

APPENDIX C HYGIENE IMPROVEMENT AND EDUCATION

C.1 Water Supply And Sanitary Condition

C.1.1 Questionnaire Survey on Water Supply and Sanitary Facility in Primary School

Questionnaire survey was conducted to know the condition of water supply and sanitary facilities in the primary school. Sixty-one (61) schools were surveyed in the peri-urban and rural areas of Dili, Aileu and Los Palos. Aileu and Los Palos were selected in order to have a close cooperation with other NGO's program on primary health care projects being conducted. Among the NGO that JICA is supporting and in close cooperation is the health care program of World Vision's for Aileu and the AFMET's for Los Palos.

The survey was carried out and lasted until the end of March 2000 using a questionnaire survey forms handed down to the teachers. The survey includes questions on the outline of the school organizational structure, the extent of damage to school buildings & other facilities caused by the post-referendum violence and the condition of water supply and sanitary facilities in the school. Prior to the survey, consultations were made with UNTAET, UNICEF and NGOs in order to have a general information on the primary schools. As a result, the questionnaire survey form was prepared in the local language Tetum taking into considerations the data and information given by the above-mentioned organizations.

Most of the surveyed schools suffered destruction attributed by the post referendum violence. Doors and windows of the school are broken. The school's furnishings, such as desks and chairs are missing and the students have to sit on the floor during classes. In the Lique DOE sub-district of Aileu, more than half of the schools surveyed was destroyed by fire. As a result, classes are held temporarily in the church or public buildings in the village. The accessibility to these schools by car is difficult due to poor road condition, especially when it rains.

The breakdown of the number of primary school surveyed using the questionnaire forms is shown in the below table. The result of the survey in each district is shown in **Tables C.1, C.2 and C.3.**

District	Sub-district	Total Number of Primary Schools in District	Number of Primary Schools Surveyed
Dili	Metinaro, Dili Timur, Dili Barat	59	42
Aileu	Laulara, Lique DOE, Remexio, Aileu	42	13
Lautem	Los Palos	25	6
T O T A L		126	61

C.1.2 Condition of Water Supply Facility in Primary School

Out of the total 61 surveyed schools there are 21 schools with water supply facility. However, more than 50% of the 21 schools have facilities that are out use because of the damages. Altogether, only 9 schools have water supply facilities that are actually operational. Many of the school's water supply facility are out of use because of the damage such as broken pipelines, which remain unrepaired. Because of the condition of the pipeline water could not reach the school premises although it is in close proximity to the public water supply system. The condition of the water supply facility of the surveyed school is summarized in the below table

District	No. of Surveyed School	Existence of Water Supply Facility		Condition of Water Supply Facility		Water Supply Source to School	
		None	Available	Out of Use	In Use	Public Water Supply	School Well
Dili	42	27	15	8	7	11	4
Aileu	13	11	2	2	0	2	0
Lautem	6	2	4	2	2	3	1
Total	61	40	21	12	9	16	5

C.1.3 Condition of Sanitary Facility in Primary School

Except in the remote areas and those that were destroyed due to the violence, almost all the schools are provided with toilet. Most toilets are equipped with water closets that are of the oriental type squatting pan. This type of water closet is popular in East Timor. From the 61 schools surveyed, 47 schools are equipped with the oriental type water closet, 2 mission schools has the flush-type, 3 schools use pit latrine and 9 schools have no toilet at all. The summary of the existing condition on the sanitary facility of the schools surveyed is shown in the table below.

District	No. of Surveyed School	Existence of Toilet Facility		Condition of Water Supply Facility		Type of Toilet/Water Closet		
		None	Available	Break -down	In Use	Flush Type	Oriental Type	Pit Latrine
Dili	42	4	38	37	2	1	36	1
Aileu	13	5	8	8	0	0	8	0
Lautem	6	0	6	6	0	1	3	2
Total	61	9	52	50	2	2	47	3

Although there are toilets installed in the school, majority is out of use because the water supply facilities are not operational. During the survey, it was recorded as shown in the table above, that there are only 2 schools (in Dili) out of the 52 schools has water facility that are in use and 50 of them are out of operation. Toilets equipped with the Oriental type squatting pan have water storage tank for flushing purposes. However, most of these tanks were found empty. It becomes a burden to the school to replenish these water storage tanks regularly due to the unavailability/shortage of water. As a result, the toilets are left unused and dirty.

According to the findings of the survey, the oriental type squatting pan water closet is the most practical method of toilet facility due to the present condition of the water supply system.

C.1.4 Promotion of Water Supply and Sanitation in Selected Primary School

Primarily, the survey of the water supply and sanitation facilities in primary schools was conducted in order to have information on the existing condition of the schools and its facilities especially the water supply and sanitation. The result of the survey was evaluated based on the urgency of basic water and sanitary needs of the schools. The evaluation also includes the assessment of the damage due to the violence and the availability of water, which is the basic factor for the use of the sanitary facilities. The result of the evaluation was identified the schools that was qualified for the “Quick Project” program of JICA. This project will help promote the improvement of sanitary and hygiene condition of primary schools. The students will be aware of the necessity and importance of water for their personal hygiene as well as for human existence.

After the evaluation and selection of the schools, the “Quick Project” have been implemented. This “Quick Project” have been executed with the improvement of the water supply and sanitation facilities in 8 primary schools of peri-urban and rural areas in Dili, Aileu and Lautem districts. The project includes the rehabilitation of the existing water supply and sanitation facilities and/or construction of new facilities, followed by hygiene education.

C.2 “Quick Project” For Selected Primary Schools

C.2.1 Objective and Concepts of the “Quick Project”

The objective of the “Quick Project” is to primarily help JICA promote sanitary and hygiene education for the school children in selected primary school. This project was envisaged as urgent based on the survey conducted in 61 schools and all other information that the Study Team collected in relation to sanitation and hygiene.

More than half of the surveyed schools were not equipped with water supply facilities. A few had water facilities that non-operational due to the some damages. As a result, the toilets were out of use and left dirty due to the unavailability of water. Regular maintenance of these toilets could not be carried out.

In order to improve the sanitary conditions and to promote hygiene education in schools, the water supply and sanitation facilities should be in good operational condition.

The main rehabilitation plan for the “Quick Project” include the following:

- Plumbing works that include water service connection of the school water supply facilities to the existing public water supply system.

- Construction/rehabilitation of the school's water supply facilities such as water washstand and water storage tank.
- Construction/rehabilitation of the school toilet facilities.

C.2.2 Criteria of Selection for the “Quick Project”

The selection of the 8 primary schools for the implementation of the proposed “Quick Project” was done using the results of the questionnaire survey. The criteria used for the selection are as follows:

- The school is within the area covered by the Primary Health Care Program of the NGO's, such as AFMET, World Vision, etc., which is supported by the JICA program.
- The school is centrally located in the Sub-district, whose area and population is comparatively large.
- Availability of water from the nearest public water supply system or water source.
- Cost effectiveness and maximum benefit derived.
- The teaching staff of the school recognizes the importance of hygiene education.
- The school must have a good accessibility from the main road.

C.2.3 Primary Schools Selected for the “Quick Project”

The implementation of the “Quick Project” in the selected primary schools was conducted within the field survey period in Phase II Study. As listed in **Table C.4**, the selected primary school for implementation of the “Quick Project” is summarized as follows.

Dili District	3 primary schools
Aileu District	3 primary schools
<u>Lautem District</u>	<u>2 primary schools</u>
T O T A L	8 primary schools

C.2.4 Principal Features of Facility

The principal features of the constructed and rehabilitated facilities under the “Quick Project” in the selected primary schools are summarized in the table below.

Name of School	District	Sub-district	Main Items of Rehabilitation Work
SDN 12 Darlau	Dili	Dili Timur	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=250 m • Construction of public water stand: 1 set

			<ul style="list-style-type: none"> • Painting of toilet room: 3 rooms
SDK 01 Dare	Dili	Dili Timur	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=250 m • Construction of public water stand: 1 set • Construction of toilet: 2 rooms • Construction of septic tank: 1 set
SD Tasi Tolu	Dili	Dili Timur	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=250 m • Construction of public water stand: 1 set • Painting of toilet room: 2 rooms
SDK Assu Mau	Aileu	Remexio	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=150 m • Construction of public water stand: 1 set • Rehabilitation of toilet: 2 rooms • Construction of septic tank: 1 set
SDN 03 Mantane	Aileu	Aileu Kota	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=70 m • Rehabilitation of public water tank: 1 set • Construction of toilet: 2 rooms • Construction of septic tank: 1 set
SDN 03 Bereleu	Aileu	Lequidoe	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=140 m • Construction of public water stand: 1 set • Rehabilitation of toilet: 2 rooms • Construction of septic tank: 1 set
SDK Fuiloro	Lautem	Lospalos	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=120 m • Construction of public water stand: 1 set
SDN Kecil Assalaino	Lautem	Lospalos	<ul style="list-style-type: none"> • Installation of connecting pipeline: l=260 m • Construction of public water stand: 1 set • Construction of toilet: 2 rooms • Construction of septic tank: 1 set

The rehabilitation plans of each school are shown in Fig. G-1,2, D-1,2,3, A-1,2,3, L-1,2.

C.2.5 Implementation Schedule

The work of construction and rehabilitation of water supply and sanitation facilities in eight primary schools was carried out within the Study Period of Phase II from mid-October to mid-November of the year 2000. The implementation schedule of the “Quick Project” is shown in Figure 1.

Taking into account the characteristic, existing local condition and scale of the project, the works were executed by tow national NGOs in East Timor, one was Bia Hula Foundation for Dili and Aileu Districts and other one was Fuiloro Mission for Lautem District.

C.3 Hygiene Education In Primary Schools

Subsequently, with the improvement of the school’s water and sanitation facilities hygiene education to the school children was conducted. The primary school children must learn basic education on personal hygiene and health. The knowledge of the above will help promote the conservation of water as well as the proper use and conservation of the sanitary facilities that are provided for them. In conjunction with the survey conducted for the condition of the water supply and sanitation facilities of

the schools, it included issues related to hygiene education.

C.3.1 Condition of Hygiene Education in Primary Schools

Most of the schools surveyed have facilities that are damaged including the school buildings. During the field survey, it was found out that classes had resumed in schools even in the damaged school buildings. In most cases, classes are held temporarily in the church and any available public buildings in the village. The absence and the damage of the classroom facilities such as desks, chairs and tables had kept the school children to squat on the floor during classroom session. This condition was noted in few of the schools visited especially in the rural areas where the resources are very few and limited. However, despite the existing condition, the teachers who have returned to their schools continued their teaching tasks using the previous practice of the Indonesian Curriculum until June 2000. Though the new school year has started since October by new curriculum, the shortage/non-availability of textbooks was a no hindrance to their job. Classes still continue despite the lack of teaching resources and materials. The result of the survey on condition of hygiene education in primary schools is shown in **Table C.5**.

Health education including hygiene is one of the subjects taught in the primary schools. This subject is done by oral method of teaching conducted by a non-specialist teacher on health generally, by a normal classroom teacher. Though the subject includes basic information on personal hygiene and sanitation as a factor for human existence, neither specialized method nor special learning techniques about hygiene and sanitation were noted during the survey. Details of the health education included hygiene by teachers were general information and schoolchildren played almost physical practices on the ground in the subject of health.

The plan of hygiene education include the following:

- Preparation of materials for Hygiene Education
- Implementation of Hygiene Education to primary school children

C.3.2 Preparation of Materials for Hygiene Education in Selected Primary Schools

UNICEF has written educational materials/program about basic education on health, hygiene and sanitation, which have the local Tetum language translation. This program, which is originally drawn from “Facts of Life” is being broadcast by Radio Kmanek. Another information dissemination that UNICEF has undertaken is the distribution of leaflets bearing messages on basic sanitation and hygiene to schoolchildren. Moreover, UNICEF has provided basic hygiene kits, which include hand soap, shampoo, toothpaste, toothbrush and diapers. Other NGOs such as Oxfam and ACF had conducted basic education on hygiene and sanitation to the school children and distributed reading materials to the village people.

Enough materials on hygiene education were discussed with UNICEF and the NGOs during Phase I. As fruits of the discussion, these materials were produced in Japan as posters illustrating basic hygiene messages ready for Phase II of the Study. At the

beginning of the Phase II Tetum words and sentences in those materials were checked by Timorese. Furthermore the materials were polished by UNICEF and NGOs which are acting in health sector and water & sanitation sector such as World Vision, AFMET and Bia Hula Foundation etc. Four of them were reproduced from the UNICEF leaflet by courtesy of UNICEF as the condition to be printed “cooperated with UNICEF” on the posters. These posters are used for hygiene education to primary school children. Informative messages and illustrations regarding the subject include the following:

- Washing hands with soap.
- Regular washing of the hands after using the toilet.
- Regular maintenance of the water and sanitation facility by keeping them clean and operational.
- Using a toilet instead of using a place in a field and/or a river
- Giving information on the importance of the toilet facility.
- Clean up the toilet and surrounding to prevent the breeding of mosquitoes.

These messages related with health matters would supply the deficit in the messages made by others. The brushed materials for Hygiene Education are attached for the size of A4 sheets. To be enlarged by a photocopy machine, the materials will be used for posters. The posters printed instructive messages for health have furnished UNICEF as well as NGOs.

C.3.3 Implementation of Hygiene Education

The hygiene education was carried out during the Phase II from November to December 2000, following the “Quick Project.”

Before the implementation of hygiene education the central sector of ETTA such as Division of Health Services and Division of Education consulted the “Quick Project” for the selected primary schools.

As decentralization has permeated program and activities are launched in districts respectively. Therefore Health Administrators at district level consulted also the implementation of Hygiene Education at the selected primary schools at the target districts. Moreover the details and the schedule of Hygiene Education were discussed and arranged by the headmasters of the primary schools respectively.

C.3.4 Details of Hygiene Education

The sixth grade of a primary school was the target school year for Hygiene Education in principle. It was the reason that the sixth grade is the highest school year at a primary school and they could take care of the schoolchildren of the lower grades in the school.

Time schedule for the implementation of Hygiene Education was adjusted to the curriculum at the schools respectively. Accordingly, the period of teaching time was mainly thirty to forty-five minutes at one class in one primary school.

It was in a classroom of the selected primary schools to give schoolchildren Hygiene Education with NGO staffs, which were Bia Hula foundation in Dili District, World Vision in Aileu District and AFMET in Lautem District. Hygiene Educator taught schoolchildren about basic personal hygiene and sanitation with the materials for the “Quick Project” and other goods such as a piece of soap to demonstrate washing hands.

Topics of the hygiene education time were focused as a first step of milestone as follows:

- The importance of personal hygiene
- The importance of clean water and sanitation
- The importance of hand washing and how to wash hands with soap
- The practice to maintain toilet and water supply facilities

C.3.5 Consideration

The “Quick Project” for selected primary schools tried to implement Hygiene Education to schoolchildren in primary schools. The “Quick Project” had run a trial program at this time. Several issues have come out one by one on Hygiene Education in primary schools as follows:

C.3.5.1 Materials

Materials illustrated gave an impact on schoolchildren. Durable materials sufficiently would make it possible for other grade school year to give a good effect. The materials prepared for the “Quick Project” might be selected for proper use according to target age of schoolchildren. After schoolchildren went home with the materials, their parents and the neighborhood would be affected by the materials at next stage of hygiene education.

C.3.5.2 Continuous education

Personal hygiene and sanitation are exceedingly important for schoolchildren. Besides, it is also for them not only the knowledge about them but also practice of the knowledge. In other words schoolchildren ought to put their knowledge into practice. The trial program was, however, too short to get into action for them within the limited schedule of the “Quick project.” Schoolchildren should need the continuous opportunity for the purpose of the improvement of personal hygiene and sanitation.

C.3.5.3 Personnel as a Hygiene educator

It seems to be difficult for personnel in health sector to go to a school and teach schoolchildren Hygiene Education because health sector have jurisdiction over health facilities such as hospitals, health centers and health posts. Health sector do not control health of schoolchildren in schools. World Vision in Aileu district and AFMET in Lautem District have activities which have rehabilitated the health

facilities and have trained health workers at health centers. However, they do not have any plan of school health.

Coordination between education sector and health sector was complicated in the present situation by lack of any connection. The system of coordination in regard to Hygiene Education in primary schools should be needed. Therefore, hygiene education following of “Quick Project” provided the opportunity of coordination between the education sector and the health sector in the program areas through our program.

C.3.5.4 Lack of school health including hygiene education

Some schoolteachers had puzzlement at Hygiene Education by personnel in health sector. That was the reason that there were no materials on Hygiene Education at primary schools up to this day. Consequently some schoolteachers also seem to be taken training to make the best use of materials. Moreover, there are not sufficient of the activities which check and maintenance of school environment in school teacher’s works.

C.4 Plan Of Hygiene Education For Primary Schools

The consideration mentioned above creates a plan of hygiene education for primary schools.

C.4.1 Background

Approximately ninety percent of school buildings were totally destroyed in September 1999. However, planning for primary school rehabilitation did not include for water and sanitation facilities satisfactorily. Several agencies such as UNICEF, WHO and NGOs have surveyed toilet and water facilities in primary schools as well as the “Quick Project” by JICA. They have the rehabilitation plans respectively. Unfortunately, an integrated plan for toilet and water facilities in primary schools at national level have been not regarded so far.

There is a strong correlation between good health and the availability of latrine and water supply facilities. Poor hygiene practices and lack of environmental sanitation caused diarrhoea, scarring of intestinal mucous and worm infestations resulting in poor absorption and thus malnutrition. Malaria, Dengue fever, diarrhoea and gastrointestinal worm infections are some of the more common diseases. Thus, poor water and sanitation results in malnutrition and disease, which are factors that limit children’s learning capacity by causing fatigue, reduces attentiveness, decreased mental development and forced absence. In addition to water and sanitation facilities, health, nutrition and hygiene education and awareness is urgently needed.

Children who do not enroll for school or whose attendance is poor are more likely to be ill and malnourished. Providing health services and nutritional supplements in schools would thus greatly improve the educational opportunities for the most disadvantaged children. However, health, nutrition and hygiene education have been

absent from the school curriculum, and most district health plans do not include education on these topics.

C.4.2 Definition

“School Health” comprehends not only the prevention of diseases and the promotion of health of body and mind for schoolchildren but also the improvement and maintain of school environment. In order to accomplish the goal “School Health” takes appropriate measures which include “Health Education,” “Nutrition Education” and “Hygiene Education.” “Hygiene Education” overlaps with “Health Education” in the details of practice each other. They have the same goal, but their approaches are different.

C.4.3 Goal

Hygiene Education assumes a pivotal role as part of disease prevention. Hygiene Education needs to be widespread and reach the population from various angles in order to be effective. The overall goal of Hygiene Education is to enhance the learning capacity of primary school children by improving health and sanitation.

C.4.4 Strategies

a.) A Healthy School Environment

Schools should be a safe place for students to learn and play in and with technical assistance could implement activities to improve water and sanitation facilities and reduce mosquito breeding grounds.

b.) Skills-based Hygiene Education Curriculum

The hygiene education curriculum should be age- and gender-appropriate and responsive to the health needs of the local community, and should include activities focussed on the acquisition of skills and knowledge.

c.) Community Partnerships for Health

Schoolchildren can serve as “health ambassadors” to their families and communities. School health programs are an opportunity for schoolchildren, parents, teachers, NGOs, church groups and political groups to work together and can be an important tool for community health promotion.

C.4.5 Objectives

The goal will be achieved by the fulfilling the following two primary objectives:

- Improving sanitation and water supply facilities at primary schools.

- Improving hygiene, sanitary, health and nutrition awareness among primary school children.

C.4.6 Integrated Program

The objectives will be achieved by implementing the following main activities:

- Construction and rehabilitation of latrines at primary schools (one latrine per fifty children).
- Provision of water facilities (one water point per 250 children) in primary schools by connecting schools to community water systems, rehabilitating or installing community systems, or installing school pumps, tanks, wells, etc.
- Promotion of good hygiene, sanitation, health and nutrition practices through an awareness program aimed at primary school children, teachers and parents.

Clean and safety sanitary and water supply facilities are exceedingly important to prevent diseases and to improve health condition for schoolchildren. Construction and rehabilitation of the facilities should be implemented in the early stages of the program. Urgent needs for the facilities are requested as follows:

ESTIMATED REQUIREMENTS OF LATRINES AND WATER POINTS

District	No. of Schools	No. of Children	No. of Latrines	No. of Water Points
Aileu	40	8,921	178	36
Ainaro	48	7,775	156	31
Baucau	91	19,392	388	78
Bobonaro	90	15,820	316	63
Covalima	70	11,670	233	47
Dili	61	24,579	492	98
Ermera	82	20,060	401	80
Lautem	62	10,695	214	43
Liquica	50	11,723	234	47
Manatuto	41	7,500	150	30
Manufuhi	56	8,970	179	36
Oecussi	51	7,880	158	32
Viqueque	54	11,979	240	48
Total	796	166,344	3,339	638

Source: "A partnership program by NGOs in East Timor: Enhanced Learning Capacity Through Improved School

Health and Sanitation"

C.4.6 Description Of Program

C.4.6.1 Topics

The hygiene education program should enhance and extend the knowledge, attitude and practice of schoolchildren at levels of age. It is important that the knowledge is available to schoolchildren practically. The topics managed at hygiene education would encourage “Integrated Management of Childhood Illness” considerably.

Topics to be included are the following:

- The importance of personal hygiene
- The importance of clean water and sanitation
- The importance of hand washing and how to wash hands with soap
- The importance of safe water and safe cooking
- The importance of managing rubbish disposal and sanitation
- The importance of vector control and practice of control against vectors
- The process of transmission of vector-borne diseases; i.e. Malaria, Dengue fever
- The process of transmission of intestinal parasites
- The practice to maintain toilet and water supply facilities
- The practice to maintain environment in- and out-school building

C.4.6.2 Personnel

The issues of hygiene education are interrelated with various points in water & sanitation sector, education sector and health sector. However, health personnel practically implement hygiene education. The health personnel would be managed by Health Centre / Health Post in the program areas. The method of the program should be periodical visits of specially trained health professionals or volunteers to primary schools. The executer as a hygiene educator not only give schoolchildren hygiene education but also check the condition of the school environment at school visits. In addition, the speciality of health personnel would enable to consult from teachers and/or parents for health condition of schoolchildren.

C.4.7 Program Management

C.4.7.1 School Health Committee at Primary School

School health committee will be composed schoolchildren, a headperson, teachers, parents, health personnel, religious person and a community leader. This body shall hold meeting periodically and manage a field of school health included health, sanitary and nutrition matters.

C.4.7.2 Advisory Committee at Sub-district and District Levels

An advisory committee for school health would be created to help oversees the progress of the program at every sub districts and districts. This body would be also ensured a mechanism for discussion of issues and matters related to school health. The committee would be composed of representatives from primary school, health

sector, water & sanitation sector, religious group, women's group and community leader.

Table C.1 RESULTS OF THE SURVEY ON THE WATER SUPPLY AND TOILET FACILITIES IN SCHOOL OF DILI

No.	Location of School			Structure of School			Water Supply Facility of School			Toilet of School		
	Name of School	Sub-district	Village	Commune	Number of Class Room	Number of Students	Number of Teachers	Destruction Damage by Violence	Component of Facility	Problem of Facility	Type of Facility	Problem of Facility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)
DILI DISTRICT												
1	SDK 01 Dare	Dili Barat	Florestal Dare	Dare	8	319	16	30 % of destroyed	Water taps in school ground from CWS	No water supply facility in other school area	Pit latrine	Temporary hut toilet
2	SDN 11 Balibar	Dili Timur	Suco Balibar	Bairo Lacato	3	250	9	Totally destroyed	All the facilities were burned and class are now shifted to temporary school building.			
4	SDN 07 Comoro	Dili Barat	Suco Malinamuh	Kampung Baru	17	838	28	Partial destroyed	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	No water supply to toilet
5	SD Tasi Tolu	Dili Barat	Horasio Guterres	12 de Outubro	9	306	12	No damaged	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	No water supply to toilet
6	SDN 03 Bebonuk	Dili Barat	Rai Nardoko	Bebonuk	9	625	23	Partial destroyed	Water tank(2m3),No function	Pipe connection to school was destroyed	Oriental type squatting pan	Not utilized because of no water supply
7	SD2 Metinaro	Metinaro	Hadulas	Manuleu	3	91	6	Partial destroyed	Washing basin(No usage)	Water supply to school from CWS was stopped (Power line for CWS pump was destroyed)	Oriental type squatting pan	Not utilized because of no water supply
8	SD Benunuk	Metinaro	Hadulas	Manuleu	4	School was closed and class are shifted to high school.		Partial destroyed	No facility	No pipe connection to school from CWS pipeline	Oriental type squatting pan	No water supply to toilet
9	SD 1 Metinaro	Metinaro	Manuleu	Hadulas	4	School was closed and class are shifted to other primary school.		Totally destroyed	All the facilities were burned			
10	SDN 06 Hera	Dili Timur	Hera	Hera	5	479	17	50 % of destroyed	Dug well	Water quantity are not enough	Oriental type squatting pan	No water supply to toilet
11	SDN 08 Akanunu	Dili Timur	Hera	Akanunu	6	90	3	Totally destroyed	Small water pump are installed in dug well	All the facilities were burned and class are now shifted to church temporarily.		
12	SDN 12 Darlau	Dili Timur	Darlau	Darlau	3	387	12	No damaged	No facility	No pipe connection to school from CWS pipeline	Oriental type squatting pan	No water supply to toilet
13	SDN 04 Bairro Pite	Dili Barat	Nazare	Bairro Pite	9	887	28	Partial	Hand pump is too old to be used	No pipe connection(inside of PWS pipeline)	Oriental type squatting pan	No water supply to toilet
14	SDN 09 Vila Verde	Dili Barat	Nazare	Vilaverde	8	470	17	Partial	Hand pump is too old to be used	No pipe connection(inside of PWS pipeline)	Oriental type squatting pan	No water supply to toilet

Note: Item (1) + (7) are provided by UNICEF in March 2000.
Item (9) + (13) are surveyed by JICA in March 2000.

Table C.1 RESULTS OF THE SURVEY ON THE WATER SUPPLY AND TOILET FACILITIES IN SCHOOL OF DILI

No.	Location of School			Structure of School			Water Supply Facility of School			Toilet of School		
	Name of School	Sub-district	Village	Commune	Number of Classe Room	Number of Students	Number of Teachers	Destruction Damag by Violence	Component of Facility	Problem of Facility	Type of Facility	Problem of Facility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)
15	SDN 02 Farol	Dili Barat	Farol	Farol	12	510	18	Partial	No facility	No pipe connection(Inside of PWS pipeline)	Oriental type squatting pan	Not utilized because of no water supply
16	SDN Caicoli Rumbia	Dili Barat	Rumbia	Caicoli	7	520	13	70 % of destroyed	No facility	No pipe connection(Inside of PWS pipeline)	Oriental type squatting pan	Not utilized because of no water supply
17	SDN 01	Dili Barat	Colmera	Colmera	6	223	12	Partial	No facility	No pipe connection(Inside of PWS pipeline)	Oriental type squatting pan	Not utilized because of no water supply
18	SDN 09 Bidau Massau	Dili Timur	Santana	Massau	8	605	19	Partial	No facility	No water supply to school	Oriental type squatting pan	No water supply to toilet
19	SDK 05 Madalena Balid	Dili Timur	Santa Cruz	Santa Cruz	20	820	30	Partial	Shallow well with pump and water tap	No washing facility in school	Flush toilet	Not enough water to supply for toilet
20	SDK Hati Kudus	Dili Timur	Becora	Becusi Baixo	8	1,073	35	Partial	Not functioned water tap	Pipe connection to school is damaged(Inside of PWS)	Oriental type squatting pan	It is old and broken
21	SDK 7 Sabraka Laran	Dili Timur	Naroman	Mota Ulun	7	916	26	Partial	Washing basin	Water decrease in dry season(Water is distributed from CWS pipeline)	Oriental type squatting pan with water supply facility	Drainage of toilet is broken
22	SDN 07 Canea	Dili Timur	Naroman	Becora	29	995	39	Totally destroyed	All the facilities were burned and classes are now shifted to high school			
23	SDN 10 Canea Raihun	Dili Timur	Tetus Nain	Canea	7	383	11	Partial	CWS water tank with washing platform	Water decrease in dry season	Oriental type squatting pan	No water supply to toilet
24	SDN 03 Bidau Dili Tim	Dili Timur	Akadurahun	Akadurahun	13	683	15	Partial	Hand pump	PWS pipe connection to school is damaged	Oriental type squatting pan	It is old and one is broken
25	SDN 04 Bemori	Dili Timur	We Moris	Bemori	3	383	21	80 % of destroyed	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	Not utilized because of no water supply
26	SDN 05 Alturi Laran	Dili Timur	Inur Fuik	Alturi Laran	10	167	10	80 % of destroyed	Water tap was destroyed	Pipe connection from CWS was broken	Oriental type squatting pan	No water supply to toilet
27	SDN 05 Manleuara	Dili Barat	Moris Darte	Manleuara	12	625	31	Partial	Not functioned water tap	Pipe connection from CWS was broken	Oriental type squatting pan	It is old and broken

Note: Item (1) + (7) are provided by UNICEF in March 2000.

Table C.1 RESULTS OF THE SURVEY ON THE WATER SUPPLY AND TOILET FACILITIES IN SCHOOL OF DILI

No.	Location of School			Structure of School			Water Supply Facility of School			Toilet of School		
	Name of School	Sub-district	Village	Commune	Number of Classe Room	Number of Students	Number of Teachers	Destruction Damage by Violence	Component of Facility	Problem of Facility	Type of Facility	Problem of Facility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)
28	SDN 08 Kampung Mariri	Dili Barat	Suleur	Beto Tasi	9	354	18	Partial	No facility	No water supply	Oriental type squatting pan	No water supply to toilet
29	SDLB Taibessi	Dili Timur	Aisuru Dame	Taibessi	16	308	13	Partial	No facility	No water supply	Oriental type squatting pan	No water supply to toilet
30	SDN 01 Nularan	Dili Timur	Solo	Formosa	14	689	30	50 % of destroyed	No facility	No water supply	Oriental type squatting pan	No usable toilet
31	SDK 02 Ailok Laran	Dili Barat	Naroman	Ailok Laran	12	502	25	Partial	No facility	No water supply	Oriental type squatting pan	It is old and broken
32	Escola Missao No.6 Balide	Dili Timur	Santa Cruz	Balide	12	472	19	Partial	No facility	No water supply	Oriental type squatting pan	No water supply to toilet
33	SDN 06 Fatuhada	Dili Barat	Fatuhada	Fatuhada	10	595	26	Partial	No facility	No water supply	Oriental type squatting pan	It is old and broken
34	SDK ST. Comoro	Dili Barat	Golgota	Golgota	9	459	12	Partial	No functioned water tap	Water decrease in dry season	Oriental type squatting pan	No usable toilet
35	SDN 13 Fatumeta	Dili Barat	Cacau-Lidun	Fatumeta	6	826	24	Partial	No facility	No water supply	Oriental type squatting pan	No usable toilet
36	SDN 15 Tuana-Laran	Dili Barat	Vila-Verde	Tuana-Laran	7	705	20	Partial	No facility	No water supply	Oriental type squatting pan	It is old and broken
37	SDN 12 Hudli-Laran	Dili Barat	Vila Nazare	Hudi-Laran	3	450	21	Partial	No facility	No water supply	Oriental type squatting pan	It is old and broken
38	SDK Krisal	Dili Barat	Mascarenhas	Balide	7	697	20	Partial	No facility	No water supply	Oriental type squatting pan	It is broken

Note: Item (1) + (7) are provided by UNICEF in March 2000.

Note: Item (1) + (7) are provided by UNICEF in March 2000.

Table C.2 RESULTS OF THE SURVEY ON THE WATER SUPPLY AND TOILET FACILITIES IN SCHOOL OF AILEU

No.	Location of School			Structure of School				Water Supply Facility of School			Toilet of School	
	Name of School	Sub-district	Village	Commune	Number of Classe Room	Number of Students	Number of Teachers	Destruction Damag by Violence	Component of Facility	Problem of Facility	Type of Facility	Problem of Facility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)
AILEU DISTRICT												
1	SD Aicuros	Remexio	Tulatakeu	Aicuros	4	190	5	30 % of destroyed	No facility	15 minutes walk to take water from spring	Oriental type squatting pan	No water supply to toilet
2	SD 08 Roluli	Remexio	Tulatakeu	Roluli	4	119	6	Partial	No facility	20 minutes walk to take water from stream	Oriental type squatting pan	No water supply to toilet
3	SDK Assu Mau	Remexio	Assu Mau	Assu Mau	8	203	9	Partial	No facility	No pipe connection to school from CWS pipeline	Oriental type squatting pan	No water supply to toilet
4	SDN Asu Mau	Remexio	Asu Mau	Asu Mau	10	270	10	80 % of destroyed	Public tap(Out of order)	Connected pipe to school was destroyed	Oriental type squatting pan	Not utilized because of no water supply
5	SDN 01 Fahiso	liquido	Fahiso	Fahiso	9	328	6	Totally destroyed	All the facilities were burned and classes are now shifted to church temporarily.			
6	SDN 02 Namlesu	Lequidoe	Namlesu	Namlesu	6	262	6	Totally destroyed	All the facilities were burned and classes are now shifted to church temporarily.			
7	SDN 03 Bereleu	Lequidoe	Bereleu	Bereleu	3	102	5	Partial	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	Not utilized because of no water supply
9	SDN 01 Laulara	Laulara	Coelau	Laulara	8	320	11	80 % of destroyed	No facility	No water supply to school	Oriental type squatting pan	It is old and broken
10	SDN 01 Aileu	Aileu	Malare	Malare	12	319	21	Partial	Water storage (lms3)(Out of order)	Connected pipe to school was destroyed	Oriental type squatting pan	Not utilized because of no water supply
11	SDN 03 Mantare	Aileu	Sarin	Mantare	7	180	12	Totally destroyed	All the facilities were burned and classes are now shifted to village office temporarily.			
12	SDN 11 Suku Liurai	Aileu	Liurai	Bandera Hun	1	325	10	Class was shifted to village office 50 % of destroyed	No facility	No water supply to school	Oriental type squatting pan	It is old and broken
13	SDN 02 Faunk Hun	Laulara	Faunk Hun	Faunk Hun	1	136	6	No damage	No facility	No water supply to school	Oriental type squatting pan	It is old and broken
15	SDN 09 Rairerna	Aileu	Hohulu	Rairerna	3	284	10	Totally destroyed	All the facilities were burned			

Note: Item (1) + (7) are provided by UNICEF in March 2000.

Item (9) + (13) are surveyed by JICA in March 2000.

Note: Item (1) + (7) are provided by UNICEF in March 2000.
Item (9) + (13) are surveyed by JTICA in March 2000.

Table C.4 SELECTED PRIMARY SCHOOLS IN DILILAUUE AND LOS PALOS FOR THE "QUICK PROJECT"

Location of School				Structure of School				Water Supply Facility of School			Toilet of School	
No.	Name of School	Sub-district	Village	Commune	Number of Class Room	Number of Students	Number of Teachers	Destruction Damage by Violence	Component of Facility	Problem of Facility	Type of Facility	Problem of Facility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)	(11)	(12)	(13)
DILI DISTRICT												
D-1	SDN 12 Darlau	Dili Timur	Darlau	Darlau	3	387	12	No damaged	No facility	No pipe connection to school from CWS pipeline	Oriental type squatting pan	No water supply to toilet
D-2	SDK 01 Dare	Dili Barat	Florestal Dare	Dare	8	319	16	30 % of destroyed	Water taps in school ground from CWS pipeline	No water supply facility in other school area	Pit latrine	Temporary hut toilet
D-3	SD Tasi Tolu	Dili Barat	Horasio Goteses	12 de Outubro	9	306	12	No damaged	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	No water supply to toilet
AILUE DISTRICT												
A-1	SDK Assu Mau	Rerexio	Assu Mau	Assu Mau	8	203	9	Partial	No facility	No pipe connection to school from CWS pipeline	Oriental type squatting pan	No water supply to toilet
A-2	SDN 03 Mantane	Aileu	Sarin	Malare	7	180	12	Totally destroyed	All the facilities were burned and classes are now shifted to village office temporarily.			
A-3	SDN 03 Bereleu	Lequidoe	Bereleu	Bereleu	3	102	5	Partial	No facility	No pipe connection to school from PWS pipeline	Oriental type squatting pan	Not utilized because of no water supply
LAUTEM DISTRICT												
L-1	SDK Fuloro (Don Bosco school)	Lospalos	Bauro	Missao	13	480	15	No damaged	Tube well(36mrd), Reservoir(8mrd)	Shortage of water volume for all consumption	Flush toilet	At present no water supply to toilet because lack of water amount
L-2	SDN Kecil Assalaino	Lospalos	Fuiloro	Kampung Ban	2	200	5	Partial	No facility	No water supply to school	Pit latrine	Temporary hut toilet

Note: Item (1) & (7) are provided by UNICEF in March 2000

Table C.5 Condition of Hygiene Education at Primary Schools

No.	Location of School			Structure of School			Subjects at a School			Toilet of School	
	Name of School	Sub-district	Village	Commune	Number of Class Rooms	Number of Students	Number of Teachers	Subjects	Detail of Health subject	Textbook and/or materials of Health	Available use
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
DILI DISTRICT											
D-1	SDN 12 Darlau	Dili Timur	Darlau	Darlau	3	426	11	Portuguese, English, Mathematics, History, Geography, Art	Sports, Basic Hygiene	None	Fields
D-2	SDK 01 Dare Saint Francis Xavier	Dili Barat	Florestal Dare	Dare	8	320	12	Portuguese, English, Religion, Mathematics, Social Science, Natural Science, Art, <u>Health, Hygiene</u>	Sports, Health	None	Temporary hut toilet
D-3	SD Tasi Tolu	Dili Barat	Horasio Goterres	12 de Outbro	9	307	12	Portuguese, English, Religion, Mathematics, Social Science, Natural Science, Art, <u>Sports & Health</u>	Sports	None	A toilet in the school
AILEU DISTRICT											
A-1	SDK Assu Mau	Remexio	Assu Mau	Assu Mau	8	203	10	Portuguese, Indonesia, Tetum, Religion, Mathematics, Social Science, Natural Science, Art, <u>Sports & Health</u>	Gymnastics, Health, Hygiene	None	Public toilet
A-2	SDN 03 Mantane	Aileu	Sarin	Mantane	7	290	13	Portuguese, Religion, Mathematics, Social Science, Natural Science, History, Moral, gymnastics, Art, <u>Health</u>	Sports, Health	None	Fields
A-3	SDN 03 Bereleu	Lequidoe	Bereleu	Bereleu	3	106	5	Portuguese, Religion, Mathematics, Social Science, Natural Science, History, Moral, gymnastics, Art, <u>Health</u>	Sports, Health	None	A river
LAUTEM DISTRICT											
L-1	SDK Fuloro Don Bosco school	Lospalos	Bauro	Missao	13	480	15	Portuguese, English, Mathematics, Social Science, Natural Science, Art, <u>Sports & Health</u>	Sports, Health	None	Toilets in the school
L-2	SDN Kecil Assalaino	Lospalos	Fuloro	Kampung Baru	2	94	5	Portuguese, Indonesia, Tetum, Mathematics, Science, Reading, Writing, <u>Health</u>	Food / Sanitation	None	A river

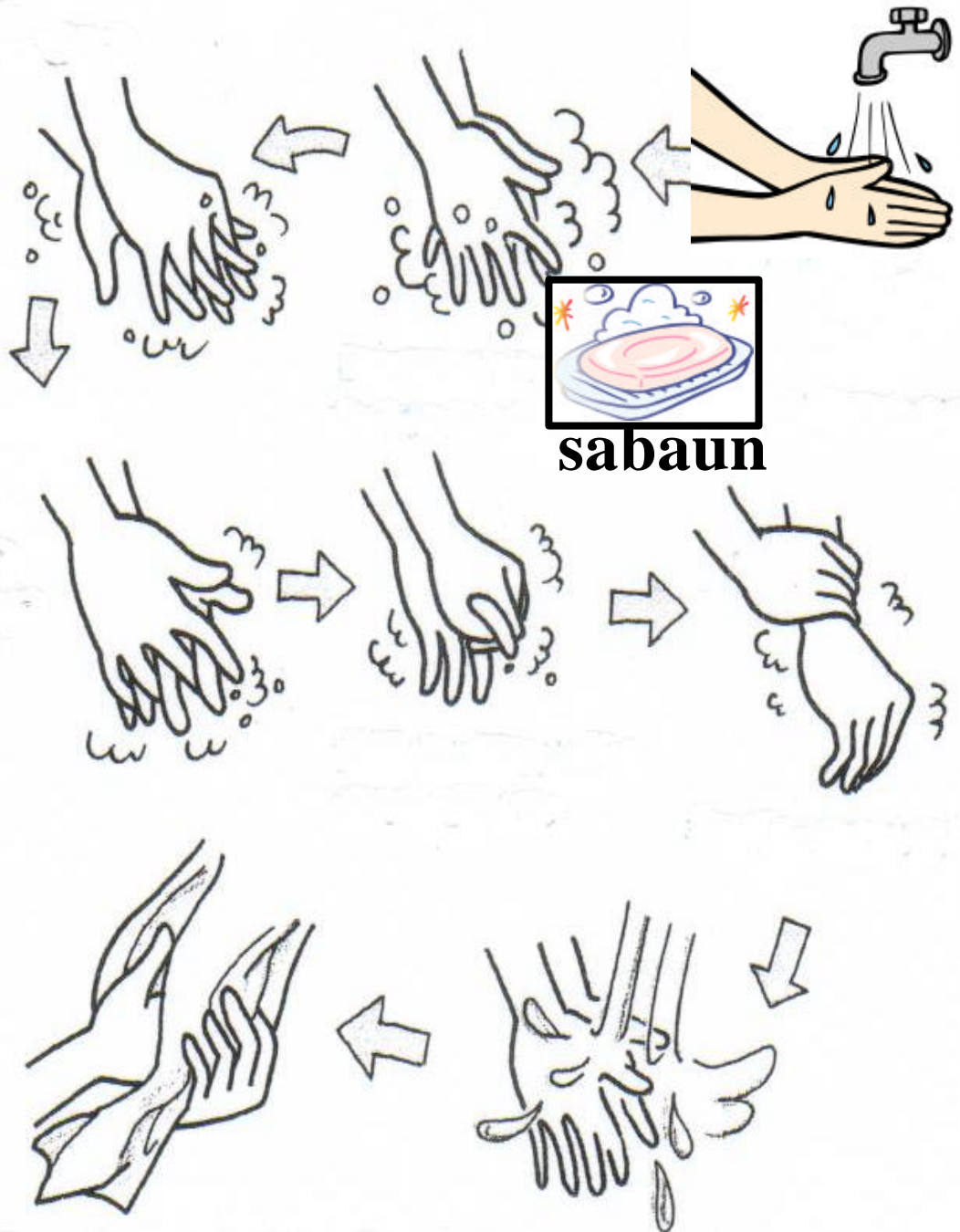
Note: Item (1) + (7) are provided by UNICEF in March 2000.
Item (9) + (13) are surveyed by JICA in March 2000.

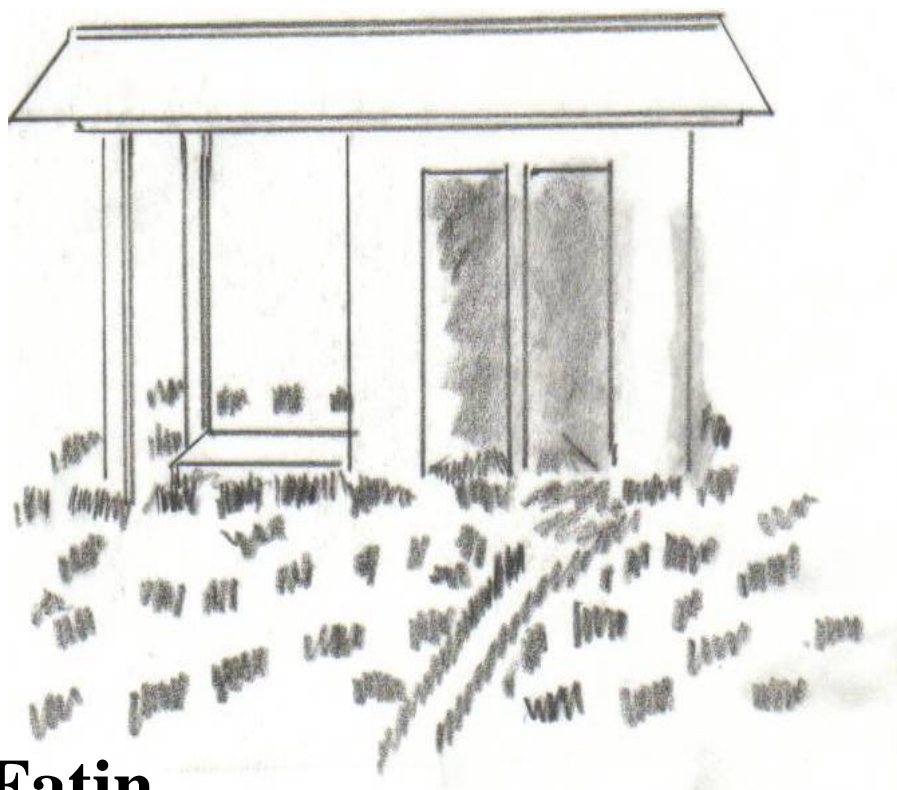


sabaun

**Sintina hotu tiha
Fase liman
ho sabaun.**

Fase Liman





Sintina Fatin



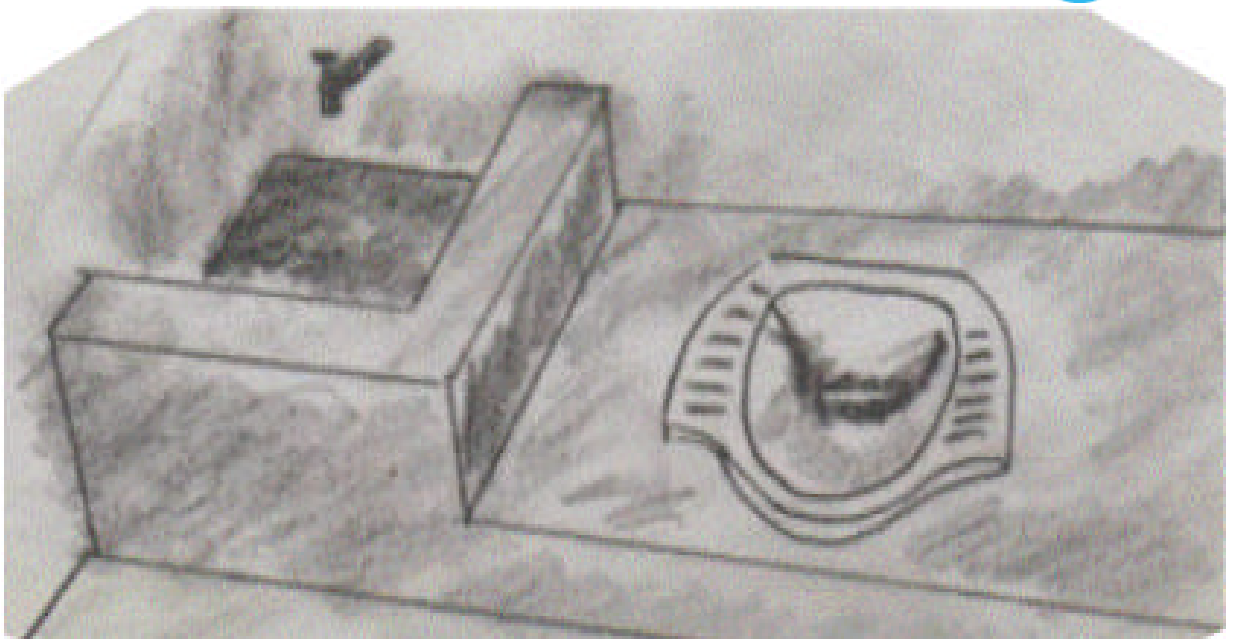
Ba li'ur boot ka ki'ik

***iha sintina fatin
halo sintina fatin mos
bebeik.***

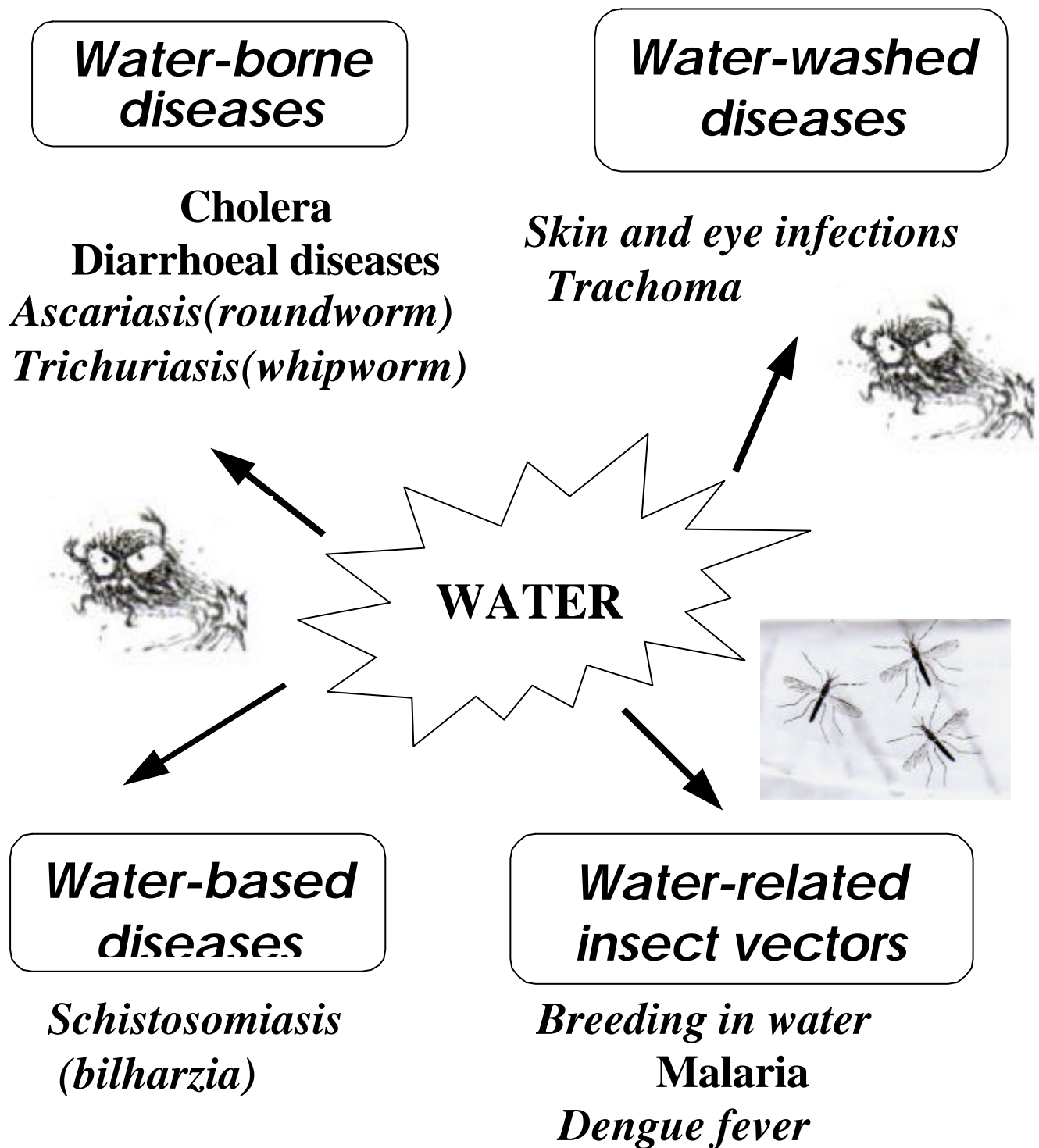


*ó bele hadia
didiak no hamos
didiak ita nia
sintina bainhira
ó uza ?*

OBRIGADO!



WATER-RELATED INFECTIONS

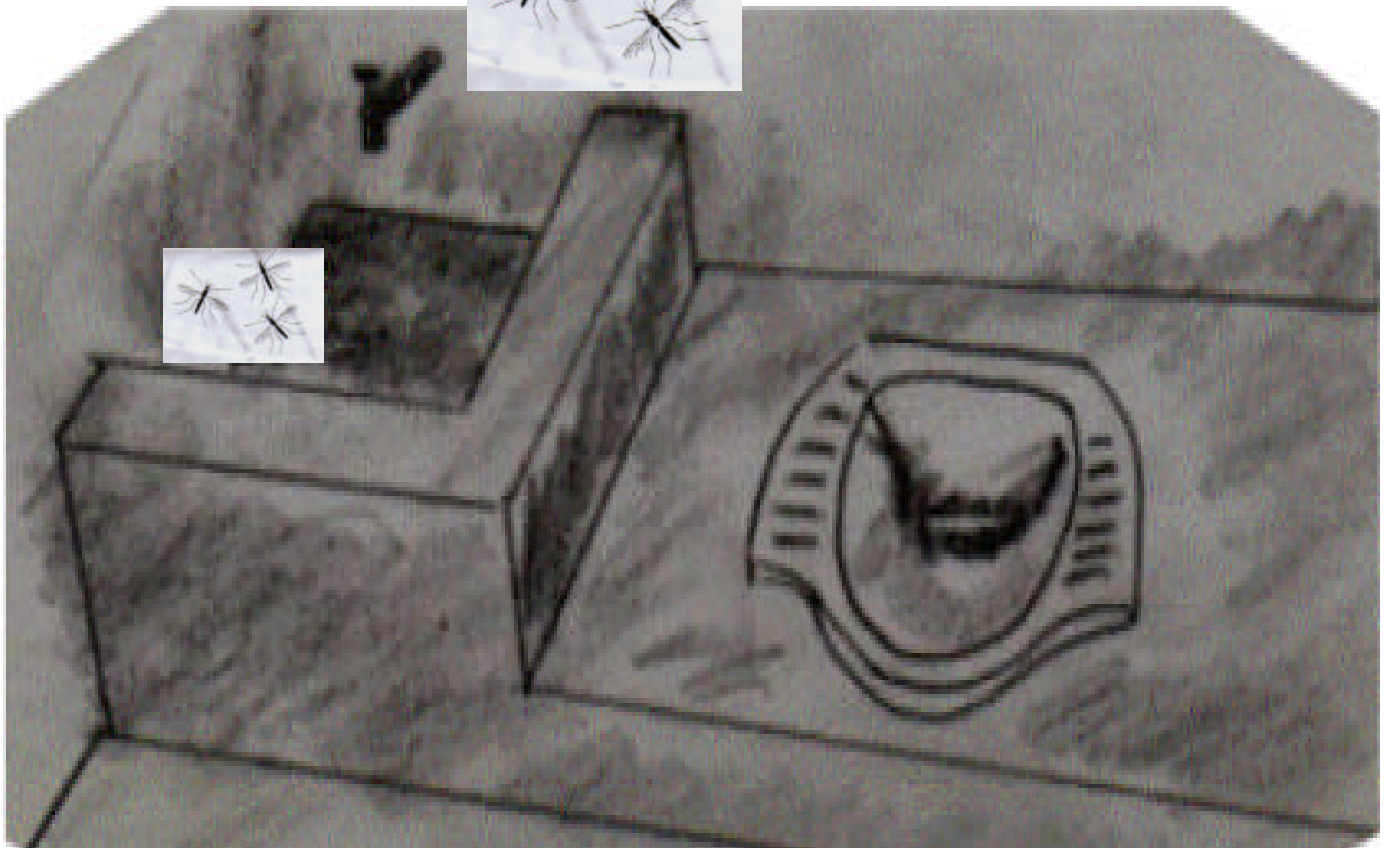


Hamos fatin sira nebe susuk bele moris buras

**Isin manas kahur ran
(Deman berdarah)**

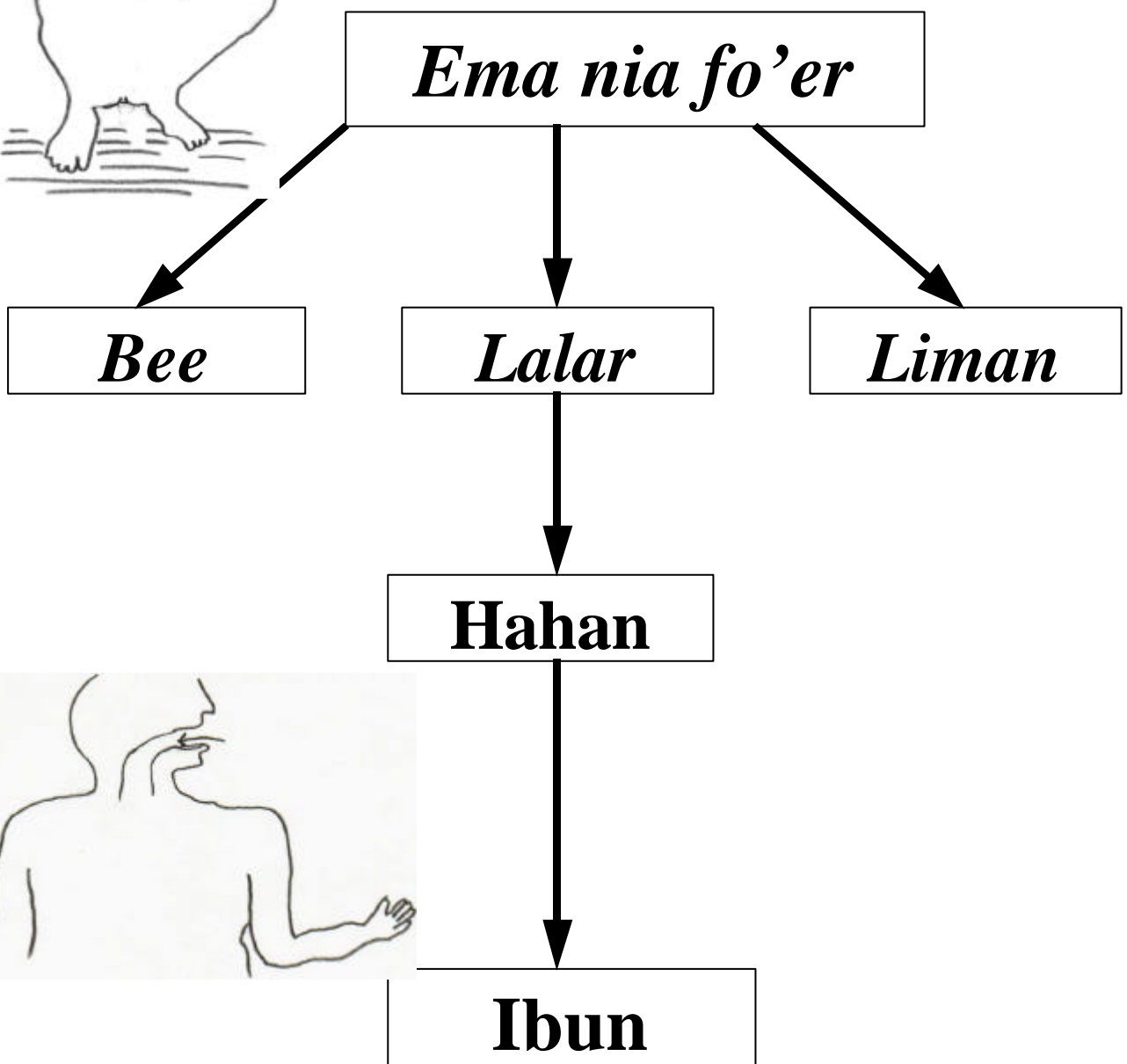


Malaria

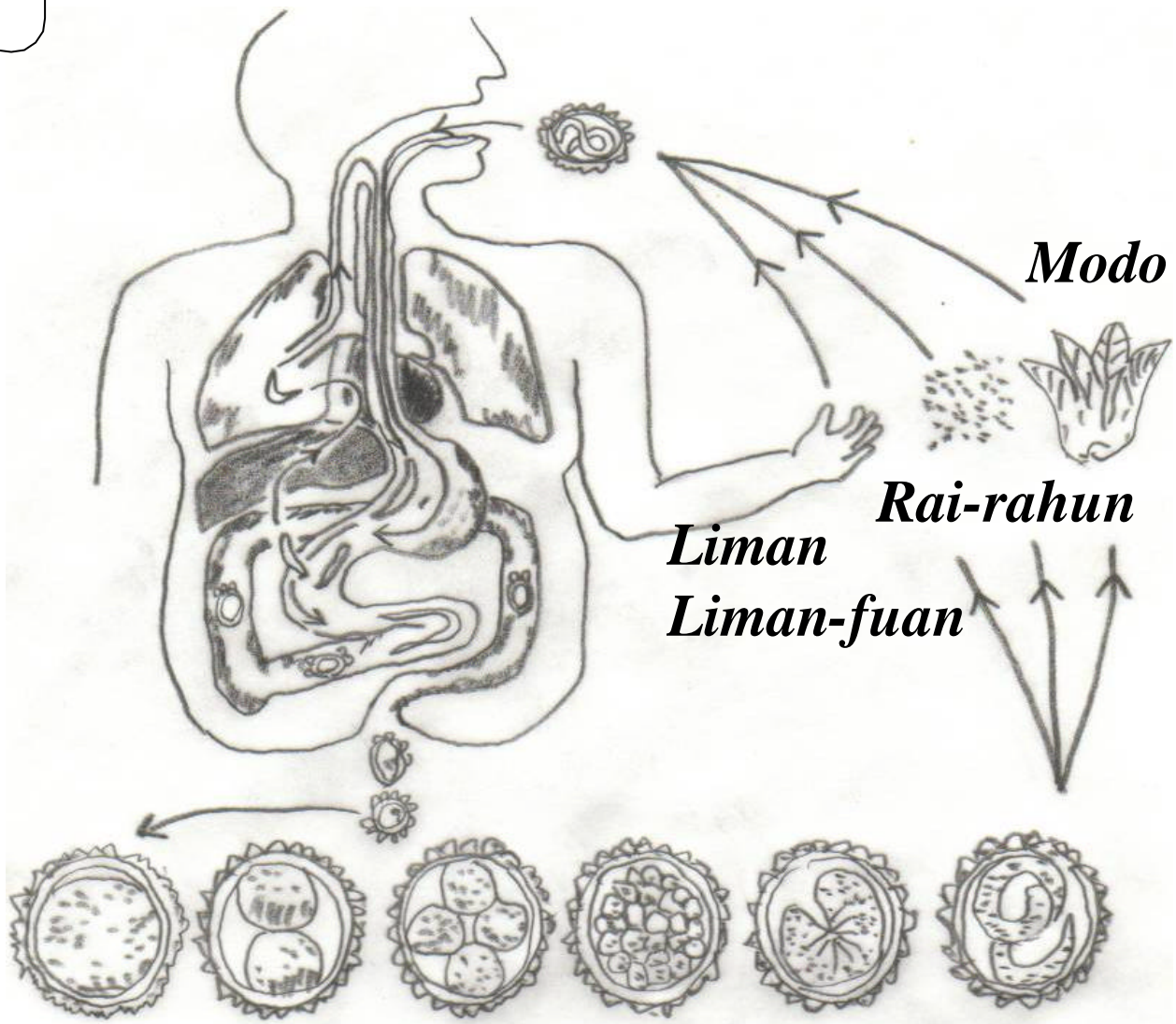


Ema nia fo'er

– Moras da'et hosi ibun



**Fase liman ho liman-fuan,
Fase modo,
bainhira atu prepara hahan.**



Ascariasis (roundworm)

Atu bele mo'os no isin diak ita sei buka:



**Rai sabaun iha sintina fatin atu
nune'e ba li'ur bo'ot ka ki'ik
(te'e - mi'i) hotu tiha bele fase
liman.**

cooperated with UNICEF

Atu bele mo'os no isin diak ita sei buka:



**Fase liman ho sabaun bainhira
atu kaer hahan ka be'e atu han
no hemu.**

cooperated with UNICEF

Atu bele mo'os no isin diak ita sei buka:



**Fase liman ho sabaun
bainhira atu fo'o han
labarik ki'ik oan siran.**

cooperated with UNICEF

Atu bele mo'os no isin diak ita sei buka:



**Fase liman ho sabaun
bainhira atu prepara hahan.**

cooperated with UNICEF

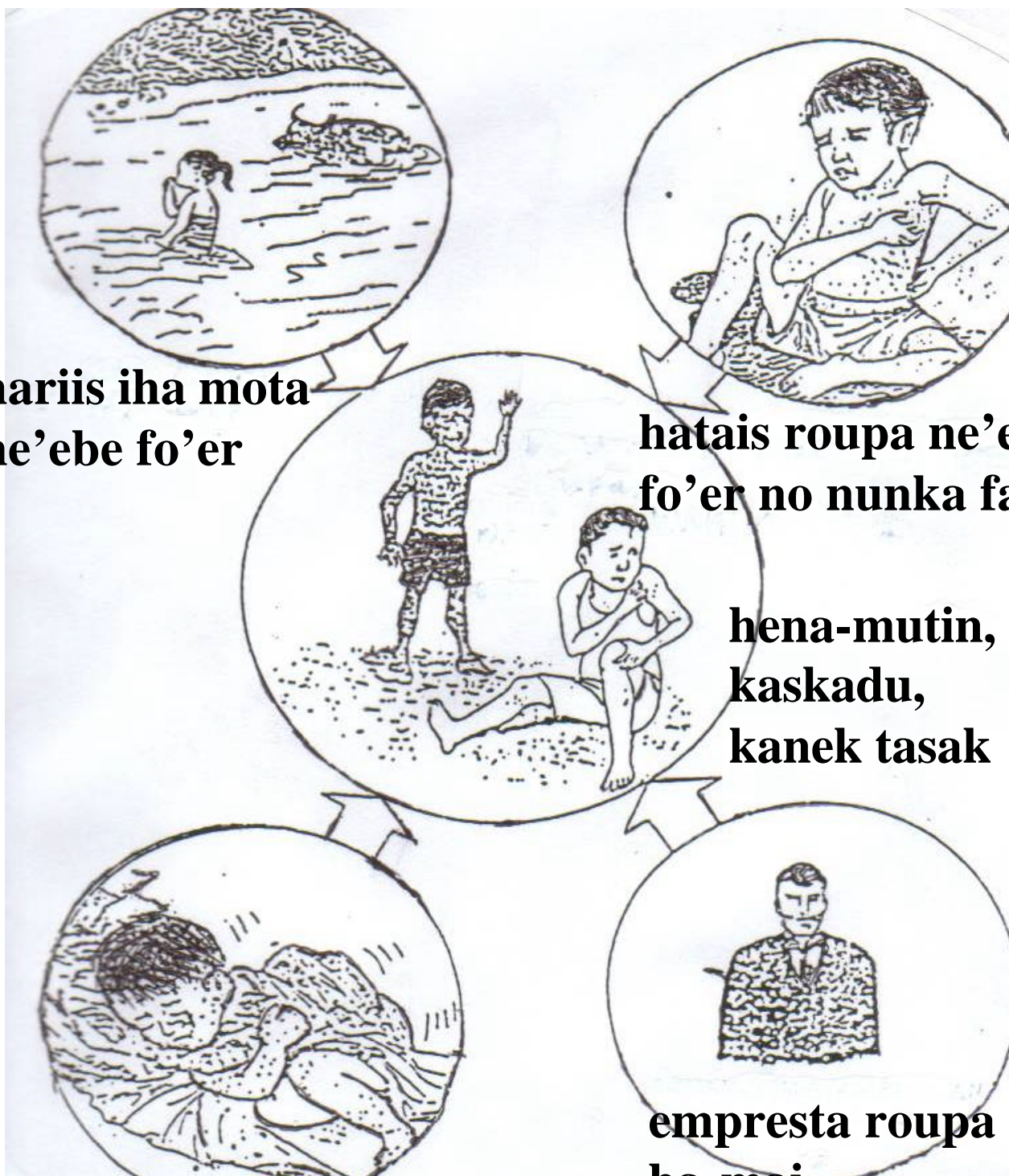
Atu bele mo'os no isin diak ita sei buka:



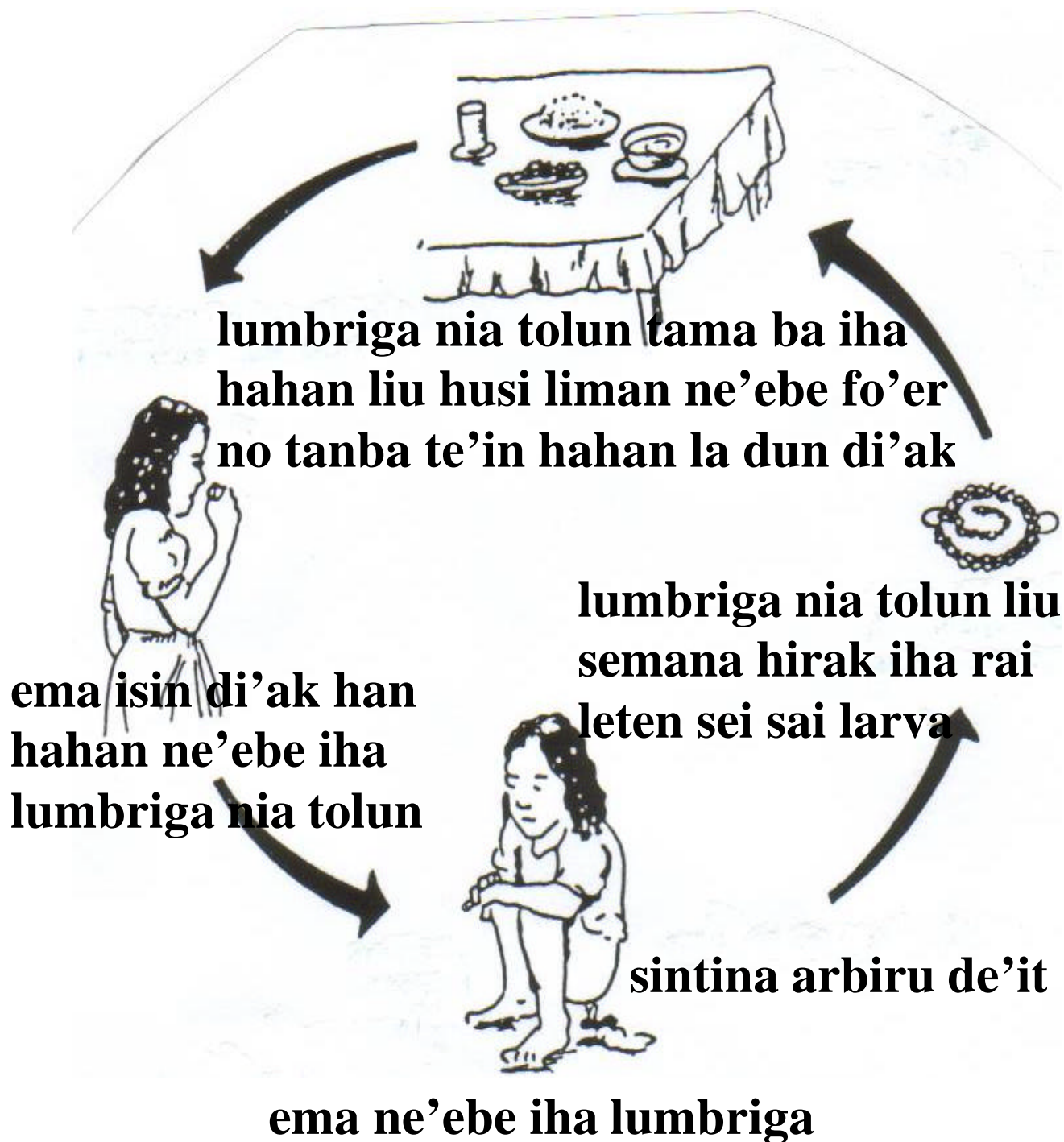
**Ba li'ur bo'ot ka ki'ik (te'e - mi'i)
iha sintina fatin no halo sintina
fatin mo'os beibeik.**

cooperated with UNICEF

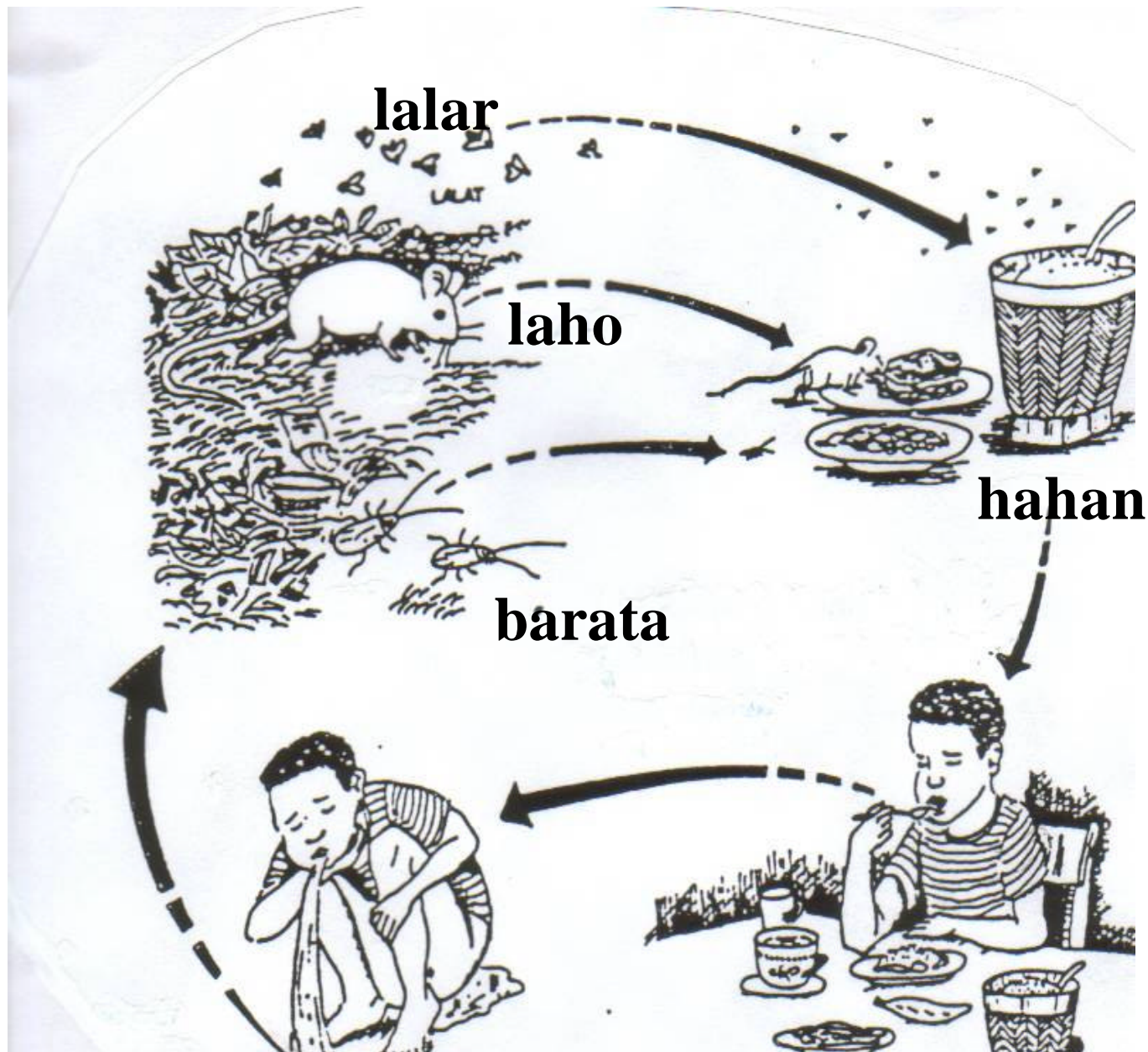
OINSA HADA'ET MORAS KULIT:



OINSA HADA'ET LUMBRIGA:



OINSA HADA'ET (KABUN MORAS) DIARREIA HO MUTA TEE:



- Diarreia (Tee-Been)
- Muta ho tee
- Disenteria
- Tifu

han hahan ne'ebe laho
ho lalar tama ba

OINSA HADA'ET MORAS DEMAN BERDARAH NO MALARIA:

susuk



**susuk tata ema
ne'ebe moras**



to'o ikus hetan moras
- Deman berdarah
- Malaria



**tuirmai susuk tata ema
ne'ebe isin diak hodi
hada'et moras**