	90	66.67
Materials	24	17.78
Technical advice	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

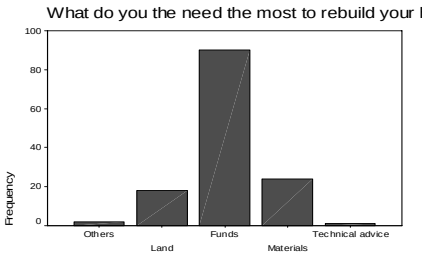


Table 53: Result of question N°27 (Participants)

Do you know about the Building Permit?	Frequency	Percent
Yes	72	53.33
No	54	40.00
Not answered	9	6.67
Total	135	100.00

Source: JICA Study Team survey, November 2008

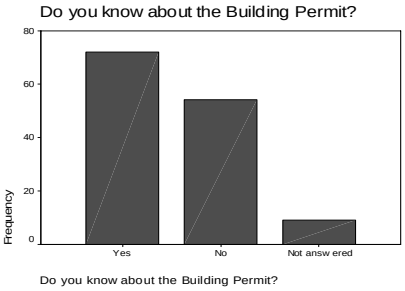


Table 54: Result of question N°28 (Participants)

If you have begun the construction process, have you requested a building permit?	Frequency	Percent
Yes	1	0.74
No	2	1.48
I haven´t start the construction process yet	131	97.04
Not answered	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

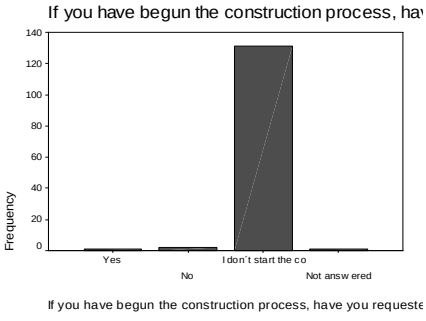


Table 55: Result of question N°29 (Participants)

If yes, how was the process of the building permit at the municipality?	Frequency	Percent
Cannot say	1	0.74
Nonapplicable	133	98.52
Not answered	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

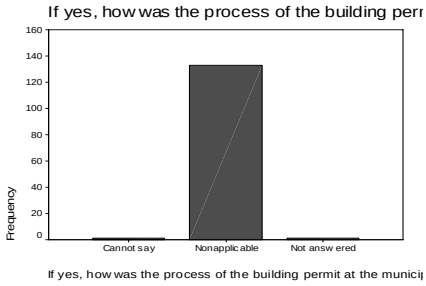


Table 56: Resul of question N°30 (Participants)

If no, why?	Frequency	Percent
I don´t know what is a construction permit	2	1.48
Nonapplicable	131	97.04
Did not what to apply for a building permit	2	1.48
Total	135	100.00

Source: JICA Study Team survey, November 2008

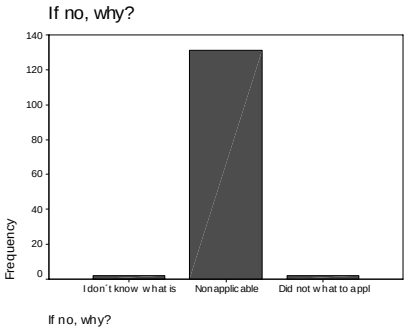


Table 57: Result of question N°31 (Participants)

Did you use Proto Type drawing?	Frequency	Percent
No	2	1.48
Nonapplicable	132	97.78
Not answered	1	0.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

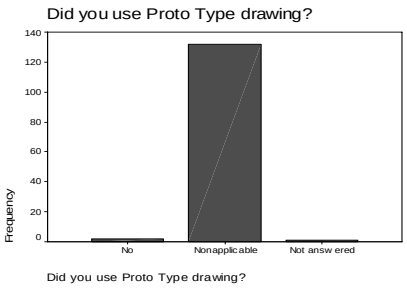


Table 58: Result of question N°33 (Participants)

What kind of advice do you need to build safer house?	Frequency	Percent
Construction Process	47	34.81
Minimum Requirements	29	21.48
Land title	3	2.22
Materials	2	1.48
Technical aid	7	5.19
Funds	10	7.41
Others	1	0.74
Not answered	36	26.67
Total	135	100.00

Source: JICA Study Team survey, November 2008

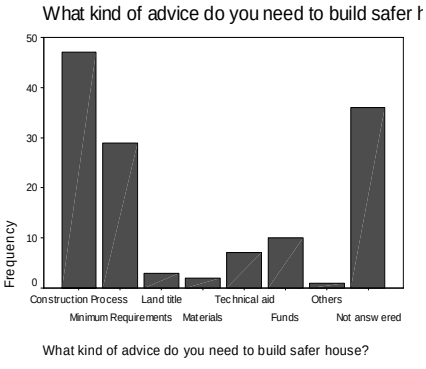


Table 59: Result of question N°34 (Participants)

What assistance do you need to rebuild your house?	Frequency	Percent
Land registration	12	8.89
Funds	88	65.19
Building permit	3	2.22
Technical advice	4	2.96
All the above	28	20.74
Total	135	100.00

Source: JICA Study Team survey, November 2008

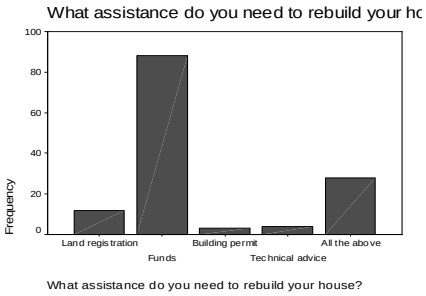


Table 60: Result of question N°35 (Participants)

Do you have enough information on the support program of rebuilding houses? (Techo Propio,etc)	Frequency	Percent
Yes	81	60.00
No	52	38.52
Not answered	2	1.48
Total	135	100.00

Source: JICA Study Team survey, November 2008

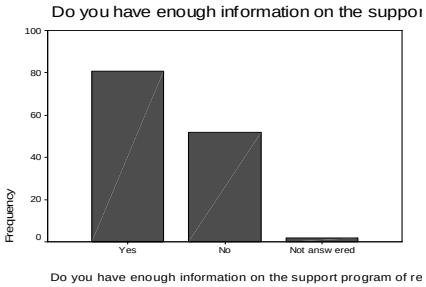


Table 61: Result of question N°36 (Participants)

If yes, where did you get the information?	Frequency	Percent
Municipality Workshop	5	3.70
SENCICO training	1	0.74
One day training	2	1.48
Theatre	1	0.74
Mobile Kiosk	21	15.56
From friends or family attended one of them	4	2.96
From others place	43	31.85
Nonapplicable	53	39.26
Not answered	5	3.70

Source: JICA Study Team survey, November 2008

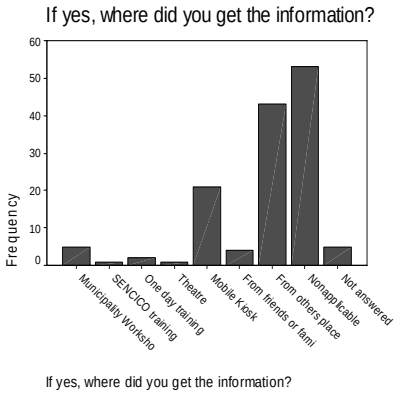
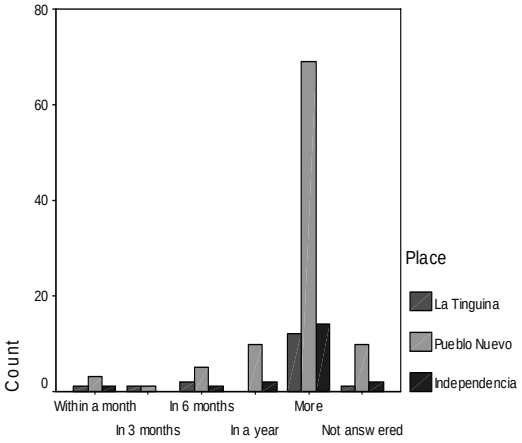


Table 62: Result of question N°16 (Participant)

		Place			Total
When are you going to build your house?		La Tinguina	Pueblo Nuevo	Independencia	
Within a month	Count	1	3	1	5
	% of Total	0.74	2.22	0.74	3.70
In 3 months	Count	1	1		2
	% of Total	0.74	0.74		1.48
In 6 months	Count	2	5	1	8
	% of Total	1.48	3.70	0.74	5.93
In a year	Count		10	2	12
	% of Total		7.41	1.48	8.89
More	Count	12	69	14	95
	% of Total	8.89	51.11	10.37	70.37
Not answered	Count	1	10	2	13
	% of Total	0.74	7.41	1.48	9.63
	Count	17	98	20	135
	% of Total	12.59	72.59	14.81	100.00

Source: JICA Study Team survey, November 2008

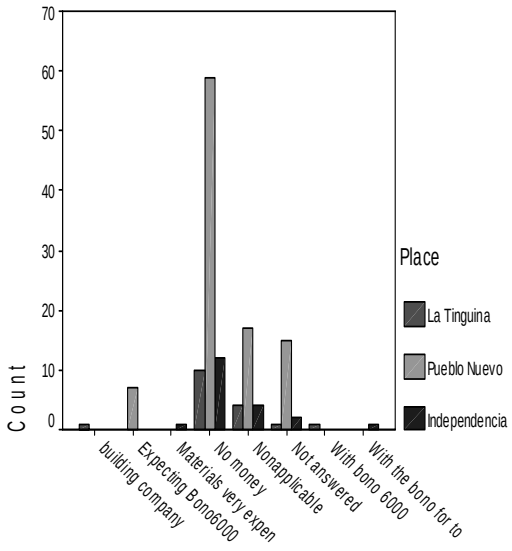


When are you going to build your house?

Table 63: Result of question N°17 (Participant)

		Place			Total
If you cannot set the building date, why?		La Tinguina	Pueblo Nuevo	Independencia	
Expecting Bono6000	Count		7		7
	% of Total		5.19		5.19
Materials very expensive	Count			1	1
	% of Total			0.74	0.74
No money	Count	10	59	12	81
	% of Total	7.41	43.70	8.89	60.00
Nonapplicable	Count	4	17	4	25
	% of Total	2.96	12.59	2.96	18.52
Not answered	Count	1	15	2	18
	% of Total	0.74	11.11	1.48	13.33
With bono 6000	Count	1			1
	% of Total	0.74			0.74
With the bono for to link	Count			1	1
	% of Total			0.74	0.74
building company	Count	1			1
	% of Total	0.74			0.74
	Count	17	98	20	135
	% of Total	12.59	72.59	14.81	100.00

Source: JICA Study Team survey, November 2008



If you cannot set the building date, why?

Table 64: Result of question N°16 (Participants)

When are you going to build your house?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
Within a month	Count	1	1	2		1	5
	% of Total	0.74	0.74	1.48		0.74	3.70
In 3 months	Count	1		1			2
	% of Total	0.74		0.74			1.48
In 6 months	Count	2		3	1	2	8
	% of Total	1.48		2.22	0.74	1.48	5.93
In a year	Count	3	1	1	4	3	12
	% of Total	2.22	0.74	0.74	2.96	2.22	8.89
More	Count	18	34	18	13	12	95
	% of Total	13.33	25.19	13.33	9.63	8.89	70.37
Not answered	Count	2	4	5	2		13
	% of Total	1.48	2.96	3.70	1.48		9.63
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

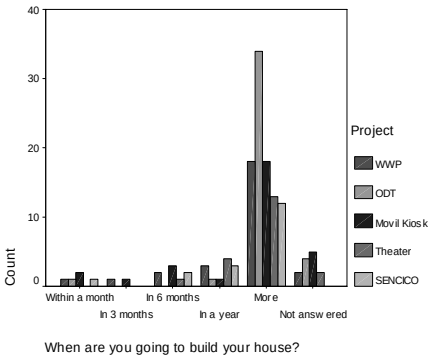


Table 65: Result of question N°17 (Participants)

If you cannot set the building date, why?		Project					Total
		WWP	ODT	Movil Kiosk	Theater	SENCICO	
Expecting Bono6000	Count			2		7	9
	% of Total			1.48		5.19	6.67
No money	Count	14	34	15	13	6	82
	% of Total	10.3704	25.1852	11.11	9.63	4.44	60.74
Nonapplicable	Count	7	2	9	2	5	25
	% of Total	5.19	1.48	6.67	1.48	3.70	18.52
Not answered	Count	5	4	4	5		18
	% of Total	3.7	3.0	3.0	3.7		13.3
Waiting for building company to construct	Count	1					1
	% of Total	0.74					0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008

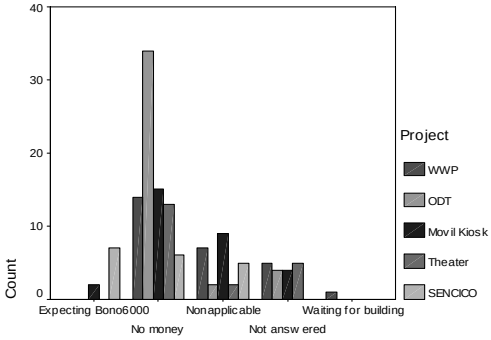


Table 66: Result of question N°18 (Participants)

By what type of housing do you want to rebuild?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
Adobe	Count	1	1	1	1		4
	% of Total	0.74	0.74	0.74	0.74		2.96
Confined masonry	Count	25	39	28	15	18	125
	% of Total	18.52	28.89	20.74	11.11	13.33	92.59
Not answered	Count	1		1	4		6
	% of Total	0.74		0.74	2.96		4.44
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

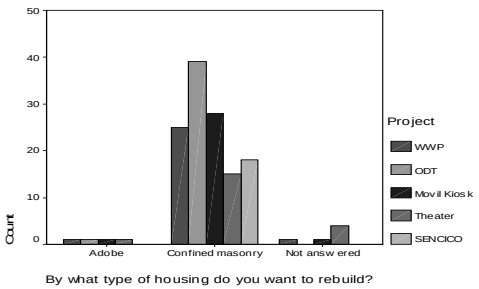


Table 67: Result of question N°19 (Participants)

Are you going to make your house earthquake safer?		Project					Total
		WWP	ODT	Movil Kiosk	Theater	SENCICO	
Yes	Count	20	39	24	17	17	117
	% of Total	14.81	28.89	17.78	12.59	12.59	86.67
No	Count	3	1	2	1	1	8
	% of Total	2.22	0.74	1.48	0.74	0.74	5.93
Do not know	Count	4		4	2		10
	% of Total	2.96		2.96	1.48		7.41
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

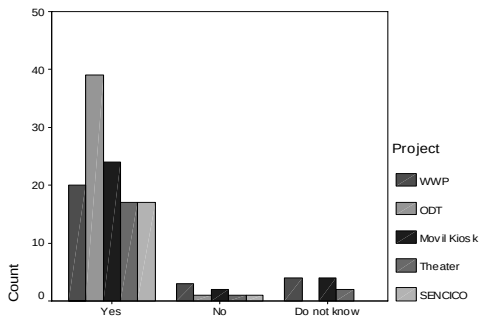


Table 68: Result of question N°20 (Participants)

If yes, how?		Project					Total
Bricks, cement and steel var	Count	2		9			11
	% of Total	1.48		6.67			8.15
Like I learnt in SENCICO´s training	Count					2	2
	% of Total					1.48148	1.48148
Nonapplicable	Count	7	1	6	3	1	18
	% of Total	5.19	0.74	4.44	2.22	0.74	13.33
Not answered	Count	8	39	1	17		65
	% of Total	5.93	28.89	0.74	12.59		48.15
Using Minimun Requirements	Count	9				14	23
	% of Total	6.67				10.37	17.04
Using a plan	Count	1.00		1.00			2.00
	% of Total	0.74		0.74			1.48
Using confined masonry	Count					1	1
	% of Total					0.74	0.74
Using masonry	Count			12.00			12.00
	% of Total			8.89			8.89
With the bono 6000	Count			1			1
	% of Total			0.74			0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.6296	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

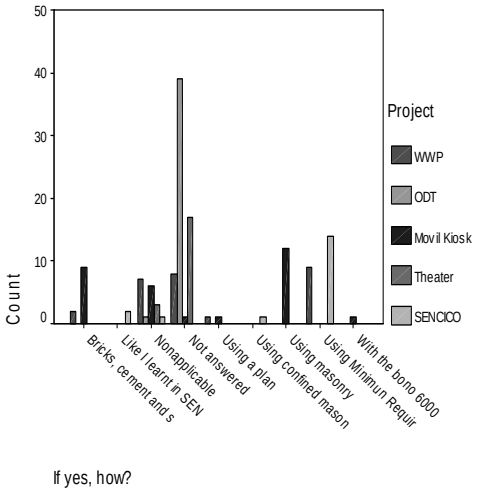


Table 69: Result of question N°21 (Participants)

What kind of facilities do you like to have the most in new house?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
Water	Count	10	8	4	4	4	30
	% of Total	7.41	5.93	2.96	2.96	2.96	22.22
Electricity	Count	2			1	3	6
	% of Total	1.48			0.74	2.22	4.44
Larger space	Count	4	2	8	3	3	20
	% of Total	2.96	1.48	5.93	2.22	2.22	14.81
Ventilated kitchen	Count		1	1	1	2	5
	% of Total		0.74	0.74	0.74	1.48	3.70
More bedrooms	Count	5	7	8	3	4	27
	% of Total	3.70	5.19	5.93	2.22	2.96	20.00
Flush toilet	Count	2		1		1	4
	% of Total	1.48		0.74		0.74	2.96
Sewage	Count			4	2		6
	% of Total			2.96	1.48		4.44
All the above	Count		21	1		1	23
	% of Total		15.56	0.74		0.74	17.04
Not answered	Count	4	1	3	6		14
	% of Total	2.96	0.74	2.22	4.44		10.37
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

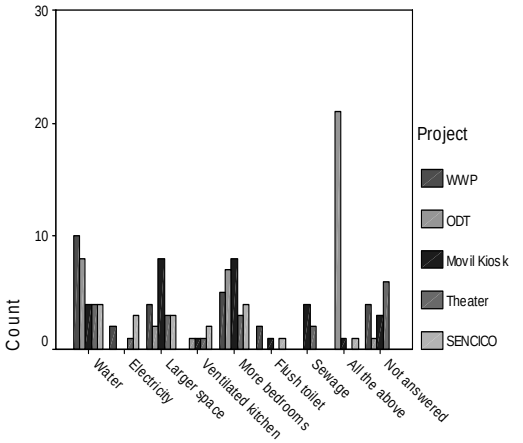


Table 70: Result of question N°22 (Participants)

Who is going to build the house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Construction company	Count	4			2		6
	% of Total	2.96			1.48		4.44
Yourself and family	Count		12	3	1	2	18
	% of Total		8.89	2.22	0.74	1.48	13.33
Albañil	Count	22	11	26	10	16	85
	% of Total	16.30	8.15	19.26	7.41	11.85	62.96
Engineer	Count		15				15
	% of Total		11.11				11.11
Architect	Count		2				2
	% of Total		1.48				1.48
Not answered	Count	1		1	7		9
	% of Total	0.74		0.74	5.19		6.67
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008

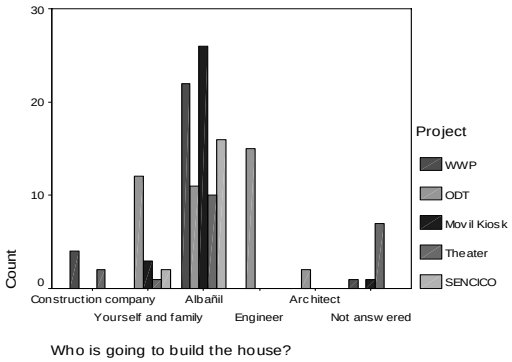


Table 71: Result of question N°23 (Participants)

Who is going to design or designed your house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Construction company	Count	3			1	2	6
	% of Total	2.22			0.74	1.48	4.44
Albañil	Count	3	11	9	3	2	28
	% of Total	2.22	8.15	6.67	2.22	1.48	20.74
Myself	Count		13	11	1	5	30
	% of Total		9.63	8.15	0.74	3.70	22.22
Prototype	Count	13	1	1	7	5	27
	% of Total	9.63	0.74	0.74	5.19	3.70	20.00
Don´t know	Count	3	1			1	5
	% of Total	2.22	0.74			0.74	3.70
Architect	Count		4				4
	% of Total		2.96				2.96
Engineer	Count	1	9	4		2	16
	% of Total	0.74	6.67	2.96		1.48	11.85
Not answered	Count	4	1	2	8	1	16
	% of Total	2.96	0.74	1.48	5.93	0.74	11.85
Without plan	Count			3			3
	% of Total			2.22			2.22
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008

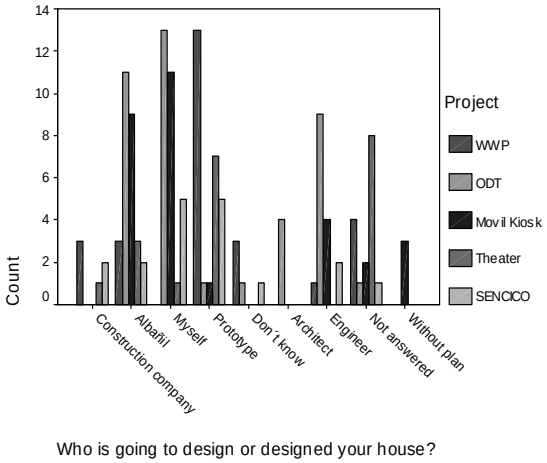


Table 72: Result of question N°24 (Participants)

Materials more expensive		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Steel bar	Count	11	7	4	9	4	35
	% of Total	8.15	5.19	2.96	6.67	2.96	25.93
Cement	Count	1					1
	% of Total	0.74074					0.74074
Bricks	Count	3	3	3	2		11
	% of Total	2.22	2.22	2.22	1.48		8.15
Bricks and steel	Count	3	6	13	5	1	28
	% of Total	2.22	4.44	9.63	3.70	0.74	20.74
Cement and steel	Count	1			1		2
	% of Total	0.74			0.74		1.48
All materials	Count	7	24	6	2	13	52
	% of Total	5.19	17.78	4.44	1.48	9.63	38.52
Not answered	Count	1		4	1		6
	% of Total	0.74		2.96	0.74		4.44
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

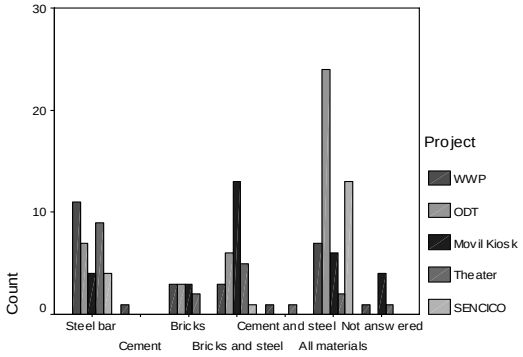


Table 73: Result of question N°25 (Participants)

What do you the need the most to rebuild your house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Others	Count		1	1			2
	% of Total		0.74	0.74			1.48
Land	Count	7	7		1	3	18
	% of Total	5.19	5.19		0.74	2.22	13.33
Funds	Count	16	28	23	13	10	90
	% of Total	11.9	20.7	17.0	9.6	7.4	66.7
Materials	Count	4	4	5	6	5	24
	% of Total						
Technical advice	Count			1			1
	% of Total			0.74			0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008

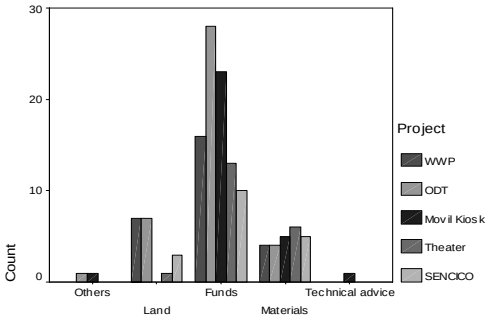


Table 74: Result of question N°26 (Participants)

What do you the need the most to rebuild your house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Land	Count	1	4				5
	% of Total	0.75	2.99				3.73
Funds	Count	26	36	28	15	17	122
	% of Total	19.40	26.87	20.90	11.19	12.69	91.04
Materials	Count				2		2
	% of Total				1.49		1.49
Technical advice	Count					1	1
	% of Total					0.75	0.75
Documents	Count			2	2		4
	% of Total			1.49	1.49		2.99
	Count	27	40	30	19	18	134
	% of Total	20.15	29.85	22.39	14.18	13.43	100.00

Source: JICA Study Team survey, November 2008

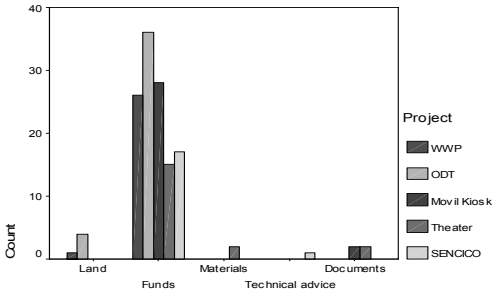


Table 75: Result of question N°27 (Participants)

Do you know about the Building Permit?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Yes	Count	14	31	5	9	13	72
	% of Total	10.4	23.0	3.7	6.7	9.6	53.3
No	Count	12	1	25	11	5	54
	% of Total	8.89	0.74	18.52	8.15	3.70	40.00
Not answered	Count	1	8				9
	% of Total	0.74	5.93				6.67
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

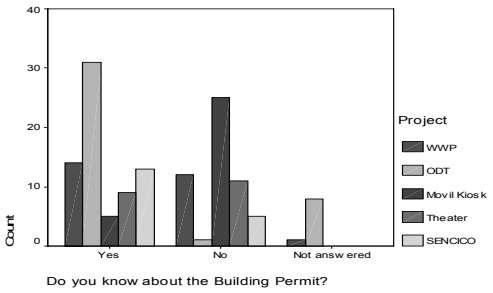


Table 76: Result of question N°28 (Participants)

If you have begun the construction process, have you requested a building permit?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Yes	Count		1				1
	% of Total		0.74				0.74
No	Count		2				2
	% of Total		1.48				1.48
I don´t start the construction process yet	Count	27	37	30	20	17	131
	% of Total	20	27.41	22.22	14.81	12.59	97.04
Not answered	Count					1	1
	% of Total					0.74	0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

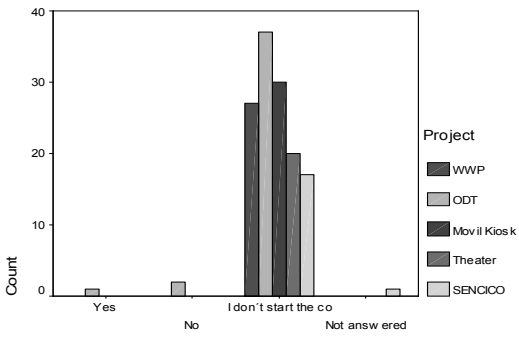


Table 77: Result of question N°29 (Participants)

If yes, how was the process of the building permit at the municipality?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
Cannot say	Count		1				1
	% of Total		0.74				0.74
Nonapplicable	Count	27	39	30	20	17	133
	% of Total	20	28.9	22.2	14.8	12.6	98.5
Not answered	Count					1.0	1.0
	% of Total					0.7	0.7
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

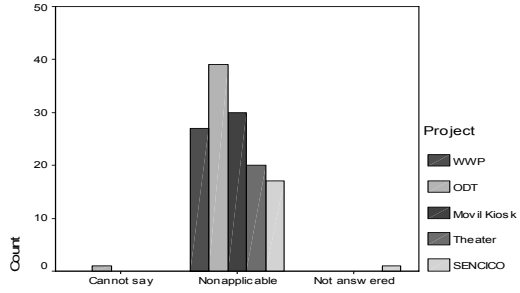


Table 78: Result of question N°30 (Participants)

If no, why?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
I don´t know what is a construction permit	Count					2	2
	% of Total					1.48	1.48
Nonapplicable	Count	27	38	30	20	16	131
	% of Total	20.00	28.15	22.22	14.81	11.85	97.04
Did not what to apply for a building permit	Count		2.0				2.0
	% of Total		1.5				1.5
	Count	27	40	30	20	18	135
	% of Total	20.00	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

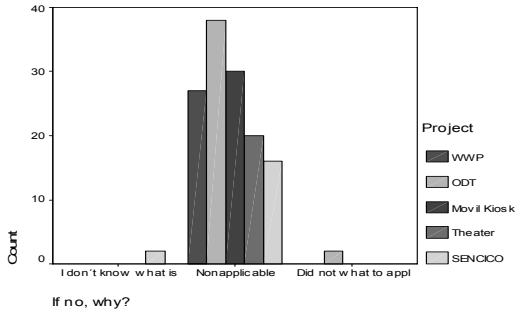


Table 79: Result of question N°31 (Participants)

Did you use Proto Type drawing?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
No	Count		2				2
	% of Total		1.48				1.48
Nonapplicable	Count	27	37	30	20	18	132
	% of Total	20	27.41	22.22	14.81	13.33	97.78
Not answered	Count		1				1
	% of Total		0.74				0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

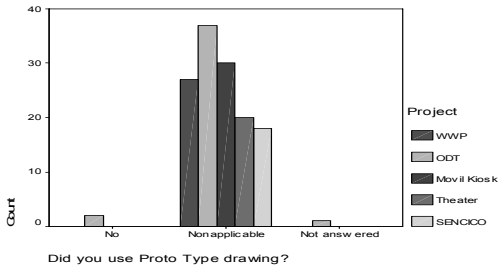


Table 80: Result of question N°15 (Participants)

What projects?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Municipality´s training	Count			1		10	11
	% of Total			0.74		7.41	8.15
ADRA´s training	Count	1		2	11		14
	% of Total	0.74		1.48	8.15		10.37
Movil kiosk	Count	1			1		2
	% of Total	0.74			0.74		1.48
ADRA´s training and theater	Count	1		1	1		3
	% of Total	0.74		0.74	0.74		2.22
Nonapplicable	Count	15	34	23	4	8	84
	% of Total	11.11	25.19	17.04	2.96	5.93	62.22
Not answered	Count	9	6	3	3		21
	% of Total	6.67	4.44	2.22	2.22		15.56
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

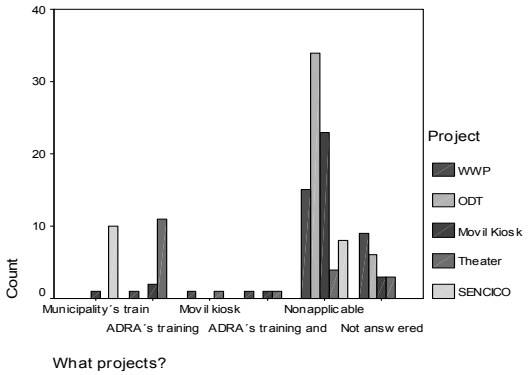


Table 81: Result of question N°15 (Participants)

Participated more projects		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Yes	Count	3	6	4	13	10	36
	% of Total	2.22	4.44	2.96	9.63	7.41	26.67
No	Count	5	33	23	4	2	67
	% of Total	3.70	24.44	17.04	2.96	1.48	49.63
Did nothing	Count	19		3	3	6	31
	% of Total	14.0741		2.22	2.22	4.44	22.96
Rebuilt my house	Count		1				1
	% of Total		0.74				0.74
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

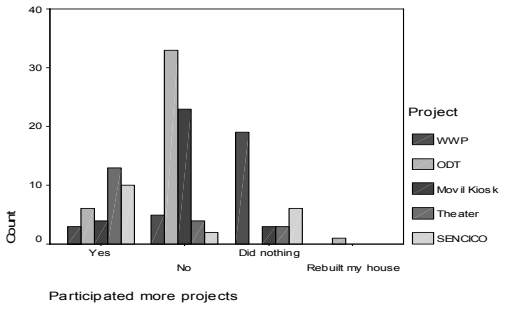


Table 82: Result of question N°14 (Participants)

What did you do after the activity?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Nothing	Count	1	13	11	6	1	32
	% of Total	0.74	9.63	8.15	4.44	0.74	23.70
Shared info with family or friends	Count	25	25	19	14	16	99
	% of Total	18.52	18.52	14.07	10.37	11.85	73.33
Asked municipality for more info	Count	1	2			1	4
	% of Total	0.74	1.48			0.74	2.96
	Count	27	40	30	20	18	135
	% of Total	20.00	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

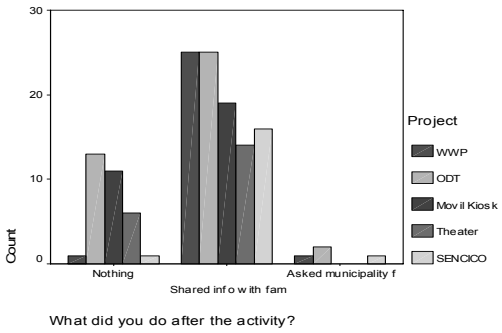


Table 83: Result of question N°13 (Participants)

If not useful, why?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Too difficult to use	Count			1			1
	% of Total			0.74			0.74
Too technical to use	Count		2	1		3	6
	% of Total		1.48	0.74		2.22	4.44
Too little information to use	Count		1	2			3
	% of Total		0.74	1.48			2.22
Nonapplicable	Count	22	28	13	17	15	95
	% of Total	16.30	20.74	9.63	12.59	11.11	70.37
Not answered	Count	5	9	13	3		30
	% of Total	3.70	6.67	9.63	2.22		22.22
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

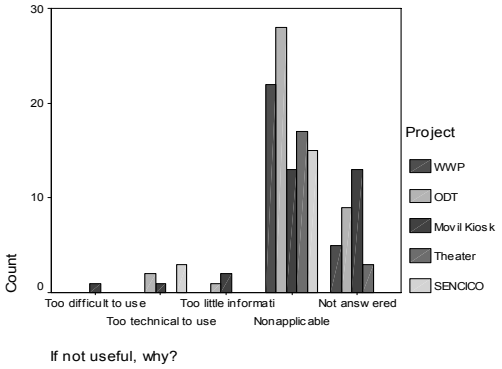


Table 84: Result of question N°12 (Participants)

What will be useful for rebuilding house the most in the activities?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Building permit	Count	1	14		2		17
	% of Total	0.74	10.37		1.48		12.59
Minimum Requirements	Count	17	15	15	16	18	81
	% of Total	12.59	11.11	11.11	11.85	13.33	60.00
Land Registration	Count	2	4	7			13
	% of Total	1.48	2.96	5.19			9.63
All the above	Count		3		1		4
	% of Total		2.22		0.74		2.96
Not answered	Count	2	4	3	1		10
	% of Total	1.48	2.96	2.22	0.74		7.41
Techo Propio´s information	Count	5		5			10
	% of Total	3.70		3.70			7.41
	Count	27	40	30	20	18	135
	% of Total	20.00	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

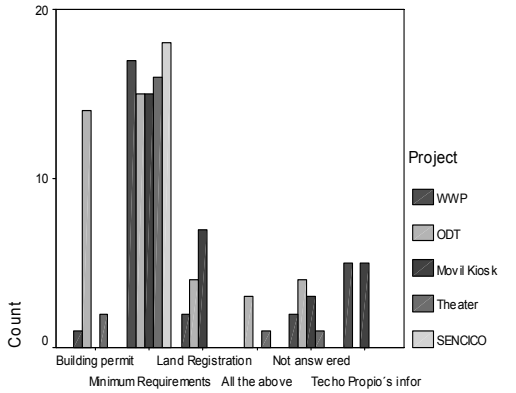
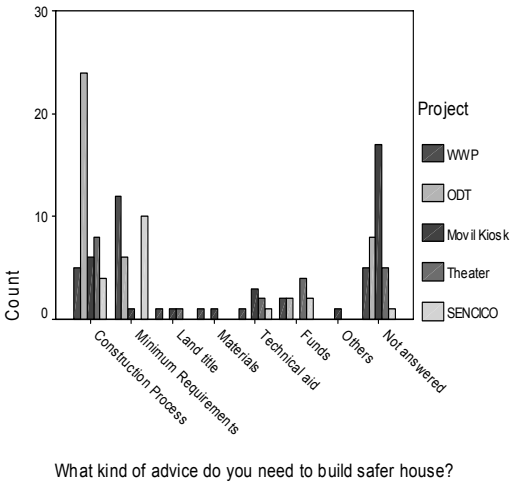


Table 85: Result of question N°33 (Participants)

What kind of advice do you need to build safer house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Construction Process	Count	5	24	6	8	4	47
	% of Total	3.70	17.78	4.44	5.93	2.96	34.81
Minimum Requirements	Count	12	6	1		10	29
	% of Total	8.89	4.44	0.74		7.41	21.48
Land title	Count	1		1	1		3
	% of Total	0.74		0.74	0.74		2.22
Materials	Count	1		1			2
	% of Total	0.74		0.74			1.48
Technical aid	Count	1		3	2	1	7
	% of Total	0.74		2.22	1.48	0.74	5.19
Funds	Count	2.00	2		4	2	10
	% of Total	1.48	1.48		2.96	1.48	7.41
Others	Count			1			1
	% of Total			0.74			0.74
Not answered	Count	5	8	17	5	1	36
	% of Total	3.70	5.93	12.59	3.70	0.74	26.67
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

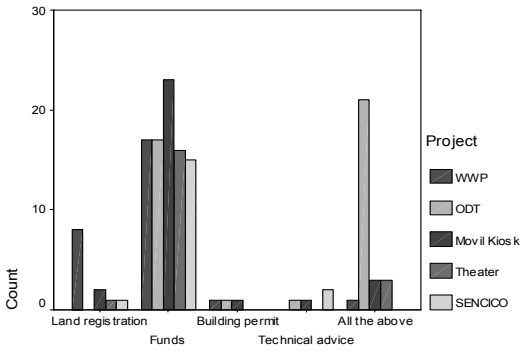


What kind of advice do you need to build safer house?

Table 86: Result of question N°34 (Participants)

What assistance do you need to rebuild your house?		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Land registration	Count	8		2	1	1	12
	% of Total	5.9		1.5	0.7	0.7	8.9
Funds	Count	17	17	23	16	15	88
	% of Total	12.6	12.6	17.0	11.9	11.1	65.2
Building permit	Count	1	1	1			3
	% of Total	0.74	0.74	0.74			2.22
Technical advice	Count		1	1		2	4
	% of Total		0.74	0.74		1.48	2.96
All the above	Count	1	21	3	3		28
	% of Total	0.7	15.6	2.2	2.2		20.7
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008

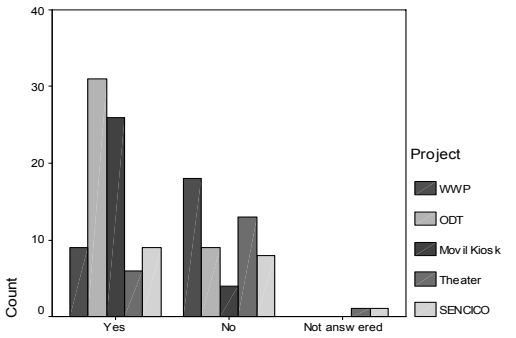


What assistance do you need to rebuild your house?

Table 87: Result of question N°35 (Participants)

Do you have enough information on the support program of rebuilding houses? (Techo Propio,etc)		Project					Total
		WWP	ODT	Movil Kios	Theater	SENCICO	
Yes	Count	9	31	26	6	9	81
	% of Total	6.7	23.0	19.3	4.4	6.7	60
No	Count	18	9	4	13	8	52
	% of Total	13.33	6.67	2.96	9.63	5.93	38.52
Not answered	Count				1	1	2
	% of Total				0.74	0.74	1.48
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100.00

Source: JICA Study Team survey, November 2008

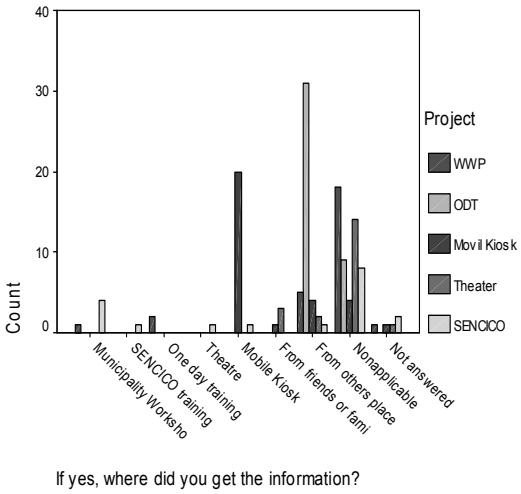


Do you have enough information on the support program of ret

Table 88: Result of question N°36 (Participants)

If yes, where did you get the information?		Project					Total
		WWP	ODT	Kiosk	Theater	SENCICO	
WWP	Count	1				4	5
	% of Total	0.7				3.0	3.7
SENCICO	Count					1.0	1.0
	% of Total					0.7	0.7
ODT	Count	2.0					2.0
	% of Total	1.5					1.5
Theatre	Count					1.0	1.0
	% of Total					0.7	0.7
Kiosk	Count			20		1	21
	% of Total			14.81		0.74	15.56
From friends or family attended one of them	Count			1.00	3.00		4.00
	% of Total			0.74	2.22		2.96
From others place	Count	5	31	4	2	1	43
	% of Total	3.70	22.96	2.96	1.48	0.74	31.85
Nonapplicable	Count	18	9	4	14	8	53
	% of Total	13.33	6.67	2.96	10.37	5.93	39.26
Not answered	Count	1		1	1	2	5
	% of Total	0.74		0.74	0.74	1.48	3.70
	Count	27	40	30	20	18	135
	% of Total	20	29.63	22.22	14.81	13.33	100

Source: JICA Study Team survey, November 2008



Appendix14: Tables and Figures of Questionnaire for Non Participants

Table 01: General Results (Non Participants)

	Place	
	Frequency	Percent
La Tinguina	10	16.67
Pueblo Nuevo	9	15
Independencia	10	16.67
San Clemente	10	16.67
Salas Guadalupe	10	16.67
Tambo de Mora	11	18.33
Total	60	100

Source: JICA Study Team survey. November 2008

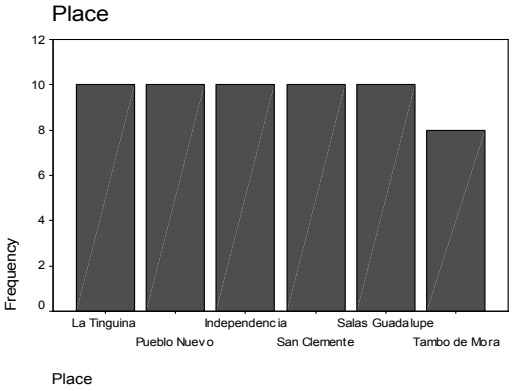


Table 02: General Results (Non Participants)

	Province	
	Frequency	Percent
Chincha	20	33.3
Pisco	20	33.3
Ica	20	33.3
Total	60	100

Source: JICA Study Team survey. November 2008

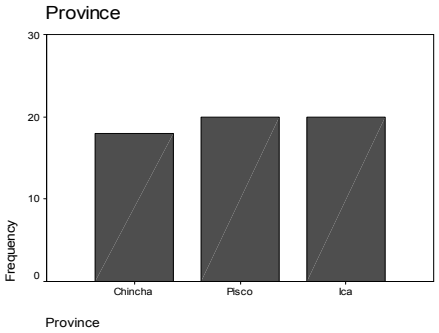


Table 03: General Results (Non Participants)

	Age Range	
	Frequency	Percent
18 - 20 years	2	3.33
21 - 30 years	10	16.67
31 - 40 years	12	20.00
41 - 50 years	12	20.00
51 - 60 years	9	15.00
61 - 70 years	10	16.67
More than 70 years	5	8.33
Total	60	100

Source: JICA Study Team survey. November 2008

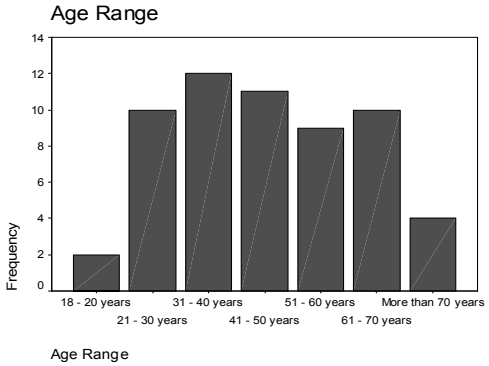


Table 04: General Results (Non Participants)

	Gender	
	Frequency	Percent
Male	18	30.0
Female	42	70.0
Total	60	100

Source: JICA Study Team survey. November 2008

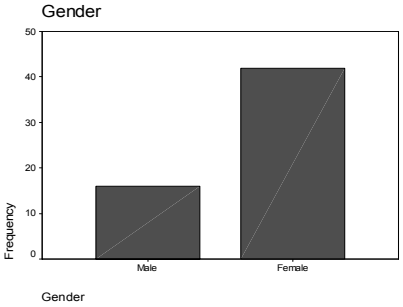


Table 05: General Results (Non Participants)

	Marital Status	
	Frequency	Percent
Single	9	15
Married	26	43.33
Live-inpartner	20	33.33
Widow	5	8.33
Total	60	100

Source: JICA Study Team survey. November 2008

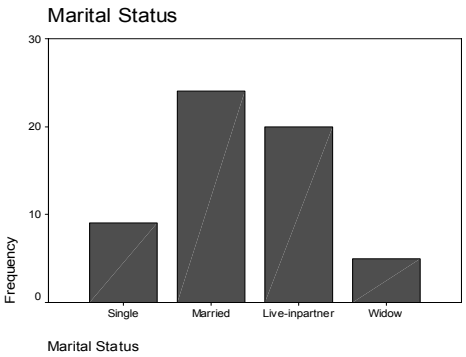


Table 06: General Results (Non Participants)

	Occupation	
	Frequency	Percent
Don´t work	1	1.67
Housewife	24	40.00
Worker (not a job	9	15
Employee	1	1.67
Farmer	2	3.33
Taxidriver	2	3.33
Retailer	11	18.33
Student	2	3.33
Teacher	3	5
Mototaxidriver	3	5
Others	1	1.67
Retired	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

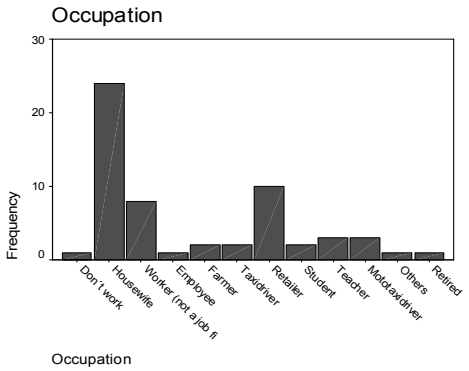


Table 07: General Results (Non Participants)

	Condition of the House:	
	Frequency	Percent
Destroyed	34	56.67
Inhabitable	18	30
Affected	8	13.33
Total	60	100

Source: JICA Study Team survey. November 2008

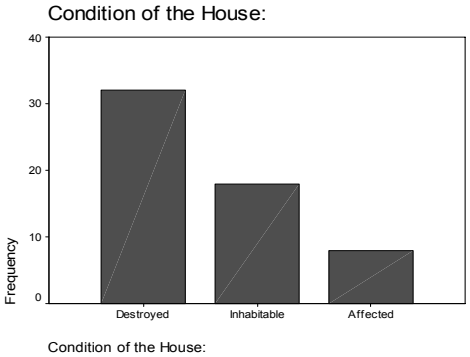


Table 08: General Results (Non Participants)

	Numbers of rooms	
	Frequency	Percent
1 - 2 rooms	9	15
3 - 4 rooms	26	43.33
5 - 6 rooms	15	25
More than 7 rooms	10	16.67
Total	60	100

Source: JICA Study Team survey. November 2008

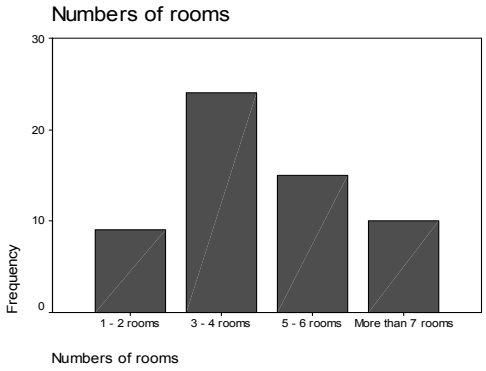


Table 09: General Results (Non Participants)

Materials used for building		
	Frequency	Percent
Don't answer	1	1.67
Adobe	48	80
Bricks	6	10
Masonry	5	8.33
Total	60	100

Source: JICA Study Team survey. November 2008

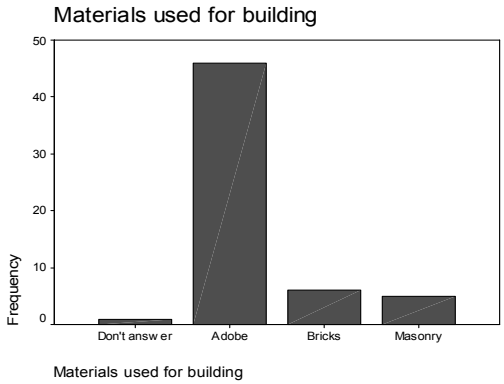


Table 10: General Results (Non Participants)

Construction Date of Damaged house:		
	Frequency	Percent
Don't remember	6	10
1 - 15 years	17	28.33
16 - 30 years	14	23.33
31 - 45 years	14	23.33
46 - 60 years	5	8.33
More than 60 years	4	6.67
Total	60	100

Source: JICA Study Team survey. November 2008

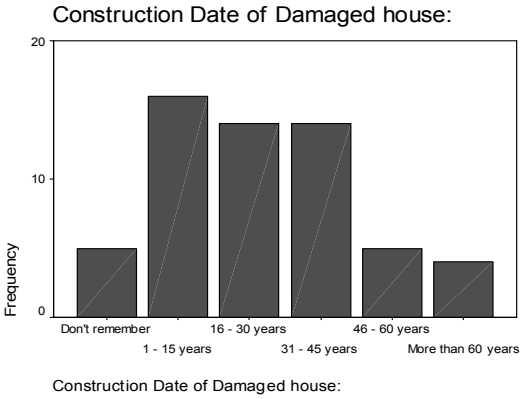


Table 11: General Results (Non Participants)

Constructed by:		
	Frequency	Percent
Don't know	9	15
Albañil	34	56.67
Parents	17	28.33
Total	60	100

Source: JICA Study Team survey. November 2008

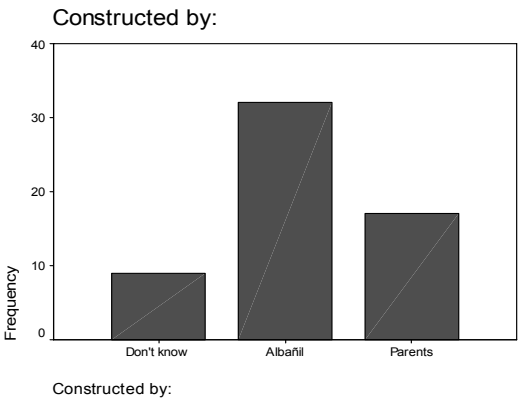


Table 12: General Results (Non Participants)

Materials used for repairing		
	Frequency	Percent
Not Yet	54	90
Adobe	3	5
Bricks	3	5
Total	60	100

Source: JICA Study Team survey. November 2008

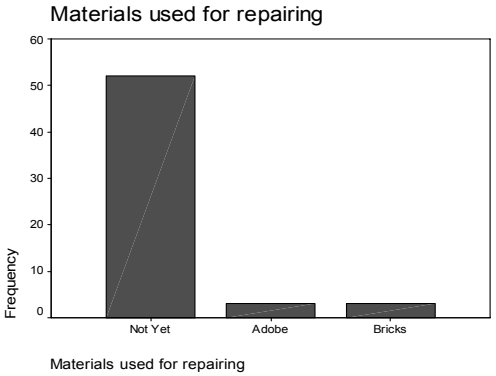


Table 13: General Results (Non Participants)

Owner of the house:		
	Frequency	Percent
Yes	35	58.33
No	25	41.67
Total	60	100

Source: JICA Study Team survey. November 2008

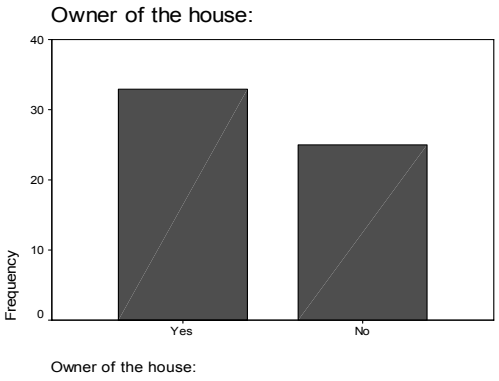


Table 14: General Results (Non Participants)

know who		
	Frequency	Percent
Nonapplicable	35	58.33
Relative	17	28.33
Lessors	8	13.33
Total	60	100

Source: JICA Study Team survey. November 2008

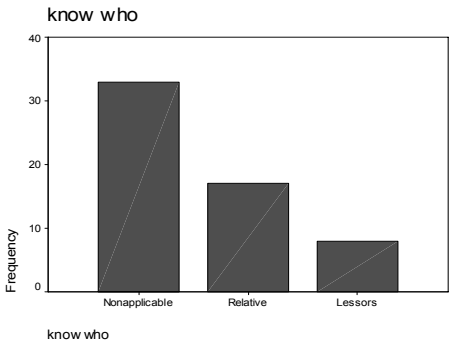


Table 15: General Results (Non Participants)

Owner of the Land		
	Frequency	Percent
Yes	36	60
No	24	40
Total	60	100

Source: JICA Study Team survey. November 2008

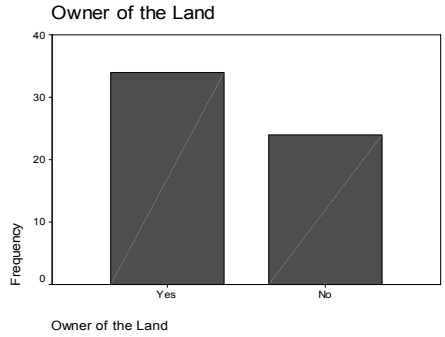


Table 16: General Results (Non Participants)

know who		
	Frequency	Percent
Nonapplicable	36	60
Relative	18	30
lessors	6	10
Total	60	100

Source: JICA Study Team survey. November 2008

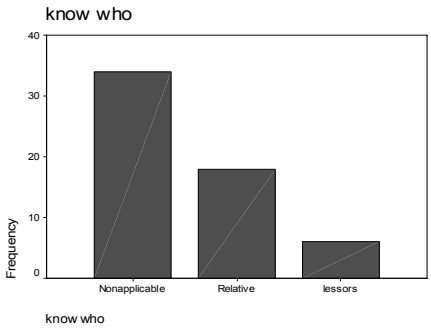


Table 17: General Results (Non Participants)

Rent per month (S/)		
	Frequency	Percent
No income	2	3.33
Less than 250 Nuevos Soles	6	10
251 - 500 Nuevos Soles	21	35
501 - 750 Nuevos Soles	13	21.67
751 - 1000 Nuevos Soles	14	23.33
More than 1001 Nuevos Soles	4	6.67
Total	60	100

Source: JICA Study Team survey. November 2008

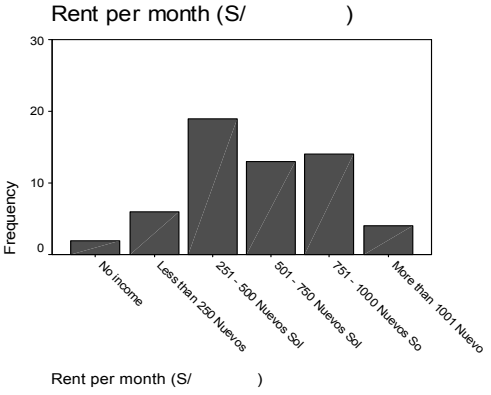


Table 18: General Results (Non Participants)

Land registration		
	Frequency	Percent
Yes	33	55
No	27	45
Total	60	100

Source: JICA Study Team survey. November 2008

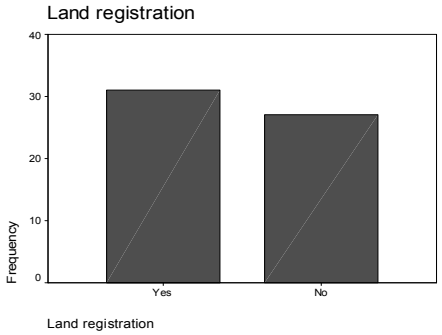


Table 19: General Results (Non Participants)

Bono received		
	Frequency	Percent
Yes	22	37.9
No	36	62.1
Total	58	100

Source: JICA Study Team survey. November 2008

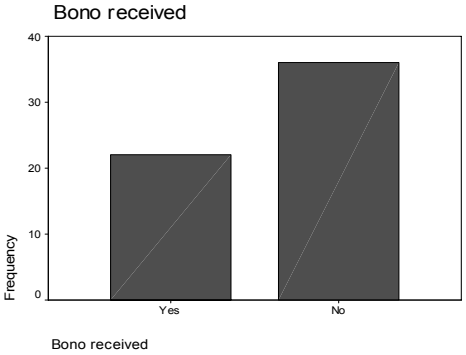


Table 20: General Results (Non Participants)

Application to Techo Propio:		
	Frequency	Percent
Yes	5	8.6
No	53	91.4
Total	58	100

Source: JICA Study Team survey. November 2008

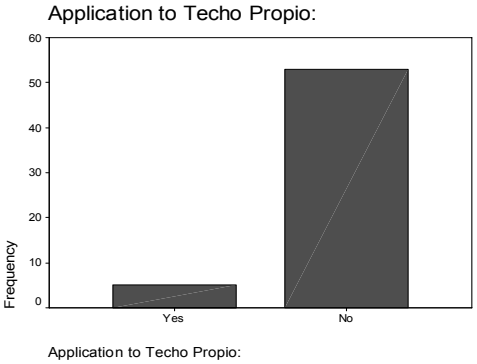


Table 21: Results of question Nº1 (Non Participants)

How many families live in the house		
	Frequency	Percent
1 - 2 families	47	78.33
3 - 4 families	11	18.33
More than 5 famili	2	3.33
Total	60	100

Source: JICA Study Team survey. November 2008

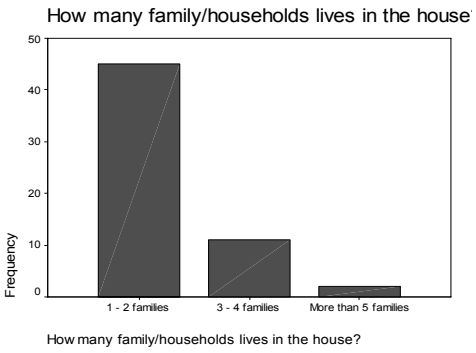


Table 22: Results of question Nº2 (Non Participants)

How many people live in the house?		
	Frequency	Percent
1 -3 persons	10	16.67
4 - 6 persons	29	48.33
7 - 9 persons	10	16.67
More than 10 pers	11	18.33
Total	60	100

Source: JICA Study Team survey. November 2008

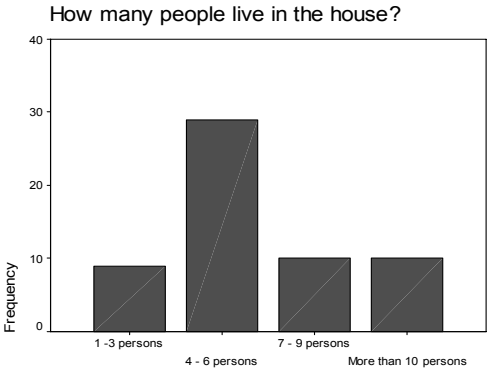


Table 23: Results of question Nº2 (Non Participants)

How many MEN live in the house?		
	Frequency	Percent
1 - 2 men	28	46.67
3 - 4 men	16	26.67
More than 5 men	16	26.67
Total	60	100

Source: JICA Study Team survey. November 2008

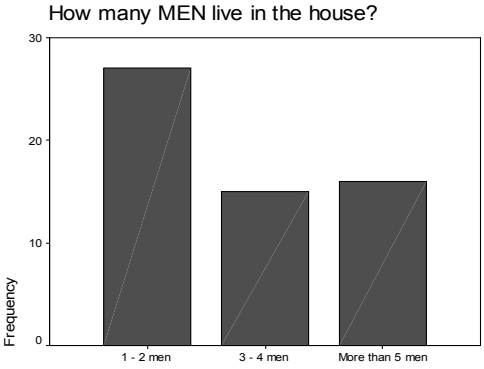


Table 24: Results of question Nº2 (Non Participants)

How many WOMEN live in the house?		
	Frequency	Percent
Not answered	2	3.33
1 - 2 women	29	48.33
3 - 4 women	19	31.67
More than 5 wome	10	16.67
Total	60	100

Source: JICA Study Team survey. November 2008

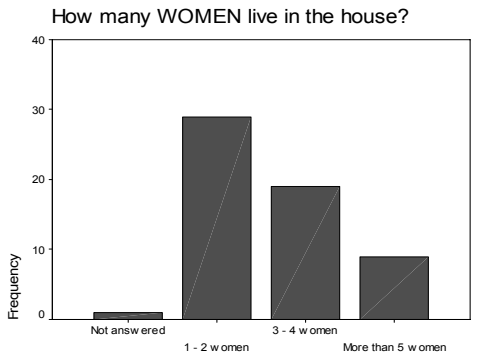


Table 25: Results of question Nº4 (Non Participants)

What is your family's monthly income before EQ?		
	Frequency	Percent
No income	2	3.33
Less than 250 Nuevos Soles	3	5
251 - 500 Nuevos Soles	23	38.33
501 - 750 Nuevos Soles	12	20
751 - 1000 Nuevos Soles	15	25
More than 1001 Nuevos Soles	5	8.33
Total	60	100

Source: JICA Study Team survey. November 2008

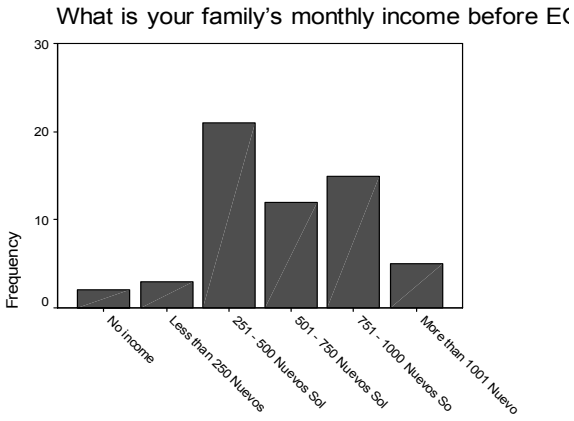


Table 26: Results of question Nº4 (Non Participants)

What is your family's monthly income after EQ?		
	Frequency	Percent
No income	2	3.33
Less than 250 Nue	4	6.67
251 - 500 Nuevos	20	33.33
501 - 750 Nuevos	14	23.33
751 - 1000 Nuevo	15	25
More than 1001 N	5	8.33
Total	60	100

Source: JICA Study Team survey. November 2008

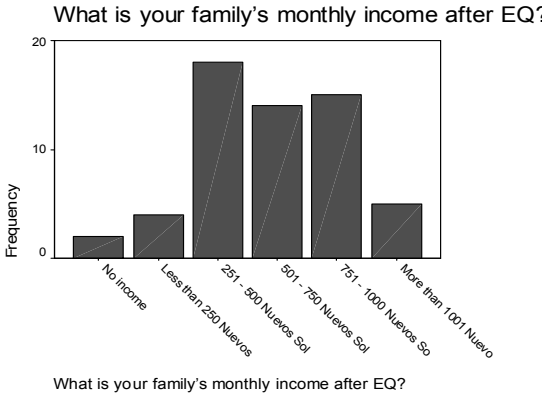


Table 27: Results of question Nº5.1 (Non Participants)

Do you and your family can eat enough compared before EQ?		
	Frequency	Percent
Yes	12	20
No	32	53.33
Equal	16	26.67
Total	60	100

Source: JICA Study Team survey. November 2008

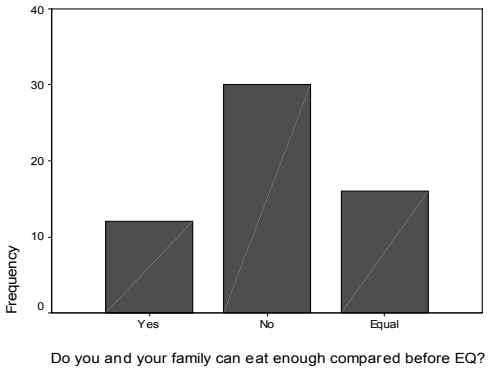


Table 28: Results of question Nº5.2 (Non Participants)

If no, why you cannot eat enough?		
	Frequency	Percent
Nonapplicable	28	46.67
Less income	3	5
High price	28	46.67
Other	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

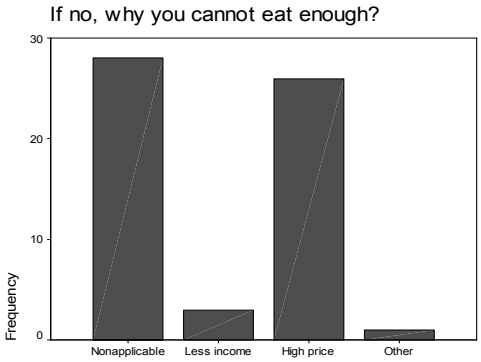


Table 29: Results of question Nº6.1 (Non Participants)

How is your family's health condition after EQ? (same/worse)		
	Frequency	Percent
Same	50	83.33
Bad	8	13.33
Worse	2	3.33
Total	60	100

Source: JICA Study Team survey. November 2008

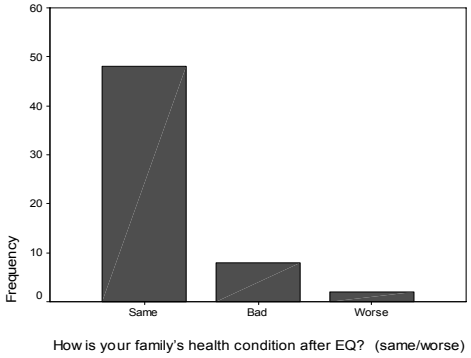


Table 30: Results of question Nº6.1 (Non Participants)

How is your family's psychological condition after EQ? (same/worse)		
	Frequency	Percent
Same	23	38.33
Bad	28	46.67
Worse	9	15
Total	60	100

Source: JICA Study Team survey. November 2008

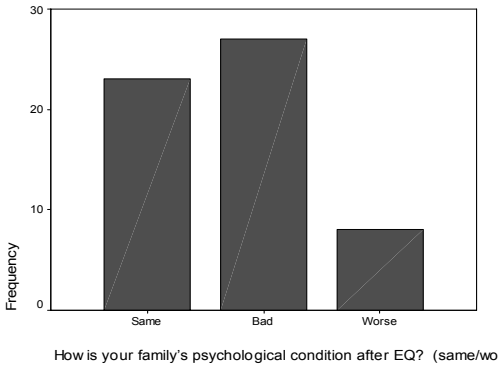


Table 31: Results of question Nº6.1 (Non Participants)

MENTAL		
	Frequency	Percent
No problem	23	38.33
Scared	33	55
Depression	4	6.67
Total	60	100

Source: JICA Study Team survey. November 2008

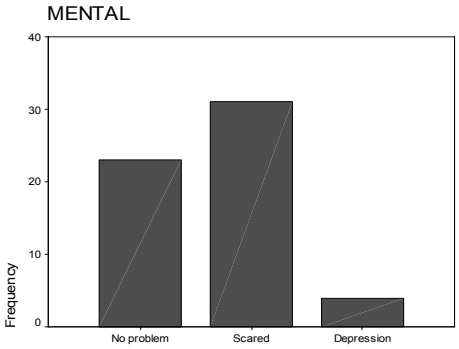


Table 32: Results of question Nº6.1 (Non Participants)

HEALTH		
	Frequency	Percent
No problem	51	85
Strokes - fractures	3	5
Died	1	1.67
Burned	1	1.67
Lost memory	1	1.67
depression	3	5
Total	60	100

Source: JICA Study Team survey. November 2008

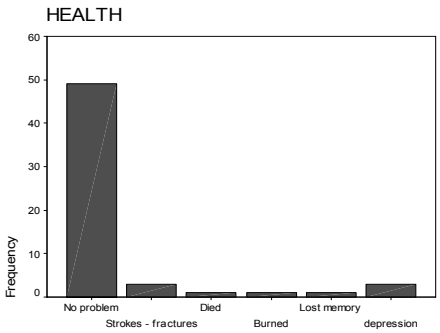


Table 33: Results of question Nº7 (Non Participants)

What do you want to do to improve the current living condition?		
	Frequency	Percent
Don't answer	9	15.5
Have a house	30	51.7
Have a job	10	17.2
Waiting the bonus	2	3.4
Work Stability	2	3.4
More Income	3	5.2
Technical advice	1	1.7
Others	1	1.7
Total	58	100

Source: JICA Study Team survey. November 2008

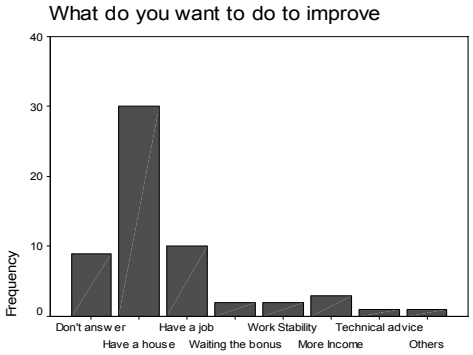


Table 34: Results of question Nº8 (Non Participants)

Do you want make your house safer to earthquake?		
	Frequency	Percent
Yes	59	98.3
No	1	1.7
Total	60	100

Source: JICA Study Team survey. November 2008

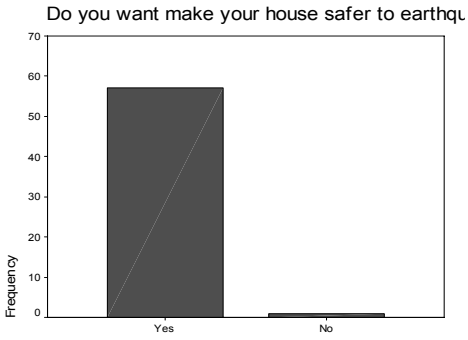


Table 35: Results of question Nº9 (Non Participants)

Do you know about "safer houses"?		
	Frequency	Percent
Yes	43	71.67
No	17	28.33
Total	60	100

Source: JICA Study Team survey. November 2008

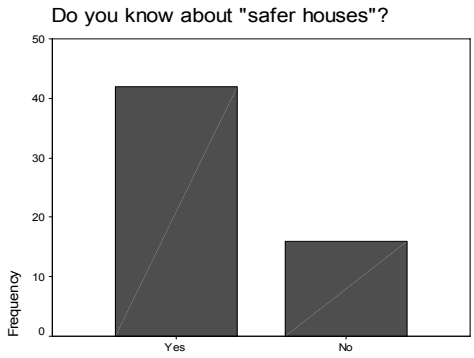


Table 36: Results of question Nº10 (Non Participants)

If yes, how did you know?		
	Frequency	Percent
Nonapplicable	17	28.33
TV	2	3.33
Others	41	68.33
Total	60	100

Source: JICA Study Team survey. November 2008

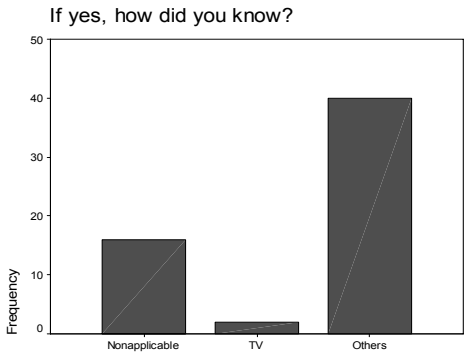


Table 37: Results of question Nº11 (Non Participants)

how you´ll make a safer house		
	Frequency	Percent
Friends will explai	5	8.33
Nonapplicable	19	31.67
Seeing other cons	32	53.33
Using bricks	3	5
Using municipality	1	1.67
Total	60	100.00

Source: JICA Study Team survey. November 2008

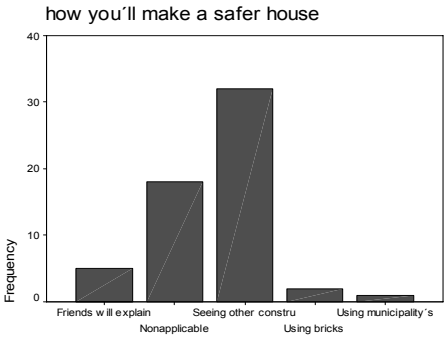


Table 38: Results of question Nº12 (Non Participants)

If no, you want to participate in a workshop/training for safer houses?		
	Frequency	Percent
Nonapplicable	15	25
Yes	38	63.33
No	7	11.67
Total	60	100

Source: JICA Study Team survey. November 2008

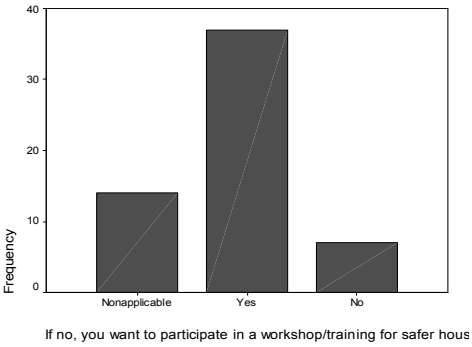


Table 39: Results of question Nº13 (Non Participants)

When are you going to build your house?		
	Frequency	Percent
Now	1	1.67
Within a month	1	1.67
In 3 months	2	3.33
In 6 months	3	5
In a year	3	5
More	50	83.33
Total	60	100

Source: JICA Study Team survey. November 2008

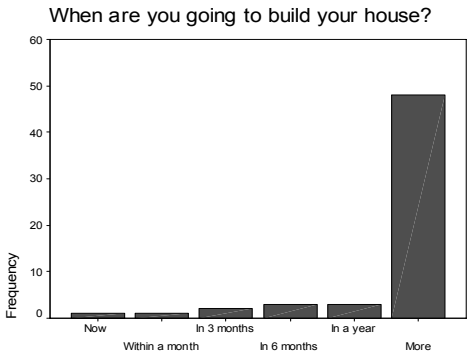


Table 40: Results of question Nº14 (Non Participants)

Why more time?		
	Frequency	Percent
Don't know	1	1.67
Money	42	70
Waiting the bonus	6	10
Don't have land	1	1.67
Expensive Materia	2	3.33
Nonapplicable	8	13.33
Total	60	100

Source: JICA Study Team survey. November 2008

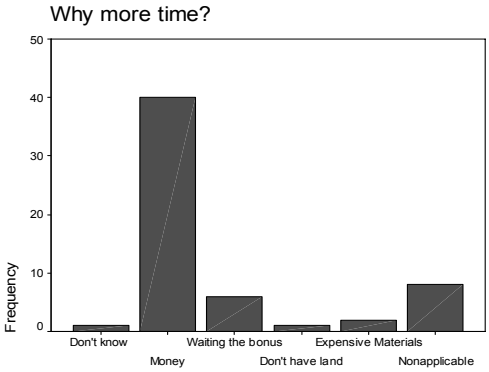


Table 41: Results of question Nº15 (Non Participants)

By what type of housing do you want to rebuild?		
	Frequency	Percent
Adobe	2	3.33
Confined masonry	53	88.33
Masonry	2	3.33
Wood	3	5
Total	60	100

Source: JICA Study Team survey. November 2008

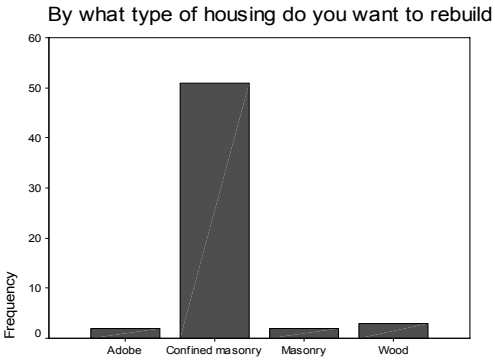


Table 42: Results of question Nº16 (Non Participants)

Are you going to make your house earthquake safer?		
	Frequency	Percent
Yes	56	93.33
No	4	6.67
Total	60	100

Source: JICA Study Team survey. November 2008

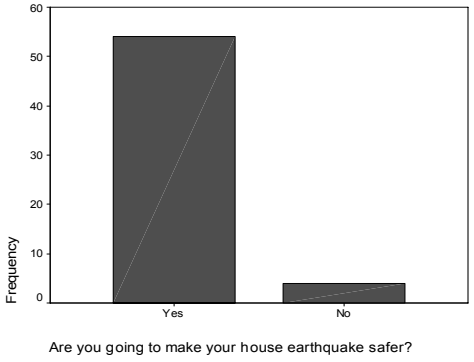


Table 43: Results of question Nº17 (Non Participants)

If yes, how?		
	Frequency	Percent
I will do it	1	1.67
Masonry	8	13.33
Someone who kno	3	5
Using confined ma	43	71.67
Using good materi	3	5
Using masonry	2	3.33
Total	60	100

Source: JICA Study Team survey. November 2008

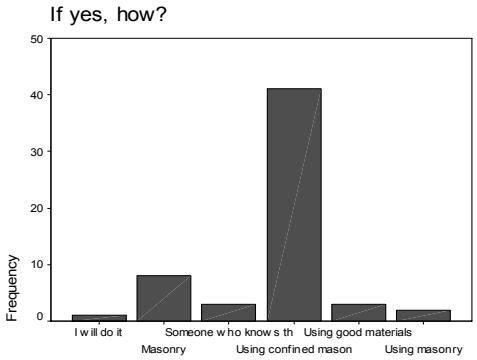


Table 44: Results of question Nº18 (Non Participants)

What kind of facilities do you like to have the most in new house?		
	Frequency	Percent
Don't Answer	3	5
Water	10	16.67
Electricity	4	6.67
Larger space	14	23.33
Ventilated kitchen	6	10
More bedrooms	10	16.67
Flush toilet	1	1.67
Sewage	3	5
Others	1	1.67
All	8	13.33
Total	60	100

Source: JICA Study Team survey. November 2008

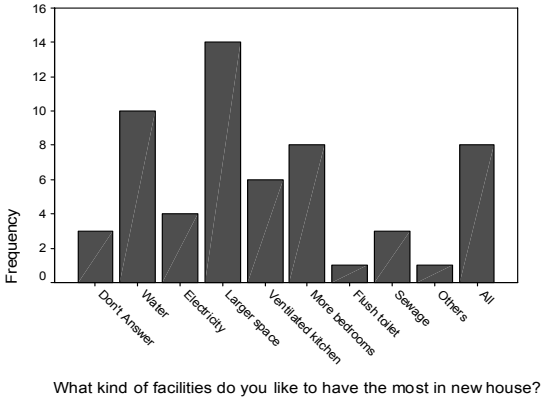


Table 45: Results of question Nº18 (Non Participants)

P18_OTRO		
	Frequency	Percent
Nonapplicable	58	96.67
comfort	1	1.67
land title	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

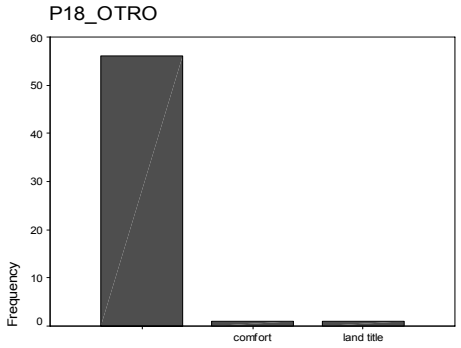


Table 46: Results of question Nº19 (Non Participants)

Who is going to build the house?		
	Frequency	Percent
Don't know	2	3.33
Construction company	3	5
Yourself and family	2	3.33
Albañil	49	81.67
Engineer	4	6.67
Total	60	100

Source: JICA Study Team survey. November 2008

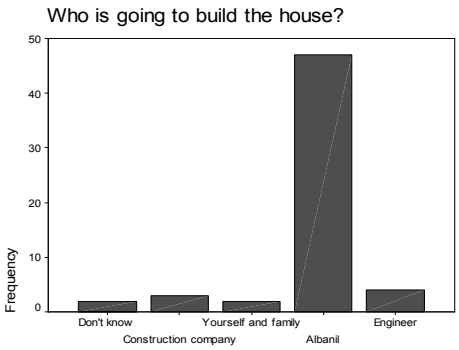


Table 47: Results of question Nº20 (Non Participants)

Who is going to design or designed your house?		
	Frequency	Percent
Don't know	5	8.33
Construction company	4	6.67
Albañil	21	35
Myself or family	14	23.33
Prototype	2	3.33
Engineer	10	16.67
Others	1	1.67
No body	3	5
Total	60	100

Source: JICA Study Team survey. November 2008

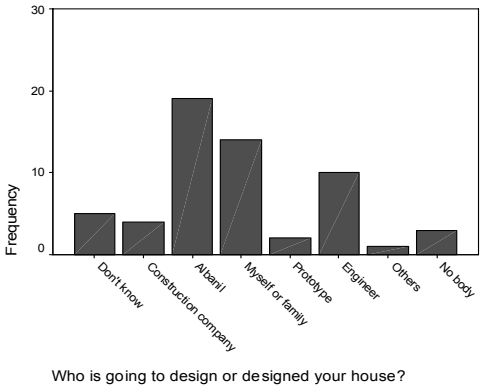


Table 48: Results of question Nº20 (Non Participants)

P20_OTHER		
	Frequency	Percent
Nonapplicable	59	98.33
planos	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

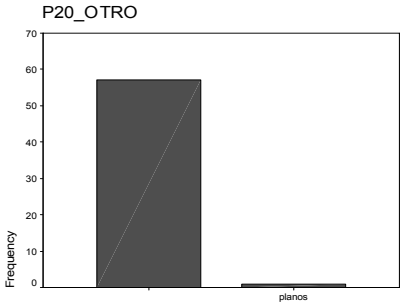


Table 49: Results of question Nº21 (Non Participants)

What material became expensive the most after EQ? (cement/stones/timber/steel rod/bricks/etc)		
	Frequency	Percent
Don't know	3	5
Yes	57	95
Total	60	100

Source: JICA Study Team survey. November 2008

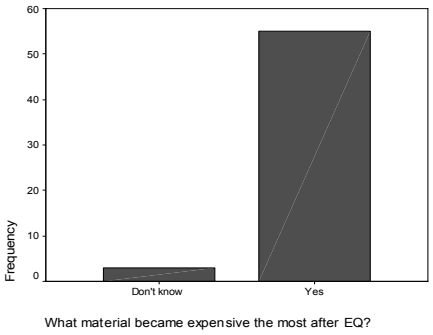


Table 50: Results of question Nº21 (Non Participants)

What material became expensive the most after EQ? (cement/stones/timber/steel rod/bricks/etc)		
	Frequency	Percent
Don't Know	4	6.67
Brick	6	10
Cement	1	1.67
Steel bar	22	36.67
All	27	45
Total	60	100

Source: JICA Study Team survey. November 2008

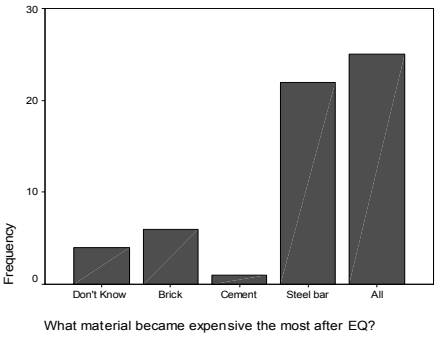


Table 51: Results of question Nº22 (Non Participants)

What do you the need the most to rebuild your house?		
	Frequency	Percent
Land	3	5
Funds	38	63.33
Materials	16	26.67
Technical advice	2	3.33
Land title	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

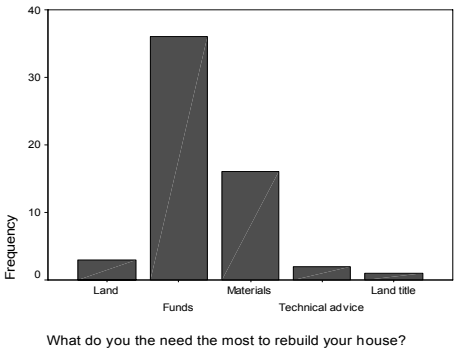


Table 52: Results of question Nº23 (Non Participants)

Do you know about the Building Permit?		
	Frequency	Percent
Yes	21	35
No	39	65
Total	60	100

Source: JICA Study Team survey. November 2008

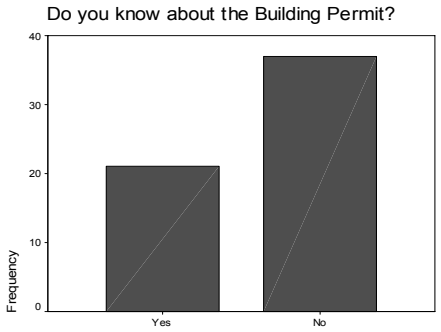


Table 53: Results of question Nº24 (Non Participants)

If you have started the rebuilding process. Have you request a building permit?		
	Frequency	Percent
Yes	2	3.33
Not yet	58	96.67
Total	60	100

Source: JICA Study Team survey. November 2008

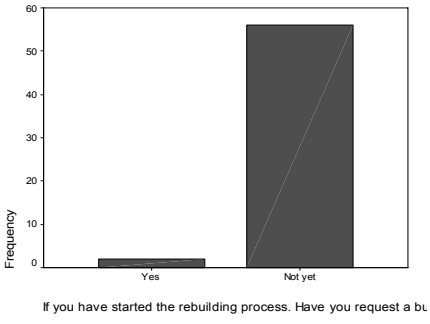


Table 54: Results of question Nº25 (Non Participants)

If yes, how was the process of the building permit at the municipality?		
	Frequency	Percent
Nonapplicable	58	96.67
Smooth	1	1.67
Cannot say	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

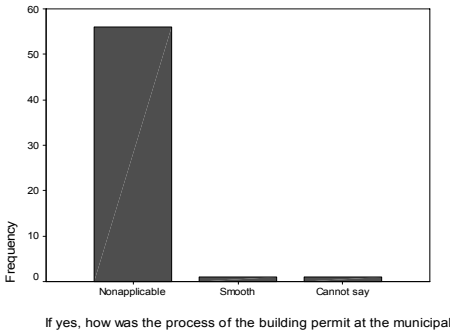


Table 55: Results of question Nº26 (Non Participants)

If no, why?		
	Frequency	Percent
Nonapplicable	15	25
I don't know what	37	61.67
Take a long time	2	3.33
It is expensive	4	6.67
It is not necesary	1	1.67
Others	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

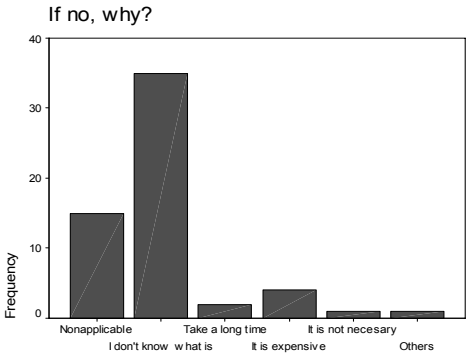


Table 56: Results of question Nº26 (Non Participants)

26_OTHERS		
	Frequency	Percent
Nonapplicable	59	98.33
It is not traditional	1	1.67
Total	60	100

Source: JICA Study Team survey. November 2008

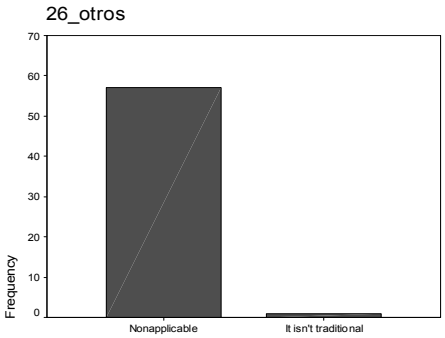


Table 57: Results of question Nº27 (Non Participants)

What kind of advice do you need to build safer house?		
	Frequency	Percent
Don't Know	6	10
Construction proce	16	26.67
Minimum requirem	2	3.33
Materials	10	16.67
Money	2	3.33
Others	11	18.33
Don't answer	7	11.67
All	6	10
Total	60	100

Source: JICA Study Team survey. November 2008

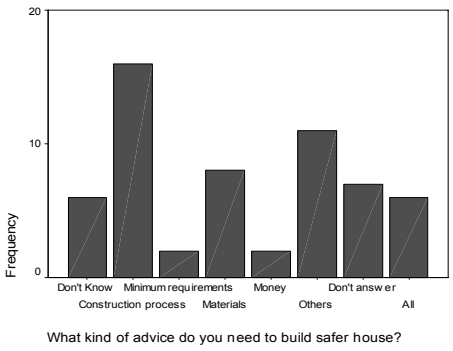


Table 58: Results of question Nº27 (Non Participants)

27_OTHERS		
	Frequency	Percent
Nonapplicable	48	80
Administratives process	1	1.67
albanil	1	1.67
Construction Com	1	1.67
Dissemination	1	1.67
friends	1	1.67
have a job	1	1.67
Models	1	1.67
soil study	1	1.67
Specialist	1	1.67
Stability Work	1	1.67
Technical advice	2	3.33
Total	60	100

Source: JICA Study Team survey. November 2008

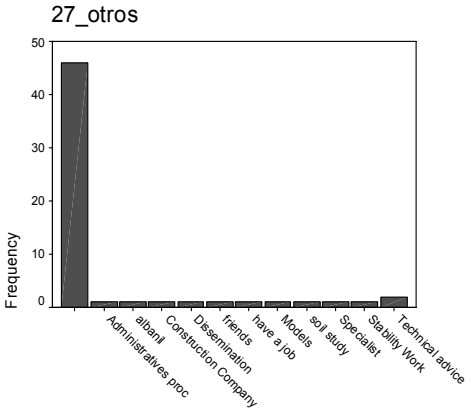


Table 59: Results of question Nº28 (Non Participants)

What assistance do you need to rebuild your house?		
	Frequency	Percent
Land registration	5	8.33
Funds	45	75
Building permit	1	1.67
Technical advice	6	10
Others	1	1.67
All	2	3.33
Total	60	100

Source: JICA Study Team survey. November 2008

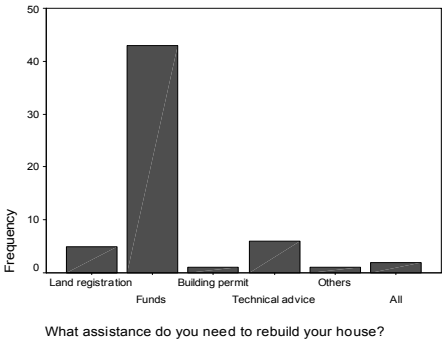
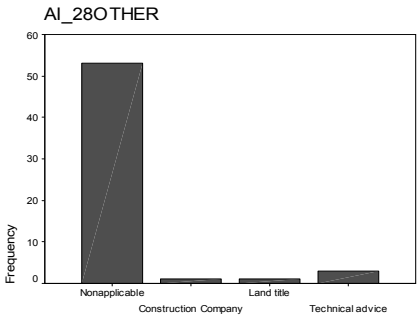


Table 60: Results of question Nº28 (Non Participants)

AI_28OTHERS		
	Frequency	Percent
Nonapplicable	55	91.67
Construction Com	1	1.67
Land title	1	1.67
Technical advice	3	5
Total	60	100

Source: JICA Study Team survey. November 2008



Appendix 15: Tables and Figures of Questionnaire for Municipality Officers

Table 01: General Results (Munipality officers)

Municipio	
	Percent
Pueblo Nuevo	33.33
Independencia	33.33
La Tinguiña	33.33
Total	100

Source: JICA Study Team survey. November 2008

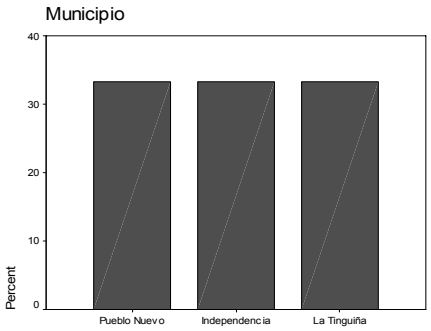


Table 02 : Results of question Nº1.1 (Munipality officers)

Was the activity useful?	
	Percent
Yes	100

Source: JICA Study Team survey. November 2008

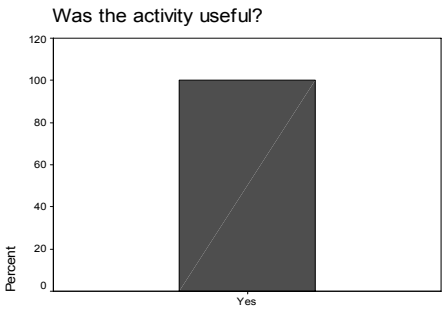


Table 03 : Results of question Nº1.2 (Munipality

If yes, which part of the contents was useful the most? (describe)	
	Percent
about confined masonry	16.67
about prototype, monitoring	16.67
Constructive process with more detailes, synthesized	16.67
Everything, because it is important	16.67
It is good to the people and the boss	16.67
the projects bank, minimum requeriments and manual of monitoring	16.67
Total	100

Source: JICA Study Team survey. November 2008

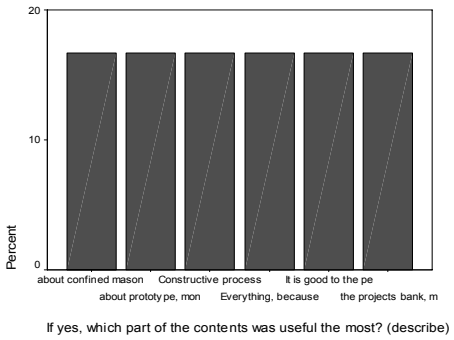


Table 04: Results of question Nº1.4 (Munipality officers)

What was the result after the OJT?	
	Percent
I can assist the people more on Building Permit	16.67
I can process more Building Permit than before	50
I know more about Building Permit and I can assist it	16.67
More knowledge about minimun requeriments	16.67
Total	100

Source: JICA Study Team survey. November 2008

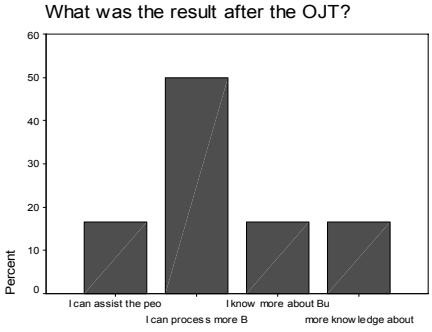


Table 05: Results of question Nº2 (Munipality officers)

What was useful for you by having a JICA project staff the most in your office?	
	Percent
Increase in technical advise	100

Source: JICA Study Team survey. November 2008

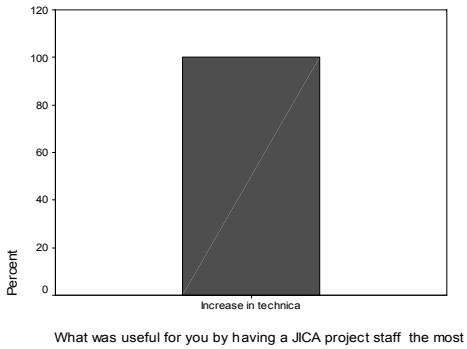


Table 03 : Results of question Nº3 (Munipality officers)

Do you need more training?	
	Percent
Yes	83.33
No	16.67
Total	100

Source: JICA Study Team survey. November 2008

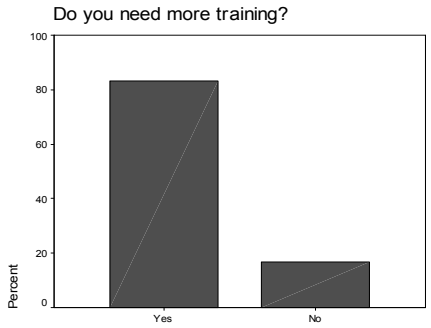


Table 04: Results of question Nº4 (Munipality officers)

If yes, on what subject?	
	Percent
Constructive processes	33.33
don't applied	16.67
laws, standards	16.67
Reading maps	16.67
Standards, urban growth, expansion of roads	16.67
Total	100

Source: JICA Study Team survey. November 2008

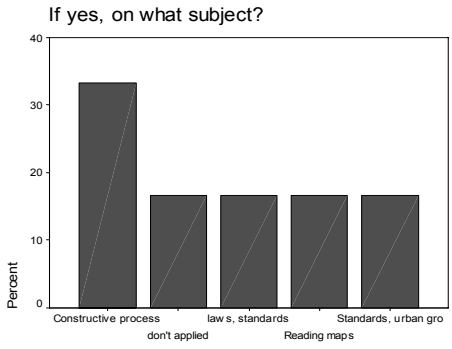


Table 05 : Results of question Nº5 (Munipality officers)

What is needed to increase the capacity of your section? (a) training	
	Percent
Yes	50
No	50
Total	100

Source: JICA Study Team survey. November 2008

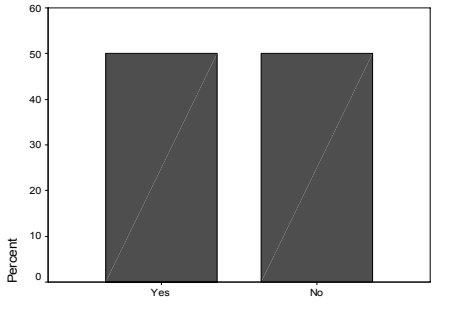
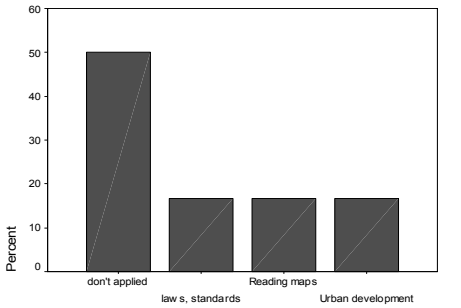


Table 06 : Results of question Nº6.1 (Munipality officers)

For whom answered (a)Training, what subject is needed for training?	
	Percent
don't applied	50
laws, standards	16.67
Reading maps	16.67
Urban development	16.67
Total	100

Source: JICA Study Team survey. November 2008

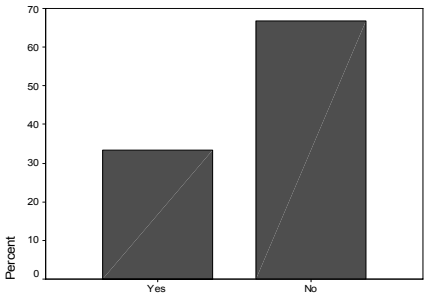


For whom answered (a)Training, what subject is needed for traini

Table 07 : Results of question Nº5 (Munipality officers)

What is needed to increase the capacity of your section? (b) more manpower	
	Percent
Yes	33.33
No	66.67
Total	100

Source: JICA Study Team survey. November 2008

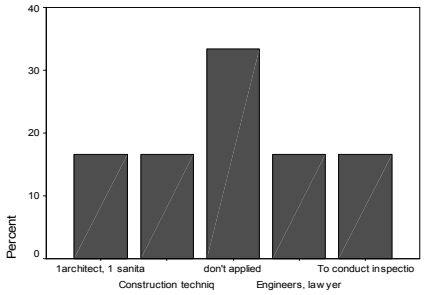


What is needed to increase the capacity of your section? (b) mor

Table 08 : Results of question Nº6.2 (Munipality officers)

For whom answered (b)More manpower, what kind of manpower is needed?	
	Percent
1architect, 1 sanitary engineer	16.67
Construction techniques	16.67
don't applied	33.33
Engineers, lawyer	16.67
To conduct inspections	16.67
Total	100

Source: JICA Study Team survey. November 2008

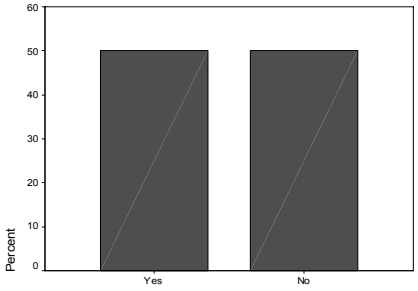


For whom answered (b)More manpower, what kind of manpower i

Table 09 : Results of question Nº5 (Munipality officers)

What is needed to increase the capacity of your section? (c)more funds	
	Percent
Yes	50
No	50
Total	100

Source: JICA Study Team survey. November 2008



What is needed to increase the capacity of your section? (c)more

Table 10 : Results of question Nº6.3 (Munipality officers)

For whom answered (c)More funds, why?	
	Percent
don't applied	66.67
for a better service	16.67
Logistics Material	16.67
Total	100

Source: JICA Study Team survey. November 2008

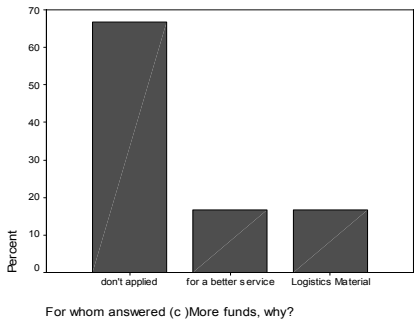


Table 11: Results of question Nº5 (Munipality officers)

What is needed to increase the capacity of your section? (d)equipments	
	Percent
Yes	50
No	50
Total	100

Source: JICA Study Team survey. November 2008

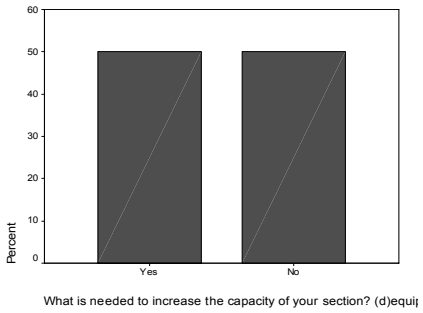


Table 12: Results of question Nº6.4 (Munipality officers)

For whom answered (d) Equipments, what kind of equipments are needed?	
	Percent
camera photographic	16.67
computers	33.33
don't applied	16.67
Theodolite, GPS, computers, winch	16.67
Theodolites	16.67
Total	100

Source: JICA Study Team survey. November 2008

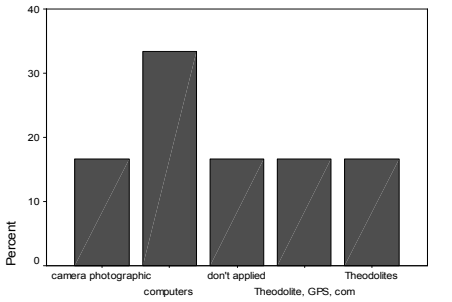


Table 13 : Results of question Nº7 (Munipality officers)

Is there increase in building permit application after Oct 2008?	
	Percent
Yes	66.67
No	33.33
Total	100

Source: JICA Study Team survey. November 2008

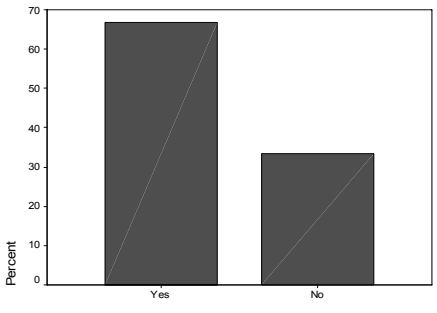


Table 14: Results of question Nº8 (Munipality officers)

If yes, how many?	
	Percent
Don't know	33.33
10	16.67
16	16.67
Nonapplicable	33.33
Total	100

Source: JICA Study Team survey. November 2008

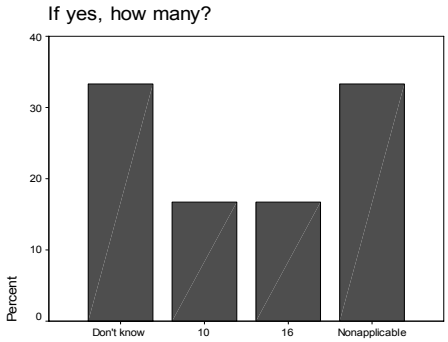


Table 15: Results of question Nº9 (Munipality officers)

What is the reason for it?	
	Percent
Asking for a loan through "Los	16.67
call atention the "safer house" and the prototype	16.67
Not answered	33.33
The Techniques Entities who have been processed	16.67
To advance the construction of houses	16.67
Total	100

Source: JICA Study Team survey. November 2008

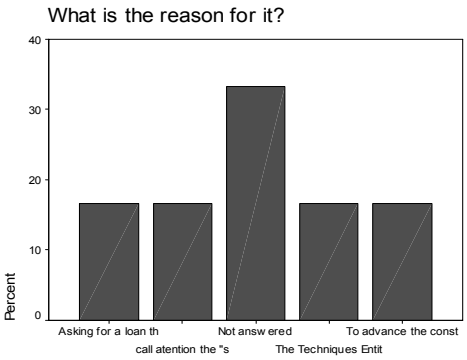


Table 16: Results of question Nº10 (Munipality officers)

What type of housing are applied the most?	
	Percent
complet	16.67
Confined Masonry	16.67
don't answer	16.67
Don't know	50
Total	100

Source: JICA Study Team survey. November 2008

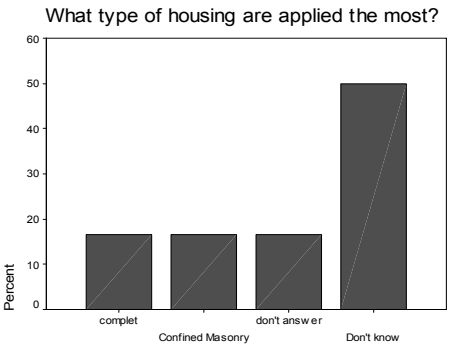


Table 17: Results of question Nº11 (Munipality officers)

How long the building permit will take to be granted? (days)	
	Percent
1 day	16.67
4 days	33.33
7 days	33.33
15 days	16.67
Total	100

Source: JICA Study Team survey. November 2008

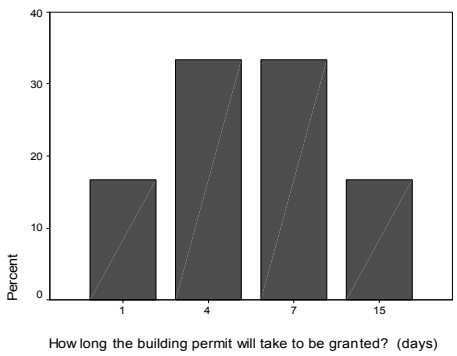


Table 18 : Results of question Nº12 (Munipality officers)

Is it shorter or longer before OJT?	
	Percent
Don't answer	16.67
Fast	66.67
Same	16.67
Total	100

Source: JICA Study Team survey. November 2008

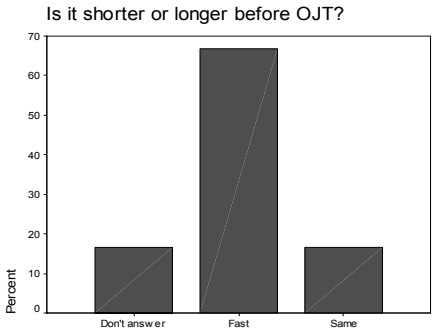


Table 19 : Results of question Nº13 (Munipality officers)

What is the reason for it?	
	Percent
Because they are Techo Propio's plans and they are aprove	16.67
Not answered	16.67
it were aproved	16.67
Nonapplicable	16.67
The staff has more knowledge	16.67
to the training	16.67
Total	100

Source: JICA Study Team survey. November 2008

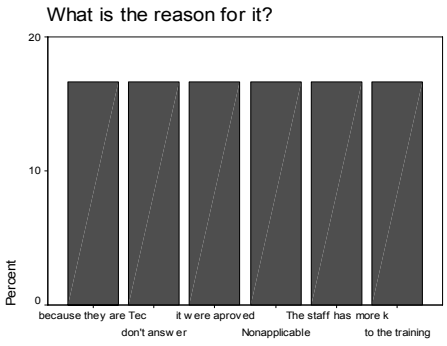


Table 20 : Results of question Nº14 (Munipality officers)

What is the effect of Proto Type Drawing on application of the permit positive or negative?	
	Percent
Positive	33.33
we can't see yet	66.67
Total	100

Source: JICA Study Team survey. November 2008

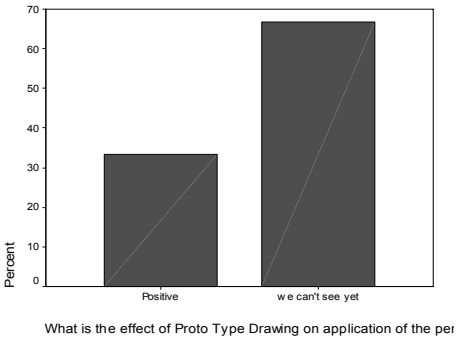


Table 21 : Results of question Nº15 (Munipality officers)

What is the reason for it?	
	Percent
Conducive to the public	16.67
don't answer	33.33
It isn't start yet	16.67
Lack the resolution of the municipality for approval of the bank project	16.67
Minimun cost to the people	16.67
Total	100

Source: JICA Study Team survey. November 2008

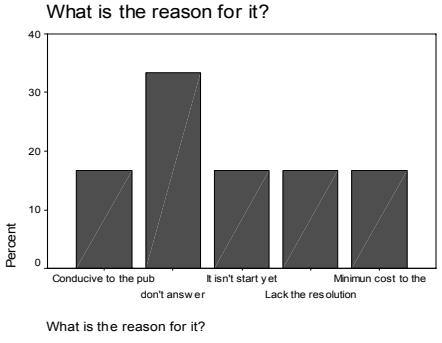


Table 22: Results of question Nº16 (Munipality officers)

What is the reason for people to come to your office?	
	Percent
Building Permit related	33.33
Certificate of possession	33.33
Technical assistance and building permit related	33.33
Total	100

Source: JICA Study Team survey. November 2008

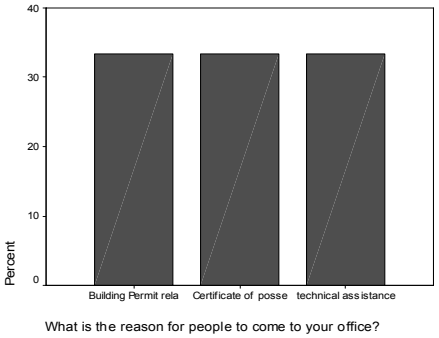


Table 23 : Results of question Nº17 (Munipality officers)

By what type of housing people are rebuilding?	
	Percent
Confined Masonry	100

Source: JICA Study Team survey. November 2008

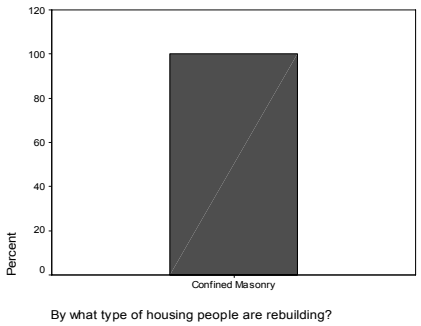


Table 24: Results of question Nº18 (Munipality officers)

Are people building safer houses?	
	Percent
Yes	83.33
No	16.67
Total	100

Source: JICA Study Team survey. November 2008

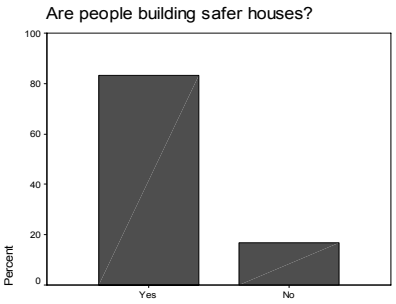


Table 25: Results of question Nº18.1 (Munipality officers)

If yes, how?	
	Percent
Because there are inspections and monitoring	16.67
Better materials	16.67
Nonapplicable	16.67
The materials for information are important	16.67
They are from Techo Propio	16.67
With the supporting of the construction company	16.67
Total	100

Source: JICA Study Team survey. November 2008

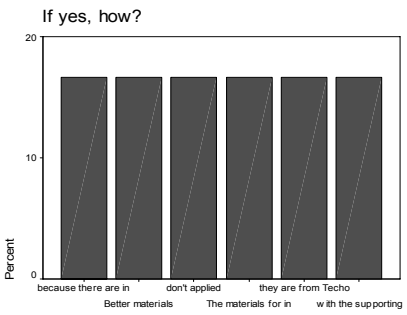


Table 26: Results of question Nº19 (Munipality officers)

Who is going to build the house?	
	Percent
Construction company	50
People and family	33.33
Techo Propio	16.67
Total	100

Source: JICA Study Team survey. November 2008

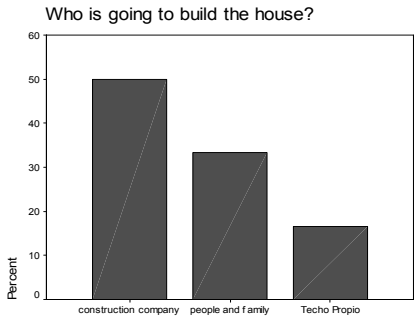


Table 27 : Results of question Nº20 (Munipality officers)

Who designed their house?	
	Percent
Don't know	33.33
construction company	50
Techo Propio	16.67
Total	100

Source: JICA Study Team survey. November 2008

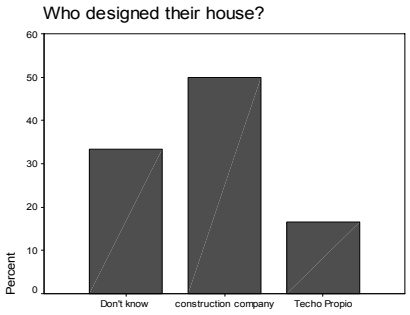


Table 28: Results of question Nº21 (Munipality officers)

By how much is the price of materials is getting expensive after EQ?	
	Percent
Don't know	33.33
30%	16.67
100%	50
Total	100

Source: JICA Study Team survey. November 2008

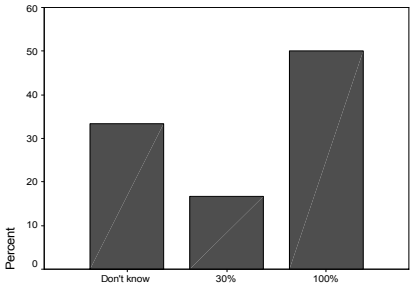


Table 29 : Results of question Nº22 (Munipality officers)

What is the problem affecting the people to reconstruct houses the most?	
	Percent
Don't have land title and the increase of materials	16.67
Lack of financial support, subsidies	16.67
Funds	50
The material cost and the technical direction	16.67
Total	100

Source: JICA Study Team survey. November 2008

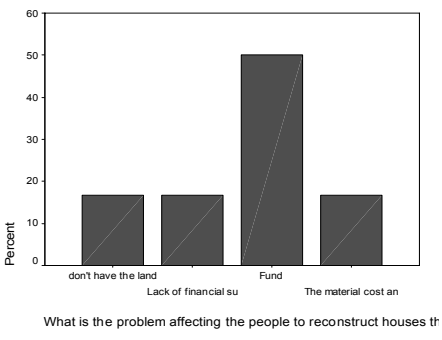


Table 30: Results of question Nº23 (Munipality officers)

What can be done to increase the people to reconstruct houses the most?	
	Percent
Bring attention to the real victims	16.67
Guide to built safe housing	16.67
Have credit line from the Goverment	16.67
Increase the bonus	16.67
Loans with low interest and long-term, remissions	16.67
The Goverment must intervene in the regulation of prices	16.67
Total	100

Source: JICA Study Team survey. November 2008

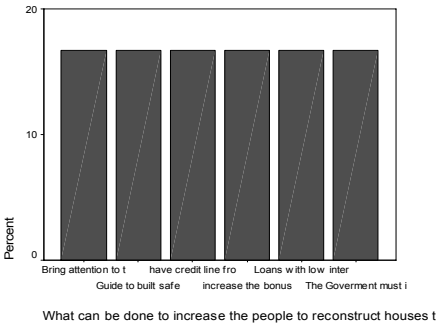


Table 31 : Results of question Nº24 (Munipality officers)

What can be done to increase the reconstruction of houses the most by your section?	
	Percent
Speed up the process	33.33
Technical advice	50
Speed up the process and technical advice	16.67
Total	100

Source: JICA Study Team survey. November 2008

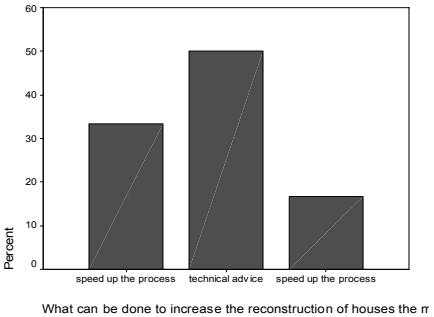


Table 32 : Results of question Nº25 (Munipality officers)

What do you know about etc studies done in your District? (INDECI)	
	Percent
Yes	33.33
No	66.67
Total	100

Source: JICA Study Team survey. November 2008

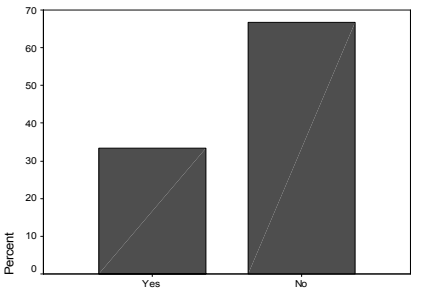


Table 33 : Results of question Nº26 (Munipality officers)

Are you using those outputs?	
	Percent
Yes	16.67
No	83.33
Total	100

Source: JICA Study Team survey. November 2008

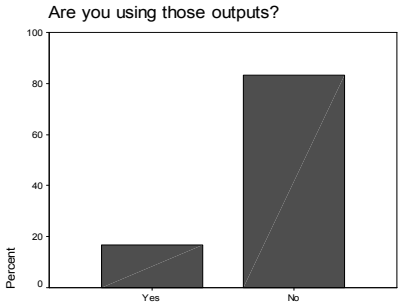


Table 34 : Results of question Nº27 (Munipality officers)

If yes, why?	
	Percent
Nonapplicable	50
Technical Area	33.33
When you want to adopt an urban empowerment	16.67
Total	100

Source: JICA Study Team survey. November 2008

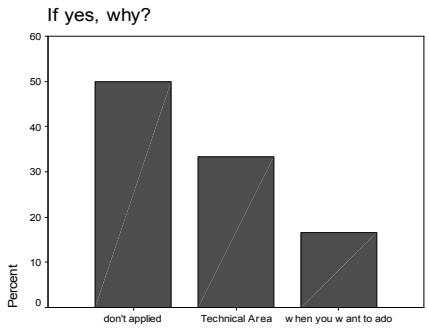
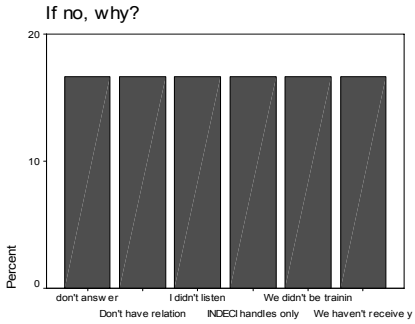


Table 35 : Results of question Nº28 (Munipality officers)

If no, why?	
	Percent
We haven't receive yet	16.67
Not answered	16.67
Don't have relation with our job	16.67
I didn't listen	16.67
INDECI handles only in vulnerable areas. We don't have time to read the laws, we preferring exhibitions.The process by the Central Government is very slow	16.67
We didn't be training	16.67
Total	100

Source: JICA Study Team survey. November 2008



Appendix 16: Table of Questionnaire for Albañiles

	Q1: Age and years of working expirience	*Q2:Certificate by SENCICO. What learnt in SENCICO*	*Q3a:What building construction are you working now?*	*Q3b: Location*	*Q3c: Who is the client?*	*Q3d: How long is your present contract?*	*Q4:What type of material used for the building construction that you are now working*	*Q5a: Do you have a request or job of individual housing construction from earthquake victims?*	*Q5b: Working on individual housing construction for earthquake victims, is it funded by BONO 6000, Techo Propio, combined both of them, or other loans?*	*Q6:Are there any differences in your job as Albanil before and after the EQ?*	*Q7: 7. What is the most important skill needed for Albanil?*
A1	45 years old and 10 of experience	No, none	House with confined masonry	Chincha	Family	1 week	Confined Masonry	Yes	No, is own money	Yes, quality in order to maker anti-seismic houses	Know all the aspects of the construction business: plumbing, electricity.
A2	49 years old and 29 of experience	Yes, I am "Carpentry Technician"	CBI, gas plant.	Panamericn Highway	Private sector	40 months	Metal mechanic	Yes	-	Yes, quality in order to maker anti-seismic houses	Know how to build an anti-seismic constructions.
A3	39 years old and 15 of experience	Yes, I am "Frameworks Technician". But the certificate	House with confined masonry	Chincha	Family	15 days	Reinforced Concrete	Yes	Yes, Techo Propio	Yes, quality in order to maker anti-seismic houses	Technical expertise and
A4	34 years old and 16 of experience	No, none	House with confined masonry	Chincha	Family	1 and half month	Reinforced Concrete	Yes	No, is own money	Yes, quality in order to maker anti-seismic	Know how to read plans
A5	46 years old and 10 of experience	No, none	Construction company that is building a Public School	Chincha	Public sector	Til the building process is over.	Concrete	Yes	-	Yes, quality in order to maker anti-seismic houses	Technical expertise

VOLUME 7

Detailed Data and Other Information

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The 1st Meeting of First Stage between JICA Study Team and Peruvian Counterpart Members (MVCS)

JICA Project Office, 1st Flr., PetroPeru Building

April 3, 2008, 3:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Yoshihiro Asano
- Mr. Kyoichi Sugiyama
- Mr. Shozo Kawasaki
- Mrs. Denise Kiyomoto
- Mr. Iván Zapata

Peruvian Counterpart

- Mr. Fernando Neyra (D.N.V.)
- Mr. Humberto Herrera (D.N.V.)
- Mr. Carlos Condorcocha (SENCICO.)
- Mr. Iván Vassallo (D.N.V)

(2) Members of JICA Study Team and Peruvian Counterpart

	JICA TEAM		PERUVIAN COUNTERPART	
	NAME	EMAIL	NAME	EMAIL
Team Leader	Ichiro Kobayashi	Koba-645@pcitokyo.co.jp	David Ramos	dramos@vivienda.gob.pe
Institutional Improvement and Organizational Assessment	Yoshihiro Asano	y-asano@cybercap.com	Ing. Fernando Neyra	aneyrap@vivienda.gob.pe
Seismic Resistant Structure	Kyoichi Sugiyama	sugiyamaseeds@yahoo.co.jp	Carlos Condorchoa	ccondorchoa@sencico.gob.pe
Construction Management	Shozo Kawasaki	kawa-187@pcitokyo.co.jp	Enrique Carrión	ecarrion@vivienda.gob.pe
Support of Earthquake Victims/Gender	Hiroto Tanaka	h.tanaka@jade.or.jp	Iván Vassallo	mvassallo@vivienda.gob.pe
Project Coordinator	Miki Kishitani	kishitakem@pcitokyo.co.jp	Humberto Herrera	hherrera@vivienda.gob.pe
Interpreter	Denise Kiyomoto	dkiyomoto@gmail.com		

(3) Activities conducted during the initial period from March 3 to today

Mar. 5	Discussion of Inception Report of the Study with MVCS, SENCICO, FORSUR, INDECI and others at the JICA office
Mar.6 - Mar.9	Field visit to the affected area in ICA, PISCO and CHINCHA Provinces
Mar.7	Discussion of Inception Report of the Study with ICA Regional Government
Mar.12 – Mar.13	Field Visit, Meeting with ICA Regional Government
	Meeting with NGO in Chincha
Mar.14	Discussion with Dr. Kuroiwa
Mar.17	Visit to Pontifical Catholic University of Peru
Mar.18	Presentation of rehabilitation and reconstruction activities by SISMID, SENCICO, FORSUR and INDECI
Mar.19	Meeting with CARE
Mar.26 – Mar.27	Meeting with Municipality District of Tambo de Mora, Chincha Province
	Meeting with Municipality District of San Clemente, Pisco Province
	Meeting with Municipality District of La Tinguiña, Ica Province
	Meeting with Municipality District of Santiago, Ica Province
	Meeting with Municipality District of Salas Guadalupe, Ica Province
Mar.28	Discussion with CARE
Mar.31	Set up office space in the PetroPeru Building
Apr.2	Meeting with BANMAT
	Meeting with FORSUR
Apr.4	Meeting with MI VIVIENDA

(4) Major Tasks to be done during the First Phase, by the end of May

Task A: Basic Investigation

Relevant data and information in the study area shall be collected and reviewed. In particular, focus shall be on the following:

Geographic and socio-economic conditions

Geographic and socio-economic conditions of the study area should be collected especially administrative boundaries, population, household, area, and income. The maps of the study area should be collected.

Damages by the earthquake

Study Team will collect damage data of building by structure type through using existing damage survey results. The damage distribution will be drawn on the map by damage ratio and structure type.

Current situations of reconstruction of house in the study area

Study Team will collect data of number of housing reconstructed by structure type. Study Team will carry out site investigation to confirm the quality of housing construction by local engineers.

Relevant laws and regulations for the administration of housing construction

The laws and regulations regarding housing construction should be collected for both central and local governments. The special laws, which apply only for earthquake damaged areas, should be collected. The government support programs and materials for housing reconstruction should be collected.

Rehabilitations and Reconstruction plans

The government is preparing rehabilitation and reconstruction plans, land use and development plans for damaged area. Study Team will collect those plans.

Socio-economic conditions for earthquake-affected households

Study Team will conduct interview survey for affected people in the study area. The Target groups of interview survey are government organizations, universities, private companies, associations and community based organizations

Training programs for housing construction worker

Training program for construction master and workers should be collected. The items to be collected include the contents of training program, texts, methods, targets and training costs.

The collected data should include adobe housing reconstruction scheme. The information of JICA funded program for low cost housing seismic-resistant project should be collected.

Task B: Identification of issues and problems on reconstruction of house with adequate seismic resistance

Preparation of detailed administrative workflow of housing reconstruction

Study Team will clarify the whole process of housing reconstruction process, from earthquake damage to housing reconstruction: They will also add or revise the work items on housing reconstruction process. In order to make recommendations on the housing

reconstruction process, Study Team will carry out interviews with stakeholders. The interview items should cover whole topics of housing reconstruction such as institutional, organizational, financial and technical aspects. They also include urgency, efficiency and sustainability of housing reconstruction.

Identification of bottlenecks

Study Team will identify and analyze the causes of the bottlenecks of each housing reconstruction process. Since this analysis will become the backbone of draft acceleration plan for housing reconstruction, Study Team will propose possible improvements by identification of real bottlenecks. The bottlenecks analysis should include the following items.

- Accessibility of victims to government led housing reconstruction support program
- Dissemination and support programs for seismic resistant construction techniques and knowledge
- Government housing reconstruction administrative system and inspection system during construction

Task C: Preparation of draft housing reconstruction

Based on the above mentioned analysis, Study Team will formulate a draft plan for housing reconstruction acceleration, which will include workable recommendations on resolving the bottlenecks. The plan will include the following policies and recommendations.

- Accessibility by the victims to government support programs for housing reconstruction
- Dissemination of seismic resistant construction techniques and knowledge
- Strengthening of housing reconstruction administrative system in the provincial and district level

Task D: Planning and preparation of pilot projects

Study Team, together with the Peruvian counterpart agency MVCS, will propose pilot projects in selected areas. The basic ideas of pilot projects are included in the housing reconstruction acceleration plan. Those pilot projects are designed to evaluate effectiveness and possibility of implementation. Regarding the area of pilot projects, one district each will be selected from the provinces of Ica, Pisco and Chincha. Selection of a pilot district will be determined through discussion of the MVCS, regional government of Ica, and the three provinces mentioned above. Tentative selection criteria are as follows:

- Ability of government organizations and related agencies to manage all pilot projects
- Existence of clear administrative regulations or bylaws
- Ability of the administrative organization to prepare a manual and check sheets

- Ability of the organization to carry training based on the manual and check sheets
- Ease and simplicity to improve seismic resistance capacity.
- Effectiveness of organization's incentive mechanism for implementation of policy

Preparatory work for pilot projects

Study Team will prepare at least three (3) pilot projects, estimate cost, establish cooperation among related organizations, clarify their roles and responsibilities, and share the costs among the organization.

The 2nd Meeting of First Stage
Between JICA Study Team and Peruvian Counterpart Members (MVCS)

JICA Project Office, 1st Flr., PetroPeru Building
April 18, 2008, 4:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Kyoichi Sugiyama
- Shozo Kawasaki
- Mrs. Denise Kiyomoto
- Mr. Iván Zapata

Peruvian Counterpart

- Mr. Iván Vassalo (D.N.V.)
- Mr. Humberto Herrera (D.N.V.)
- Miss Zelideth La Torre (D.N.V.)
- Miss Gabriela Esparza (SENCICO)
- Mr. Roberto Prietos (D.N.C.)

(2) Material used

- Ica Regional President's Letter requesting the cooperation of each District Municipality Mayor
- Copy of field survey sheet (Spanish and English)
- Copy of Table 19, "Ideal program to facilitate a reconstruction of seismic resistant houses by District Municipalities"
- Pilot project prioritized by District Municipalities
- Flow diagram of the access to the Bono 6000 by the affected persons
- Questionnaire for the Stakeholder Survey

(3) Summary of Meeting

During the meeting, the study team communicated to the Counterpart about the studies carried out in the study area, and copies of reports made by the team were handed out, explaining in detail the progress of the studies.

As for the flow diagram of the access to the Bono 6000, Counterpart clarifies some doubts expressed by members of the study team, letting them know that the Ministry of Housing promotes the benefits to the owners of houses not built.

JICA Study Team reports that through the surveys conducted in the South, it was found that many of the officials of the Municipalities are unaware about the benefits in accessing the Bono 6000. The Counterpart explained that the training was conducted in these areas and the reasons that many of them are unaware is because it is possible that the staff in charge has been rotated, but that they would have to take necessary action in this regard.

Preference of model homes by the Municipalities of the 33 districts is disclosed. The study team informed Counterpart that the purpose of developing a handbook is to give both the owner and the manufacturer an idea of techniques employed in the construction of the model homes. It is known to the counterpart that JICA Urban Rehabilitation is out of the scope of the present project.

Counterpart is requested to read and evaluate the proposals (briefing) as well as to provide ideas or correct any information.

The 3rd Meeting of First Stage
between JICA Study Team and Peruvian Counterpart Members (MVCS)

JICA Project Office, 1st Flr., PetroPeru Building
April 30, 2008, 4:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Kyoichi Sugiyama
- Mr. Shozo Kawasaki
- Mr. Hiroto Tanaka
- Miss Miki Kishitani
- Mrs. Denise Kiyomoto
- Mr. Iván Zapata

Peruvian Counterpart

- Ing. David Ramos (D.N.V.)
- Mr. Humberto Herrera (D.N.V.)

(2) Summary of Meeting

The meeting started with a report on the progress of the work at the study area. Counterpart was informed that field survey has been completed in each district of the province visited.

The report disclosed that the major factor to delay house reconstruction at the 33 districts is lack of capital. Counterpart adds on this point by saying that this is due to the lack of construction companies to help channel the issue of bonus, and this deficiency causes the delay.

Following the presentation of the social field survey, data collection survey from municipalities in 33 districts in Ica Region by earthquake damage was explained, as well as detailed table that corresponds to each detail of each daily inspection at the district level, with the conclusions reached: lack of consciousness of government, need for greater and more efficient dissemination by the government side, greater economic resources, greater trained human resources and control of construction material prices. Counterpart explains the Ministry is gathering information to publish a manual of construction, adding that the JICA database would be very helpful, and praising the work being done in such detail.

Then, the study team made the presentation schemes of the priorities of pilot projects that garnered much acceptance in the survey made by the task force.

Pilot project “A” deals with prototype drawings of seismic-resistant houses for the purpose of facilitating the judgement to issue a building permit. Counterpart indicates that already there is a law waiting to be put in force, which deals with the creation of a Bank Project, to be available in every municipality for families to choose. So, by paying a minimum fee, families get a design of their chosen house: this idea fits perfectly into this pilot project "A".

The next pilot project "k" is about constructing a model house with direct intervention of people for the purpose of learning and practicing the technical procedures to build an adequate house. This training would last two months with approximately 20 people educated by SENCICO, and one day for the general population. The purpose of this project is to present a visual explanation and demonstration the next time training is held, so that people would know what it is all about and not lose interest, because it is of great importance. So this project would be filmed and then distributed. Counterpart shows interest in this project because it not only covers home rebuilding, it would also show who are genuinely interested in helping.

The draft "J" is about Mobile kiosks to provide information to people about everything related to house reconstruction (government programs, building permit, etc.). This Mobile Kiosks can be located in many places depending on where people congregate. Counterpart says that their side will not only promote but facilitate the operation of projects. Counterpart adds that, at the outset, the Ministry carried out the dissemination, but in one place only and not permanently. Counterpart again praised these ideas because they could really appeal to everyone.

Finally, JICA Study Team expressed their appreciation of Counterpart’s views; Counterpart responded that they will submit their reports.

The 1st Meeting of Second Stage
between JICA Study Team and Peruvian Counterpart Members (MVCS)

JICA Project Office, 1st Flr., PetroPeru Building
July 17, 2008, 4:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Ichiro Kobayashi
- Mr. Kyoichi Sugiyama
- Mrs. Nami Hirai
- Mrs. Denise Kiyomoto

Peruvian Counterpart

- Ing. Fernando Neyra (D.N.V.)
- Arq. Arturo Ríos (D.N.V.)
- Sr. Humberto Herrera (D.N.V.)
- Ing. Mejia C. (D.N.C.)
- Ing. Gabriela Esparza (SENCICO)
- Arq. Maria del Carmen Delgado (SENCICO)
- Mr. Alfredo Perez Gallego (INDECI)
- Mr. Antonio Barragan Escajadillo (INDECI)

(2) Summary of Meeting

- On July 17th, 2008 at 04:00 p.m., JICA Study Team members met with Peruvian Counterpart, to start the 1st meeting of Second Stage, announcing the next works at the study area.
- In the Work Plan, for the Second Stage, the places to run pilot projects 1, 2 and 3 were given. These will be in Pueblo Nuevo in Chincha, Independencia en Pisco and La Tinguiña in Ica.
- For this project, the study team will conduct a competitive bidding process for the selection of a Construction Company and NGOs, to help implement the projects.
- The study will invite Construction Companies and NGOs to participate in this bidding process.

- The winning company will begin 01 Project, which made the prototype plans, manuals, designs of these houses based on subsidies of Bono 6000 and TECHO PROPIO, the same ones that are guaranteed by the Ministry of Housing.
- As for the manuals, these are illustrative and understandable to the villages.
- On the other hand, INDECI offered to conduct a manual survey of the Land and People of Tinguiña again, which can be very helpful for the Study.
- Also, the representative of INDECI, suggested that there is no need to hire construction companies or NGOs. The representative also said that SENCICO can do the job and stated that SENCICO had an opportunity to undertake a similar project for the Department in Arequipa.
- Counterpart argues that it is not necessary that the Ministry verify and give the approval to the prototype drawings, because they are small construction works and are within the requirements of each municipality; provided that everything conforms to the standard of the municipality, a construction permit is automatically granted. These rules will be handed over to JICA Study Team for their attention.
- Counterpart stated that JICA has its specific projects and the study team is free to choose the company to undertake them based on the bids submitted; INDECI's comment about SENCICO should be taken as just a suggestion.
- As for the Pilot Project 2, component 2.1, this will be carried out under coordination of SENCICO - Ica, will be the executors - through construction methods, enabling the group, as well as having knowledge of the quality and care of equipment. With the help of SENCICO, Ica will prepare a simple and basic manual with very clear ideas.
- In Section 2.2 and Project 3, together with the NGOs will mark the work of guiding events to help promote these projects and thus draw the attention of the community. This is a social work which will be very helpful.
- It was suggested by Counterpart to emphasize when training to groups that building freely is not the objective. It should be made clear that it is training to bring awareness of the works carried out to build their homes through subsidies granted by the Peruvian state.
- The work detail of the projects is attached in the scope of work.

The 2nd Meeting of Second Stage
between JICA Study Team and Peruvian Counterpart Members (MVCS)

Protocol Room of MVCS, 3rd Flr., PetroPeru Building
September 5, 2008, 4:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Ichiro Kobayashi
- Mr. Kyoichi Sugiyama
- Mrs. Nami Hirai
- Mrs. Denise Kiyomoto

Peruvian Counterpart

- Ing. Fernando Neyra (D.N.V.)
- Arq. Arturo Ríos (D.N.V.)
- Sr. Humberto Herrera (D.N.V.)
- Ing. Mejia C. (D.N.C.)
- Ing. Gabriela Esparza (SENCICO)
- Arq. Maria del Carmen Delgado (SENCICO)
- Mr. Alfredo Perez Gallego (INDECI)
- Mr. Antonio Barragan Escajadillo (INDECI)

(2) Summary of Meeting

The Ministry of Housing was informed about the executing companies (Master Building, SENCICO and ADRA), details (objectives, products, goals, schedules and scope of intervention), changes (information) and progress of pilot projects 1,2 and 3, up to the present. Drs. Sugiyama (pilot 1 and 2.1) and Asano (pilot 2.2 and 3) were in charge of the PowerPoint presentations.

At the end of the presentation JICA Study Team requested the presence of an MVCS representative at the start of construction of the model at Pueblo Nuevo, scheduled for September 15.

JICA Study Team made a request for the MV to review and comment on the building permit manual, of Pilot Project 1.

A question and answer session followed:

Similarity of projects: Peruvian counterpart manifested that the ministry has an on going project similar to pilot project 1; the objective is to train the technical personnel of the municipalities to access the Bono 6000 up to works supervision, and they do not want a contradiction with JICA project for they will be executed in all affected districts, under Peruvian laws. Sugiyama says that it was the first time he heard about such project of MV. The MVCS wants to determine the target population: JICA Study Team with the population and MVCS with the municipalities. MVCS would rather retreat from the field to complement JICA's work and not confuse the population. The study team hopes they work together. MVCS said they have an office in Pisco close to JICA's. MVCS team in Pisco is composed of UNDP consultants Jimy Espezúa (engineer), Antonio Huaranga (engineer) and César Reátegui (lawyer). Project name: Strengthening of local government capacities affected by the August 15 earthquake.

MVCS representatives said they were only recently included in this type of meetings, although they knew about the contents of the Interim Report prepared by JICA Study Team. They said they will brief Ing. Neyra about this meeting.

Scope of intervention: MVCS asked why the project was to be implemented in only three districts, and if it would be extended to the entire Ica region. JICA Team answered that they are pilot projects to identify the final results and also there are budgetary constraints to extending the project.

Pilot Project 1 and the manual: The MVCS indicated that there is a law in force and another one is to be implemented. It was asked if the manual planned by JICA Team is based on the regulation in force. JICA Study team answered that the idea is to provide safe and free prototype drawings to support the supervision system at the municipalities because there are deficiencies for the supervision. The manual is a support for this lack of resources (personnel).

In reference to Interim Report, MVCS said that project 1 was originated due to the existence of distinct building permit processes and the great quantity of untitled land. The MVCS is worried about the relationship between the manual and the regulations, for the Municipalities are subject to the National Comptroller, and if the municipalities adopt this manual as regulation they would be making a mistake. The MVCS project considers the regulation in force but has not started yet, and asked once again if the manual will make it easy to get a building permit but in accordance with the law. JICA Team stated that they are not changing the law, it has been revised and that is why it has the quality of a proposal.

On the other hand, JICA Study Team said that the pilot projects are development studies with the purpose of showing examples and suggestions and that is why they are developed in three areas as evaluation to prove the effectiveness. MVCS asked the extension in a massive

way. JICA manifested that the conditions with MVCS were not established, and that is why they proceeded with the pilot projects.

The MVCS asked about the distribution of prototypes and how many they were, so the team answered that the prototypes will be submitted to the MVCS and this institution will decide whether to disseminate or just file them; also it was answered that the total number of prototype drawings would be 64, and that it would be possible to build them with Bono 6000 and the BFH, and the characteristics of the lots were also taken into consideration.

MVCS asked about the personnel in charge of the officers trainers, so JICA Study Team introduced the local staff present at the meeting. The MVCS asked about their functions and if they were familiar with the regulations. Once more JICA stressed that they have reviewed the law 27157 and its norms as also the pending law facilitating the automatic building permit and they are waiting for its publication, emphasizing that the existing form (FUO) is too difficult to fill in by the population, even by engineers in charge of the construction project. Besides, the function is to propose not to impose and that everything has been adjusted to the Peruvian law. The MVCS considered important the pilot contribution.

One of the other points considered by the MVCS was the municipal regulations for the simplification of building licenses concerning procedures and cheaper fees and asked if JICA Study Team was considering such aspects. MVCS informed that La Tinguiña is implementing regulations to facilitate the process in case TechoPropio procedures accelerate. MVCS said that they have samples of regulations (La Tinguiña) that they can facilitate to JICA.

Information provided by the Kiosco: The MV asked about the information to be provided in relation to TechoPropio. JICA Study Team explained that as Bono 6000 is not enough to build a house, the association with BFH and so the application to TechoPropio program will be recommended. The MVCS requested that the promoters should emphasize that BHF as well as Bono 6000 are subsidies provided by the Peruvian government and that there is no need for repayment.

Construction companies should construct according to the minimal requirements of TechoPropio conditions and the population should be well aware of the quality of material and the costs. The existing list of construction companies working in Ica and Lima will be provided by the MVCS

Prepared by: María Isabel Ruíz Palma

The 3rd Meeting of Second Stage
between JICA Study Team & Peruvian Counterpart Members (MVCS)

JICA Project Office, 1st Flr., Petroperú Building
November 13, 2008, 4:00 p.m.

(1) Attendees

JICA Study Team

- Mr. Ichiro Kobayashi
- Mr. Kyoichi Sugiyama
- Mr. Yoshihiro Asano
- Mrs. Denise Kiyomoto

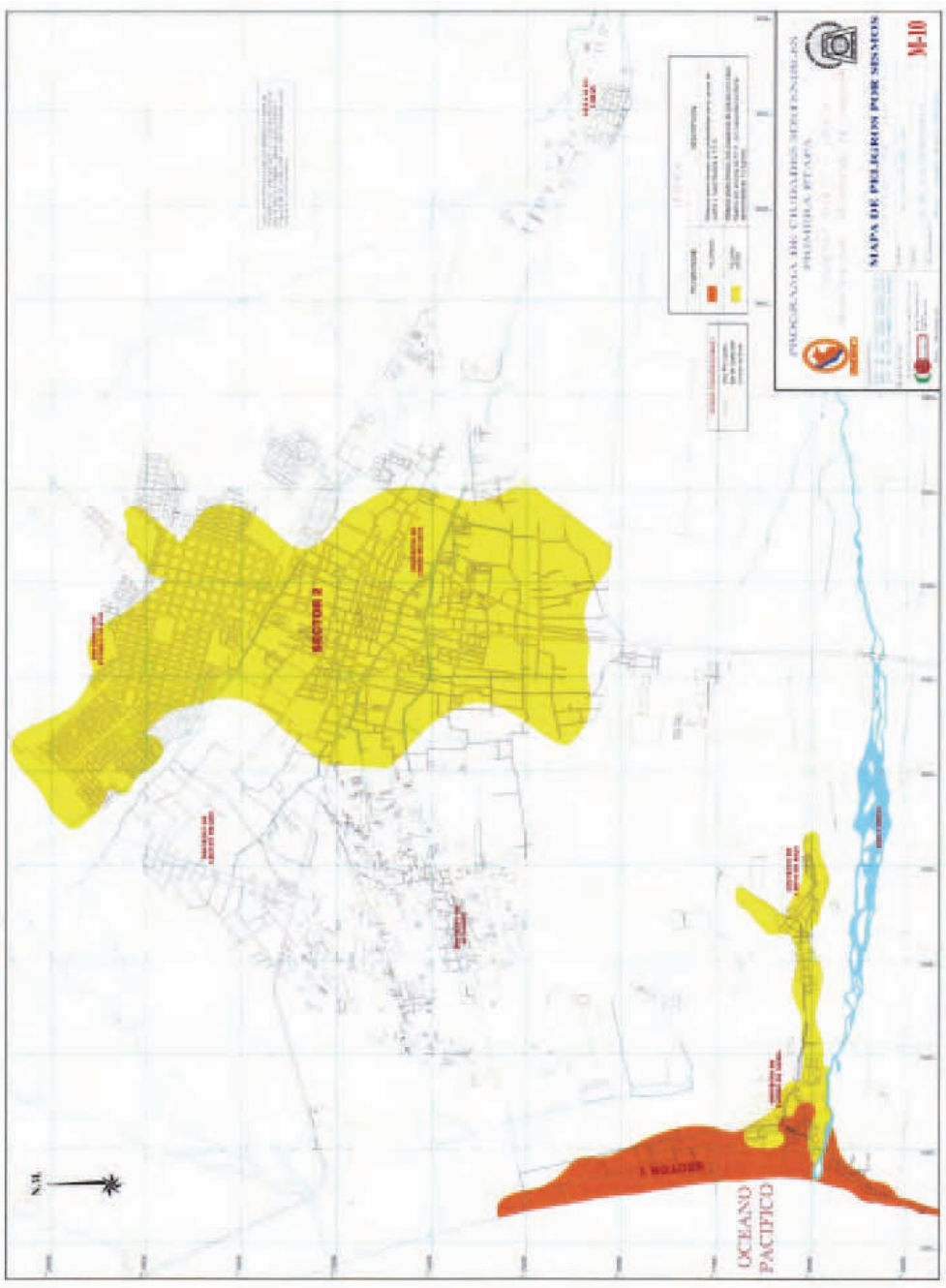
Peruvian Counterpart

- Arq. Haydee Yong Lee (D.N.V.)
- Ing. Iván Vassallo Olano (D.N.V.)
- Mr. Humberto Herrera (D.N.V.)
- Ing. Carmen Kuroiwa Horiuchi (SENCICO)
- Ing. Gabriela Esparza (SENCICO)
- Mr. Fernando Marca Ch.
- Oficina General de Planificación y Presupuesto del Ministerio de Vivienda (OGPP)
- Mr. Ricardo Gálvez G.
- Oficina General de Planificación y Presupuesto del Ministerio de Vivienda (OGPP)

(2) Summary of Meeting

- JICA Study Team informed the counterpart of the progress of Pilot Project 1, 2 and 3. The descriptions in PowerPoint were given by Mr. Sugiyama (Pilot 1 and 2.1) and Mr. Asano (Pilot 2.2 and 3).
- JICA Study Team also reported that, on Friday, Nov. 14, in the District of Pueblo Nuevo, the course "Awareness about Safer Housing Reconstruction", which was conducted by SENCICO under JICA Study Team financing, will end. The objective of the course was to raise awareness on building safer housing, to 20 residents of the District of Pueblo Nuevo, by applying the concept of “Minimum Requirements”.

- Peruvian counterpart asked why the draft and not the final report would be submitted. JICA Study Team replied that the draft final report would be submitted to the Ministry of Housing in the month of March 2009, and then the Peruvian counterpart should make comments and suggestions, and thus final report would be prepared and submitted. This procedure is necessary and takes about a month, and as the Study Team will not be in Peru, all procedures will be through JICA office in Lima.
- The Ministry requested a meeting with Ing. Ivan Zapata, member of the JICA Study Team, in order to provide some clarifications on how to use the prototype drawings.
- The Ministry asked if JICA Study Team will monitor the people who were briefed on the workshops. JICA Study Team replied that all workshops participants have been registered, and a list will be handed over to the municipalities to ascertain whether the project dissemination has been accomplished.
- The Ministry asked if JICA Study Team would evaluate the possibility of expanding the project, as it is seems to have obtained good results. JICA Study Team replied that they would have to assess whether this project is of high importance for the Peruvian Government, then they would explore this possibility.
- Ing. Kuroiwa asked whether JICA Study Team would implement the same projects throughout the Peruvian coast, which is known as a seismic zone. The study team answered that they would hand over all necessary material as examples, also that the implementation was conducted by SENCICO and a local NGO; but the Ministry indicated that they would like to have an explanation of the implementation methodology. The General Office of Planning and Budget of MVCS questioned why the Ministry does not know the methodology and asked if they are not working together.
- The Ministry informed the Japanese counterpart, the General Office of Planning and Budget Ministry of Housing, Construction and Drainage, SENCICO and representatives, that they are aware of the progress made by JICA Study Team and just need to know the methodology employed in the pilot projects so they can specify the work done to achieve optimal results.
- JICA Study Team explained that they were not aware of all methodology either because part of the implementation was undertaken by ADRA and SENCICO, the study team only supervised the execution but they will prepare a detail report and also supporting reports with a full explanation of the pilot projects.



Micro Zoning Chincha, Pisco, Ica

Figure 7.1 Land Use Map for Earthquake Reconstruction in Chincha

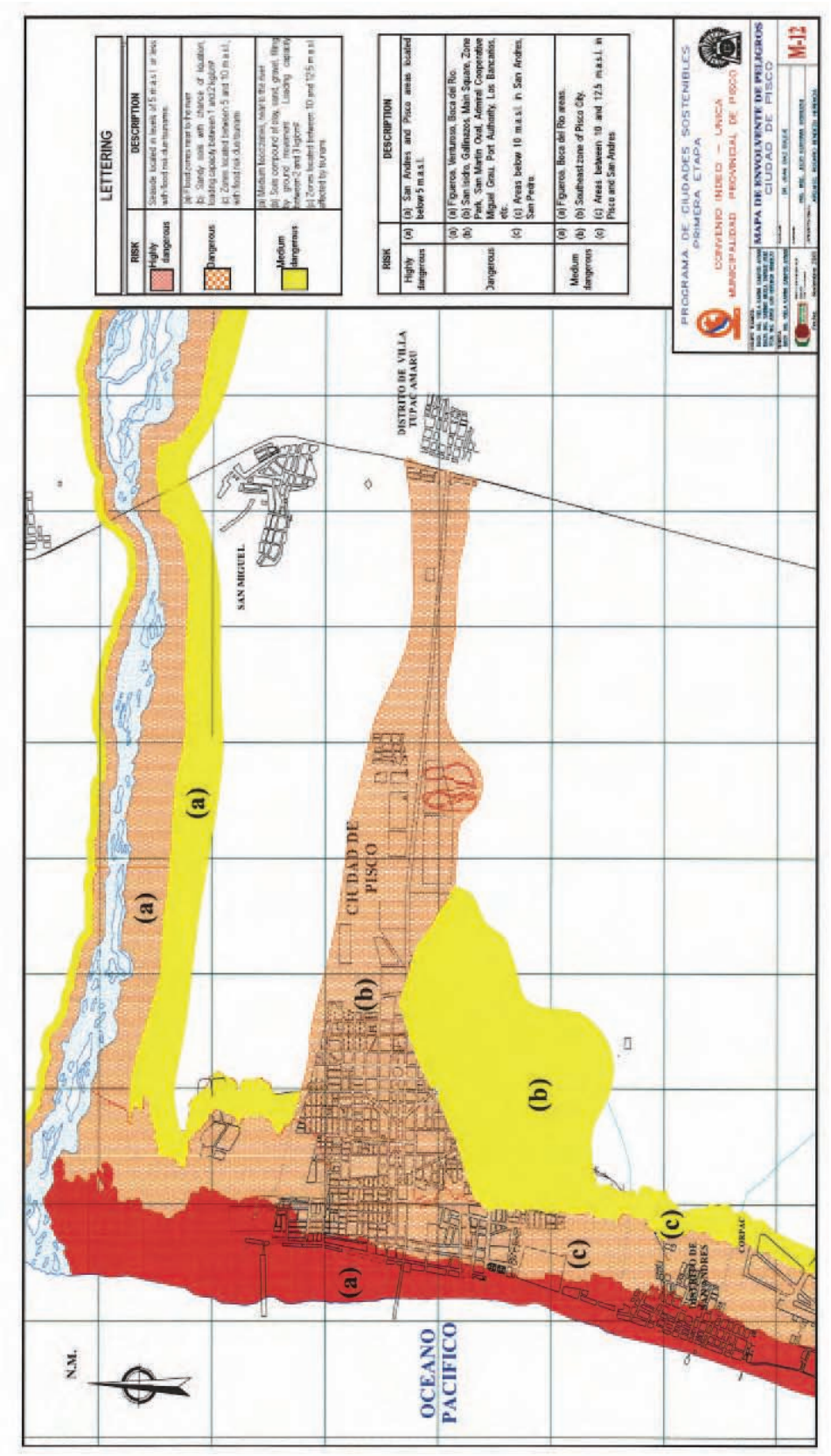


Table 7.2 Land Use Map for Earthquake Reconstruction in Pisco

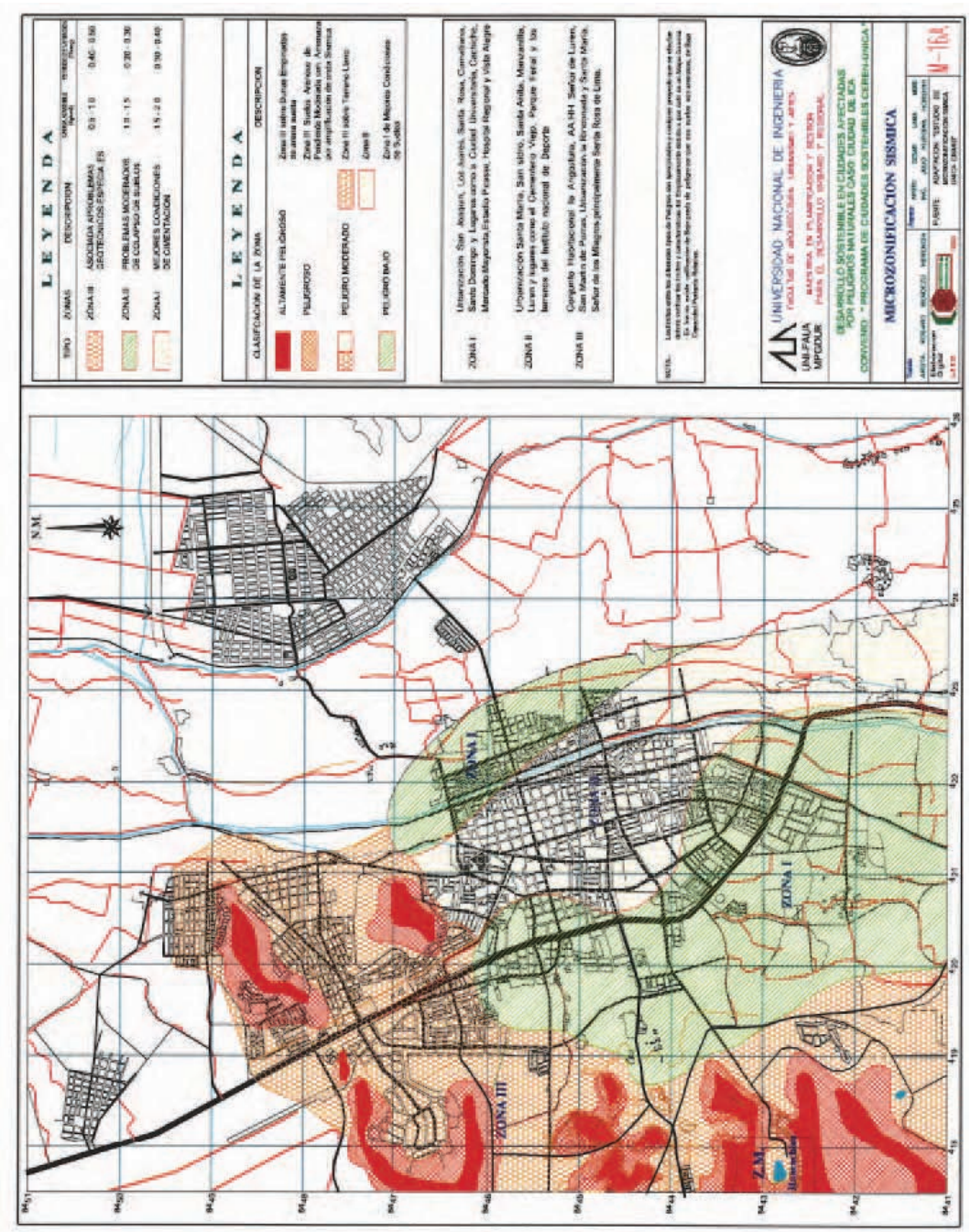


Table 7.3 Land Use Map for Earthquake Reconstruction in Ica