

Module - 402

HEALTH & ENVIRONMENT



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HEALTH & ENVIRONMENT

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Lesson 1

Let us progress together

Aims

On reading this lesson you will understand

- It is not necessary to expect the government to solve simple problems of our village.
- No task is difficult if we work together. This is the confidence that we have to give to our people.
- Understand that there are strong age-old ties between man and nature.

Knowledge

You will know that

- Participation of every citizen of the village in its development is essential.
- Transformation of the village will only begin with the transformation of oneself.

Skill

You will learn

- How to explain the significance of self help to people.
- How to arouse the confidence of the villagers in making progress on their own with the help of government plans.

Perspective

You will realize that

- The importance of strength of numbers.
- The bond between us and nature is fundamental to development.

Introduction

A potter's family lived in a village where sugarcane plantations and sugar industries newly come in. Not only did the industry bring money to the village but also a different kind of culture. At first the potter could look after his family well. He would supply earthen pots as required to different families in the village in exchange for goods that he needed: for example, since he had no land of his own, farmers would give him grain in return. He did not have any land of his own. But owners of fields would give him grain in return. But in the new system they stopped giving him anything. He could not make two ends meet. People like him had to move to cities to get jobs. The youth of the village began to work in cities while their parents and children remained in the village.

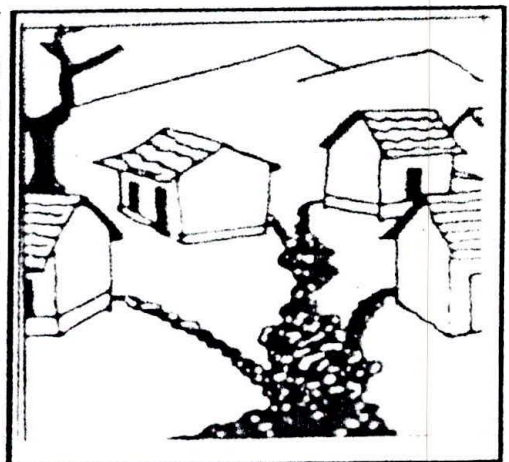


The potter got a job in the city. But his wages were insufficient to maintain the whole family. So his wife Gunja had to work in other people's fields. She would bring home green vegetables which her mother-in-law cooked in an iron pan without spices with just onion and garlic. The children would eat it everyday however they were never sure of getting too square meals in a day.

The potter's son kept falling ill. He was prone to frequent colds and diarrhoea. She took him to the doctor but he was always meeting his family in the city. The hospital staff asked her to give him oral hydration till she reached a bigger city hospital. She was wondering how she would afford the doctor's fees if she spent on travel. In this confusion, the child died.

The grieving woman went to stay with her husband in the city. She kept feeling that she would not have lost her son had they lived in the city. There were doctors all over the place and plenty of transport. She could visit any hospital here. She wondered when her village would improve. Since the coming of the sugar factory, the village water had got contaminated. The factory workers had a new colony and school but development did not reach the village. The only change in the village was the availability of alcohol and the things began to deteriorate when villagers got drunk and harassed their families.

There was plenty of water in the city. The potter's wife chatted with her neighbour Savitri who earned her living by doing household chores for different families.



Her husband had deserted her and lived separately. Savitri and Gunja discussed all the various facilities available in the city, but Savitri pointed out that these were only for the rich. Although there were many doctors and hospitals, their fees were very high.

She also complained about the pollution caused by vehicles and the filth surrounding their huts.

Savitri also felt that the lack of education prevented them from earning well. She pointed out that poor children cannot study because they have to work in the daytime-rag-picking in cities or grazing the animals in villages. They had to share the family responsibilities. They therefore needed night schools. Besides government schools did not teach well. Poor children could not afford tuitions and they lagged behind in studies.

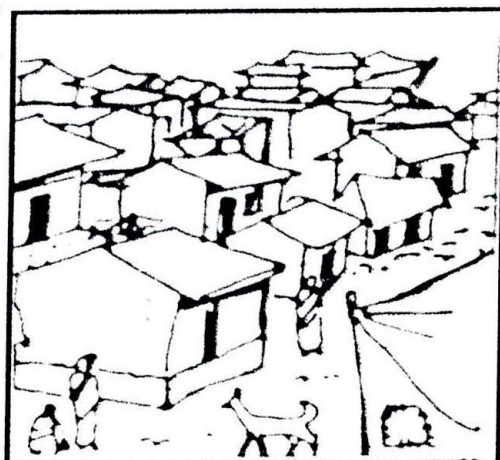
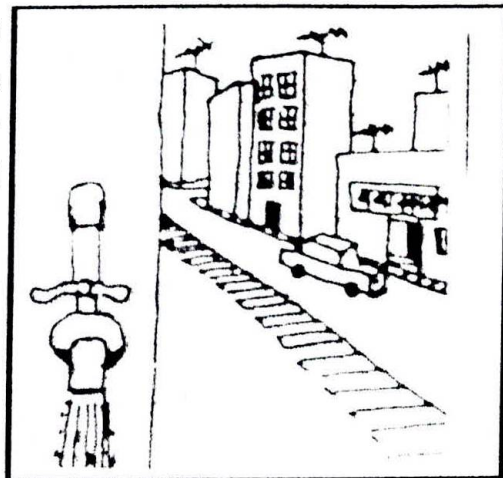
On Savitri's advice, Gunja returned to her village. She kept pondering about improvement of her village. The Panchayat elections were round the corner and there was a 33% reservation for women. The elders of the village were upset about this new empowerment of women. She gave in her nomination for the Panchayat and was elected alongwith another woman.

Gunja was afraid to attend the first meeting with other men. The women had to agree with all their decisions quietly. After 6 months there was a letter inviting the women members of the Panchayat for a training workshop. The other woman member refused to attend on grounds of family problems but Gunja decided to participate.



Many things were taught at the workshop. What Gunja liked it was the atmosphere of training through conversation. This method was stress-free as they were asked to narrate their experiences. There was no teacher as such. There were songs and stories. It was fun to learn in a playful way, from each other. They were taught through group discussions how to solve problems. They had to come up with solutions for the development of their village, and further learn how to measure their success.

All of them felt that the government should arrange for water supply, construction of roads and provide



employment opportunities. The trainer who was a woman then narrated a true story of the development of a village.



There was a village called Shindi in the drought-prone Parner Taluka of Maharashtra state. Shindi is the Marathi name for the toddy tree from which an alcoholic drink is prepared. There was no work during the monsoon, toddy was available in plenty and people would drink it all the time. The women and children were fed up of this nuisance. It was under these circumstances that a person called Anna Hazare decided to transform the village. He gathered the villagers to solve their problem of employment. He decided to tackle the question of water shortage first. They created tiny bunds on the hills. They collected water in trenches along the ground. Trees were planted. Gradually they were able to grow crops, even three times a year in the land which had not been productive for long. Latrines and soak-pits were constructed in the village. Since the waste was absorbed by the ground, the village became a cleaner place. A school was started for children. Dowry was prohibited and so was alcohol drinking. The youth who had left the village in search of jobs, returned to their farms. The Panchayat elections were held unopposed unanimously. The villagers contributed their labour while the government schemes provided some funds for this developmental work. This village is now known as "Ralegan Siddhi".



After a brief silence a discussion followed :

Trainer : Do you think the government alone should help?

One Member : Who else will help?

Other Member : What we just heard showed that villagers should lead.

First Member : You do not have people like Anna Hazare in every place. My village has a lot of politics; it is very difficult to get any work done there. Then who but the government will do it?

Member : Madam, will you kindly tell us about the schemes started by the government? We may then understand things.

Trainer : A lot of schemes were executed after the independence of the country. We will discuss the merits and drawbacks of the following plans -

- 1) **The welfare state** - Helping the weak e.g. - health services, free education etc. were taken up by the government and social organisations for conducting immunization,

dispensaries and so on, to reduce the economic burden of the deprived sections. The biggest drawback of this was the creation of total dependence on the Government. People began to think that all welfare schemes depended only on the government, with nothing to be done by oneself.

2) **Economic Independence** - Aid to raise the financial condition by giving loans for goat-farming, brick kilns etc. Funds were provided but no training was given. People lacked the skills to start new trades or improve production.



3) **Training** - Technological training for self-reliance was started through schemes like TRISEM and ITI training centres. Although this imparted technical training and financial help, the weaker sections could not become independent in the absence of knowledge about the marketing skills and business practices.

4) **Equality** - Gender equality was given importance. New laws were enacted to reduce casteism and emphasis equality of sex. Unfortunately this new approach remained on paper. Means of enforcement of these rights and empowerment of women were lacking. But the scenario is changing gradually. They did not work out how to put it into practice. Today empowerment of underprivileged people is being stressed.

5) **Empowerment** - The ideas about development have been changing - raising the power of decision making among people, encouraging people to take decisions, getting the cooperation of people and providing all kinds of information to them.



Alka : How are these changes in development concepts connected to Panchayat training?

Kamala : We have just been told that decisions should be taken by the people. Panchayati Raj is the rule of the people, run by the people for the people.

Vimala : All said and done, people in villages do not take decisions. They are always taken by the leaders and the rich. It is the men who manage everything. Women are members just for name's sake.

Trainer: You are right, this has been going on till now. Leaders used to decide for the villagers. If we wish to stop them, we should go to the Gram Sabha, demand explanations from them, and also accept responsibilities.

Alka : People do not know how to ask questions

Trainer: In order to ask questions, one should first obtain relevant information. Meet

the Gram Sevak and officers of the Taluka Panchayat to find out details about plans. Many organizations publish booklets about Panchayat Raj. Read them and pass on all the information you get, to the people. When people become knowledgeable, they can ask questions.

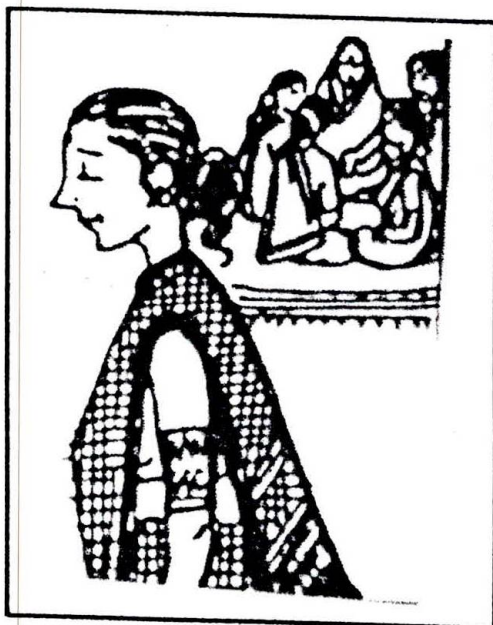


Kamala: What will we say to the men folk? And what will people say about us?

Trainer: Women can do a lot for their villages. I feel they would perform better because they have first-hand experience of facing day-to-day problems and finding out ways of solving them.

Kamala: Who will listen to us - women folk?

Trainer: Initially women may not receive attention, but gradually there will be a change. There is a 33% reservation for women and other backward classes both of whom are repressed. If members unite for the development of the village the leaders will have to listen to them. When Mahatma Phule started schools for girls a hundred years ago, people flung stones and cowdung at him and his wife. Today all girls go to school. No one finds anything wrong with it. If women are elected now, very soon they will carry out their duties well.



Kamala : What you say is right, but what should we do ?

The system of Panchayati Raj needs village level plans. Earlier the village plans were made at the centre. But the biggest challenge for Panchayat Raj is to make the plans in the village itself. Some rules must be followed in order to accept this challenge. Let us discuss them briefly.

All this conversation made Gunja realise that in order to develop the village, knowledge about its natural resources man power and potential is necessary. Plans can be based on this for e.g. - the raw material and

availability of skills should be considered to start a business. If a dairy is to be started, are enough cows /buffaloes available? Are there means of collecting the milk? In case the milk is not sold, is there any arrangement to use it in some other way? All such queries should be sorted out.

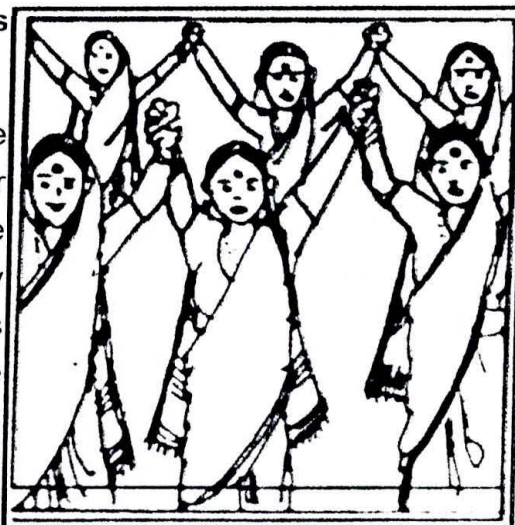
We are part of society

Till now we only thought about our own homes and families. If we have to solve problems of our children's education and employment, then development of the whole society is necessary. In order to have our children's schools run well, we must all help the schools. A continuing dialogue must be established with the teachers. After all the family is a unit of society. Our development lies in the development of our village.



Cooperation of not just leaders but everyone is essential in a village

Even today, the so-called rich and upper class people take decisions for the village. Our village got a sugar factory, but what did the villagers gain from it? Some selfish people were benefited, but the common man only got suffering as a result of the factory. If the villagers had relevant information, the leaders would not have been able to pressurize them, people could have refused to agree to a factory being started. What is needed is a representative who works in harmony with the



people, unlike the past leaders or powerful individuals. The people's representative must understand their difficulties and work peacefully. Using the right of majority can transform society. All the people should express their views about the development of the village, discuss them and decide things by consensus.

Reservation

Some seats have been reserved for backward communities and women by the government with the hope that they will also get some benefit of development. Reservation will allow them to be involved in the political process. It is hoped that they will present their questions and participate in solving them.

Transforming oneself

We need to change ourselves if we want to create a new society e.g., discipline, punctuality, cleanliness, following deadlines, are all basic to success. It is necessary to change old habits

of discrimination and adopt attitudes of equality amongst all classes, genders and castes.

Transforming of village conditions is upto us. We must keep in mind the proverb 'Where there is a will, there is a way'.

Alert and questioning minds are necessary in society. Things should be accepted only after careful thought even if they are customary.

Self-sufficient village

People should get employment in their own villages. Small scale industries should be started at village level, so that villagers do not need to migrate to cities to earn money. Some work must be available in the village when there is no work possible on the farms.

Our relationship with nature

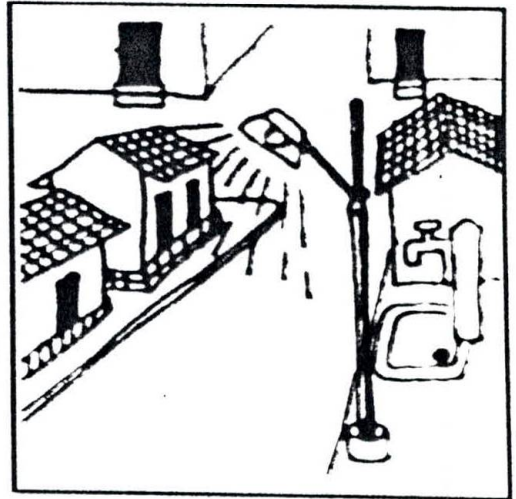
We must conserve natural resources, which are the property not only of our society but also of future generations. It is our collective responsibility to protect the land, water and air for the future society. It is our foremost duty to use this invaluable storehouse of nature carefully and properly.

This is an ancient story.

Long, long ago our country, followed the Gurukul system of education. Students would stay with their mentors for education.

A great teacher had three disciples who were all very intelligent. He could not decide which was the best. The teacher's wife had a clever idea. She suggested that they should both go away for a fortnight, at the end of which they would come to know which student was the most intelligent. Before setting out, she gave some seeds to each of the three, saying that these should be returned in the same condition when they got back.

When they returned from their journey the wife assured her husband that he would soon recognize the best student.



The master called all three students and asked them to return the seeds. One student had kept them safe in a trunk, but they had got spoilt. The second one had sold his seeds in the market. When he went to buy new ones with the money, he had to spend more because the prices had risen.

The third student said that they would have to go out into the yard since the seeds couldn't be carried. There were colourful fragrant flowers all around. He said that they would get back their seeds after two weeks, many more than the original number. The most intelligent boy had proved himself.

The trainer said that the fragrance of one's work should spread all around. You may be alone at first, but do not be afraid. Proceed hopefully and the seeds sown by you will flourish in proper conditions.



Self Examination

- Do you think a village can become self-sufficient?
- How will you explain the fact that daily life is connected to nature?
- How can one develop decision-making capacity in people ?

Exercises

Choose correct alternatives

1. There is _____ reservation for women in Panchayat Raj.
 1. 33%
 2. 66%
 3. 500%
 4. 430%
2. _____ is needed for development of the village.
 1. A leader
 2. Government aid
 3. People's participation
 4. All the above
3. Development means
 1. People get all facilities
 2. Increase in factories, buildings and roads
 3. Proper use of natural and human resources
 4. All the above
4. A self-sufficient village requires -
 1. Employment for each person
 2. Small scale industries at village level.
 3. Work in the fields
 4. Proper planning of natural and human resources of the village
5. We should preserve the bounty of nature (land, water, nature) because-
 1. We need it for our living
 2. Our future generation and other beings have a right to it
 3. It is a gift of God
 4. In future this can help man to conquer nature.

Answers

1-1, 2-3, 3-3, 4-4, 5-2

Lesson 2

The Government in our village

Aims

On reading this lesson you will understand

- The different characteristics of the traditional Gram Panchayat.
- The system of Panchayati Raj
- The objectives of rural development.
- The activities of Gram Panchayat
- The significance of the participation by the people in rural development.
- Forming an ideal society.

Knowledge

You will know about

- The difference between the ancient and modern Panchayat System.
- The concept of rural development.
- The basic principles of an ideal society.

Skill

You will learn

- How to inspire people for development.
- How to bring about a change in the psychology of the people.

Perspective

You will realize that

- The village is our own responsibility.
- It is not difficult to create an ideal village if the entire village acts collectively.

Our Village our Government

That the village should be run by the villagers themselves is not a new concept in India. The system of Panchayat Rule was created long ago in our country. The ancient books of 'Vedas' also mention 'Gana' (citizens), (the body), (sabha) which are rural names. The Ramayana includes 'Ghosh' (declaration) and 'Janpada' (people's post) while Maharashtra has the term 'Gramasangha' (union of villages).



Even when ancient man lived in forests, he lived in groups. Man observed animals and domesticated them. When farming was developed, he had to settle in one place. Groups living in particular places developed into villages. The need for unity and cooperation among them led to the creation of 'Panchayat' in the early periods.

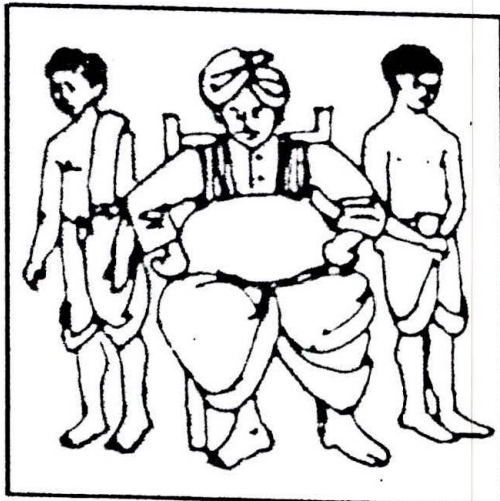
Just as the Gram Panchayat is unique to India there have been 'Lenas' in Athens 'James' in Rome, 'Burgh' in Scotland 'Mir' in Russia, and 'Kalapuli' in Mexico.



The Panchayat has existed since the period of the Vedas, four to five thousand years ago. This system existed and was respected before British rule in India. The Gram Panchayat was like a government which carried out the functions of maintaining the coordination, protection and solving the rivalries among the villagers. The stability given by this governance led to the prosperity and strength of the ancient villages. The ruling kings could not interfere with the working of the villages due to absence of means of transport. The officials of Royalty maintained a relationship with the village to recover taxes from it. Gradually they began to encourage self-rule amongst them.

The features of the ancient Panchayat

1. People themselves created and maintained roads, wells, lakes and canals in the villages.
2. People contributed their labour to the development of the village.
3. Development of farming and cottage industries.
4. Availability of health and education services.
5. Dispensing justice to villagers at low cost. People



often had to go to the King's Court to get judgements. Later on the Gram Panchayat began to solve such cases.

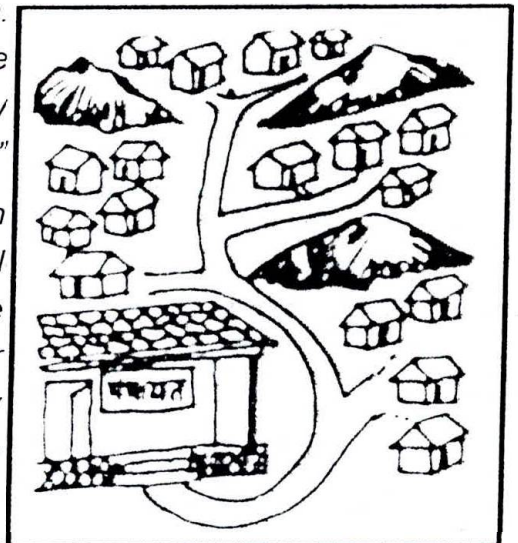
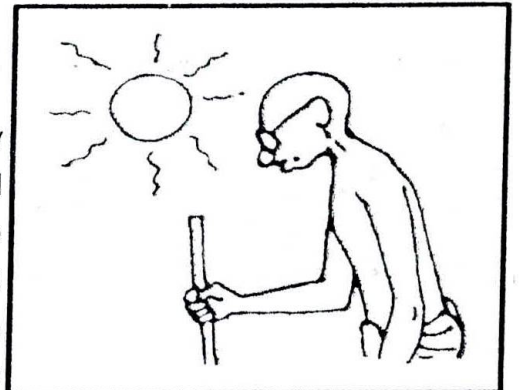
Drawbacks of Ancient Panchayat

1. There was a lack of representation due to the dominance of higher caste people.
2. The democratic society was damaged by caste-discrimination.
3. The Panchayat did not have the right to form any law. They had to follow the traditional laws.
4. There was not enough individual freedom.
5. The restriction on lower castes to receive education or begin a business etc. led to an unequal society.

Modernity in Panchayat Rule

Gandhiji explained his concept of India as a country where even the common man feels that he is involved in the creation of his nation. It is a place where people live amicably with no discrimination. It should be devoid of inhuman conditions like untouchability and evils like addictions. Gandhiji said, *"The India of my dreams has greater equality and doesn't allow any kind of exploitation. Here the deprived and the weaker sections should be treated on par with the better classes. I want a country with minimum expenditure on defence and weapons."*

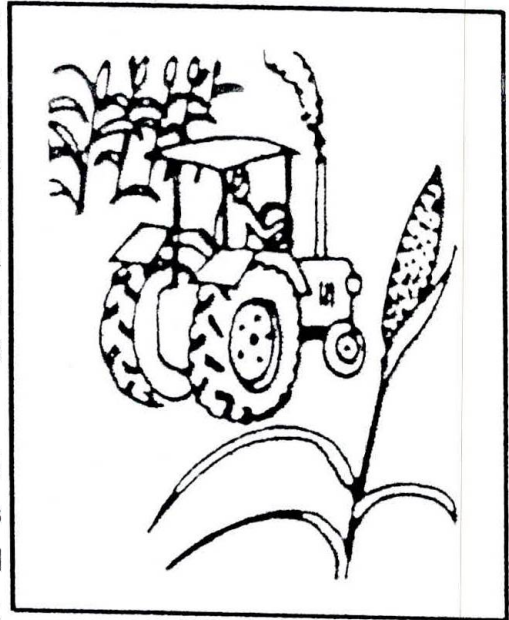
"There will be economic equality and freedom in my India. This concept keeps out conflict between capital and labour. Collective labour is the capital, thus the minority rich community has to come down from their high level in order that the level of the vast majority of the hungry and exploited poor can be raised. We cannot have a non-violent government unless the gap between the haves and have-nots is reduced. I cannot imagine cities and metros having grand sky-scrapers being surrounded by filthy areas and squalid slums. In an ideal country, all Indians should have equal rights. If the handful of upper classes do not volunteer to offer their wealth and power for social welfare, they will be inviting a revolution of bloodshed. It is imperative to hand over money and power to the numerous common people in the India of my dreams."



We run our village / Governance comes to your village

After setting our nation free the major problems were poverty, hunger and unemployment.

The 5 - year development plans were launched with a bang with the objective of achieving progress on national level, improving common man's economy and raising the overall standard of living. After massive expenditure development and progress were not very evident everywhere. The conclusion was drawn - rural development couldnot succeed without actual participation of local people. In 1957 Balwantray mehta study commission was appointed to find the solution at the root level.

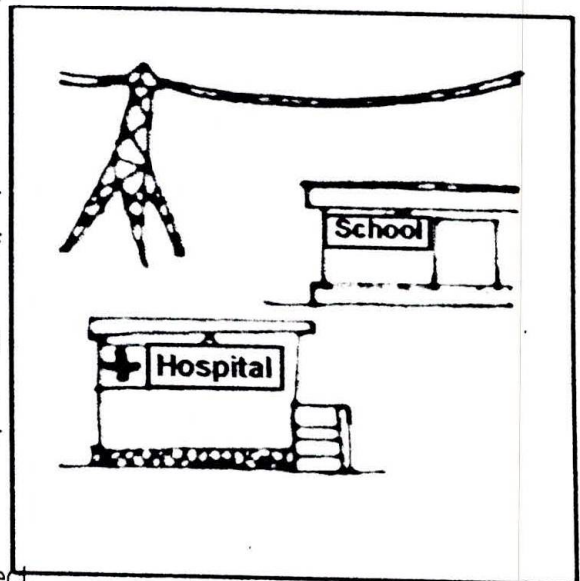


The committee felt that in order to achieve rural development restructuring the Panchayat institutions was essential and that development works should be handed over to them. it recommended decentralisation of power, more people's participation and a three-tiered system. This three-tiered system awarded maximum rights to Grampanchayat and in 1992 a bill to that effect was passed, known as the 73rd amendment of constitution.

73rd Amendment to the Constitution

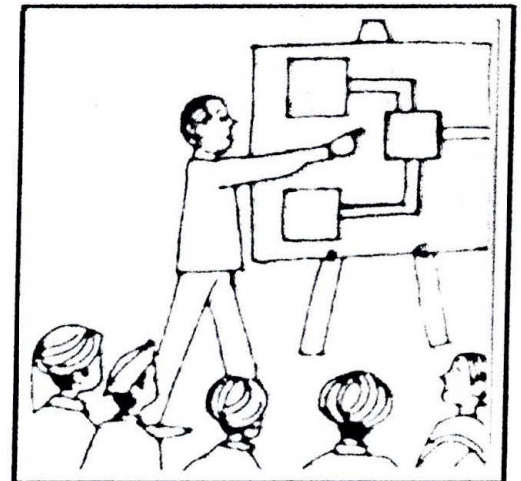
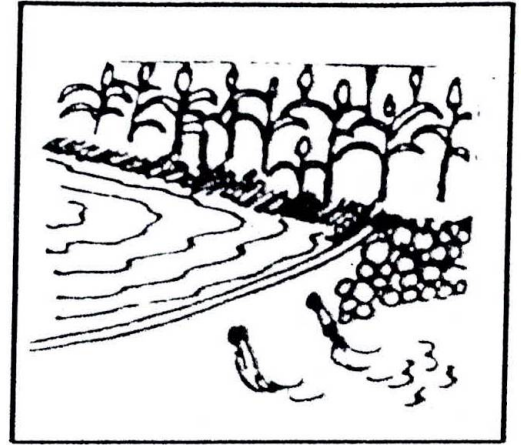
Every member of a Panchayat should understand this amendment made in 1993.

1. Every village will have a Gramsabha which will have legal rights and powers.
2. There will be a three-fold structure in the state- gram-panchayat (village panchayat) Panchayat 'Samiti' (committee) and Zilla Parishad (District).
3. Every Gram Panchayat will have a term of five years. If it gets dissolved for some reason, elections should be held within six months.
4. All members at every level will be elected.
5. The State Government will decide the manner of holding the election of 'Sarpanch' (Chief Member) of the Panchayat.
6. The Presidents of the Panchayat Samiti and Zilla Parishad will be elected by secret ballot. There will be appropriate reservation for Scheduled Tribes.
7. 30% seats will be reserved for women.
8. The Gram Panchayat will have the right to collect and spend local taxes.
9. The State Government will hand over the following schemes to the Panchayat for economic development and social justice.



(Section 243 clause 11)

1. Agricultural Development
2. Land Reform
3. Water Supply
4. Animal Husbandry
5. Fishery
6. Farm and Forest Development
7. Forest Produce
8. Small Scale Industry
9. Khadi, Village Industry
10. Rural home plan
11. Drinking water supply
12. Fuel and Fodder Department
13. Telecommunication
14. Electricity Supply
15. Development of non-conventional energy
16. Eradication of poverty
17. Primary and Secondary Education
18. Technical and Professional Education
19. Adult Education
20. Library Department
21. Cultural Affairs
22. Market & Fair Federation
23. Rural health and sanitation care
24. Family Welfare
25. Women and Child Welfare
26. Social Welfare
27. Welfare of deprived
28. Public Distribution System
29. Social Heritage



What is the meaning of Rural Development?

The following are the main objectives of Rural Development

1. Eradication of Poverty
2. Employment
3. Social Justice
4. Upgradation of the life style of villagers (through improved health service, literacy, nutrition, clean water etc.)

5. Development of Fruit and Agriculture Produce.
6. Development of Agro-based Industry.
7. Maintenance of ecological balance.
8. Water-shed
9. Enabling total self-sufficiency in villages.

The government is trying to execute every rural development plan on the basis of local needs. It is bound to obtain the coordination of maximum people in the planning, execution and follow-up of all schemes. Rural Development will be possible with the participation of the people.

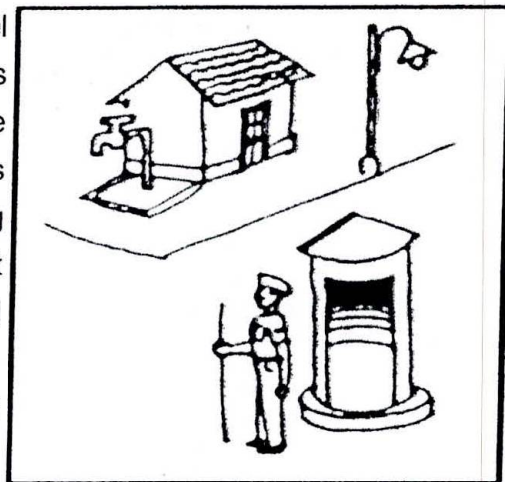


People's Participation

Meetings and contributory labour at the village level alone does not comprise people's participation. It means the achievement of the objectives of development by the collective efforts of people at all levels of the village. This requires the encouragement of all women, men, old, young and especially the people from weaker sections to get involved with the process of development. Only then will the aim of electing representatives be fulfilled.

The following execution is expected for maximum participation and cooperation of the people-

1. Spreading the information regarding all schemes related to rural development among the people.
2. Make villagers aware of a plan or activity for the development of the village with the help of a local worker or officer.
3. Villagers make suggestions about the requirements of the village to the local workers regarding schemes and programmes.
4. Make the people understand that the village can be developed with the methods decided by the villagers.
5. The concept of wealth accumulated through government schemes and activities belonging to the village, whether it deals with hand pumps, water pipelines or construction of buildings, should be clarified.



Method of Establishing Gram Panchayat

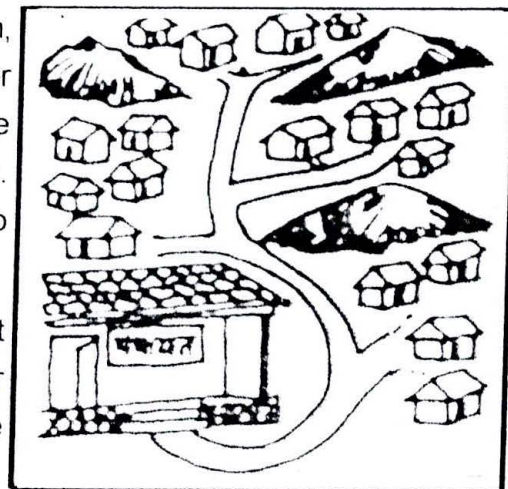
The lowest unit of administration in the State Government is the village. A minimum 300 people in a village is necessary to form a Gram Panchayat. It works at two levels. The

first is the local administration which includes illumination, roads, public health, creation of housing schemes, water supply etc. All these tasks have been entrusted to the Gram Panchayat. The second kind of charge viz. maintenance of security in the village is handed over to the Government.

The Taluka is under the Police Chief. It is here that



the State courts hear the cases from the villages.

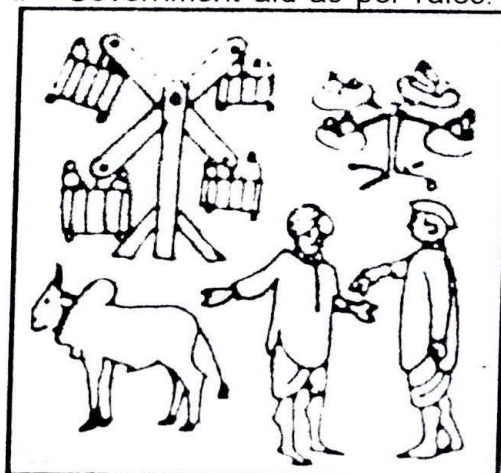


If a village is too small, two or more villages may collectively form a Gram Panchayat. According to Article No. 5 of the Constitution, every village must have a Panchayat except where a municipality or cantonment already exists. If the population of a village exceeds 10,000 the government can establish a municipality there.

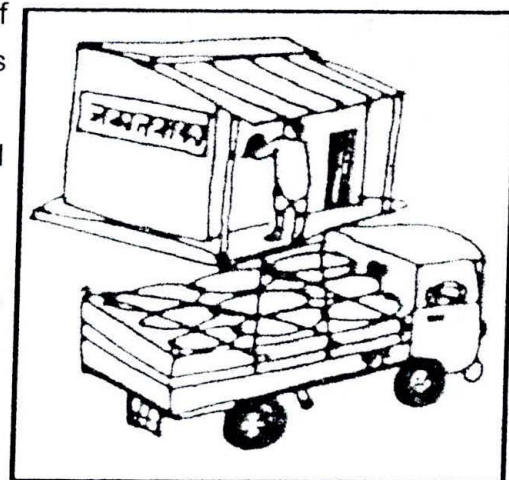
A place has to be declared as a village before a Gram Panchayat is formed. The Chief Officer of the Zilla Parishad sends a notice to the Divisional Commissioner according to which he orders the establishment of the Gram Panchayat.

Sources of Income of the Gram Panchayat

- a. The Gram Panchayat has the responsibility of conducting welfare activities for the people. This requires its own income along with government aid.
- b. The following means have been approved for fund raising -
 - i. Government aid as per rules.



- ii. Various taxes and fees levied by Gram Panchayat.
 - iii. Financial Aid Received.
 - iv. Repayment of loans given by Gram Panchayat.
 - v. Aid received under various Development Schemes
- c. To increase the Panchayat income one has to take certain steps from time to time like:

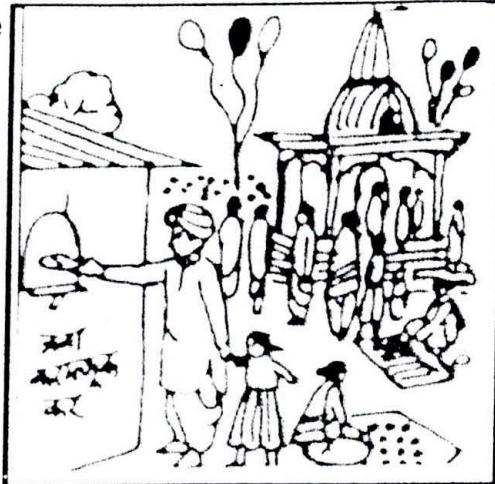


1. In every four years there could be a need to revise the house tax.
2. In rural areas an agriment has to formed with industries so that certain grants could be availed.
3. Tax on markets and fairs.
4. Sales tax on animals.

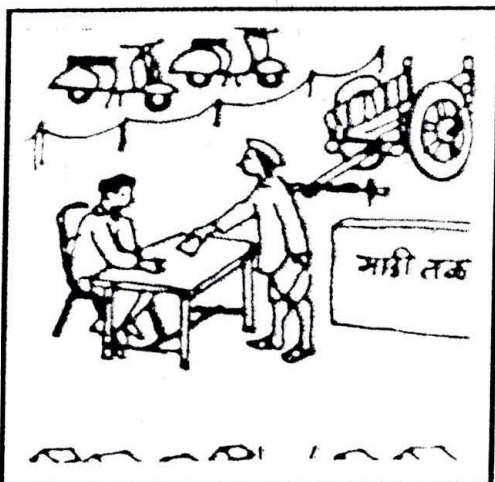
Taxes and Fees levied by the Panchayat.

Taxes and Fees Levied by Panchayat

The type of fees that can be levied by Panchayat have been listed in Article no. 124 of the Directories as follows:



1) **Land Tax** - According to Article no. 4, the Gram Panchayat has the right to charge buildings and Land which pay no revenues. Agricultural land is taxable. But Article No. 127 allows the gram panchayat to tax the produce of the land. It can tax buildings, constructed, both on agricultural or non-agricultural land.



- 2) **Land Reform Tax** - The Gram Panchayat can use the village funds for schemes to increase the productivity e.g. - irrigation facilities to supply water to fields with pumps and other methods. The Gram Panchayat can collect taxes from landed farmers for such purpose.
- 3) **Octroi** - Goods entering the village can be taxed by defining the geographical limits before deciding the amounts. (Ref-Kanas Pimpri Panchayat vs. Z. P. Nagpur - 1968, No. 181, 186, 187) Octroi cannot be collected from goods being traded out of the village (Ref Guru Swamy vs. Iju Malai Panchayat - 1968 No. 271, 274).
- 5) **Pilgrim Tax** - The Panchayat can collect tax from pilgrims visiting holy places or places of worship lying within their geographical limits.
- 6) **Fairs and Entertainment Tax**- Shops set up during fairs in villages and tickets sold for entertainment programs can be taxed. This includes films, drama, tamasha but not marriage or adoption celebrations.
- 7) **Bicycle, bullock-cart or house-carriage taxes**- Panchayat can collect charges from these vehicles plied inside their area, as a source of income.
- 8) **Trade of Profession Tax**- Article 276 of the Indian constitution has to be followed while collecting this tax. The Maharashtra Act of 1975 allows tax on internal trade, service and professions.

9) Health Care Tax - The Panchayat can tax the sanitary blocks or toilets installed by it for public hygiene and cleaning of gutters, collecting garbage etc. from the village.

10) Water cess - The Panchayat can decide a definite tax on water connections in houses, or charge fees for supplying lake or well-water to fields.

11) Other Charges - The Gram Panchayat has the right to collect fees permitted by the State Government like electricity supply.

12) The Panchayat that provides street-lighting can collect fees for it.

In addition to the above taxes, the Gram Panchayat is allowed to collect the fees for the following -

1. Daily / weekly markets.
2. Parking carts and carriages at stands
3. Running a stall or utility at public places.
4. Cleaning of latrines on private land.
5. Grazing of animals on pastures owned by the Panchayat
6. Special cleanliness activities in surroundings including public toilets.



Compulsory Taxes

The Panchayat has the right to collect all the fixed taxes like land and water tax, outstanding dues and tariffs. However it does not have the right to add any unlisted charge e.g. - it cannot levy sales tax on goods sold.

The Gram Panchayat looks after and is the basis of the administration of the village. Villages with a population of less than five hundred have a combined 'Group Gram Panchayat' of two or more villages.

The members of the Gram Panchayat are elected by senior voters for five years. The candidate to be elected must be above twenty-one years of age. There are a minimum of seven and maximum of fifteen members in a Gram Panchayat. Some seats are reserved for Scheduled categories and 33% for women.

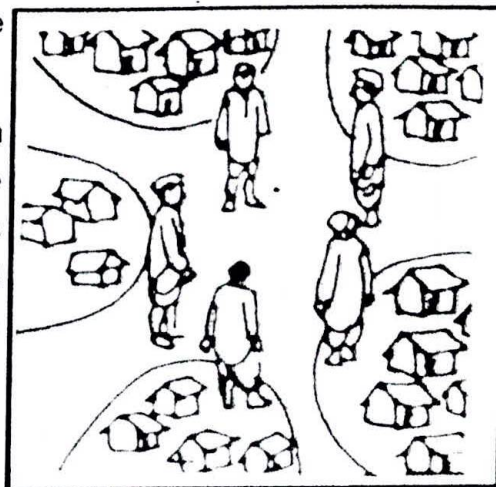
Gram Panchayat

The Chief of the Panchayat is called '*Sarpanch*'. He and the assistant *Sarpanch* are elected by the elected members of Gram Panchayat. The Sarpanch is the President of the meetings organized by them. He looks after the working of the Gram Panchayat and the execution



of the development schemes. He is helped by the assistant Sarpanch.

'Gramsevak' is a government servant who assists in the working of the Gram Panchayat as secretary. He prepares the budget for the Gram Panchayat, maintains accounts and advises the villagers about health-care and matters related to agriculture and education along with development. He is also expected to give information regarding government schemes.



The Functions of the Gram Panchayat

Construction and maintenance of roads in the village, supplying electricity, arranging markets, fairs, celebrations and pilgrimages in the village, keeping records of births, deaths and marriages, public cleanliness, waste water management, supply of drinking water, providing facilities for education and health, execution of agricultural development and animal husbandry schemes are the responsibilities of the Gram Panchayat



Sources of Income

The main source of collecting funds for the functions of the Gram Panchayat - the collection of taxes on housing and open plots within its limits. The other sources include profession tax, pilgrimage tax, housing, sale of animals, part of land revenue and subsidy granted by Zilla Parishad for development work.

Gramsabha (village meeting):

Any and every resident of the village who has voting right and has completed 18 years of age is a member of the *Gramsabha*. Gramsabha is called for village development in which various problems and difficulties of the villagers are discussed and action programme is sought. It is necessary for maximum number of residents to attend this meeting; especially expected is the participation and collective cooperation of local women. A separate gramsabha can also be arranged for this purpose. Village development plans and budgets are kept open for discussion and approval in this meeting. All queries are satisfied by *Sarpanch* and *deputy Sarpanch*. Public notification and announcement (*Davandi*) is essential prior to such a meeting so as to let everyone know about it. It is essential for villagers to read any resolution that has been passed in Gramsabha before signing on it. In some places a record of a Gramsabha is created, without actually conducting one, and villagers are asked to sign. This is destructive to the democratic and development processes.

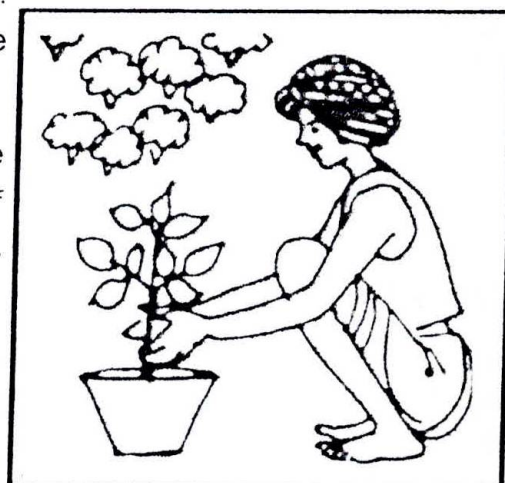
Generally women, people from backward and weaker classes do not attend Gramsabha in sizable numbers; this keeps them away from the information about and benefits of development.

Gramsevak is supposed to write the conclusive report of the village meeting and he is to do it then and there, before the meeting is over. Then only the villagers are expected to sign on it. What most of them actually do is to prepare a rough copy omitting the recording of discussion and thus the records do not reflect realities. Villagers are denied their rights. They must be made aware of this.



Gramsabha is an effective tool regarding people's participation, noting public opinion and keeping a tab on panchayat's working. People must realise it's importance. Everyone, especially the women, should acquire knowledge about the laws pertaining to the area of operation of a Gramsabha, regulations to conduct it etc. Remember, the most important catalyst in effective implementation of any action plan is the gramsabha.

'Nyaya-Panchayat' (for Justice) - Villages have controversies about division of property, boundaries of field etc. The idea of establishment of Nyaya Panchayats (one among five villages) is to solve such disputes at the village level. This Panchayat consists of one representative of each village, excluding the Sarpanch and Assistant Sarpanch of any village.



Rights for All

1. It is important for **every villager to get employment**. Industries like textiles, oil or soap can be started in a village to provide work to all the unemployed. Consequently, the rural youth need not migrate to the cities.



2. **Environmental Protection** - Installing a Gobar-Gas plant can solve the problem of fuel in villages. Consequently it will prevent cutting of trees. In addition, using natural manure like compost can be encouraged among the farmers. This will be economically viable and also maintain the organic richness of the soil.

3. **Participation of villagers in the village activities-** The activities of the village should be conducted in

consultation with the villagers. Their views should be solicited and expressed in the Gram Sabha. A representative Gram Sabha can influence the decisions of the Gram Panchayat. Thus development will be more effective by involving the villagers.

The Program of creating a model society

- 1. Taking the power to the people** - Unfortunately development plans are often made in cities, due to which they are not always relevant to the requirements of the villages. Therefore the Gram Sabha should send their requirement to the Zilla Parishad and have a dialogue with them. Then the plans can be made accordingly and the villagers will be able to use their resources in the proper way. Only Gram Sabhas should be authorized to decide on implementation of any schemes in the villages.
- 2. The direction of rural development** - When every villager realises that the development of his/her village lies in his/her own hands, then only, collectively it can be made into it an independent, self-sufficient place. Every person must ensure total literacy and voluntarily enforce prohibition in the village. A motion to this effect should be presented in the Gram Sabha. Together they should move towards ecological balance through tree-plantation and prevention of deforestation.
- 3. Development through contribution of labour** - If activities like construction of roads and schools are undertaken by the villagers themselves, a lot of money will be saved. Simultaneously every person in the village will be involved in these schemes.
- 4. Participation of Gram Panchayat** - Scheduled castes and Tribes along with women have been given representation according to Article No. 73 (Amendment). The Gram Panchayat should make greater efforts to prioritize their schemes on the basis of the requirements. This may be decided in consultation with experts otherwise just a handful of people may get only their own work done while the village as such will not benefit.
- 5. Participation of Voluntary Organizations** - Women's organizations and others can help by contributing to the cause of village development. The village representatives should always keep the villagers aware and alert so that there is transparency about the resources of the village being used in a proper manner.

Only the village has the right to decide the purpose for which the available wealth is to be used. The villagers have the responsibility of ensuring that they use their decisions for progress of the village.

If all the men and women collectively execute their roles well, a 'Panchayat Raj' will be created in the true sense of 'Self-Rule'.

Self Assessment

- What does développement mean?
- How should this concept be explained to people?
- How can the meanings of 'Self-Sufficiency' and 'Contribution' of labour' be clarified to people?

Exercises

1. Who was responsible for running a village since Ancient times?
 1. Gram Panchayat
 2. Panchayati Raj
 3. Nagar Parishad
 4. All the above
2. Drawbacks of Ancient Panchayat
 1. Only Higher Caste Representation
 2. Casteism
 3. Individual Dependence
 4. All the above
3. Within how many months is a dissolved Gram Panchayat to have fresh elections?
 1. 6 2. 3 3. 9 4. 4
4. How many functions have been given to the Panchayat in Amendment to Article 73?
 1. 20 2. 29 3. 19 4. 33
5. The Chief of a Gram Panchayat is
 1. Panch 2. Sarpanch 3. Assistant - Sarpanch 4. Gram sevak
6. Which of the following taxes are levied compulsorily by Gram Panchayat ?
 1. Building Tax 2. Land/Land Reform Tax 3. Water Cess 4. All the above
7. Minimum population to form a Gram Panchayat - More than
 1. 1000 2. 500 3. 400 4. 500
8. Minimum age for participation in Gram Sabha
 1. 18 2. 20 3. 29 4. 25

Answers

1-1, 2-1, 3-1, 4-2, 5-2, 6-4, 7-4, 8-1

Lesson 3

Participation of Women in Panchayats

Aims

On reading this lesson you will understand

1. It is necessary for women to participate in Panchayats.
2. It is necessary to link women to developmental work.

Knowledge

You will know about

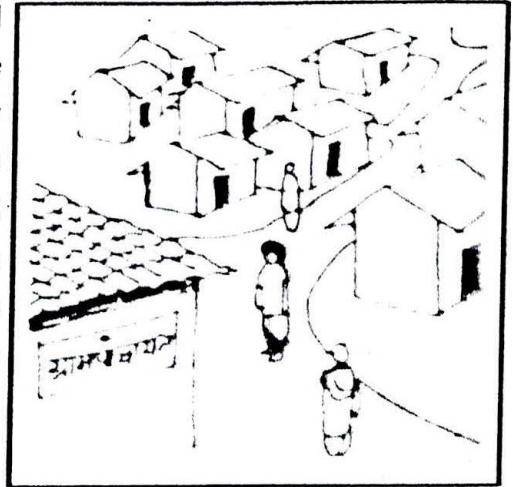
- Rules and regulations of the Panchayat

Perspectives

You will realize

- The importance of organizing
- The direction of progress.

Our country India is governed by a Central Government based in the capital city of New Delhi. The different states of the country are governed by representatives elected from each State. Similarly, the smallest unit of the village must be governed by elected members of the Gram Panchayat drawn from the village itself. They understand the conditions of their village society, financially and otherwise. This enables them to plan the activities, to be suitably executed for planned development. Progress of each village leads to development at higher levels and the country as a whole.



Mere launching of space-rockets, creation of atomic energy, building big industries and dams do not constitute development of a country. India is truly developed only if the poor living in remote, interior places receive two square meals a day; distant hill-top areas get facilities for health, education, housing and clothes, common people get egalitarian justice and employment opportunities. A three-level plan at the district, group and village levels has been suggested in the Panchayat Raj. ("Zilla", "Gut", "Gram")

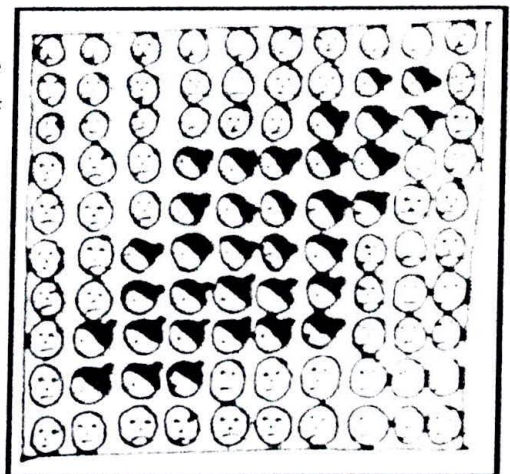
The Panchayat Raj and Amendment to the Constitution No. 73

Panchayati Raj has been made more effective via the 73rd Constitutional amendment. What is this amendment and why is it important for women ? The former Prime Minister Late Shri. Rajeev Gandhi decided to give greater power to Gram Pachayat through Amendment to the Constitution. This was accepted on 22nd Dec. 1992 and approved on 24th April 1993. This awarded constitutional status to the Gram Sabha and holding its meetings became mandatory.

The membership was related to the population. The members were to be elected by voting, for a period of 5 years. The rights, duties and collection of funds of the Gram Panchayat were defined.

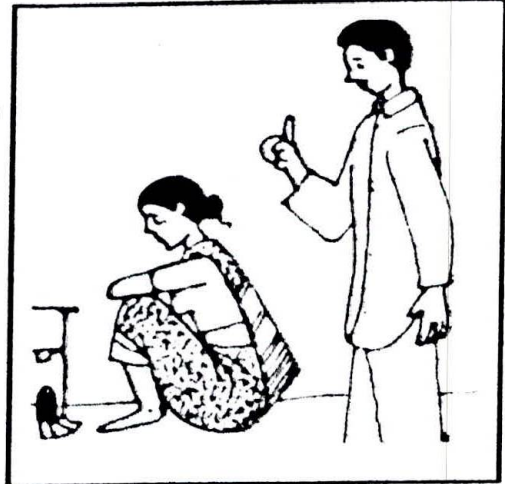
The Election Commission was established along with the Finance Commission. The most radical factor about this was 33% reservation for women, scheduled castes and tribes, as well as backward communities. 1/3 of the posts of "Sarpanch" were reserved for women by Rotation.

Thus through the Constitution amendment women secured a place in political participation legally. Women who never dreamt of approaching the Gram Pachayat now became constituents of the power in the village.



The future after empowerment

Women mainly worked from the home. Along with housekeeping, cooking and raising the children they also worked in the fields. Some women took up jobs like teaching and becoming health workers. Despite women supporting their families through their work, men continued to be considered as the head of the families. These repressed women have now been granted power in politics, but need a change in the social and political environment to use their power effectively. They need to undertake activities not performed like going out of the house to engage in their community, talking to other men and even raising their voices in protest where necessary.



The women in the Gram Panchayat are under stress while facing the anger of the men. They hold to traditional values and practices and expect women to behave accordingly. Women therefore have to face many obstacles in working for the development of their villages.

Difficulties and hurdles

In a male-dominated society, women were considered fit only for house-work and family chores. They were considered unfit for politics. Even women started thinking for themselves. However, if women are ignorant about the outside world, it is not due to lack of intelligence, but because they were deprived of information about other activities. Similarly men are ignorant about house-keeping because they have never participated in it. However all human beings can learn many things because both men and women have intelligence and grasping power. So the women in power have to be bold enough to go beyond the household stoves to occupy the chairs in the Panchayat as a matter of right, gather correct information about the type of activities they can do for development of their village, and express their ideas about it.



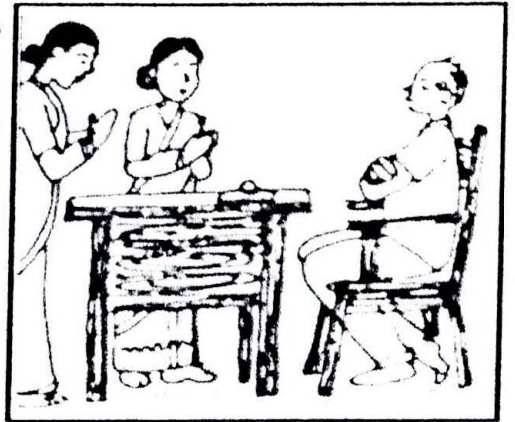
An example

When a group of villages in Vidarbha elected women who formed the first women Panchayat there, the former male Panchayat members threw all the furniture out of the office and replaced it with cow-dung containers before the meeting. Women must be prepared to overcome such resentment and opposition and take initiative to begin



the work themselves. They must not wait for anyone to come forward to guide them.

Women are not puppets : We do not want rights like puppets just for namesake. Women members must never meekly sign papers brought home by the male members who have made their own decisions at their meetings. Women must attend the meetings, participate in decision-making using their own discretion and be aware of what is going on.



Countering vested interests : Conscientious and intelligent work undertaken by women may harm some vested interests in the village eg. funds for development schemes are sent to the Gramsevak first. These are men who have worked there before and already know about



the plans. Although some of them cooperate with the new women members and welcome their participation, there are some corrupt men who want to protect their own interests about undertaking schemes for the benefit of their own groups. Such influential members may avoid giving information, obstruct the activities or even expect signatures on blank cheques or documents. At times a no-confidence motion is filed against the woman. But women have to support each other to face such difficulties. A woman can do her work in spite of such hindrances with support from her family and women's groups in the community.

At the time of the declaration of reservation of seats for women there was much discussion as to which women would join this participation process : It was thought that women from the political leader's families would be the only ones who would join, leaving intact men's hold over the political systems. However till now 10 lakh women from independent organizations



from the States have come forward. They have recognized the need for education and information.

Proving oneself

Women have made a beginning of proving themselves by participating in the political arena. Moving out of their homes, meeting other members speaking out in meetings has strengthened their confidence. Just as a woman uses her money in the interest of her family rather than herself in domestic affairs, in politics too, she has made a difference. As several examples show

the problem of water which affects women more acutely than men has been tackled effectively with the entry of women in Panchayati Raj.

Education is the third eye (Education: An eye-opener)

Although many woman members are uneducated, they know the importance of education. They have tried to educate themselves and their children. There are many instances of improvement in schools-more classrooms, repair of leaking roofs, better buildings and roads for schools and ensuring regular attendance by teachers. In some areas since girls have no means of transport to high schools in distant villages their parents were not keen to send them to schools for reasons of safety etc. There the elected women started a "Rasta-Roko" movement, to get a suitable bus service for them (which had been denied to them in spite of submitting applications and meeting officials). Thus they are improving the "vision" of the villagers.



Alcoholism

A lot of women and families have been ruined by alcoholism. In order to prevent this, women in - Panchayats have worked to abolish drinking in their villages. In some places they were successful, but in others there are vested interests of men which hinder their efforts. They are usually supported in their efforts by their fellow villagers or Mahila Mandal.

Progress

Just as women have vehemently taken up issues of prohibition, they must tackle broader issues like roads, buildings and electricity. They must study the problems of crimes against women, and related laws. They need to consult books, social organisations and social workers to solve the problems of the affected victims of social crimes like rape and violation against women.

Cooperation of All

Participation of women does not mean rivalry with men. Neither gender can have progress without the support of the other. Future society well depend on equal justice and opportunities for both men and women.

The story of Fatima Bi is well-known. She received the Asia Pacific Award for Fighting

Poverty from UNO in 1998. She is an uneducated citizen from Kalwa, a small village in Andhra Pradesh. When she became Sarpanch in 1995, she stepped out of her conservative home for the first time. She gave priority to bringing basic facilities of roads, drinking water and electricity to her backward village. Alongside, she transformed the illiterate villagers by encouraging education, starting industries with rural saving banks and freed the community from the grip of money-lenders. Care-centres were opened for children of working women and they soon overcame age-old practices like child-marriage

and family-feuds. The performance of Fatima Bi is commendable specially because it was done against all odds and without any backing of education or money.



Self Study

- The perspectives of both men and women need to be altered for participation in the Panchayat . What do you think about the statement. Does the progress of a woman lead to the progress of her home and village too? Give an example.

Exercises

1. Women got the right to participate in the Panchayat by the Amendment the Constitution
 1. 29
 2. 73
 3. 74
 4. 33
2. In spite of reservation for women in Panchayat Rule, their participation is less due to
 1. Lack of information
 2. Male dominance
 3. Lack of education
 4. All the above
3. To raise the confidence of women in Panchayat Rule, we need
 1. Spread of education
 2. Provision of information
 3. Making women aware of Rights
 4. Reservation
4. The foremost indicator of the Progress of a country
 1. Employment/Education for all
 2. Progress of women, children, backward tribes, development of natural resources
 3. Rising rate of economic progress
 4. All the above
5. The decision to amend the constitution for strengthening the Panchayat Rule system was given by
 1. Indira Gandhi
 2. Rajeev Gandhi
 3. Pandit Nehru
 4. Lal Bahadur Shastri

Key

Answers

1-2, 2-4, 3-3, 4-4, 5-2

Lesson 4

The right to information – A powerful tool of democracy

Aims

You shall obtain the following information after reading this chapter.

- Information is an extremely important factor in public and private life.
- What is information? Why is information necessary?
- In India, many organisations had to fight a fierce battle to obtain the right to information.
- What is the character of the Central Right to Information Act, 2005?
- A common person can use the right to information to address his/her personally and socially related public difficulties.

Knowledge

You shall observe

- Democracy and Panchayat Raj can come forth in its true sense only when citizens remain alert.
- The right to information is one of the fundamental rights provided by the Indian Constitution.
- The right to information can make revolutionary changes in democracy.
- The right to information is necessary to enlighten citizens about their rights and powers.

Skill

You shall learn

- How to actually use the right to information.
- How to use the right to information to bring transparency and accountability in the administration of the institutions of democracy and Panchayat Raj.

Opinion

You shall think

- Democracy cannot come into being without the participation of the people.
- Any faults in the Panchayat Raj system can be corrected with the right to information.
- Like food, clothing and shelter, information regarding the administration of the institution of Panchayat Raj is a basic necessity as well.
- The life of the common man can become better and prosperous by using the right to information.

Preface

In the last chapter you learned that the government is striving towards increasing the participation of the people, right from planning to implementation of development schemes and beyond. If rural development is to be actually achieved, the maximum responsibility lies with the villagers. Nothing can be achieved if we only exercise your right to vote once every five years and think that we have done our duty and then blame the government for the condition in our village. We have not been able to comprehend the system of democracy even after 58 years of independence. Gandhiji's dream will turn to reality only if we understand the true meaning of democracy.

In this system, the people's representatives and the public servants that we have elected work as trustees. They are supposed use our tax money in our best interests and for our development. Instead, in the past 58 years, the morals of these trustees and public servants have gradually deteriorated and corruption is prevalent everywhere. Rather than using the people's funds appropriately, these opportunists use it to fill their pockets. A kind of apathy is observed in the community due to this practice. 'I cannot recover from all these conditions, I am defenceless', this feeling of despondency can be observed everywhere. Are the conditions really so bad? Is this feeling of despondency justified? We shall attempt to find the answers to all these questions in this chapter.

The greatest flaws in the implementation of the Panchayat Raj system are ignorance and apathy. The main reason for this ignorance is the obstruction of the average voter from obtaining information regarding the government administration. Today, all these questions have to be faced by the people due to the closed-door decisions and the secretive use of money by the implementing officers of the Panchayat Raj system. We are living a life filled with inferiority complex believing that they have all powers and we are merely common citizens. The solution to the flaws in the Panchayat Raj system is eradicating this inferiority complex and making people aware of the fact that 'I am a competent resident of this village, I am going to run my village government and we will take development decisions in our village'. Even after all these flaws are rectified, the responsibility for strengthening this system lies with us. For the same, we are going to study an Indian citizen's fundamental right to information in this chapter.

Why is information necessary?

Since we elect our representative to run the Government it is said that 'In Democracy government represents the people'. All public works are executed for us by using our own money. In order to ensure that these works are executed according to our needs, we should have complete information about these works. Hence, the village residents have the right

to be informed as to who took the decision of the work in the village? When was the decision taken? Where is this work going to take place? What is the estimated expenditure? How many people are going to be employed for this work? Furthermore, who is responsible if this work is not executed or if it is of poor quality? The residents of the village have the right to obtain information about all these things. This is known as 'right to information'.

Many such decisions are taken which is related to our life. A large amount of our money is spent in government work. This is the reason that we must know about such essential issues. There would be no opportunity for corruption if there is transparency in the execution and administration of all work. The government or the administration is for the people and is bound by law. The administration could be held liable if a work is not executed in a proper manner. In such a case, legal proceedings can be carried out against the guilty official or politician. This is termed as 'The accountability of the administration towards the people or the administration being responsible for the people'.

'Information' is as important as food, clothing and shelter. Information is necessary for taking knowledgeable decisions, for obtaining the context of various types of topics, for understanding important details, for understanding our rights or powers as well as for holding the administration responsible for any evasion in their work. In this present age, man's life has become very fast and new researches are being carried out in the field of social and natural sciences at the same speed. Decisions can consequently be taken only on the basis of systematic, detailed and precise information.

What is information?

Information is knowledge about a certain incident, reaction or person or principle. We obtain information about incidents in the past, present as well as that in the future through reading, pictures, experience or any other form of public proclamation. Information provides knowledge. But, information is not knowledge. That is why information is the mother of knowledge. In short, information is a resource as well as a power that creates capability.

How is information obtained?

As mentioned above, information is obtained through reading and experience, but to understand our rights and powers or to take a decision on a certain topic or question, various orders, decisions, minutes of the meetings, bills, register entries, rules, documentation, records, plans, etc. of the administration are regarded as important. This information is necessary. Therefore, obtaining all these things and their easy accessibility is akin to getting the right to information.

Who has given us the right to information?

The original laws of this country give us this right. This is known as the 'Constitution'. According to the constitution, we have certain fundamental rights and it is the duty of the government to protect them. The government cannot transgress on this authority. But, in special cases, temporary restraint may be imposed on it for the welfare of the people. Two of the fundamental rights provide us with the right to information.

1. The right of freedom of thought and expression (Section 19 (1) of the Indian constitution)

This means, to speak freely and to express our thoughts without hesitation and without fear. Expression means the proclamation of our sentiments – we can do so through the medium of speech, writing, pictures or songs, dance or films. We can express our thoughts favouring or opposing any topic. This right also includes the right to information. Till we have information about a certain topic, we cannot speak about it.

2. The right of existence and individual freedom (Section 21 of the Indian constitution)

This means, the right to obtain all things necessary for the protection of our existence and life. This includes the right to live a life of dignity and without grievance. This also encompasses the right to obtain necessary information regarding the issues that relate to our life.

If providing information is the government's duty, why is it so difficult to obtain?

This question may also arise in our mind. We have trouble obtaining information from government offices due to the following reasons –

1. There are certain laws which can hinder access to information. For example, the Indian Official Secrecy Act passed by the British government in 1923. The act was passed by that government during the First World War so that important official documents and information do not fall into the enemy's hands. The war ended and truce was declared, but the Official Secrecy Act still exists. The British handed over this act to us when they left this country and it is now being used by the politicians and officials for their benefit to obstruct the common man from obtaining information. High-handedness, dilatoriness in work, corruption, avoiding people-participation as it is difficult to remain honest in work, these are a few of the ill effects of the Official Secrecy Act.

2. The documents, bonds, files in the government offices are kept such that they get spoiled and are attacked by white ants. Thus, the required information cannot be obtained.

3. People do not even know that they have a right to obtain information. They do not exercise the power of their right if an official does not provide them with the required information, and look at going to court against the official as a waste of time and money.

How can we obtain this right?

We can obtain this right only when –

- The government orders all departments and the officials of these departments to provide information to the people.
- Changes are made in various laws and information is provided through them.
- A single act that provides all types of information to the people is passed.
- A radical change is warranted in the education system, which can transform the disposition of public employees from that being of the owners of the public system to service providers. They should realize that they are accountable to the people and it is their duty to provide all the information to the public concerning them and the work surviving on public funds.
- It is important to have a consensus over the fact that public duties, collective efforts, development work is people's own responsibility. Local popular media should reinforce this.

Who first recognised the importance of information?

The merchants first recognised the importance of information. They had understood that the success of their business depended on correct information regarding which type of goods would sell in which community. The politicians were next in understanding its importance. Politicians can estimate their next move to maintain their popularity in their constituency on the basis of information. For their own benefits, politicians, merchants and persons from this community working for them have been making strenuous efforts to keep the obtained information to themselves and ensure that nobody else uses this wealth of information.

The common man has the right to obtain such information in reality, but the common man has always remained ignorant of this sort of 'information'. Information may have hindered somebody at some point in time, but information did not become their key issue. Since the common man does not require a lot of information, mediums like newspapers also did not strive very hard to obtain information. In short, neither did the common man take to the streets saying 'provide information' and nor did they ever demand for that right.

When did the common man realise this?

There came a time when even the common man's existence was being snatched away. When people started slowly becoming aware of the fact that somebody was cheating them, they felt the need for obtaining a thing called 'information'. But who would let the power

called 'information' out of their hands so easily? The people who, till now, were fairly used to fighting for food, clothing and shelter did not know that they would also have to fight for the right to information.

The consumer forums felt an acute need for the right to information.

The consumers are deceived by the merchant class. When these consumer forums observed that consumers are not provided the true information about the product or service, they decided to fight against it legally. Taking the 'welfare of the consumer' into consideration, an extensive movement began under the leadership of Mr. Bindumadhav Joshi. This movement included the right to information along with consumer rights. This consumer's movement, which began in 1974, fought constantly and intelligently and finally got the 'consumer protection act' passed on 26th December 1986.

The movement for the right to information and its consequences

Even though the consumer's movement included the right to information, it was in a different form. This fight took place as information was necessary in order to ensure that people, as 'consumers', are not deceived. As a result, people started feeling that 'we are hindered due to lack of information'.

People became aware of the fact that they should obtain information which they did not so far obtain. There is an ongoing battle for the past few years for obtaining the right to information. It began in Rajasthan.

1. 'Janasunvai' (Public hearings) of Rajasthan

In 1994, under the instructions of Aruna Roy and Nikhil De, the 'Majdoor Kisan Shakti Sanghatana' organisation began a movement for the right to information through the medium of 'Janasunvai' (Public hearings) in Rajasthan. This organisation began their fight on the issue of minimum wages for labour. At that time the mode of work was such that all decisions regarding village development works were taken by the centre (from the capital). A few people recognised that the decisions taken in this manner did not lead to the development of the village, but benefitted only few middle men and hence, it was decided that the process of development should not take place from 'top to bottom', but from 'bottom to top' and this organisation supporting land-less farmer labourers, small farmers and women was founded by Aruna Roy and Nikhil De with a resolve that the villagers shall work for the development of their village on their own. One of their initiatives, by the name of 'Janasunvai', i.e. public hearings, came into being in Rajasthan. This public hearing was infact a public court.

Since the organisation started a programme of indefinite protest exactly at the time of

elections, the Chief Minister authorized taking notes from the official documents manually. But this order was not what was demanded and hence the protest continued. The Government finally appointed a committee in order to decide the method for providing information to the public, and the protest was withdrawn.

There are many facets to the movement in Rajasthan. The participation of women is an extremely important and decisive part of that movement. The right to information of MKSS assumed the form of a successful movement, due to the effective tool of 'public hearing' adopted by them. (Hence, the government had no option but to create the 'right to information' act.)

2. Maharashtra – 'Public movement against corruption'

At the same time, a public movement against corruption began in Maharashtra in 1997 under the leadership of senior social worker Mr. Anna Hazare. The movement laid special emphasis on four topics - the awakening of the voters, abolishing the Official Secrecy Act, authority to the village assembly and right to information. The following are the thoughts of Mr Anna Hazare on these topics -

1. Our selfish politicians are trying to divide unified India by using caste, religion and bring about anti social activities in the community and country. It is necessary that the voters be alert in order to control this. The status of the candidate asking for votes is inferior to that of the voter.

The voter has the right to question this candidate. The candidate can make false promises when asking for votes and hence, the voter should take a written affidavit from this candidate, asserting that the candidate will fulfil all promises, and the voter should have the right to summon him back in case he does not fulfil the promises.

2. Confidentiality has always presented more opportunity for corruption. This has also encouraged the public servants in carrying out injustices to the public. The confidentiality has not been abolished even after 58 years of independence. Confidentiality has snatched away citizen's freedom. This is why every citizen must now revolt against the Official Secrecy Act.

3. The country has its Lok Sabha, the state has its Vidhan Sabha and similarly, the village Gram Sabha is the village assembly. Akin to the country and state having a Prime Minister and a Chief Minister respectively, the village also has a Sarpanch and the executive body. It is necessary that all decisions taken by the executive assembly pertaining to the development work be discussed in the village assembly and implemented according to the decision taken in the village assembly. Though this decision was taken in the 73rd constitutional amendment, it is not being implemented. The oft repeated phrase 'Participation of the people in the work of the government', is incorrect; if the government has been instated by the people, then the phrase should be 'Participation of the government in the work of the people'.

4. The money accumulating in the government treasury in the form of various taxes is the people's money. People have elected the Members of Legislature and Members of Parliament as their representatives at various levels to ensure that this money is used only for the welfare of the community and the country. The President has selected a few chartered officers and appointed them to serve the public. This means that the people's representatives and officers are public servants. How have these two elements planned the people's money while working as servants? How much money has been spent? What is the balance? How has this money been spent? Every citizen has the right to obtain information about all these things.

Anna Hazare held assemblies at various places in Maharashtra and awakened the masses. By adopting the path of agitation and fasting at opportune times, the government was compelled to pass the right to information bill.

There were similar movements in Goa, Madhya Pradesh, Orissa and Tamil Nadu for obtaining the right to information and the government was compelled to pass the act regarding the right to information. Nine states in India have provided the people with the right to information. But all these acts will not stand true to the test 'The right to information for the existence of a village labourer'. It has more restrictions than rights. Taking this into consideration, various organisations and voluntary institutions have been constantly asking the central government for a single comprehensive act.

The central government passed the Central Right to Information Act 2005 on 11th May 2005 and it came into force in the whole country from 12th October 2005.

Panchayat Raj system and the right to information:

Panchayat Raj Institutions (PRIs) of various levels are executing various rural development works in the state, e.g. roads, various buildings, percolation tanks, dams, health facilities, education, farm development and many more. The Gram Panchayat also executes development work along with providing the residents with basic necessities. They have the authority to collect money in the form of taxes. The Central as well as the State government grants the Zilla Parishad and the Gram Panchayat, funds on a large scale. These funds must be used effectively. The right to information can be used for the same excellently. This can bring transparency in the work of the PRIs.

This Act can bring more transparency in the administration of Gram Panchayat. The government has approximately determined the directive principles as regards the utilisation of the income of the Gram Panchayat for various sections of the community. It maintains, an expenditure of 0 to 25 % for the general administration, 10% for the development of women and children, 15% for the welfare of the Scheduled Castes and Schedule Tribes

and 22% for all the work relating to the Sampoorna Grameen Rozgar Yojana (SGRY). In Maharashtra development works are not being carried out presently as per these provisions. We can obtain this information by utilising our right to information. This will compel the Gram Panchayat to spend only on public development. We can ensure appropriate functioning of Panchayat Raj by exercising our rights and performing our duties as a citizen.

Central Right to Information Act, 2005

It is essential to study the important provisions of this Act in order to utilise it like from whom and how do we request for information, what is the time limit for receiving the desired information, what do we do in case we do not receive the information, etc.

The scope of this Act



This Act is applicable to all Central and State Government offices of our country, government /semi government organisations, businesses, programmes, judicial system, legislative body, parliament house, all government aided organisations, banks, cooperative banks, educational institutions, all PRIs, charitable organisations, all non-government organisations that receive direct or indirect monetary aid from the central and state government.

The forms of information

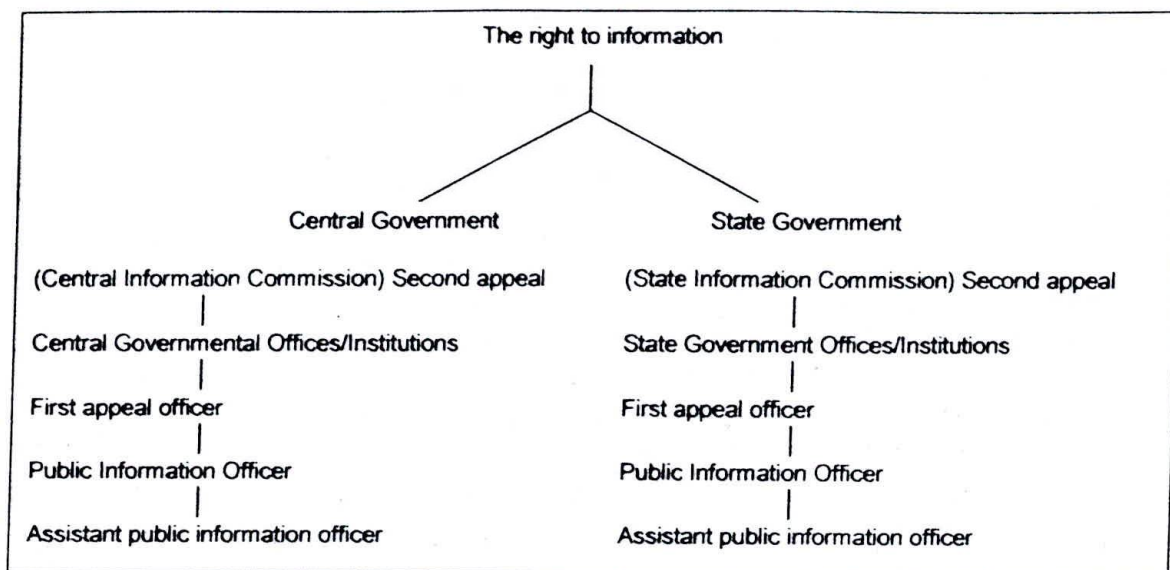
This includes, any type of information that is under the control of a government authority including, records, documentation, emails, memos, opinions, press releases, orders, contracts, reports, circulars, log books, sample, model as well as information in the written or electronic form.

This Act provides every citizen a very important right of inspecting the documents personally.

From whom should information be requested?

Appointing public information officers, assistant Public Information Officers and appellate authority in the government offices at every level, i.e. state, district, Taluka and village, is mandatory as per this act. For example, the Tehsildar has been appointed as the information officer. The **extension** officer of the Panchayat Samiti has been designated as an Information officer and the Block Development Officer as the First Appeal officer. An application for information must be submitted to the Information officer appointed in every office.

Right to Information - Organizational set up (National and State level)



Rule related to requesting information



Maharashtra Government has published a few rules in this act for Maharashtra and they are as follows:

1. In order to request for information, an application must be made to the corresponding information officer in the format given below. Rs. 10 must be paid in the form of cash, cheque, money order, demand draft, banker's cheque or court fee stamp.

**Format of application for obtaining information under the
Right to Information Act, 2005**

Annexure "A"
(See rule 3)

Affix here Court Fee
Stamp of Rs. 10/-

To,

The State Public Information Officer,
(Name of the office with address)

(1) Full name of the applicant : _____

(2) Address: _____

(3) Particulars of information required

(i) Subject matter of information. * _____

(ii) The period to which the information relates. # _____

(iii) Description of the information required \$ _____

(iv) Whether information is required by post or in person _____

(The actual postal charges shall be included in additional fees)

(v) In case by post _____

(Ordinary, Registered or Speed)

(4) Whether the applicant is below poverty line _____

(if yes, attach the photo copy of the proof thereof)

Place :

Date :

Signature of the Applicant

* Broad category of the subject to be indicated (such as grant of Government land/ Service matters / Licenses, etc.)

Relevant period for which information is required to be indicated.

\$ Specific details of the information is required to be indicated.

2. The officer is bound by law to provide the said information within thirty days. Photocopy charges of Rs. 2/- per page shall have to be paid for the documents that shall be given while providing information. Postage shall have to be paid in case the information is to be delivered by mail. Rs. 50/- shall have to be paid in case the information is to be provided on a diskette or floppy disk.

3. The records can be viewed in person free of charge for the first hour. A fee of Rs. 5/- shall be taken for every fifteen minutes after the first hour.

4. An appeal can be made against the information officer using the format given below in case he does not provide the information on time or provides false and partial information.

5. If the decision to the appeal is not satisfactory, appeal to the State information commission as per the following format. Rs. 20/- shall have to be paid along with the application.

**First appeal
sample
application**

Appeal under section 19 (1) of the Right to Information Act, 2005 Annexure "B" [See rule 5 (1)]		Affix here Court Fee Stamp of Rs. 20/-
From : _____ (Appellant's name and address)		
To : _____ (Name/designation/address of the appellate authority)		
(1) Full name of the appellant : _____		
(2) Address: _____		
(3) Particulars of the State Public Information Officer: _____		
(4) Date of receipt of the order appealed against: _____ (if order passed)		
(5) Last date for filing the appeal: _____		
(6) The grounds for appeal : _____		
(7) Particulars of information: <div style="margin-left: 20px;"> (i) Nature and subject matter of the information required. _____ (ii) Name of the Office or Department to which the information relates _____ </div>		
Place : _____ Date : _____		Signature of the Applicant

**Second
appeal
sample
application**

Second Appeal under section 19 (3) of the Right to Information Act, 2005 Annexure "C" [See rule 5 (2)]		Affix here Court Fee Stamp of Rs. 20/-
From : _____ (Appellant's name and address)		
To : _____		
(1) Full name of the appellant : _____		
(2) Address: _____		
(3) Particulars of the State Public Information Officer: _____		
(4) Particulars of the First Appellate Authority: _____		
(5) Date of receipt of the order appealed against: _____		
(6) Last date for filing the appeal : _____		
(7) The grounds for appeal: <div style="margin-left: 20px;"> (i) Nature and subject matter of the information required. _____ (ii) Name of the Office or Department to which the information relates _____ </div>		
Place : _____ Date : _____		Signature of the Applicant

Central right to information Act, 2005

Important steps

- | | | |
|----|--|---------|
| 1. | The time limit, within which an information officer must provide/refuse information after receiving an application | 30 days |
| 2. | If the application is submitted to the Assistant Public Information Officer | 35 days |
| 3. | If the information is about a third party | 40 days |
| 4. | For information regarding a person's life and freedom | 45 days |
| 5. | Time limit for an appeal against the decision of central/state public information officer | 30 days |
| 6. | Time limit for an appeal against the decision of central/state public appeal officer | 90 days |

Postal addresses of the Information Commissioner:

Central Government – Dr. Wajahat Habibullah, Central Information Commissioner, Block 4, Fifth floor, Jawaharlal Nehru University Road, Old Campus, New Delhi -110067

Maharashtra Government - Dr. Suresh Joshi, State Information Commissioner, Fifteenth floor, New Administrative building, Opposite Mantralay, Mumbai - 400032

An information officer may be fined Rs. 250/- (Rupees Two hundred and fifty) per day for the total number of days by which the information is delayed if he knowingly refuses to accept a citizen's application or does not provide the information within the specified time limit or provides misleading or false or incomplete information or for any reason, knowingly destroys the information. This act has a provision for a maximum fine of Rs. 25,000/- (Up to Rupees Twenty five thousand) which shall be deducted from his salary.

Take the following points into consideration while exercising the right to information–

1. The most important thing is being aware of whether the information requested by us is personal or important from the social point of view.
2. Utilise the information constructively and for the welfare of the community or to avoid mistakes. Do not use the information to trouble the related officer or contractor.
3. Do not use the court fee stamp while applying at the Central Government office for information.
4. Obtain complete information about the related department before requesting for information, including information regarding the Public Information Officer and appeal officer.
5. While requesting for information regarding public welfare, contact the related social service institutions or NGOs and follow their advice

6. It is necessary to pay the fee in the legally decided form while submitting an application through the right to information.
7. The application for information must be concise.
8. Request precisely for the required information. Bear in mind that expenses are going to be incurred for this information.
9. It is necessary to note down your full address and date as well as your signature on the application.
10. While applying for information, obtain information about the approximate total expense for the requested information from the information officer. Take it in writing form the information officer, if possible.
11. While submitting the application personally, do not forget to take the receipt acknowledgement along with the date on the xerox copy of the application.
12. If the application is to be submitted by post, try and send it by register post and keep the receipt safely.

Examples of the utilisation of the act

The general misconception is that law is very difficult, only well educated people can understand it and use it. The general public from various states has used the right to information to solve their problems till now. The government of Maharashtra approved the Right to Information Act in September 2002. More that thirty thousand applications have been submitted under this act in approximately three years. In these three years, social service organisations have made an effort to acquaint the general public with this act. The effect was such that in the first four months since the act was approved more than one lakh twenty thousand (1,20,000) applications were submitted from the urban and rural areas of Maharashtra. Let us now see a few indicative examples of the use of this act –

Example – 1



An organisation from Delhi called Parivartan obtained information regarding roads of a certain section. Through this information they became aware of a clause in the agreement stating that the roads should be of a specific thickness. As per the Delhi Right to Information Act there are provisions for checking the sample of work. The workers of the organisation actually dug up a part of the road to check a sample and discovered that the road was not of the depth specified in the agreement. The workers then held a public hearing where the public were made aware of this. The administration then corrected the flaw in the road.

Example – 2

In 2004, work was in progress on a dam in a village in Pune District through the Employment Guarantee Scheme, wherein 117 labourers were employed. The labourers complained to the *Tehsildar* that they were being paid low wages and when they were provided with food grains from the ration shop, they were made to pay fifty additional paise for every kilo.

This complaint was not duly registered. Hence, the office bearers of the village consumer forum finally utilised their right to information to request for information regarding the same. This issue had to be followed up for almost eight months. Once a complaint was made in the Divisional Commission office, the commissioner ordered the district office to provide the requested information immediately. An inquiry was conducted based on that information and the licence of the ration shopkeeper was cancelled.

We must learn to utilise this act:

This act has granted concessions to the poor and hence, this is an act that truly gives power to the poor. The people living below the poverty line shall not have to pay any fee for obtaining information and others shall have to pay minimum fees to obtain the required documents.

Though the right to information is a powerful tool of democracy, it will turn out to be a mere showpiece in a museum if it is not used effectively. It is inconvincible that a person can feel that this act is impossible for the general public to use. Common people have brought a check on the unhindered corrupt administration of the government and public servants in various states by requesting the government for information and by using them effectively. We must also make a firm resolve that we shall provide information to a maximum number of people about this act and shall encourage them to use it.

Exercise questions

1. Answer in brief -

1. What should be done to bring democracy in its true sense?
2. Explain the importance of information in Panchayat Raj.
3. Provide information about the public movement for the right to information in Maharashtra and Rajasthan.
4. How would you request for information from a government office or local independent organisation?
5. Has anyone utilised the right to information? If yes, provide information about the same.

2. Select the appropriate option.

1. Who actually has the responsibility for the development of the village?
A) State Government B) General public C) Central Government D) Political party
2. The real reason for the laxity in the implementation of the Panchayat Raj system is –
A) Lack of information in the general voter. B) Corruption at the government level.
C) Politics of the political parties D) Lack of funds
3. Information means –
A) A power that creates knowledge B) A resource
C) An important factor in taking decisions D) All of the above
4. Who recognised the importance of information first?
A) The rulers B) The British Government
C) Merchants D) Political parties
5. In which state did the first movement for the right to information occur?
A) Maharashtra B) Karnataka
C) Rajasthan D) Tamil Nadu
6. Under whose leadership did the movement for the right to freedom occur in Maharashtra?
A) Shri. Shivaji Raut B) Shri. Anna Hazare
C) Smt. Aruna Roy D) Shri. Mohan Dhariya

Fill in the blanks –

1. As per the Indian constitution the right to information is a _____
2. As per section _____ and _____ of the Indian constitution the citizens have the right to information.
3. _____ actually means public court.
4. This act was in existence in _____ states before the Central Right to Information Act was passed.
5. On _____ the Central Right to Information Act came into force in the whole country.

Lesson 5

Air and it's importance

Aims

On reading this lesson you will understand

- What is "air".
- The importance of energy.
- Information about conventional and non-conventional sources of energy.

Knowledge

You will know about

- The scientific definition of air and energy.
- Types of fuel.

Skill

You will learn about

- Which fuels can be used in place of firewood.
- What is the connection between source of fuel and health.

Perspective

You will realize that

- Pure air and fuel are our national wealth.
- It is necessary to use non-conventional sources of energy to overcome the problem of fuel shortage.

Air

A gardener called Rahima lived in Rampur. She was very hardworking. She would attend to her garden every day. It was full of plants, especially vegetables. From the money earned, she changed her tiled house into a concrete structure.

Since her family did not enjoy the food cooked on the gas-stove, she used her traditional stove.

Gradually Rahima developed a burning sensation in her eyes. Why do you think this happened suddenly after her forties? The smoke from the traditional stove was trapped in the concrete house. Earlier, it would have escaped through the tiles.

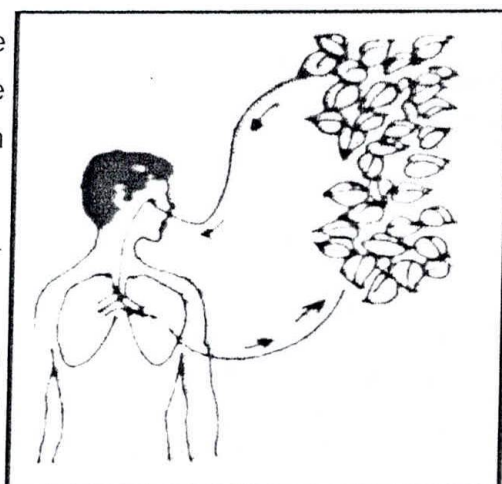


Information about Air

All living beings need air for survival. They breathe in only the oxygen from air which is mixed with moisture and other gases and breathe out carbon dioxide with other unwanted gases.

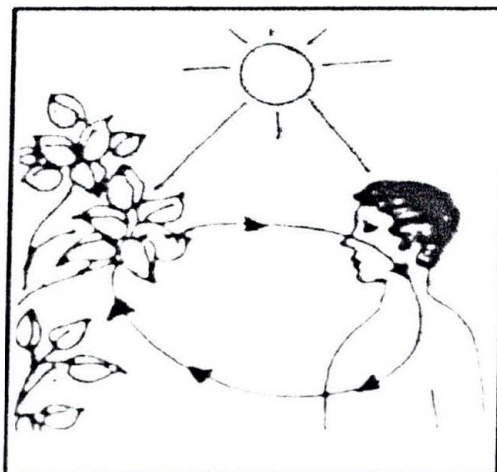
Plants in other hand inhale the carbon dioxide to prepare food and breathe out oxygen during the day.

Air is a mixture of the following gases - Nitrogen - 76%, Oxygen - 21%, CO_2 and dust particles in minute quantities.



When living beings breathe through the nose, the hair in it prevent dust from entering the throat or lower organs i.e., trachea, lungs etc.

Man needs both air and fuel for burning of food in our body. Thus fuel is energy. Every



organism needs energy to move, grow and reproduce. Fuel is used to cook food, for illumination and other work. Fire is a kind of fuel discovered by man to do various tasks.

Whenever we work, we feel tired because we use up our energy. How is this energy created? Our food contains carbohydrates, proteins, fat, vitamins and minerals. These are converted into juices by digestion and sent to different parts of the body whereas unwanted material is excreted. The absorbed food extracts, reach

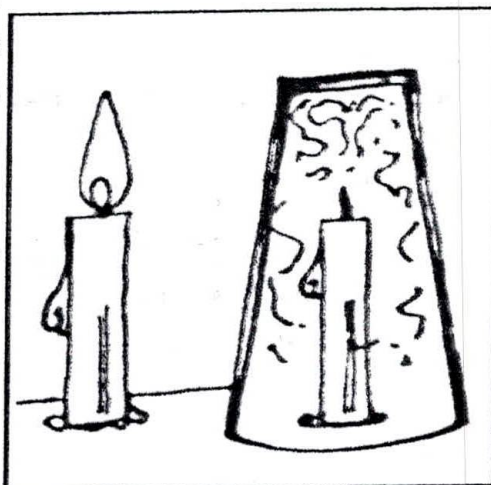
the cells where they are burned using oxygen. This action creates energy.

The Need for Air

Although we need food and water, we simultaneously have a greater necessity for air. Every living being needs air for breathing.

We also need air for burning. We use fuels like kerosene, firewood and coal to cook food. They all burn using oxygen. Thus air is needed to burn any fuel, even in a candle. This can be tested as follows -

Light a candle. Place a glass tumbler upside down over the candle. It will get extinguished as soon as the oxygen around it is over. Similarly, at times a patient is given oxygen artificially. That shows the importance of oxygen.



The significance of oxygen and air for respiration

We may be able to live without food or water for some days but it is impossible to live without air or oxygen. We have already studied how with each breath we take in our lungs and subsequently exhale it. This is termed as respiration. During inhalation we take in oxygen from the air, during exhalation we breathe out carbon dioxide.

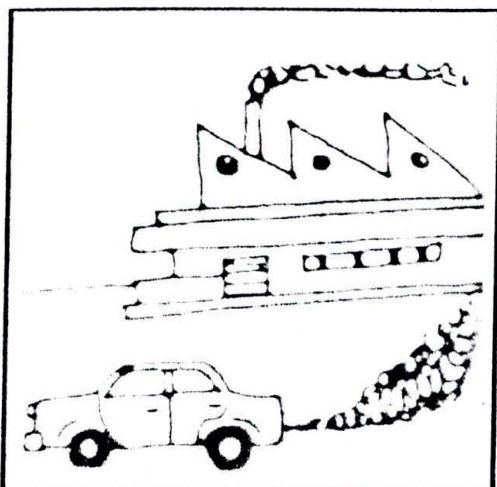
The reason for requirement of oxygen

We do a lot of work for which we need energy. This is created by slow burning of carbohydrates and sugar in our body. Just as a vehicle burns fuel to run, this process uses oxygen. Both need air. Burning of food not only creates energy to work but also maintains body temperature.



When we run or climb a staircase, we get tired and our breathing becomes more rapid. What is the reason for this. In order to produce strength and heat there's a continuous slow burning of the carbohydrates available from our food in our body. For this burning process oxygen is essential which is provided when we breathe. When we breathe in through the nose it is called inhaling. In exhaling, bodily impurities such as Carbon dioxide and water vapour are thrown out. Our nostrils have hair in them which filter the air we inhale and thus prevent dust particles from entering the breathing

tube.



Air Pollution

Burning creates substances that pollute the atmosphere. Smoke from factories, vehicles, furnaces and domestic burners ('chulhaa') is a major polluter. The quantity of smoke is increasing day-by-day and so are other polluting factors. Pollution is witnessed everywhere. All factories, big and small, emit particulate matter, carbon-compounds, sulphurus compounds to pollute the air. There's also the decomposing waste and plants releasing pollutants. For thousands of years - and even today -

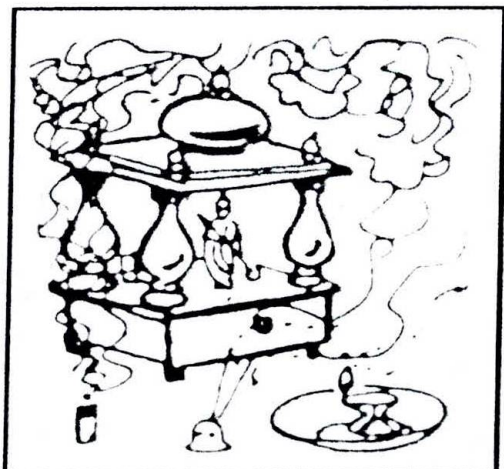
rural people are using wood or cowdung-cakes in domestic burners which produce considerable smoke. Brick-kilns too give out an alarming quantity of smoke.

Dry grass and leaves are also burnt in the fields creating smoke. This burning is supposed to be beneficial to improve the fertility of the soil and reduce weeds.

Alongwith burning, pollutants are released through decomposing of various substances. Adding to the menace is the coloured powders ('Gulaal') we throw in the air while celebrating our festivals. Many chemical processes in factories and mills spread dust particles, noxious gases and hair-thin cotton fibres. Many children from poor families are engaged in making balloons, colours, firecrackers etc. Their lungs - and ultimately their efficiency - get adversely affected from working in polluted surroundings.



Domestic Fuel



Coal, firewood, and kerosene are used mainly in rural areas. When wet wood is burnt, it gives out a lot of smoke. When it enters the nose or mouth it reaches the blood. Its harmful effects harm the health of family members.

Many trees are cut for requirement of wood.

Irritation by smoke

Smoke entering the body while cooking is equivalent to that of smoke from burning of 200 cigarettes. The

"Gulal" (red powder) used during festivities or at pilgrimage centres, is also harmful.

Why is incense burnt in the house

People believe that burning incense keeps away harmful animals like snakes, frogs and scorpions from homes. Some also think that it wards off the evil spirits. People burn incense during religious rituals.

Fuel for vehicles

All means of transport need fuel. When petrol or diesel is burnt to create energy in vehicles dangerous gases and particles are given out. These emissions can cause conditions like cancer and respiratory diseases. While transport has brought distant places together excessive use of vehicles will soon deplete our fuel resources.

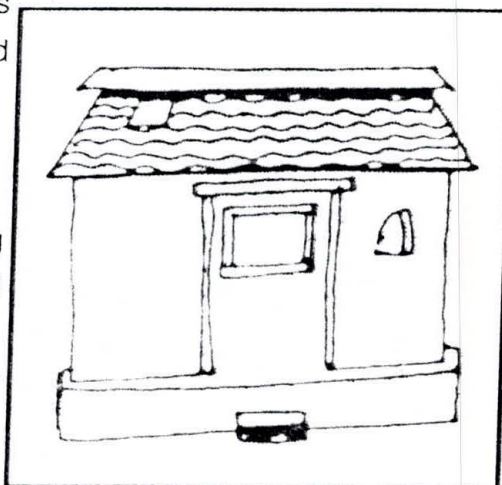
Natural Ventilation

Air must move all over the house so that impure air can go outside the house and fresh air can enter. If you get a bad odour when your step into the house from outside, you can presume that proper ventilation is absent.

Natural ventilation means having doors or windows opposite each other so that air enters from one side and goes out from the other.

How ventilation takes place

The impurities in the air are increased by the breathing of the people living inside the house, the burning of fuel in the kitchen and of lights. Impure air moves upwards. If there is a tiled roof, or some porous openings near the roof, it can go out. A vacuum is created inside the house. Fresh air from outside enters through windows and doors to take its place. This movement is called ventilation.



The structure suitable for proper ventilation

The house must have its doors and windows facing each other. It must have ventilator or shutters above, or the roof should be tiled.

The kitchen should be to the East of the house so that sunlight can enter and destroy bacteria. It will also prevent insects. Hot air above the fireplace should be able to go out of the kitchen and fresh air enter it.

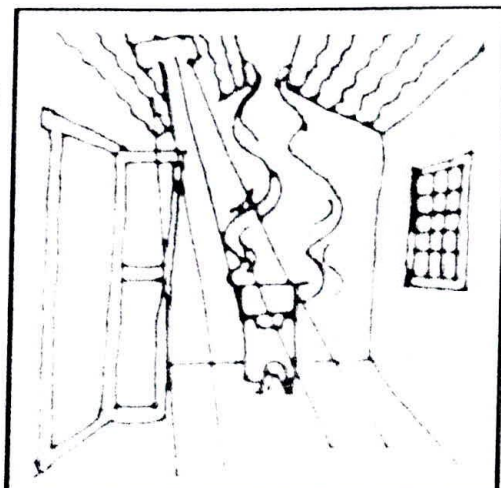
The roof of the house should have a small transparent patch of glass or plastic to allow sufficient sunlight to enter the house. The trees should be planted a little away from the

house so that they do not obstruct sunlight.

The house should be built slightly above the ground level. This reduces dampness and prevents pests like rats from entering the house. The size and height of rooms should be sufficient to admit enough air inside.

The walls should be painted white (with lime) to allow the brightness of sunshine to reflect and keep out mosquitoes and other insects.

The windows should have nets or frames of wire to admit air even when closed at night.



Solution to pollution: We can do the following to control pollution -

1. Producing and utilising energy more efficiently, using modern techniques
For example -
 - usage of smokeless burners,
 - solar cookers, windmills
 - biogas plants
- 2 Reducing vehicle population and their usage; reducing exhausts
- 3 Stringent anti-pollution norms to be set and implemented in industries
- 4 Increasing the green cover by afforestation
- 5 Spreading awareness in people

Major pollutants and how they affect our health

1	Carbon Monoxide <i>source: vehicular exhaust</i>	Reduces oxygen-retaining capacity of blood
2	Hydrocarbons <i>source: vehicular exhaust</i>	Lung cancer
3	Sulphur Dioxide <i>source: factories, burning of coal</i>	Burning sensation in eyes and breathing-tube, cough, breathlessness
4	Pesticides <i>source: their production and use</i>	Harmful changes, death after long-drawn
5	Leaded smoke <i>source: vehicular exhaust</i>	Accumulation of toxins - harmful to nervous system

Self Study

- How can people's attitude towards fuel be changed?
- How should the interrelationship of air with health be explained to people?

Exercises

1. We need _____ gas for survival.
1. O_2 2. CO_2 3. Nitrogen 4. Hydrogen
2. Trees prepare food with the _____ gas.
1. O_2 2. CO_2 3. Nitrogen 4. Hydrogen
3. The percentage of O_2 in air is _____.
1. 73 2. 29 3. 30 4. 76
4. Necessary for burning _____.
1. O_2 2. Nitrogen 3. CO_2 4. Hydrogen
5. Causes of air pollution _____.
1. Industries 2. Vehicles 3. Stove 4. All the above
6. Fields are burnt in villages
1. As a tradition 2. For greater rainfall
3. For bigger harvest 4. To improve soil and better yield

Match the pairs

- | | |
|---------------------------------|----------------------|
| 1. Natural air ventilation | 1. Carbondyoxide |
| 2. Breathing | 2. Air pollution |
| 3. Exhale | 3. Cross ventilation |
| 4. Smoke from traditional stove | 4. Oxygen |

Fill in the blanks

1. Lungs and efficiency, 2. cells, 3. cars
- 1) The greatest cause of cancer is smoke from _____
- 2) _____ affected by pollution from industries

Answers

Correct Alternatives

1-1, 2-2, 3-2, 4-1, 5-4, 6-4

Match the following

1-3, 2-4, 3-1, 4-2

Blanks

1-3, 2-1,

Lesson 6

Energy

Aims

On reading this lesson you will understand

- Realising the importance of energy
- Conventional and non-conventional energy sources

Knowledge

You will know about

- Types of fuel and how it burns
- Using recycled fuel
- Ventilation and its necessity

Skill

You will learn about

- How to use a better fuel
- Relation between usage of fuel and health

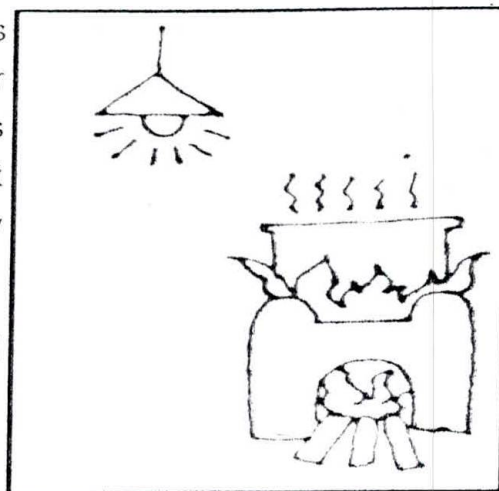
Perspective

You will realize that

- Fuel being our national asset
- Using non-conventional energy sources more and more

We do a lot of work for which we need energy. This is created by slow burning of carbohydrates and sugar in our body. Just as a vehicle burns fuel to run, this process uses oxygen. Both need air. Burning of food not only creates energy to work but also maintains body temperature.

When we run or climb a staircase, we get tired and our breathing becomes more rapid. What is the reason for this.



Plants use the energy contained in sunlight to prepare their food. Thus the sun is a source of energy. We use different types of fuel to create energy in two ways-

1. **Renewable source** - Renewable source like the sun. Similarly water is used to create electricity. Trees give firewood which can be used and new trees can be planted.
2. **Non-renewable sources** - Rock -oil or kerosene, cooking gas, coal, diesel and petrol are the other examples of fuel which can be burnt to cook food or run vehicles.



The off-shore sea areas give us oil from which fuel is obtained. The oil wells also yield natural gas which can be used for cooking. Mines provide coal. Though the earth has a store of these sources of energy, they are likely to get exhausted by large-scale extraction and use.

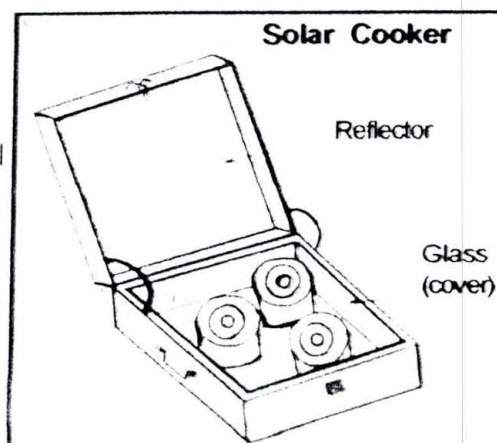
This is similar to the grain stored in our homes has to be maintained according to our requirement.

Domestic Fuel

Coal, firewood, and kerosene are used mainly in rural areas. When wet wood is burnt, it gives out a lot of smoke. When it enters the nose or mouth it reaches the blood. Its harmful effects harm the health of family members.

Many trees are cut for requirement of wood.

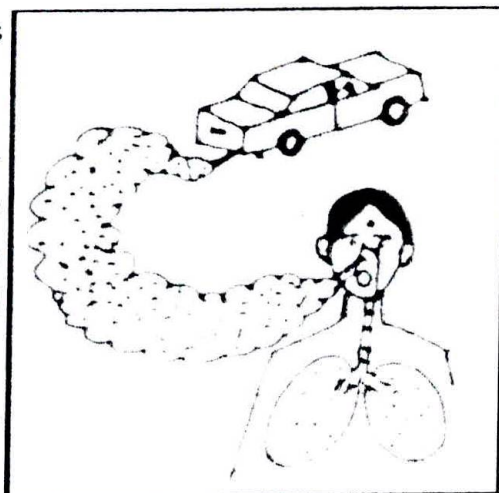
New trees must be planted regularly to make-up for



the cutting of older trees for firewood. It is every man's duty to grow trees and prevent avoidable felling.

Although cow-dung cakes, are also used as fuel, cow-dung is more useful as manure for the fields. So if the villagers unite to commence use of common Gobar-gas plants, they will kill two birds with one stone. They will get cooking gas as well as manure.

Electricity is essential in homes for lights, radio or T. V. and for pumps in farms. How is electricity created? By burning coal, using water and energising wind.



So we've to turn firmly towards usage of non-conventional energy sources. We must increase using solar and wind energy and cut down on conventional energy sources such as coal, kerosene, diesel, petrol and gas.

For want of firewood cut only the dry branches and not the whole tree!

We must remember that saving of electricity means generating electricity.

Can we try this

Every Grampanchayat provides information about smokeless stoves. Trapped smoke from traditional stoves affected the health of women and children inside the home. Recently the Maharashtra State Fuel Research Organization has designed a new stove which saves energy without emitting smoke. Such new stoves should be used wherever possible.

Solar Energy

We get plenty of sunlight for most part of the year in our country. We can, like plants, use sunlight to cook our food. If you get sunlight in your house, you need to use the roof or the yard to place the solar cooker. It has special containers to cook the food and keep it warm. It can also cook meat. The solar cooker saves energy and other sources of fuel.

The drawbacks are that a solar cooker is difficult to handle due to its large size and use of glass which is breakable. It is costly and maintenance/repair services are not easily available. It needs to be further improved so that it can be used on a large scale.

For the demand and usage for such equipments to increase they have to be made available at district and village level. The use of solar heaters and photovoltaic cells (which produce electricity from sunlight) has to go up alongwith solar cookers. The construction of these machines has to be simpler and user-friendly - many people have found out the

hard way that these cannot be easily and cheaply repaired; atleast not locally. The effort to alter these are to be greeted positively.

Wind energy

This is one of the latest avenue being explored amongst non-conventional energy sources. In a way it's solar energy again because winds are produced due to the Sun's heat. Historically wind energy has been harnessed by man to steer sailboats. Today we're turning huge blades of windmills and generating electricity. Modern technology has provided us with smaller yet powerful windmills that can be erected without wasting the land below them.

Wind-power is non polluting and perpetually available. We can harness the wind in our regions and start 'wind-farming'.

Self Study

- How can people's attitude towards fuel be changed?

Exercises

Choose correct alternatives

- The basic source of energy is _____.
1. Sun 2. Water 3. Moon 4. Trees
- Energy from kerosene is _____.
1. Non-conventional 2. Renewable 3. Non-renewable 4. All as above
- The modern source of energy is _____.
1. Solar Energy 2. Water Energy 3. Gas 4. Kerosene

Fill in the blanks

- Energy is created in our _____.

Answers

1. Correct alternatives

1-1, 2-3, 3-1

2. Fill in the blanks

Cells

Lesson 7

Improved 'Chulha'

Aims

On reading this lesson you will understand

1. The damage caused by using firewood in the 'Chulha'
2. The different kinds of improved Chulha and their features.
3. The advantages of using different types of fuel

Knowledge

You will know about

- The harmfulness of traditional 'Chulha'
- The kinds and merits of improved 'Chulhas'

Perspective

You will understand

- Our daily life is connected to our environment.
- Our health depends on our environment.
- Even a slight change in our daily life can bring about an improvement in the environment.

Improved kitchen stoves

Rural people are still heavy on using traditional kitchen stoves for cooking and heating of bath water. They burn wood, tinder, cow dung-cakes in these stoves. Even bigger, professional stoves use firewood as fuel when cooking for a large number of people (in dining halls, marriage parties etc). Firewood creates huge quantity of smoke that contains carbon monoxide, formaldehyde, carbon dioxide and carbon particles which are deadly to human health. This pollution plays a devastating effects on the women and children who, for most of their time, are gathered around these stoves. To avoid such hazards and to burn fuel most efficiently and effectively we must adopt new, improvised stoves.

These stoves, being in use in practically every rural home, cause massive pollution of air. This pollution plays a devastating effects on the women and children who, for most of their time, are gathered around these stoves. To avoid such hazards and to burn fuel most efficiently and effectively we must adopt new, improvised stoves.

Kinds of Improved Chulhas

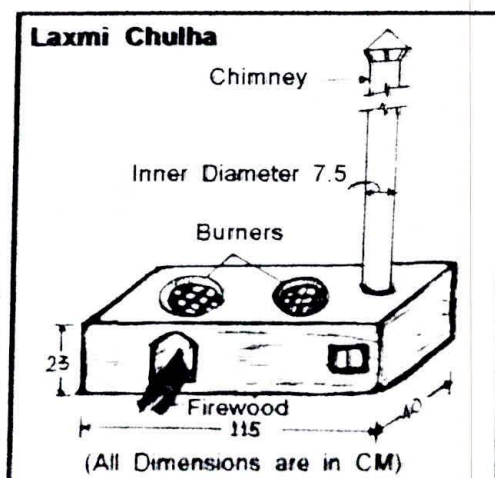
1. Fixed Chulha - a) Laxmi b) Bhagylakshmi c) Graha Laxmi d) Modern Chulha
2. Portable Chulha
3. Chulha using agro-waste like saw-dust and bagasse.

There are many varieties of stoves available burning various substances as fuel. According to your needs you can choose one to use. The benefits are-

1. savings in fuel costs and the fuel itself
2. less smoky kitchen
3. things that appear to be 'waste' can be used as fuel, even dry grass, food leftovers along with wood, tinder and cowdung-cakes
4. saves time by cooking the food faster
5. smoke doesn't char and blacken the utensils
6. no choking smoke, so improvement in health
7. protecting environment by polluting less

a) Laxmi Chulha

This looks like a traditional chulha with two burners. Material used for this chulha is soft lateritic mud or clay without any pebbles. However, here it is easier to cook because flame passing through the cast-iron grate to the mouth. The smoke formed in this chulha comes out through a chimney instead of spreading in the kitchen. The

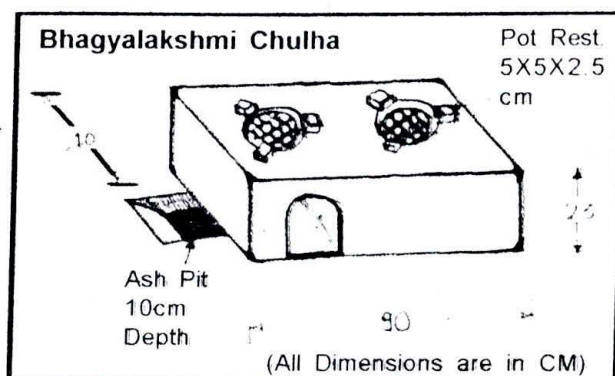


chimney is not just a means of removing smoke. It also pulls in air through the fire box. The burning and heat movement efficiencies of a chulha with a chimney can be better than those of a traditional chulha.

This chimney has to be cleaned every 2 or 3 months otherwise it gets blocked. In this way, the kitchen remains clean and smoke free with this chulha.

b) Bhagyalakshmi Chulha

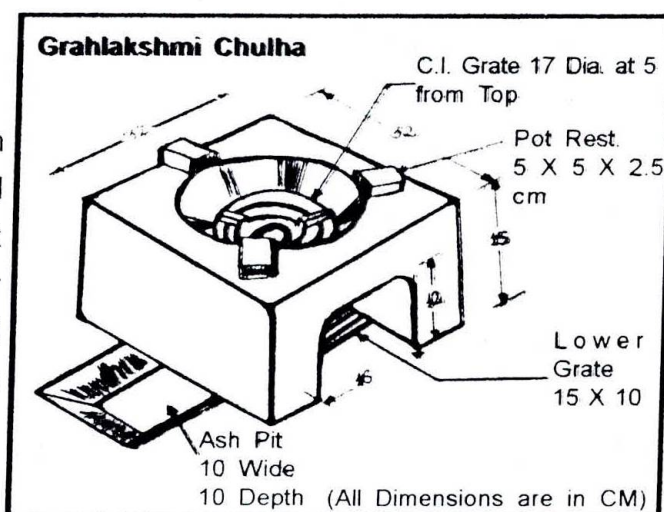
This is similar to the Laxmi Chulha as far as having two mouths, their slanting path and cast-iron grate is concerned. However, instead of a chimney it has an arrangement to drain in the air for burning with three equidistant pot rest of 2.5 cm height each. This chulha have another separate side pit for collecting ash and also for air supply. Size and dimensions are same like Laxmi Chulha.



c) Grahlakshmi Chulha

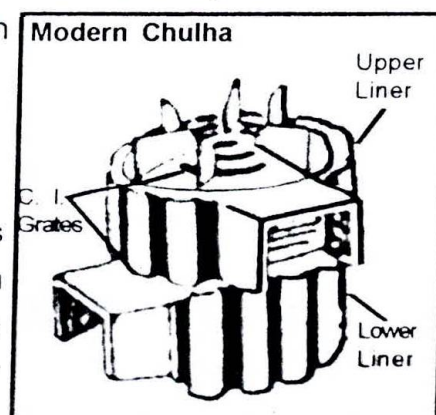
A lot of house wives prefer a chulha with a single mouth which is inexpensive and durable, devoid of any chimney because it creates very little smoke. It cooks food faster because the wood is burned completely and the flames are centered at the mouth, heating the vessel uniformly.

Grahlakshmi chulha is round shaped, pottery lined single pot cooking stove. Its basic components are two grates and an ash pit. The upper grate helps the flame to spread evenly covering the base of the cooking pot. The lower grate along with the tunnel like ash pit is designed to create draught which assists efficient burning of cooking fuel and reduces smoke. Ash can be periodically removed from the pit.



d) Modern Chulha

This is similar to the Grahlakshmi Chulha. But it contains two liners of baked soil and two grates of cast-iron. As shown in the figure, the first grate is placed between the liners with soil covering and another grate is placed on top of the upper

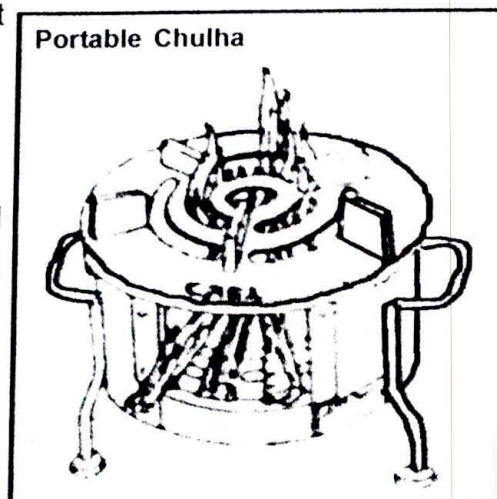


liner (Mouth of Chulha).

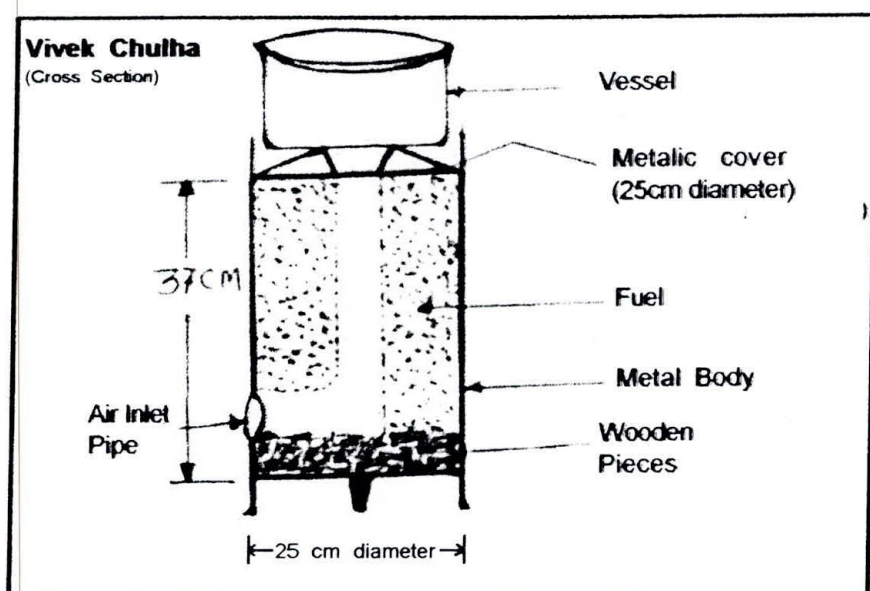
Here, placing the liner must be done such way that the bridge of both liners are perpendicular to each other (As shown in figure). The advantage of this type of chulha is that it is easily transportable and could be assembled in any convenient place.

e) Portable Chulha

This is made from iron sheets and can be carried as it is light. The Grahakshmi chulha is an improved version of this chulha.



f) Vivek Chulha



This has been constructed by modifying the outlet of the flames in a chulha burning sawdust to get air for burning. This can keep on burning sawdust to get air for burning. This can keep on burning with pods and grain chaff without constantly adding sawdust. It is made of thick iron sheets and can be moved from place to place.

This chulha can be fabricated by blacksmiths with locally available metal sheet from empty drums.

Biogas plant (gober gas)

Here fuel is manufactured using animal excretions, agro wastes etc. Biomass and cow dung are mixed in water and this liquid is left in the tank of the gas-plant to decompose. The Methane gas produced is stored in tanks and is burnt using a gas stove. The decomposed residue can be treated and used as a fertiliser.

Methane gas doesn't produce smoke and it can be obtained from raw sewage, too.

Solar cooker

Everyone knows the Sun gives us light and heat without which life cannot survive on Earth. We can harness Sun's power to cook our food and boil the water, saving fuels, fuel costs and environment.

Self assessment

- Do you think it is right to use firewood as fuel for cooking?
- How will you explain to people the need to discontinue using firewood as fuel?
- Which examples can you give to explain how health and environment are interrelated?
- Do you find any difficulties in using non-conventional fuels?

Exercises

Match the following

- | | |
|--------------------|---------------------------------------|
| 1. Laxmi Chulha | 1. Fuel and Manure |
| 2. Solar Energy | 2. Traditional chulha (2 with burner) |
| 3. Biogas Plant | 3. Beneficial to health |
| 4. Vivek chulha | 4. Saving of fuel |
| 5. Improved chulha | 5. Use of saw dust |

Choose the correct alternatives -

1. Use of solar energy -

1. Saving of fuel	2. Cooks food well
3. Not harmful to health	4. Using natural energy saves fuel and conserves environment, benefiting health
5. All the above	

2. Rural areas use _____ to cook food.

1. Wood	2. Coal
3. Kerosene	4. Cow dung cakes
5. All the above	

3. Use of traditional fuels leads to

1. Harmless effects for health
2. Lack of trees in the environment
3. Shortage of fuel due to over use
4. Damage to environment and damage to living beings.

4. If traditional chulhas are used continuously
1. Food tastes good.
 2. Wood/cow dung etc, is easily available in the village.
 3. Smoke causes burning in eyes and affects respiratory tract.
 4. None of the above
5. Smoke created by fuel used in vehicles causes
1. Black smoke in the atmosphere
 2. Pollution of air
 3. Effect on health
 4. Possibility of cancer as a result of hazardous gases.
 5. All the above

Answers**Correct pairs****1-4, 2-5, 3-4, 4-3, 5-5****Alternatives****1-2, 2-4, 3-1, 4-5, 5-3**

Lesson 8

The Story of Water : A Tale of Suffering

Aims

On reading this lesson you will understand

1. The problem of water and its causes.
2. Ways of storing water.
3. The reasons for contamination of water and methods of purifying it.

Knowledge

You will know about

- Most common problems regarding water
- The causes of the problems and ways of overcoming them.

Skill

You will learn

- What is the technique of making small bunds
- What is the method of purifying water

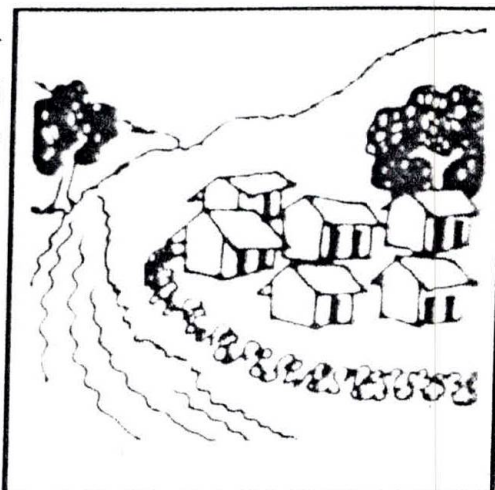
Perspective

You will realize that

- It is necessary to bring all the people together to solve the problem of water.
- Water is the common property of all. Everyone has an equal right to get water.

Introduction

A large village was situated among the hills. A river flowed by it. Very few villagers owned big plots of land but there were many with tiny plots. Amongst the latter there were plenty of farm-labourers who worked for the landed farmers, daily-wage earners, people of all trades like barbers, washer men etc. who received farm produce as barter in return for their services or artisans like weavers, gardeners and goldsmiths who exchanged their goods for part of the harvest. All of them managed to get two square meals a day, and if some odd person had nothing to eat, neighbours or relatives would feed him. On the whole, the village was running smoothly.



The village received plenty of rain which fed the river. In summer they would use the water from some wells. But they never depended on any outside source for water such as a tanker.

The son of the Sarpanch completed his education in the nearby city and returned with a new idea. He suggested to his father that they should start growing sugar-cane instead of the usual grains of the Kharif crop. The Sarpanch explained that sugar cane would need a constant water supply for which they would have to buy a pair of bullocks to draw it from some source. This would not only need money, but a constant supply of fodder and water even in summer. The son insisted that they could fit a motor-engine to draw water from the river and dig a bore-well for summer. They would grow plenty of sugar-cane and sell it to the sugar

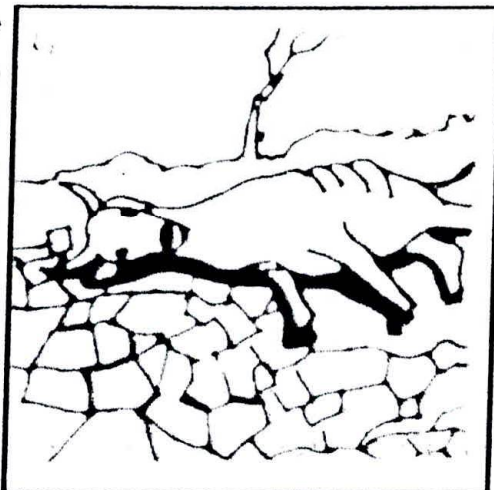


factory. The Sarpanch pointed out that they would have no grains for food. The son pointed out that they could buy grain from outside, using the money earned by selling sugar-cane.

Though the Sarpanch being a traditional farmer was not convinced, he gave in to his educated 'modern' son. When people saw how rich he became by selling sugar-cane, everyone began growing the same cash crop instead of grains. The sugar-factory let out waste water which contaminated the river. The poorer farmers could



not afford motor-engines to get water for their crop. But the rich ones dug wells and got richer. The son became the political leader. He built roads. New shops were opened where the rich bought all sorts of goods and grains. But the poor could neither grow grains nor could they afford to buy them. Soon the over-irrigated land became infertile and would not yield any crop. Small farmers and workers lacked employment. They began migrating to cities. The village youth, now lived in urban slums while the old people and families remained poor in the village. They had to sell their tiny plots for survival. Gradually the village wells also dried up. In summer they had to order a tanker for the village. Animals were dying, diseases spread and the village became desolate.



While some people felt the village had developed with roads, shops and electricity the common people were suffering. The remaining villagers wondered whether they should consult a 'Bhagat' (traditional healer). But they did not even have enough money to make an offering of some animal for the betterment of the village.

During that period, an outsider settled in the village. The villagers were suspicious of him at first. He would do all his own house-work (which normally only women carried out) and sit with the villagers in the evening. They would all be lamenting about their suffering. The old men would remind the villagers of their warning of using too much water in their sugar-cane farming. The outsider told them that they would have to work hard if they were to get water throughout the year.



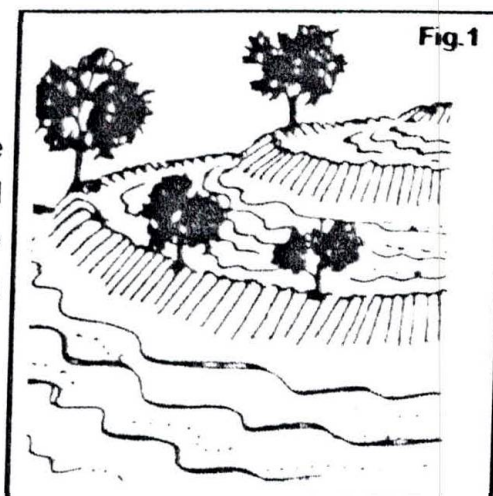
They asked him whether he could cause rainfall. He replied that though he could not create rain, he could suggest how to collect the rain-water, instead of letting it all flow-away. They requested him to explain how. He asked them whether they would take it seriously. They would have to give their word to continue the mission once the work was started.

The outsider gave them the details of how to ensure a good water supply. He explained that the water obtained from wells, canals, lakes and rivers was replenished by the rain.



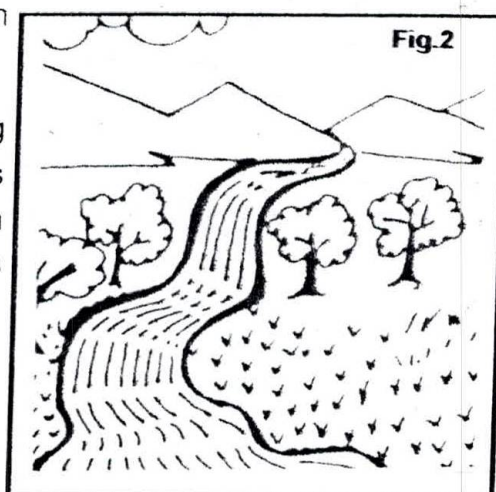
Rain water goes into two divisions -

1. Rivers and lakes on the ground
2. Inside the earth to underground springs which provide wells and bore-wells. We use the water on the ground and then some of it evaporates. When this outer store is exhausted, we resort to using up the ground water from wells and bore-wells. Soon even this source dries up. The villagers were also told how to solve this problem of water shortage.



1. The village needs more of bunds and lakes to trap more water on the ground.
2. The underground water should be preserved as much as possible.

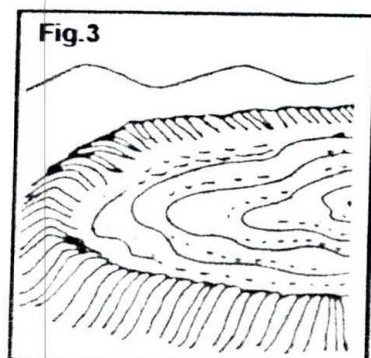
Building new bunds etc. is expensive. But cleaning the existing clogged wells, and unused ponds was possible. The mud collected from it could be spread in the fields to improve the fertility of the soil. These wells would then be used to store more water.



For additional bunds, the villagers approached the Zilla Parishad. With some funds from their schemes and contribution of labour by the villagers themselves, they could create additional stores of water. Naturally, the farmers were worried that they might have to lose their land for space for a dam. Where would they live if displaced? But the outsider explained that smaller bunds could be created to avoid displacement and expenses.

Method of collecting rain water in dry areas -

1. Dig parallel trenches at the equal levels on the hills. (Fig. 1)
2. Ensure that land is covered with plants or grass to prevent evaporation of ground water. (Fig.2)
3. Collect rainwater whenever possible and let it soak into underground wells, deep holes and ditches. (Fig.3)



Thus, the ground will be prepared to absorb maximum rainwater underground, which could be made available for use when necessary. We need to store as much as we draw or use.

The sinking of rainwater into the ground depends on the following

1. Amount of rainfall
2. Nature of showers (light continuous or heavy)

3. Type of soil
4. The rocks beneath the ground.

The amount of water sinking is directly proportional to the quantity of rainfall. If the rain is light but continuous, more water can enter the ground. If there is plenty of soil, more water can be absorbed by it. But where you have stony areas, water flows away. Similarly if there are slopes, water cannot remain collected.

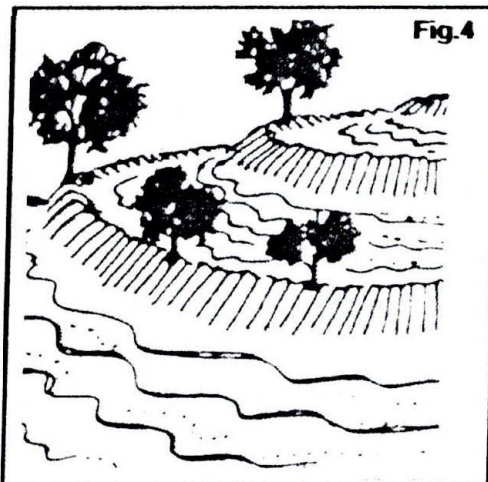
Hills can be made to absorb more water by digging trenches at levels. If trees are planted by flattening areas of the hills, they will help to collect water and also prevent soil erosion.

The old villagers wondered how a handful of them could complete the enormous task of digging levels on the hills. The outsider informed them about Employment Guarantee Schemes (EGS). The villagers who had migrated could return if such a scheme was available. They would get work and the village could solve their water-shortage.

Guest : "The government has certain schemes in which the villagers get some financial help. If you're interested gather some more people and we'll go to the District Collector's office ('Zilla parishad') and make enquiries. We ourselves can contribute some labour work, can't we? I had a stroll of your village this morning and I noticed 4 wells practically filled with waste. Rest of the wells are showing some water.

If these wells are cleaned you'll get ample water in summer; not only that, the decomposing materials from these wells can form an excellent manure to get better crops! We can start off with this.

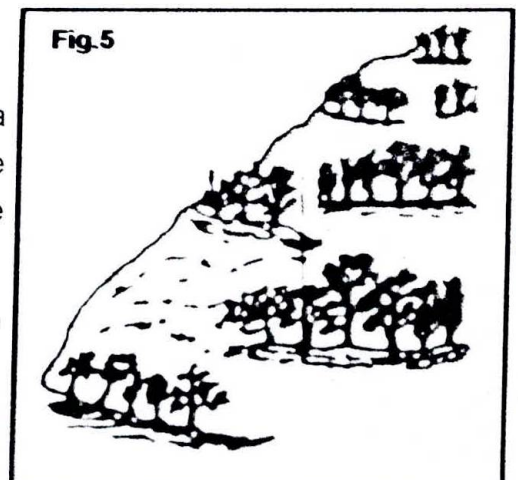
Do one more thing - try to call back those who've left this village. If we can get an 'Employment Guaranty Scheme' ('Rojgaar Hami Yojana') running here people will get some work and the water-conservation will be done, too."



Employment Guarantee Scheme

If the villagers come together, they can present a proposal for such a scheme to the government. The administration can give them employment within a range of ten kilometres of their village.

If the slope is gradual, trenches known as CCT can be dug along the contour lines (on an even level) at regular intervals on the 4 to 6 feet distance between them, which will conserve water as well as reduce soil



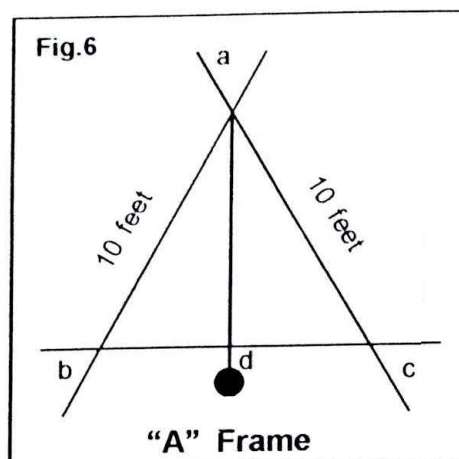
erosion. (Fig. 4).

If the slope is steep, shorter alternative trenches interposing each other at different levels can be made. (Fig. 5)

If the slope is gradual, long straight parallel trenches can be dug at regular intervals on the 4 to 6 feet in apart in areas of heavy rain and greater distances in scanty areas.

To get contour line ('Samochcha reshaa') is an imaginary line joining all the points on the land that are at equal altitude measured from the sea-level. on the ground, we use a simple technique which is known as "A" Frame technique which is as follows:

Take three long sticks or bamboos: ab, ac, bc of 12 ft. each. The sticks ab and ac should be tied at one end, and then attached to the third stick to form a triangle with bc as the base and a at the apex. ab, ac and bc should measure 10 ft. each. The midpoint of b and c should be marked as d. A string should be tied at point a with a stone attached to its end - the length of the string should reach just above ground level. The triangle can now be used to mark the level of the line. (Fig. 6)



Contour trenches

These are the trenches dug on the contour line running at right angle to the up-side slope of the catchment area. These are, by priority, dug in all watersheded, wasted areas on a slope generally ranging between 0 and 33 %. Keep the trench 2 ft. wide and 1 -2 ft. in depth. Soil dug out from the trench is to be spread over the sloping side. You can plant trees in this soil; they will be fed by the water collected in the trench. Contour trenches reduce the rate of flow of water. Whatever soil carried by the flowing water will accumulate in the trench preventing erosion.

Paddies on a hill-slope donot allow trenching. In such cases build contour-bunds. Have a contour line drawn and erect a bund over it. The water accumulating against the bund can be taken out sideways from the up-side of the bund. This will ensure maximum soaking of water, prevention of erosion and a supply of good topsoil.

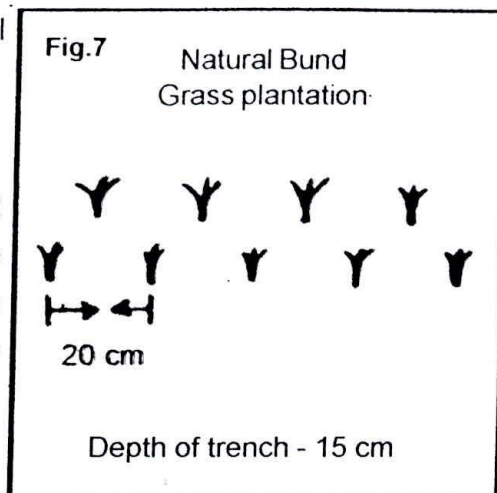
In the paddies on a slope, all the plantations should be made at right angle to the slope and never alongwith the slope. This will put a check on the speed of the water flowing downhill and the subsequent erosion. Planting at right angle to the slope will ensure accumulation and soaking of water and conservation of soil.

Never grow the same crop on the same piece of land again and again. After producing ,say, corn (maize), baajraa, jowaar one must grow the ground-hugging and dwarf crops like groundnut, pulses etc. Those crops have small buds on their roots which release Nitrogen

into the ground. Their roots spread out and hold the soil at one place preventing erosion.

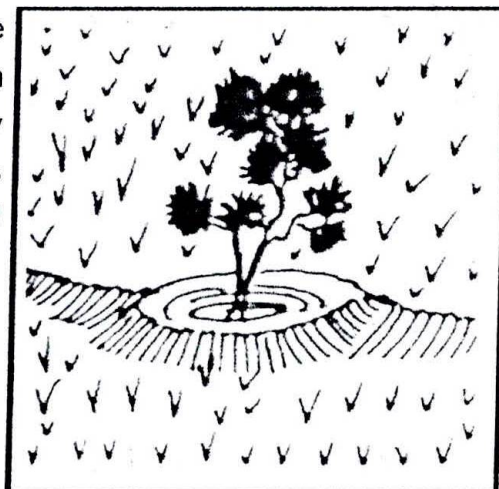
Natural Bund

Beginning at the top of the slope, choose a point on the slope and mark it. Place point b of the triangle on the mark. Place mark c at such a spot where the stone pendulum stops above point d of the triangle. Keep marking the levels so that you get a line at uniform level. Then dig along it. The trenches should be 2 feet broad and 2 to 3 feet deep. The soil removed should be used at the sides to plant trees. Thus the trees will get the water collected in the trenches and they will hold the soil.



You cannot dig trenches on slopes that have fields. In such places bunds of equal height have to be constructed on an even level as shown above. When constructing these bunds, it is advisable to remove any stones on the upper side of the slope. This allows maximum percolation of water into the soil, prevents soil erosion and holds good quality soil displaced from upper regions of the slope.

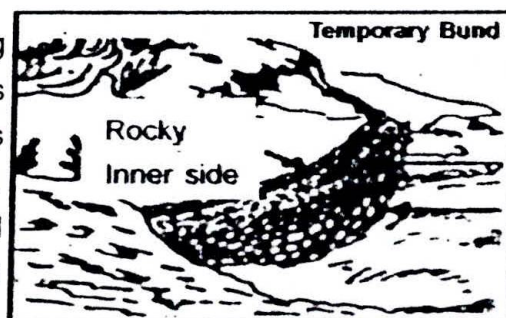
If the land is on a slope, ploughing of fields perpendicular to the slope, can minimize the soil erosion and break the flow of water.



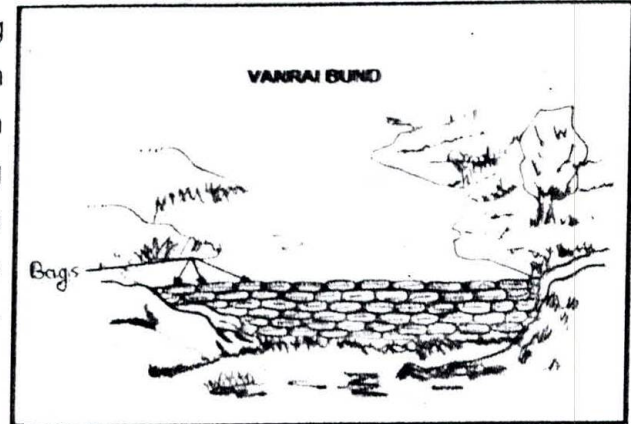
In places with greater flow of water on a less inclined slope, a special type of grass is grown to make a natural bund-Guinea grass Ramboss is selected (Khus grass, Ramboss, Medhasinghi and Guinea grass can all be used). Two to three blades of grass are bunched together and planted 20 cms apart in a 15 cm deep gully as shown in Figure -7. Then the grass is cut after the roots measuring 5 to 7 cm and 20 cm of stem. Then each part is separated and planted as shown in Fig. - 7.

1. Temporary bund

These type of bunds are constructed in the beginning of a nallah where catchment is small. Temporary bunds should be erected only towards the end of the rains because they get washed away during heavy showers. Overflow from the temporary bunds after rains can be used for irrigating nearby fields. Farmers can dig small channels to supply their fields with water.

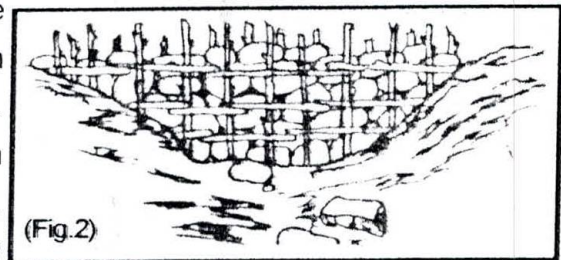


Vanrai Bandhara: This bund is made using empty cement bags. Each bag is packed with available soil and the open end is filled up with a nylon string. The bund is constructed by making a wall of these filled cement bags similar to a brick-wall. Normally, two rows are made. The gap between the two rows is packed by well-compacted black cotton soil.

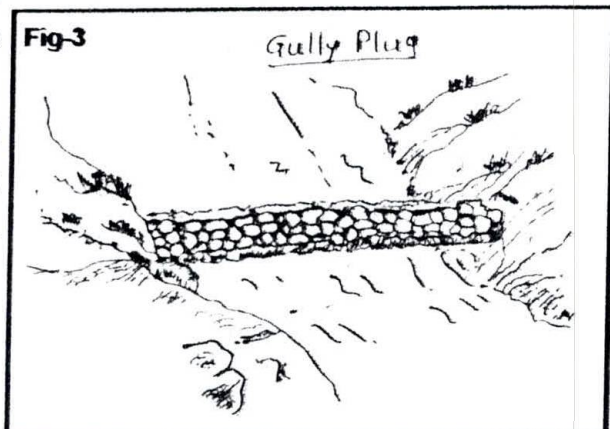


2. Bally-reinforced bund:

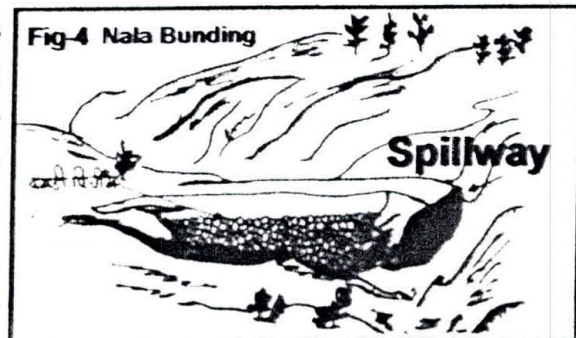
Look at the diagram carefully and make a wooden frame; fill this frame with stones and soil. This filling of stone and soil is reinforced by the wooden frame thus preventing it from flowing off with a powerful surge of water (unlike a *Kachchaa* bund). Only limitation is the relatively short life of the wooden frame; it just rots away due to contact with water. But this type of bund is much better than a *Kachchaa* bund. (Fig.2)



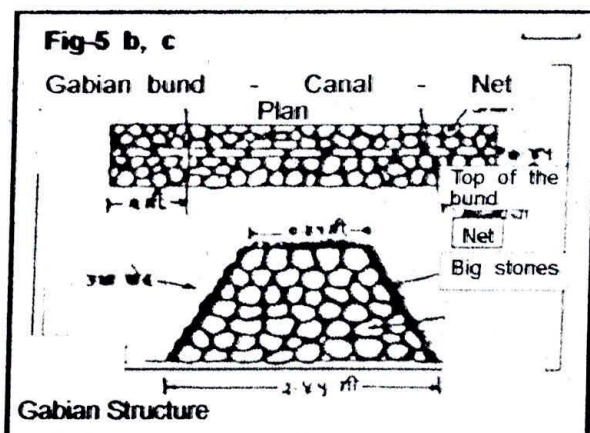
3. Gully Plug: Gully plugs are small bunds placed within the gullies or nallah courses made of loose boulders. In this structure, side slopes are smooth. This bund is broader at the bottom. Its height is limited to 3 feet so that flowing water cannot endanger it. Gully plugs are made to check erosion and break the water flow where catchment areas of the nallah are small in size. (Fig-3)



4. Nallah Bund: The construction of a Nallah Bund is similar to a percolation tank. Normally, a nallah bund is dug till the soft rock bed (Murum) is reached. Subsequently the bund is constructed layer by layer using the soft soil (compacting). Water gets collected at the bund. Water percolation is faster due to Murum (soft rock) bed at the base of the bund. The mud in the water gets settled at the nallah bund. The percolated water moves forward downstream thus increasing the water table of the well.



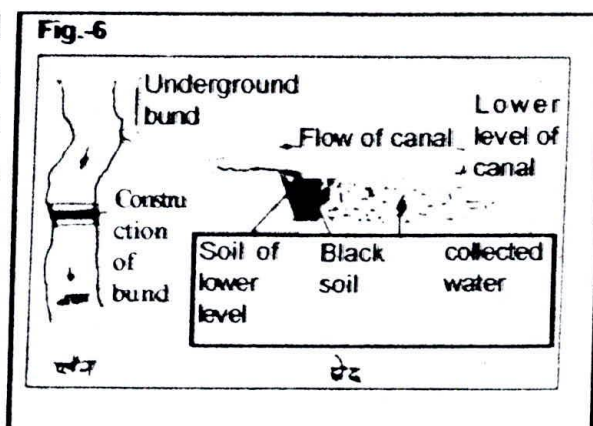
The excess water behind the bund is taken care of by providing a spillway. The spillway is a diversion for the flow of excess water. This diversion is dug on the side of the bund which is preferably a hard murum bed to stop the erosion of the soil (Fig-4).



5. Gabian Bund: Gabian Bunds are constructed at down stream places where the foundation soil is weak and there is no suitable hard rock for the spillway. A gabian bund is constructed using galvanized iron wire mesh (3 mm diameter) and loose boulders. The width of the structure at the bottom is 2.5 meters (8 feet). The width at the top is 0.5 meter (1.5 feet). The height of the bund is 1 meter (3.25 feet). The length of the structure varies as per the nallah width. Initially, a trench of 1 foot depth is dug in the stream bed. Then the wire mesh is spread along the trench and loose boulders arranged to achieve 1:1 (one is to one) slope. The length of the structure is embedded up to 6 feet on both banks. Both ends of the wire mesh are enjoined with an overlap of 15 Cms. (1 1/2 feet) at the top with wire. The gap at the foundation should be packed with soil. These bunds allow water to flow over it so that no spillway is required. These bunds are used to stop water and allow percolation for longer duration. (Fig-5 - a, b and c)

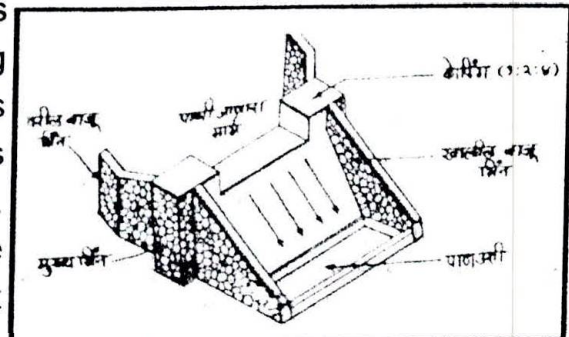
6. Underground Bund: Over a of time the sand and silt get collected in mid-stream. Due to this effect, water in the sub-soil flows in the direction of the stream. To utilize this underground flow, an underground bund is constructed in such areas.

A trench is dug across the width of the stream till the hard rock bed is reached. The width of this trench at the base is 3 feet which keeps increasing towards top as shown in Fig. 6. This trench is then filled with impervious soil (black cotton / clay) which is compacted using water to provide an impervious wall. This wall stops the sub-soil water which spreads to the adjoining land. As the water is collected underground, it prevents water-evaporation and increases the water table of the nearby area (Fig-6).

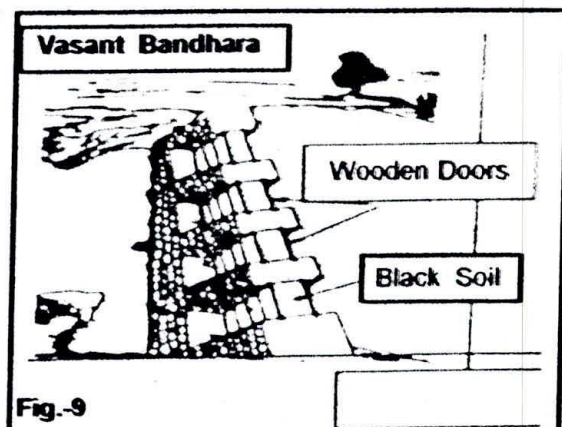


7. Refilling Trenches - These trenches are more useful when water gets collected and heavy black cotton soil exists. Refilling trenches are dug 10 to 15 feet deep inside the ground. They are then packed first with big stones followed by smaller stones, sand and sand mixed with soil. These trenches help increase the percolation of water thus raising the water table.

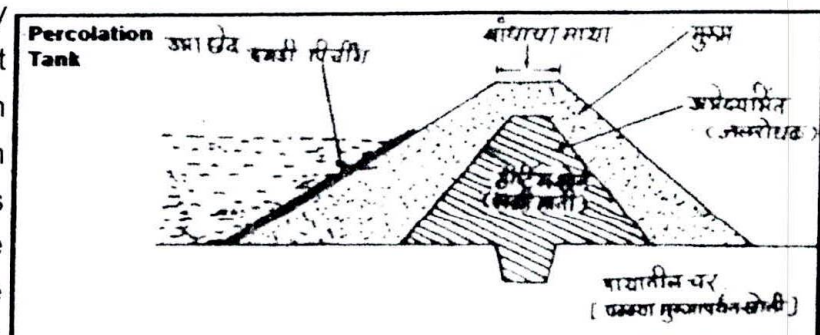
8. Permanent Bunds - These are made in areas of less rain or where water does not keep flowing through canals. The height of these bunds is decided by considering the surrounding crops so that it should not be damaged by water-logging. Select a place where the canal is narrow or where you have open rock. The bund is built at right angles to the flow so that the extra water flows over it back into the canal. The obstructed water is used for drinking, farming or irrigation of nearby crops by pumps.



9. Vasant Bund - It is useful to construct this type of bund in places where limited height at the sides creates a risk. A foundation of solid rock is covered with stone structures having I-shaped iron pillars for the gates. The gates are kept open in the beginning of the monsoon. If there is a flood, the water flows through the gates. Towards end of monsoon, when there is no possibility of floods the gates are closed by putting wooden planks in the I-shaped iron channel. Black cotton soil is used to pack the gaps between the planks. Water is thus prevented from flowing through the gate. (Fig.-9)



10. Percolation Tank - Firstly we'll try to understand the concept of construction of a percolation tank with this figure. The main objective of a Percolation Tank is soaking of water into the ground; that's why its base does not extend deep into the

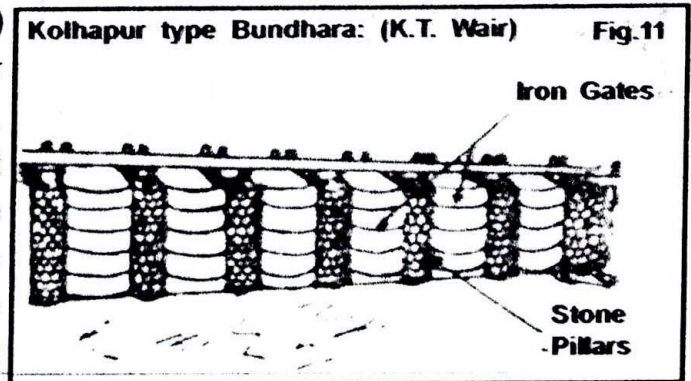


ground, upto the basalt/base rock. It stops at the first layer of hard *Murum*. Anyplace where the base rock lies bare or the black-cotton soil goes deep into the ground a percolation tank will not fulfill its objective.

Black-cotton or similar soil must be compacted hard in the midsection of the walls of such a tank and the base-trench. A hand/mechanical compactor (*Dhummas*) must be used for this purpose. Soil should be sprinkled with required quantity of water while compacting. If an iron roller is being used it has to be repeatedly rolled till the soil is absolutely compact. Thus, alongwith the waterproof layer *murum* has to be applied by the Horting-zone side (black-cotton soil side). The soil-wall has to have a slope of 2:1 as shown in the figure. The side on which water accumulates must have stone pitching upto the floodline. The excess water can be taken out sideways thru' a duct, preferably leading to a rocky area. Unless the *murum* and soil of the tank-wall are amply compacted water simply leaks away and the tank is found dry. Many a tanks have a weak base with less than adequate rolling and compacting of black-cotton soil leading to leakage of the accumulated rainwater thru' the base. This leaking water doesnot soak in the ground and ruins the quality of soil. It is imperative that such defective tanks be repaired. (Fig-10)

11. Kolhapur type Bundhara: (K.T. Wair)

- These are made in places where the river has open stretches containing hard stones. Stone pillars are erected with arrangement for iron gates. These bunds are made in a row, at right angles to the flow. The doors are removed during the rains, to allow free flowing of water to prevent floods. An added advantage of these bunds is that they can



be used to construct a bridge over it, facilitating transport. The gates are inserted towards the end of the rains to store the collected water. (Fig.-11).

A villager asked the outsider whether conserving water in these ways would ensure availability of water. He assured him that indeed they would.

The outsider described the structure of land. More or less the structure is similar throughout our country first a layer of soil, then light gravel, then pebbles followed by a certain amount of red soil (*Geru*), hard stones and last of all hard rocks. Water collects in the spaces between these layers. Since these spaces are at different depths of layers, some wells have water at a greater depth than others. As a thumb rule lightning when strikes a place, it definitely contains water.

Some of the school children sitting around, narrated what they had learnt about the water-cycle in school. Water is very important in our lives. Neither animals nor plants can live without it.

Why do we need energy for our day-to-day activities

We need energy for our day-to-day activities like washing up, speaking etc. Our body consists of many parts which consist of cells. This is similar to a house having many rooms, each built of bricks. Every cell needs to create energy. Cells have moisture inside and outside. The waste products created in cells dissolve in water so that they can be sent out. Thus water assists in digestion of food and in secretion of fluids.

- Sweat and urine are unwanted materials which are excreted.
- Minerals from water are necessary for the body.
- Water helps to keep the body temperature stable.

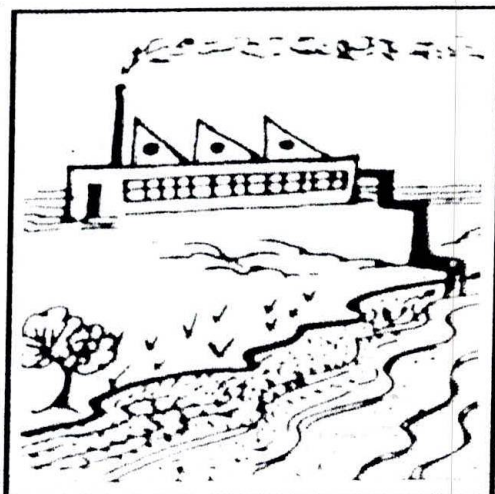
Rain provides the water needed for the above functions.

How do we get rain?

The heat of the sun evaporates the water on the earth surface. When this rises and becomes cool, it is converted into drops of water which form clouds. When cold air strikes them we get a shower of rain. But when dirt mixes with rain water, it harms our health.

How does water get polluted?

- When people pass stools near rivers and canals, excreta mixes with the water.
- Washing - Allowing animals into drinking water areas of rivers.
- Letting effluents from industries into canals/rivers



Diseases caused by polluted water

1. Loose Motions
2. Jaundice
3. Typhoid

Ayushi explained the **methods of water purification** to the villagers -

1. **Filtration** - Pour the water through a clean white cloth folded 4 times. The impurities remain on it while clean water fills the vessel below the cloth.
2. **Using Alum** - Wash the alum clean before rotating it 2 or 3 times in the vessel by rotation. Keep the alum in a closed container. The impurities will settle at the bottom of

the vessel. Use the clean water of the upper part of the vessel. If you circulate the alum too many times, it will spoil the taste of the water.

3. Seeds - A pinch of powder of drumsticks seeds put into the water will make the dirt settle down.

4. Decantation - When water is allowed to stand still for 8 to 10 hours, the dirt settles at the bottom of the vessel.

5. Boiling - This is a safe way of purifying water. But the water should be kept boiling for 15 minutes, which requires fuel.

Boiling kills most germs but the process is costly. However, the Foundation for Medical Research in Mumbai has found that if a glass bottle containing drinking water is kept next to the stove while cooking for at least 2-3 hours, it becomes safe for drinking. Though some germs are not killed in this process, they can be resisted by our body. The water is safest when the glass bottle is exposed 2-3 times to the heat.

In areas of heavy rain like Konkan people collect rainwater for drinking. We can also try this. But since the roof of the house is covered with dirt, we should allow some water to wash away and then collect the water which overflows later from the roof.

If the falling rain water is collected by the villagers, they can all get clean drinking water by sharing the expenses. Bleaching powder should be used to purify it as follows -

1. Measure the radius and depth of a well or round tank in metres.

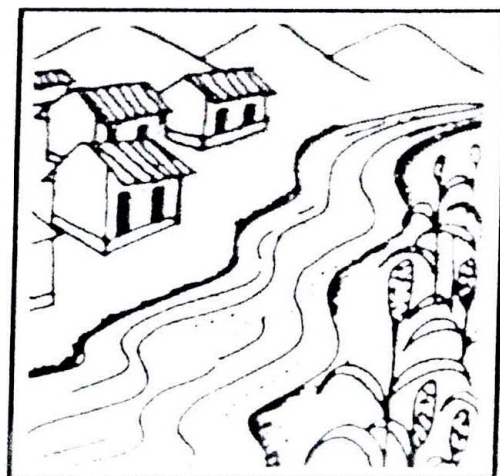
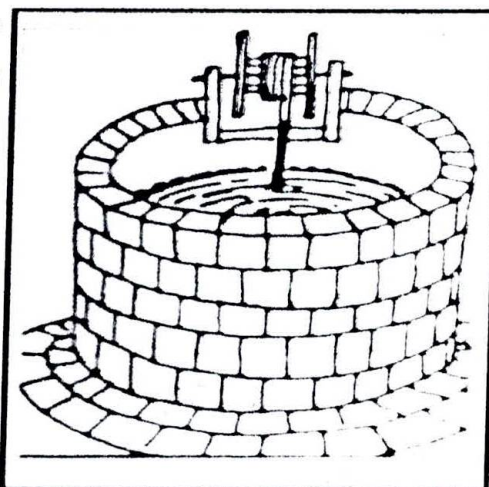
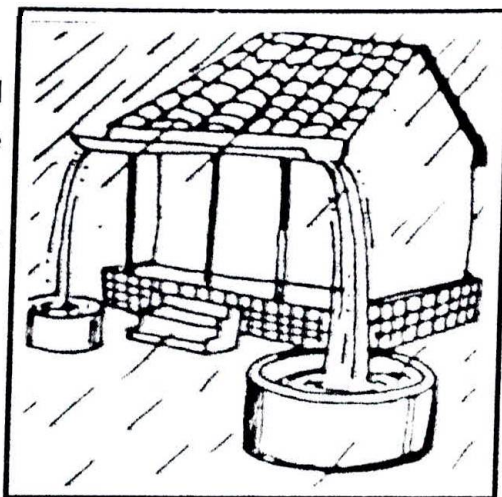
For Total water = $D^2 \times \text{Depth} \times 785$ lits

(All dimensions are in metres)

2. For a rectangular tank - (in metres)

For Total water = $\text{Length} \times \text{Breadth} \times \text{Depth} \times 1000$

The calculated amount of powder should first be mixed in a small quantity of water and then poured into the well/tank. A clean plastic bucket or bottle should be used for this purpose.



A senior villager narrated the role of water in human society to a city-dweller. Ancient civilization were established near rivers where they prospered. But excess of irrigation ruined the culture of many river-side places. In other places, sufficient water was denied to some people on grounds of discrimination. However, the outsider who has now settled down in the hilly town gives water from his well to every needy person during the summer.



Pani Panchayat is an organization near Pune which



resolved to distribute water equally among all. The city-dweller informed the villager about their fair approach. Though people with more land may demand more water, every family will get an equal quantity of water irrespective of its land-holding.

Where people used politics for water, they often got water for their own area at the cost of the needs of others. Constructing bunds for namesake is no use. Just as flowing water finds its own level, we must learn to develop a humanity-centred culture. Land, air and water have been created in nature for all. Although land has ownership rights, it is wrong to buy or sell air and water. Every being deserves its share of water irrespective of riches or social standing.

Exercises

Fill in the blanks

(Bleaching) (Total water in litres = D X Depth X 785 lits) (motions, jaundice, typhoid) (length in m x breadth x depth x 1000)

1. _____ powder is needed to purify the water from tank/well.
2. The formula for a rectangular tank is _____.
3. Powder required for a round well/tank is _____.
4. Contaminated water causes the diseases _____.

Choose the correct alternatives

1. The amount of rain water absorbed by the ground
 1. The amount of rain water absorbed by the ground
 2. Type of soil
 3. Nature of rainfall
 4. Underground rock-structure
2. Repeating the same crop in farming
 1. Maintains goods soil
 2. Fetches good money
 3. Reduces fertility of soil
 4. None of the above
3. Less slope with greater flow.
 1. Natural bunds
 2. Temporary bunds
 3. Big bunds
 4. Small bunds
4. Erecting very big bunds in a village
 1. Everyone gets water
 2. Village land lost to bunds
 3. Great expense
 4. Villagers migrate, others benefit
5. Solution for shortage of water in a village
 1. New wells/Bore wells
 2. Migration
 3. Careful use of water, tree plantation
 4. Ask for government Aid
6. For future demand of water
 1. Build very big bunds
 2. Sell water, make new tanks
 3. Equal distribution
 4. All the above

Answers

Blanks

1-1, 2-4, 3-2, 4-3

Correct Alternatives

1-5, 2-3, 3-1, 4-4, 5-2, 6-3

Lesson 9

Soak Pits and Kitchen Garden

Aims

On reading this lesson you will understand

- What damage is caused if used water/sewage is not managed properly.
- Usefulness of a soak pit and kitchen garden
- How soak pits and kitchen garden are made
- The difficulties faced while making a soak pit

Knowledge

You will know about

- The structure of a suitable soak pit to utilise the sewage in a proper way.

Skill

You will learn

- The procedure of selecting the right location of a soak pit and kitchen garden
- How to overcome the problems faced in making a soak pit and kitchen garden

Perspective

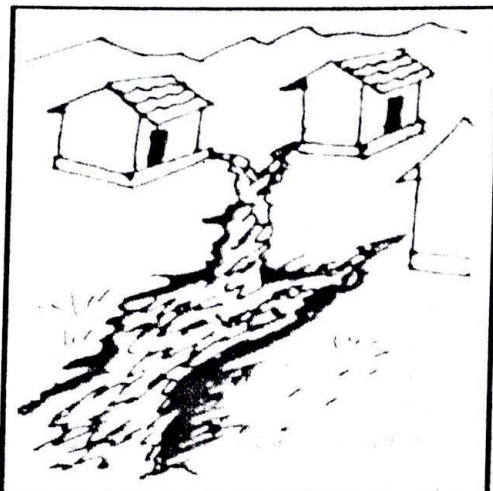
You will understand that

- The soak pit and kitchen garden are beneficial to the health of the individual and the village.
- Everyone is responsible for public sanitation.
- Rural life can definitely be improved with small but appropriate reforms which spread new thoughts and attitudes.

Soak pits - Management of used water

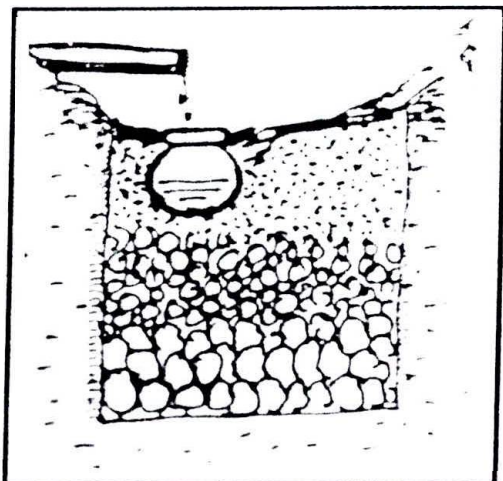
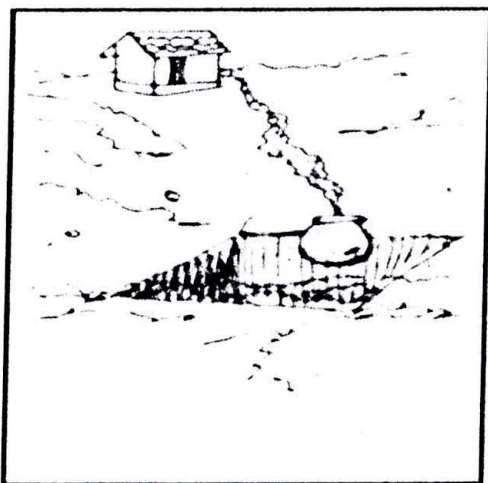
Introduction

Flowing water on the road, choked gutters and stagnated puddles are a common sight in every village in almost any season. This is a result of water used for bathing, washing clothes or utensils and even from latrines which has nowhere to go. It collects either where let out or flows down any slope till obstructed by solid garbage on the way. The stagnant water breeds mosquitoes which spreads malaria. The dirty water may also contaminate drinking water, leading to various illnesses due to germs and unwanted impurities in it. Such water must be soaked in a safe place inside the ground so that it maintains public cleanliness and health. It is the responsibility of each of us to make efforts for this.



While no one wants this dirty water around, where should it be directed? Who is to decide the solution? Many villages have gutters to carry away waste water, but usually they are clogged. People do not bother saying it is the responsibility of the Gram Panchayat to clean them. The workers feel that people do not use the gutters properly. However, it is the common responsibility of all to make suitable soak pits to overcome this problem.

1. Selecting a suitable place for a soak pit : The place should be at a distance from the house but a stony area or one that does not remain wet all the time. The pit should be made away from the wall of the house to prevent seepage into the house or dampness affecting its foundation.



The size of the soak pit should be proportional to the number of family members and the amount of water used. Generally, for a family of 5 to 6 members you need

- A pit 3 feet in length, breadth and depth
- It should have 3 parts - the lowest part should be filled with stones of 10 to 15 cm radius.
- The next foot should be covered with smaller stones, baked bricks, pieces of tiles etc.
- The upper 12 inches should have 5 cm stones and

sand. A medium sized earthen pot should be fitted in this with a hole of 10-12 cm at the bottom. Soil should be filled in the pot before making a hole with a nail to prevent it from breaking. The pot should be emptied of sand lined with coconut fibres and covered well.

- The pit should be filled upto ground level and jute sack pieces spread all around with gravel above.

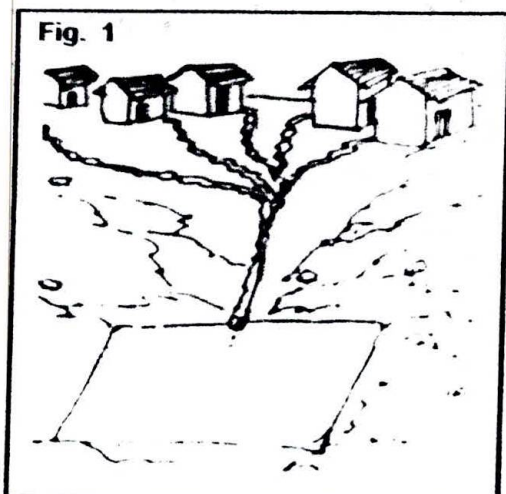
The pit should be maintained as follows :

- The coconut fibres should be cleaned / replaced each fortnight.
- Change the fibres if necessary.
- Dig the pit after 4 or 5 years, remove its contents and refill it again after it dries well.

If the amount of water used by the family increases, increase the size of the pit.

Problems and solutions while making soak pits

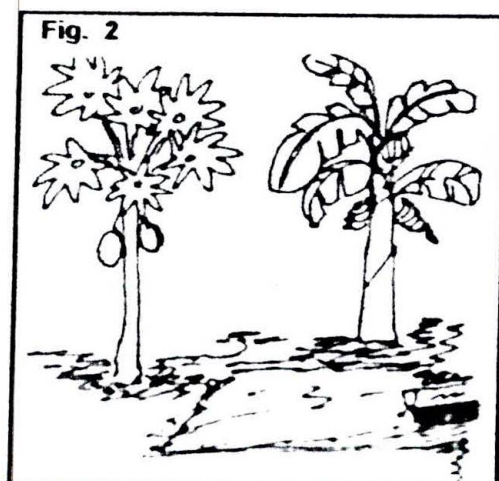
1. Often it is difficult to dig deep due to hard stony layers inside the ground. In such cases, the size should be changed as suitable.



2. When houses are built very close or when they are ownership disputes there are problems in getting space to make as many soak pits as required. In such cases all the effluents from each house should join the individual gutters into one large soak pit to let the drainage water into one suitable place near all the houses. (Fig.1)

3. Some land areas have a lower absorbing capacity due to which the pits get full quite soon. In such places more brick or tiles should be used in the pits instead of stones and its dimensions should be larger.

4. Often soak pits start overflowing because the near by water enters through cracks, blocking the inlet for the dirty water. Therefore care should be taken while covering the pits so that they do not get damaged. Nor should bullock-carts be allowed to pass over them.



Benefits of soak pits (Fig. 2)

1. There is no slush of dirt near the houses.
2. Malaria is prevented.
3. The atmosphere is pleasant.
4. Fruit and Flowers can be grown in the moist area near the soak pits.
5. Soak pits are not expensive.

The backyard garden / kitchen garden

Mangaltai had requested all the members of the small-savings group to attend today's meeting which was scheduled an hour earlier than the usual timing. Along other members her friend from Progress-group, Yashodatai, was expected to attend. Whole village knew her as the knowledge-bank of farming. In the last monthly meeting Mangaltai had provided substantial information about malnourished (undernourished) women and children; everyone wondered what they were to hear today.

When all women of the group alongwith their family members were gathered at the meeting place, Mangaltai briefly mentioned the subject of malnutrition discussed in the previous meeting. She then introduced Yashodatai. She also mentioned that to avoid malnutrition, vegetables could be grown by using waste- and drainwater to get a healthy and complete diet; that was subject of the meeting.

After greeting everyone Yashodatai confidently started narrating, from her own experiences, the importance of a kitchen garden. Our body needs nutrition which can be had from fresh green leafy vegetables, lemons etc. These fresh green vegetables provide essential vitamins and proteins and that too at a very nominal cost. You've to be prepared to put in the efforts, though. Sushilabai said "To run the household we all do a lot of labour and take efforts. If our surroundings are to be cleaned to be healthy and to receive nutritious food we'll do it."

Yashodatai added "That's not all; seeing my experience, my family members - especially children - have developed an affinity towards environment from working in our kitchen garden. I have achieved a wider circle of acquaintances through barter exchange of vegetables from our garden. This work provides me with just enough exercise, too! Drainwater is soaked properly into the soil keeping the surroundings clean, reducing population of mosquitoes and flies. Through exchange and gifting of home-grown vegetables we can achieve better cultural and human relations."

All the members, as one, requested Yashodatai to point out exact ways of achieving all this.

Yashodatai started off with the method of choosing a suitable plot of land. An average family of 5-6 needs approx. 1500 sq. feet (1 to 1.5 *guntha*) of land to grow vegetables all year-round. This land should be next to the house and should get ample sunlight. No big trees must be nearby.

Suman interrupted "Tai many of us may not have this kind of vacant land. Whatever land we have is all rocky; how to create a kitchen garden out of that?"

Yashodatai addressed Mangaltai "Well you certainly have smart women in your group! Just like you, I suppose!" Then she answered Suman's query "A valid point. If you do not find such a piece of land you may grow vegetables in your farmland if it is not very far. To add to plantation-space you can even use pots, old barrels, old wooden crates... the most important thing to remember here is 'when there's a will there's a way'! Now remains the problem of tackling rocks. In Shindewadi a woman tilled the land, dug out all the rocks and stones, used those to make a compound and filled the plot with black-cotton soil and other suitable type to a depth of 30 cm (1 foot)."

Sangeeta: "Tai you just mentioned pots, old barrels, old wooden crates. I have heaps of them. How do I put them to use?"

Yashodatai: "If you have a very small piece of land or none at all this alternative is very useful. The first thing to do is drill 2-3 holes at the bottom of such crates or pots and then put a layer of pebbles or pieces of earthen pots or crockery 2-fingers high to facilitate draining of excess water. Then fill the container with manure, good quality soil and a handful of sand almost to the brim, leaving 3-fingers of space from above."

Laxmibai, the oldest member of the group, was listening intently. Now she asked "O yashoda, what you've said seems fine; but how do we water these plants? Ours is a drought-hit area."

Yashodatai: "I agree to you; ours is the region with scarcity of water. But we seem to get enough water for bathing and general use. Instead of draining it away we must recycle it. Practically all *Kharif* vegetable crops are fed by rains - what is important is the timing. All the water we use for bathing, washing clothes and utensils must go to a soak pit and thus recycled. We can have seasonal kitchen gardens. It is a good achievement if we can supply ourselves for 7-8 months with home-grown vegetables; see, it is better than to do nothing and reap nothing."

Sujatai always went ahead with a positive outlook. "Instead of mentioning just the road-blocks" she said "let's try this new concept with determination and persistence."

Yashodatai: "The soil must be cultivated on a regular basis to have water and air enter into it and let the roots grow strongly."

1. Leafy Vegetables (<i>Fenugreek leaves, Spinich, Alu, Shepu, Chuka, Chakwat, etc.</i>)	2. Fruit vegetables (<i>Tomottow, Gawar, Lady's fingers Brinjal, Chilli etc</i>)
3. Beens and creeper (<i>Ghewda, Peas, Bitter Gaud, tondali Dodka, Cucumber</i>)	3. Root stem categorywise vegetables (<i>White radish, Onion, Beetroot, Ginger</i>)

Nandatai had her home and farm at the extreme end of the village. "Yashodatai, I've tried this 'grow-your-vegeables' thing a couple of times; the moment my veggies are green cattle will just gobble them up. I am tired of this because putting a proper wire-mesh compound proves to be too expensive."

Yasodatai: "Forget the barbed wire, nanda. Instead, you can plant thorny bushes of *karvand*, *mehendi*, *chillaar* etc. And you can use the fruit of *karvand* and leaves of *mehendi*. You can have climbers on them to make them unpenetrable. For an instant fence use *babhul* or *bori* stumps. After erecting the fence, though, you've to have a proper layout for the kitchen garden."

"While planning this garden one must consider the preferences of the family members and the land available. Green leafy vegetables are ready within 30 to 40 days, leaving that plot vacant after that period. All bean-family vegetables must be rotated with others which nourish the soil with Nitrogen.

Classification of vegetables by seasons

Rains	Winter	Summer
peas, spinach, tomato, brinjal, chilli, onions, ginger, sweet potato, beans, better gaud, green gaud, alu, ginger, Mint	cauliflower, carrots, chilli, onions, beans, Cabbage, garlic, beetroot, Fenugreek leaves, coriander, chakwat	tomato, chilli, lady's fingers, kukumber, onions, coriander

Some commonplace vegetables and the average time-period to reap them

1) Peas	70 days	6) Onions	90 days
2) Fenugreek	40 days	7) Gawar	60+ days
leaves			
3) Tomato	60 days	8) Coriander	21 days
4) Cabbage	60 days	9) Chilli	90 days
5) Brinjals	85 days	10) Green gaud	45 days

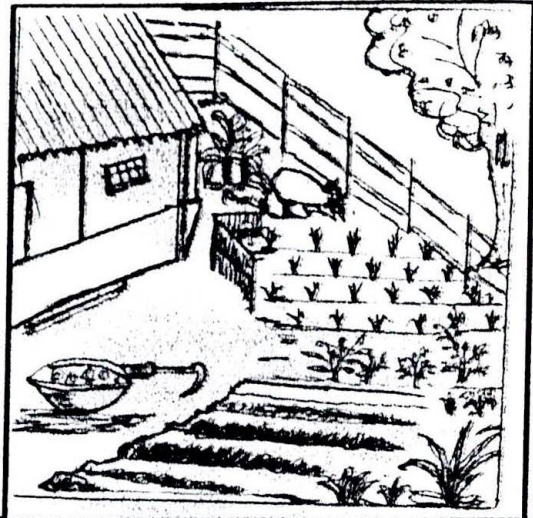
All leafy vegetables must be planted on a raised bed. If coriander is planted in pots repeatedly after a certain period, it can be reaped with the same time-gap.

Kitchen garden should also have some flowering shrubs and a few herbs such as aloe-vera, leaf tea, *tulsi*, ginger, *pudina* etc.

Sunil, who was sitting next to Yashodatai, said "Tai, last year my mother had planted beans and they had grown really well; then it was attacked by black rot and we didn't get even a handful of beans to cook and eat. What should one do in such a case?"

Yashodatai: "Oh - I completely forgot to tell you about pesticides and fertilizers! One must watch closely for occurrence of pests and plants should be dusted with **the ash from traditional kitchen stoves instead of using chemical insecticides**. You can spray them with extract of neem leaves, too.

Coming to fertilisers - chemical fertilisers will ultimately ruin the soil. Instead use natural manure, vermicompost, compost etc."



With this, Yashodatai produced from her shoulder bag packets of seeds to distribute amongst the women. Nandatai was eager to buy one. "What's the price, tai? I want one."

Yashodatai smiled. "Yes - I'll charge you for this packet but not now. After an year I'm to have ten such packets from you. Agreed?"

Nandatai: "Yes I understand. I'm to convince ten other women to make their own kitchen gardens."

Human waste management

The biggest contributor to the dirt we see around our village is human excretion (waste and urine). Our excreta contains maximum number of germs harmful to our health. To add to this, it looks too disgusting and smells too horrible to be managed properly. This shit, lying in the open, attracts flies and other insects. Microscopic particles of excretion stick to the tiny legs and wings of these insects and are ultimately carried to our food when flies hover and sit over it. These particles, though small, carry germs in a large number and they contaminate the food. Consumption of such food leads to sickness and contagious diseases. Often we see people relieving themselves in the open, near a body of water. The germs from such waste eventually find their way into the water. This water becomes the carrier of germs and disease, making a large number of humans susceptible to diarrhea, cholera, typhoid, worms etc. Children especially suffer from tapeworms. Tapeworms are parasites nesting in human bellies sucking blood and bile making us weak. Such worms, too, spread through excreta. Today's rural areas have more houses due to increase in population - toilet facilities have not grown in proportion! Womenfolk suffer the most in this situation; they still have to use open spaces to excrete and they have to make use of the dark hours of pre-dawn or night. This affects their body-clocks and puts them in other mortal dangers. Consider this - we spend large sums of money on buying a tape recorder or a music system; slog and work day 'n night to buy gold or valuables, make cupboards to keep them safe. Why we're reluctant to spend 3-4 thousands on an essential, permanent toilet facility which

will ensure our good health by managing our excretion and creating manure out of it? Every home of every village must build and use this type of inexpensive toilet to keep the surroundings clean.

Here's the information about an inexpensive toilet suited for rural usage.

Simple Toilet or Twin-Pit Toilet

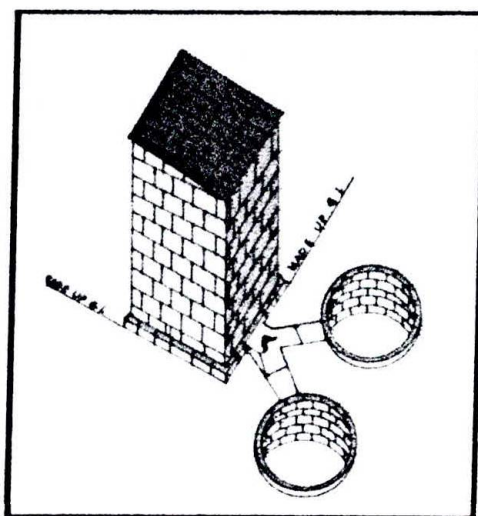
- This type of toilet... 1 can be built cheaply using local materials
 2 does not pose a threat to human health
 3 while in use, requires minimum quantity of water
 4 will eventually provide quality manure
 5 can be repaired locally
 6 can be built locally by a local mason

construction: It has 2 main parts -

- 1 seat and superstructure
- 2 pits and Y-shaped carrier piping

1. Seat: It consists of a pan with good slope and a water-trap behind it. Water trap has water permanently in it thus trapping foul smelling gases. Around the pan a cement platform of 3 x 3 ft. and of 1 ft. height is built, on which the upper walls (brick or simple bamboo sheets) are constructed to screen the occupant.

2. Pits or tanks: Here the excreta is soaked. These can be rectangular or round in shape. For one family there must be 2 such pits, 3 feet apart, each having a dia. or width of 3 ft. and depth of 3 ft.



These should be built in brick and cement mortar; do not put plaster or any type of building material on the bottoms of these pits. Their walls should have alternate bricks, leaving gaps in between. Here, too, do not put plastering. This allows water from the excreta to be soaked in the soil. The pits must be covered with cement lids.

The pipe coming out from the pan and opening into a small chamber should have a dia. of 3-4 inches. The 2 pipes coming out of this chamber and leading to the 2 pits should have adequate slope i.e. 1:10.

How the toilet works: First, block the mouth of one of the 2 pipes coming out of the chamber with a brick or a wooden choke. This ensures that the excreta coming out will go into one pit only. Water from it is soaked in the soil; rest is decomposed by micro-organisms leaving behind a dry, odourless manure. Once the first pit is full the blockage in the chamber is shifted, now making the empty pit available to receive the excreta. A pit takes almost 3-4 years to fill completely. By the time the second pit is full what the first pit contains is ready-to-use quality manure without any harmful germs.

Care to be taken while using the toilet:

1. use minimum possible water
2. before using wet the pan to ensure flow of waste
3. must prevent pebbles, leaves, rags etc. from entering the system, choking the pan
4. second pit must be made operational only after the first pit is full

As a *Gramsakh*i your first commitment must be towards building a toilet in your own home - otherwise you have no right to preach to other people about building toilets! The first thing required is willpower - which'll show the way! People should be made aware about the necessity of building such toilets, overcoming all obstacles, to free the entire village from the clutches of dirt and disgust; and there are many such villages who've led the way towards cleanliness through united efforts! Families having no space of their own can come together and build common toilets.

While choosing the location for such toilets *Gramsakh*i must ensure that these are atleast 100 ft. away from any water-source. Marshlands and plots with slope, too, must be avoided. Note: For more information on this contact your *Graamsevak* or the Panchayat committee

Self assessment

- How should people be made aware about public sanitation?
- How to explain the new perspective of sewage water management to people.

Exercises

Fill in the blanks

(Malaria), (3 ft x 3 ft x 3 ft) (management of sewage water) (5/6) (stony, mostly moist) (public cleanliness)

1. Soak pit is useful for _____.
2. It is for the house of _____ person.
3. Soak pit should have the size _____.
4. It saves us from the disease _____.
5. Soak pits should avoid _____ places.
6. Making them shows awareness about _____.

Choose the correct alternatives

The cleanliness of the village is the responsibility of _____.

1. Gram Panchyat
2. Other villagers
3. Ourselves
4. Government

Answers

Blanks - 1-3, 2-4, 3-2, 4-1, 5-5, 6-6

Correct Alternatives - 1-3

Lesson 10

Grameen Bank

Aims

On reading this lesson you will understand that

- Realize that economic independence is essential for progress of women.
- What are the advantages of this scheme made specially for women?
- Gather information about rural bank.

Knowledge

You will know about

- Grameen Bank operations.
- Develop capacity and confidence for self-help

Skills

You will learn

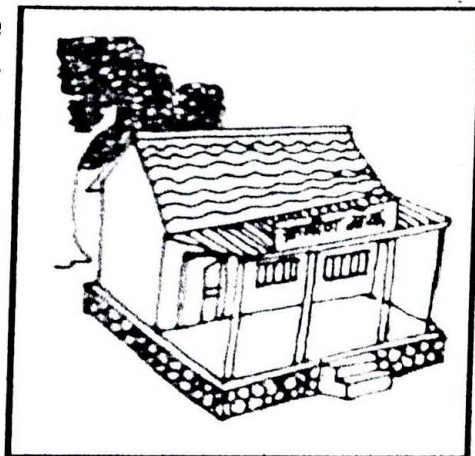
- Knowhow to start a rural bank
- Operation of a savings and loan account
- How savings and loan accounts are run?

Perspective

You will realize that

- Economic Independence raises the self-respect of women.
- Women can meet regularly through such schemes
- All-encompassing, equal development
- Financial freedom can raise women's self-esteem

Rural bank is a bank for rural women. The main objective is to provide women an opportunity to save some money in their own name so that they have their rightful money available in times of need or crisis. This type of bank was first established in Bangladesh by Mr. Mohammad Yunus, a professor of economics. The bank is represented on village level by small savings groups which provide the rural women a common platform. All women see that each one forms the habit of saving regularly and exchanging thoughts & views. The bank can sanction loan to a group considering the amount accumulating thru' regular savings. The repayment tenure and amount is decided according to prevailing rules. Using the loan and their own savings many women have build small and even large enterprises at local level which have vastly boosted their confidence. The women while running the savings group and bank are getting to face practical complications and learning the importance of working together in an organised manner. Being able to handle cash and such their decision-making ability has gone up. Successful repayments of the loan and running the group has proven to be the real 'self-help' for them. The motherly and helping nature of a woman has helped herself. Thanks to these groups, every woman has realised that she can be capable of eventually fulfilling her aim, her ambition and her choices.



In this chapter we'll come to know about the experiences of groups and economic developments.

Social Health Research Institute is running a women's bank - called **Mahilaa Aarthik Swavalamban Prakalp (GRAMS)** - at Parinche since 1994 creating women's savings groups in all villages, hamlets and *wadis*.

In the beginning local women didnot respond much to form a savings group thanks to a recent incident in which an agent of 'Sanjeevani Savings' had vanished with cash. So a nearby village - Kharadwadi - was chosen for a meeting and discussion outlining the objectives of a savings group and thus the first of such groups was established. This news reached surrounding villages and soon women from Ramwadi and baandalwadi had their own savings groups. Slide shows and screening of short films (*Baai, Paani* etc.) preceded earlier meetings.

In the project region 18 groups were formed with their combined account being held at Veer town branch of Bank of Maharashtra.

As on today the bank holds 805 members forming 124 groups and welcoming new ones. Women who wish to be a member of this rural bank and participate in the working have to abide by certain rules which are stated below:

General rules and regulations:

A) About membership to form a group

- 1) Only local women can become members
- 2) Each group shall have more than 10 women as members. They can decide on the name of their group
- 3) Each group shall have one president and one secretary
- 4) Entrance fee shall be Rs. ten (Rs. 10/-) only
- 5) Each member shall have her individual passbook in which all the entries shall be made
- 6) Minor girls can become members but they cannot avail any loan
- 7) Only one woman of one family can be a member of a group
- 8) Each member has to attend a meeting personally

(for membership form pl. see type 1)

B) About savings

- 1) The minimum amount to be saved per month is Rs. Twenty (Rs. 20/-) only
- 2) Interest on savings shall be 6%
- 3) Non-adherence to the schedule of saving shall attract a penalty of Re. One (Re. 1/)
- 4) A member can withdraw her savings, subject to rules

C) About loans

- 1) Any new member shall be eligible for a loan only after showing regular savings for 3 months
- 2) Each month only one member from a group shall have loan
- 3) Loan application must be in the prescribed form and 2 guarantors have to be produced. A member can be guarantor to a maximum of 2 loans **(Pl. see form type 2)**
- 4) The amount of loan shall be Rs. 500/- for the first year, Rs. 1000/- for the second year and Rs. 2000/- after that year.
- 5) Interest on loan shall be 12% p.a.
- 6) New loan application shall not be considered unless and until all previous loan is repaid
- 7) A member cannot have his savings back to her unless and until all previous loan is repaid
- 8) **Repayment of loan shall commence 2 months from disbursement of the loan**
- 9) Failure to pay the loan repayment installment and/or interest shall attract a monthly penalty of Rs. Two only
- 10) The member availing loan shall have to be endorsed by all members of that group

D) About cancellation of membership

- 1) Applications only in prescribed form shall be entertained **(Pl. see form type 3)**
- 2) Once a person's membership is cancelled she cannot be a guarantor for any other member seeking loan
- 3) If a member is already guaranteing some other member's loan, unless and until such loan is repaid, such guarantor cannot apply for cancellation of membership
- 4) The member seeking cancellation shall not be a defaulter

Meeting of the savings group

This meeting is held at least once a month on scheduled date. The meeting place is convenient to all - community hall, veranda of school etc. It is very important for every member to attend this meeting personally. In such meetings social work stands equally tall with financial matters through which many development projects are discussed or suitably altered. All members are asked to contribute in working of the group to achieve transparency in all matters. All financial and administrative matters discussed in the meeting are recorded. Every member lifts his workload and these duties are interchanged frequently so that every member gets to know about every work-procedure. New information and knowledge is discussed and debated; which makes members eager to attend all meetings. A representative of the institution attends every meeting to oversee financial records.

Financial matters

After a group's monthly meeting is over all financial records are immediately sent to bank. The receipt book essential in conducting monthly financial matters is in duplicate so that members can have their copy and the other remains on the record.

A sample receipt is shown here:

Receipt for the meeting

Member No:

Group No:

Sample receipt

No:

Date:

Balance b/f	Rs.	Debit	Rs.
Saving	20.00	loan	1000/-
Installment	—	Saving returned	—
Interest	—	—	—
Penalty	—	Total	1000/-
Entrance fee		Organizer's sign. Member's sign.	
Total	20.00		

As per the receipt shown above every transaction is recorded in the passbook of the concerned member.

- In order to keep the cumulative record of the savings of each member with the group or the bank savings account record book is used. (Pl. see sample no. 4)

Saving Account example

Sample - 4

No.:

Name in full

Address

Name of the village/town

Savings Acc.No.:

Name of the group

Date	Receipt No.	Saving Accu.	Saving returned	Balance	Penalty / Entr. fee	Org.'s sign.
01.01.98	1001	20	—	20	—	
01.02.98	1826	100	—	120	—	
01.03.98	2651	20	100	40	—	

- The member seeking a loan must fulfill all relevant rules and regulations and must get approval from all members of the group. A loan account, as shown below, is opened to keep records.

Loan Account

No.: _____ Name of the village/town _____

Name in full _____ Name of the group _____

Address _____ Savings Acc. No.: _____

1. Name _____ Savings Acc. No.: _____

Address _____

2. Name _____ Savings Acc. No.: _____

Address _____

Loan amount Rs. _____ Rs. in words only _____

Date	Amount Rs.	Reason for financial assistance
01.01.98	1000/-	Purchase of seeds

Example

Loan Repayment Amount (4) Rs.								
Date	Receipt No.	Loan Amount Rs.	Installment Amount Rs	Interest Rs.	Penalty	Basic amount loan balance	Fund Amount Rs.	Sign
(1)	(2)	(3)	(A)	(B)	(C)	(5)	(6)	(7)
1.1.98	1001	1000/-	---	---	---	1000/-	---	
1.2.98	1826	---	---	10/-	---	1000/-	---	
1.3.98	2651	---	---	10/-	---	1000/-	---	
1.4.98	3428	---	100/-	10/-	---	900/-	---	
1.5.98	4192	---	100/-	09/-	---	800/-	---	

Once the loan is disbursed there's a grace period of 2 months in which no penalty is applicable; only the interest is charged. After this it is mandatory to pay back the loan in 10 equal installments. For example a loan of Rs. 1000/- shall attract a monthly installment of Rs. 100/-.

To calculate interest:

$$\text{int. p. m.} = \frac{\text{principle} \times \text{rate} \times \text{period in months}}{100 \times 12}$$

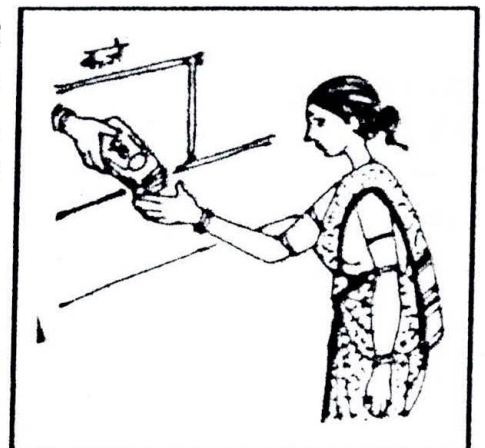


Illustration: How much interest, per month, will be payable on Rs. 1000/- at the rate of 12%?

$$\text{int. p. m.} = \frac{1000 \times 12 \times 1}{100 \times 12} = \text{Rs. 10/-}$$

The principle loan amount and the amount of interest payable will reduce in proportion of the installments paid. With timely repayment the credit (image) of that member goes up in the group and, in turn, the group will hold a higher esteem in the eyes of the bank.

Thanks to the 'Economic Freedom for Rural Women' project these members get a loan locally at minimal interest. This has stopped their rampant extortion by the private moneylenders. Now these women members can implement their own decisions regarding expenses of farming and seeds, children's education and health etc. The groups from Baandalwadi and Parinche had availed loans of larger amounts to run flour-grinders and pasta-makers; these businesses are flourishing and loans have been paid back.

The most important thing happening thru' this is the growing self-confidence of these women. Their ability of taking decisions has been uplifted from their personal self to village level via their families. Alongwith financial matters they are now aware of the necessity of social development works resulting into successful running of health programmes. Admittedly they had their cup of pitfalls - some women had not given much thought to their repayment capacities and possible difficulties. To add to this rains were scares and draught conditions made them leave their native places in search of work. Disbursement of loans to such defaulters had to be stopped. On good thing materialised out of this situation - other group members put a moral pressure on such individuals and in the end they started repaying.

While working as a *Gramsakh*i one should pay close attention towards close-knitting of savings groups, enhancing the skills of the group-members and finding various enterprises to increase their incomes.

A) Building a savings group

Gramsakh*i* must reach out to those women who are yet to join any savings group, try to gauge their difficulties and explain to them the benefits of being a member of such a group. She must illustrate experiences of the members of other successful groups and perhaps arrange an exchange of thoughts. She has to make extensive followup in matters such as awareness, stimulation, organisation etc. The prospective members have to be so divided as to form a balanced group. *Gramsakh*i must always remember that every group may (and will) have different set of priorities based on their local needs and situations. The end-objective is to have overall development through their organised efforts.

B) Enhancing the skills

Women of the group should acquire and develop the skills of recording the minutes of meetings, verifying the data presented to them in sessions / meetings, management of various events etc.

C) Generating income and achieving growth

The regular accumulation of money should be returned, with compliance of relevant regulations, to the group members to facilitate generation of more income. The members should be made aware of financial aspects involved in the process of sanction of loan, payback period,

rate of interest etc. Enterprises should be started considering the local needs. Procurement of raw materials, processing and marketing techniques must be thoroughly understood and production quality has to be maintained. If it is a food or food related product one has to be extra careful about its purity, shelf-life and adherence to laws and regulations. The service industry - anticipating and catering to the local needs - can also generate money. The repayment experience is very good if the loan availed is used for generating income. New marketing endeavours, altering the product according to the clients' needs and massive contacts base are essential.

Projects like the savings group and rural bank are essential to eradicate poverty at the village level, to locally provide work to women and to get their participation in the development process.

Using these organisations and the financial empowerment, many village women have achieved massive developments. Every group meeting is an opportunity for them to raise their doubts and queries and find solutions. Working together they've accomplished collective progress of their families, village and community.

You may've witnessed some of the things mentioned above in your village. You may get a few tips from these experiences and improve on the existing scene.

Vanitatai, secretary of the 'Progress' group narrated - "Amongst all women present for the first meeting 12 were ready to be members. We read the bank's regulations, had a discussion and, to start with, finalised rules for our group. We had meager cash at that time; we started with just Rs. 10/- per month per head. In regular meetings, alongwith cash matters, were discussions on everyday toils and problems we faced. Sharing this information was soon accompanied by providing answers. With an adequate corpus Rekhatai from our group purchased a pasta-maker, Pushpatai opted for a flour-grinder, Rukmini had chicks in her poultry while Savita and Nirmala chose goat-breeding. All women are running their enterprises successfully. Proper repayments have boosted our confidence and credit with the bankers.

Two years' experience has elevated the status of information from mere discussion to actual action and implementation

All the savings group of our village have united to provide local-level training about farm-produce processing industry. We've conducted a study-tour and visited a few successful SSIs. 3 months ago we disbursed loans to all members to manage drainages and carry away drainwater in pipes. We are not satisfied with such small projects now - we're aiming towards cleaning the whole village and putting it on the road to allround progress. To achieve this

objective we all women have elected women on the 'Panchayat' committee who are supporting us wholeheartedly. One more important thing - discussions held in the meetings have produced a total development plan for our village which we're determined to put into action. Yes - we had our cup of disputes and arguments but soon realised that the only way out is doing more work by united efforts. Our family members extended wholesome support to us; especially while banning hard drinks and preventing abuse of women. We are also thankful of the help and support at institutional levels and from capable government officials - without them it'll be a very uphill task for us."

Chchabutai form jagtaapwasti is proud of the benefits of the savings group - "Ours is a small hamlet; but since the inception of this group the number of women attending the 'Panchayat' committee meeting is up significantly. We've raised queries and have got the development projects rolling. We all are now a strong pressure group'. Through our philosophies and the 'transparency' policy have contributed significantly in economic progress of our group. Our mentality is positive because of the new information we share in every meeting and the savour of success. Next we'll be using the new tool - 'Right of Information' act - to achieve development of our village."

Provided here are a few sample forms for more information. These forms are from GRAMS savings group project, Parinche run by FRCH, parinche.

Application sample 1
Application for membership

Date: _____

Hon'ble secretary,

Applicant _____

Sub.: Application for Membership

I, _____ am hereby applying for the membership of Mahila Arthik Swawalamban prakalp (GRAMS). Please enroll me as a member of your group / project. I'll comply with all the rules and regulations and the amendments made to them from time to time. You have the right to terminate my membership if I fail to comply with all the rules and regulations

Information about myself:

Name in full: _____

Name of father / Husband _____

Address: 1. permanent _____

2. current _____

Education _____ Date of birth / Age _____

Occupation _____ Ration card no. _____

Election commission ID no.: _____ Blood group: _____

I hereby declare the above information to be true.

Signature / Thumb Impression of the applicant

Specimen sign. / left hand Thumb
Impression of the applicant

1

2

Information about the Introducers:

Name	Address	Savings acc. No.:	Sign.
1. _____	_____	_____	_____
2. _____	_____	_____	_____

For office use only

_____ has been enrolled as a member of Mahila Arthik Swawalamban prakalp (GRAMS) from _____

Name of village	Name of group	Savings acc. no.

sign.

Nomination

I _____ residing at _____
 _____ am a member of **Mahila Arthik Swawalamban prakalp**
(GRAMS) with membership no. _____ in _____ group hereby
 nominate the person mentioned below to claim the amount credited in my account in case
 of my death or mental dereliction.

Name	Address	Relation with the acc. holder	Age	If nominee is a minor it's date of birth
------	---------	----------------------------------	-----	---

2. As on today the nominee being a minor I'm nominating _____
 to claim the amount credited in my account in case of my death or death of the minor.

- 3 In case of death of the person appointed in no. 1 mentioned above I hereby nominate
 _____ residing at _____
 to claim the amount credited in my account.

Place

Date :

Witness :

Sign.

Name:

Address:

Sign. of applicant

Application sample 2

Sr. no.:

Name of village:

Name of group:

Application for Financial Assistance

Hon'ble Secretary,

I hereby request , considering my information furnished below, that a financial assistance of Rs. _____ be granted to me.

Name of member _____ Complete Address _____

Name of father / husband _____

Membership no.: _____

Financial assistance required Rs.: _____ Rs. in words _____

Reason for seeking financial assistance _____

Repayment due _____ Amount and month of the last installment paid _____

How many times, during this year, financial assistance was sought _____

Member's savings on the application date Rs.: _____

The information supplied above is true. I shall repay this financial assistance in _____ monthly installments each of Rs. _____

I shall pay, per month Rs. _____ as principle and interest on it @ _____ % p. a.

Are you already carrying a loan? _____ Y / N If Y give details: from whom unpaid amount as on today _____

Date: _____

Sign / L.H. thumb impression of member
(Witnessess in case of thumb impression)

1) _____

2) _____

TM-110

11382

Guarantors

We the undersigned are members of the group. We, as guarantors, hereby individually and collectively accept the responsibility about repayment of the financial assistance granted to the applicant. If the applicant fails in repaying the said financial assistance the group / project shall have the right to recover the outstandings from our savings and personal assets.

1. Name of the guarantor _____ 2. Name of the guarantor _____

Membership No.: _____ Membership No.: _____

Sign / thumb impression

Sign / thumb impression

Sanction of Financial Assistance

A financial assistance of Rs. _____ is hereby sanctioned to the member Mrs. / Ms. _____ subject to the following conditions. Member shall pay, per month, Rs. _____ as principle and interest on it @ _____ % p. a.

Other conditions, if any: 1
2

Date of sanction Sign. of President / Secretary Sign. of organiser

Promisory Note

I, _____ age _____ years, occupation _____ residing at village _____ Taluka _____ District _____ am borrowing Rs. _____ (Rs. in words _____) as loan from the group / project. I hereby promise the group / project that I shall repay the said loan amount in _____ equal monthly installments each of Rs. _____ and the interest on it @ _____ p. a. After the said repayment this promisory note shall be null and void. In case of my failure to repay the said amount the group / project can recover the principle and service charges from my savings. I understand and agree that the group / project shall have the right to carry out lawful action towards recovery of the unpaid amount and other related expenses

Date:

Sign. / thumb impression

Format 3
Application for Cancellation of Membership

Date _____

Hon'ble Secretary

Applicant:

Sub.: Application for Cancellation of Membership of GRAMS

I, _____ am hereby applying to cancel my membership of GRAMS. I have no monetary dues to the group / project. If any dues are found I shall pay the said amount(s), alongwith interest, immediately to the group / project. As on today I do not stand guarantor to the amounts due by any member of the group / project.

Name in full _____ Complete address _____

Name of the group _____ Savings account no.: _____

Amount of loan due for repayment Rs.: _____

Reason for the dues: _____

Sign / thumb impression of the applicant

For office use

Name in full: _____ Complete address: _____

Name of the group: _____ Savings account no.: _____

Amount of loan due for repayment Rs.: _____

Total amount of savings returned Rs.: _____

Applicant is not a guarantor to any other member.

Considering all the information furnished above it is certified that the group agrees / does not agree to cancel the membership of the applicant

President / Group Secretary

Organiser

Name : _____ Group no.: _____

Address: _____ Membership no.: _____

Received Rs. _____ (Rs. in words _____) in cash today on _____ day of _____. I have no dues from the group / project.

Applicant's sign. / thumb impression

Savings Group's Name

Group No.

Grameen Bank Prakalp (F.R.C.H.)

Tal. Purandar, Dist. Pune

Month Year

Receipt side

Payment side

[illegible]

Exercises

1. Meaning of Rural Bank
 1. Women's own bank
 2. Government bank
 3. Cooperative bank
 4. Village bank
2. Meaning of Budget
 1. Estimate of income
 2. Estimate of expenses
 3. The plan made according to an estimate of the future.
3. If interest rate is 12% calculate, the interest on Rs. 1000/- for one month _____.
 1. Rs. 5
 2. Rs. 15
 3. Rs. 25
 4. Rs. 10
4. If women start saving,
 1. There is saving on their names
 2. They get information about banking
 3. They can get loans
 4. Their confidence and decision making improves

Fill in the blanks

(Minor Girls) (Means of exchange) (Calculator) (10) (3)

1. If you save for _____ months regularly in a rural bank, you can get a loan.
2. The minimum saving amount is Rs. _____.
3. _____ are not eligible for loans in rural banks.
4. Money means _____.
5. _____ can help in calculations in a rural bank.

Answers

Correct Alternatives

1-1, 2-3, 3-2, 4-4

Correct Pairs

1-5, 2-4, 3-1, 4-2, 5-3