

STUDY REPORT
ON
THE PROJECT
FOR
PROMOTING CHILD HEALTH (PHASE III)
IN
THE REPUBLIC OF NICARAGUA

January 2003

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Japan International Cooperation Agency

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PREFACE

In response to a request from the Government of the Republic of Nicaragua, the Government of Japan decided to conduct a study on the Project for Promoting Child Health (Phase III) and entrusted the Japan International Cooperation Agency (JICA) to conduct the study with the assistance of the Japan International Cooperation System (JICS).

JICA sent to the Republic of Nicaragua a study team July 16 to August 10, 2002.

I hope that this report will contribute to the promotion of the project and to the enhancement of friendly relations between our two countries.

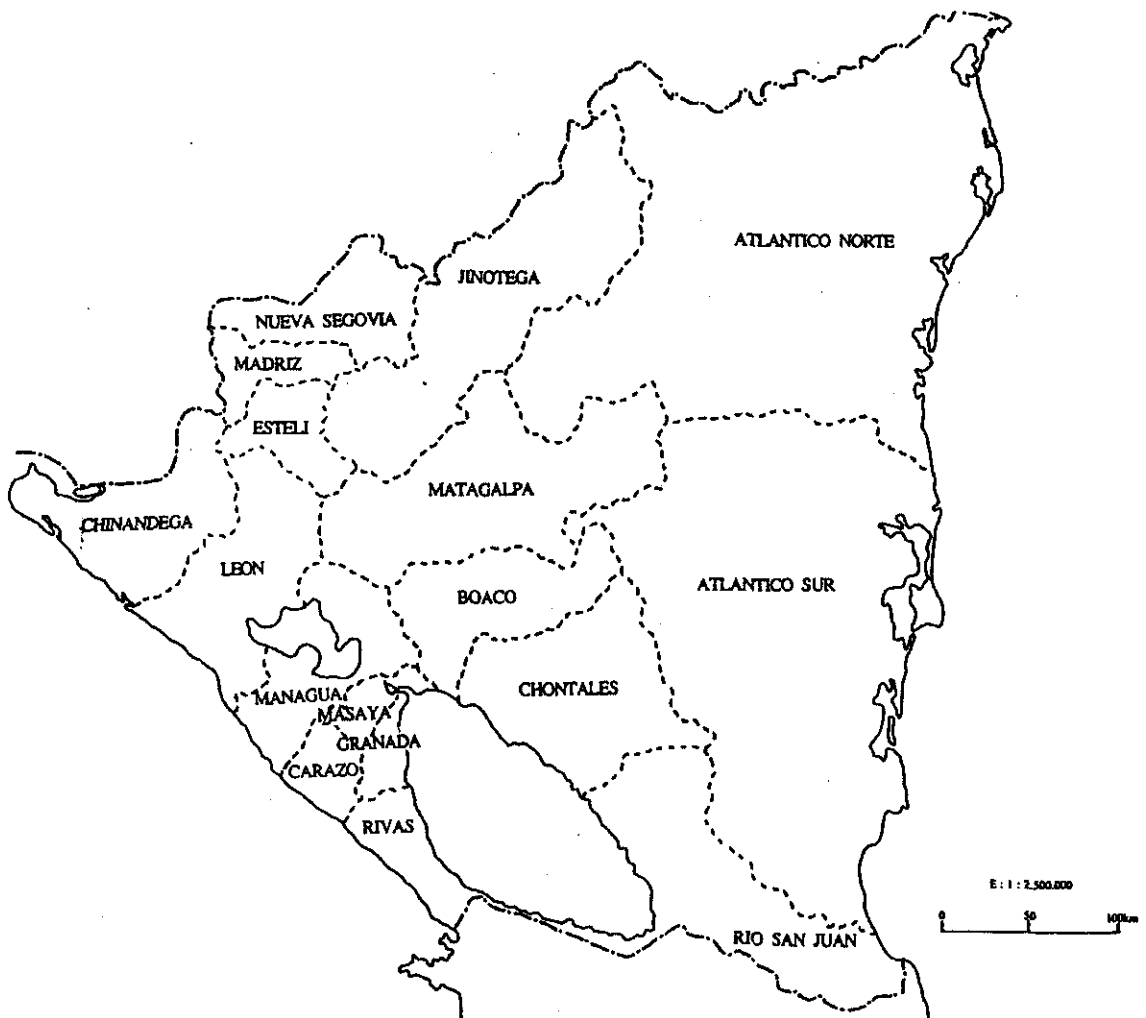
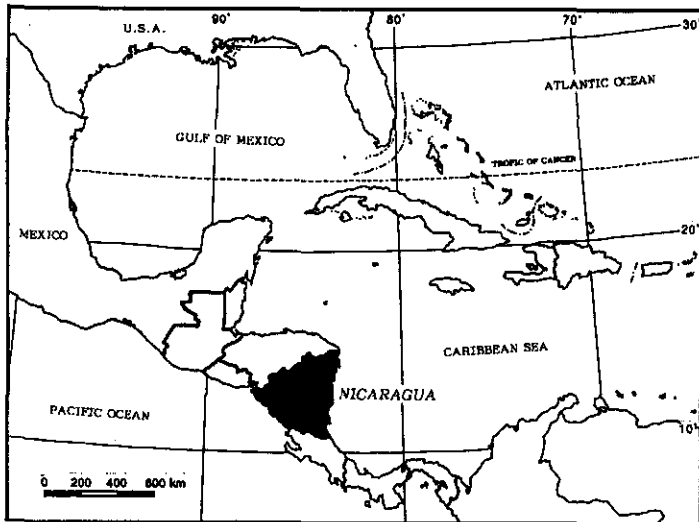
I wish to express my sincere appreciation to the officials concerned of the Government of the Republic of Nicaragua for their close cooperation extended to the team.

January 2003

Takao Kawakami

President

Japan International Cooperation Agency



Location Map



Abbreviations

English/Spanish

BCG	Bacille de Calmette and Guerin
CIPS	Centro de Insumos para la Salud
C/S	Centro de Salud
DPT	Adsorbed Diphtheria-Purified Pertussis-Tetanus Combined Vaccine
EPI	Expanded Programme on Immunization
GMP	Good Manufacturing Practice
HB	Hepatitis B
Hib	Haemophilus influenza type b
IEC	Information, Education and Communication
IMCI	Integrated Management of Childhood Illness
MMR	Measles Mumps and Rubella Combined Vaccine
MR	Measles and Rubella Combined Vaccine
PAHO	Pan American Health Organization
P/S	Puesto de Salud
RAAN	Región Autónoma Atlántico Norte
RAAS	Región Autónoma Atlántico Sur
SILAIS	Sistemas Locales de Atención Integral a la Salud
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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Chapter1 Background of the Project

1-1 Background of the Project

This Project ("the Project") was requested as the third phase following the Project for Promoting Child Health (Phase I) ("the Phase I Project") implemented in 1998 and the Project for Promoting Child Health (Phase II) ("the Phase II Project") in 2000.

The objective of the two Projects implemented was to support the implementation of the Expanded Program on Immunization (EPI) and the Integrated Management of Childhood Illness (IMCI) when the Ministry of Health of Nicaragua was in financial straits in the wake of Hurricane Mitch. In the two Projects MMR vaccine¹, pentavalent vaccine², and EPI related equipment (syringes, cold chain equipment and so on) necessary for the implementation of the EPI were procured. At the same time, the essential drugs needed were also procured in the Projects to reduce infant mortality and improve the health of mothers in 9 SILAIS, for post-disaster restoration and the implementation of the IMCI. Although these Projects produced good results, the Nicaraguan government is forced to be on a tight budget under the structural adjustment policies, and increases in social public investment were limited. Recently a lack of medical drugs has been quite noticeable, and the state of health and medical care in Nicaragua is so serious that the country has no choice but to request emergency support from donor countries.

This grant aid intend to supply the funds for the procurement of cold chain equipment and essential drugs to primary health facilities in 17 SILAIS throughout Nicaragua, with the aim of promoting comprehensive management of infant health under the IMCI, based on the National Policy of Health in Nicaragua 1997-2002, the Modernization Plan on Health Sector, and the Strengthened Growth and Poverty Reduction Strategy.

¹ Measles Mumps and Rubella Combined Vaccine

² Diphtheria Tetanus Pertussis (DTP) + Hepatitis B - Haemophilus influenza type b vaccine

Chapter2 Content of the Project

2-1 Basic Concept of the Project

This grant aid will supply the funds for the procurement of cold chain equipment and essential drugs to strengthen the IMCI based on the National Policy of Health 1997-2002 of Nicaragua, the Modernization Plan on Health Sector, and the Strengthened Growth and Poverty Reduction Strategy.

The original request submitted by the recipient country is shown below, based on which a study was carried out.

Table 2-1 Original Request (Essential Drugs)

	Equipment	Requested Quantity
1	Benzylpenicillin (Penicillin G)	200,000 vials
2	Benzylpenicillin procaine	1,000,000 vials
3	Benzylpenicillin benzathine	215,000 vials
4	Dicloxacillin	126,000 bottles
5	Amoxicillin, Oral suspension	125,000 bottles
6	Amoxicillin, Capsule	3,500,000 capsules
7	Chloramphenicol sodium succinate	15,000 vials
8	Gentamycin sulfate	72,000 ampoules
9	Sulfamethoxazole+Trimethoprim, Syrup	420,000 bottles
10	Sulfamethoxazole+Trimethoprim, Tablet	5,000,000 tablets
11	Nystatine	48,000 bottles
12	Chloroquine phosphate	1,600,000 tablets
13	Albendazole, Suspension	90,000 bottles
14	Albendazole, Tablet	1,200,000 tablets
15	Salbutamol sulfate (Albuterol), Syrup	273,000 bottles
16	Salbutamol sulfate (Albuterol), Aerosol Inhalation	15,000 bottles
17	Ringer-Lactate Solution(Hartman)	65,000 bottles
18	Isotonic sodium chloride solution	45,000 bottles
19	Water for injection	1,215,000 ampoules
20	Oral rehydration salts (ORS)	1,620,000 bags
21	Ritodrine	4,500 ampoules
22	Paracetamol (acetoaminofen)	650,000 bottles
23	Dexamethasone sodium phosphate	25,000 vials
24	Prednisolone	800,000 tablets
25	Retinol(VitaminA)	12,000 bottles
26	Ferrous sulfate	2,000,000 bottles

Table 2-2 Original Request (EPI related equipment)

	Equipment	Requested Quantity
1	MMR vaccine	150,000 vials
2	Pentavalent vaccine	182,000 vials
3	Disposable Syringe	332,000 pieces
4	Safety Box	3,400 boxes
5	Solar Refrigerator	20 units
6	Solar Refrigerator (Large size)	3 units
7	Vaccine Carrier	2,000 pieces
8	Ice Pack	8,000 pieces

Table 2-3 Original Request (Medical Equipment for infant)

	Equipment	Requested Quantity
1	Nebulizer	65 units
2	Weight Scales for infant	60 units
3	Resuscitator bag for infant	60 sets
4	Diagnostic set (ear and Eye) for infant	60 sets
5	Laryngoscope set for infant	60 sets
6	Tracheal Tube 2.5mm	300 pieces
7	Tracheal Tube 3mm	300 pieces

2-2 Basic Design of the Requested Japanese Assistance

2-2-1 Design Policy

(1) Basic policy

The objective of the Project is to promote the EPI activity in Nicaragua and the comprehensive management of infant health under the IMCI, following that of the Phase I and Phase II Projects. The Project shall cover the following.

1) Target population

The Project shall cover mainly infants aged from 0 to 4 years old (approximately 820,000 infants) under IMCI activity, as well as mothers including pregnant and parturient women (approximately 200,000 women).

2) Target area

17 SILAIS throughout Nicaragua shall be covered by the Project. The following facts were taken into consideration in determining the target area. The 9 SILAIS implementing IMCI were covered in the Phase I and Phase II Projects at first, but the IMCI was extended to 17 SILAIS later on. It was finally determined that the drugs would be used in all 17 SILAIS, after the application for the drugs procured under the Phase I and Phase II Projects to be used in the 17 SILAIS was submitted to the Japanese Embassy in Nicaragua.

3) Items to be procured

(a) Cold chain equipment

The solar refrigerators procured under the Phase I and Phase II Projects are being put to satisfactory use. However there is still an absolute shortage of refrigerators for vaccines at the local health posts, and what there are need to be replaced.

In Nicaragua a study on needs relating to refrigerators for vaccines was conducted in 1997. Based on that study, the Project selected 23 health posts from non-electrified areas that satisfied the following conditions for the procurement of refrigerators 1) where new health facilities are to be established, 2) with a population of 500 or more, 3) with a sufficient number of health and medical workers, or 4) where the existing gas or kerosene refrigerators are out of order and need replacement.

In the original request, 2 types of refrigerators having different capacities were requested. However as refrigerators of larger capacity (approximately 85 liters) for use at 3 health facilities have already been procured with the support from the Pan American Health Organization (PAHO) or the area in which the health facilities locate has been electrified, the request was withdrawn. A request was made only for refrigerators of smaller capacity (approximately 35 liters), for new health posts in non-electrified areas or to replace the existing kerosene or gas refrigerators being used in non-electrified areas.

In Nicaragua, PAHO recommends solar refrigerators when the absorption type (kerosene and gas) refrigerators are replaced, and therefore it is considered appropriate to request solar refrigerators as replacements.

As for specifications, the equipment procured shall meet the WHO/UNICEF standards. As a national MR³ immunizations campaign is planned in addition to regular vaccinations, equipment with a minimum vaccine storage capacity of 30 liters shall be selected, in order to reduce the frequency of the transportation of vaccines from the SILAIS and reduce the burden of transportation.

Many of the existing vaccine carriers are badly deteriorated and damaged. Vaccine carriers are essential for transporting vaccines from health centers (C/S) to health post (P/S) or for outreaching vaccinations in areas with poor access to a health facility. They are therefore judged to be necessary items.

³ Measles and Rubella Combined Vaccine

As for specifications, taking the National Campaign into consideration, vaccine carriers with a minimum vaccine storage capacity of 2.5 liters shall be procured. Since even at present the carriers are used for 2 days or more consecutively, replacement icepacks shall be provided as an accessory. Vaccine carriers must satisfy the WHO/UNICEF standards.

The distribution plan is shown below. (Tables 2-4 and 2-5.)

Table 2-4 Distribution Plan for Solar Refrigerators

SILAIS	Municipio	Health Facility	Quantity
Boaco	Camoapa	P/S Plantanal norte	1
	San lorenzo	P/S El incendio	1
Carazo	Sn. Marcos	P/S Dulce Nombre de Jesús	1
Chinandega	Somotillo	P/S Jiñocuago	1
Esteli	La trinidad	P/S Licory	1
	San Juan de limay	P/S El Palmar	1
	Esteli	P/S Mirafior	1
		P/S El Coyolito	1
		P/S Isiqui	1
León	El sauce	P/S El Guacal	1
	El jicaral	P/S Censo Uva	1
		P/S Abra Vieja	1
Matagalpa	Paiwas	P/S Jesús Bermúdez (San Pedro del Norte)	1
Nueva Segovia	Quilali	P/S Manchones	1
	El jicaro	P/S La Jumaica	1
		P/S El Zapote	1
		P/S El Suyatal	1
	Jalapa	P/S Tatasli	1
		P/S Santa Cruz	1
		P/S La Estancia	1
		P/S Soloni	1
Murra	P/S Cedrales Arriba	1	
R.A.A.S	Bluefields	P/S Monkey Point	1
Total			23

P/S : Puesto de Salud

Table 2-5 Distribution Plan for Vaccine Carriers

SILAIS	Number of Target Municipio	Number of Target Health Facilities	Quantity
Boaco	6	14	50
Carazo	8	32	80
Chinandega	12	87	150
Chontales	11	57	105
Esteli	6	45	90
Granada	4	34	80
Jinotega	8	52	150
León	11	94	200
Madriz	9	25	90
Managua	17	26	220
Masaya	7	32	80
Matagalpa	15	70	150
Nueva Segovia	12	45	130
R.A.A.N	5	43	120
R.A.A.S	7	35	100
Rio San Juan	4	36	100
Rivas	9	38	100
CENABI	-	-	5
TOTAL	151	765	2,000

(b) Nebulizers

Acute respiratory disease is the main illness affecting infants under 5 years old, and for the treatment of bronchial asthma, nebulizers are essential and used very frequently. At some health facilities, 25 to 30 patients a day line up for a total of 3 times inhalation treatments, each treatment lasting 15 minutes.

According to data on existing equipment submitted by Ministry of Health (see Appendix 7), there are 526 nebulizers in the entire country of Nicaragua and an additional 427 nebulizers are necessary. 65 nebulizers of which shall be procured by the Project: 36 health facilities that have no nebulizer at present, 7 health facilities whose existing nebulizers are broken and cannot be used, 6 health facilities that have some nebulizers but cannot cope with patients because of the breakdown of a part of them, and 16 health facilities whose existing nebulizers are working well, but even so those cannot cope with patients sufficiently, have been selected as having an urgent need.

The distribution plan for nebulizers is shown in Table 2-6. As for specifications, ultrasonic nebulizers with a nebulizing rate of 3 ml/min or more, which allow the medication to work more effectively on the bronchial tubes, shall be procured.

Table 2-6 Distribution Plan for Nebulizers

SILAIS	Municipio	Health Facility	Quantity	The quantity and the condition of the existing equipment	Total
Boaco	Boaco	P/S Boaco Viejo	1	None	6
		C/S Ramón Guillen Navarro	1	None	
		HP José Nieborowsky	2	None	
	Santa Lucía	C/S Santa Lucía	1	Good:3	
	Teustepe	C/S Teustepe	1	Good:2	
Carazo	Jinotepe	P/S Guisquilapa	1	Out of order: 1	7
		P/S Huehuetla	1	Out of order: 1	
	La Conquista	C/S La Conquista	1	Good:1	
	Diriamba	C/S Diriamba	2	Out of order: 1	
	El rosario	C/S El Rosario	1	Out of order: 1, Good:1 Total:2	
	San Marcos	C/S San Marcos	1	Good:1	
Chinandega	El Realejo	C/S El Realejo	1	None	2
	Santo Tomas del Norte	C/S Santo Tomas del Norte	1	None	
Chontales	Jugalpa	P/S San Francisco Zona # 1	1	None	5
	El Rama	C/S La Esperanza	1	Good:1	
	Santo Domingo	C/S Santo Domingo	1	Good:1	
	San Pedro de Lovago	C/S San Pedro de Lovago	1	Good:1	
	Nueva Guinea	P/S Los Angeles	1	None	
Estelí	Estelí	C/S Estelí	2	None	4
		P/S El Regadío	1	None	
	San Juan de Limay	C/S Limay	1	Good:1	
Granada	Granada	C/S Palmira	1	Out of order: 1, Good:1 Total:2	2
	Nandaimé	C/S Romel Carrasquilla	1	None	
Jinotega	Jinotega	C/S Jinotega	1	None	4
		P/S Ernesto Acuña	1	None	
	El Cua	P/S Pedernales	1	None	
	Wiwilí	C/S Wiwilí	1	None	
León	El Jicaral	C/S El Jicaral	1	Out of order: 1	3
	Mina Limón	C/S Roberto Cortés Mina Limón	1	Out of order: 1, Good:1 Total:2	
	Santa Rosa del Peñón	C/S Santa Rosa del Peñón	1	Out of order:1, Good:1 Total:2	
Madriz	Somoto	P/S La Playa	1	None	3
	San Juan del río Coco	C/S San Juan del Río Coco	1	Good:3	
	Yalagüina	C/S Yalagüina	1	Out of order: 1	
Managua	Francisco Bultrago	C/S Francisco Bultrago	1	Good:2	8
	San Francisco Libre	C/S Francisco Libre(Matamoros)	1	Good:2	
	San Rafael del Sur	C/S San Rafael del Sur	2	Out of order: 1, Good:1 Total:2	
		C/S Ingenio Julio Bultrago	1	None	
	Ticuantepé	C/S Ticuantepé	1	Out of order: 1, Good:1 Total:2	
	Villa Carlos Fonseca	P/S Nandayosy	1	None	
Masaya	Masaya	P/S Las Flores	1	None	4
	La Concepción	C/S La Concepción	1	Out of order: 2	
	San Juan de Oriente	C/S San Juan de Oriente	1	Good:2	
	Tisma	C/S Tisma	1	Good:1	
Nueva Segovia	Ocotal	P/S Nora Astorga	1	None	4
		P/S Luis Castillo	1	None	
	Macuelizo	P/S Julio Cesar Martínez	1	None	
	Murra	C/S Murra	1	None	
RAAN	Waspm	C/S Oswaldo Padilla	1	Out of order: 2	2
	Bonanza	P/S Nueva Esperanza	1	None	
RAAS	Bluefields	C/S Juan Manuel Morales	1	None	4
	Corn Island	C/S Corn Island	1	None	
		P/S La Isleta	1	None	
	La Cruz de Río Grande	P/S San Pedro del Norte	1	None	
Río San Juan	El Castillo	C/S El Castillo(Camilo Díaz)	1	Out of order: 1, Good:1 Total:2	2
	El Almendro	P/S La flor	1	None	
Rivas	Rivas	P/S Veracruz	1	None	5
	Tola	P/S San Ignacio(German P. O.)	1	None	
	Buenos Aires	C/S Buenos AiresSan Ignacio	1	None	
	Cárdenas	P/S Sapoá(Ernesto Guevara)	1	None	
		P/S Colon	1	None	
Total			65		65

(c) Essential drugs

The items requested are drugs for the IMCI and those drugs are the most needed at the primary level, such as C/S and P/S. These items are used mainly for the treatment of pneumonia, laryngitis and tonsillitis, which are the acute respiratory infections most prevalent among infants under 5 years old in Nicaragua, plus acute diarrhea. It is considered appropriate for these to be procured by the Project.

The quantity necessary for a year at C/S and P/S in the 17 SILAIS throughout Nicaragua shall be procured.

The quantity requested is the total of the amount that each SILAIS requested to the Ministry of Health for use in at C/S and P/S in 2002. However, in view of the past records of annual consumption this quantity is considered excessive for some items, and the quantity considered appropriate for procurement by the Project shall be looked into.

From a comparison of the consumption trends for the items in question over the past 3 years (1999, 2000, 2001), there is a tendency to increased use for 19 items and a tendency to unchanging or falling use for 8 items. In the past 5 years, the number of outpatient cases of major diseases in infants under 5 years old has almost remained at the same level, and it is difficult to imagine that consumption of the drug will continue to increase forever, even in the case of drugs for which there is a tendency for an increase in annual consumption. On the other hand, a deterioration of the environment, through natural disaster or an infectious epidemic, may cause a rapid rise in demand; and with Nicaragua's financial straits there is the danger that the budget of the Ministry of Health might not cover a shortage of drugs. As the quantity of the drugs of which annual consumption is increasing is 1.3 to 1.4 times more compared to those of the previous year, in the Project a quantity 1.5 times the maximum consumption of the past 3 years will be considered the upper limit. If the quantity requested is less than 1.5 times the annual maximum consumption, the quantity requested shall be taken as the upper limit.

The results of deliberations based on the above are shown in Table 2-7.

Of the essential drugs procured under the Phase I and Phase II projects, 6 items which were determined to be priority "B" at the time of the signing of the minutes had a distribution rate of less than 50%, (in August 2002, which is 1 year and 3 months after delivery of the equipment procured under Phase II). However, procurement of these items is recognized to be necessary for the following reasons: 1) the Nicaraguan government promised in the minutes to use these drugs before the expiry date, 2) distribution of 5 items is expected to be completed by the end of 2002 and of the remaining 1 item by April 2003, and 3) from 2003 onwards no donors have promised to provide aid for drugs, and significant trouble in the procurement of drugs is forecasted.

The items shall be products made by manufacturers who have obtained the Good Manufacturing

Practice (GMP)⁴ specifying the standards of production management and quality control regulated in the manufactured countries. The products must conform to the United States Pharmacopoeia (USP)⁵, British Pharmacopoeia (BP), and European Pharmacopoeia (EP).

Table 2-7 Procurement Plan of Essential Drugs

No.	Equipment	Consumption in 1999	Consumption in 2000	Consumption in 2001	One and a half times of the largest Consumption within the past three years	Revised Requested Quantity in the Minutes	Quantity in the project	Priority
1	Benzylpenicillin (Penicillin G)	132,950	117,573	108,009	199,425	349,200	199,500	A
2	Benzylpenicillin procaine	824,023	1,182,413	744,319	1,773,620	1,175,600	1,175,600	B
3	Benzylpenicillin benzathine	178,391	233,132	281,047	421,571	364,600	364,600	A
4	Dicloxacillin	142,395	151,569	178,973	266,460	219,800	219,800	A
5	Amoxicillin, Oral suspension	59,086	106,228	133,512	200,266	337,800	200,300	A
6	Amoxicillin, Capsule	2,822,879	3,264,293	4,014,876	6,022,314	4,901,500	4,901,500	A
7	Chloramphenicol sodium succinate	2,989	8,162	12,511	18,767	34,200	18,800	B
8	Gentamycin sulfate	54,058	62,678	108,875	163,313	177,300	163,400	B
9	Sulfamethoxazole+Trimethoprim, Syrup	325,635	391,307	545,329	817,994	640,900	640,900	B
10	Sulfamethoxazole+Trimethoprim, Tablet	4,718,342	5,900,691	7,064,357	10,596,536	9,185,800	9,185,800	A
11	Nystatine	34,156	36,240	63,792	95,688	100,000	95,700	A
12	Chloroquine phosphate	5,742,410	7,894,276	6,176,994	11,841,414	8,477,800	8,477,800	A
13	Albendazole, Suspension	28,750	81,802	157,097	235,646	265,700	235,700	A
14	Albendazole, Tablet	867,300	0	0	1,300,950	1,630,800	1,301,000	A
15	Salbutamol sulfate (Albuterol), Syrup	237,856	313,571	328,830	493,245	431,500	431,500	B
16	Salbutamol sulfate (Albuterol), Aerosol Inhalation	8,201	12,949	18,879	28,319	26,300	26,300	A
17	Phytomenadion	13,094	17,504	11,804	26,256	38,600	26,300	A
18	Glucose (Dextrose Monohydrate)	52,564	57,251	70,131	105,197	90,500	90,500	A
19	Ringer-Lactate Solution (Hartman)	49,739	50,071	47,807	75,107	109,400	75,200	B
20	Isotonic sodium chloride solution	34,873	42,882	46,447	69,671	95,900	69,700	A
21	Water for injection	469,018	1,298,819	757,198	1,948,229	2,034,100	1,948,300	A
22	Oral rehydration salts (ORS)	1,168,423	1,482,477	2,281,319	3,391,979	2,580,000	2,580,000	A
23	Oxytocin	11,484	16,222	20,055	30,083	40,300	30,100	A
24	Retinol (Vitamin A)	9,616	5,193	12,269	18,404	22,200	18,500	A
25	Paracetamol (acetaminofen)	676,208	632,754	838,192	1,254,288	961,700	961,700	A
26	Dexamethasone sodium phosphate	11,763	16,780	31,292	46,938	64,400	47,000	A
27	Hydrocortisone sodium succinate	14,923	17,058	9,381	25,587	45,700	25,600	A
28	Prednisolone	707,484	870,438	670,127	1,305,654	1,845,800	1,305,700	A

(d) Others

A request for other equipment included in the original request was withdrawn by the Nicaraguan side. Vaccines, syringes, and safety boxes are not included in the Project for the following reasons.

a) MMR and pentavalent vaccines

These vaccines were requested for the regular vaccination of infants aged 1 year (MMR vaccine) and less than 1 year (pentavalent vaccine). Nicaragua has procured the other vaccines

⁴ Good Manufacturing Practice: Production and quality control standards of drugs

⁵ Pharmacopoeia: The medical standards specified under the authority of a government for the proper properties and quality of drugs used for medication etc.,

for EPI by itself, using the PAHO revolving fund, and for 2002 and 2003 MMR and pentavalent vaccines will also be procured using the same fund. If the Project is implemented, the procured vaccines will arrive Nicaragua in 2004. As the budget for MMR vaccines in the previous year (2003) and the year before (2002) that have been approved, it is thought that the budget for 2004 will also be approved (Refer to Table 2-8).

Table 2-8 Procurement Record and Plan for MMR vaccine

	(unit: dose)					
	1998	1999	2000	2001	2002	2003
Japan	-	-	700,000	182,000	-	-
Ministry of Health	450,000	10,000	50,000	100,000	200,000	200,000
Total	450,000	10,000	750,000	282,000	200,000	200,000
Target population for Immunization (Immunization rate)	164,502 (100%)	198,934 (122%)	666,896 (104%)	195,593 (120%)	(199,000)	(199,000)
Carried forward Vaccine Quantity* (In round figures)	(285,000)	(186,000)	(269,000)	(355,000)	(356,000)	(357,000)

(Source: Ministry of Health)

*MMR vaccine was introduced in May, 1998. The targets of immunization are one-year-old children except for 2002. In 2002, the targets are from one year old to less than four years old as MMR campaign was held. The numbers inside () are results of a trial calculation.

In addition, the prequalified vaccines by WHO are manufactured by 3 companies, Chiron, Aventis-Pastuer and Glaxo-SmithKline. However Chiron have said they cannot commit themselves to the supply of vaccines for the Project, and Glaxo-SmithKline are no longer competitive because their vaccine is more expensive than the usual one, as it uses a new strain of mumps. Therefore there is only one manufacturer that can supply MMR vaccines.

With regard to the pentavalent vaccine, the Pentavalent Vaccine Procurement Agreement between PAHO and the Ministry of Health was concluded in February 1999 (Refer to Table 2-9). The total quantity that PAHO was supposed to provide during the 5 years from 1999 to 2003 is 1.25 million doses (with a gradual decrease, the planned quantity for 2003 is zero). Of these, only 0.5 million doses for the initial year (1999) were actually provided and as of July 2002 the remainder has not been shipped from the manufacturer. As it is expected that the remaining quantity will be shipped in the near future, the plan for the future use of vaccines is as shown in Table 2-10, and it is thought that it will be possible to secure vaccines for 2004 immunization.

This Pentavalent vaccine was developed by Glaxo-SmithKline and is at present manufactured only by Glaxo-SmithKline.

Table 2-9 Agreement between PAHO & the Ministry of Health for Vaccine Procurement

	1999	2000	2001	2002	2003
Donation by PAHO	500,000	400,000	250,000	100,000	0
Purchase by the Ministry of Health	0	100,000	250,000	400,000	500,000
Total	500,000	500,000	500,000	500,000	500,000

(Source: Ministry of Health)

Table 2-10 Procurement Record and Plan for Pentavalent Vaccine

	1998	1999	2000	2001	2002	2003
FSS (Social Supplementary Fund)	—	100,000	0	0	—	—
PAHO (SmithKline)	—	500,000	0	0	350,000	200,000
Japan	—	0	500,000	150,000	0	—
Ministry of Health	—	0	0	200,000	200,000	400,000
Total	—	600,000	500,000	350,000	550,000	600,000
Target population for Immunization (Immunization rate)	—	88,697 (53%)	142,261 (88%)	163,222 (101%)	(165,000)	(165,000)
Vaccine Quantity to be used (In round figures)	—	267,000	427,000	490,000	(495,000)	(495,000)
Carried forward Quantity (In round figures)	—	333,000	406,000	266,000	(321,000)	(426,000)

(Source: Ministry of Health)

*Pentavalent vaccine was introduced in October 1999. As Pentavalent requires three times immunization for infants under one year old, the vaccine quantity is three times of target population. The numbers inside () are results of a trial calculation.

As stated above, the pentavalent vaccine is not to be included in the Project, taking into consideration Nicaragua's ability to secure the vaccine for 2004, respect for the independence of Nicaragua and cooperation between international organizations, and the fact that procurement of this vaccine does not conform to the scheme of grant aid cooperation.

b) MR vaccine

An additional request for the MR vaccine was made at the time of the study, for use in the measles eradication campaign aimed at infants aged 1 to 4 years old, to be implemented in 2004. It was decided to look into this item after the study team had returned to Japan.

There are only two manufacturers of MR vaccine that have prequalified by WHO, Chiron of

Italy and the Serum Institute of India.

However, Chiron has recently stopped all participation in the grant aid project of Japan, and has answered that they would decline to participate in the Project.

On the other hand, the Serum Institute has said they could provide MR vaccine for the Project. According to their estimates, the FOB price is US\$1.20 and the CIP Managua price is US\$1.37 per dose. For reference, the FOB price procured by UNICEF is US\$1.00, to which is added 6 to 8% as commission.

However, 3 children in Cuba who received immunization of the Serum Institute measles vaccine in May 2002 died immediately after immunization. It is suspected that the vaccine might be contaminated, and the WHO is examining samples of the measles vaccine of Serum Institute.

The results of this examination are not yet out, and while the WHO and PAHO have not taken any measures to prohibit the continued use of this vaccine in the meantime, as there is only one manufacturer from which the MR vaccine can be procured, it is judged that the MR vaccine does not conform to the scheme of the grant aid project of Japan, and cannot readily be included in the Project. Therefore MR vaccine shall not be included in the Project.

c) Syringes and safety boxes

Disposable syringes and safety boxes are requested for injection of the vaccines procured by the Project.

However as has already been stated, vaccines are not covered by the Project, and so syringes and safety boxes shall not be included in the Project either.

(2) Policy on natural conditions

In designing solar refrigerators it is necessary to consider the amount of solar radiation. The minimum amount of solar radiation that manufacturers use to design solar refrigerators for use in Nicaragua is 3.07 kWh/m²/day. Taking this amount of solar radiation as the minimum standard, a system shall be designed that satisfies the WHO/UNICEF standards and operates satisfactorily.

(3) Policy on the procurement situation and methods

Solar refrigerators and vaccine carriers must meet the WHO/UNICEF standards. As these items satisfying this standard are not manufactured in Japan or in Nicaragua, these equipment shall be procured from third countries.

As the nebulizers that meet the above stated specifications are manufactured by two or more Japanese manufacturers, this equipment shall be procured from Japan.

Essential drugs shall be procured from third countries, for the following reasons.

Firstly, many of the drugs manufactured and sold in Japan have compositions and dosage form different from the specifications requested in the Project. Even for drugs with the same specifications, the prices are several times to several tens of times higher than those manufactured in third countries, so that there is no competition at all. In addition, as the Japanese pharmaceutical manufacturers have no sales strategy for the markets of developing countries, the leaflets (package insert) and labels are written in Japanese only; none are written in Spanish or any other foreign language.

In Nicaragua, there are also at least 3 manufacturers of the drugs that are requested. However there is none at present that says it can supply the entire quantity needed for the Project. If the same drug is provided by several different manufacturers, there is a risk of misuse caused by differences in the shape of the bottle or the color of the label, which may cause confusion in use on the health facilities. Therefore in procuring an item, it is appropriate that it be one product from one manufacturer. Thus in Nicaragua there is no manufacturer able to provide the above-mentioned items.

For these reasons, these items shall be procured from third countries. As it has been reported to the WHO that some products from third countries are not secured the quality mentioned in the certificate of quality, these items shall be procured from Development Assistance Committee (DAC) member countries, for the purpose of ensuring quality.

(4) Policy on the operational and maintenance capabilities of the implementation agency

With regard to solar refrigerators, since the maintenance staff of each SILAIS has already gained experience in the Phase I and Phase II Projects in the installation of solar refrigerators, these shall be delivered to CIPS and installation shall not be carried out by the Japanese side.

(5) Policy on the time frame

The Project shall be implemented within the single fiscal year of 2002.

2-2-2 Basic Plan(Equipment Plan)

(1) Equipment Plan

From the results of the study, the content of the equipment is planned as follows. (Table 2-11)

Table 2-11 Equipment Plan

No.	Equipment	Specification	Purpose for Use	Quantity
1	Solar refrigerator	Capacity: 30L or more	Vaccine storage use	23 units
2	Vaccine carrier	Capacity: 2.5L or more, WHO/UNICEF standard(E4/VC.2)	Vaccine transportation use in low temperature condition	2,000 pieces
3	Nebulizer	Nebulization rate of 3 ml/min or more, with stand	Medical equipment for Bronchial asthma treatment	65 units
4	Benzylpenicillin (Penicillin G)	Injection, 1.0millionIU/vial	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis etc.	199,500 vials
5	Benzylpenicillin procaine	Injection, 0.8millionIU/vial	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis etc.	1,175,600 vials
6	Benzylpenicillin benzathine	Injection, 1.2millionIU/vial	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis etc.	364,600 vials
7	Dicloxacillin	Oral suspension, 125mg/5ml, 100ml bottle	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis etc.	219,800 bottles
8	Amoxicillin, Oral suspension	Oral suspension, 250mg/5ml, 100ml bottle	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis, otitis media etc.	200,300 bottles
9	Amoxicillin, Capsule	Capsule, 500mg	Microbial infections such as pneumonia, nasopharyngitis, laryngitis, tonsillitis, otitis media etc.	4,901,500 capsules
10	Chloramphenicol sodium succinate	Injection, 1g/vial	Microbial infections such as severe nasopharyngitis	18,800 vials
11	Gentamycin sulfate	Injection, 20ml/2ml, 2ml ampoule	Microbial infections with penicillin or ampicillin	163,400 ampoules
12	Sulfamethoxazole+Trimethoprim, Syrup	Syrup 240mg(200+40mg)/5ml, 100 ml bottle	Microbial infections such as urinary tract infection, dysentery, diarrhea etc.	640,900 bottles
13	Sulfamethoxazole+Trimethoprim, Tablet	Tablet, 480mg(400+80mg)	Microbial infections such as urinary tract infection, dysentery, diarrhea etc.	9,185,800 tablets
14	Nystatine	Oral suspension, 100,000IU/1ml, 30ml bottle	Anti mycosis drug	95,700 bottles
15	Chloroquine phosphate	Tablet, 250mg	Anti malaria drug	8,477,800 tablets
16	Albendazole, Suspension	Oral suspension, 100mg/5ml, 20ml bottle	Anthelmintics	235,700 bottles
17	Albendazole, Tablet	Tablet, 400mg with split line	Anthelmintics	1,301,000 tablets
18	Salbutamol sulfate (Albuterol), Syrup	Syrup, 2mg/5ml, 100ml bottle	Bronchial asthma, Bronchitis	431,500 bottles
19	Salbutamol sulfate (Albuterol), Aerosol Inhalation	Aerosol Inhalation, 5mg/1ml, 0.5% 20ml bottle	Bronchial asthma, Bronchitis	26,300 bottles
20	Phytomenadion	Intravenous/intramuscular infusion, 1mg/0.5ml, 0.5ml/ampoule	Prevention of neonatal bleeding	26,300 ampoules
21	Glucose(Dextrose Monohydrate)	Intravenous infusion, 5%, 1000ml/bag or bottle	Retention of body fluids and energy supplement	90,500 bottles
22	Ringer-Lactate Solution(Harman)	Intravenous infusion, 1000ml/bag or bottle	Retention and correction of body fluids	75,200 bottles
23	Isotonic sodium chloride solution	Intravenous infusion, 0.9%, 1000ml	Retention and correction of body fluids, Intravenous injection	69,700 bottles
24	Water for Injection	Intravenous infusion, 10ml/ampoule	Water for Injection	1,948,300 ampoules
25	Oral rehydration salts (ORS)	Oral Powder(WHO formulation), 27.9mg/bag for 1000ml of water	Supplement of water and electrolytes for diarrhea, dehydration	2,580,000 bags
26	Oxytocin	Intravenous infusion, 6IU/ml, 1ml/ampoule	Induction of labor, uterine inertia	30,100 ampoules
27	Retinol(VitaminA)	25,000IU/drop, 30ml bottle	Prevention and treatment of vitamin A deficiency	18,500 bottles
28	Paracetamol (acetaminofen)	Oral suspension, 100mg/ml, 15ml bottle	Antipyretic, Analgesic	961,700 bottles
29	Dexamethasone sodium phosphate	Injection, 4mg/ml, 1ml vial	Allergic diseases including Bronchial asthma, Bronchitis	47,000 vials
30	Hydrocortisone sodium succinate	Injection, 500mg/vial	Allergic diseases including Bronchial asthma, Bronchitis	25,800 vials
31	Prednisolone	Tablet, 5mg	Allergic diseases including Bronchial asthma, Bronchitis	1,305,700 tablets

2-2-3 Implementation Plan

(1) Implementation Policy

The countries from which the equipment shall be procured are Japan, Nicaragua, and third countries. Procurement shall be undertaken through competitive tendering with a Japanese juridical person as contractor. With regard to the equipment procured in Japan and third countries, pre-shipment inspection shall be entrusted to a third-party inspection agency. However, items that require quality control, such as drugs, shall undergo pre-shipment and pre-delivery inspections by the procurement supervisor.

General Direction of Health Service of the Ministry of Health is the department responsible for implementation of the Project and will take responsibility for the maintenance of the equipment. The actual distribution, management, and transportation of drugs shall be done by CIPS.

(2) Implementation Conditions

For the transportation of drugs that require temperature control, care must be taken with proper packaging and fast transportation as well as speedy pre-loading inspection, so as to avoid adverse affects on the quality. Two of the drugs, oxitocin and dexamethasone sodium phosphate, shall be transported by air for speedy transportation, as they must be stored at a temperature below 15°C.

(3) Scope of Works

The scope of works is shown in Table 2-12. The Project does not cover installation work.

Table 2-12 Responsibility for Procurement and Transportation

	Content
Japan	a. Procurement of Equipment b. Transportation of equipment to the delivery site (warehouse of CIPS, the Ministry of Health)
Nicaragua	a. Distribution of equipment from the delivery site (warehouse of CIPS, the Ministry of Health) to each facility

(4) Procurement supervision plan

For the overall coordination in Nicaragua of the procured equipment including acceptance inspection, sorting and delivery, a procurement agent's personnel shall be dispatched from the nearest branch office in Nicaragua or the overseas office as local procurement supervisor.

(5) Equipment procurement plan

The equipment procured by the Project shall include a necessary quantity of spare parts for solar refrigerators and nebulizers. After-sales service by the agent or the dealer in Nicaragua shall be available for one year after the procurement.

The presumed procurement countries of the equipment are shown in Table 2-13. The reasons for procurement from third countries are given in 2-2-1 (3).

Table 2--13 Procurement Countries

	Equipment	Nicaragua	Japan	The Third countries
1	Solar refrigerator			○
2	Vaccine carrier			○
3	Nebulizer		○	
4	Benzylicillin (Penicillin G)			○
5	Benzylicillin procaine			○
6	Benzylicillin benzathine			○
7	Dicloxacillin			○
8	Amoxicillin, Oral suspension			○
9	Amoxicillin, Capsule			○
10	Chloramphenicol sodium succinate			○
11	Gentamycin sulfate			○
12	Sulfamethoxazole+Trimethoprim, Syrup			○
13	Sulfamethoxazole+Trimethoprim, Tablet			○
14	Nystatine			○
15	Chloroquine phosphate			○
16	Albendazole, Suspension			○
17	Albendazole, Tablet			○
18	Salbutamol sulfate (Albuterol), Syrup			○
19	Salbutamol sulfate (Albuterol), Aerosol Inhalation			○
20	Phytomenadion			○
21	Glucose(Dextrose Monohydrate)			○
22	Ringer-Lactate Solution(Hartman)			○
23	Isotonic sodium chloride solution			○
24	Water for injection			○
25	Oral rehydration salts (ORS)			○
26	Oxytocin			○
27	Retinol(VitaminA)			○
28	Paracetamol (acetoaminofen)			○
29	Dexamethasone sodium phosphate			○
30	Hydrocortisone sodium succinate			○
31	Prednisolone			○

All the equipment shall be transported by land to the warehouse of CIPS, Ministry of Health in Managua the capital city, in the case of sea transportation, from Corinto port in Nicaragua, Puerto Cortes port in Honduras, or Limon port in Costa Rica, in the case of air transportation, from Managua Airport.

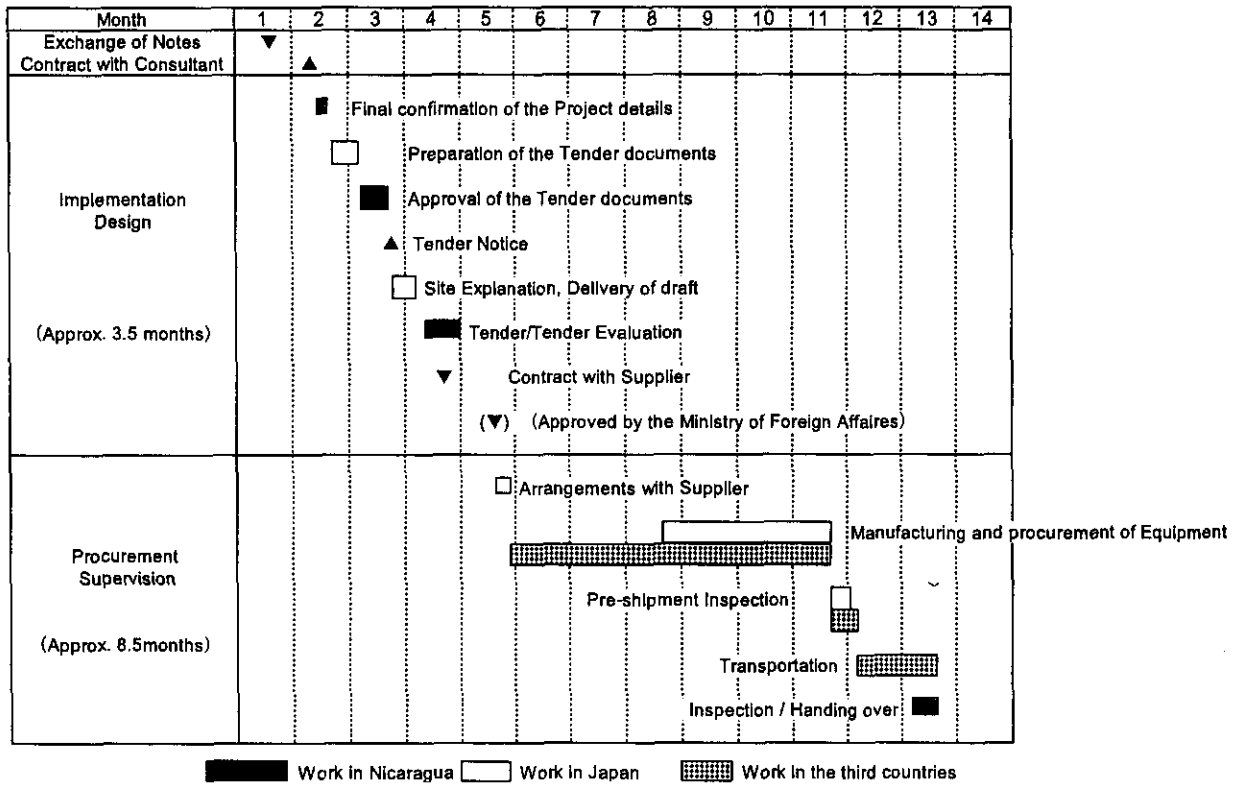
(6) Implementation schedule

Budgetary year: Fiscal year 2002

Total work period (from Exchange of Notes to delivery) : 12.0 months

From Exchange of Notes to contract with supplier : 3.5 months

Delivery (from contract with supplier to delivery) : 8.5 months



2-3 Obligation of the Recipient Country

The obligations of Nicaragua in the implementation of the Project are shown below.

- (1) To provide proper and prompt customs procedures for the procured equipment
- (2) To secure the warehouses necessary for the storage of procured equipment
- (3) To provide prompt delivery of procured equipment from the storage warehouse to the final destination, and to bear the cost of delivery
- (4) To pay the notification fee for the Authorization to Pay (A/P) generated according to the Banking Arrangements (B/A) for implementing the Project
- (5) To take budgetary measures necessary for the proper operation and maintenance of the procured equipment, to secure personnel, to secure refrigerators for the storage of those drugs that need to be stored in a cool place and to work for quality preservation.
- (6) To install the solar refrigerators promptly
- (7) After procurement of equipment and drugs, to submit an annual monitoring report on the

following to the Embassy of Japan in January 2005 and January 2006

- 1) State of distribution of drugs in each SILAIS
- 2) State of distribution of solar refrigerators and nebulizers
 - (a) Name of beneficiary health facilities
 - (b) Installation date
 - (c) Operation confirmation result
 - (d) If the installed equipment is moved, the reason why

2-4 Project Operation Plan

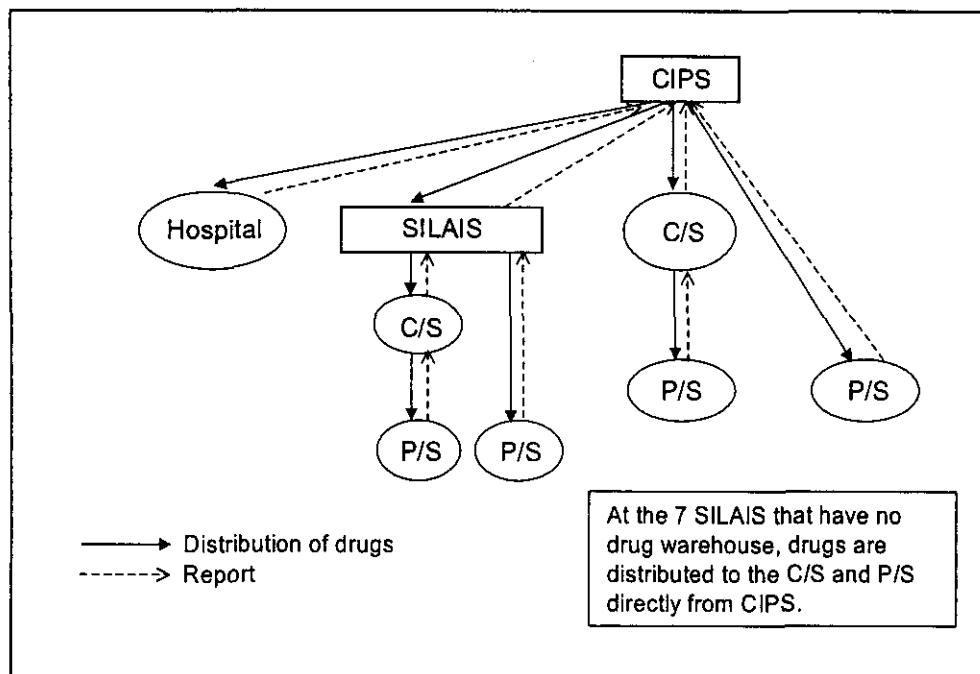
The equipment procured by the Project shall be delivered to CIPS. The method of distribution from CIPS to each SILAIS is as follows.

The request for and the delivery of drugs between CIPS and the SILAIS is carried out regularly, once a month or once every 2 months, for each SILAIS. However, for 7 SILAIS, - Managua, Masaya, Granada, Rivas, Carazo and Boaco which have large populations is large and the roads are relatively good, and RAAN where C/S are scattered - they make their requests directly to CIPS and the drugs are delivered directly from CIPS to each C/S.

In the case of drugs, the invoice attached for delivery from CIPS to SILAIS contains the drug code, dosage form, drug name, manufacturer's name, expiry date, quantity, and donor's name, so that it is possible to trace the state of use of drugs for each donor. The SILAIS manages the items by recording acceptances and releases in the ledger. The person responsible for accounting in the SILAIS will conduct a spot-check inventory inspection at the warehouse once every 2 weeks. As the staff member in charge of accounting manages items by checking them against the invoice master record, the warehouse inventory management card and the registration department drugs ledger, no dishonesty can arise.

Regular requests and deliveries are also carried out between the SILAIS and the C/S and between the C/S and the P/S, once a month or once every 2 months. Facilities that have used drugs are obliged to report once a month to the supervisory authority, on the situation with regard to the use of drugs, attaching the prescriptions in which the drugs have been used.

Figure 2-1 Distribution route of Essential Drugs



Of the equipment to be procured by the Project, an item that will need maintenance is the solar refrigerator. There are already 151 solar refrigerators in Nicaragua supplied through the cooperation of Japan and other donor countries. Twelve SILAIS have engineers dedicated to cold chain equipment, and carry out regular maintenance at least once a year. In SILAIS that have no engineer, 2 engineers of the Ministry of Health visit on a regular basis. Those using solar refrigerators at health facilities carry out regular maintenance daily, weekly and once every 3 months, in accordance with the manual. The costs involved are paid from the establishment cost and the equipment purchase cost. In addition, training in temperature control and refrigerator maintenance is given to health workers, with the support of PAHO. In 2001, 246 health workers from all the SILAIS underwent training.

As nebulizers are relatively simple equipment in terms of structure and operation, no special maintenance is needed.

Therefore, there are no problems in the operation and maintenance plan, both at the staff level and at the technical level.

Chapter3 Project Evaluation and Recommendations

3-1 Project Effect

(1) Direct effects

- 1) With the improvement of cold chain systems in the non-electrified areas and remote areas, it will be possible to fortify the vaccine supply system and reduce the rate of vaccine loss.
- 2) Through the procurement of nebulizers, it will be possible to treat acute respiratory infections in infants at 60 health facilities in 16 SILAIS.
- 3) Essential drugs generally used to treat infectious diseases can be secured above a certain level quantity, and a stable system of early treatment and prevention of diseases covered by the Project can be established. It will be possible to cut off the source of infection its transmission, and to prevent the spread of diseases.

(2) Indirect effects

- 1) With the improvement of cold chain systems throughout the country, a high vaccination rate can be maintained and even improved.
- 2) It is possible to reduce mortality and morbidity caused by preventable diseases through vaccinations.
- 3) With the installation of nebulizers at the primary level health facilities, hospitals can concentrate on the higher-level medical services.
- 4) With the securing of essential drugs above a certain level quantity, it will be possible to allocate the budget to higher-level drugs, leading to an improvement in the quality of the health and medical services as a whole.

3-2 Recommendations

Although the Ministry of Health has already experienced the Phase I and Phase II Projects and the ability for implementation of this Project is considered to be high, consideration should be paid to the following matters.

(1) In the Phase I and Phase II Projects, as a result of the drug quality inspection by the Ministry of Health after the arrival of essential drugs in Nicaragua, in some cases the procured drugs did not pass the inspection and the Ministry of Health requested the replacement of the items. However as the quality inspection was conducted a fairly long time after the arrival of the drugs, it was unclear what had caused the change in quality and where responsibility lay. Therefore, the Ministry of Health must carry out quality inspection promptly after the arrival of the drugs, and report the results to the supplier and the consultant.

(2) It became clear that some of the nebulizers procured in the Phase I and Phase II Projects were

not working when they arrived at the health facilities or immediately after they starting being used. However those at the local level did not understand how to make a claim or how to request a repair. For the equipment to be used effectively, it must be made well known at the local level that the equipment procured under the Project has a warranty period.

[Appendices]

1. Member List of the Study Team
2. Survey Schedule
3. List of Parties Concerned in the Recipient Country
4. Minutes of Discussions
5. Obtained Reference Data
6. Inventory List of Solar Refrigerators
7. Inventory List of Nebulizers
8. Record of Equipment (Phase I & Phase II) and Comparison with Phase III Project

1. Member List of Survey Team

- | | |
|--|---|
| 1. Leader | Dr. Motoyuki YUASA
Expert Service Division
Bureau of International Cooperation
International Medical Center of Japan |
| 2. Manager and Project Planner | Mr. Nagata Takeshi
Second Project Management Division
Grand Aid Management Department
Japan International Cooperation Agency |
| 3. Equipment and
Procurement Planner1 | Mr. Toshio SUGAWARA
General Grand Aid Division, Grand Aid Management Dept.,
Japan International Cooperation system |
| 4. Equipment and
Procurement Planner2 | Ms. Tomoko NIKAI
General Grand Aid Division, Grand Aid Management Dept.,
Japan International Cooperation system |
| 5. Equipment and
Procurement Planner3 | Mr. Shinji HOSOYA
General Grand Aid Division, Grand Aid Management Dept.,
Japan International Cooperation system |
| 6. Interpreter | Ms. Setsuko OTAKI
Japan International Cooperation Center |

2. Survey Schedule

No	Date		Government Officer		Consultant and Interpreter		Place of Stay		
			Mr. Nagata (Manager)	Dr. Yuasa (Leader)	Ms. Nikai Ms. Otaki	Mr. Sugawara Mr. Hosoya			
1	16, July	Tue.			Tokyo 15:50 (C0006) → Huston 13:45/17:45 (C01974) → Managua 19:58		Managua		
2	17, July	Wen.			Courtesy Call and Discussion with JICA Office, Courtesy Call on Embassy of Japan(a.m.), Courtesy Call on Ministry of Health(p.m.)		Managua		
3	18, July	Thr.			Discussion with Ministry of Health(a.m.), Courtesy Call on PAHO(p.m.)		Managua		
4	19, July	Fri.			Team meeting		Managua		
5	20, July	Sat.			Site survey: Managua		Managua		
6	21, July	Sun.			Team meeting		Managua		
7	22, July	Mon.			Tokyo 12:00 (JL006) → New York 11:25		Site survey: Matagalpa	New York/Managua	
8	23, July	Tue.			New York 07:20 (AA971) → Miami 09:20/11:00 (AA986) → Managua 11:47 Site survey: Managua		Site survey: Managua	Site survey: Chinandega	Managua/Chinandega
9	24, July	Wen.			Site survey: Chontales		Site survey: Chinandega	Chontales/Managua	
10	25, July	Thr.			Site survey: Rio San Juan		Site survey: RAAS	Rio San Juan/RAAS	
11	26, July	Fri.			Site survey: Rio San Juan		Site survey: RAAS	Rio San Juan/RAAS	
12	27, July	Sat.			Moving to Managua		Site survey: RAAS	Managua	
13	28, July	Sun.			Team meeting			Managua	
14	29, July	Mon.			Site survey: Leon			Managua	
15	30, July	Tue.	Tokyo 15:50 (C0006) → Huston 13:45/17:45 (C01974) → Managua 19:58		Discussion with Ministry of Health(a.m.) Courtesy Call on CIPS(p.m.)		Managua		
16	31, July	Wen.	Courtesy Call on Embassy of Japan, Courtesy Call and Discussion with JICA Office and Ministry of Foreign Affairs, Economy and Cooperation Direction(a.m.), Courtesy Call on and Biologic National Center(p.m.)		Call on local medicine Manufacturerers(a.m.), Courtesy Call and Discussion with Ministry of Health, Courtesy Call on LNCCM(p.m.) (Consultant)		Managua		
17	1, August	Thr.	Call on the Project for Strengthening of the Local System of Integral Health Care (SILAIS) of Granada and Exchange views		Preparing document(Consultant)		Managua		
18	2, August	Fri.	Courtesy Call on Health Center of Managua(a.m.), Courtesy Call on Minister of Ministry of Health and CNDR(p.m.)		Call on local medicine Manufacturerers(a.m.), Courtesy Call on Minister of Ministry of Health, Courtesy Call on LNCCM(p.m.) (Consultant)		Managua		
19	3, August	Sat.	Team meeting				Managua		
20	4, August	Sun.	Team meeting				Managua		
21	5, August	Mon.	Discussion on Minutes		Discussion with CIPS(p.m.) (Consultant)		Managua		
22	6, August	Tue.	Discussion on Minutes(a.m.), Signing on Minutes(p.m.)				Managua		
23	7, August	Wen.	Courtesy Call on PAHO(a.m.) Report to JICA Office, Report to Embassy of Japan(p.m.)		Marketing Research(a.m.) (Consultant)		Managua		
24	8, August	Thr.	Managua 07:10 (AA986) → Miami 11:44/13:30 (AA1539) → Sunfransisco 16:16		Managua 07:10 (AA986) → Miami 11:44/13:20 (AA1262) → New York 16:22		San Francisco /New York		
25	9, August	Fri.	San Francisco 13:00 (JL001) →		New York 12:15 (NH009) →		on board		
26	10, August	Sat.	→ Tokyo 15:40		→ Tokyo 14:50				

3. List of Parties Concerned in the Recipient Country

1. Embassy of Japan in Nicaragua

Kunio Shimizu	Ambassador extraordinary and plenipotentiary
Naohito Watanabe	Counselor
Mayumi Hashimoto	Adviser

2. JICA Office in Nicaragua

Shigeru Takagi	Resident Representative
Tetsuya Oda	Project Formulation Advisor
Humberto Picado	Technical Cooperation Advisor

3. Ministry of Health (MINSAs)

Lucía Salvo Horvilleur	Misirter
Nestor Reyes	Director, General Direction of Planning and Development
Felix Ruiz	Director, Planning and Investment Division
Marina Isabel Aviles	Director, Planning and Investment Division
Marisol Gutierrez S.	Planning Division
Omar Malespin	Immunization Direction
Alejandro Ortega Amador	Immunization Direction
María Teresa Villagra	Immunization Direction
Maritza Narváez	Director, Pharmaceutical and Non Pharmaceutical Products Normalization Direction
Evenor Jiménez	Pharmaceutical and Non Pharmaceutical Products Normalization Direction
Manuel Córdoba	Pharmaceutical and Non Pharmaceutical Products Normalization Direction
Fiorella Falla	Pharmaceutical and Non Pharmaceutical Products Normalization Direction
Sergio Palacio	Director, General Direction of Human Resources
José Tomás Rueda	Lawyer

4. Ministry of Foreign Affairs, Economy and Cooperation Direction

Mauricio Gómez Lacayo	Vice-minister
María Auxiliadora Vindel R.	Responsible official
Alejandro Maltez M.	Japanese Grant Aid Consultant

Isolda Frixione Miranda

Director, General Direction of Bilateral Aid

5. Managua SILAIS Office

Yerma Sequeira

Manager

Gioconda Rosales

Integral Management for Women, Childhood and
Adolescence
Direction

Olga Maria Sequeira Ivónez

Health Service Direction

Socorro Garay Z

Director, Pharmaceutical Products Direction

Martha Pacheco

Doctor

6. Yolanda Mayorga Hospital, Tipitapa, Managua

Róger Macias H.

Director

Erika Moreno Cáceres

Person in charge of Pharmaceutical Products

Brenda Silva

Sub-direction of Epidemiology

Sagrario Benaviades

Sub-direction of Medical Attention

Martha Reyes T.

Nurse

Rosario Sequeira

Nurse

Fernando Quintero

Administrator

Yasira Espino

Secretary

Silvio Membreño

Administrative Service

7. Silvia Ferrufino Health Center, Managua

Lidiet Martínez M.

Doctor

Gloria Delgadillo

Person in charge of Pharmaceutical Products

Norma Cruz

Nurse

Edgard Castillo

Person in charge of Pharmaceutical Products Storage

8. Edgar Lang Health Center, Managua

Ranulfo Escobar

Director

Jorge A. García R.

Assistant Manager

Mayra Silva

Person in charge of EPI

Helen Cuadra

Nurse

Juana Pérez R.

Person in charge of Pharmaceutical Products

Jeaneth González

Person in charge of Pharmaceutical Products Storage

9. Ciudad Sandino Health Center, Managua

Augusto Sequeira

Director

Alejandro Urbina S.	Statistician
Mireya Cajina P.	Nurse
Estelaina Acosta	Person in charge of Pharmaceutical Products
René Alfonso Gutiérrez	Doctor

10. Masachapa Health Center, Managua

César Augusto Mena Sandoval	Director
Julio Fernández King	Administrator

11. Matagalpa SILAIS Office

Julio César Acevedo López	Director
Henry Davila	Sub-director
Byron Pérez Ruiz	Doctor
Héctor Torres Toro	Administrator
Sandra Gutiérrez	Person in charge of Pharmaceutical Products
Indiana Páiz	Doctor
Judith Wong Blandón	Doctor
Jorge Martínez	Psychologist
Marta Ligia Orozco	Person in charge of Immunization
Sergio Ramón Gutiérrez Ubeda	Doctor

12. Matagalpa Health Center, Matagalpa

Jamileth Alegría	Director
Xiomala Sinco S.	Accountant
Flor Jarquín S.	Person in charge of Pharmaceutical Products

13. Chinandega SILAIS Office

Carlos David Alonso	Director
Janet Ramírez	Person in charge of Pharmaceutical Products
Sandra Lovo López	Person in charge of EPI
Octavio Rios R.	Director, Chinandega Municipality

14. El Viejo Health Center, Chinandega

Mario Montenegro	Director
Brenda Baca	Person in charge of statistics
Marlon I. Salazar C	Administrator
Dowin Campo	Person in charge of Integral Management for Women, Childhood and Adolescence

Albertina Meza C.	Nurse
Freddy A. Morales	Person in charge of Epidemiology
Danun A. Cruz	Person in charge of Pharmaceutical Products

15. Roberto Cortez Health Center, Chinandega

Damaris Pérez A.	Person in charge of Pharmaceutical Products
Nubia Peralta	Nurse
Mercedes López M	Person in charge of EPI

16. José Schendell B. Corinto Health Center, Chinandega

Xiomara Camacho	Person in charge of EPI
Juana P. Esquivel A	Administrator
Holman Ullon	Person in charge of Epidemiology

17. Chichigalpa Health Center, Chinandega

Genaro Garcia H	Director
Magda Reyes	Coordinator Integral Management for Women, Childhood and Adolescence
Carmen Toval H	Person in charge of Epidemiology

18. Chontales SILAIS Office

Diego A. Calvo V.	Doctor
Hernan Martinez	Dentist
Nora Alvales	Person in charge of Public Health
Carla Roths Schuh P.	Doctor
Magdalena Macia	Doctor, Epidemiologist

19. Acoyapa Health Center, Chontales

Francisco Ochoa	Director
Juana Moreno	Person in charge of Public Health

20. Río San Juan SILAIS Office

Guillermo Rodriguez	Doctor
Aristo Jiron Rizo	Doctor
Azarías Erioto V.	Epidemiologist

21. San Carlos Health Center, Río San Juan

Freddy Ruiz A	Doctor
María Adela Moncada	Assistant nurse
Martha Gutiérrez	Person in charge of Pharmaceutical Products
María Romero	Person in charge of Integral Management for Women, Childhood and Adolescence
Remdall Olvas	Person in charge of Epidemiology
Alexaderer Gómez T.	Engineer for cold chain equipment

22. Solentiname Health Post, Río San Juan

Lidia Mejco Martínez	Assistant nurse
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23. Bello Amanecer Health Post, Río San Juan

Yamileth del C. Picado Vilela	Doctor
Ana María Hurtado Montiel	Assistant nurse
Norman Aguilar M.	Assistant nurse
Marisol Hurtado	Assistant nurse

24. RAAS SILAIS Office

Donald Jarquin	Director
Elizabeth Amador	Pharmacist
Martha Aguilar	Pharmacist
Odilia Aragon	Nurse
Abraham Mayorga	Epidemiologist

25. Laguna de Perlas Health Center, RAAS

Kathy Bland Ford Allen	Nurse
Emma Hamphris	Person in charge of Pharmaceutical Products
Ardeth Willians Desouza	Person in charge of EPI
Sheron Clark	Person in charge of maternal and child health

26. San Francisco Health Post, RAAS

Marlon Bolaños	Doctor
Martha Aguilar	Pharmacist

27. León SILAIS Office

Salvador Rosales	Director
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Fermin Valdivia	Doctor
Ana Mercedes Ordoñez	Person in charge of EPI
Dalila López Ortiz	Person in charge of Pharmaceutical Products
Cony Parajón Rodriguez	Nutritionist

28. Sauce Health Center, León

Elena B. Roque	Director
Sara Luisa A Ortega	Doctor
Mauricio Ruiz	Doctor
Teresa Velásquez	Doctor
Antonia Ariliz	Nurse

29. Salalez Health Post, León

Anacelia Valle	Assistant nurse
Digna Salgado	Assistant nurse

30. CIPS (Centro de Insumos para la Salud)

Javier Palacios A	Director General
Guadalupe Canales Renazco	Director
Ivonne López Pérez	Director, Distribution
Rene Ortega	Director, Information
Ana Cecilia Herdocia	Person in charge of Pharmaceutical Products
Antonio Oporta Zamorra	Person in charge of Registration and Warehouse

31. National Biological Bank

Patricia Reyes Gonzáles	Immunization Direction
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32. National Laboratory of Quality Control of Medicines

Nubia A. Blanco S.	Pharmacist
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33. PAHO (Pan American Health Organization)

Patricio Rojas Lara	Representative
Raúl Montesano Castellanos	Adviser for Vaccine and Immunization Programme

**MINUTA DE DISCUSIONES
SOBRE
EL ESTUDIO
DEL
PROYECTO PARA EL REFORZAMIENTO DEL SERVICIO
DE LA SALUD INFANTIL (FASE III)
EN LA REPUBLICA DE NICARAGUA**

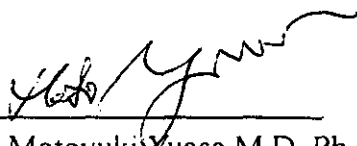
En respuesta a la solicitud del Gobierno de la República de Nicaragua, el Gobierno del Japón decidió realizar un Estudio del Proyecto para el Reforzamiento del Servicio de la Salud Infantil (Fase III) (en adelante se denominará "el Proyecto") y confió dicho estudio a la Agencia de Cooperación Internacional del Japón (en adelante se denominará "JICA").

Por consiguiente, JICA envió a la República de Nicaragua una Misión del Estudio (en adelante se denominará "la Misión"), dirigida por el Dr. Motoyuki Yuasa, Dirección de Cooperación Internacional, Centro Médico Internacional del Japón, Ministerio de Salud, Trabajo y Bienestar del Japón, desde el 16 de julio hasta el 8 de agosto de 2002.

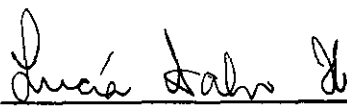
La Misión ha discutido con las autoridades oficiales relacionadas del Gobierno de la República de Nicaragua y realizó los estudios en los sitios del Proyecto.

Como consecuencia de las discusiones y los estudios de campo, ambas partes han confirmado los puntos descritos en la ayuda memoria adjunta.

Managua, 6 de agosto de 2002

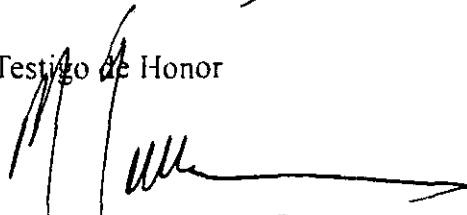


Dr. Motoyuki Yuasa, M.D., Ph.D.
Jefe
Misión del Estudio
Japón



Lic. Lucía Salvo Horvilleur
Ministra
Ministerio de Salud
República de Nicaragua

Testigo de Honor



Dr. Mauricio Gómez Lacayo
Viceministro Secretario de Relaciones Económicas y Cooperación
Ministerio de Relaciones Exteriores
República de Nicaragua

AYUDA MEMORIA DE LA MISION

1. Objetivo del Proyecto

El objeto de este proyecto es mejorar la salud materno- infantil en la República de Nicaragua a través de suministrar los siguientes equipos e insumos médicos.

- 1) medicamentos y micronutrientes necesarios para el tratamiento y la prevención de enfermedades materno-infantiles en la atención primaria.
- 2) equipos e insumos médicos necesarios para las actividades del Programa Ampliado de Inmunización.
- 3) equipos médicos para el tratamiento de los pacientes con problemas respiratorios.

2. Organismo Responsable y Organismo Ejecutor

El organismo responsable del Proyecto es el Ministerio de Salud .

Las instancias ejecutoras serán la Dirección General de Servicios de Salud y la Dirección General de Salud Ambiental y Epidemiología del Ministerio de Salud como está descrito en **Anexo-1**.

3. Solicitudes presentadas por el Gobierno de la República de Nicaragua.

3-1. Tras sostener una serie de discusiones con la Misión, se ha revisado y confirmado el contenido de la solicitud de parte de la República de Nicaragua (**Anexo-2**). Sin embargo, la aprobación final del Proyecto se determinará posterior a un análisis de los resultados del estudio.

3-2. La parte nicaragüense ha asignado sus prioridades sobre los artículos en el **Anexo-2**.

- | | | |
|---|---|---------------------------------------|
| A | = | Primera Prioridad / Esencial |
| B | = | Segunda Prioridad / Necesita estudiar |
| C | = | Tercera Prioridad / Si posible |

4. Sistema de Cooperación Financiera No Reembolsable del Japón

4-1. La parte nicaragüense ha comprendido el Sistema de Cooperación Financiera No Reembolsable del Japón explicado por la Misión, según el **Anexo-3**.

4-2. En el caso de que sea aplicada la Cooperación Financiera No Reembolsable del Japón, la parte nicaragüense tomará las medidas necesarias descritas en el **Anexo-4**, a fin de obtener una buena ejecución del Proyecto.

5. Programa del Estudio

JICA preparará el Informe Final del Estudio sobre el Proyecto y lo entregará a la parte nicaragüense alrededor del mes de diciembre de 2002.

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6. Otros asuntos relevantes

6-1. Resultado de la distribución en la fase I y la fase II.

Ambas partes han verificado el resultado de la distribución en la fase I y la fase II, según el Anexo -5. La parte japonesa ha sugerido a la parte nicaragüense que distribuya y asegure el uso de medicamentos remanentes de la fase I y la fase II antes de su vencimiento. La parte nicaragüense se ha comprometido a distribuir los saldos remanentes de ambas fases antes de su fecha de vencimiento e informar el resultado a la Embajada de Japón en Nicaragua.

6-2 Monitoreo y Evaluación

6-2-1 Inventario sobre nebulizadores

La parte nicaragüense se ha comprometido a presentar inventarios, localización y la demanda de nebulizadores a nivel nacional a la oficina de JICA en Nicaragua a mediados de septiembre de 2002.

6-2-2 Monitoreo del Proyecto

Ambas partes están de acuerdo con la importancia de monitoreo y evaluación del proyecto.

La parte nicaragüense se ha comprometido a entregar el informe anual de monitoreo y evaluación del proyecto a la Embajada del Japón en Nicaragua en enero de 2005 y enero de 2006, después de finalizar la adquisición de equipos e insumos médicos.

Los temas del informe mencionado arriba son los siguientes;

- i) el resultado de distribución de medicamentos y micronutrientes por SILAIS
- ii) el resultado de distribución de refrigeradoras solares y nebulizadores
 - ① el nombre de la unidad de Salud beneficiaria
 - ② la fecha de instalación
 - ③ el resultado de la comprobación del funcionamiento
 - ④ en caso del cambio de sitio en donde los equipos están instalados, explique las razones.

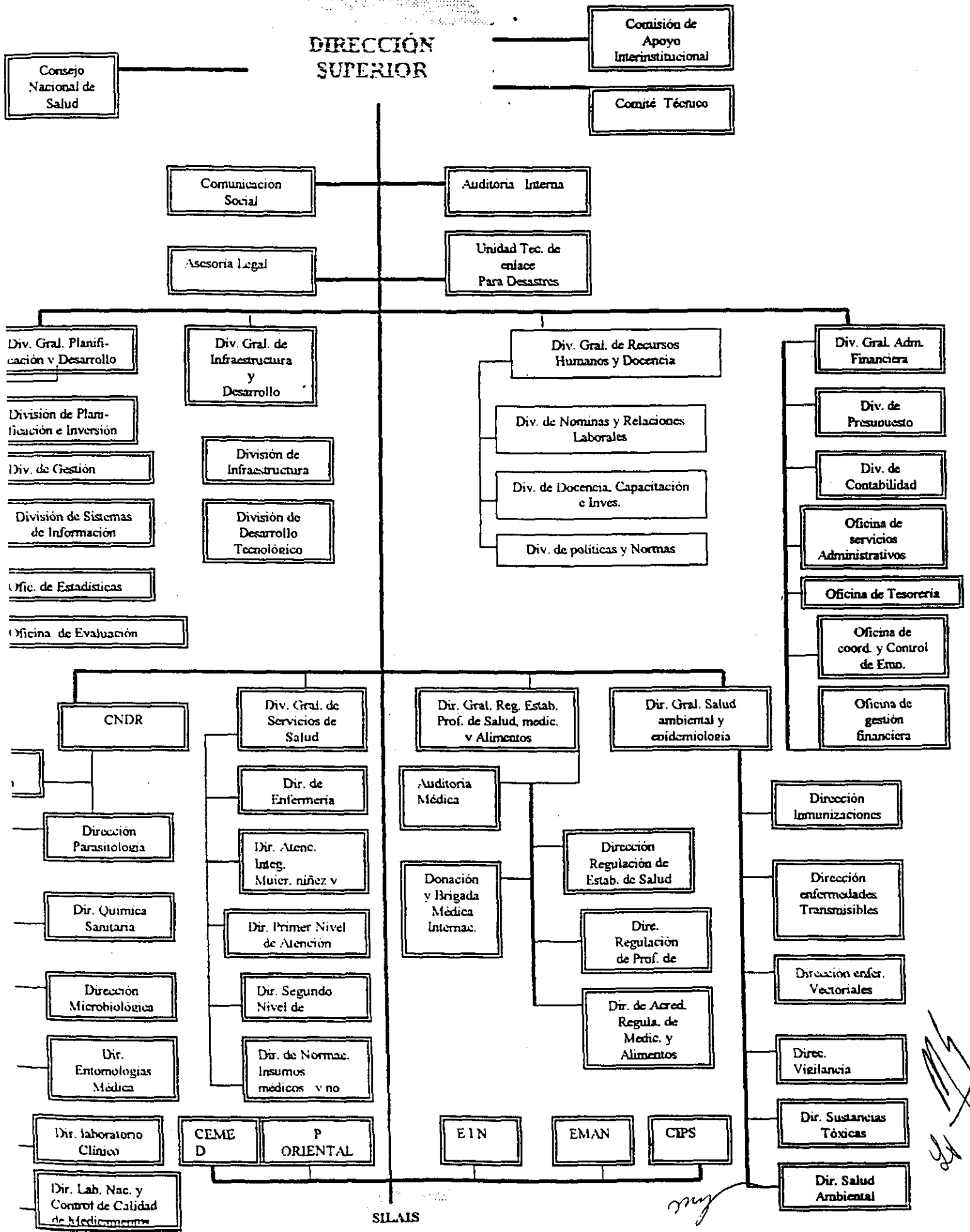
6-3 Recomendaciones por la parte japonesa

6-3-1 La parte japonesa ha sugerido a la parte nicaragüense que haga más esfuerzos para poder asegurar propiamente el suministro de vacunas, medicamentos y micronutrientes necesarios por si mismo.

6-3-2 En vista de la fase I y la fase II del Proyecto, la parte japonesa ha señalado la necesidad de fortalecer el sistema de mantenimiento de equipos para que la parte nicaragüense pueda aprovecharlos al máximo.

**MINISTERIO DE SALUD
ORGANIGRAMA 2002**

Anexo-1



MINISTERIO DE SALUD
DIRECCION DE SALUD AMBIENTAL Y EPIDEMIOLOGIA
DIRECCION DE INMUNIZACIONES

Requerimiento de Vacunas e Insumos para Red de Frio

No	INSUMO	CANTIDAD	PRIORIDAD
1	MR	700.000	B
2	PENTAVALENTE	150.000	C
3	MMR	182.000	C
4	Jeringas 1/2ccx25x5/8	700.000	C
5	Cajas destructoras de jeringas	7.000	C

Plan de Distribución de Refrigeradores Solares y Termos

No	SILAIS	REFRIGERADOR SOLAR	TERMOS
		SUNFROST RFBV-134A	GIOSTYLE
1	Granada	0	80
2	Managua	0	220
3	RAAN	0	120
4	RAAS	1	100
5	Rio San Juan	0	100
6	Carazo	1	80
7	Matagalpa	1	150
8	León	3	200
9	Boaco	2	50
10	Jinotega	0	150
11	Rivas	0	100
12	Chinandega	1	150
13	Nueva Segovia	9	130
14	Madriz	0	90
15	Estelí	5	90
16	Chontales	0	105
17	Masaya	0	80
18	CENABI	0	5
TOTAL		23	2.000

* Prioridad : Todos A (para refrigeradores solares y termos)

*Paquetes Fríos: Cada Termo vendrá acompañado de un juego de respuestos de paquetes fríos.

*CENABI: Centro Nacional de Biológicos

DIRECCION GENERAL DE SERVICIOS DE SALUD

ANEXO 2-2

**REQUERIMIENTOS DE MEDICAMENTOS PARA 17 SILAIS
REFORZAMIENTO DEL SERVICIO DE LA SALUD INFANTIL FASE III
AGOSTO DEL 2002**

No	Código	DESCRIPCION	UM	TOTAL MEDICAMENTOS	PRIORIDAD
1	1010100	Benzilpenicilin/penicilin G(1.0MIU)	FAM	349.200	A
2	1010120	Benzitine benzympenicilin/penicilin G benzatine (1.2 MIU)	FAM	364.600	A
3	1010130	Dicloxacilina 125mg/5ml	FCO	219.800	A
4	1010140	Amoxicilina 250mg/5ml	FCO	337.800	A
5	1010145	Amoxicilina 500 mg	CAP	4.901.500	A
6	1010510	Trimetropin Sulfametoxazol 80mg+400mg	TAB	9.185.800	A
7	1010700	Nistatina 100,000 unidades	FCO	100.000	A
8	1010810	Cloroquina Fosfato 250 mg	TAB	8.477.800	A
9	1020620	Albendazol 100mg/5ml	FCO	265.700	A
10	1020630	Albendazol 400 mg	TAB	1.630.800	A
11	1030108	Salbutamol Solución para Nebulizadores 5mg/ml	FCO	26.300	A
12	1050300	Fitomenadiona (Vitamina K1)1mg/5ml	AMP	36.600	A
13	1060100	Dextrosa en Agua al 5% 1000cc	FCO	90.500	A
14	1060120	Cloruro de Sodio 0.9% 1000 ml	FCO	95.900	A
15	1060300	Agua Destilada 10 ml	AMP	2.034.100	A
16	1060540	Sales de Rehidratación Oral	SOB	2.580.000	A
17	1100100	Oxitocina Sintética 10 UI/ml	AMP	40.300	A
18	1150120	Vitamina A 25,000 UI/gota	FCO	22.200	A
19	1160210	Paracetamol Solución 100mg /ml	FCO	961.700	A
20	1170100	Dexametazona Fosfato Sódico 4mg /ml	AMP	64.400	A
21	1170110	Hidrocortisona Succinato Sódico 500 mg	FAM	45.700	A
22	1170120	Prednisona 5mg	TAB	1.845.800	A
23	1010110	Procaine bezcilpenicilin/penicilin procaine (0.8MIU)	FAM	1.175.600	B
24	1010330	Cloramfenicol Succinato sódico 1gm	FAM	34.200	B
25	1010420	Gentamicina Sulfato 20mg/2ml	AMP	177.300	B
26	1010500	Trimetropin Sulfametoxazol 40mg+200mg /5ml	FCO	640.900	B
27	1030100	Salbutamol Syrup 2mg/5ml	FCO	431.500	B
28	1060110	Hartman Solución Standard 1000 ml	FCO	109.400	B

El tiempo estimado para la distribución de los medicamentos es de un año

La fuente de información para el cálculo de requerimientos , fue cada una de las programaciones de medicamentos remitidos por cada uno de los SILAIS

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ANEXO 2-3-1

MINISTERIO DE SALUD
DIRECCION GENERAL DE SERVICIOS DE SALUD
Distribución Nebulizadores III Fase

SILAIS	MUNICIPIO	UNIDAD DE SALUD	NO.	TOTAL
Boaco	Boaco		1	6
	Boaco	Hosp. José Nieborowski	1	
	San José de los Remates		1	
	Santa Lucía		1	
	Teustepe		1	
	Camoapa		1	
Carazo	Jinotepe	Hosp. Santiago	1	6
	Jinotepe		1	
	La Conquista		1	
	Diriamba		1	
	El rosario		1	
	San Marcos		1	
Chinandega	Chichigalpa		1	2
	Puerto Morazán		1	
Jinotega	Cua-Bocay		1	4
	El Cua		1	
	Santa María de Pantasma		1	
	Wiwilí		1	
Matagalpa	Matagalpa	Hosp. César Amador Molina	1	1
Chontales	Juigalpa	Hosp. La Asunción	1	4
	Muelle de los Bueyes		1	
	Santo Domingo		1	
	San Lorenzo		1	
Estelí	Estelí	Hosp. San Juan de Dios	1	4
	Estelí		1	
	San Juan de Limay		1	
	San Nicolás		1	
Granada	Granada		1	2
	Nandaime		1	
Nueva Segovia	Ocotol	Hosp. Luis Alfonso Moncada	1	5
	Macuelizo		1	
	Murra		1	
	Santa María		1	
	Wiwilí		1	
SUBTOTAL			34	

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ANEXO 2-3-2

SILAIS	MUNICIPIO	UNIDAD DE SALUD	NO.	TOTAL
León	El Jicaral		1	4
	Larreynaga		1	
	Nagarote		1	
	Santa Rosa del Peñón		1	
Madriz	Somoto	Hosp. Juan Brenes Palacio	1	4
	Las Sabanas		1	
	San Juan del río Coco		1	
	Yalagüina		1	
Masaya	Masaya	Hosp. Humberto Alvarado	1	4
	La Concepción		1	
	Nandasmo		1	
	Tisma		1	
Managua	El Crucero		1	7
	Mateare		1	
	San Francisco Libre		1	
	San Rafael del Sur		1	
	Ingenio Julio Buitrago		1	
	Ticuantepe		1	
	Villa Carlos Fonseca		1	
RAAN	Puerto Cabezas		1	2
	Prinzapolka		1	
RAAS	Bluefields	Hosp. Ernesto Sequeira	1	4
	Corn Island		2	
	La Cruz de Río Grande		1	
Rivas	Rivas	Hosp. Gaspar García Laviana	1	4
	Rivas		1	
	Buenos Aires		1	
	Cárdenas		1	
Río San Juan	El Castillo		1	2
	San Juan del Norte		1	
SUBTOTAL			31	
TOTAL			65	

Prioridad: Todos los nebulizadores son prioridad A

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SISTEMA DE LA COOPERACION FINANCIERA NO REEMBOLSABLE DEL JAPON

1. Procedimiento de la Cooperación Financiera No Reembolsable del Japón

1) El procedimiento de la Cooperación Financiera No Reembolsable del Japón es el siguiente.

Solicitud (Presentación de una solicitud oficial por el país receptor)

Estudio (Estudio de Diseño Básico conducido por JICA)

Evaluación y Aprobación (Evaluación del Proyecto por el Gobierno del Japón y aprobación por el Gabinete)

Decisión de Realización (Firma del Canje de Notas por ambos gobiernos)

Realización (realización del Proyecto)

2) En la primera etapa, el Gobierno del Japón (el Ministerio de Relaciones Exteriores) estudia la solicitud formulada por el país receptor si el Proyecto es apropiado para la Cooperación Financiera No Reembolsable. Si se confirma que la solicitud tiene alta prioridad como Proyecto para la Cooperación Financiera No Reembolsable, el Gobierno del Japón ordena a JICA a efectuar el Estudio.

Luego viene la segunda etapa, que se refiere al Estudio de Diseño Básico; JICA realiza este estudio, en principio, contratando una compañía consultora japonesa.

En la tercera etapa, la Evaluación y la Aprobación, el Gobierno del Japón evalúa y confirma que el Proyecto es apropiado para la Cooperación Financiera No Reembolsable, en base al informe de Diseño Básico elaborado por JICA en la segunda etapa, luego envía el contenido del Informe al Gabinete para su aprobación.

En la cuarta etapa, la Decisión de Realización, el Proyecto aprobado por el Gabinete se firma un Canje de Notas por los representantes del Gobierno del Japón y del Gobierno receptor.

Durante la realización del Proyecto, JICA extenderá ayudas necesarias al Gobierno receptor en los procesos de licitación, contrato, etc.

2. Estudio de Diseño Básico

1) Contenido del Estudio

El Estudio de Diseño Básico conducido por JICA está destinado a proporcionar el documento básico necesario para que el Gobierno del Japón evalúe si el Proyecto es viable o no para el sistema de la Cooperación Financiera No Reembolsable del Japón. El contenido del Estudio incluye:



- a) confirmación de los antecedentes, el objetivo, la eficiencia del Proyecto, y la capacidad de la organización responsable para la administración y mantenimiento del Proyecto.
- b) examen de la viabilidad técnica y socio-económica.
- c) confirmación del concepto básico del Plan Optimo del Proyecto a través de la mutua deliberación con el país receptor.
- d) preparación del Diseño Básico del Proyecto.
- e) estimación del costo del Proyecto.

El contenido del Proyecto aprobado arriba mencionado no necesariamente coincide totalmente con la Solicitud original, sino que se confirma en consideración al esquema de la Cooperación Financiera No Reembolsable.

Al realizar el Proyecto bajo la Cooperación Financiera No Reembolsable, el Gobierno del Japón desea que el Gobierno del país receptor tome todas las medidas necesarias para promover su auto-suficiencia. Esas medidas deberán asegurarse aunque estén fuera de la jurisdicción de la entidad ejecutora del Proyecto en el país receptor. Por lo tanto, la ejecución del Proyecto es confirmada por todas las organizaciones relevantes en el país receptor mediante las Minutas de las Discusiones.

2) Selección de la compañía consultora

Al realizar el Estudio, JICA selecciona una de las compañías consultoras - entre aquellas registradas en JICA - mediante una licitación en la que presentan sus propuestas. La compañía seleccionada realiza el Estudio de Diseño Básico y elabora el Informe bajo la supervisión de JICA. Después de la firma de Canje de Notas, con el fin de asegurar coherencia técnica entre el Diseño Básico y el Diseño Detallado, JICA recomienda al país receptor emplear la misma compañía consultora que se hizo cargo del Diseño Básico para el Diseño Detallado y supervisión de la realización del Proyecto.

3. Esquema de la Cooperación Financiera No Reembolsable

1) Cooperación Financiera No Reembolsable

La Cooperación Financiera No Reembolsable consiste en la donación de fondos que no requiere la obligación de reembolso por parte de los países receptores, y permiten a través del fondo adquirir equipos, materiales y servicios (servicios técnicos, transportes, etc.) necesarios para el desarrollo económico y social de los países, bajo las normas siguientes y las leyes relacionadas del Japón. La Cooperación no se extiende a donaciones en especie.

2) Firma de Canje de Notas

En la realización de la Cooperación Financiera No Reembolsable, se necesita el acuerdo y la firma del Canje de Notas (C/N) entre ambos gobiernos. En el C/N se aclaran el objetivo, el periodo efectivo de la donación, las condiciones de realización y el límite del monto de la donación.



3) Periodo de ejecución

El periodo efectivo de la donación debe ser dentro del mismo año fiscal del Japón (del 1 de abril hasta el 31 de marzo del siguiente año) en el que el Gabinete aprobó la cooperación. Durante este periodo debe concluirse todo el proceso desde la firma del C/N hasta el contrato con la compañía consultora o constructora, incluyendo el pago final.

Sin embargo, en el caso de un retraso en el transporte, instalación o construcción por la condición de clima u otros, existe la posibilidad de prolongar a lo más por un año (un año fiscal) previa consulta entre ambos gobiernos.

4) Adquisición de los productos y servicios

La Cooperación Financiera No Reembolsable será utilizada apropiadamente por el Gobierno del país receptor para la adquisición de los productos japoneses o del país receptor y los servicios de nacionales japoneses y nacionales del país receptor para la ejecución del Proyecto: (El Término "nacionales japoneses" significa personas físicas japonesas o personas jurídicas japonesas controladas por personas físicas japonesas.)

No obstante, lo arriba mencionado, la Cooperación Financiera No Reembolsable podrá ser utilizada, cuando los dos Gobiernos lo estimen necesario, para la adquisición de productos de terceros países (excepto Japón y el país receptor) y los servicios para el transporte que no sean de los nacionales japoneses ni de nacionales del país receptor.

Sin embargo, considerando el esquema de la donación del Japón, los contratistas principales para la ejecución del Proyecto como consultores, constructores y proveedores deberán ser nacionales japoneses.

5) Necesidad de Verificación

El Gobierno del país receptor o la autoridad designada por él, concertará contratos, en yenes japoneses, con nacionales japoneses. A fin de ser aceptable, tales contratos deberán ser verificados por el Gobierno del Japón. Esta verificación se debe a que el fondo de Donación proviene de los impuestos generales de los nacionales japoneses.

6) Responsabilidad del Gobierno Receptor

El Gobierno del país receptor tomará las medidas necesarias como sigue:

a) asegurar la adquisición y preparación del terreno necesario para los lugares del Proyecto, y limpiar y nivelar terreno previamente al inicio de los trabajos de construcción.

b) proveer de instalaciones para la distribución de electricidad, suministro de agua, el sistema de desagüe y otras instalaciones adicionales dentro y fuera de los lugares del Proyecto.



c) proporcionar los edificios y los espacios necesarios en caso de que el Proyecto incluya la provisión de equipos.

d) asegurar todos los gastos y la pronta ejecución del desembarco y despacho aduanero en el país receptor y en el transporte interno de los productos adquiridos bajo la Cooperación Financiera No Reembolsable.

e) eximir del pago de derechos aduaneros, impuestos internos y otras cargas fiscales que se impongan a los nacionales japoneses en el país receptor con respecto al suministro de los productos y los servicios bajo los Contratos Verificados.

f) otorgar a nacionales japoneses, cuyos servicios sean requeridos en conexión con el suministro de los productos y los servicios bajo los Contratos Verificados, las facilidades necesarias para su ingreso y estadía en el país receptor para el desempeño de sus funciones.

7) Uso Adecuado

El país receptor deberá asegurar que las instalaciones construidas y los productos adquiridos bajo la Cooperación Financiera No Reembolsable sean debida y efectivamente mantenidos y utilizados asignando el personal necesario para la ejecución del Proyecto.

Deberá también sufragar todos otros gastos necesarios, a excepción de aquellos gastos a ser cubiertos por la Donación.

8) Reexportación

Los productos adquiridos bajo la Cooperación Financiera No Reembolsable no deberán ser reexportados del país receptor.

9) Arreglo Bancario

a) El Gobierno del país receptor o la autoridad designada por él deberá abrir una cuenta bancaria a nombre del Gobierno del país receptor en un banco en el Japón (en adelante, referido como "el Banco"). El Gobierno del Japón llevará a cabo la Cooperación Financiera No Reembolsable efectuando pagos, en yenes japoneses, para cubrir las obligaciones contraídas por el Gobierno del país receptor o la autoridad designada por él, bajo los Contratos Verificados.

b) Los pagos por parte del Japón se efectuarán cuando las solicitudes de pago sean presentadas por el Banco al Gobierno del Japón en virtud de una autorización de pago (A/P) expedida por el Gobierno del país receptor o la autoridad designada por él.



Anexo -4

PRINCIPALES MEDIDAS QUE HAN DE TOMAR AMBOS GOBIERNOS

Item	Descripción	Ser asumido por la Cooperación Financiera No Reembolsable (Parte Japonesa)	Ser asumida por el país receptor
1.	Pagar las siguientes comisiones a un Banco del Japón por los servicios bancarios de conformidad con el Arreglo Bancario (A/B)		
	1) Comisión de aviso de Autorización de Pago (A/P)		■
	2) Comisión de pago		■
2.	Asegurar la pronta ejecución de la descarga y despacho aduanero en el Puerto de desembarque		
	1) Transporte marítimo (aéreo) de los productos desde el Japón hasta el país receptor	■	
	2) Exoneración de impuestos y despacho aduanero de los productos en el puerto de desembarque		■
	3) Transporte interno desde el puerto de desembarque hasta los sitios del Proyecto.		■
3.	Otorgar a los nacionales japoneses cuyos servicios sean requeridos con relación a los suministros de los productos y los servicios bajos el contrato verificado, las facilidades necesarias para su ingreso y estadía en el país receptor.		■
4.	Eximir a los nacionales japoneses de los derechos aduaneros, impuestos internos y otros gravámenes fiscales relacionados con el suministro de los productos y servicios bajo el contrato verificado.		■
5.	Mantener y usar adecuada y efectivamente los equipos suministrados por el Sistema de la Cooperación Financiera No Reembolsable.		■
6.	Hacerse cargo de todos los gastos, que no están incluidos en el Sistema de la Cooperación Financiera No Reembolsable, necesarios para el transporte y la instalación de los equipos.		■

Informe de Distribución (Phase1/Phase2)

Agosto de 2002

Código	Descripción de Producto	Phase1				Phase2				
		Facturado	Ingresado (MNSA)	Distribuido	%	Facturado	Ingresado (MNSA)	Distribuido	%	
		①	②	③	③/②	①	②	③	③/②	
Equipos para PAI. Nebulizadores										
1	vacuna MMR	700.000	700.000	700.000	100.0%	182.000	182.000	182.000	100.0%	
2	vacuna Pentavalente	500.000	500.000	500.000	100.0%	150.000	150.000	150.000	100.0%	
3	jeringas Descartables	120.000	119.000	119.000	100.0%	332.000	332.000	332.000	100.0%	
4	cajas para jeringas	12.000	12.000	12.000	100.0%	3.400	3.390	3.390	100.0%	
5	sistema de refrigeradoras solares fotovoltaicas	30	30	30	100.0%	34	34	34	100.0%	
6	nebulizadores	43	43	43	100.0%	65	65	65	100.0%	
Medicamentos										
1	01010100	bencilpenicilina cristalina (1 Mil. UI)	251.700	251.700	251.700	100.0%	224.000	224.000	222.636	99.4%
2	01010110	bencilpenicilina G procainica (0.8 MUI)	3.131.600	3.131.567	116.678	3.7%	1.182.000	1.182.799	75	0.0%
3	01010120	bencilpenicilina G benzatinica (1.2 MUI)	407.400	407.350	326.803	80.2%	208.000	206.700	119.832	58.0%
4	01010130	dicloxacilina (125mg/ 5 ml)	35.000	35.000	35.015	100.0%	-	-	-	-
5	01010140	amoxicilina (250 mg/5 ml)	16.900	16.900	16.923	100.1%	90.000	90.000	90.000	100.0%
6	01010200	eritromicina Etilsuccinato(250mg/5ml)	25.000	25.000	25.005	100.0%	-	-	-	-
7	01010300	doxiciclina Hiclato(100mg)	485.000	485.000	485.000	100.0%	-	-	-	-
8	01010330	cloranfenicol succinato sodico (1 g)	20.200	20.197	20.197	100.0%	31.000	31.000	3.806	12.3%
9	01010420	gentamicina sulfato (20 mg/ 2 ml)	102.700	102.700	94.142	91.7%	79.000	78.600	28.452	36.2%
0	01010500	trimetoprim sulfametoxazol (40 mg + 200 mg/5 ml), Jarabe	558.100	557.093	586.648	105.3%	500.000	500.014	201.126	40.2%
1	01010510	trimetoprim sulfametoxazol (80 mg + 400 mg)	6.457.000	6.463.420	6.047.195	93.6%	4.023.000	4.018.000	2.849.817	70.9%
2	01010700	nistatina (100,000 UI/1ml)	64.500	64.499	61.773	95.8%	34.000	34.020	34.017	100.0%
3	01010810	cloroquina Fosfato (250mg)	1.600.000	1.600.270	1.610.200	100.6%	-	-	-	-
4	01020620	albendazol (100 mg/ 5 ml)	165.700	165.684	165.683	100.0%	99.000	99.100	99.336	100.2%
5	01020625	albendazol (200 mg)	537.000	537.000	534.000	99.4%	-	-	-	-
6	01030100	salbutamol sulfato (2 mg/5 ml), Jarabe	391.500	391.472	390.118	99.7%	252.000	251.892	86.792	34.5%
7	01030108	salbutamol sulfato (5 mg/1ml, 0.5%)	10.800	10.800	10.815	100.1%	13.000	13.000	6.967	53.6%
8	01060110	hartman solución standard (1000ml)	189.100	189.100	163.332	86.4%	71.000	70.957	23.017	32.4%
9	01060120	cloruro de sodico (1000ml, 0.9%)	40.000	40.000	40.000	100.0%	-	-	-	-
0	01060300	agua destilada (10ml)	1.000.000	998.446	998.979	100.1%	-	-	-	-
1	01060540	solución electrolitos orales	3.174.500	3.174.500	2.388.243	74.6%	1.677.000	1.678.360	1.027.078	61.2%
2	01100600	ritodrina clorhidrato (10 mg/1ml)	4.700	4.697	1.554	33.1%	5.000	5.000	5.000	100.0%
3	01120100	oxitetraciclina 1%	300.000	300.000	301.018	100.3%	-	-	-	-
4	01130500	acido salicilico+vaselina(5%)	320.000	319.942	323.015	101.0%	-	-	-	-
5	01160210	paracetamol (100 mg/ml)	829.900	830.463	815.494	98.2%	582.000	582.703	391.097	67.1%
6	01160216	paracetamol (500 mg)	1.000.000	1.000.000	1.000.000	100.0%	-	-	-	-
7	01170100	dexametasona fosfato sodico (4 mg/ 2 ml)	34.400	34.400	34.390	100.0%	59.000	58.997	36.211	61.4%
3	01170120	prednisona (5 mg)	-	-	-	-	757.000	756.990	754.798	99.7%
3	01050120	sulfato ferroso, hierro elemental (15 mg/ 0.6 ml)	3.157.000	3.156.686	3.274.244	103.7%	3.655.000	3.658.986	540	0.0%
3	01150120	retinol/ vitamina A (25.000 UI/ gota)	17.100	16.900	16.900	100.0%	19.000	19.000	13.415	70.6%

ta: 1. La diferencia entre el facturado y el ingresado MNSA se debe a los daños ocasionados en el transporte y la discrepancia entre la cantidad entregada del fabricante y el ingreso confirmado por MNSA.

2. Los items en color gris son los medicamentos para AIEPI

5. Obtained Reference Data

1. Política Nacional de Salud 1997 – 2002
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3. Plan Institucional de Salud 2001 – 2002
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4. Estrategia Reforzada de Crecimiento Económico y Reducción de Pobreza
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6. Cuentas Nacionales en Salud Informe 1997 – 1999
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Dic. 2001. 72 pag.
7. Encuesta Nicaragüense de Demografía y Salud 1998
Instituto Nacional de Estadísticas y Censos. Ministerio de Salud
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8. Segunda Encuesta Nacional de Micronutrientes (II ENM 2000) Resumen Ejecutivo
República de Nicaragua. Ministerio de Salud.
9. Estimaciones de Población Año 2002
República de Nicaragua. Ministerio de Salud. División General de Planificación y Desarrollo. Oficina de Estadísticas.
Jul. 2001
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11. Indicadores Básicos en salud 2001
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2001. 70 pag.

13. Clasificación de Motivos de Consulta en el primer Nivel de Atención
República de Nicaragua. Ministerio de Salud. Dirección General de Sistemas de Información
Jan. 1995

Appendix 6

6. Inventory List of Solar Refrigerators

SILAIS	Municipio	Health Facility	Quantity	Source of Revenue	
BOACO	CAMOAPA	P/S LA EMBAJADA	1	PAHO	
		P/S YALWAS	1	FSS	
		P/S LA CALAMIDAD	1	Japan	
	BOACO		P/S SN JOSE DE LA VEGA	1	FSS
	S.J. REMATE		P/S LOS BAJOS DE TOMATOYA	1	FSS
	TEUSTEPE		P/S SAN JERONIMO	1	FSS
			P/S LA LAGUNA	1	FSS
			P/S LAS CANITAS	1	FSS
		P/S LA CUESTA DEL RESARIO	1	FSS	
CARAZO	STA. TERESA	P/S EL SOL	1	FSS	
		P/S LA PITA DEL CARMEN	1	Japan	
		P/S PASO DE LA SOLERA	1	FSS	
CHINANDEGA	POSOLTEGA	P/S LOS ZANJONES	1	Prosilais	
	SN FCO DEL NORTE	P/S GUASIMAL	1	Prosilais	
	EL VIEJO	P/S LA CURVA	1	Prosilais	
		P/S COSIGUINA	1	Prosilais	
		P/S EL BEJUCO	1	Prosilais	
		P/S MECHAPA	1	FSS	
CHONTALES	SANTO DOMINGO	P/S EL JOBITO	1	Nederland	
		P/S LOS CHINAMOS	1	Unidentified	
		P/S EL AYOTE	1	Nederland	
	ACOYAMA	P/S SAN FELIPE	1	FSS	
		P/S EL ZAPOTE	1	Unidentified	
	LA LIBERTAD	P/S BETULIA	1	FSS	
	JUIGALPA	P/S EL JUSTE	1	FSS	
	NUEVA GUINEA	P/S LA UNIÓN	1	Nederland	
		P/S FONSECA	1	Unidentified	
		P/S SERRANO	1	Unidentified	
	VILLA SANDINO	P/S COLONIA RIO RAMA	1	Unidentified	
	STO. TOMAS	P/S EL JICARITO	1	FSS	
		P/S EL GUABO	1	Unidentified	
	RAMA	P/S WAPI	1	Nederland	
		P/S MOVIL	1	Unidentified	
		P/S CANO DE GARCIA	1	Unidentified	
		P/S LAS IGUANAS	1	Nederland	
	ESTELI	SAN NICOLAS	P/S EL JICARO	1	Japan
P/S SANTA CLARA			1	Japan	
CONDEGA		P/S VENECIA	1	Japan	
		P/S SAN JOSE DE PIRE	1	MINSA	
LA TRINIDAD		P/S CHAGUITE BLANO	1	MINSA	
LIMAY		P/S GUANACASTON	1	MINSA	
		P/S LOS ENCUENTROS	1	FSS	
GRANADA	GRANADA	P/S MOMBACHO	1	Japan	
JINOTEGA	WIWILI	P/S PLAN DE GRAMMA	1	Prosilais	
		P/S SAN ANDRÉS	1	PAHO	
		P/S WAMBLAN	1	Prosilais	
		P/S EL CARMEN	1	Japan	
		P/S WALAKITAN	1	Japan	
		P/S YACALPANANI	1	Japan	
		P/S MALECONCITO	1	Japan	
			P/S EL COYOLITO	1	Unidentified
			P/S PITA DEL CARMEN	1	Japan
		P/S EL BOTE	1	Japan	
	BOCAY	P/S WISO	1	PAHO	
		P/S AYAPAL	1	Japan	
		P/S AMAKA	1	Japan	
		P/S PEDERNALESW -(el tigre)	1	Japan	
	PANTASMA	P/S PLANESA DE VILAN	1	Japan	
		P/S JIQUELITE	1	Unidentified	

SILAIS	Municipio	Health Facility	Quantity	Source of Revenue	
LEON	SAUCE	P/S SALALES	1	Japan	
		P/S VALLE DE SAN ANTONIO	1	Japan	
	ACHUAPA	P/S EL BARRO	1	Japan	
MADRIZ	SN JUAN RIO COCO	P/S SN JOSE DEL OJOCHE	1	Prosilais	
		P/S SAN LUCAS	1	FSS	
	CUSMAPA	P/S CARRIZO	1	Japan	
	TELPANECA	P/S SANTO DOMINGO	1	FSS	
	TOTOGALPA	P/S CUJE	1	Prosilais	
MATAGALPA	MATAGALPA	P/S JUCUAPA ABAJO	1	Alcaldia	
	MATIGUAS	P/S PANCASAN	1	A.E.Health	
		P/S JOBO	1	E.U.	
		P/S LIKIA	1	E.U.	
	DARIO	P/S TOTUMBLA	1	PAHO	
		P/S CASA VIEJA	1	FSS	
		P/S TRUJILLO	1	Prosilais	
	DARIA	P/S GUAPOTAL	1	Prosilais	
		P/S LA TRONCA	1	Prosilais	
	RANCHO GRANDE	P/S KUSKAWAS	1	A.E.Health	
	SEBACO	P/S AGUA SARCAS	1	A.E.Health	
	PAIWAS	P/S UBU NORTE	1	Prosilais	
	SAN DIONISIO	P/S EL CARRIZAL	1	Prosilais	
	RIO BLANCO	P/S MULUKUKU	1	PAHO	
		P/S SAN ANDRES	1	Japan	
		P/S WANAWAS	1	Japan	
		WASLALA	P/S ZINICA	1	Japan
			P/S PUERTO VIEJO	1	FSS
			P/S EL NARANJO	1	Prosilais
	P/S KUBALI		1	FSS	
	UNEVA SEGOVIA	WIWILI	P/S BANASITO	1	Japan
QUILALI		P/S SAN BARTOLO	1	Prosilais	
		P/S EL COCO	1	Prosilais	
		P/S PANALI	1	Prosilais	
JICARO		P/S LOS ENCINOS	1	FSS	
		P/S SAN GERONIMO	1	FSS	
JALAPA		P/S ESCAMBRAY	1	FSS	
		P/S LA FLORECIDA	1	FSS	
		P/S TERRERIOS	1	FSS	
MOZONTE		P/S SAN ANTONIO	1	FSS	
MURRA		P/S SAN PABLO	1	FSS	
		P/S EL ROSARIO	1	Prosilais	
R.A.A.N		WASPAN	P/S SAN CARLOS	1	MINSA
			P/S ANDRES	1	MINSA
	P/S BILWASKARMA		1	R.Cross	
	P/S RAITHI		1	Japan	
	P/S BISBONA		1	Japan	
	P/S FRANCIA SIRPI		1	Japan	
	P/S SAN GERONIMO		1	Japan	
	SIUNA		P/S LA QUEBRADA	1	Japan
			P/S EL HORMIGUERO	1	Japan
			P/S EL GUINEO	1	Japan
		P/S COPERNA	1	Japan	
		P/S SIKILTA	1	Japan	
		P/S SANTA RITA	1	Japan	
		P/S PRINZAPOLKA	1	Japan	
	PUERTO CABEZAS	P/S NINA YURI / SANDY BY	1	Japan	
		P/S YULO	1	Japan	
		P/S SANTA MARTHA	1	Japan	
	BONANZA	P/S MUSAWAS	1	Japan	
		P/S KUABHUL	1	Japan	
	ROSITA	P/S EL EMPALME	1	Japan	
		P/S ALAMIKAMBA	1	Japan	
		P/S WASAKIN	1	Japan	
		P/S SAHSA	1	Japan	
P/S SANTA MARIA		1	Japan		

SILAIS	Municipio	Health Facility	Quantity	Source of Revenue
R.A.A.S	GRANDE	P/S AUSBERTO GUTIERREZ	1	Prosilais
		P/S MAKANTAKA	1	Japan
		P/S AGUSTIN WING CHONG	1	Japan
	BLUEFIELDS	P/S SAN FCO. KUKRA RIVER	1	Japan
		P/S PUNTA GORDA	1	Japan
	TORTUGUERO	P/S ORINOCO	1	Prosilais
		P/S PUEBLO NUEVO	1	Japan
		C/S MIGUEL ANGEL PLAZAOLA	1	Prosilais
	KUKRA HILL KARAWALA	P/S BIG LAGOON	1	Japan
		P/S MILDRED GOMEZ S.	1	Prosilais
		P/S ERNESTO SEQUEILRA	1	Japan
	LAGUNA DE PERLA	C/S PERLA MARIA NORORI	1	Prosilais
		P/S TASPAPAUNI	1	Prosilais
RIO SAN JUAN	MARRITO	P/S MAYASAN	1	Japan
	SAN MIGUELITO	P/S LA CONQUISTA	1	Japan
	SAN CARLOS	P/S MEXICO	1	Japan
		P/S ELVIS CHAVARRIA	1	Japan
		P/S PAPATURRO	1	Japan
		P/S MATA DE CANA	1	Japan
		P/S LAS COLINAS	1	Japan
	EL CASTILLO	P/S BUENA VISTA	1	Japan
		P/S SAN JUAN DEL NORTE	1	Japan
		P/S BUENA VISTA	1	PAHO
		P/S LAS MARAVILLAS	1	PAHO
		P/S EL GUASIMO	1	PAHO
RIVAS	CARDENAS	P/S COLON	1	Japan
	OMETEPE	P/S PALMA	1	Japan
		P/S TICHANA	1	Japan
TOTAL			151	
Remark	PAHO: Pan American Health Organization FSS: Fondos Sociales Suplementarios Prosilais: Sweden/UNICEF/OPS A.E. Health: NGO in USA			

7. Inventory List of Nebulizers

*The cell with pattern is the facility in where nebulizer is installed

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
BOACO	BOACO	C/S Ramón Guillen Navarro	1	1	MINSA	Good	
		C/S Ramón Tolodo		1	HOPE	Good	
		P/S Tierra Azul	1				
		P/S San Buenaventura		1	HOPE	Good	
		P/S Santa Elisa	1	1	HOPE	Good	
		P/S Yula Sacal		1	MINSA	Good	
		P/S El Paraisito	1				
		P/S Boaco Viejo	1				
		P/S Las Lagunas	1				
	HP José Nieborowsky	2					
	CAMOAPA	C/S San Francisco		1	1	HOPE	Good
		P/S La Embajada	1	1	PROSALUD	Good	
		P/S Las Lajas	1		MINSA	Good	
		P/S La Calamidad	1				
	SAN JOSE DE LOS REMATES	C/S San José de los Remates		1	1	HOPE	Good
		P/S Cumica Sur		1	1	Banco Mundial	Good
	SANTA LUCIA	C/S Santa Lucía	1	3	ACSUR Segovia	Good2, Out of order1	
		P/S Boaquillo		1	HOPE	Good	
	TEUSTEPE	C/S Teustepe(Santa Rita)	1	1	HOPE	Good	
		P/S El Empalme	1	1	Banco Mundial	Out of order	
		P/S El Empalme	1	1	Banco Mundial	Out of order	
	SAN LORENZO	C/S Amed Campos		2	1	PROSALUD	Good
				1	1	Japan	Good
			1	1	HOPE	Good	
			1	1	Banco Mundial	Good	
P/S El Rito		1					
P/S Tecolostote		1					
	P/S San Lorenzo	1					
	P/S Miramontes	1					
	HOSPITAL						
Subtotal			18	22			
CARAZO	DIRIAMBÁ	C/S Diríamba	2	1	PSMI	Out of order	
		P/S Buena Vista del Norte	1				
		P/S San Gregorio	1	1	PSMI	Good	
		P/S Casares	1				
		P/S La Trinidad	1				
	DOLORES	C/S Dolores	1	1	PSMI	Good	
	JINOTEPE	C/S Pedro Narváz Cisneros		4	1	PSMI	Good3, Out of order1
		P/S Ana Virgen Noble	1	1	PSMI	Out of order	
		P/S Guisquilapa	1	1	PSMI	Out of order	
		P/S Villa Madre Proletaria	1	1	PSMI	Out of order	
		P/S Huehuate	1	1	PSMI	Out of order	
		P/S Román Esteban	1	1	PSMI	Out of order	
		P/S El Aguacate	1	1	PSMI	Out of order	
	LA CONQUISTA	C/S La Conquista	1	1	PSMI	Good	
	LA PAZ DE CARAZO	C/S La Paz de Carazo	1	1	PSMI	Out of order	
		P/S Esquipulas		1	Plan International	Good	
	EL ROSARIO	C/S El Rosario	1	1	CEPS	Good	
					PSMI	Out of order	
	SAN MARCOS	C/S S. F. Vivas(San Marcos)	1	1	Halmond Holanda	Good	
		P/S La Cruz	1	1	PAPSR	Out of order	
		P/S Marvín Corrales		1	Inhabitant	Good	
				1	PSMI	Out of order	
P/S Dulce Nombre de Jesús		1	1	PSMI	Out of order		
	P/S Fátima		1	Halmond Holanda	Good		
SANTA TERESA	C/S Santa Teresa	1	1	PSMI	Good		
	P/S El Sol	1					
	P/S San José de Gracia		1	PSMI	Good		
Subtotal			21	26			

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition
CHINANDEGA	CINCO PINOS	C/S Luis Felipe Moncada	1			
	CORINTO	C/S José Shendel	1	4	Japan	Good3, Out of order1
		P/S Jesús de la Buena Esperanza	1			
		P/S José Shendel	1			
		P/S Rotterdam	1			
	CHICHIGALPA	C/S Julio Duran	1	2	Japan	Good
		La Cruz	1			
		P/S Wells	1			
		P/S Erick Ramirez	1			
		P/S El Pellizco	1			
		P/S Sirama	1			
	CHINANDEGA	C/S Villa 15 de Julio	1	1	Japan	Good
		C/S Roberto Cortés	1			
		P/S Mauricio Martínez	1			
		P/S Macao	1			
		P/S Belén	1			
		P/S Roberto González	1			
		P/S Florida	1			
		P/S El Rosario	1			
		P/S Ranchería	1			
		P/S Carlos Fonseca	1			
		P/S Héroes y Mártires del Calvario	1			
		P/S Pedro J. Chamorro	1			
	P/S 12 de Septiembre	1				
	EL REALEJO	C/S El Realejo	1			
		P/S Terecinto Munguía	1			
		P/S La Bascula	1			
		P/S Alemania Federal	1			
	EL VIEJO	C/S Teodoro King	1	1	Japan	Good
		C/S José Rubí	1	1	Japan	Good
		P/S Tom Valle	1			
		P/S Kilaka	1			
		P/S Los Kilómetros	1			
		P/S El Pastoral	1			
		P/S El Bejuco	1			
		P/S Esquipulas	1			
		P/S Aristides Rodríguez	1			
		P/S Lucrecia Lindo	1			
		P/S Río Chiquito	1			
		P/S Gancho de la Mona	1			
	POSOLTEGA	C/S Carlos M. Jarquín	1			
		P/S Juan XXXIII	1			
		P/S Zanjones	1			
		P/S Bethesda	1			
		P/S El Tololar	1			
		P/S Edwin Castro	1			
		P/S La Virgen	1			
P/S Tanque	1					
PUERTO MORAZAN	C/S Tonalá	1				
	P/S Puerto Morazan	1				
SAN FRANCISCO DEL	C/S Roberto Cortés	1				
SAN PEDRO DEL NORTE	C/S Germán Pomares Ordoñez	1	1	Japan	Good	
	P/S El Chaparral	1				
SANTO TOMAS DEL NORTE	C/S Santo Tomas del Norte	1				
	P/S Paso Hondo	1				
SOMOTILLO	C/S Raymundo García	1	2	Japan	Good1, Out of order1	
	P/S San Antonio	1				
	P/S Las Mesitas	1				
	P/S Los Limones	1				
VILLA NUEVA	C/S Carolina Osejo	1	1	Japan	Good	
	P/S Hermanos Sorianos	1				
	P/S Evelio Salazar	1				
	P/S Valerio Andino	1				
	P/S El Bonete	1				
	P/S Mauricio Demier	1				
	P/S Lucila Betanco	1				
	P/S Fe y Alegria	1				
	P/S Vicente Alvarez	1				
HOSPITAL	HP España		5	Japan	Good	
	HP Mauricio Abdalah		1	Japan	Good	
Subtotal			66	19		

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
CHONTALES	ACOYAPA	C/S Acoyapa		1	Japan	Good	
		P/S Zona D Acoyapa	1				
	COMALAPA	C/S Coma Lapa			4	Roman Catholic Church	Good
		C/S Carlos Huembes(Esperanza)	1	1		Japan	Good
	EL RAMA	C/S El Rama	1				
		P/S San Isidro	1				
		C/S Adan Barillas Huele	1	1		Japan	Good
	JUIGALPA	P/S Zona # 4	1				
		P/S San Francisco Zona # 1	1				
		C/S La Libertad	1	1		Japan	Good
	MUELLE DE LOS BUEYES	C/S Muelle de los Bueyes	1	1		Japan	Good
		P/S Daniel Amador (La Batea)	1	1		USARMY	Good
		P/S Prealla	1				
	NUEVA GUINEA	C/S Jacinto Hernández	1	1			Good
				1		Ayuda en Accion	Good
				1		HOPE	Good
				5		MINSA	Out of order
		P/S Naciones Unidas	1				
		P/S El Verdum	1				
		P/S Los Angeles	1				
		P/S La Unión	1				
		P/S Zona 7	1				
	P/S Zona 5	1					
	P/S San Antonio	1					
	P/S Yolaina	1					
	CUAPA	C/S Cuapa			1	Japan	Good
					1	HOPE	Good
					1	Roman Catholic Church	Good
EL CORAL	P/S El Coral			1	HOPE	Good	
	P/S Los Santos	1					
EL AYOTE	C/S El Ayote	1	1		Japan	Good	
				1	FORSAP	Good	
SAN PEDRO DE LOVAGO	C/S San Pedro de Lovago	1	1		HOPE	Good	
	P/S Bulum						
SANTO DOMINGO	C/S Santo Domingo	1	1		HOPE	Good	
	P/S Los Chinamos	1					
SANTO TOMAS	C/S José Ramón González		1		Japan	Good	
			2		Funds on hand	Good1, Out of order1	
			1		FORSAP	Good	
			1		HOPE	Good	
VILLA SAN FRANCISCO (VILLA SANDINO)	C/S La Gateada	1	1		Japan	Good	
	C/S Villa Sandino	1	1		Plan International	Good	
	P/S Muhan	1					
	P/S Villa San Francisco	1					
Subtotal			28	33			
ESTELI	ESTELI	C/S Leonel Rugama(Esteli)	2				
		P/S Santa Cruz	1				
		P/S Eduardo Selva	1				
		P/S Oscar Gamez	1				
		P/S Héroes y Mártires del Ros.	1				
		P/S Melania Florian	1				
		P/S El Regadio	1				
	LA TRINIDAD	C/S Fátima Pavón		2		FSS	Good
				1		Japan	Good
	PUEBLO NUEVO	P/S San Francisco	1	1		FSS	Good
		C/S Celia Sánchez	1	1		Japan	
				1		OPS	
		P/S Guasuyuca Pueblo Nuevo	1	1		FSS	
		P/S La Peva	1			FSS	
	CONDEGA	P/S Los Llanos	1	1		FSS	
		C/S Ada María López		1		Japan	Good
				1		FSS	Good
		P/S El Jocote	1				
		P/S La Laguna	1				
	SAN JUAN DE LIMAY	P/S San José de Pire	1	1		FSS	Good
		P/S Santa Teresa		1		FSS	Good
C/S Herminio Maldonado (Limay)		2	1		FSS	Good	
SAN NICOLAS	C/S Germán Pomares	2	2		FSS	Good	
Subtotal			21	16			

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
GRANADA	DIRIA	C/S Virgen de los Desamparad.	1	1	Banco Mundial	Good	
		C/S Con Cama		3	Actores sociales	Good2, Out of order1	
	DIRIOMO	C/S Pedro Aracruz Palacios	1	1	Visión Mundial	Good	
		P/S Guanacaste	1	1	Actor Social	Out of order	
	GRANADA	C/S Pedro José Chamorro(Palmira)		1	2	Banco Mundial	Good1, Out of order1
			C/S Jorge Sinfaroso Bravo		2	Banco Mundial	Good
				2	PMSS	Good	
		C/S HYM		1	Banco Mundial	Good	
		P/S Pancasan	1				
		P/S El Sillio	1	1	PMSS		
		P/S Malacatoya		1	Banco Mundial	Praciente	
		P/S El Rosario	1				
	P/S Caracolito		1	PMSS			
P/S Capullín # 2		1	PMSS				
P/S El Diamante	1						
NANDAIME	C/S M. Carmelo(Carrasquilla)	1					
HOSPITAL		4	1	Japan	Good		
Subtotal			13	19			
JINOTEGA	CUA - BOCAJ (EL CUA)	C/S Héroes y Mártires		1	Japan	Good	
		P/S El Bote	1				
		P/S Santa Rosa	1				
		P/S Abisinia	1				
		P/S Pedernales	1				
		P/S La Lana	1				
		P/S El Golfo	1				
		P/S Bacayate	1				
	P/S La Pita	1					
	CUA - BOCAJ (SAN JOSE DE BOCAJ)	C/S Ambrosio Mogorron		1	1	Japan	Good
		P/S El Cedro	1				
		P/S El Ayapal	1				
		P/S El Tigre	1				
	JINOTEGA	C/S Antonio Lenin Fonseca	1				
		P/S Mancotal	1				
		P/S Siale	1				
		P/S Llano de la Tejera	1				
		P/S Ernesto Acuña	1				
		P/S La Fundadora	1				
		P/S La Reforma	1				
	P/S El Naranjo	1					
	LA CONCORDIA	C/S Flor de María Chavarría	1	1	1	Japan	Good
		P/S El Coyolito	1				
P/S Las Quebradas		1					
SAN SEBASTIAN DE YALI	C/S Nelson Rodríguez	1	1	1	Japan	Good	
	P/S Bijagual	1					
	P/S La Rica	1					
SAN RAFAEL DEL NORTE	C/S Odorico de Andrea	1	1	1	Japan	Good	
	P/S San Marcos	1					
	P/S El Plantel	1					
SANTA MARIA DE PANTASMA	C/S Adelina Ortega	1	1	1	Japan	Good	
	P/S Planes de Vilan	1					
	P/S Loma Alta	1					
	P/S Zompopera	1					
P/S Jiquelete	1						
WIWILI	C/S Jorge Navarro(Wiwill)	1					
	P/S El Carmen	1					
	P/S San Andrés	1					
	P/S Wamblan	1					
	P/S Malecón	1					
	P/S Plan de Grama	1					
P/S Yakalpanani	1						
HOSPITAL				2	Japan		
Subtotal			39	8			

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition
LEON	ACHUAPA	C/S Juan Rafael Rocha		1	Alcaldía-UTREH Holanda	Out of order
				1	Japan	Good
	EL JICARAL	C/S El Jicaral	1	1	Alcaldía-UTREH Holanda	Out of order
		P/S Los Zarzales		1	UNICEF	Good
		P/S Pagro Nica	1			
	EL SAUCE	C/S El Sauce		1	Alcaldía-UTREH Holanda	Good4, Out of order1
				1	OPS	
				3	Rochester-FETSALUD	
				1	Japan	Good
		P/S Los Planes		1	Rochester-FETSALUD	
		P/S Río Grande		1	Rochester-FETSALUD	
		P/S Sabana Grande		1	Rochester-FETSALUD	
	LA PAZ CENTRO	C/S Zona # 1		1	Japan	Good
				1	Alcaldía-UTREH Holanda	Out of order
				1	Médicos sin Fronteras	Good
		P/S Eddy Rizo - El Papalonar		1	FSS	Good
		P/S El Papalote		1	Alcaldía-UTREH Holanda	Good
		P/S Sabaneta		1	Save the children	
		P/S Zona # 2 Raúl Cabezas		1	FSS	Good
		P/S Noel Solís Ponce-EI Tama.	1			
	P/S Tecuaname		1	Proyecto Hamerz	Good	
	P/S Momotombo	1				
LARREYNAGA (MINA LIMON)	C/S Roberto Cortés Mina Limón		1	UNICEF	Out of order	
			1	Alcaldía-UTREH Holanda	Good	
	P/S Las Lomas de Tolapa					
	P/S San Miguelito					
	P/S Gallao		1	UNICEF	Good	
	P/S Santa Pancha		1	UNICEF	Good	
(MALPAISILLO)	C/S Fanor Urroz Malpaisillo		1			
			1			
			1			
	P/S Los Terreros		1			
	P/S El Valle de las Zapatas	1				
	P/S El Barro		1			
NAGAROTE	C/S Raúl Vargas	1	1	Alcaldía-UTREH Holanda	Out of order	
			1	Sueños de Luisa	Good	
	P/S San Lorenzo		1	FSS	Good	
	P/S Puerto Sandino	1				
	P/S Transito		1	Inhabitant	Out of order	
LEON	C/S La Recolección					
	C/S Mantica Berrios		2	Alcaldía-UTREH Holanda	Good	
			1	Alcaldía-UTREH Holanda	Good	
			1	Japan	Good	
	C/S Perla María Norori	1	2	Alcaldía-UTREH Holanda	Good	
	P/S Oscar Pérez Casar		1	UNICEF	Good	
	P/S Salinas Grandes	1				
	P/S William Rodríguez		1	UNICEF	Good	
	P/S Calvarito		1	Alcaldía-UTREH Holanda	Good	
	P/S La Providencia		1	Alcaldía-UTREH Holanda	Good	
	P/S William Fonseca		1	Alcaldía-UTREH Holanda	Good	
	P/S La Arrocería		1	Alcaldía-UTREH Holanda	Good	
	P/S Walter Farrety		1	UNICEF	Good	
	P/S Lecheguagos		1	Alcaldía-UTREH Holanda	Good	
	P/S 1ro. de Mayo		1	Alcaldía-UTREH Holanda	Good	
	P/S PoneLOYA		1	Alcaldía-UTREH Holanda	Good	
	P/S La Ceiba		1	Alcaldía-UTREH Holanda	Good	
	P/S Benjamín Zeledón		1	Alcaldía-UTREH Holanda	Good	
	P/S Villa 23 de Julio		1	Alcaldía-UTREH Holanda	Good	
	P/S Fundeci		1	Alcaldía-UTREH Holanda	Good	
	P/S Troilo		1	UNICEF	Good	
	P/S Rubén Darío		1	UNICEF	Good	
	P/S Santa Ana		1	ACSUR	Good	
	P/S Recreo		1	UNICEF	Good	
			1	Alcaldía-UTREH Holanda	Good	
	P/S Sutlava	1	2	Alcaldía-UTREH Holanda	Good	
QUEZALGUAQUE	C/S Martín I. Granera			Alcaldía-UTREH Holanda	Out of order	
			1	UNICEF	Good	
	P/S Las Mercedes		1	Hermandad de Brookyne	Good	
	P/S Cristo Rey		1	Hermandad de Brookyne	Good	
TELICA	C/S Telica	1	1	Alcaldía-UTREH Holanda	Out of order	
			1	Spain	Good	
	P/S Los Cocos		1	Spain	Good	
	P/S Las Marias		1	Save the Children	Good	
	P/S El Jicaral		1	Save the Children	Good	
	P/S San Jacinto		1	Save the Children	Good	
SANTA ROSA DEL PEÑON	C/S R. P. Tercero(Santa Rosa)		2	UNICEF	Good1, Out of order1	
	P/S Mina la India	1	1	Alcaldía-UTREH Holanda	Good	
HOSPITAL				Japan	Good	
Subtotal			14	75		

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
MADRIZ	LAS SABANAS	C/S Silvia Ferrufino	1	1	PROSILAIS	Good	
	PALACAGUINA	C/S Haydee Meneses	1	1	FSS	Out of order	
		P/S Ducuali	1	1	Japan	Good	
	SAN JOSE DE CUSMAPA	C/S Héroes y Mártires de Cusm	1	1	FSS	Good	
				1	Japan	Good	
	SAN JUAN DE RIO COCO	C/S L. F. Moncada(Rio Coco)	1	1	PROSILAIS	Good	
		P/S San Lucas-San Juan del R.	1	1	FSS	Good	
		P/S El Carmen	1	1	Japan	Good	
	SAN LUCAS SOMOTO	C/S Héroes y Mártires	1	1	PROSILAIS	Out of order	
		C/S Jairo Bismark Moncada	1	1	PROSILAIS	Good	
	TELPA NECA	P/S San Juan de Somoto	1	1	FSS	Good	
		P/S La Playa	1	1			
		C/S Julio Martinez Obando	1	1	PROSILAIS	Good	
	TOTOGALPA			1	1	FSS	Good
		P/S Santo Domingo	1	1	FSS	Good	
P/S Villa Austria		1	1	Japan	Good		
YALAGUINA	C/S Ernesto Che Guevara	1	1	FSS	Good		
HOSPITAL	C/S William Pacheco(Yalaguina)	1	1	PROSILAIS	Out of order		
Subtotal			15	18		Good	
MANAGUA	MANAGUA	C/S Roger Osorio	2				
		C/S Roberto Clemente	2	1	Roman Catholic Church	Good	
		C/S Francisco Morazan	2	1	UAM	Good	
		C/S Francisco Buitrago	1	2	PCI/Funds on hand	Good	
		C/S Sócrates Flores	2	1	Fondos Propios	Good	
		C/S Edgard Land	2	1	Japan	Good	
		C/S Villa Libertad	2	1	GTZ		
					1	Félix Sánchez	Good1, Out of order1
		C/S Silvia Ferrufino	1	1	Japan	Good	
					2	MINSA	Good
		C/S Carlos Rugama	1	4	Vice-ministerio and SILAIS	Good2, Out of order2	
		C/S Pedro Altamirano	1	2	Fondos Propios	Good	
		C/S Allagracia	1	1	Medicos sin Fronteras	Good	
		P/S Walter Ferrell					
		P/S El Recreo					
		P/S Rene Cisneros					
		P/S Barrio 380					
		P/S San Sebastian					
		P/S Cristo el Rosario					
		P/S Monte Tabor					
		P/S Tierra Prometida					
		P/S Edgar Munguia					
		P/S Nejapa					
		P/S Memorial Sandino					
		P/S Camilo Ortega					
		P/S Pochocuape					
		P/S Selim Shible					
		P/S Domkila Lugo					
		P/S Hilario Sanchez					
		P/S Benedito Valverde					
		P/S 19 de Julio					
		P/S Gabriel Cardenal					
		P/S Jorge Dimitrov					
		P/S San José Oriental					
		P/S Martires de Julio					
		P/S Nueva Libia	16	15	MINSA	Good10, Out of order5	
		P/S Santa María de los Angeles			PCI/Funds on hand		
		P/S Ariel Darce			Inhabitant		
		P/S Esquipulas					
		P/S Casa España					
		P/S Sn Isidro de la Cruz Verde					
		P/S Los Ladinos					
		P/S Omar Torrijos					
		P/S 22 de Enero					
		P/S Salomon Moreno					
		P/S Jaguitas					
		P/S José Dolores Estrada					
P/S Camilo Chemorro							
P/S Bertha Diaz							
P/S Waspan Sur							
P/S Villa Miguel Gutierrez							
P/S Oswaldo Manzanares							
P/S El Rodeo							
P/S Sabana Grande							
P/S Americas Uno							
P/S 1ro. De Mayo							
P/S Villa Flor							
P/S Villa San Jacinto							
P/S Manuel Fernandez							
MATEARE	C/S Carlos Lecayo Manzanares	2	2	Spain	Good1, Out of order1		
	P/S Santa Clara	1					

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition
MANAGUA	SAN FRANCISCO LIBRE (FRANCISCO MATAMOROS)	C/S Francisco libre (Francisco Matamores)	1	1	Acción Médica Cristiana	Good
		P/S Las Lomas	1			
		P/S San Roque				
		P/S Larel Galán	1			
		P/S El Mayro				
		P/S San Blas				
	SAN RAFAEL DEL SUR	C/S Ingenio Julio Buitrago	1	2	Cementera Fund of Barceló	Good1, Out of order1
		C/S San Rafael del Sur	2	1		
	TICUANTEPE	P/S Masachapa		1	Japan	Good
		C/S Héroes y Mártires de Ticua.	1	2	Inhabitant	Good1, Out of order1
	TIPITAPA	P/S La Borgoña	1	1		
		C/S Yolanda Mayorga	1	1	Japan Local Community	Good
	VILLA CARLOS	P/S Carlos Fonseca San Benito		2		Good
		P/S Las Mesas de Acicaya				
		P/S Ciudadela				
		P/S Noel Morales				
		P/S Playwood				
		P/S Col. Agrícola				
		P/S Los Laureles				
		P/S A.C. Sandino Edwin Osorio				
P/S Las Maderas		4				
P/S Rubén Ulloa Yuri Ordeñez						
FONSECA	P/S Mauricio Abdalah Zambrano					
	P/S Las Canoas					
	P/S Oreontes Centeno					
VILLA CARLOS	P/S Las Banderas					
	P/S Las Lajas					
FONSECA	P/S Brazil					
	C/S Villa Carlos Fonseca		2	Plan Internacional	Good	
FONSECA	P/S Nandayosay	1				
	P/S El Valle	1				
	P/S Nandayosay					
	P/S El Apante					
	P/S Monte Fresco					
	P/S Samaria	2				
CRUCERO	P/S El Calmito					
	P/S Los Cedros					
CIUDAD SANDINO	P/S El Valle					
	C/S Nuestra Señora de las Vict.	3	3	DANIDA	Out of order3	
	C/S Ciudad Sandino	1	1	Japan	Out of order	
CIUDAD SANDINO	P/S Zona # 7		3	CEPS	Good	
	P/S Zona # 9	2	4	CEPS	Good2, Out of order2	
	P/S Nueva Vida					
Subtotal			59	60		
MASAYA	MASATEPE	C/S Benicio Gutiérrez	1	1	Visión Mundial	Good
		P/S La Colonia	1	1	Japan	Good
		P/S San José de Monte Redon.	1			
		P/S El Arenal	1			
	MASAYA	P/S Cruz Verde	1			
		C/S Alejandro Davila Bolaños		1	Japan	Good
	(MONIMBO)	P/S Las Flores	1			
		C/S Monimbó		1	Japan	Good
		P/S Pacayita	1	2	PSMI	Good
		P/S Francisco Real	1		PMSS	Good
		P/S Aarón Tuckler	1			
		P/S Diriomito	1			
	NANDASMO	P/S Pacayal	1			
		C/S José Napoleón G.	1	1	Banco Mundial	Good
		P/S Vista Alegre	1			
	NINDIRI	P/S Pio XII	1			
		C/S Enrique Cisnes	1	1	PSMI	Out of order
		P/S San Francisco	1	1	MINSA	Out of order
		P/S Buena Vista	1			
		P/S Oscar Danilo Rosales	1			
NIQUINHOMO	P/S Pedro Arauz Palacios	1				
	P/S Rubén Darío					
SAN JUAN DE ORIENTE	C/S Augusto Cesar Sandino		1	Japan	Good	
TISMA	C/S Pedro P. Gutiérrez(Oriente)	1				
	C/S Tisma	1	1	PSMI	Good	
LA CONCEPCION	P/S Las Cortezas	1				
	P/S Santa Cruz	1				
LA CONCEPCION	C/S La Concepción	1	2	Comunidad Europea	Out of order	
	P/S San Juan de la Concepción	1				
Subtotal			25	14		

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
MATAGALPA	CIUDAD DARIO	C/S Rubén Darío		2	FSS	Out of order	
				1	Japan	Good	
		P/S Dulce Nombre de Jesús	1				
		P/S Llanos de Tamalapa	1				
		P/S Las Calabazas	1				
		P/S El Cacao	1				
		P/S Casas Viejas	1				
		P/S El Prado	1				
	P/S Maunica			1	FSS	Out of order	
	P/S Darío 1	1	1		FSS	Out of order	
	ESQUIPULAS	C/S Esquipulas			1	Japan	Good
					1	Ejército Norteamericano	Good
		P/S El Rodeo			1	FSS	Good
		P/S El Portón			1	FSS	Good
		P/S Cumalca			1	FSS	Good
	MATAGALPA	C/S Policlínico Guevara Nárvaez	1	2		FSS	Out of order
					1	Japan	Good
		C/S El Progreso			1	FSS	Good
		C/S Lacayo Farfan			1	Japan	Good
		P/S Primero de Mayo			1	FSS	Good
P/S Juacepa Abajo				1	FSS	Out of order	
P/S Quebrada Honda				1	FSS	Good	
P/S Solingalpa				1	FSS	Good	
P/S El Matasanos				1	Hospital Holy Cross	Out of order	
P/S Paicilla				1	FSS	Good	
P/S La Corneta		1					
P/S Guanuca			1	FSS	Good		
P/S Las Baquillas	1						
MATIGUAS	C/S Matigües			2	Japan		
	P/S Pancasan Matigües			1	FSS(Unión Europea)		
	P/S La Patriota			1	FSS(Unión Europea)		
	P/S Liquila			1	FSS(Unión Europea)		
	P/S El Jobobo			1	FSS(Unión Europea)		
MUY MUY	C/S Muy Muy			2	PROSALUD	Good	
				1	Japan	Good	
				1	FSS	Out of order	
PAIWAS	C/S Emiliano Pérez	1	1		OPS	Out of order	
				1	Japan	Good	
	P/S Juan C. Flores (ubu norte)			1	CARE	Good	
				1	CARE	Good	
RANCHO GRANDE	C/S Rancho Grande			1	CARE	Good	
	P/S Kuskawas			1	PROSALUD	Good	
				1	Japan	Good	
RIO BLANCO	C/S Denis Gutiérrez	1	1		Japan	Out of order	
				1	CARE	Good	
	P/S Mulukuku			1	PROSALUD	Out of order	
SAN DIONISIO	C/S San Dionisio			1	Japan	Good	
				1	FSS	Good	
	P/S Susuli			1	FSS	Good	
SAN ISIDRO	C/S Manuel Orozco	1	1		Japan	Out of order	
				1	Iglesia Evangélica	Good	
	P/S Las Mangas			1	FSS	Good	
	P/S La Planta			1	FSS		
	P/S Santa Rosa			1	FSS	Good	
SAN RAMON	C/S Lucrecia Lindo	1	1		Japan	Out of order	
				1	FSS	Good	
	P/S El Horno			1	FSS	Good	
	P/S Samulall			1	FSS	Good	
	P/S Yasica Sur			1	FSS	Good	
SEBACO	C/S Sebaco	1	1		FSS	Out of order	
				1	Japan	Good	
	P/S Chaguillillo	1					
	P/S La China	1					
	P/S Molino Sur			1	FSS	Good	
	P/S Las Posas	1					
	P/S Sabana Verde	1					
	P/S La Virgen			1	FSS	Good	
TERRABONA	C/S Francisco Bultrago			1	Japan	Good	
	P/S Montaña Grande			1	FSS	Good	
TUMA - LA DALIA	C/S Pierre Cross Jean	1	1		OPS	Out of order	
				1	Japan	Good	
	P/S La Tronca			1	Japan	Good	
	P/S El Tuma	1					
WASLALA	C/S Fidel Ventura			2	Japan	Good 1, Out of order 1	
				2	PROSALUD	Good	
				1	FSS	Good	
				1	CARE	Good	
Subtotal			21	70			

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition	
NUEVA SEGOVIA	CIUDAD ANTIGUA	C/S Leonidas García	1	1	Japan	Good	
	DIPILTO	C/S Ramón Sevilla P/S Dipilto Viejo		1 1			
	EL JICARO	C/S Jicaro			1 2	Japan UNOPS/PNUD	Good Good
		P/S Siapali		1			
		P/S Susucayan		1			
		P/S Mayuca		1			
		P/S El Zapote P/S Guanacastillo		1	1		Good
	JALAPA	C/S Pastor Jimenez			2	FSS	Good
		P/S El Limon		1			
		P/S La Mis		1			
		P/S Teotecacinte			1	FSS	Good1, Out of order1
	MACUELIZO	C/S Vicente Godoy			1	PROSERBI	Good
		P/S Julio Cesar Martínez		1			
	MOSONTE	C/S Héroes y Mártires Nuev. Seg.			1 1	Japan FSS, UNOPS/PNUD & PROSERBI	Good Good2, Out of order1
		P/S Yaraje			1		
		P/S San Antonio			1		
	MURRA	C/S Edwin Barahona(Murra)		1	1	FSS, UNOPS/PNUD	Out of order Out of order
	OCOTAL	C/S José Dolores Estrada			1	FSS	Good
		P/S Luis Castillo		1			
		P/S Nora Astorga		1			
		P/S Joaquín Rivera		1			
P/S Pueblos Unidos			1				
QUILALI	C/S Bello Amanecer			1 2	Japan FSS	Good Good1, Out of order1	
	P/S San Bartolo			1	FSS	Good	
	P/S Palo Grande		1				
SAN FERNANDO	C/S Enoc Ortiz			1 1	Japan FSS, UNOPS/PNUD & PROSERBI	Good Good	
	P/S Ramón Raudales			1			
	P/S German Pomares Ordoñez			1			
SANTA MARIA	C/S Luis Felipe Moncada			1	FFS	Good	
WHWILI	C/S Jorge Navarro			1	Japan	Good	
HOSPITAL			7	1	FFS	Good	
				1	Japan	Good	
Subtotal			21	30			
RAAN	BONANZA	C/S Esteban Jaens Serrano		1	Japan	Good	
		P/S Nueva Esperanza		2	Companeros de la Salud	Good	
	PUERTO CABEZAS	C/S Ernesto Hodgson W.			19	Companeros de la Salud	Good
		P/S Santa Marta			1	Companeros de la Salud	Good
		P/S Clínica Prinzapolka			1	Companeros de la Salud	Good
	ROSITA	C/S Rosario Pravia		1	3	Companeros de la Salud	Good2, Out of order1
		P/S Sahsa			1	Companeros de la Salud	Good
		P/S Allmakamba			2	Japan	Good
	SIUNA	C/S Carlos Centeno			3 1	Japan Companeros de la Salud	Good Good5, Out of order1
		P/S Santa Rita		1		Proyecto de Fortalecimiento	
		P/S Guayabo		1			
		P/S Siquielka		1			
		P/S Quebradas		1			
WASPAN	C/S Oswaldo Padilla		1	4	APS	Good2, Out of order2	
	P/S Tronquera			1	Accion Medica Cristiana	Good	
	P/S San Jerónimo			1	Accion Medica Cristiana	Good	
	P/S San Carlos			1	Cruz Roja Americana	Good	
	P/S Living Kreek			1	Cruz Roja Americana	Good	
	P/S Kisaleya			1	Cruz Roja Americana	Good	
	P/S Saupuka			1	Cruz Roja Americana	Good	
	P/S Andrés Río Coco			1	Accion Medica Cristiana	Good	
	P/S Ralti			1	Accion Medica Cristiana	Good	
HOSPITAL				10	Save the Children	Good	
				5	Companeros de la Salud	Good	
Subtotal			7	66			
RAAS	BLUEFIELDS	C/S Juan Manuel Morales		1			
		P/S Pancasan		1			
		P/S Jeffri Gordon		1			
	CORN ISLAND	C/S Ethel(Corn Island)		1			
		P/S Istila		1			
	KUKRA HILL	C/S Milton Rocha Espinoza			1	Japan	Good
		P/S Samuel Law Palma Africana		1			
		P/S Big Lagoon		1			
		P/S Neysl Rios		1			
	LA CRUZ DEL RIO GRANDE	P/S La Fonseca		1			
		C/S Ausberto Gutiérrez			1		
	LAGUNA DE PERLAS	P/S San Pedro del Norte		1			
		C/S Perla María Norori			1	Japan	Good
TORTUGUERO	P/S Pueblo Nuevo		1				
KARAWALA	C/S Miguel Ángel Plazaola			1	Japan	Good	
HOSPITAL	P/S Sandy Bay		1				
	C/S Ernesto Sequeira		2	1	Japan	Good	
Subtotal			14	4			

SILAIS	Municipio	Health Facility	Requested Quantity	Current Quantity	Source of Revenue	Equipment Condition
RIO SAN JUAN	EL CASTILLO	C/S Camilo Diaz	1	2	FSS	Good1, Out of order1
		P/S Buena Vista	1			
		P/S Esperanza		1	PFSS	Good
		P/S El Castillo		1	Japan	Good
	MORRITO	C/S Morrito		1	FSS	Good
		P/S Walter Acevedo		1	FSS	Good
		P/S Mario Medina Mayezang	1			
		P/S San Bartolo	1			
	SAN CARLOS	C/S Adolfo Largaespada		2	PMSS	Good
		C/S Las Azucenas		1	PMSS	Good
		C/S Los Chiles		1	PMSS	Good
				1	Japan	Good
		P/S La Venada	1			
		P/S Laurel Galan		1	PROSASER	Good
	SAN MIGUELITO	P/S Morrito		1	PFSS	Good
		P/S Nueva Jerusalem		1	PFSS	Good
		P/S Bello Amanecer		1	FSS	Good
C/S Norman Aguilar		1	2	Banco Mundial	Good1, Out of order1	
P/S Miodonio Pérez			1	FSS	Good	
P/S Never Oporta			1	FSS	Good	
EL ALMENDRO	P/S El Tule		1	FSS	Good	
	C/S El Almendro	1	1	FSS	Good	
	P/S La flor	1	1	FORSAP	Out of order	
	P/S Nisperal	1				
HOSPITAL	P/S Caracito		1	FSS	Good	
		3	2	Proyecto Checo	Good2, Out of order2	
			2	Japan		
Subtotal			13	27		
RIVAS	ALTAGRACIA	C/S Altagracia	1	1	Japan	Good
		C/S Merida	1			
		P/S Tichana	1			
		P/S San Marcos	1			
		P/S Urbalte	1	1	Banco Mundial	Out of order
		P/S La Palma	1			
		P/S Balique	1	1	Banco Mundial	Out of order
	BELEN	C/S Héroes y Márt. del 15 de Julio	1	1	Banco Mundial	Good
		P/S Escalante	1			
		P/S Cantimplora	1			
		P/S San Juan Viejo	1			
	BUENOS AIRES	C/S Edwin Camorro(Buenos Aires)	1	1	Cruz Roja Americana	Good
		P/S El Menco		1	Cruz Roja Americana	Good
	CARDENAS	C/S Luis Arroyo Ugarte	1	1	Japan	Good
		P/S Ernesto Guevara/Sapoa	1			
		P/S Colon	1			
	MOYOGALPA	C/S Héroes y Mártires de Ometepe	1	2	Banco Mundial	Good1, Out of order1
		P/S Jaime Marza/San José	1			
		P/S Denis Escorcía/La flor	1			
	POTOSI	C/S Guedalupe	1	1	Japan	Good
		P/S Yamil Rios Ugarte	1			
	RIVAS	C/S Mannin Renner Reyes	1	1	Japan	Good
		P/S Veracruz	1			
		P/S Manuel Castillo	1	1	Banco Mundial	Good
		P/S Martín Santana/La Chocolata	1			
	SAN JORGE	C/S Danella Muñoz	1	2	Banco Mundial	Good1, Out of order1
	SAN JUAN DEL SUR	C/S Gaspar García Laviana		1	Banco Mundial	Good
P/S Héroes y Mártires del Naranjo		1	1	Banco Mundial	Out of order	
TOLA	C/S Camilo Ortega Saavedra		1	Japan	Good	
	P/S Las Salinas		1	Banco Mundial	Good	
	P/S Las Pilas Coyol	1				
	P/S Cañas de García	1				
	P/S G. P. Ordoñez/San Ignacio	1				
	P/S Asentamiento Cuascote	1				
	P/S La Junta	1				
P/S Nancimi		1	Banco Mundial	Good		
Subtotal			31	19		
Total			427	528		

8. Record of Equipment (Phase I & Phase II) and Comparison with Phase III Project

	Item	Phase I	Phase II	Requested Quantity	Phase III	Quantity Plan in this Project	Priority	Remarks
		Quantity	Quantity		Requested Quantity in the Minutes			
EPI equipment, Nebulizer								
1	MR vaccine	-	-	700,000	700,000	0	B	
2	MMR vaccine	700,000	182,000	182,000	182,000	0	C	
3	Pentavalente vaccine	500,000	150,000	150,000	150,000	0	C	
4	Auto-Disable Syringe	120,000	332,000	-	-	-	-	
5	Disposable syringe	-	-	332,000	700,000	0	C	
6	Safety box	12,000	3,400	3,400	7,000	0	C	
7	Solar refrigerator	30	34	20	23	23	A	
8	Solar refrigerator(Large size)	-	-	3	-	-	-	
9	Vaccine carrier	-	-	2,000	2,000	2,000	A	
10	Icepack	-	-	8,000	-	-	-	Icepacks are included in vaccine carrier as accessory
11	Nebulizer	43	65	65	65	65	A	
Medicines								
1	Benzylpenicillin (Penicillin G)	251,700	224,000	200,000	349,200	199,500	A	
2	Benzylpenicillin procaine	3,131,800	1,182,000	1,000,000	1,175,600	1,175,600	B	
3	Benzylpenicillin benzathine	407,400	208,000	215,000	364,600	364,600	A	
4	Dicloxacillin	35,000	-	126,000	219,800	219,800	A	
5	Amoxicillin, Oral suspension	16,900	90,000	125,000	337,800	200,300	A	
6	Amoxicillin, Capsule	-	-	3,500,000	4,901,500	4,901,500	A	
7	Erythromycin	25,000	-	-	-	-	-	
8	Doxycycline	485,000	-	-	-	-	-	
9	Chloramphenicol sodium succinate	20,200	31,000	15,000	34,200	18,800	B	
10	Gentamycin sulfate	102,700	79,000	72,000	177,300	163,400	B	
11	Sulfamethoxazole+Trimethoprim, Syrup	558,100	500,000	420,000	640,900	640,900	B	
12	Sulfamethoxazole+Trimethoprim, Tablet	6,457,000	4,023,000	5,000,000	9,185,800	9,185,800	A	
13	Nystatine	64,500	34,000	48,000	100,000	95,700	A	
14	Chloroquine phosphate	1,600,000	-	1,600,000	8,477,800	8,477,800	A	
15	Albendazole, Suspension	165,700	99,000	90,000	265,700	235,700	A	
16	Albendazole, Tablet 200mg	537,000	-	120,000	-	-	-	
17	Albendazole, Tablet 400mg	-	-	-	1,630,800	1,301,000	A	
18	Salbutamol sulfate (Albuterol), Syrup	391,500	252,000	273,000	431,500	431,500	B	
19	Salbutamol sulfate (Albuterol), Aerosol Inhalation	10,800	13,000	15,000	26,300	26,300	A	
20	Ferrous sulfate	3,157,000	3,655,000	2,000,000	-	-	-	
21	Phytomenadion	-	-	-	36,600	26,300	A	
22	Glucose(Dextrose Monohydrate)	-	-	-	90,500	90,500	A	
22	Ringer-Lactate Solution(Hartman)	189,100	71,000	65,000	109,400	75,200	B	
23	Isotonic sodium chloride solution	40,000	-	45,000	95,900	69,700	A	
24	Water for injection	1,000,000	-	1,215,000	2,034,100	1,948,300	A	
25	Oral rehydration salts (ORS)	3,174,500	1,677,000	1,620,000	2,580,000	2,580,000	A	
26	Oxytocin	-	-	-	40,300	30,100	A	
27	Ritodrine hydrochloride	4,700	5,000	4,500	-	-	-	
28	Tetracycline	300,000	-	-	-	-	-	
29	Benzoic acid + salicylic acid	320,000	-	-	-	-	-	
30	Retinal (VitaminA)	17,100	19,000	12,000	22,200	18,500	A	
31	Paracetamol(acetoaminofen), Oral suspension	829,900	582,000	650,000	961,700	961,700	A	
32	Paracetamol (acetoaminofen), Tablet	1,000,000	-	-	-	-	-	
33	Dexamethasone sodium phosphate	34,400	59,000	25,000	64,400	47,000	A	
34	Hydrocortisone sodium succinate	-	-	-	45,700	25,600	A	
35	Prednisolone	-	757,000	600,000	1,845,800	1,305,700	A	

