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MINUTES OF MEETINGS
BETWEEN
JAPANESE MID-TERM REVIEW MISSION
AND
THE SECRETARIAT OF HEALTH OF THE REPUBLIC OF HONDURAS
ON
JAPANESE TECHNICAL COOPERATION
FOR
CHAGAS DISEASE CONTROL PROJECT PHASE 2

The Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Mid-term Review Mission (hereinafter referred to as "the Mission"), headed by Miss Naoko Ueda to the Republic of Honduras from September 16th to 25th and from October 14th, to 24th 2009, for the purpose of conducting the joint mid-term review for the Chagas Disease Control Project Phase 2(hereinafter referred to as "the Project").

The Joint Evaluation Team (hereinafter referred to as "the Team"), which consists of members from the Mission and members from the Secretariat of Health (hereinafter referred to as "SS") of the Republic of Honduras, was jointly organized for the purpose of conducting the mid-term review and preparation of necessary recommendations to the respective governments.

After intensive study and analysis of the activities and achievements of the Project, the Team prepared the Mid-term Review Report (hereinafter referred to as "the Report") and presented it to the Joint Coordinating Committee.

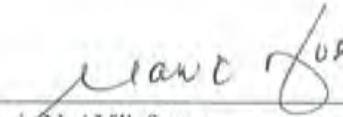
The Joint Coordinating Committee discussed the major issues pointed out in the Report, and agreed to recommend to their respective governments the matters referred to in the document attached hereto as necessary measure taken accordingly towards the smooth and successful implementation of the Project.

Done in duplicate in the English and Spanish languages, each text is equally authentic. In case of any divergence of interpretation, the English text shall be prevailed.

Tegucigalpa, October 23, 2009


上 田 直 子

Naoko Ueda
Leader
Mid-term Review Mission
Japan International Cooperation Agency
Japan



Mario Noé Villafranca
Secretary of the Health Department
Secretariat of Health
Republic of Honduras

Witness



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Minister
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Through careful studies and discussions, the Team summarized the mid-term review results as described below;

1. Conclusion

Based on the accomplishment obtained in the first phase (2003-2007) of vector control through attack phase and introduction of maintenance phase of vector surveillance system with community participation in the 4 western departments, the Project second phase has been developing, aiming at establishment of the surveillance system, extending the target area towards high infestation 8 departments.

It was confirmed that the Project is making a significant progress, although Project has undergone the serious delay of authorization and allocation of national budget in 2009 and the political convulsion since the end of June 2009. Activities to establish the surveillance system are being developed, mainly by key stakeholders who have firm commitment and leadership at every level, from the SS central until departmental, municipality and community level. Devoted efforts of the community volunteers, that enable the Disease prevention and control activities sustainable and more effective, are observed in pilot areas. The Team highly appreciates the people of the community for their zeal and devotion, the TSAs (Técnico de Salud Ambiental, Environmental Health Technician) for their strong will and capacity, and the all the concerned people for their efforts for collaboration among the central level, departments and municipal TSA, as well.

In addition to Honduran outstanding efforts mentioned above, however, it is confirmed that there exist some challenges, such as a) review of the guideline for the spraying for *T. dimidiata*, b) quality assurance of vector control, c) unification of technical guideline and terms. Therefore the following recommendations and lessons are drawn, and the Team has strong desire to all the concerned to the Project to continue efforts, and Honduran side shall take every measure for the necessary budget allocation to achieve the Project Purpose.

2. Recommendations

The following measures are recommended by the Team to both governments in order to further develop and sustain the achievement of the Project in the remaining period.

(1) Review of the criteria for the spraying for *T. dimidiata*.

In Honduras, current criteria for the spraying for *T. dimidiata*, are "nympha found" and/or "the infestation rate is more than 20 %". However, bug doesn't get out from the cracks of the wall for any other reason than copulation or sucking blood, also there is very low possibility that the adult might come from the outside of the perimeter of the houses. Therefore it is recommended to modify the criteria to spray even if adult is found, considering that in these houses there must be the bugs' colonization. It is also recommended the review of the criteria "The infestation rate is more than 20%" based on the results of threshold survey which is done through the Project. It is recommended to respect the Honduran norm of control of *T. dimidiata* in conducting the second cycle of spraying based on the evaluation of the first cycle.

(2) Quality assurance of vector control

It's important to pursue the whole process of work with accurate technique in proper manner, based on the "Manual de normas y Procedimientos para la Prevención y control de la Enfermedad de Chagas" in order to achieve bug-free community. The process consists of entomological survey, insecticide spraying (educational and advocacy activities), serological survey, and a post-spraying evaluation and analysis. Therefore the Team

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recommends all concerned of the Project to reconsider and fully apply the accurate process to assure the quality.

(3) Securing the necessary budget for spraying

Actually the spraying is being carried out at departmental level according to the notification of bugs to the local Health Centers. However, there are some cases in which the spraying to the necessary house or communities have not been conducted because of the lack of budget for the allowance for TSAs supervision and sprayers, as well as the gasoline for the transportation. From the aspect of assuring sustainability, it is recommended that the SS continues to take measures to secure the necessary budget for spraying timely.

(4) Threshold study

Through the Project, the threshold study is being conducted in order to verify the threshold of control of the *T. dimidiata* infestation rate. Already the baseline study has been done in the 8 departments and currently the study results are being analyzed. It is recommended to conduct the study at the same areas with same population in 2010, to allow the comparative analysis with the baseline study.

(5) Extension of the surveillance system

As Output #4) aims at "introduction of the surveillance system to outside of pilot areas", related activities are underway in areas where the attack phase has been completed. It is necessary to determine the criteria of extension and the schedule of activities of the 4 occidental departments until end of the year 2009, and the other 4 departments in first trimester of 2010.

(6) Unification of technical criteria

In order to achieve the Project purpose, the accurate grasp of performance (notification and response based on the notification) by SS and the feedback to the control activity based on the performance are crucial. Actually the performance data presented by each department (risk localities, localities where the entomological study conducted, dispersion index etc.) are reported with different technical criteria, it is difficult for the SS to update the situation. The Team recommends to the SS to unify the technical criteria and terms within 2009.

(7) Addition of advocacy activity in PDM

For the establishment of surveillance system, it is fundamental to promote the educational activities at community for the purpose of strengthening the people's preventive and responsive capacity. Therefore it is recommended to add the educational activities in PDM.

3. Lessons learned

(1) Effectiveness and sustainability of community participation

There are some localities where an effective and sustainable surveillance system has been established with active participation of the people, such as community volunteers and local organizations through active collaboration and confidence among the SS and departmental offices, TSAs and communities. This effectiveness of surveillance system with community participation is one of the lessons learned in the Project, therefore it is expected to extend the system of these communities at national level and to other countries as a model of surveillance system with community participation.

(2) Importance of serological study to back up the strategy of Chagas Disease Control with community

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participation

In Honduras, one of the components of surveillance system is based on the notification of vectors by the community personnel. This notification enables administrative side to conduct entomological and serological examination, and at the same time conduct spraying and treatment for children younger than 15 years old in order to optimize the effect of the Disease control. Through the serological examination it is possible to verify the effectiveness of this strategy and contribute in obtaining the certification of interruption of new vector transmission.

4. Modification of PDM and PO

Indicator #1 of the Project Purpose was re-examined and described more exactly. As educational activity is indispensable and already implemented in the Project, Activity 1-2,2-3,3-4, footnote of PDM and PO were revised. Activity 2-2 of PDM English version was also unified to Spanish version.

Revised PDM version 2 and PO version 2 are attached.

5. Signing of this Minutes of Meetings is in line with the Record of Discussions signed by both sides on 30 January, 2008.

6. ANNEX LIST

- MID-TERM REVIEW REPORT ON THE CHAGAS DISEASE CONTROL PROJECT PHASE 2 IN HONDURAS

- Annex 1: PDM (Project Design Matrix) version 1
- Annex 2: PDM (Project Design Matrix) version 2
- Annex 3: PO (Plan of Operation) version 1
- Annex 4: PO (Plan of Operation) version 2
- Annex 5: Counterpart List
- Annex 6: Training of Counterpart Personnel
- Annex 7: Equipment List
- Annex 8: List of products produced by the Project



MID-TERM REVIEW REPORT
ON
THE CHAGAS DISEASE CONTROL PROJECT
PHASE 2
IN
THE REPUBLIC OF HONDURAS

Tegucigalpa
October 23, 2009

MID TERM REVIEW TEAM

A handwritten signature in black ink, appearing to be a stylized name, located to the right of the text 'MID TERM REVIEW TEAM'.

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1. Introduction

1.1. Background and Summary of the Project

The Chagas disease is considered as a serious tropical disease and estimated that the number of infected people is more than seven and a half millions in all over Latin America. In Honduras it is estimated that there are approximately three thousand infected people, which correspond to 7 % of the population.

Compared with other infectious diseases by vectors, the prevention of the Chagas Diseases Control can be taken technically easily through a) spraying insecticide for its vector control, b) house improvement, c) education to the communities, d) surveillance with community participation. In Central America, seven countries (Guatemala, Honduras, Belice, El Salvador, Nicaragua, Costa Rica y Panamá) and PAHO/WHO are in coordination to take measures for the goal that "Transmission of Chagas disease will be interrupt in Central America by the end of 2010" in accordance with the Initiative of the Countries of Central America for Control of Vector-Borne and Transfusional Transmission and Medical Care for Chagas Disease (IPCA).

The Secretariat of Health of the Republic of Honduras and JICA, based on the experiences and success obtained in the Project phase 1, started the second phase from March 2008 for three years in the 8 prefectures (Copán, Ocotepeque, Lempira, Intibucá, Yoro, Comayagua, Francisco Morazán, El Paraiso), for the purpose of establishing the epidemiological surveillance system with community participation.

1.2. Joint Review Team

(1) Japanese Review Team

	Field in charge	Name	Position/Organization
1)	Leader	Naoko Ueda	Leader of the Mission, Master in Sociology, Director, Division of Infectious Disease Control, Human Development Department, Japan International Cooperation Agency (JICA), Japan
2)	Entomology	Yuichiro Tabaru	Doctor in Medical Entomology, Advisor and Expert of JICA, Advisor of Fuji Environmental Service Inc., Japan
3)	Evaluation Analysis	Junko Sato	Superior Investigator, Master in Public Health, TAC International Inc., Japan
4)	Planification of Evaluation	Tomoyuki Odani	Assistant Director, Division of Infectious Disease Control, Human Development Department, JICA Japan
5)	Interpreter	Fusako Yamawaki	Intepreter registered at JICA México
6)	JICA Expert	Jiro Nakamura	Chief Advisor, Chagas Disease Control Project Phase 2
7)	JICA Expert	Ken Hashimoto	Technical Advisor, Chagas Disease Control Project Phase 2

(2) Honduran Review Team

	Field in Charge	Name	Position/Organization
1)	Coordinator	Dr. Concepción Zúniga	Jefe, Programa Nacional de la Enfermedad de Chagas y Leishmaniasis, S.S.

2)	Member	Dra. Rosa Elena Mejía	Jefa, Laboratorio Nacional de Parasitología, S.S.
3)	Member	Dr. Andrés Murillo	Microbiólogo, Laboratorio Nacional de la Enfermedad de Chagas y Leishmaniasis, S.S.

1.3. Method of Evaluation

The Mid-term review was conducted in accordance with the JICA Guideline for Project Evaluations (2004), following these steps:

- 1) Achievements of the Project were assessed based on the Project Design Matrix (PDM) initially agreed in January 2008. The results of the Outputs and the Project Purpose were analyzed vis-à-vis the Verifiable Indicators. The Inputs and Activities were evaluated in comparison with the plan and the results of the Outputs.
- 2) Contributing and impeding factors to the achievement of the Project were analyzed by reviewing the project design and project implementation process.
- 3) The design, implementation process, and outcomes of the Project were analyzed from the viewpoints of the five evaluation criteria: relevance, effectiveness, efficiency, impact and sustainability.
- 4) Recommendations for the Project for the remaining period were formulated.

Both quantitative and qualitative data were collected and utilized for analysis. Data collection methods used by the Team were as follows:

- Document review;
- Questionnaire survey to the counterparts, the Japanese experts and the Japan Overseas Cooperation Volunteers (JOCV);
- Key informant interviews;
- Direct observation of the Project site.

Five evaluation criteria are summarized as follows:

1) Relevance

Relevance of the Project is reviewed by the validity of the Project Purpose and the Overall Goal in connection with the policies of the Government of the Republic of Honduras and the needs of the country, as well as the Japan's assistance policy to the Republic of Honduras.

2) Effectiveness

Effectiveness is assessed by examining the extent to which the Project has achieved its Project Purpose, and clarifying how the Outputs have contributed to the achievement of the Project Purpose.

3) Efficiency

Efficiency of the Project is analyzed by looking at how the Inputs and Activities have contributed to the production of the Outputs, analyzing the quality, quantity and timing.

4) Impact

Impact of the Project is assessed through analyzing either positive or negative influences of the Project.

5) Sustainability

Sustainability of the Project is assessed in terms of organizational, financial and technical aspects by examining to what extent the outcomes of the Project to be sustained after the Project is completed.

2. Achievement and Implementation Process

2.1. Inputs

2.1.1 Inputs by the Japanese side

Since the beginning of the Project (March 2008) to date of the midterm assessment (September –October 2009) the following inputs were assigned:

(1) Dispatch of experts (order according to the dispatch)

1) Long-term experts

No	Name	Field of assignment	Period of assignment
1	Ken Hashimoto	Chagas Disease Control	2008.3.15 – 2010.3.14
2	Jiro Nakamura	Chief Advisor/ Project Management	2008.6.29 – 2010.6.28

2) Short-term expert

No	Name	Field of assignment	Period of assignment
1	Yuichiro Tabaru	Medical Entomology	2008.11.10 – 2008.11.29
2	Kayako Sakisaka	Health Promotion	2009.2.27 – 2009.3.23
3	Hirotsugu Aiga	Epidemiological Analysis	2009.3.20 – 2009.3.28
4	Hirotsugu Aiga	Information System	2009.8.29 – 2009.9.7
5	Yumiko Murakami	IEC	2009.9.12 – 2009.10.26

3) Third Country Short-term Expert

No	Name	Field of assignment	Period of assignment
1	Gabriel Schmunis	Monitoring and Evaluation	2009.2.9 – 2009.2.28

4) Japanese Overseas Cooperation Volunteers (JOCVs)

No	Name	Field of assignment	Period of assignment
1	Yuki Yoshikuni	Infectious Disease Control (CESAMO San Marcos de Colón, Choluteca Department)	2006.6.24 – 2008.6.23
2	Noriko Tamari	Infectious Disease Control (Regional Department Office, Ocotepeque Department, SS)	2006.6.24 – 2008.6.23
3	Kiyohiko Izumi	Infectious Disease Control (Regional Department Office, Lempira Department, SS)	2007.6.18 – 2009.6.17
4	Satoru Ichikawa	Infectious Disease Control (Regional Department Office, Intibucá Department, SS)	2007.6.18 – 2009.6.17
5	Ayami Iwase	Infectious Disease Control	2008.9.22 – 2010.9.21

		(Regional Department Office, Yoro Department, SS)	
6	Aya Murakami	Infectious Disease Control (Regional Department Office, El Paraiso Department, SS)	2008.9.22 – 2010.9.21
7	Yoshiyuki Fujiwara	Architecture (Tegucigalpa, Francisco Morazán Department, COTEDIH)	2008.9.22 – 2009.1.31
		Architecture (Copán Ruinas, Copán Department, World Vision)	2009.2.1 – 2010.9.21
8	Noriko Tamari	Infectious Disease Control (Tegucigalpa, Capital District, CARE International)	2008.9.22 – 2009.7.19
9	Toshitake Nishihara	Infectious Disease Control (Regional Department Office, Ocotepeque Department, SS)	2009.1.6 – 2011.1.5
10	Ikue Akita	Infectious Disease Control (Regional Department Office, Francisco Morazán Department, SS)	2009.1.6 – 2011.1.5
11	Shusuke Abe	Infectious Disease Control (Regional Department Office, Comayagua Department, SS)	2009.1.6 – 2011.1.5
12	Eri Kambe	Infectious Disease Control (Regional Department Office, Lempira Department, SS)	2009.6.23 – 2011.6.22

(2) Counterpart training

The Project has been conducting a series of trainings including workshop for Chagas disease surveillance system with community participation, training for medical entomology, preparatory training for survey and so forth. The details are shown in Annex 6.

(3) Provision of equipment (detailed in Annex 7)

Japanese side has provided vehicle, motorcycles, insecticide sprayer, and ELISA kit, etc. Total amount of expenses for equipment provided is 180 thousand US dollars and total amount of expenses for equipment carried by expert(s) is 624 thousand JPY. (List of equipment: see Annex 7)

➤ Equipment Provided

JFY	USD	Item
2007	61,000	Vehicle (2)
2008	48,800	ELISA Kit (250) , Vehicle (1)
2009	70,395	ELISA Kit (387) , Rapid serological test kit (500)

JFY	JPY	Item
2008	623,700	SPSS software

JFY: Japanese Fiscal Year (From April to March of next year)

(4) Local operation expenses borne by the Japanese side

Total amount of the local operation expenses spent by the Japanese side is 4,874,630 in the local currency of Lempira. Expenses by year are as follows.

(Unit: US dollar)	JFY2008	JFY2009 (as of Sep.)	Total
Local operation expenses	3,392,750	1,481,880	4,874,630

2.1.2 Honduras Counterpart

(1) Assignment of counterpart personnel

At the beginning of the Project, the vice-minister for Public Health and Executive Director for Health Promotion of the Secretariat of Health were assigned as Project Director and Project Manager respectively. The post for vice-minister for Public Health is currently vacant. Annex 5 shows the assignment of Counterpart (C/P) at central and prefectural levels. There is no big significant change for the assignment for C/Ps at prefectural level and in pilot areas, whereas the assignment for C/Ps at central level has changed after the political change in June, 2009.

(2) Provision of the project office and equipment

The Honduras side provided the office space to the Project.

(3) Allocation of Budget by the Honduras side

Budget allocated by the Honduran side is as follows.

Year	2008	2009 (authorized plan)
Budget (Unit: Lempira)	3,921,565.94	5,000,000.00

2.2. Activities and Outputs

Achievement of Output 1 and its activities: "Vector control of *R. prolixus* in the attack phase is completed in the target Prefectures¹."

Achievement of activities under Output 1

Activities		Achievements
1-1	Identify intervention areas for <i>R. prolixus</i> by conducting serological and entomological surveys.	<ul style="list-style-type: none"> After consulting with 4 newly selected prefectures, it has been defined that the selection will be according to risk factors which promote the presence of the vector. In the other 4 prefectures, which were continuously targeted since

¹ The term of "prefecture" means "department" in this report except for the list of JOCV

		<p>the first phase of the Project, survey areas have already been selected in the first phase.</p> <ul style="list-style-type: none"> • Trainings were carried out in various themes such as: basic knowledge of Chagas disease, vector control, entomological survey, insecticide spraying, serological survey, and diagnosis/treatment. These were aimed for TSAs, ATSAs, health promoters, doctors, nurses and assistant nurses. A total of 276 people attended as of September, 2009. • In 2008, the presence of <i>R. prolixus</i> was identified in 1 locality in the Municipality of Danli, Prefecture of El Paraiso, and in 3 localities in the Municipality of Victoria, Prefecture of Yoro. In both municipalities, an entomological survey and insecticide spraying were completed. In the Municipality of Danli, as the result of serological survey, none were identified as sero-prevalent. The serological survey in the Municipality of Victoria is still pending. • In 2009, <i>R. prolixus</i> was identified in 4 localities of the Municipality of San Juan de Flores, Prefecture of Francisco Morazan, spraying of insecticide has been completed however, the entomological survey, is still pending. • In 2009, in the Municipality of San Marcos de Sierra, Prefecture of Intibuca, <i>R. prolixus</i> was detected in 1 house constructed after the insecticide spraying of 2005. The spraying is pending for neighboring localities.
1-2	Plan and fully implement spraying based on the results of the survey at the Prefectural level	<p>Insecticide sprayings were conducted after training in prefectures, where <i>R. prolixus</i> was identified. The achievement of the insecticide spraying are the following:</p> <p>Record of insecticide spraying in 2008(number of sprayed localities/No. of planned localities)</p> <ul style="list-style-type: none"> ➤ Municipality of Victoria, Prefecture of Yoro: 34/34 ➤ Municipality of Danli, Prefecture of El Paraiso: 8/8 <p>Record insecticide spraying carried out in 2009 (actual number of localities/ number of planned localities)</p> <ul style="list-style-type: none"> ➤ Municipality of San Juan de Flores, Prefecture of Francisco Morazan: 55/56 ➤ Municipality of San Marcos de Sierra, Prefecture of Intibuca: Insecticide spraying is planned to be conducted in 7 surrounding localities of the household, where <i>R. prolixus</i> was identified within the year of 2009.
1-3	Monitor and evaluate the progress of the attack phase activities for	<ul style="list-style-type: none"> • Regular monitoring was done in target areas through on-the-spot inspections by the Japanese experts, Coordinator and TSA of the

	<i>R. prolixus</i> .	<p>Program Nacional de Chagas (PNCh) and TSA coordinators of prefectures and through reports from each target prefecture at an evaluation meeting.</p> <ul style="list-style-type: none"> • A monitoring format was developed for quality control of the activities carried out during the entomological surveys and insecticide spraying activities. Currently it is in the validation phase in order to establish a monitoring mechanism.
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Achievement of Output 1

Verifiable Indicators		Achievements
1-1	Coverage of the spraying localities where <i>R. prolixus</i> are supposed to exist (target: 100%)	<ul style="list-style-type: none"> • In 2008, the coverage of the sprayed localities, where <i>R. prolixus</i> was supposed to exist, was 100%. • In 2009, <i>R. prolixus</i> was newly indentified in 2 municipalities. In Municipality of San Juan de Flores, Prefecture of Francisco Morazan, insecticide spraying was conducted after training (coverage: 98%). In Municipality of San Marcos de Sierra, Prefecture of Intibuca, insecticide spraying is planned to be conducted during the year of 2009.
1-2	Presence of <i>R. prolixus</i> (target: 0%)	As of August, 2009, the distribution rate of <i>R. prolixus</i> in the localities, where surveys were completed, was 0.3%.

Achievement of Output 2 and its activities: "Coverage of vector control of *T. dimidiata* is extended to the localities with high domestic infestation in the prefectures of Intibuca, Lempira, Copan, Ocotepeque."

Achievement of activities under Output 2

Activities		Achievements
2-1	In selected communities, conduct sero-prevalence (i) among children under 15 years of age (ii) domestic infestation rate of <i>T. dimidiata</i> ; and (iii) natural infection rate of <i>T. dimidiata</i> , to scientifically examine the threshold for interruption of the transmission of Chagas disease through <i>T. dimidiata</i>	<ul style="list-style-type: none"> • Trainings on basic knowledge of <i>T. dimidiata</i>. threshold survey, entomological survey and serological survey were conducted for 70 TSAs in 8 prefectures included in the Project regarding the basic knowledge and entomologic and serologic surveys. • The following data is the result of the threshold survey as of September 2009. <p>Target of 8 prefectures of the Project</p> <ul style="list-style-type: none"> ➤ Sero-prevalence rate: 0.03% (1/3,484 persons) ➤ Domestic infestation rate of <i>T. dimidiata</i>: 4.4% (82/1,857 houses) ➤ Natural infection rate of <i>T. dimidiata</i>: 13.9% (10/62 vectors) <p>Target of 4 Prefectures in the Western Region</p> <ul style="list-style-type: none"> ➤ Sero-prevalence rate: 0% (0/1,777persons) ➤ Domestic infestation rate of <i>T. dimidiata</i>: 3.9% (27/693houses) ➤ Natural infection rate of <i>T. dimidiata</i>: 0% (0/29 vectors)
2-2	Identify high risk areas of <i>T.</i>	• Areas to be intervened (it does not necessarily means only

	<i>dimidiata</i> by conducting serological and entomological surveys	<p>insecticide spraying, but includes educational activities such as on house improvement) were decided based on the result of entomological surveys, which were conducted in the areas with <i>T. dimidiata</i> notification.</p> <ul style="list-style-type: none"> The first threshold survey showed that there were hardly any areas with high infestation rate (20% and above), which is considered to be the criterion for conducting insecticide sprayings. Hence, areas to be intervened are decided in accordance with the process that PNCh takes (notification of vectors → entomological survey → insecticide spraying, → serological test).
2-3	Plan and implement spraying based on the results of the surveys at the prefectural level	<ul style="list-style-type: none"> Trainings on insecticide spraying were conducted in the target prefectures. Short-term experts and PNCh gave technical advice and guidance to TSAs and insecticide spraying personnel. Insecticide spraying was planned for the areas with notification of the vector through conducting campaign and educational activities.
2-4	Monitor and evaluate the progress of the attack phase activities for <i>T. dimidiata</i>	<ul style="list-style-type: none"> Regular monitoring was done in target areas through on-the-spot inspections by the Japanese experts, TSA of PNCh and TSA coordinators of prefectures. It was also done through reports from each target prefecture at an evaluation meeting. Monitoring sheet was developed for quality control for entomological surveys and insecticide spraying activities. It will be finalized after trial and error.

Achievement of Output 2

	Verifiable Indicators	Achievements
2-1	Coverage of sprayed houses (Target: 50%)	<p>The followings indicate the number of sprayed houses during the year of 2008 and 2009 (actual number of sprayed houses/number of houses planned)</p> <p>Target of 8 prefectures of the Project</p> <p>2008: 12,544/13,306 (94%)</p> <p>2009: 4,448/6,213 (88%)</p> <p>Total: 16,992/19,519 (94%)</p> <p>Target of 4 prefectures in the Western Region</p> <p>2008: 797/861 (93%)</p> <p>2009: 306/349 (88%)</p> <p>Total: 1,103/1,210 (91%)</p>
2-2	Coverage of the sprayed localities (Target: 50%)	<p>The followings indicate the number of sprayed localities during the year of 2008 and 2009 (actual number of sprayed houses/number of houses planned)</p>

		<p>Target of 8 prefectures of the Project</p> <p>2008: 242/257 (94%)</p> <p>2009: 121/126 (88%)</p> <p>Total: 363/383 (94%)</p> <p>Target of 4 prefectures in the Western Region</p> <p>2008: 16/18 (89%)</p> <p>2009: 10/11 (91%)</p> <p>Total: 26/29 (90%)</p>
2-3	Domestic infestation rate of <i>T. dimidiata</i> (Target: 5%)	<p>The followings indicate the results of the entomological survey realized during the year of 2008 and 2009:</p> <ul style="list-style-type: none"> ➤ Target of 8 prefectures of the Project: 7.1% (823/11,646) ➤ Target of 4 prefectures in the Western Region: 10.7% (456/4,259)

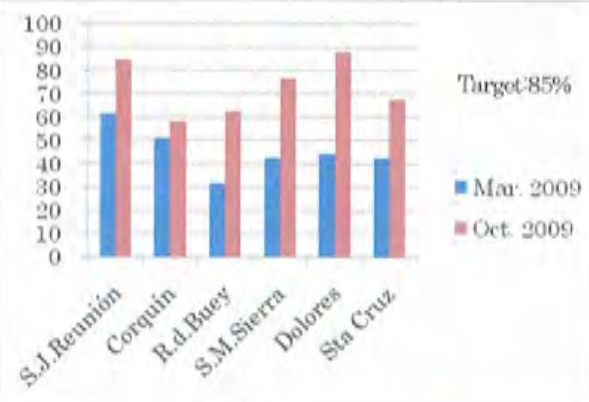
Achievement of Output 3 and its activities: "The epidemiological surveillance system with community participation in pilot areas is established."

Achievement of activities under Output 3

Activities		Achievements
3-1	Select pilot areas for implementation of the epidemiological surveillance system with community participation	<ul style="list-style-type: none"> • A total of 6 municipalities in 4 prefectures were selected to be pilot areas as follows. These were selected from the pilot areas (1 was changed) in the first phase of the Project. The selection criteria was to fulfilled either condition of i) the area where <i>R. prolixus</i> was identified in the past or ii) the area with high infestation rate of <i>T. dimidiata</i>. ➤ Municipality of Dolores, Prefecture of Intibuca ➤ Municipality of San Marcos de Sierra, Prefecture of Intibuca ➤ Municipality of Santa Cruz, Prefecture of Lempira ➤ Jurisdiction of the Health Unit of Rincon del Buey, Municipality of Copan Ruinas, Prefecture of Copan ➤ Municipality of Corquin, Prefecture of Copan ➤ Jurisdiction of the Health Unit of San Jose de la Reunion, Municipality of Ocotepeque, Prefecture of Ocotepeque
3-2	Identify and define the role and responsibility of each stakeholders engaged in the epidemiological surveillance system.	<ul style="list-style-type: none"> • The guidelines for the epidemiological surveillance system with community participation was established. The guidelines were set forth by the SS at central level and shared with all prefectures through semi-annual evaluation meetings in all prefectures. • Roles and responsibility of health volunteers in the Chagas disease control were defined, which were introduced in each pilot area.

3-3	Implement training for stakeholders engaged in the epidemiological surveillance system with community participation	<ul style="list-style-type: none"> • Workshops on the epidemiological surveillance system with community participation were conducted in pilot areas. • Trainings were conducted for TSAs, doctors, nurses and assistant nurses in the pilot areas.
3-4	Introduce the epidemiological surveillance system with community participation in the selected pilot areas	<ul style="list-style-type: none"> • The epidemiological surveillance system with community participation was introduced in pilot areas in accordance with the guideline described in Activity 3-1. • In Municipality of Corquin, Prefecture of Copan, the epidemiological surveillance system with community participation² is conducted in a consistent manner in addition to carry out a campaign once a year. • In the rest of 5 pilot areas, the epidemiological surveillance system with community participation was also introduced and is practiced through monthly meetings with health volunteers.
3-5	Design a monitoring mechanism and evaluate performance methods of the epidemiological surveillance system with community participation in pilot areas	<ul style="list-style-type: none"> • A monitoring format for the epidemiological surveillance was established in accordance with the guideline described in Achievement of Activity 3-2 after consultation among SS, the Project, and other cooperation agencies. The epidemiological surveillance has been possible to be conducted in a consistent manner based on the common understanding of SS officials at different levels. • Information system has been established with the support of short term experts and local consultant
3-6	Monitoring and evaluate the performance of the epidemiological surveillance system with community participation	<p>The following tables indicate the scores of 6 pilot areas based on the monitoring format described in Achievement of Activity 3-5.</p> <p>Fifty three (53) questions were answered by "Yes", "No", or "N/A" and marked using the following formula: [number of questions answered "Yes"/ (number of questions answered "Yes" + number of answers with "No")] x 100.</p>

² "The epidemiological surveillance system with community participation" for Chagas disease control is composed of 3 components as follows: (i) Report of vectors and suspected acute cases of Chagas disease from the community to health centers/health posts (CESAMOs/CESARs), (ii) Record and analysis of collected information of vectors and suspected acute cases of Chagas disease, and plan of response (educational activities, spraying of infested houses and treatment of patients), (iii) Educational activities, spraying of infested houses and treatment of patients. The system is composed of a series of activities as follows: training of the SH staff and health volunteers for implementation of the system, community organization through health volunteers for searching vectors and suspected acute cases, spraying of infested houses and treatment of patients according to the needs, monitoring of the system, and continuous training of stakeholders. It is same as the epidemiological surveillance in the rest of 5 pilot areas.

		 <table border="1" data-bbox="682 630 1315 808"> <thead> <tr> <th></th> <th>S.J. Reunión</th> <th>Corquin</th> <th>R.d. Buey</th> <th>S.M. Sierra</th> <th>Dolores</th> <th>Sta Cruz</th> </tr> </thead> <tbody> <tr> <td>Mar. 2009</td> <td>62</td> <td>51</td> <td>32</td> <td>43</td> <td>45</td> <td>43</td> </tr> <tr> <td>Oct. 2009</td> <td>85</td> <td>58</td> <td>63</td> <td>77</td> <td>88</td> <td>68</td> </tr> </tbody> </table> <p style="text-align: right;">Source: Project document</p>		S.J. Reunión	Corquin	R.d. Buey	S.M. Sierra	Dolores	Sta Cruz	Mar. 2009	62	51	32	43	45	43	Oct. 2009	85	58	63	77	88	68
	S.J. Reunión	Corquin	R.d. Buey	S.M. Sierra	Dolores	Sta Cruz																	
Mar. 2009	62	51	32	43	45	43																	
Oct. 2009	85	58	63	77	88	68																	
3-7	Implement training according to the results of performance monitoring and evaluation	(to be conducted from November 2009)																					

Achievement of Output 3

	Verifiable Indicators	Achievements
3-1	Indicators for evaluation of performance of the epidemiological surveillance system with community participation (target: 85%)	<ul style="list-style-type: none"> • In pilot areas, activities of the epidemiological surveillance system with community participation at each level (central, prefectural health office, health unit and community) are scored according to the monitoring sheet introduced as of October, 2009. <ul style="list-style-type: none"> ➤ Jurisdiction of the Health Unit of Rincon del Buey, Municipality of Copan Ruinas, Prefecture of Copan : 63% ➤ Municipality of Corquin, Prefecture of Copan : 58% ➤ Municipality of Santa Cruz, Prefecture of Lempira : 68% ➤ Jurisdiction of the Health Unit of San José de la Reunion, Municipality of Ocotepeque, Prefecture of Ocotepeque : 85% ➤ Municipality of Dolores, Prefecture of Intibuca : 88% ➤ Municipality of San Marcos de Sierra, Prefecture of Intibuca : 77% <p>The monitoring format will be reviewed every six months.</p>

Achievement of Output 4 and its activities: “The epidemiological surveillance system with community participation is introduced in the priority localities except pilot areas where attack phase is completed”

Activities related to Output 4 are to be conducted from November, 2009.

Achievement of Output 5 and its activities: “Experiences and knowledge of Chagas disease control are shared and exchange among the target prefectures”

Achievement of activities under Output 5

Activities		Achievements
5-1	Develop a package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials) based on experiences and knowledge gained in target prefectures	<ul style="list-style-type: none"> Monitoring sheets were developed on entomological survey, insecticide spraying and the epidemiological surveillance system with community participation. In order to educate and promote regarding the surveillance and capture of vector bugs, Chagas calendars, posters and brochures were developed and distributed to community, schools and health units. The list of material and tools elaborated during the execution of the Project are shown in Annex 7.
5-2	Conduct workshops to share and exchange experiences and knowledge among the target prefectures	<ul style="list-style-type: none"> Evaluation meetings are held every 6 months under the initiative of PNCh. All (8 prefectures) of the target prefectures of the Project and 5 of non- target prefectures take part in the meeting. Representatives from each prefecture present on the progress of activities and make plan of operation. A total of 8 relevant workshops have been held so far such as the workshop on the epidemiological surveillance system with community participation (incl. evaluation meeting) The list of the executed workshops are shown in Annex 6.

Achievement of Output 5

Verifiable Indicators		Achievements
5-1	Developed package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials)	The list of material and tools elaborated during the execution of the Project are shown in Annex 7.
5-2	Number of workshops (Target: 15times)	A total of 8 relevant workshops have been held so far such as the workshop on the epidemiological surveillance system with community participation (incl. evaluation meeting).

2.3. Project Purpose and Overall Goal

Achievement of Project Purpose: “In the target prefectures, the areas for attack phase are extended and the epidemiological surveillance system with community participation is established”

Verifiable Indicators		Achievements																																																																												
1	Coverage of localities where the epidemiological surveillance system with community participation is introduced (Target: 70%)	In the 8 prefectures of the Project, the Epidemiological Surveillance System with Community Participation is introduced in areas infested with <i>R. prolixus</i> in the past. Up to date, the Epidemiological Surveillance System with Community Participation has been introduced in 27 of the 156 localities (17%).																																																																												
2	Performance index for the epidemiological surveillance system with community participation (Target: 85%)	<ul style="list-style-type: none"> • The areas, where the epidemiological surveillance system with community participation is introduced, are limited to pilot areas at this stage. • In pilot areas, activities of the epidemiological surveillance system with community participation at each level (central, prefectural health office, health unit and community) are scored according to the monitoring sheet introduced as of October, 2009. <ul style="list-style-type: none"> ➤ Jurisdiction of the Health Unit of Rincon del Buey, Municipality of Copan Ruinas, Prefecture of Copan : 63% ➤ Municipality of Corquin, Prefecture of Copan : 58% ➤ Municipality of Santa Cruz, Prefecture of Lempira : 68% ➤ Jurisdiction of the Health Unit of San José de la Reunion, Municipality of Ocotepeque, Prefecture of Ocotepeque : 85% ➤ Municipality of Dolores, Prefecture of Intibuca : 88% ➤ Municipality of San Marcos de Sierra, Prefecture of Intibuca : 77% 																																																																												
3	Seroprevalence among children under 15 years of age. (Target: 1%)	<p>The table below shows the results of the serological survey, which was conducted among children under 15 years of age in 8 target prefectures.</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"></th> <th colspan="3">2008</th> <th colspan="3">2009</th> </tr> <tr> <th>Total no of samples</th> <th>No of patients with seroprevalence</th> <th>Sero-prevalence rate</th> <th>Total no of samples</th> <th>No of patients with seroprevalence</th> <th>Sero-prevalence rate</th> </tr> </thead> <tbody> <tr> <td>Copan</td> <td>812</td> <td>0</td> <td>0.00</td> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>Intibuca</td> <td>0</td> <td>0</td> <td></td> <td>305</td> <td>0</td> <td>0.00</td> </tr> <tr> <td>Lempira</td> <td>370</td> <td>0</td> <td>0.00</td> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>Ocotepeque</td> <td>263</td> <td>1</td> <td>0.38</td> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>Comayagua</td> <td>1,160</td> <td>0</td> <td>0.00</td> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>Yoro</td> <td>356</td> <td>1</td> <td>0.28</td> <td>495</td> <td>2</td> <td>0.40</td> </tr> <tr> <td>ElParaiso</td> <td>255</td> <td>1</td> <td>0.39</td> <td>508</td> <td>0</td> <td>0.00</td> </tr> <tr> <td>ElMorazan</td> <td>430</td> <td>0</td> <td>0.00</td> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>TOTAL</td> <td>3,646</td> <td>3</td> <td>0.08</td> <td>1396</td> <td>2</td> <td>0.14</td> </tr> </tbody> </table> <p style="text-align: right;">Source: Project Document</p>		2008			2009			Total no of samples	No of patients with seroprevalence	Sero-prevalence rate	Total no of samples	No of patients with seroprevalence	Sero-prevalence rate	Copan	812	0	0.00	0	0		Intibuca	0	0		305	0	0.00	Lempira	370	0	0.00	0	0		Ocotepeque	263	1	0.38	0	0		Comayagua	1,160	0	0.00	0	0		Yoro	356	1	0.28	495	2	0.40	ElParaiso	255	1	0.39	508	0	0.00	ElMorazan	430	0	0.00	0	0		TOTAL	3,646	3	0.08	1396	2	0.14
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4	Presence of <i>R. prolixus</i> (Target: 0%)	As of August, 2009, the distribution rate of <i>R. prolixus</i> in the localities, where surveys were completed, was 0.3%.																																																																												
5	Domestic infestation rate of <i>T. dmidicta</i> (Target: 5%)	The followings indicate the results of the entomological survey realized during the year of 2008 and 2009:																																																																												

		➤ Target of 8 prefectures of the Project: 7.1% (823/11,646)
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Achievement of Overall Goal: "Transmission of Chagas disease through vectors significantly reduces in Honduras." It was observed that the Project has been steadily on the progress toward Overall Goal.

2.4. Implementation Process

a) Technical transfer method

The Project was planned based on the accomplishment of the first phase of the Project and the know-how of its technical transfer for attack phase for vectors can be utilized in the Project as well. In the four prefectures in the Western Region, which were the target prefectures in the first phase, the epidemiological surveillance system with community participation is continuously established in the Project. In another four prefectures, which were newly selected in this Project, necessary support is provided for attack phase for *R. prolixus* making the most of the outcomes of the first phase of the Project.

b) Commitment of the Honduras side

In order to establish the epidemiological surveillance system with community participation, SS officials at different levels (central, prefectural, municipality and community) work in close cooperation with each other.

Community people including health volunteers actively participate in developing relevant activities under the initiative of TSA as well. It could be concluded from the facts mentioned above, commitment of the Honduras side is high and it would be one of the biggest promoting factors in the progress of the Project.

c) Cooperation with JOCV

Following the first phase of the Project, JOCVs assigned to prefectural health offices and NGO have been highly contributing to activities of Chagas disease prevention and control.

The following activities are mainly carried out by the JOCV:

- Lectures at schools
- Design and distribution of educational materials to schools
- Activities related to house improvements
- Data processing and analysis for prevention and control of Chagas Disease
- Development and presentation of a theater play about Chagas Disease at schools
- Production of data file about pilot areas through fieldwork, contributing to establishment of the Epidemiological Surveillance System with Community Participation
- Development of the "Lexicon of terms of the Chagas Disease"
- Organization of a "Seminar of JOCV in Central America about the Chagas Disease Control"
- Help to carry out the campaign of Chagas Week and development of preventive and control activities utilizing the media (local radio)

d) Regional cooperation

Chagas Disease control projects have been conducted in Guatemala (2002-2005), Honduras (2003-2007), El Salvador (2003-2007) and since 2008 the phase 2 of both projects in Honduras and El Salvador have been implementing for three years. Also in 2009, two new projects have started in Guatemala (2009-2012) and Nicaragua

(2009-2014). The experiences and knowledge of each project led to more effective implementation of the Project.

3. Evaluation by Five Criteria

3.1 Relevance

The Project is highly relevant in view of the following reasons:

1) Harmonization with International Policies

Chagas disease is considered to be one of the fourteen Neglected Tropical Diseases (NTDs), which WHO defines. The current Project supports the regional initiative "IPCA" coordinated by PAHO/WHO through cooperation for SS in harmonization with other agencies and NGOs, in line with the goal that "transmission of Chagas disease will be interrupt in Central America by the end of 2010".

2) Accordance with the national policy of S.S. policy

The Project is in line with "Estrategia Nacional de Prevención y Control de la Enfermedad de Chagas y las Leishmaniasis, 2008-2015", which was developed by SS with the support of the phase I of the Project. The essential features of the strategy are developing the capacity of individual staff of SS and its system, strengthening epidemiological surveillance system, and establishing a model for surveillance. Hence, the Project is in accordance with the strategy

3) Japan's foreign aid policies

The Tokyo Declaration and Action Plan were adopted at the Japan-Central America Summit Meeting held in 2005. Japan is demonstrating its commitment and support to fight against Chagas disease in Action Plan as region-wide cooperation.

It was agreed to support the control or elimination of NTDs in Chair's Summary of the G8 Hokkaido Toyako Summit held in July 2008.

Also JICA's Strategic Plan for Cooperation in Honduras places great importance on "health and water" and the Project is included in the Program for health service improvement.

4) Selection of Target Group

Four prefectures were newly added as a target in the Project in addition to 4 prefectures in the first phase of the Project. Target areas were decided based on the result of the entomological survey, epidemiological data, basic study of organizational system and capacity of prefectural health offices. The necessity of *R. prolixus* control was also considered. Chagas vector bugs live in mud walls and straw-thatched roofs in the houses, and accordingly the risk of catching Chagas disease is high in rural poverty areas. Reducing the infection of people under such living condition through the Project matches the concept of the Human Security as well.

3.2 Effectiveness

Reviewing how the Outputs have contributed to the achievement of the Project Purpose, it was observed that the Project has been effective to some extent, however, there is a need for further improvement and strengthening of the results of its activities. As for Verifiable Indicator 4 of the Project Purpose "presence of *R. prolixus*", the infestation rate of *R. prolixus* is 0.3% as of August 2009. Considering *R. prolixus* infestation rate and commitment from the Honduras side to taking its measure, it is expected that the Verifiable Indicator 4 will be achieved by the end of the Project period.

On the other hand, the areas, where the epidemiological surveillance system with community participation was

introduced, are limited to pilot areas as of the time of mid-term evaluation, and thus it is expected that the system will be introduced in non-pilot areas in the rest of the Project period. In pilot areas, the guideline for the epidemiological surveillance system with community participation was prepared and monitoring sheet for the surveillance system was introduced in accordance with the guideline and in addition to the manual of health volunteers. However, there is a gap in reality according to each area in the response after the notification of vector. This response should consist of timely action to the demand of the community, such as entomological survey followed by insecticide spraying.

As sero-prevalence survey is being conducted, "sero-prevalence among children of 15 years of age and below" should be closely observed in the rest of the Project period.

3.3 Efficiency

The Project has been efficient because the Inputs and Activities have contributed to produce the Outputs, which could be endorsed by the following aspects.

- Optimizing the outcome of the first phase of the Project: The know-how of technical transfer for attack phase for vectors, which was established in the first phase of the Project can be utilized in the Project. The equipment provided and the educational materials developed in the first phase of the Project are also effectively used in the Project.
- Close collaboration between TSA and community: TSA plays an important role in encouraging community to participate in Chagas disease control activities under the close cooperation among central, prefectural and municipality levels.
- Active participation of health volunteer: Health volunteers work on a volunteer basis and are selected by a community to act as a gateway to healthcare services. They play an essential role in Chagas disease control activities such as surveillance, insecticide spraying and educational activity in cooperation with a community.
- Cooperation with JOCV: JOCVs assigned to prefectural health offices and NGO have been contributing to the Project activities at prefectural level. They provide Japanese experts with necessary information of C/P on Chagas disease control, needs of community and relevant data.
- Donor coordination and demarcation of activities: The effectiveness of the Project is reinforced by proper allocation of donor resources to different activities under the leadership of SS. The followings are the main activities of donors.
 - PAHO: Establishing Sub-Information System in Chagas disease control
 - FHIS: Conducting the house reconstruction project by making good use of Counterpart Fund of Japanese Grant Aid.
 - World Vision: Conducting activities related to house reconstruction in cooperation with JOCV
 - CARE: Conducted a series of activities for Chagas disease control in areas, which were not included in the Project (completed in July, 2009)

In addition, it is highly expected that the launch of CIDA activity would further accelerate the effectiveness by improving the budgetary condition of SS.

- Regional cooperation: Chagas Disease control projects have been conducted in Guatemala (2002-2005), Honduras (2003-2007), El Salvador (2003-2007) and since 2008 the phase 2 of both projects in Honduras and El Salvador have been implementing for three years. Also in 2009, two new projects have started in Guatemala

(2009-2012) and Nicaragua (2009-2014). The experiences and knowledge of each project led to more effective implementation of the Project.

The following issues are expected to be considered in the remaining period of the Project for more efficient implementation:

- Further strengthening the capacity of data management: Proper data management is indispensable for establishing the epidemiological surveillance system and its extensive usage. The Project should further strengthen the capacity of C/Ps in data management through training and workshop.
- Verification of the threshold survey: In the current threshold survey in Honduras, 20% and above of the domestic infestation rate is considered to be a criterion for conducting insecticide spraying. It is necessary to scientifically examine the figure in order to achieve the interruption of transmission of Chagas disease through *T. dimidiata* in the country.

3.4 Impact

As observed, Honduras had steadily been on the way toward the Overall Goal "Transmission of Chagas disease through vectors significantly reduces in Honduras." Several positive impacts have been observed.

- "Sistema de Vigilancia: Componente de Entomología/Factores de Riesgo y Protección" was established in cooperation with the Project. The guideline was set forth by SS at central level and shared by all 13 prefectural including non-target prefectures of the Project through an evaluating meeting.
- In accordance with the guideline mentioned above, monitoring sheet for the epidemiological surveillance was established after due consultation with SS and other donors, which made it possible to conduct the epidemiological surveillance in a consistent manner based on the common understanding of SS staffs at different levels.
- "Chagas week" took place in August and September, 2009, and its relevant events (competition for capture of vector, various contests and so forth) were held. The events were planned and operated by the 8 target prefectures of the Project in cooperation with schools, city offices, NGOs and private companies. Close cooperation among SS, schools and city offices was achieved by holding "Chagas week."
- The Project homepage was established both in Japanese and Spanish.
- JICA made a presentation on its regional cooperation including its Chagas disease control project at the 29th and 30th of COMISCA annual meeting. The importance of the project was endorsed by General Director of COMISCA at the meeting.

3.5 Sustainability

Sustainability has been gradually achieved, however, it is necessary to further strengthen the capacity of C/P from organizational, financial and technical viewpoints.

1) Institutional Aspect

The Central American Initiative for Chagas Disease Control will be continued even after 2010. In accordance with this Initiative, the Project will carry out the cooperation on Chagas disease control in Honduras.

SS established "Sistema de Vigilancia: Componente de Entomología/Factores de Riesgo y Protección" in coordination with the the Project. It is shared among all 13 prefectures. If measures are taken in consistent manner in every stage

of Chagas control in accordance with the guideline, it could be a firm basis for the epidemiological surveillance system with community participation, which the Project promotes. It is highly expected that it function harmoniously in various vector controls.

2) Organizational Aspect

The Project has been conducting trainings of stakeholders who support the epidemiological surveillance system including TSA, doctors, nurses and assistant nurses. Strengthening the organizational system of SS on Chagas disease control through trainings would contribute to organizational sustainability as well.

In a series of interviews conducted in the mid-term review, many respondents answered that health volunteers are the key players in Chagas disease control at community level. The Project has been increasing their capacity through trainings, and in this regard, it is expected that the sustainability from organizational point of view will be further accelerated.

Active participation of community in developing the epidemiological surveillance deserves special mention as well. Administrative side especially TSA has been making efforts to involve community in the activities under the close cooperation among SS different levels (central, prefectural and municipality), which would enable the organizational system to support the epidemiological surveillance system with community participation.

3) Financial Aspect

Identification and mobilization of financial resources for insecticide sprayers are major challenges being encountered. SS. is required to pay more efforts to secure and allocate the necessary resources.

The Project activities have been affected by the delay in distribution of budget from the national level to prefectural level. Budget should be allocated from SS central to prefectural health offices without delay.

4) Technical Aspect

The Project was planned based on the accomplishment of the first phase of the Project and the know-how of its technical transfer for attack phase for vectors can be utilized in the Project as well. Experiences and knowledge obtained in each prefecture has been shared with other prefectures through the evaluation meeting, which is held every six months. Therefore, it could be said that capacity of relevant staffs engaged in Chagas disease control has been developed as planned.

It will be required to pay more attention to monitoring and evaluation of spraying in order to make sure the quality of spraying.

C/Ps are expected to be able to independently manage relevant data in order to establish the epidemiological surveillance system with the community participation. It is desirable that the Project pay more attention to trainings in the areas of the capacity development of data management and its technical updates.

3.6 Factors promoting and inhibiting project progress

1) Factors promoting project progress

Commitment and collaboration toward the Chagas disease control in Honduras are remarkable from central to community level under the strong leadership of SS.

It is also important that TSA are trying to involve the community in activities for establishing the epidemiological surveillance system with the community participation with high motivation by building mutual trust with community.

Active participation of health volunteers and communities in Chagas disease control activities is driving force to promote the epidemiological surveillance system with the community participation.

2) Factors inhibiting project progress

- The current political situations
- Delay in approval and allocation of budget from the National to prefectural level
- Labor tie-up of the SS
- Outbreak of rabies
- Outbreak of influenza A H1N1

4. Conclusions

Based on the accomplishment obtained in the first phase (2003-2007) of vector control through attack phase and introduction of maintenance phase of vector surveillance system with community participation in the 4 western departments, the Project second phase has been developing, aiming at establishment of the surveillance system, extending the target area towards high infestation 8 departments.

It was confirmed that the Project is making a significant progress, although Project has undergone the serious delay of authorization and allocation of national budget in 2009 and the political convulsion since the end of June 2009. Activities to establish the surveillance system are being developed, mainly by key stakeholders who have firm commitment and leadership at every level, from the SS central until departmental, municipality and community level. Devoted efforts of the community volunteers, that enable the Disease prevention and control activities sustainable and more effective, are observed in pilot areas. The Team highly appreciates the people of the community for their zeal and devotion, the TSAs (Técnico de Salud Ambiental, Environmental Health Technician) for their strong will and capacity, and the all the concerned people for their efforts for collaboration among the central level, departments and municipal TSA, as well.

In addition to Honduran outstanding efforts mentioned above, however, it is confirmed that there exist some challenges, such as a) review of the guideline for the spraying for *T. dimidiata*, b) quality assurance of vector control, c) unification of technical guideline and terms. Therefore the following recommendations and lessons are drawn, and the Team has strong desire to all the concerned to the Project to continue efforts, and Honduran side shall take every measure for the necessary budget allocation to achieve the Project Purpose.

5. Recommendations and Lessons Learned

5.1. Recommendations

(1) Review of the criteria for the spraying for *T. dimidiata*.

In Honduras, current criteria for the spraying for *T. dimidiata*, are “nymph found” and/or “the infestation rate is more than 20 %”. However, bug doesn’t get out from the cracks of the wall for any other reason than copulation or sucking blood, also there is very low possibility that the adult might come from the outside of the perimeter of the houses. Therefore it is recommended to modify the criteria to spray even if adult is found, considering that in these houses there must be the bugs’ colonization. It is also recommended the review of the criteria “The infestation rate is more than 20%” based on the results of threshold survey which is done through the Project. It is recommended to respect the Honduran norm of control of *T. dimidiata* in conducting the second cycle of spraying based on the evaluation of the first cycle.

(2) Quality assurance of vector control

It’s important to pursue the whole process of work with accurate technique in proper manner, based on the “Manual de normas y Procedimientos para la Prevención y control de la Enfermedad de Chagas” in order to achieve bug-free community. The process consists of entomological survey, insecticide spraying (educational and advocacy activities), serological survey, and a post-spraying evaluation and analysis. Therefore the Team recommends all concerned of the Project to reconsider and fully apply the accurate process to assure the quality.

(3) Securing the necessary budget for spraying

Actually the spraying is being carried out at departmental level according to the notification of bugs to the local Health Centers. However, there are some cases in which the spraying to the necessary house or communities have

not been conducted because of the lack of budget for the allowance for TSAs supervision and sprayers, as well as the gasoline for the transportation. From the aspect of assuring sustainability, it is recommended that the SS continues to take measures to secure the necessary budget for spraying timely.

(4) Threshold study

Through the Project, the threshold study is being conducted in order to verify the threshold of control of the *T. dimidiata* infestation rate. Already the baseline study has been done in the 8 departments and currently the study results are being analyzed. It is recommended to conduct the study at the same areas with same population in 2010, to allow the comparative analysis with the baseline study.

(5) Extension of the surveillance system

As Output #4) aims at “introduction of the surveillance system to outside of pilot areas”, related activities are underway in areas where the attack phase has been completed. It is necessary to determine the criteria of extension and the schedule of activities of the 4 occidental departments until end of the year 2009, and the other 4 departments in first trimester of 2010.

(6) Unification of technical criteria

In order to achieve the Project purpose, the accurate grasp of performance (notification and response based on the notification) by SS and the feedback to the control activity based on the performance are crucial. Actually the performance data presented by each department (risk localities, localities where the entomological study conducted, dispersion index etc.) are reported with different technical criteria, it is difficult for the SS to update the situation. The Team recommends to the SS to unify the technical criteria and terms within 2009.

(7) Addition of advocacy activity in PDM

For the establishment of surveillance system, it is fundamental to promote the educational activities at community for the purpose of strengthening the people’s preventive and responsive capacity. Therefore it is recommended to add the educational activities in PDM.

5.2. Lessons Learned

(1) Effectiveness and sustainability of community participation

There are some localities where an effective and sustainable surveillance system has been established with active participation of the people, such as community volunteers and local organizations through active collaboration and confidence among the SS and departmental offices, TSAs and communities. This effectiveness of surveillance system with community participation is one of the lessons learned in the Project, therefore it is expected to extend the system of these communities at national level and to other countries as a model of surveillance system with community participation.

(2) Importance of serological study to back up the strategy of Chagas Disease Control with community participation

In Honduras, one of the components of surveillance system is based on the notification of vectors by the community personnel. This notification enables administrative side to conduct entomological and serological examination, and at the same time conduct spraying and treatment for children younger than 15 years old in order

to optimize the effect of the Disease control. Through the serological examination it is possible to verify the effectiveness of this strategy and contribute in obtaining the certification of interruption of new vector transmission.

Project Design Matrix

Project Title: Chagas Disease Control Project Phase 2

Target Prefectures: Intibucá, Lempira, Copán, Ocotepeque, Yoro, Comayagua, El Paraíso, Francisco Morazán

Period: 3 years (from March 2008 to February 2011)

Target Groups: Secretariat of Health, prefectural health offices, prefectural area health coordination offices, health centers/health posts (CESAMOs/CESARs), health volunteers, communities.

Ver. 1 Designed: January, 2008

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
Overall Goal Transmission of Chagas disease through vectors significantly reduces	1. Sero-prevalence among children of under 15 years of age (1%) 2. Number of localities where <i>R. prolixus</i> is absence 3. Domestic infestation rate of <i>T. dimidiata</i> (5%)	1. Report of serological survey among children of under 15 years of age 2. Report of entomological survey and surveillance 3. Report of entomological survey and surveillance	- IPCA continues to give technical and political support to Honduras.
Project Purpose In the target prefectures, the areas for attack phase are extended and the epidemiological surveillance system with community participation* is established	1. Coverage of localities** where the epidemiological surveillance system with community participation is 2. Performance index for the epidemiological surveillance system with community participation (85%) 3. Sero-prevalence among children of under 15 years of age (1%) 4. Presence of <i>R. prolixus</i> (0%) 5. Domestic infestation rate of <i>T. dimidiata</i> (5%)	1. Project reports 2. Project reports 3. Report of serological survey among children of under 15 years of age 4. Report of entomological survey and surveillance 5. Report of entomological survey and surveillance	- Chagas disease control continues to be a priority for the SH.
Output 1. Vector control of <i>R. prolixus</i> in the attack phase is completed in the target prefectures. 2. Coverage of vector control of <i>T. dimidiata</i> is extended to the localities with high domestic infestation in the prefectures of Intibucá, Lempira, Ocotepeque, Yoro, Comayagua, El Paraíso, Francisco Morazán. 3. The epidemiological surveillance system with community participation in pilot areas*** is established. 4. The epidemiological surveillance system with community participation is introduced in the priority localities except pilot areas where attack phase is implemented. 5. Experiences and knowledge of Chagas disease control are shared and exchanged among the target prefectures.	1-1. Coverage of the sprayed localities where <i>R. prolixus</i> are supposed to exist (100%) 1-2. Presence of <i>R. prolixus</i> (0%) 2-1. Coverage of sprayed houses (50%) 2-2. Coverage of the sprayed localities (50%) 2-3. Domestic infestation rate of <i>T. dimidiata</i> (5%) 3-1. Indicators for evaluation of performance of the epidemiological surveillance system with community participation (85%) 4-1. Number of localities where the epidemiological surveillance system with community participation is initiated (85%) 5-1. Developed package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials) (3) 5-2. Number of workshops (15)	1-1. Project reports 1-2. Project reports 2-1. Project reports 2-2. Project reports 2-3. Project reports 3-1. Project reports 4-1. Project reports 5-1. Project reports 5-2. Project reports	
Activity 1-1. Identify intervention areas for <i>R. prolixus</i> by conducting serological and entomological surveys 1-2. Plan and fully implement spraying based on the results of the surveys at the prefectural level 1-3. Monitor and evaluate the progress of the attack phase activities for <i>R. prolixus</i> 2-1. In selected communities, conduct censuses of: (i) sero-prevalence among children under 15 years of age; (ii) domestic infestation rate; and (iii) natural infection rate, to scientifically examine the threshold for interruption of transmission of Chagas disease through <i>T. dimidiata</i> 2-2. Identify high risk areas of <i>T. dimidiata</i> by conducting serological and entomological surveys 2-3. Plan and implement spraying based on the results of the surveys at the prefectural level 2-4. Monitor and evaluate the progress of the attack phase activities for <i>T. dimidiata</i> 3-1. Select pilot areas for implementation of the epidemiological surveillance system with community participation 3-2. Identify and assign the role and responsibility of stakeholders engaged in the epidemiological surveillance system with community participation in pilot areas 3-3. Implement training for stakeholders engaged in the epidemiological surveillance system with community participation 3-4. Introduce the epidemiological surveillance system with community participation in the selected pilot areas 3-5. Design performance monitoring and evaluation methods of the epidemiological surveillance system with community participation in pilot areas 3-6. Monitor and evaluate the performance of the epidemiological surveillance system with community participation 3-7. Implement training according to the results of performance monitoring and evaluation 4-1. Analyze the epidemiological surveillance system with community participation which was established in pilot areas 4-2. Based on the analysis, design the introduction plan of the epidemiological surveillance system with community participation, considering stakeholder types and epidemiological/entomological/socio-economic characteristics of priority localities where attack phase is completed 4-3. Initiate the epidemiological surveillance system with community participation according to the plan 5-1. Develop a package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials) based on experiences and knowledge gained in target prefectures 5-2. Hold workshops to share and exchange experiences and knowledge among the target prefectures	Inputs by Honduras < Human Resources > - Staff of the SH (at central SH, prefectural health offices, prefectural area health coordination offices, health centers/health posts (CESAMOs/CESARs)) < Equipment and Materials > - Equipment provided in the Previous Project (Vehicles, Manual sprayers, Spare parts for manual sprayers, etc.) - Motorcycles - Insecticide < Facilities > - Offices and parking spaces for Japanese experts < Financial Resources > - Cost for community spraying personnel (The SH is committed to secure the cost.) - Cost of business trips for the SH staff - Cost of maintenance, insurance and fuel for vehicles and motorcycles - Operational cost of the project offices (electricity, water, telephone and internet)	Inputs by JAPAN < Human Resources > - Long term experts (Chief Advisor/ Project manager), Chagas Disease Control - Short term experts (Monitoring and Evaluation, Epidemiology Analysis, Socio-Economic Analysis) < Equipment and Materials > - Vehicles - Insecticide - Test kits for ELISA - Rapid test kits < Financial Resources > - Cost of workshops and training - Cost of printing of educational materials - Cost of driver(s) and assistant(s)	Pre-conditions Equipments donated by the Previous Project continues to be used appropriately - National Programme of Chagas Disease continues to take lead in facilitating harmonization among institutions related to Chagas disease control activities.

Note:
* "The epidemiological surveillance system with community participation" for Chagas disease control is composed of 3 components as follows: (i) Report of vectors and suspected acute cases of Chagas disease from the community to health centers/health posts (CESAMOs/CESARs), (ii) Record and analysis of collected information of vectors and suspected acute cases of Chagas disease, and plan of response (spraying of infested houses and treatment of patients). The system is composed of a series of activities as follows: training of the SH staff and health volunteers for implementation of the system, community organization through health volunteers for searching vectors and suspected acute cases, spraying of infested houses and/or canine (public administration unit under the municipalities in Honduras)
** "Locality" defined as a zone and/or caserio (public administration unit under the municipalities in Honduras)
*** "Pilot areas" at the beginning of the Project: (i) Municipality of Dolores, Prefecture of Intibucá; (ii) Municipality of San Marcos de la Sierra, Prefecture of Intibucá; (iii) Municipality of Santa Cruz, Prefecture of Lempira; (iv) Village of Carriámin, Municipality of Copán Ruinas, Prefecture of Copán; (v) Municipality of Copain, Prefecture of Copán; (vi) Localities under the control of CESAR of San José de la Reunión, Municipality of Ocotepeque, Prefecture of Ocotepeque.

Project Design Matrix

Project Title: Chagas Disease Control Project Phase 2

Period: 3 years (from March 15th, 2008 to March 14th, 2011)

Target Prefectures: Intibucá, Lempira, Copán, Ocotepeque, Yoro, Comayagua, El Paraiso, Francisco Morazán

Target Groups: Secretariat of Health, prefectural health offices, prefectural area health coordination offices, health centers/health posts (CESAMOs/CESARs), health volunteers, communities.

Version 2 Designed: Oct 23rd, 2009

Narrative Summary	Verifiable Indicator	Means of Verification	Important Assumption
<p>Overall Goal</p> <p>Transmission of Chagas disease through vectors significantly reduces</p>	<p>1 Sero-prevalence among children of under 15 years of age (1%) 2 Number of localities where R. prolixus is absence 3 Domestic infestation rate of T. dimidiata (5%)</p>	<p>1 Report of serological survey among children of under 15 years of age 2 Report of entomological survey and surveillance 3 Report of entomological survey and surveillance</p>	<p>- IPCA continues to give technical and political support to Honduras.</p>
<p>Project Purpose</p> <p>In the target prefectures, the areas for attack phase are extended and the epidemiological surveillance system with community participation* is established.</p>	<p>1 Coverage of localities** where the presence of R. p. has been notified, and the epidemiological surveillance system with community participation is introduced (70%) 2 Performance index for the epidemiological surveillance system with community participation (85%) 3 Sero-prevalence among children of under 15 years of age (1%) 4 Presence of R. prolixus (2%) 5 Domestic infestation rate of T. dimidiata (5%)</p>	<p>1 Project reports 2 Project reports 3 Report of serological survey among children of under 15 years of age 4 Report of entomological survey and surveillance 5 Report of entomological survey and surveillance</p>	<p>- Chagas disease control continues to be a priority for the SH.</p>
<p>Output</p> <p>1 Vector control of R. prolixus in the attack phase is completed in the target prefectures. 2 Coverage of vector control of T. dimidiata is extended to the localities with high domestic infestation in the prefectures of Intibucá, Lempira, Copán, Guatemala 3 The epidemiological surveillance system with community participation in pilot areas*** is established. 4 The epidemiological surveillance system with community participation is introduced in the priority localities except pilot areas where attack phase is completed 5 Experiences and knowledge of Chagas disease control are shared and exchanged among the target prefectures.</p>	<p>1-1 Coverage of the sprayed localities where R. prolixus are supposed to exist (100%) 1-2 Presence of R. prolixus (0%) 2-1 Coverage of sprayed houses (50%) 2-2 Coverage of the sprayed localities (50%) 2-3 Domestic infestation rate of T. dimidiata (5%) 3-1 Indicators for evaluation of performance of the epidemiological surveillance system with community participation (85%) 4-1 Number of localities where the epidemiological surveillance system with community participation is initiated (80) 5-1 Developed package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials) (3) 5-2 Number of workshops (15)</p>	<p>1-1 Project reports 1-2 Project reports 2-1 Project reports 2-2 Project reports 2-3 Project reports 3-1 Project reports 4-1 Project reports 5-1 Project reports 5-2 Project reports</p>	
<p>Activity</p> <p>1-1 Identify intervention areas for R. prolixus by conducting serological and entomological surveys 1-2 Plan and fully implement spraying including educational activities based on the results of the surveys at the prefectural level 1-3 Monitor and evaluate the progress of the attack phase activities for R. prolixus 2-1 In selected communities, conduct censuses of: (i) sero-prevalence among children under 15 years of age; (ii) domestic infestation rate; and (iii) natural infection rate, to scientifically examine the threshold for interruption of transmission of Chagas disease through T. dimidiata 2-2 Identify target areas for intervention of T. dimidiata by conducting serological and entomological surveys 2-3 Plan and implement spraying and educational activities based on the results of the surveys at the prefectural level 2-4 Monitor and evaluate the progress of the attack phase activities for T. dimidiata 3-1 Select pilot areas for implementation of the epidemiological surveillance system with community participation 3-2 Identify and assign the role and responsibility of stakeholders engaged in the epidemiological surveillance system with community participation in pilot areas 3-3 Implement training for stakeholders engaged in the epidemiological surveillance system with community participation 3-4 Introduce the epidemiological surveillance system with community participation including educational activities in the selected pilot areas 3-5 Design performance monitoring and evaluation methods of the epidemiological surveillance system with community participation in pilot areas 3-6 Monitor and evaluate the performance of the epidemiological surveillance system with community participation 3-7 Implement training according to the results of performance monitoring and evaluation 4-1 Analyze the epidemiological surveillance system with community participation which was established in pilot areas 4-2 Based on the analysis, design the introduction plan of the epidemiological surveillance system with community participation, considering stakeholder types and epidemiological/entomological/socio-economic characteristics of priority localities where attack phase is completed 4-3 Initiate the epidemiological surveillance system with community participation according to the plan 5-1 Develop a package of Chagas disease control (e.g. operation guidelines, M&E tools, educational materials) based on experiences and knowledge gained in target prefectures 5-2 Hold workshops to share and exchange experiences and knowledge among the target prefectures</p>	<p>Inputs by Honduras</p> <p><Human Resources> - Staff of the SH (at central SH, prefectural health offices, prefectural area health coordination offices, health centers/health posts (CESAMOs/CESARs))</p> <p><Equipment and Materials> - Equipment provided in the Previous Project (Vehicles, Manual sprayers, Spare parts for manual sprayers, etc.) - Motorcycles - Insecticide</p> <p><Facilities> - Offices and parking spaces for Japanese experts</p> <p><Financial Resources> - Cost for community spraying personnel (The SH is committed to secure the cost.) - Cost of business trips for the SH staff - Cost of maintenance, insurance and fuel for vehicles and motorcycles - Operational cost of the project offices (electricity, water, telephone and Internet)</p>	<p>Inputs by Japan</p> <p><Human Resources> - Long term experts (Chief Advisor/ Project management, Chagas Disease Control) - Short term experts (Monitoring and Evaluation, Epidemiology Analysis, Socio-Economic Analysis)</p> <p><Equipment and Materials> - Vehicles - Insecticide - Test kits for ELISA - Rapid test kits</p> <p><Financial Resources> - Cost of workshops and training - Cost of printing of educational materials - Cost of driver(s) and assistant(s)</p>	<p>Pre-conditions</p> <p>- Equipments donated by the Previous Project continues to be used appropriately</p> <p>- National Programme of Chagas Disease continues to take lead in facilitating harmonization among institutions related to Chagas disease control activities.</p>

Note

* "The epidemiological surveillance system with community participation" for Chagas disease control is composed of 3 components as follows: (i) Report of vectors and suspected acute cases of Chagas disease from the community to health centers/health posts (CESAMOs/CESARs); (ii) Record and analysis of collected information of vectors and suspected acute cases of Chagas disease, and plan of response (educational activities, spraying of infested houses and treatment of patients); (iii) Educational activities, spraying of infested houses and treatment of patients.

** The system is composed of a series of activities as follows: training of the SH staff and health volunteers for implementation of the system, community participation through health volunteers for searching vectors and suspected acute cases, spraying of infested houses and

*** "Locality" defined as aldea and/or caserio (rural administration unit under the municipalities in Honduras)

**** "Pilot areas" at the beginning of the Project: (i) Municipality of Dolores, Prefecture of Intibucá; (ii) Municipality of San Marcos de Sierra, Prefecture of Intibucá; (iii) Municipality of Santa Cruz, Prefecture of Lempira; (iv) Localities under the control of CESAP of Finca Santa Rosa, Municipality of Copán Ruinas, Prefecture of Copán; (v) Municipality of Colón, Prefecture of Copán; (vi) Localities under the control of CESAP of San José de la Trinidad, Municipality of Ocotepeque, Prefecture of Ocotepeque.

Training of Counterpart Personnel

Año	MES	CONCEPTO	DURACION (DIAS)	NO. PARTICIPANTES	
2008	Junio	Capacitación de Rociadores en Dolores, Intibucá	1 Día	17	
		Evaluación semestral de Control de la Enfermedad de Chagas 1er Sem. 2008	2 Días	80	
		Taller de Diccionario de Chagas y GIS para JOCV de Chagas	1 Día	4	
		Capacitación de Rociadores, San Marcos de Sierra, Intibucá	1 Día	45	
	Julio	Capacitación sobre la Enfermedad de Chagas Departamento de Ocotepeque	1 Día	27	
		Capacitación sobre la Enfermedad de Chagas Departamento de Ocotepeque	1 Día	32	
		Taller de Vigilancia, Nivel Central	1 Día	12	
		Capacitación sobre la Enfermedad de Chagas Departamento de Ocotepeque	1 Día	22	
		Capacitación sobre la Enfermedad de Chagas Departamento de Ocotepeque	1 Día	22	
		Capacitación de Reparación de Bombas de Rociado, Departamento de El Paraiso	2 Días	36	
		Taller de Vigilancia, Nivel Central	1 Día	16	
		Capacitación sobre la Enfermedad de Chagas Dpto de Ocotepeque	1 Día	27	
		Capacitación para Expertos y Voluntarios de Chagas de JICA impartida por El Laboratorio Nacional de Chagas	2 Días	5	
	Agosto	Capacitación sobre la Enfermedad de Chagas Dpto de Ocotepeque	1 Día	31	
		Taller de Vigilancia, Nivel Central	1 Día	14	
	Septiembre	Reunion de preparación para el Estudio del Umbral de T.d.(8 Dptos conjunto)	2 Días	26	
		Capacitación sobre el Estudio del Umbral de T.d. (4 Dptos Occidentales)	3 Días	36	
	Octubre	Capacitación sobre el Estudio del Umbral de T.d. (4 Dptos Centrales)	3 Días	34	
		Lanzamiento del Proyecto	1 Día	88	
	Noviembre	Capacitación de TSAs Copan Ruinas	1 Día	27	
		Capacitación para TSAs impartida por Dr. Tabara(4 Dptos Centrales)	2 Días	44	
		Capacitación de TSAs Intibucá	2 Días	24	
		Capacitación Regional de JOCVs de Chagas sobre la Facilitación	5 Días	32	
		Capacitación para JOCVs de Chagas de JICA previo aシヤーガス商対策新隊員(20年1次隊)の赴任事前研修	1 Día	3	
		Capacitación para TSAs impartida por Dr. Tabara(4 Dptos Centrales)	2 Días	33	
	Diciembre	Capacitación de TSAs del Dpto de Foo, Morazan	2 Días	38	
		Capacitación de Voluntarios de Salud del Area piloto del Dpto Ocotepeque	1 Día	33	
		Capacitación de Promotores de Salud de la Zona Sur del Dpto de Lempira impartida por Unidad de Entomología	14 Días	21	
		Capacitación TSAs Dpto de Comayagua (2 Veces)	4 Días	57	
	2009	Enero	Capacitación de Voluntarios de Salud de Dolores, Intibucá	2 Días	36
			Capacitación de Mejoramiento de vivienda	3 Días	41
		Febrero	Capacitación de Fase de Ataque de Dpto de Yoro Municipio de El Progreso	2 Días	29
			Capacitación de Fase de Ataque de Dpto de Yoro Municipio de Yoro	2 Días	36
Evaluación del Control de Chagas del Segundo Semestre del 2008			3 Días	49	
Taller de elaboración de Hoja de Monitoreo del Sistema de Vigilancia			2 Días	19	
Marzo		Capacitación de JOCVs de GIS, Trabajo de Campo y Plan de Actividades	2 Días	8	
		Capacitación de TSAs de Morazan, Dpto de Yoro	2 Días	41	
		Capacitación de Analisis de Datos Epidemiológicos y SPSS	3 Días	16	
Abril		Capacitación de Encuesta Serológica de TSAs de Dpto de El Paraiso	1 Día	18	
Mayo		Taller de Vigilancia de Areas piloto de 4 dptos Occidentales	2 Días	25	
Junio		Capacitación de Docentes de Copan Ruinas	1 Día	37	
		Capacitación de Fase de Ataque del Dpto de El Paraiso	2 Días	31	
Septiembre		Capacitación analisis de información epidemiológica	2 Días	15	
			Total de personas Capacitadas	1312	

LISTA DE EQUIPO / 備品管理簿 (Más de 20,000 venezolaneses / 2万円以上)

Nombre de Equipo	機材名	Marca メーカー	Modelo 型式	Características / Número de unidad シリアルナンバー / 個数	Precio 金額	Fecha de recibida 受取日	Lugar de instalación 設置場所	Responsable 管理責任者	Utilización 利用頻度	Manten. 管理状況
1 Vehículo del Proyecto	プロジェクト車両(標本)	Nissan	Patrol	JN1TESY61Z0551524	\$ 30.500,00	31/03/2008	PNCh(SS)	Dr. Concepción Zuniga	A	A
2 Vehículo del Proyecto	プロジェクト車両(中村)	Nissan	Patrol	JN1TESY61Z0551410	\$ 30.500,00	31/03/2008	PNCh(SS)	Dr. Concepción Zuniga	A	A
3 Prueba ELISA Chagas	ELISA血清検査キット	Wiener Lab.	ELISA Chagas Kit	90キット	\$ 8.820,00	09/12/2008	Lab. Nacional	Dra. Rosa E. Mejía	B	A
4 Vehículo del Proyecto	F. Morazan 県車両	Mazda	Pick up BT-500C		\$ 24.300,00	28/01/2009	PNCh(SS)	Dr. Concepción Zuniga	A	A
5 Prueba ELISA Chagas	ELISA血清検査キット	Wiener Lab.	ELISA Chagas Kit	160キット	\$ 15.680,00	27/02/2009	Lab. Nacional	Dra. Rosa E. Mejía	B	A
6 Prueba ELISA Chagas	ELISA血清検査キット	Wiener Lab.	ELISA Chagas Kit	367キット	\$ 32.895,00	22/06/2009	Lab. Nacional	Dra. Rosa E. Mejía	B	A
7 Prueba Rapida	簡易血清検査キット	Chembio	Chagas Stat-Pak	500キット	\$ 37.500,00	22/06/2009	Lab. Nacional	Dra. Rosa E. Mejía	B	A

Nombre de Equipo	機材名	Marca メーカー	Modelo 型式	Características / Número de Serie シリアルナンバー / 特徴	Precio 金額	Fecha de recibida 受取日	Lugar de instalación 設置場所	Responsable 管理責任者	Utilización 利用頻度	Manten. 管理状況
4 Programa SPSS	SPSS統計ソフト	SPSS	Ver.17		¥ 623.700	20/03/2009	PNCh(SS)	Dr. Concepción Zuniga	C	A

<UTILIZACIÓN> A todos los días, B una vez a la semana, C a veces <MANUTENIMIENTO> A bien estado, B necesita reparación, C quebrado

<利用状況> A: 毎日, B: 週に一度, C: 時々 <管理状況> A: 良好, B: 修理必要, C: 破損

LISTA DE PRODUCTOS ELABORADOS POR EL PROYECTO

Annex 8

Año	No.	TITULO	CONCEPTO	FORMA
2008	1	Propuesta de Investigación : Estudio sobre el Umbral de los índices de Infestación Domiciliar de Triatoma dimidiata	Propuesta de Estudio de Umbral de T.d. integrada por 2 países	Propuesta
	2	Diccionario de Chagas	Lista de Palabras con su respectiva definición relacionadas de Chagas en Honduras	Diccionario
	3	Trifolio del Proyecto de Control de la Enfermedad de Chagas Fase 2	Broucher de Proyecto de Chagas Fase2	Trifolio
	4	Abordaje de Vigilancia Epidemiológica de Chagas Ver.1	Cuadro de las normas y las respuestas para Sistema de la Vigilancia Epidemiológica	Cuadro
	5	Página Web del Proyecto de Control de la Enfermedad de Chagas Fase 2	Página web en la cual se publican las actividades y las noticias del proyecto.	Página Web
	6	Informe para la Certificación de la Interrupción de la Transmisión Vectorial de la Enfermedad de Chagas por Rhodnius prolixus en la República de Guatemala	Informe de la misión para evaluar la certificación de la Eliminación de la transmisión de la enfermedad de Chagas por Rhodnius prolixus	Informe
	7	Calendario de Vigilancia de Chinchas 2009	Calendario para socializar sobre la captura y la entrega de chinchas	Calendario
	8	Formato de Supervisión de la Calidad de Evaluación Entomológica de Chagas	Formato para monitorear la actividad de Encuesta Entomológica	Formulario
	9	Formato de Supervisión de la Calidad de Rociado para Control de Triatominos	Formato para monitorear la actividad del rociamiento	Formulario
	10	Instrumento para Monitoreo del Sistema de Vigilancia Epidemiológica de Chagas	Formato para monitorear las actividades de la vigilancia epidemiológica	Formulario
	11	IPCA : SISTEMA DE VIGILANCIA ENTOMOLOGICA COMUNITARIA	Presentación en la IPCA 2008 sobre la sistema de la vigilancia entomologica en las áreas pilotos del proyecto.	Presentación
	12	Test del conocimiento de Chagas para TSA	Test de Chagas para evaluar el conocimiento del personal institucional	Test
	13	Material educativo : Camisa, Chonpa, Mochila	Material educativo para personal de campo	Camisa Mochila
	14	Informe semestral del Proyecto (Marzo/2008 Septiembre/2008)	Informe de avance del proyecto para JICA	Informe
	15	Reglamento Interno del Proyecto	Reglamento Interno para los expertos y contratados locales del Proyecto	Reglamento
	16	Lista de la inversión de los donantes en sector salud	Informe de detalles de la inversión de los donantes en sector de la salud	Informe
2009	17	CAMISCA : La actividad de Control de Enfermedad de Chagas de JICA	Presentación en la COMISCA 2008 sobre las actividades del proyecto	Presentación
	18	Artículo de los Proyectos de Control de la Enfermedad de Chagas en Centroamerica en la Revista mensual de JICA	Artículo de Control de la Enfermedad de Chagas en Centroamerica que publicó en la Revista de JICA	Artículo
	19	Cuadro de experiencia y conocimiento del Sistema de Vigilancia	Cuadro que muestra la experiencia y conocimiento del Sistema de Vigilancia	Cuadro
	20	Diagrama de Actividades de los voluntarios de Salud	Esquema de las acciones de la vigilancia en nivel del municipal y la comunidad	Diagrama
	21	Camiseta de la Campaña del Centenario de Descubrimiento de la Enfermedad de Chagas	Material promocional para la campaña de Chagas	Camiseta
	22	Afiche de Chinche para conocer, capturar y enviar	Afiche para socializar las chinchas en los edificios públicos	Afiche
	23	Página Web del Proyecto en la versión español	Página web en la cual se publica las actividades y las noticias del proyecto en español	Página Web