

## PROJECT PROFILE #12

Project Name: Plan for Migrant People to the Coastal Area  
Community: Palestina

Item	Contents	Remarks												
1. Objectives	People in Palestina de Los Altos has a very small landholding size and their economy remains at subsistent level. About 80% of the people annually migrate to hacienda in the coastal area to rent lands for obtaining maize and income as agricultural labor. However, the living and health condition in the hacienda area is very severe. Most of the people suffer from water-born diseases, malaria, dengue and contamination by agricultural chemicals. This project aims to improve such bad conditions by educational training for migrant people and provision of materials necessary for preventing diseases and contamination.													
2. Number of Beneficiaries	About 200 households in 5 caserios													
3. Implementation Organization	Migrant people committee/JICA Study Team													
4. Project Contents														
1) Project Outline	1) A base-line survey will be carried out for selected farmers to grasp and identify problems of living conditions such as health, sanitation, agricultural chemical contamination, etc. 2) An educational training system will be established. And training programs will provide technical services on health control with migrant people. 3) Provision of materials (simple water filter system, materials to prevent agricultural chemical contamination, seeds of repellent plant and simple toilet) for preventing migrant people from diseases and contamination.													
2) Facility / Activity	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">Facilities/Activities</th> <th style="text-align: center;">Implementator</th> </tr> </thead> <tbody> <tr> <td>1) Training for 10 staff of health center and 10 school teachers</td> <td>1) NGO</td> </tr> <tr> <td>2) Training for 20 health promoters</td> <td>2) NGO/auxiliary nurses</td> </tr> <tr> <td>3) Training for 200 migrant people</td> <td>3) NGO, auxiliary nurses, school teachers</td> </tr> <tr> <td>4) Provision of materials necessary for preventing diseases and contamination</td> <td>4) NGO/JICA</td> </tr> <tr> <td>5) Setting up committee</td> <td>5) NGO</td> </tr> </tbody> </table>	Facilities/Activities	Implementator	1) Training for 10 staff of health center and 10 school teachers	1) NGO	2) Training for 20 health promoters	2) NGO/auxiliary nurses	3) Training for 200 migrant people	3) NGO, auxiliary nurses, school teachers	4) Provision of materials necessary for preventing diseases and contamination	4) NGO/JICA	5) Setting up committee	5) NGO	
Facilities/Activities	Implementator													
1) Training for 10 staff of health center and 10 school teachers	1) NGO													
2) Training for 20 health promoters	2) NGO/auxiliary nurses													
3) Training for 200 migrant people	3) NGO, auxiliary nurses, school teachers													
4) Provision of materials necessary for preventing diseases and contamination	4) NGO/JICA													
5) Setting up committee	5) NGO													
3) Organization for O&M	Non													
4) Construction Period	1) Base line survey:4 weeks, 2)training for staff of health center and school teachers, 3) training for health promoters:1 month, 4) training for migrant people: 2 months and 5) monitoring: 2months													
5. Project Cost	1) Cost of materials to prevent diseases and contamination.....Q 180,420 2) Training (including base line survey/monitoring).....Q 108,771 3) Other.....Q 31,229 Total cost.....Q 320,420													

### 6. Monitoring & Evaluation

Item	Frequency	Data collector	Aggregation	Decision Maker
1) Use condition of water filter and toilet	2 times/15 months	NGO	NGO	JICA Study Team
2) Use condition of materials for agri. chem. contamination	2 times/15 months	NGO	NGO	JICA Study Team
3) Growing condition of repellent plants	2 times/15 months	NGO	NGO	JICA Study Team
4) Number of morbidity	2 times/15 months	NGO	NGO	JICA Study Team

### 7. Plan of Operation

Item	2001					2002												
	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
1) Base-line survey		▬					■											
2) Educational training				▬			■											
3) Provision of materials								▬										
4) Monitoring										△				▲		△		▲

▬ : Schedule, △ : Schedule, ■ : Progress, ▲ : Progress

## PDM #12: Plan for Migrant People to the Coastal Area

Community: Palestina Target Group: Migrantes in Palestina de Los Altos  
 Period: Sep. 2001 ~ Dec. 2002 Implt. Organization: JICA

November, 2002

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
<p><i>Overall Goal</i></p> <p>1. Poverty condition in central highland region will be mitigated.</p>	<p>1. Poverty indicator of rural area will be improved up to the provincial average by 2015.</p>	<p>1. FIS Poverty Indicator and monitoring on Farmers.</p>	<p>1. There will be no drastic change in development policy of Guatemalan Government.</p>
<p><i>Project Purpose</i></p> <p>1. Health condition of the migrants will be improved.</p>	<p>1. Reduction of top-ten illness of migrants by 15 per cent.</p>	<p>1. Result of sample survey on morbidity of migrants</p>	<p>1. Similar type of projects will be implemented in other neighboring communities.</p>
<p><i>Outputs</i></p> <p>1. Migrants use the water filter and obtain safe drinking water.                      2. Migrants use pesticides properly and are free from diseases.                      3. Migrants cultivate repellents plants.                      4. Migrants prepare and use simple toilets and improve sanitary conditions.                      5. Health personnel train migrants on the 4 subjects (safe water, pesticides, Malaria/Dengue &amp; toilets)</p>	<p>1. 80% of the migrants use water filter.                      2. 80% of the migrants use pesticides-precaution set.                      3. 80% of migrant perceive that there is repellent effect by plants.                      4. 80% of the migrants prepare toilets                      5. Number of mobility</p>	<p>1. Result of sample survey in the field</p>	<p>1. The living condition of migrants does not change dramatically in the destination.</p>
<p><i>Activities</i></p> <p>1. Use of safe water                      - Provision of water filter                      - Training* on use of water filter and general knowledge of safe water                      2. Precaution of pesticide use                      - Provision of precaution material (mask, grove, etc.)                      - Training* on pesticide precaution and general knowledge on pesticides                      3. Malaria/Dengue prevention                      - Provision of seeds of anti-Malaria / Dengue plants.                      - Training* on practical knowledge for prevention of tropical disease.                      4. Sanitation                      - Provision of simple toilets for migrants                      - Training* on use of simple toilet and general knowledge on sanitary                      * Training will be conducted for Health Center, School teacher, Health Promoter and Migrants.                      5. Provision of teaching materials to school teachers, health center and health promoter</p>	<p><i>Inputs</i></p> <p>1. Purchasing cost of necessary equipment ..... Q 180,420                      2. Training cost / materiales ..... Q 108,771                      3. Other ..... Q 31,229                      Total Cost..... <u>Q 320,420</u></p>	<p>1. Trained personnel in the health center and health promoters remain in Palestina in the following year.                      2. Trained school teachers remain in Palestina                      3. The destination of migrants do not change dramatically</p> <p><i>Pre-conditions</i></p> <p>1. The migrants in Palestina and fincas do not object the project.</p>	

**PCM Evaluation #12: Plan for Migrant People to the Coastal Area**

<b>Evaluation Summary</b>	<b>Efficiency</b>	<b>Effectiveness</b>	<b>Impact</b>	<b>Relevance</b>	<b>Sustainability</b>
<p><b>Overall Goal</b> 1. Poverty condition in the central highland region will be mitigated.</p>					
<p><b>Project Purpose</b> 1. Health condition of the migrants will be improved.</p>		<p>(+) No morbidity by contamination of agricultural chemicals in the coastal area was observed.</p> <p>(-) Health and sanitary improvement except contamination of agricultural chemicals is not yet achieved.</p>	<p>(±) There was no reduction of morbidity except contamination of agricultural chemicals in the coastal area.</p> <p>(±) Use of equipment of portable toilet and in the Palestina model area brought about sanitary improvement in model area and convenience of living of people regarding water use.</p>	<p>(+) The demand that migrants escape from contamination of agricultural chemicals is still very high.</p> <p>(-) Use of equipment except one against contamination of agricultural chemicals did not always accord with actual requirement of the migrants.</p>	<p>(±) Most of all migrants used materials and equipment against escape from contamination of agricultural chemicals in the coastal area due to their convenience of transportation and full understanding of positive effects against contamination.</p> <p>(-) Other materials and equipment were not used in the coastal area by most of migrants and there will be low possibility of using these materials and equipment.</p>
<p><b>Outputs</b> 1. Migrants use the water filter and obtain safe drinking water. 2. Migrants use pesticides properly and are free from contamination of agricultural chemicals 3. Migrants cultivate repellent plants. 4. Migrants prepare and use simple toilets and improve sanitary conditions 5. Health personnel train migrants on the 4 subjects (safe water, pesticides, Malaria/dengue and toilets)</p>	<p>(-) Over 90% of the total migrants didn't use water filters in the coasta.</p> <p>(+) Most of the migrants managed agro-chemical by use of equipment &amp; materials to avoid contamination.</p> <p>(-) Only 2% of the total migrants cultivated repellent seeds in the coastal area and all seeds could not grow.</p> <p>(-) Over 90% of the migrants did not use portable toilets in the coastal area.</p>				
<p><b>Inputs</b> 1. Necessary equipment (Q180,420) 2. Training &amp; materials (Q108,771) 3. Other (Q31,229) 4. Total cost (320,420)</p>	<p>(+) The training programs were performed for about 130 migrants.</p>				

**OVERALL EVALUATION #12**  
**Plan for Migrant People to the Coastal Area**

Criteria	Result	Basis
<b>Efficiency</b>	Low	<ul style="list-style-type: none"> <li>- Most of migrants used material and equipment against contamination of agricultural chemicals.</li> <li>- No reduction of morbidity was observed, because over 90% of migrate people did not use water filters, portable toilets and seeds of repellent plants.</li> </ul>
<b>Effectiveness</b>	Partly achieved	<ul style="list-style-type: none"> <li>- No morbidity by contamination of agro-chemicals in the coastal area was observed because of use of mask, gloves, raincoats and boots</li> <li>- Health and sanitary improvement except contamination of agro-chemicals were not yet achieved because most migrants did not bring water filters, portable toilets and seeds of repellent plants to the coastal area.</li> </ul>
<b>Impact</b>	Positive impact was observed.	<ul style="list-style-type: none"> <li>- It is considered that health improvement regarding escape from contamination of agro-chemicals contributed to the improvement of living environment.</li> <li>- There was no reduction of morbidity except contamination of agricultural chemicals.</li> <li>- Sanitary improvement was found in Palestina de Los Altos.</li> <li>- Use of dismantled water filter that plays an important role in convenience of living of people is observed.</li> </ul>
<b>Relevance</b>	Medium	<ul style="list-style-type: none"> <li>- The demand that the migrant people (indigenous people) escape from contamination of agro-chemicals is still very high. Provision of training on treatment of agro-chemicals and distribution of equipment for preventing contamination was quite important for their health improvement.</li> <li>- Use of equipment of water filters and portable toilets and seeds of repellent plants in the coastal areas for health improvement did not always accord with actual requirement of the migrant people.</li> </ul>
<b>Sustainability</b>	Partly high	<ul style="list-style-type: none"> <li>- Most of all migrants used materials/equipment against escape from contamination of agricultural chemicals in the coastal area due to their convenience of transportation and understood positive effects against contamination.</li> <li>- On the other hand, over 90% of the migrant people did not bring equipment of water filters and portable toilet to the coastal area and did not use them.</li> </ul>

<b>Conclusion</b>	<p>Most of migrants used materials and equipment against contamination of agro-chemicals in the coastal area. On the other hand, over 90% of migrants did not use water filters, portable toilets and seeds of repellent plants. As a result, no reduction of morbidity except contamination of agricultural chemicals was observed.</p> <p>Use of portable toilets and dismantled water filters were observed in Palestina and actual requirement of the migrants did not accord with health improvement in the coastal area as original purpose.</p> <p>The demand that the migrant people (indigenous people) escape from contamination of agricultural chemicals is still very high. However, the demand for use of safe water and better sanitary does not appear low. Only reduction of morbidity due to contamination of agricultural chemicals will be expected in the future.</p> <p>Based on the result of the above evaluation, the project is assessed to be low to medium in terms of efficiency, effectiveness, and relevance.</p>
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<b>Recommendation</b> <i>[Responsible agency]</i>	<p>It is recommended that more portable and adequate alternative ways for water filters and portable toilet should be studied and selection of varieties of repellent plants should be researched. <i>[MAGA]</i></p> <p>It is also recommended that the following monitoring should be performed to evaluate this project and identify problems. <i>[MAGA]</i></p> <ol style="list-style-type: none"> <li>a) Monitoring period: once a year, for three years</li> <li>b) Monitoring items: (1) status of use of water filters, portable toilet and equipment against agricultural chemicals in the coastal area and in the model area, (2) the number of farmers who go down to the coastal area and to the U.S.A. and (3) the number of morbidity in the coastal area.</li> </ol>
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## PROJECT PROFILE #13

Project Name: Municipality Community Health Activity Plan  
 Community: Palestina

Item	Contents	Remarks										
1. Objectives	To offer better access to cheaper and more variety of drugs at municipal and village level, by selling PROAM drugs at Municipal Pharmacy Unit located in villages; as well as offer sustainable health education program to the community.											
2. Number of Beneficiaries	Approximately 3,000 persons in 325 households in 5 villages.											
3. Implementation Organization	Health Committee of Los Cabrera and Los Diaz, Health Center and Municipality/JICA Study Team											
4. Project Contents												
1) Project Outline	Introduce cheap drugs from PROAM and first aid attention to Municipal Pharmacy and two Minimal Pharmacy Unit (MPU) in village level. Health Promoters will be in charge of the MPUs previously trained by Health Center and professional pharmacist. Auxiliary Pharmacist in charge of Municipal Pharmacy must be trained to full fill requirements of PROAM. Selling price of drugs can be increase 133% and the profit can be keep as incentive for promoters and health committee for sustainable education program to the community. The operation must be supervised monthly by municipality for accountant issues ad technical assistance by health center.											
2) Facility / Activity	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><i>Facilities/Activities</i></th> <th style="text-align: center;"><i>Implementator</i></th> </tr> </thead> <tbody> <tr> <td>1) Pharmacy building and equipment</td> <td>1) Contractor</td> </tr> <tr> <td>2) Drug input for 6 months</td> <td>2) Municipal Pharmacy /JICA</td> </tr> <tr> <td>3) Promoter Training</td> <td>3) Health Center, Professional Pharmacist</td> </tr> <tr> <td>4) Auxiliary Pharmacist training</td> <td>4) CEGIMED</td> </tr> </tbody> </table>	<i>Facilities/Activities</i>	<i>Implementator</i>	1) Pharmacy building and equipment	1) Contractor	2) Drug input for 6 months	2) Municipal Pharmacy /JICA	3) Promoter Training	3) Health Center, Professional Pharmacist	4) Auxiliary Pharmacist training	4) CEGIMED	
<i>Facilities/Activities</i>	<i>Implementator</i>											
1) Pharmacy building and equipment	1) Contractor											
2) Drug input for 6 months	2) Municipal Pharmacy /JICA											
3) Promoter Training	3) Health Center, Professional Pharmacist											
4) Auxiliary Pharmacist training	4) CEGIMED											
3) Organization for O&M	Health committee, Health Center and Municipality.											
4) Construction Period	4 month training Auxiliary Pharmacist, 3 weeks training promoters, 1 month construction MPU.											
5. Project Cost	<table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 80%;">1) Equipment MPU .....</td> <td style="text-align: right;">Q 38,055.00</td> </tr> <tr> <td>2) Drug Input .....</td> <td style="text-align: right;">Q 22,932.00</td> </tr> <tr> <td>3) Training.....</td> <td style="text-align: right;">Q 30,850.00</td> </tr> <tr> <td>Total Cost.....</td> <td style="text-align: right;">Q 91,837.00</td> </tr> </tbody> </table>	1) Equipment MPU .....	Q 38,055.00	2) Drug Input .....	Q 22,932.00	3) Training.....	Q 30,850.00	Total Cost.....	Q 91,837.00			
1) Equipment MPU .....	Q 38,055.00											
2) Drug Input .....	Q 22,932.00											
3) Training.....	Q 30,850.00											
Total Cost.....	Q 91,837.00											

### 6. Monitoring & Evaluation

<i>Item</i>	<i>Frequency</i>	<i>Data collector</i>	<i>Aggregation</i>	<i>Decision Maker</i>
1) Drug sales and stock control	Monthly	H. committee	Municipality	Study Team
2) Health education participants	Monthly	H. committee	Health center	Study Team
3) Amount and use of money reserved by health committee	Monthly	H. committee	H. committee	Study Team
4) Participation of health center in education session	Every 3 months	Municipality	Study Team	Study Team

### 7. Plan of Operation

<i>Item</i>	2001					2002												
	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12	
1) Training		▬	▬	▬	▬			▬										
2) Installation MPU		▬	▬			▬	▬											
3) Registration to PROAM			▬			▬												
4) sale of medicine						▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
5) Health education						▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬	▬
5) Monitoring					△	△	△	△	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲

▬ △ : Schedule,    ▬ ▲ : Progress

## PDM #13: Municipality Community Health Activity Plan

Community: Palestina Target Group: People in relevant communities  
 Period: Sep. 2001 ~ Dec. 2002 Implt. Organization: Municipality, Health Center, Municipal Pharmacy, Health Committee, Health Promoter

November, 2002

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
<p><i>Overall Goal</i></p> <p>1. Poverty condition in central highland region will be mitigated.</p>	<p>1. Poverty indicator of rural area will be improved up to the provincial average by 2015.</p>	<p>1. FIS Poverty Indicator and monitoring on Farmers.</p>	<p>1. There will be no drastic change in development policy of Guatemalan Government.</p>
<p><i>Project Purpose</i></p> <p>1. People will have sufficient knowledge on health and hygiene.                      2. Improvement of rural health service quality.</p>	<p>1. Reduction of particular morbidity rate.                      2. Increase of family planning utility and vaccination rate.                      3. Distance, time and cost saved to buy drugs.</p>	<p>1. Medical statistics at Municipal level                      2. Sample survey in the 5 communities                      3. Cost and distance comparison of MPU and private pharmacies.</p>	<p>1. Similar type of projects will be implemented in other neighboring communities with utilizing the monitoring results of this project.</p>
<p><i>Outputs</i></p> <p>1. Drugs are available at cheap price as well as first aid treatment at the village level                      2. Drugs at Municipal Pharmacy become cheaper by introduction of PROAM                      3. Regular health education program is conducted at village level                      4. Incentives for health promoters are sustained through revolving drug fund.</p>	<p>1. Drugs are sold at MPU and Municipal Pharmacy more than Q800 / month/ MPU.                      2. Participants in health education increase.                      3. Stock is controlled accurately and accounting is kept appropriately.                      4. Number of health promoters in active does not reduce.</p>	<p>1. Accounting record of MPU and Municipal Pharmacy                      2. Monitoring of health education by health promoter                      3. Monthly accounting and stock control record                      4. Monitoring by health committee and municipality</p>	<p>1. There is no drastic change in pricing structure of drugs.                      2. Demand for drugs is not drastically reduced.                      3. People's interest and willingness to participate in health education is sustained.</p>
<p><i>Activities</i></p> <p>1. Establishment of health committee                      2. Selection of auxiliary pharmacist and promoter candidates                      3. Training of 1 auxiliary pharmacist and 2 health promoters and health committee members                      4. Introduction of cheaper PROAM drugs at Municipal pharmacy                      5. Installation of Minimal Health Unit in charge of selling cheap PROAM drugs and first aid treatment in the village                      6. Monthly health education by promoters and health center                      7. Monthly supervision of MPU by committee as well as municipality</p>	<p><i>Inputs</i>  <u>JICA side</u></p> <p>1. Training cost of an auxiliary pharmacist                      - Course for 200 hours by CEGIMED ..... Q 19,200                      2. Training cost of ten health Promoters who will be in charge of MPU..... Q 5,700                      - 10 days on pharmaceutical issues,                      - 5 days on health education &amp; first aid                      3. Initial cost for drug inputs and initial..... Q 22,883                      4. Provincial equipment ..... Q 6,209                      5. Building cost of MPU..... Q 26,100  <span style="float: right;">Total Cost: Q 80,092</span></p> <p><u>Guatemalan side</u></p> <p>1. Land for MPUs..... 30m<sup>2</sup> x 2 places</p>	<p>1. Supply of drugs from PROAM is stable.                      2. Sales of drugs are sufficient in order to give incentives to health promoters.</p> <p><i>Pre-conditions</i></p> <p>1. Cooperation and good coordination among municipality, municipal pharmacy and health center are sustained.                      2. Candidates for health promoters and auxiliary pharmacist who will meet certain criteria are available and they are able to attend the training courses.</p>	

## PDM #13: Municipality Community Health Activity Plan

Evaluation Summary	Efficiency	Effectiveness	Impact	Relevance	Sustainability
<p><b>Overall Goal</b> 1. Poverty condition in the central highland region will be mitigated.</p>			<p>(+) Community people as well as out side people reduced the medical expense and transportation fee.</p> <p>(+) Surrounding areas also enjoy the cheaper price of thread.</p>	<p>(+) The demand of cheaper drugs in the communities is still high and provision of cheaper drugs is very important for improvement for health service quality.</p> <p>(+) It is expected that sufficient knowledge on health and hygiene is highly required in the community people.</p>	<p>(-) Amount of sale of drugs and incentives to health promoters are small.</p> <p>(-) Burden of health promoter is heavy.</p>
<p><b>Project Purpose</b> 1. People will have sufficient knowledge on health and hygiene. 2. Improvement of rural health service quality.</p>		<p>(+) Establishment of health committee and good management system of MPUs was observed.</p> <p>(+) Reduction of morbidity.</p>			
<p><b>Outputs</b> 1. Drugs are available at cheap price as weak as first aid treatment at the village level. 2. Drugs at municipal pharmacy become cheaper by introduction of PROAM. 3. Regular health education programs are conducted at village level. 4. Incentives for health promoters are sustained through revolving drug fund.</p>	<p>(+) Drugs were available at cheap price as well as at community level.</p> <p>(+) Drugs at municipal pharmacy became cheaper by introduction of PROAM.</p> <p>(+) Regular health education programs were conducted.</p> <p>(-) Incentives for health promoters were sustained through revolving drug fund, but were small</p>				
<p><b>Inputs</b> 1. Equipment MPU (Q32,309) 2. Drug inputs (Q 22,883) 3. Training (Q24,900) 4. Total (Q80,092)</p>					

**OVERALL EVALUATION #13**  
**Municipality Community Health Activity Plan**

Criteria	Result	Basis
<b>Efficiency</b>	High	<ul style="list-style-type: none"> <li>- Drugs were available at cheap price as well as first aid at community level.</li> <li>- Drugs at municipality pharmacy became cheaper by introduction of PROAM.</li> <li>- It was observed that regular health education programs were conducted at community level.</li> <li>- Incentives for health promoters were given through introduction of revolving drug fund system, but incentives are small.</li> </ul>
<b>Effectiveness</b>	Achieved	<ul style="list-style-type: none"> <li>- Establishment of health committee and good management system of MPUs was observed.</li> <li>- Reduction of morbidity.</li> </ul>
<b>Impact</b>	Positive impact was observed.	<ul style="list-style-type: none"> <li>- Community people as well as out side people reduced the expense by getting cheaper drugs and saved transportation free.</li> <li>- From a revenue of the MPU, health committees had their own fund and utilized fund for health service activities, support to the medical attention in MPUs, and so forth. In the future, it is expected that such health services activities arranged by the health committee will be increase as increase of the sale of MPUs.</li> </ul>
<b>Relevance</b>	High	<ul style="list-style-type: none"> <li>- The demand of cheaper drugs in the communities is still high and provision of cheaper drugs is very important for improvement of rural health service quality.</li> <li>- It is expected that sufficient knowledge on health and hygiene is highly required in the community people.</li> </ul>
<b>Sustainability</b>	Relatively high	<ul style="list-style-type: none"> <li>- Amount of sale of drugs and incentives to health promoters are small.</li> <li>- Burden of health promoters is heavy</li> </ul>

<b>Conclusion</b>	<p>Improvement of quality of health services in the communities was achieved by good management of established revolving drug fund system of PROAM that played a role in supply of cheaper drugs and regular health education.</p> <p>Various impacts such as reduction of medical expenses of the local people and promotion of activities for health service and so forth occurred.</p> <p>Since amount of sale of drugs and incentives of health promoters, however, are small at present, burden of health promoters is very heavy. Then, it is necessary to increase amount of sale of drugs and incentives of health promoters in view of project sustainability.</p>
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<b>Recommendation</b> <i>[Responsible agency]</i>	<p>It is recommended for sustainable operation of this project that advertisement for sale of drugs of MPUs should be reinforced for the local people outside of the model area and migrant people to the coastal area. <i>[Municipality pharmacy]</i></p> <p>It is also recommended that the health development committee should continue doing the following monitoring for proper operation of MPUs. <i>[Health development committee]</i></p> <ul style="list-style-type: none"> <li>a) Monitoring period: monthly basis, for three years</li> <li>b) Monitoring items: (1) stock inventory of MPUs and (2) financial condition of MPUs.</li> </ul>
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## PROJECT PROFILE #14

Project Name: Water Quality Improvement Plan for the Existing Drinking Water  
Community: Palestina

Item	Contents	Remarks															
1. Objectives	To improve health condition of the community residents through improvement of drinking water quality by installation of sterilizer.																
2. Number of Beneficiaries	Users of present potable water supply system: 106																
3. Implementation Organization	Water Committee																
4. Project Contents																	
1) Project Outline	Sterilizer will be installed to the water tank and hypo chlorinate will be injected into the potable water in order to eliminate bacteria. People education will be conducted so that people use improved water continuously and pay necessary expense for the operation of sterilizer.																
2) Facility / Activity	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Facilities/Activities</th> <th style="width: 50%;">Implementator</th> </tr> </thead> <tbody> <tr> <td>1) Hypo chlorinates Dosing 3 unit 2) People education</td> <td>Contractor Water Committee (under the supervision of the study team)</td> </tr> </tbody> </table>	Facilities/Activities	Implementator	1) Hypo chlorinates Dosing 3 unit 2) People education	Contractor Water Committee (under the supervision of the study team)												
Facilities/Activities	Implementator																
1) Hypo chlorinates Dosing 3 unit 2) People education	Contractor Water Committee (under the supervision of the study team)																
3) Organization for O&M	Water Committee																
4) Construction Period	1.5 months (Period necessary for installation of sterilizer and construction of houses)																
5. Project Cost	1. Hypo chlorinates / materials.....Q 24,647 2. House construction .....Q 120,326 Total Cost.....Q 144,973	After use of initial hypo chlorinate, Palestina de los Altos municipality will provide it to this project.															
6. Monitoring & Evaluation																	
<i>Item</i>	<i>Frequency</i>	<i>Data collector</i>	<i>Aggregation</i>	<i>Decision Maker</i>													
1) Users of improved water	Every 3 months	Water Committee	Water Committee	Study Team													
2) Operation status of sterilizer	Monthly	Water Committee	Water Committee	Study Team													
3) Number of diarrhea patient	Every 3 months	Water Committee	Water Committee	Study Team													
4) Simple water quality test	Every year	Water Committee	Water Committee	Study Team													
7. Plan of Operation																	
<i>Item</i>	<i>2001</i>					<i>2002</i>											
	08	09	10	11	12	01	02	03	04	05	06	07	08	09	10	11	12
1) Purchase of equipment	□													■	■		
2) Installation of sterilizer	□													■	■		
3) People education	□																■
4) Monitoring			△	△	△	△	△	△	△	△	△	△	△	△	△	△	△

□ : Schedule,    ■ : Progress

## PDM #14: Water Quality Improvement Plan for the Existing Drinking Water

Community: Palestina Target Group: People in relevant communities  
 Period: Sep. 2001 ~ Dec. 2002 Implt. Organization: Municipality, Health Center, Municipal Pharmacy, Health Committee, Health Promoter

November, 2002

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
<p><i>Overall Goal</i></p> <p>1. Poverty condition in central highland region will be mitigated.</p>	<p>1. Poverty indicator of rural area will be improved up to the provincial average by 2015.</p>	<p>1. FIS Poverty Indicator and monitoring on Farmers.</p>	<p>1. There will be no drastic change in development policy of Guatemalan Government.</p>
<p><i>Project Purpose</i></p> <p>1. Health condition of inhabitants in Palestina is improved.</p>	<p>1. Morbidity of water-borne diseases in Palestina is reduced.</p>	<p>1. Interview survey of potable water users. 2. Number of water-borne disease patients (such as diarrhea) in the health post.</p>	<p>1. Similar type of projects will be implemented in other communities by utilizing monitoring results of the project.</p>
<p><i>Outputs</i></p> <p>1. Quality of potable water is improved. 2. Beneficiaries use improved potable water. 3. Sterilizer is properly maintained.</p>	<p>1. No colon bacillus is detected in potable water. 2. There is no reduction in the number of water user. 3. Sterilizer is constantly in operation.</p>	<p>1. Simple water quality test. 2. Monitoring on potable water user. 3. Number of operating days of sterilizer.</p>	<p>1. There is no chemical contamination occurs in potable water.</p>
<p><i>Activities</i></p> <p>1. Education on use of improved water is made for beneficiaries through water committee. 2. Sterilizer is installed to the water supply system. 3. O&amp;M and fee collection of the sterilizer are made by water committee.</p>	<p><i>Inputs</i></p> <p><u>JICA side</u></p> <p>1. Hypo chlorinates / materials ..... Q 24,647 2. House construction..... Q 120,326 Total Cost..... <u>Q 144,973</u></p> <p><u>Guatemalan side</u></p> <p>1. Land for house ..... 30 m<sup>2</sup> x 3 places</p>	<p>1. Installation of sterilizer is made with the consensus of community. 2. No disaster that damages water system occurs such as earthquake.</p>	<p><i>Pre-conditions</i></p> <p>1. There is no strong objection to the installation of sterilizer.</p>

**PCM Evaluation #14: Water Quality Improvement Plan for the Existing Drinking Water**

<b>Evaluation Summary</b>	<b>Efficiency</b>	<b>Effectiveness</b>	<b>Impact</b>	<b>Relevance</b>	<b>Sustainability</b>
<p><i>Overall Goal</i></p> <p>1. Poverty condition in central highland region will be mitigated.</p>			<p>(-) Some people noted a strange smell of the treated water. But those people were using the treated water.</p>	<p>(+) Health and water treatment, poverty and health are essential for human life.</p> <p>(+) The treatment of potable water is one of important items in the rural development of Guatemala.</p>	<p>(+) Obligation of the treatment of potable water had been legalized in Guatemala. Thus financial and technical assistance are continuously expected from the municipality.</p> <p>(+) As time elapse, the benefit of the treated water will be identified by the people, and the necessity will be recognized.</p> <p>(+) The water committee learned how to maintain the sterilizer system very well.</p>
<p><i>Project Purpose</i></p> <p>1. Health condition of inhabitants in Xeatzan Bajo is improved.</p>		<p>(+) It is expected that health condition will be improved by the treatment of water, however, a certain period is necessary to identify it.</p>			
<p><i>Outputs</i></p> <p>1. Quality of potable water is improved.</p> <p>2. Beneficiaries use improved potable water.</p> <p>3. Sterilizer is properly maintained.</p>	<p>(+) Quality of potable water was improved.</p> <p>(+) Potable water was used by all the beneficiaries.</p> <p>(+) Quality and quantity of manpower, material, and cost were properly input for the implementation of the project.</p>				
<p><i>Inputs</i></p> <p>1. Hypo chlorinates dispenser and materials(Q 4,337)</p> <p>2. House construction(Q 16,847)</p>					

**OVERALL EVALUATION #14**  
**Water Quality Improvement Plan for the Existing Drinking Water**

Criteria	Result	Basis
<b>Efficiency</b>	High	- Water quality was certainly and immediately improved.
<b>Effectiveness</b>	Will achieved later	- Number of patient of water born diseases is expected to be reduced, but it take certain time for identifying it.
<b>Impact</b>	Negative impact	- Some people noted a strange smell of the treated water. But those people were using the treated water.
<b>Relevance</b>	High	- The treatment of potable water is one of important items in terms of rural development of Guatemala.
<b>Sustainability</b>	High	- Assistance of the municipality can be received from now on. - The water committee learned how to maintain the sterilizer system very well.

<b>Conclusion</b>	The water quality was improved immediately after installation of the sterilizer. However the benefit of the project could not be observed quickly and clearly. The municipality starts to involve the water treatment recently and they has intention to support the project continuously.
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<b>Recommendation</b> <i>[Responsible agency]</i>	<p>The following items should be monitored with high priority.</p> <ul style="list-style-type: none"> <li>- After 1 year; condition and operation status of the sterilizer. <i>[Municipality]</i></li> <li>- After 1 year; status of municipality's assistance (supply of the chemical materials). <i>[MAGA]</i></li> <li>- After 5 years; condition and operation status of the sterilizer. <i>[Municipality]</i></li> </ul>
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# ***ATTACHMENTS***

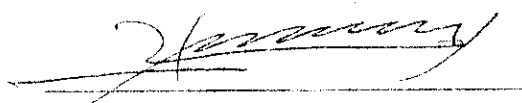
# ***ATTACHMENT 1***

*Scope of Works*

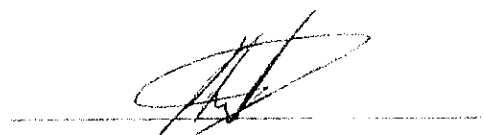
AMENDMENT  
OF  
SCOPE OF WORK  
FOR  
THE MASTER PLAN STUDY ON SUSTAINABLE RURAL DEVELOPMENT FOR  
THE REDUCTION OF POVERTY  
IN  
THE CENTRAL HIGHLAND REGION  
OF  
THE REPUBLIC OF GUATEMALA

AGREED UPON BETWEEN  
MINISTRY OF AGRICULTURE, LIVESTOCK AND FOOD  
THE REPUBLIC OF GUATEMALA  
AND  
THE JAPAN INTERNATIONAL COOPERATION AGENCY

Guatemala City, 5 March 2001



Mr. Ricardo Santa Cruz Rubi  
Vice-minister  
Ministry of Agriculture, Food and Livestock



Mr. Hiroto Mitsugi  
Leader of Advisory Study Team  
Japan International Cooperation Agency



Mr. Jorge Mario Calvillo  
Sub-secretary for International Cooperation  
for Development  
Secretary of Planning and Program of the Presidency  
SEGEPLAN

## I INTRODUCTION

According to the Scope of Work (hereinafter referred as "S/W") dated on 29 July 1999 for the Master Plan Study on Sustainable Rural Development for the reduction of Poverty in the Central Highland Region of the Republic of Guatemala (hereinafter referred as "the Study"), the study has been carried out in close collaboration between Japanese side and Guatemalan side.

During the course of the study, both sides have recognized the necessity of the verification study in order to prove the viability of plans and reveal unforeseeable restrictions, if any, for finalization of the M/P. Furthermore, the efficacy of the verification study would be mentioned as recommendation of the final report of the study.

As a result, Japan International Cooperation Agency (hereinafter referred to as JICA) will undertake the verification study as a part of the Study.

In response to the request signed by Vice Minister of Ministry of Agriculture, Food and Livestock, the Republic of Guatemala (hereinafter referred as MAGA) dated 6 February 2001, the present document amends the following items to the S/W with regard to the verification study.

## II SCOPE OF THE VERIFICATION STUDY

The verification study will be carried out in accordance with the tentative schedule as shown in VI (the schedule is tentative and subject to be modified if such necessity should arise during the course of the study and both parties agreed).

In order to achieve the objectives stated in the S/W, the verification study will mainly take the following approaches:

1. Increase of income by agriculture promotion and rural house-hold industry development.
2. Improvement of living conditions such as health service, sanitation and water supply, and
3. Conservation and effective use of natural resources

It should be noted that the details of each item would be determined during the verification study based upon the latest natural, economic, social and technical conditions of the study area.



### III. REPORTS

JICA prepares and submits the following reports to the MAGA of the Republic of Guatemala.

1. Inception Report of the Verification Study  
Five (5) copies in English and thirty (30) copies in Spanish at the inception of the Verification Study.
2. Monitoring Report (s)  
Five (5) copies in English and thirty (30) copies in Spanish at the course of the verification study. The reports will be submitted periodically depending on the necessity
3. Midterm Evaluation Report:  
Five (5) copies in English and thirty (30) copies in Spanish after the midterm evaluation.
4. Evaluation Report:  
Five (5) copies in English and thirty (30) copies in Spanish after the final evaluation.
5. Draft Final Report of the Verification Study:  
Five (5) copies in English and thirty (30) copies in Spanish after the final evaluation  
Guatemalan side shall submit written comments on the Draft Final Report to JICA within one month after receiving the reports
6. Final Report of the Verification Study:  
Five (5) copies in English and fifty (50) copies in Spanish within two months after the reception of comments on the Draft Final Report from Guatemalan side

### IV. LANGUAGE

In any divergence arises about interpretation of this Amendment of Scope of Work, which is done in English and Spanish, the English text shall prevail.

V. OTHERS

Other conditions shall be based upon the S/W.

VI. Tentative Schedule for Verification Study

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Work in Guatemala																		○				
Work in Japan	□																□				□	
Reports	△ ICR				△ M/R				△ ME/R				△ M/R			△ E/R		△ DF/R				△ F/R

- ICR : Inception Report
- M/R(1) : Monitoring Report-1
- ME/R : Midterm Evaluation Report
- M/R(2) : Monitoring Report-2
- E/R : Evaluation Report
- DF/R : Draft Final Report
- F/R : Final Report
- : Comments on DF/R by the Guatemalan side

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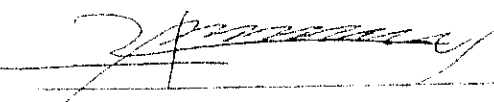
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ENMIENDA  
A LOS  
ALCANCES DE TRABAJO  
PARA  
EL ESTUDIO DEL PLAN MAESTRO SOBRE DESARROLLO RURAL SOSTENIBLE  
PARA LA REDUCCION DE LA POBREZA  
EN  
LA REGION DEL ALTIPLANO CENTRAL  
DE  
LA REPUBLICA DE GUATEMALA

ACORDADO ENTRE  
EL MINISTERIO DE AGRICULTURA, GANADERIA Y ALIMENTACION  
DE LA REPUBLICA DE GUATEMALA  
Y  
LA AGENCIA DE COOPERACION INTERNACIONAL DEL JAPON

Ciudad Guatemala, 5 de marzo del 2001




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Ing. Ricardo Santa Cruz Rubi

Viceministro

Ministerio de Agricultura, Ganadería y Alimentación



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St. Hiroto MITSUGI

Líder del Equipo Asesor del Estudio

Agencia de Cooperación Internacional del Japón



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Lic. Jorge Mario Calvillo

Sub-secretario de Cooperación Internacional para el Desarrollo

Secretaría de Planificación y Programa de la Presidencia

SEGEPLAN

## I. INTRODUCCION

De acuerdo a los Alcances del Trabajo (en lo adelante referido como "S/W") de fecha 29 de Julio 1999 para el Estudio del Plan Maestro Sobre Desarrollo Rural Sostenible para la Reducción de la Pobreza en la Región del Altiplano Central de la República de Guatemala (en lo adelante referido como "el Estudio"), el Estudio ha sido realizado en estrecha colaboración entre las partes Japonesa y Guatemalteca.

Durante el curso del Estudio, ambas partes han reconocido la necesidad de un estudio de verificación para comprobar la viabilidad de los planes e identificar restricciones que no se hayan previsto, si las hubiere, para la finalización del P/M. Además, la eficacia del estudio de verificación sería mencionada como una recomendación del Informe Final del Estudio.

Como resultado, la Agencia de Cooperación Internacional del Japón (en lo adelante referido como "JICA") realizará el estudio de verificación como parte del Estudio.

En respuesta a la solicitud firmada por el Vice-ministro del Ministerio de Agricultura, Ganadería y Alimentación de la República de Guatemala (en lo adelante referido como "MAGA") de fecha 06 de Febrero 2001, el presente documento enmienda los siguientes puntos del S/W en lo relativo al estudio de verificación.

## II. ALCANCES DEL ESTUDIO DE VERIFICACION

El estudio de verificación se realizará de acuerdo al plan tentativo como se muestra en VI (el plan es tentativo y sujeto a ser modificado si se presenta la necesidad durante el curso del estudio y si ambas partes lo acuerdan).

Para alcanzar los objetivos expresados en los S/W, el estudio de verificación tomará principalmente los siguientes enfoques:

1. aumento de los ingresos por medio del desarrollo de la agricultura e industria a nivel familiar,
2. mejoramiento de las condiciones de vida, tales como servicios de salud, sanidad, y suministro de agua, y

3. conservación y uso efectivo de los recurso naturales.

Es necesario apuntar que los detalles de cada uno de estos aspectos se determinarán durante el estudio de verificación basado en las finales condiciones naturales, económicas, sociales y técnicas del área de estudio.

### III. INFORMES

JICA prepara y entrega los siguientes informes al MAGA de la República de Guatemala.

1. Informe Inicial del estudio de Verificación:  
Cinco (5) copias en Inglés y Treinta (30) copias en Español al inicio del estudio de Verificación
2. Informe(s) de Monitoreo:  
Cinco (5) copias en Inglés y treinta (30) copias en Español durante el transcurso del estudio de Verificación. Los informes serán entregados periódicamente dependiendo de la necesidad.
3. Informe de Evaluación de Medio término:  
Cinco (5) copias en Inglés y treinta (30) copias en Español después de la evaluación de medio término.
4. Informe de Evaluación:  
Cinco (5) copias en Inglés y treinta (30) copias en Español después de la evaluación final.
5. Borrador del Informe Final del Estudio de Verificación:  
Cinco (5) copias en Inglés y treinta (30) copias en Español después de la evaluación final. El lado Guatemalteco deberá suministrar por escrito sus comentarios sobre el Borrador del Informe Final a JICA en un período dentro de un mes después de recibir el informe.
6. Informe Final del Estudio de Verificación:  
Cinco (5) copias en Inglés y Cincuenta (50) copias en Español dentro de

dos meses después de recibir desde el lado Guatemalteco los comentarios sobre el Borrador del Informe Final.

IV. IDIOMA

Si surgiere alguna divergencia en la interpretación de esta Enmienda de los Alcances de Trabajo, el cual se prepara en Inglés y Español, el texto en Inglés deberá prevalecer.

V. OTROS

Otras condiciones deberán basarse en los S/W.

VI. PLAN TENTATIVO DEL ESTUDIO DE VERIFICACION

Mes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Trabajo en Guatemala																					
Trabajo en Japón	□																□				
Informe	△ I				△ I/M(1)				△ I/EM				△ I/M(2)			△ I/E		△ B/IF	O		△ I/F

- I : Informe Inicial
- I/M (1) : Informe de Monitoreo (1)
- I/EM : Informe de Evaluación de Medio termino
- I/M (2) : Informe de Monitoreo (2)
- I/E : Informe de Evaluación
- B/IF : Borrador del Informe Final
- I/F : Informe Final
- O : Comentarios al B/IF por el lado Guatemalteco

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