

Module 2-1

HEALTH. IN. 21

Improving Sanitary Conditions of the Village Surroundings

capsule 2-1-1

Disposal of Human Excreta



Central Resource Centre

Department of Education

Ministry of Education

National Council of Educational Research and Training

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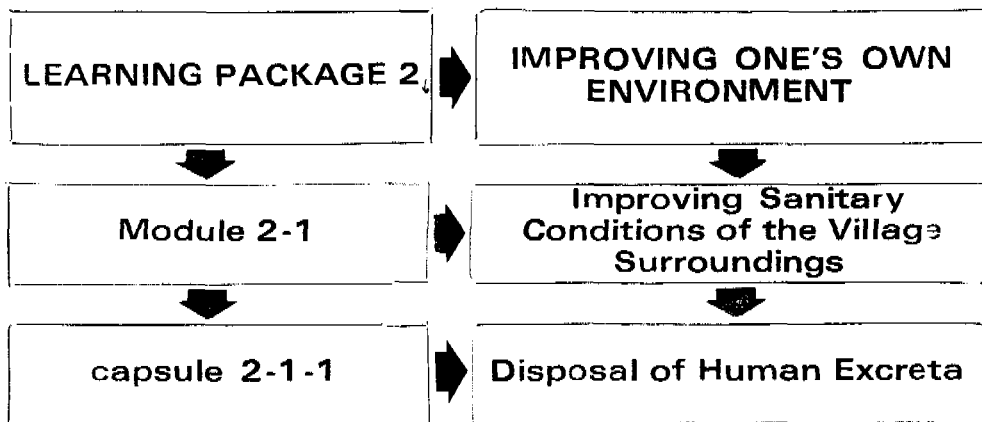
UNICEF (Educ. Dept.)

(via L.v.d. Kruijt)

COMPREHENSIVE ACCESS TO PRIMARY EDUCATION (CAPE)

(In the Context of the Programme of Universalisation)

UNICEF ASSISTED PROJECT



Expected Behavioural Outcomes (EBOs)

Upon reading this capsule the learner should be able to :

- recognise and recall the consequences of exposing human excreta on the open ground and the ways of disposing off human excreta in a sanitary manner.
- discriminate between sanitary and insanitary methods of disposing off human excreta.
- generalise about the suitability of a sanitary latrine.

capsule 2-1-1

Disposal of Human Excreta

problems related to the disposal of human excreta are a major public health problem in the developing countries. The disposal of human excreta is a complex task and requires a systematic approach. The following are some of the key factors to consider in the disposal of human excreta:

- To protect the health of the community
- To prevent the contamination of water and soil
- To prevent the spread of diseases
- To maintain the hygiene and sanitation of the community
- To protect the environment

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Research and Training, Rajasthan**

Average Learner Engaged Time = One Hour

Central Resource Centre

**Comprehensive Access to Primary Education Group
National Council of Educational Research and Training**

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**READ THE FOLLOWING BEFORE
YOU START STUDYING THIS CAPSULE**

Overview

This capsule describes the causes of insanitary conditions of our village surroundings and the effect of these on our health and living conditions. It narrates how human and animal excreta lying on the open ground and roadsides, cause water contamination during the rainy season and become the sources of germs of diseases like *cholera*, *typhoid*, *diarrhoea*, *hookworm*, etc. It further informs how these germs are carried by flies, animals and insects from place to place. It suggests alternative methods for the disposal of human excreta in a sanitary way and further conversion of the same as valuable manure for our fields.

Read this capsule carefully for it will provide you with the information about important factors that should be kept in mind while planning for a suitable type of sanitary latrine in the village. It will also help you to recognise similar problems of insanitary conditions of the village and analyse the problem in terms of suitable measures required for its solution.

While going through the capsule, you may experience some difficulties in following it. Please ask your facilitator to clarify your doubts and difficulties. You must *think* while you read the capsule. At the end of the capsule, a few questions are given. After attempting the questions, check your answers with the answer key. If you find that most of your answers are not correct, please read the capsule again. Go on reading the capsule till you are able to answer most of the questions *correctly*. If you still have some doubts, clarify them with the help of your facilitator.

Disposal of Human Excreta

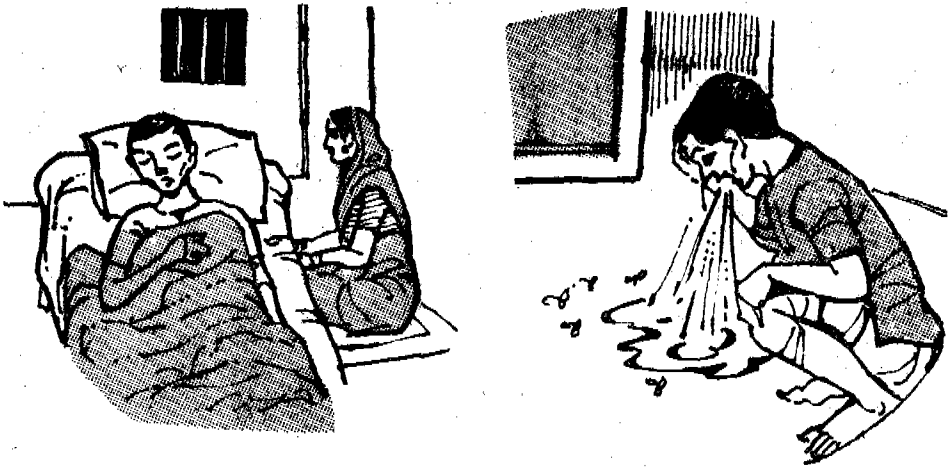
The sanitary disposal of human excreta is essential for keeping the village surroundings neat and clean. See, what happens when excreta is exposed on the open ground ?



1. Should it be allowed to be washed out during the rainy season and drained into tanks and unprotected wells ?

2. Should people carry it from place to place on their heads ?
3. Can flies and other insects contaminate unprotected food ?
4. Can small children be allowed to play with it and dirty their fingers ?
5. Can animals be allowed to walk on it and carry germs from place to place ?

Doctors tell us that human excreta may contain the germs of diseases like *cholera*, *typhoid*, *diarrhoea*, *dysentery*,



It may also contain the [germs of *hookworm*, *roundworm*, etc. which may be carried by flies to unprotected food. Let us study this problem in detail and think about its solution.

You must be aware that nearly 80% of the population of our country lives in villages. It means that the development of our country mainly depends upon the development

of villages. Actually, it is through the development of villages that we can achieve real progress in our country.

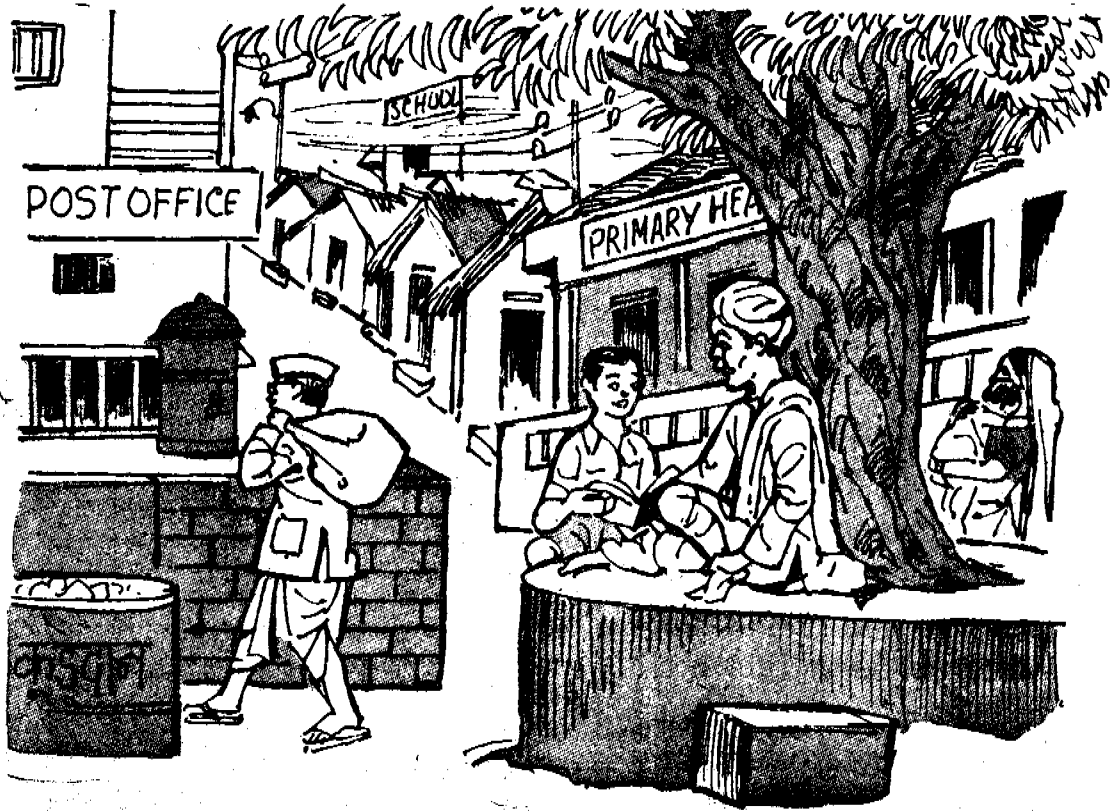
Think for a while as to how the life in our village had been 30-40 years ago. This information you can collect by asking your older relations in the village or any aged man or woman of the village.





Let me tell you my experience.

When I put this question to my grandfather, he told me that there was no electricity in the village when he was of my age. There was no post office. There was no primary health centre. The village was cut off from the cities, because there were no roads to connect with them. There was a school but it was of the elementary level. Only two or three persons were educated upto the matriculation standard in the whole village. So this, in short, was the position 30 to 40 years ago.



Find for yourself how things are different now in your village compared to 30 to 40 years ago.

You must have noticed that conditions are very different now. We have many facilities in our village which we did not have 30-40 years ago. But inspite of all these developments our village streets and surroundings continue to remain dirty and therefore, unhealthy.

Look around and find for yourself the answers to the following questions :

1. What are the things in the streets and surroundings that make them dirty ?
2. Who is responsible for this ?

You will notice that we throw waste material and dirt on the streets. There are piles of animal excreta all round the village. Most of us defecate in open places resulting in foul smell and a disgusting sight. For woman, it is all the more troublesome because they have to get up very early and do the same under the cover of darkness.



1. *What was the situation with respect to this problem 30 to 40 years ago ?*
2. *Why is the problem growing in magnitude day by day ?*

Actually, the problems were not serious in olden days as it is now. The population of the village was only a quarter ($\frac{1}{4}$) or even less, of what it is today. There were open spaces and woods around. People used to relieve themselves far away

from the village. But there are no woods now. There is cultivation all around. The population of the village is increasing rapidly. It is, therefore, essential that we develop a proper system of disposal of the following :

1. Disposal of Human Excreta (capsule 2-1-1).
2. Disposal of Dirty Water (capsule 2-1-2).
3. Disposal of Animal Excreta and Waste Material (capsule 2-1-3).

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| <ol style="list-style-type: none">1. <i>Find for yourself as to how germs are carried by flies and insects from one place to another.</i>2. <i>How can we solve the problem of sanitary disposal of human excreta ?</i> |
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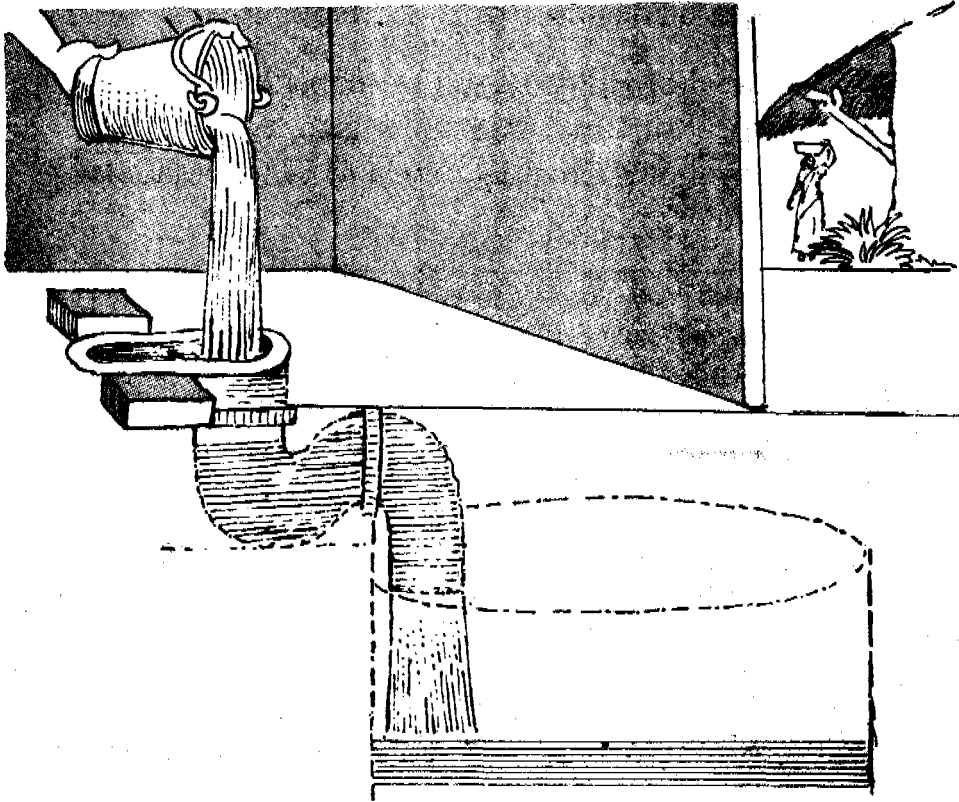
You will agree that if the problem is to be solved effectively it should ensure that :

1. Human excreta should not be accessible to flies, insects, animals etc.
2. There should be no contamination of water.
3. There should be no public or private nuisance.
4. The method used for disposal must be simple and inexpensive.

The sanitary inspector or the village development worker suggests that if we construct sanitary latrines, all the above conditions can be taken care of.

Experience shows that the most desirable type of latrine for villages is the water-seal pit system. In this type of latrine

a covered pit is dug near the site of the latrine. The pit is joined to the latrine seat by means of a bent pipe full of



water. The water present in the bent pipe works as a water seal. Excreta is flushed by water through this water seal into the pit. For this, a bucketful of water is always necessary for flushing the excreta into the pit.

Please judge the suitability of water-seal pit system on the basis of the four-criteria explained above.

Before deciding whether you should set up a water-seal lavatory what factors must you check on ? Here are some of the important factors. You may have thought of these and some others as well.

- (a) The pit is to be dug away from the well.
- (b) There must be sufficient water available for flushing excreta after each and every use of the latrine.

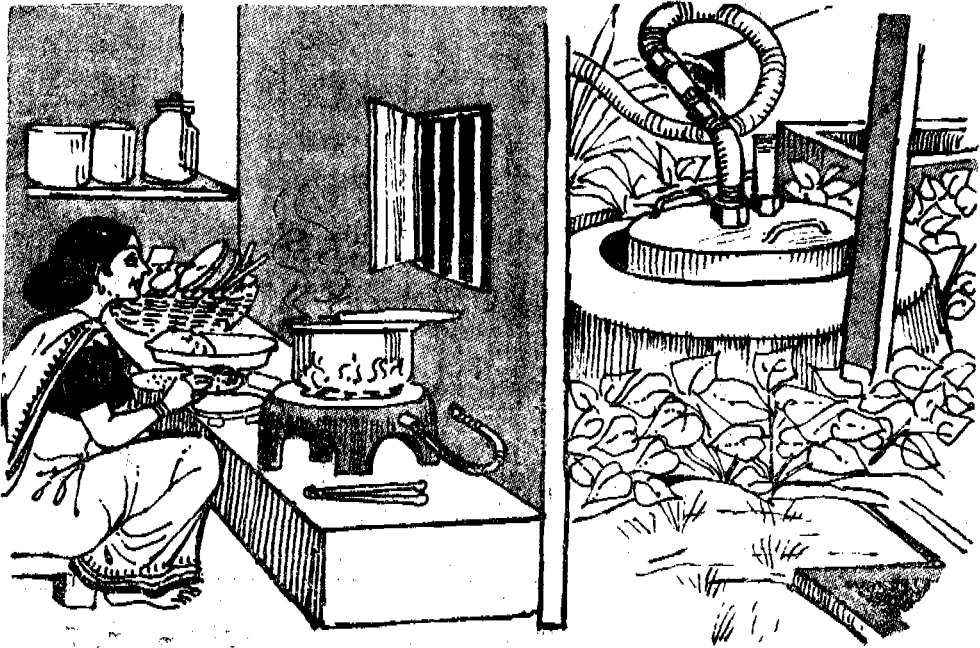


- (c) You will have to spend some money for purchasing the bent-pipe, the squatting-seat, etc,

(d) There must be adequate space available in your house for this purpose.

On checking the above points, if you decide to get a sanitary latrine constructed based on the water-seal pit system, it is well and good. However, if it is not possible for you to go ahead, you can surely do the following.

Please dig a pit in the corner of the space around your house. Place a wooden cover over the pit. Dump the excreta into the pit. After dumping, cover the excreta with 5 kg. of earth. Once the pit is full, it may be closed for five to six months. By this time the excreta gets converted into manure which may be used by you for agricultural purposes. You may dig another pit for dumping excreta. This process may go on.



This is how we can keep our surroundings free from foul smell and ugly sights. At the same time we can convert human excreta into valuable manure.

I hope you are now convinced of the utility of a sanitary latrine for proper disposal of human excreta. Please discuss this problem with other friends and approach the sanitary inspector, the village development worker or the sarpanch and persuade them to get a sanitary latrine constructed in your village.

Do you know that you could have sanitation, manure and free fire to cook your meals at home, using an inexpensive device which may be constructed in the village for each home? if you are interested, please see capsule 2-1-3. Also ask your friends and elders in your village whether they know about Gobar Gas.

Disposal of Human Excreta

Feedback Questions

Directions

- First, try to answer the questions without referring to the text of the capsule.
- Then, refer to the capsule for answering them better.
- After you have answered all the questions, compare your answers with those given in the ANSWER KEY provided along with this capsule.
- Do not look for answers in the key before you have answered all the questions.
- There are some questions, answers to which are not given in the capsule but which require some thinking on your part to get at the correct answers. These questions are related to the information given in the capsule and, therefore, a deeper understanding of the capsule will certainly help you to find right answers to these questions.

- A few questions are of a general type. Answers to these questions are not provided in the capsule. You may have come across information needed to answer them correctly either in other capsules in the learning centre or in the newspaper or in conversation with other persons.
- Anyway, do not worry about these questions. The answers are supplied in the answer key. It is important that you think and make all attempts to find out the correct answers before you look for the answers in the answer key. In the end, find out your score of the correct answers. If more than 30 per cent of your answers are wrong, it means that you need to study the capsule again. Read the capsule carefully again, particularly those portions that are related to the wrong answers.
- Again attempt the questions which you first answered incorrectly. Check them up with the answer key.
- Even after this, you may find that you do not know the correct answers of a few questions.
- Consult your friends in the learning centre. Some of them may be able to give you right answers.
- Still if you have a few questions unanswered, take the help of your facilitator in the learning centre in solving them.

Questions

1. What is essential for keeping the village surroundings neat and clean?

2. Why is it necessary to keep our surroundings clean ?
3. Why does the progress of our country depend upon the development of villages ?
4. How was the life in our village about 40 years ago ?
5. What change do you notice now in our villages ?
6. Why, inspite of the development, our villages are dirty and unhealthy ?
7. Why was the problem of unhealthy environment not so serious in olden days ? Why is it so now ?
8. What diseases are likely to spread if human excreta is exposed on the open ground ?
9. How could we prevent the spread of these diseases ?
10. How do the sanitary latrines help us in preventing the spread of diseases ?
11. Differentiate between the water-seal pit and dry-pit latrines.
12. What are the benefits of dumping excreta into a pit and covering it with earth ?
13. Please indicate as to which practices of the villagers are contributing to the insanitary surroundings :
 - (a) They throw refuse in the street.
 - (b) They do not take bath daily.
 - (c) They do not consult the doctor when they fall ill.
 - (d) They defecate on the open ground.
 - (e) They believe in superstitions,

- 14. Whom should you approach for seeking guidance regarding the construction of a sanitary latrine ?**
 - (a) Village patwari.**
 - (b) Village level worker.**
 - (c) Village postman.**
 - (d) Village watchman.**

- 15. Write an application to the Sarpanch of your village, drawing his attention to the unhealthy surroundings and requesting him to solve the problem.**

- 16. Plan out a workable scheme for keeping your street clean and healthy with the help of young friends and elders ?**

Answer Key

1. The sanitary disposal of human excreta is essential for keeping the village surroundings neat and clean.
2. It is necessary to keep our surroundings clean, because it protects us from the germs of diseases like *cholera*, *typhoid*, *dysentry*, *hookworm*, *roundworm*, *diarrhoea*, etc.
3. The progress of our country depends upon the development of our villages, as the vast majority of people, i.e., 80% of the population lives in villages.
4. The life in our village was as follows : There was no electricity, no post office, no primary health centre; there were no roads connecting the village to the cities, no educational institutions except the elementary school and there were not many persons with the education upto the matriculation standard.
5. We have now many facilities in our villages which we did not have 30-40 years ago.

6. Our villages are dirty and unhealthy inspite of development because we have not learnt to dispose waste material, dirt and excreta in a sanitary way.
7. The problem of unhealthy environment was not serious in olden days because there were not as many people in the villages as we have now. The population of villages now has increased more than four times than what it was in olden days.
8. The diseases which are likely to spread if human excreta is exposed on the open ground are : *cholera, typhoid, diarrhoea, dysentery, hookworm, roundworm* and many other serious stomach ailments (diseases).
9. We can prevent the spread of diseases by—
 - (a) keeping human excreta away from flies, insects, animals etc.
 - (b) letting water be not contaminated by the germs.
 - (c) disposing human excreta in a sanitary way.
10. The sanitary latrines help us in disposing human excreta in such a way that water sources are not contaminated by the germs.
11. The excreta is flushed with the help of a bucketful of water through the water seal in a bent pipe into the pit, while the same is covered by 5 kg. of earth in the dry pit.

12. The excreta gets converted into manure in about six months. This manure can be used for agricultural purposes, e.g., developing a small kitchen-garden.
13. (a), (d)
14. (b)
15. Write your answers and show to your facilitator for correction.



READ THIS TOO

You have now read only one capsule related to the disposal of human excreta in a sanitary way as an important step for improving insanitary conditions of the village surroundings. You should read the remaining capsules also, for they would provide you with information about the disposal of dirty water and waste materials in such a way that you will not only be able to solve the sanitation problem, but will also get manure for the field and free fire to cook your meals at home by spending the minimum. Further, the capsule will also help you to analyse the causes of insanitary conditions of similar type of villages and decide about the suitable steps to be taken to improve the situation, and contact the persons who can help you in your effort. The list of capsules under the module is given on the next page.



November 1980 ; Agrahayana 1902, PD 20 T.

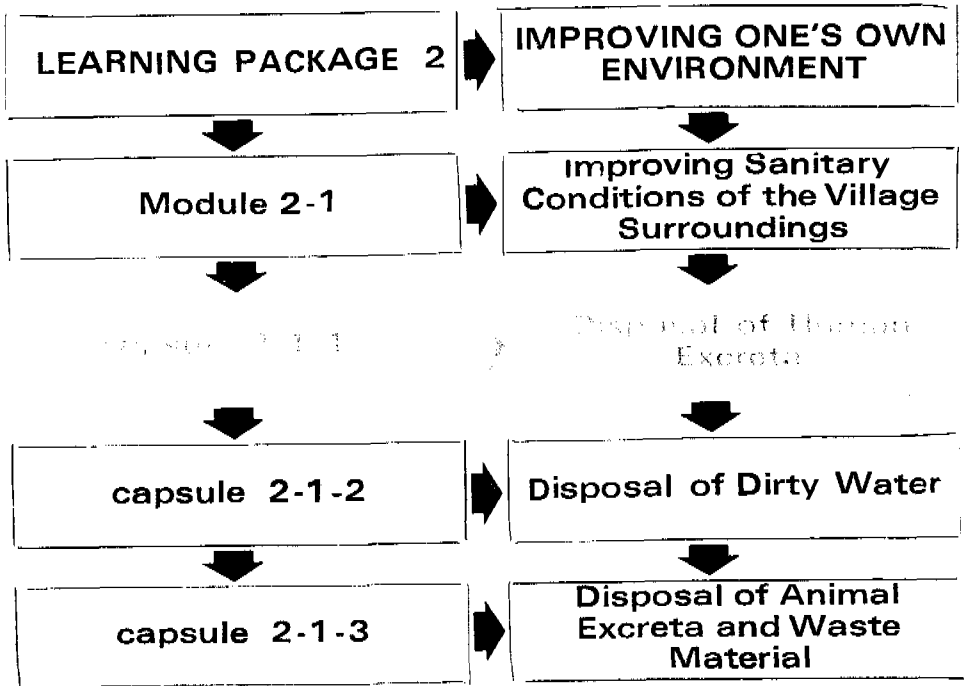
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