

CIVICS

DEVELOPMENT

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Social Studies
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Agricultural Development in India (Part I)



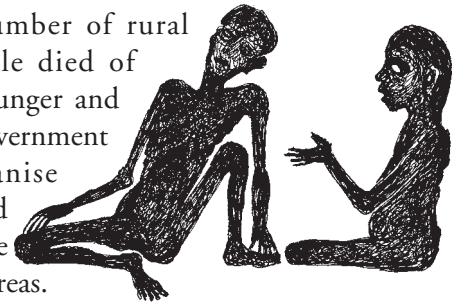
In this chapter, we shall try to understand the changes that have occurred in Indian agriculture from the time of Independence to the present. We shall also look at the various steps planned and undertaken by the Indian government in this regard. These comprise the agriculture policy of India.

Background

Agriculture has to fulfil two crucial roles in the economy. First, it must produce enough food, cheaply available for all the people. There should not be a shortage of food and everyone, even the poor, must be able to meet their food requirement. Second, it must be able to produce adequate income for the large number of people who are dependent on agriculture for their livelihood. Very often there isn't a shortage of food, yet a large number of people remain hungry because they do not have the means to buy food. It is essential that the landless labourers and small farmers who actually cultivate the land are able to earn enough from their work to not only support their families, but also lead a decent life.

At the time of Independence, Indian agriculture did not fulfil any of these roles. Food production

was low. There was widespread hunger. The situation was worse in years of flood and drought as production fell further and with it the incomes of a large number of rural people. People died of disease and hunger and the British government did not organise sufficient food stocks for the poor in rural areas.

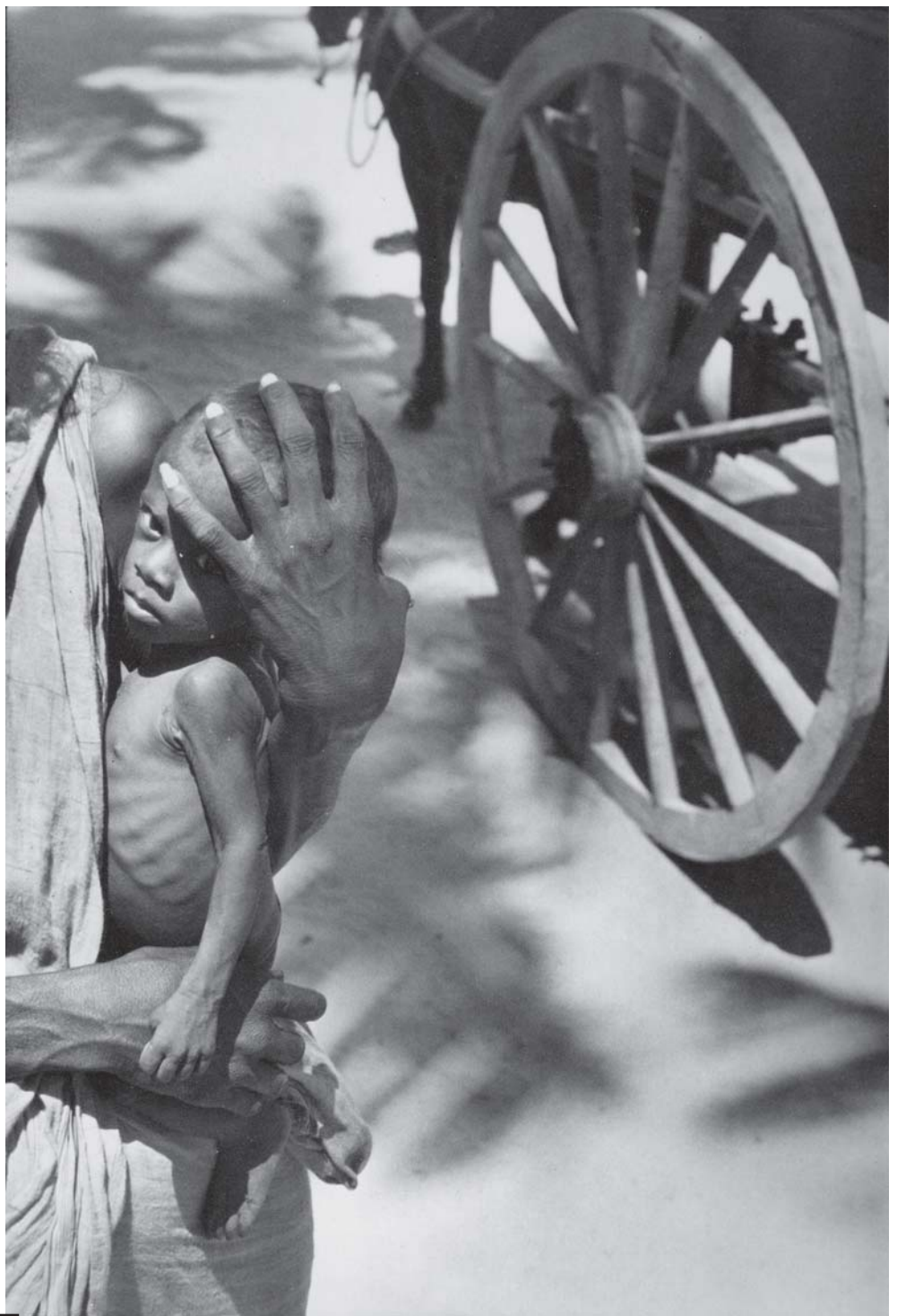


British policies resulted in a catastrophic famine in Bengal in 1943. Millions of people died of starvation. India's crops were exported to support the British in World War II, which caused local prices to rise. Because of fears of Japanese invasions, the British restricted boat traffic, which also restricted Indians from fishing and transporting goods.

At the time of Independence, the condition of the vast number of farmers and labourers was grave. They either had no land or had very small plots. When they worked on land belonging to others they had to give a high share to the owner. As a result the farmers and the labourers lived in poverty and could hardly provide the basic necessities to their families. In contrast, a few big zamindars owned more than half the land. The zamindars had a lot of power in the rural areas because they were responsible for collection of land revenue.

Given the poor condition of Indian agriculture and its farmers, the newly formed Indian government made important policy changes soon after India's Independence.

The famous photographer Henri Cartier-Bresson took this photograph in 1947. Notice how in one snap he captured the symbolic wheel and its spokes, echoed in other forms throughout the picture. One wonders how the wheels turned and what happened to this child after Independence.



Agriculture after Independence: 1950-66

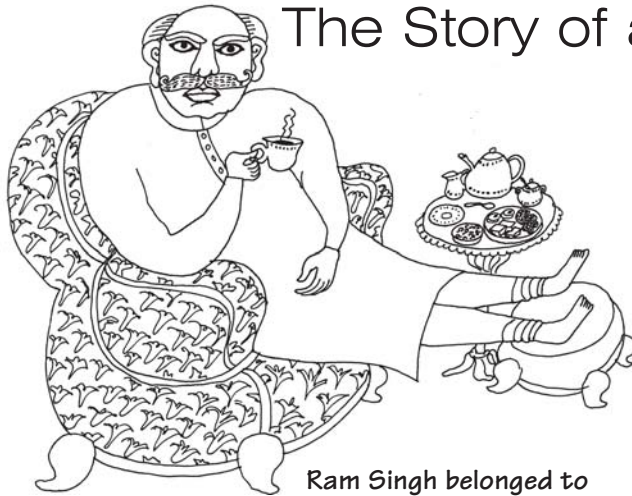
Abolishing the Zamindari System

In the chapter on 'Farmers and Peasants during the British period' you have read about the peasant uprisings in different parts of the country. Most of their problems were related to exploitation by the zamindar under the zamindari system.

Describe the problems faced by the peasants during this period.

Thus, people forced the new government formed after Independence to make laws to abolish the zamindari system, reduce land revenue and give land rights to farmers. Let's see how these changes affected people's lives in a village in United Provinces in Northern India.

The Story of a Zamindar



Ram Singh belonged to a powerful zamindar family of Pipalgarh village. At the time of independence, he owned 600 acres of land: 100 acres he cultivated himself and the remaining 500 acres he leased out to small tenant farmers who cultivated his land.

Every year the small tenant farmers of Pipalgarh had to pay a fixed sum of money to Ram Singh as revenue and rent for cultivating his land under the zamindari system. The farmers would have to sell about two-thirds of their crop to raise this money. Most farmers found it extremely difficult to pay this money, especially in drought years. The zamindar used part of the money to pay land revenue to the British government and used the rest as he wished to maintain his lavish lifestyle.

In addition to this, the small farmers would often be asked to do 'begaar' (unpaid work)

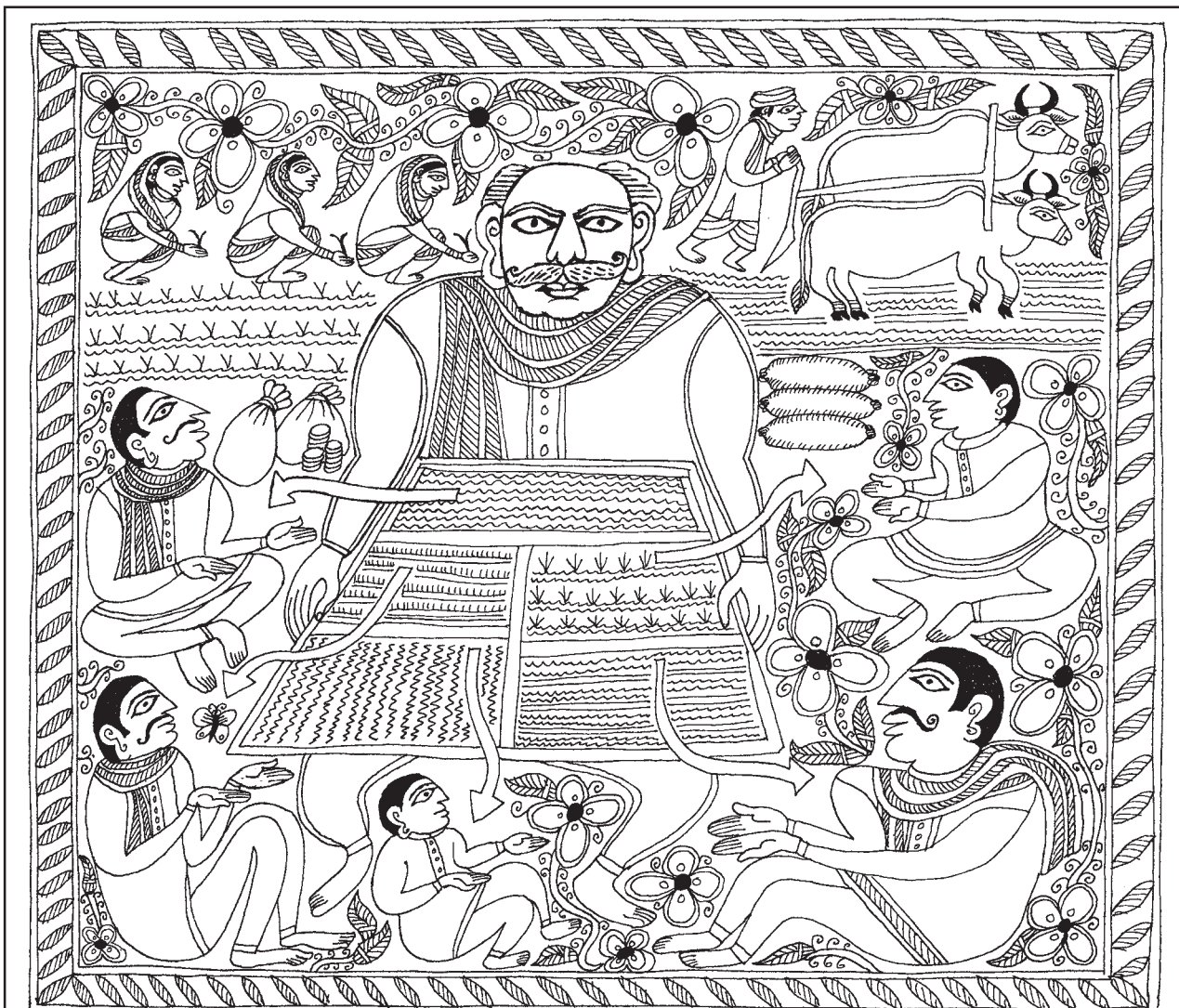
on Ram Singh's own land - those 100 acres which he had kept for his own cultivation. Nobody in the village could defy Ram Singh's authority. Anyone who dared to do so was punished and humiliated in front of the whole village. The lower castes would not even dare to come near him.

In the years before independence, as part of the National Movement, there were many protests by farmers against the zamindari system. Soon after 1947 the Indian government passed laws to abolish the zamindari system and to end exploitation by the zamindar.

What changes did this bring to the people of Pipalgarh? Ram Singh could no longer collect revenue from the farmers. The government drastically reduced the land revenue and also appointed its own staff to collect it. Thus small farmers could no longer be harassed by the landlord for not paying the land revenue. Gradually the small farmers also started to refuse to do begaar work.

At that time the government also made laws that imposed a ceiling (a limit) on the amount of land that any large landowner could own. This worried Ram Singh for it meant that he would have to give up 400 acres out of his 600 acres of land.





In order to get around this, Ram Singh decided to distribute his land among his family and relatives. This way the land was shown as belonging to many people, while he actually continued to control all the land and earn the same income as before. Thus many of the landless families in Pipalgarh, who had expected that Ram Singh's land would be given to them and they would get a chance to break out of the poverty were let down.

Ram Singh was also worried that many of his land holdings cultivated by small tenant farmers over a long time could be claimed as their own under the new laws. So he decided not to allow some of the small farmers to farm his land anymore. A number of them had regularly worked on Ram Singh's lands for many years, but now they had to look for other work.

The new laws passed by the Indian government had sought to reduce the powers of the

zamindar substantially and had also aimed to give the farmer land rights. In reality very few farmers became owners of land. There were large scale evictions of tenants by zamindars, who now had to work as landless labourers. Little land was redistributed in the Indian villages. The zamindar did not have the same power as earlier but what could have been a major improvement in the lives of the small farmers and agricultural labourers did not happen.

List the things Ram Singh could not do after the zamindari system was abolished. How did this help the small farmers and labourers?

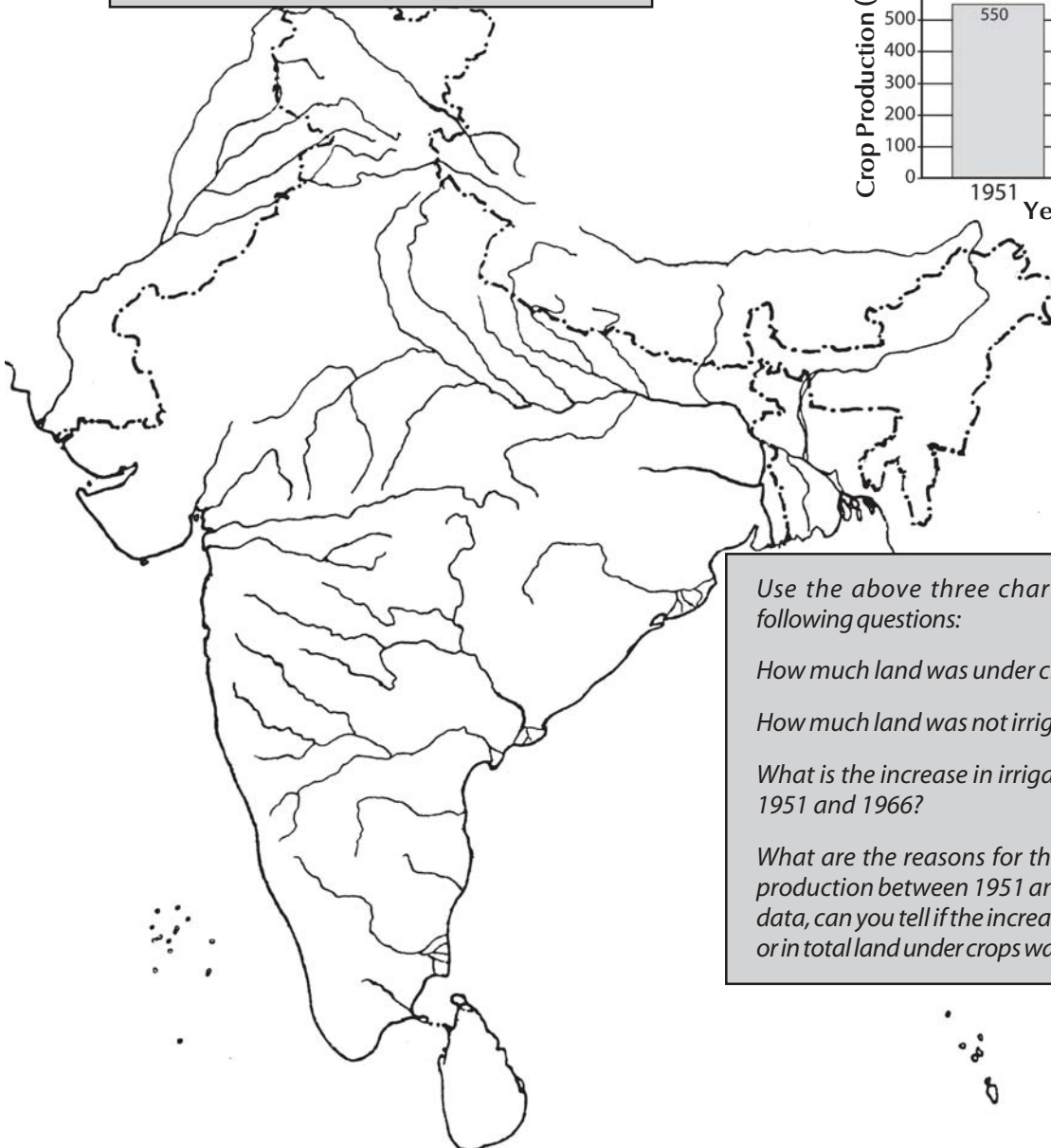
What were the expectations of the landless families of Pipalgarh? Why were they not realised?

Explain the term 'tenant farmer'. Why did Ram Singh want to change his tenants?

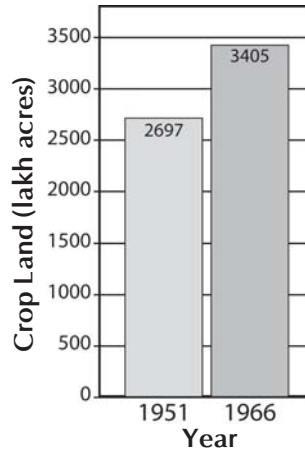
Increasing Irrigation and Building Dams

Between 1950 and 1965 the Indian Government invested heavily in irrigation and power projects. It was hoped that this would raise crop production and solve the problem of food shortage. Big dams for irrigation and electricity generation like Bhakra-Nangal (Punjab), Damodar Valley (West Bengal), Hirakund (Orissa), Nagarjun Sagar (Andhra Pradesh), Gandhi Sagar (Madhya Pradesh) were constructed. The area under cultivation and the irrigated area both went up, and crop production increased. However, despite these developments food shortages continued.

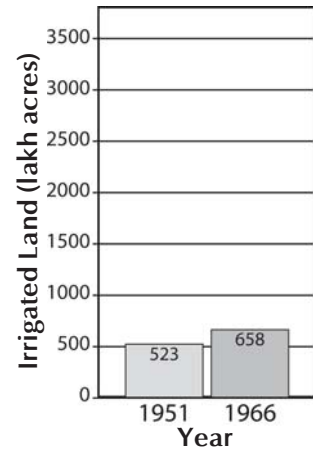
Use your Atlas to find the locations of the above mentioned dams and mark them on the map below. Also, label the names of the major rivers.



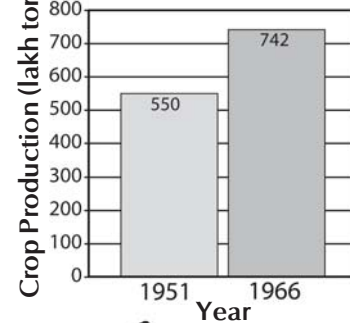
Graph 1: Total Crop Land in India



Graph 2: Total Irrigated Land in India



Graph 3: Total Crop Production in India



Use the above three charts to answer the following questions:

How much land was under crops in 1951?

How much land was not irrigated in 1951?

What is the increase in irrigated land between 1951 and 1966?

What are the reasons for the increase in crop production between 1951 and 1966? From this data, can you tell if the increase in irrigated land or in total land under crops was more important?

Adopting a new agriculture policy in 1966: The Green Revolution

In 1965 there was a war between India and Pakistan. The Indian government spent a lot of money on the war. 1965 and 1966 were both drought years. The production of foodgrains (cereals and pulses) was very low.

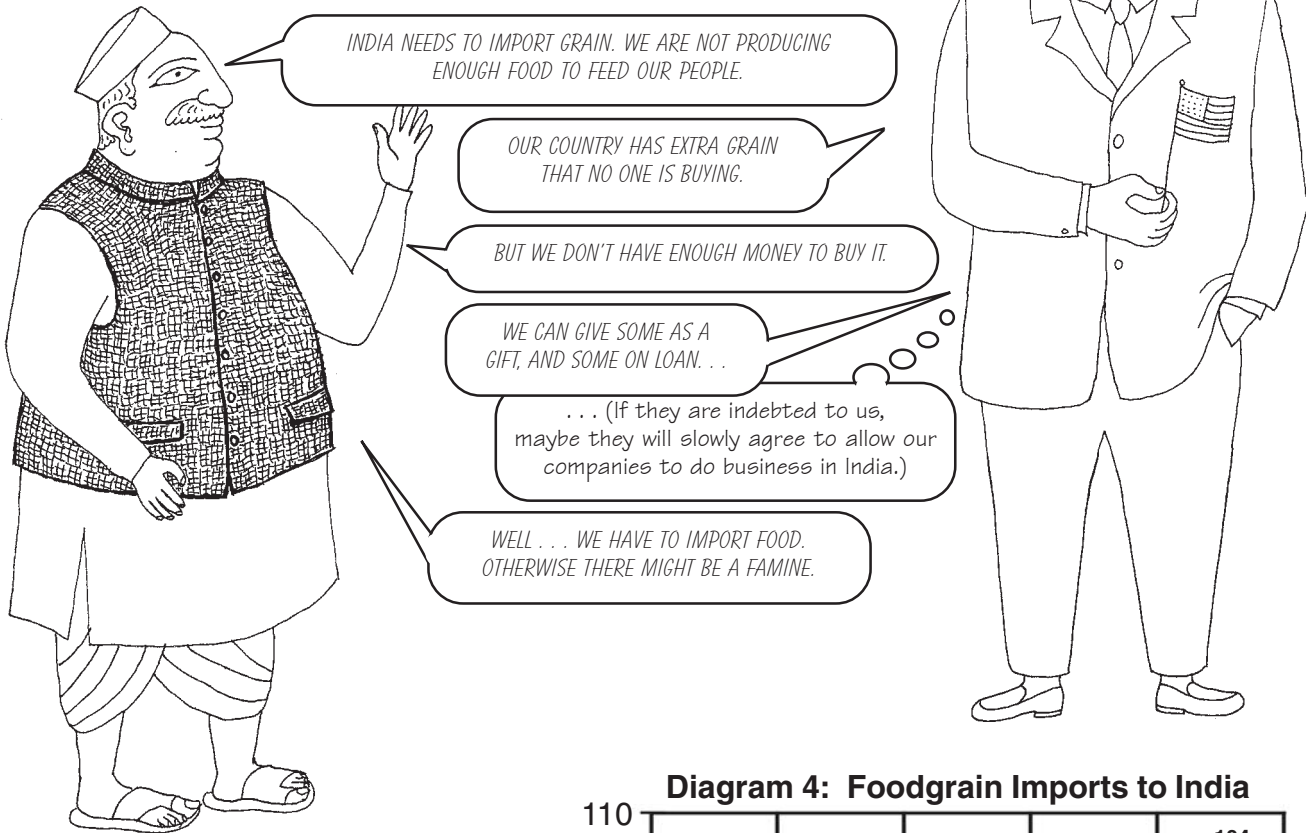
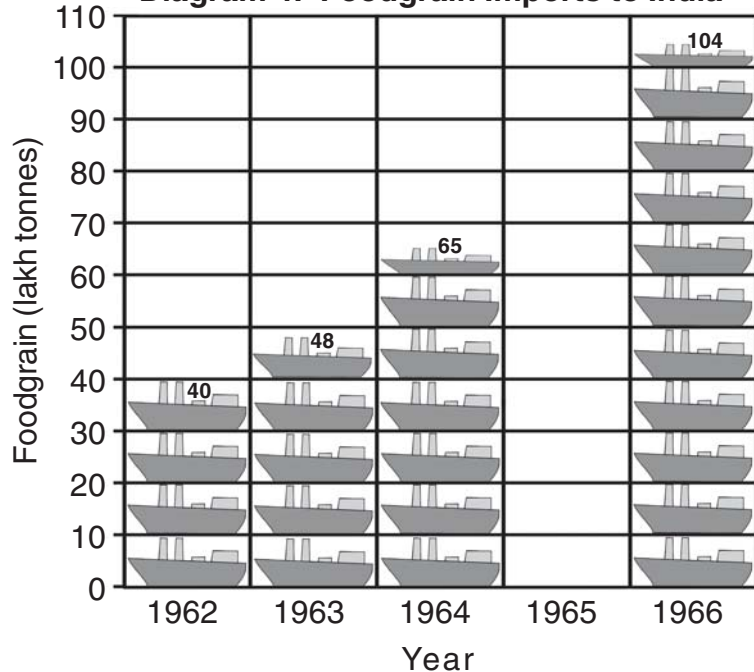


Diagram 4: Foodgrain Imports to India



In 1965 India imported 80 lakh tonnes of foodgrain. Add this to the graph.

How much grain did foreign countries export to India in 1966?

In which of the above years did the import of grain increase the most? Why?

From 1962 to 1966, food grain imports rapidly increased. This worried the Indian leaders.



IT'S NOT GOOD TO BE IN DEBT TO OTHER COUNTRIES. INDIA SHOULD BE ABLE TO PRODUCE ENOUGH GRAIN FOR ITSELF. HOW CAN WE INCREASE CROP PRODUCTION?

WE HAVE PRODUCED NEW SEEDS THAT CAN PRODUCE 15-20 BAGS OF GRAIN ON ONE ACRE OF IRRIGATED, FERTILISED LAND. THESE ARE CALLED HIGH YIELDING VARIETY (HYV) SEEDS. THE NEW HYV CROPS WILL GROW MORE QUICKLY - THEREFORE TWO OR THREE CROPS CAN BE GROWN IN ONE YEAR. THE PLANTS ARE SMALL, BUT EACH PLANT HAS MORE GRAIN. THE YIELD OF GRAIN FROM EACH ACRE IS HIGH. THIS MEANS THAT ON THE SAME AMOUNT OF LAND MORE GRAIN WILL BE PRODUCED THAN WITH THE OLD SEEDS.

MAYBE WE SHOULD TRY THESE SEEDS.

YOU WILL ALSO NEED IRRIGATED FIELDS...OTHERWISE YOU CAN'T GET HIGH PRODUCTION WITH HYV SEEDS.

DON'T WORRY. WE SHALL ARRANGE FOR TUBEWELLS AND PUMPSETS. AND ALSO IRRIGATION BY CANALS.

IN THE PAST WE HAVE KEPT THE FIELDS FERTILE BY ADDING MANURE, BURNING AND PLOUGHING UNDER THE STALKS AFTER HARVEST, AND LETTING FIELDS LIE FALLOW FROM TIME TO TIME. WHAT WILL HAPPEN IN THE NEW METHOD?

THE CROPS WILL TAKE MORE NUTRIENTS OUT OF THE SOIL IN ORDER TO GROW. FOR THE SOIL TO REMAIN FERTILE YOU WILL NEED TO USE CHEMICAL FERTILIZERS.

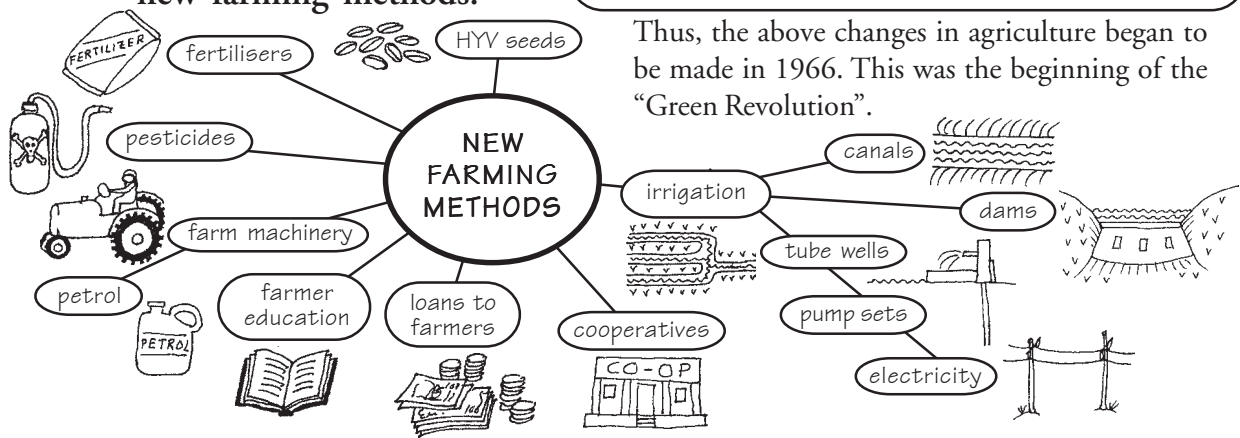
HMMM.....

THESE HYV CROPS ARE EASILY ATTACKED BY INSECTS AND OTHER PESTS. YOU WILL ALSO NEED TO USE PESTICIDES - POISONS THAT KILL PESTS.

HMMM..... THE CROPS FROM OUR DESI SEEDS DON'T GET INFESTED BY SO MANY INSECTS. IN THE PAST WE HARDLY USED PESTICIDES. . . . HOW CAN WE AFFORD ALL THESE THINGS?

DON'T WORRY, WE WILL HELP SET UP COOPERATIVES IN VILLAGES, WHICH WILL PROVIDE SEEDS AND FERTILISERS ON LOAN AT REASONABLE RATES. THE LOANS WOULD BE PAID BACK AFTER THE HARVEST. FOR NOW WE WILL HAVE TO IMPORT FERTILIZER, PESTICIDES AND FARM MACHINERY, SINCE THEY ARE NOT PRODUCED IN ENOUGH QUANTITY IN INDIA. BUT GRADUALLY WE WILL BE ABLE TO PRODUCE THESE THINGS OURSELVES. INDIA WILL BECOME SELF-RELIANT IN FOOD GRAINS VERY SOON.

Inputs necessary for the new farming methods:



Thus, the above changes in agriculture began to be made in 1966. This was the beginning of the "Green Revolution".

The Government Buys and Stores some Grain

A lot of grain comes into the market at harvest time. Thus, one problem farmers face is the low price of grain during this time. This means farmers are not able to sell grain at a high enough price to be able to repay their loans and continue using the new farming methods. They need to be protected from traders who might try to purchase the grains at low prices.

Therefore the government decided to set a Minimum Support Price (MSP). A Minimum Support Price is a price at which the farmers

can sell their grain, if they want, to the government. The government sets the MSP so as to cover the cost of cultivation and allow a little bit of profit to the farmer. Because of the MSP, farmers are not forced to sell their grains at cheaper prices to the traders.

The Food Corporation of India (FCI) was formed by the government to purchase foodgrains from the farmers and store them. It keeps stockpiles and supplies grain to ration shops and other government schemes (e.g. for midday meals in schools).

Picture : Old illustration of FCI

What is special about HYV seeds? What are the inputs required to grow these seeds?

What were some of the reasons given by the farmers for not using HYV seeds?

Farmers required more money each year to farm according to the new methods. Why?

What was the government required to do for the Green Revolution? Fill in the following Table.

	What must the government do?
Seeds	
Irrigation	<i>Provide loans to install tubewells & purchase pumpsets; provide power to run pumpsets; build dams and canals.</i>
Fertilizers	
Pesticides	
Prices of foodgrains	

Where did the Green Revolution Spread?

To begin with, the new agricultural policy was implemented in Punjab, Haryana, Western Uttar Pradesh and in some districts of Tamil Nadu. The HYV seeds required a lot of water and these areas were already irrigated. The new variety of wheat was grown in Punjab, Haryana and Western Uttar Pradesh, while rice was grown in Tamil Nadu.

Gradually, the new technology spread to other regions of the country. Many big and small farmers in the eastern states of West Bengal, Bihar and Orissa as well as in the states of Madhya Pradesh and Rajasthan began to use the new seeds. All the Southern states adopted the new crop varieties. Recent data shows that more than half of the total crop area in the country is under HYVs.

Farming of HYVs has even been adopted in some dryland regions.

In your area find out:

- What crops are grown during the kharif and rabi seasons?
- How do local farmers irrigate their fields? Are all their fields irrigated?
- When did the farmers adopt HYV seeds?
- Where do they get seeds, fertilisers and pesticides?

Recall the government support for wheat and rice. Farmers who grow crops like gram, tur, jowar, ragi, soyabean, groundnut, and cotton also need support. They may need: new varieties of seeds suitable for different regions, knowledge about the best ways of growing a mix of crops on the same land, loans to purchase inputs, support prices for these crops, etc.

Dryland Agriculture

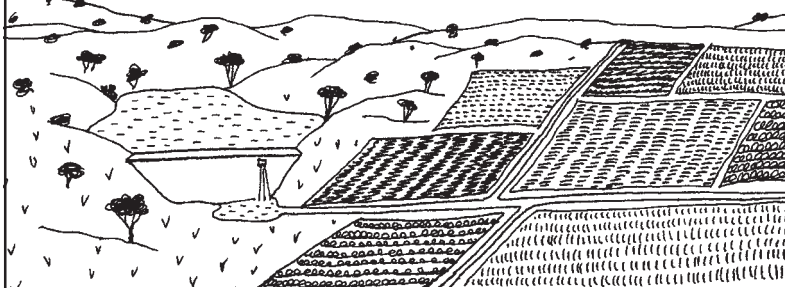
A little over 40% of the total cultivable land in India is irrigated. This percentage can only go up to a maximum of 55%. The remaining 45% cannot easily be irrigated - it would be very difficult and expensive. Thus these areas must depend solely on rainfall. These are the drylands in our country (see the map on the following page).

Some of the main crops grown in these areas are jowar, bajra, groundnut, ragi, cotton, soyabean, tur and gram. Can you identify in your atlas the areas where these crops are grown in our country?

Dry land areas are most suitable for certain crops. For example 84% of the pulses grown in the entire country are from these areas. However the production of pulses is not increasing and they are becoming more and more expensive. Think of the usual diet in our country. In this context the above situation becomes alarming. How? Discuss with your teacher.

What should then be done to increase production in such dryland areas? Unlike the cultivation of HYVs in irrigated lands, dryland farming poses different challenges. Conserving rainfall that the area receives is the first step. There are several ways that people can stop rain water from quickly running off, so that it can soak into the ground, and recharge the ground water. This is done through watershed development which includes afforestation, bunding, building checkdams and tanks. Also, fertility of the soil needs to be raised by adding organic material (compost and manure).

Label the checkdam, tank, and irrigation canals in this picture:

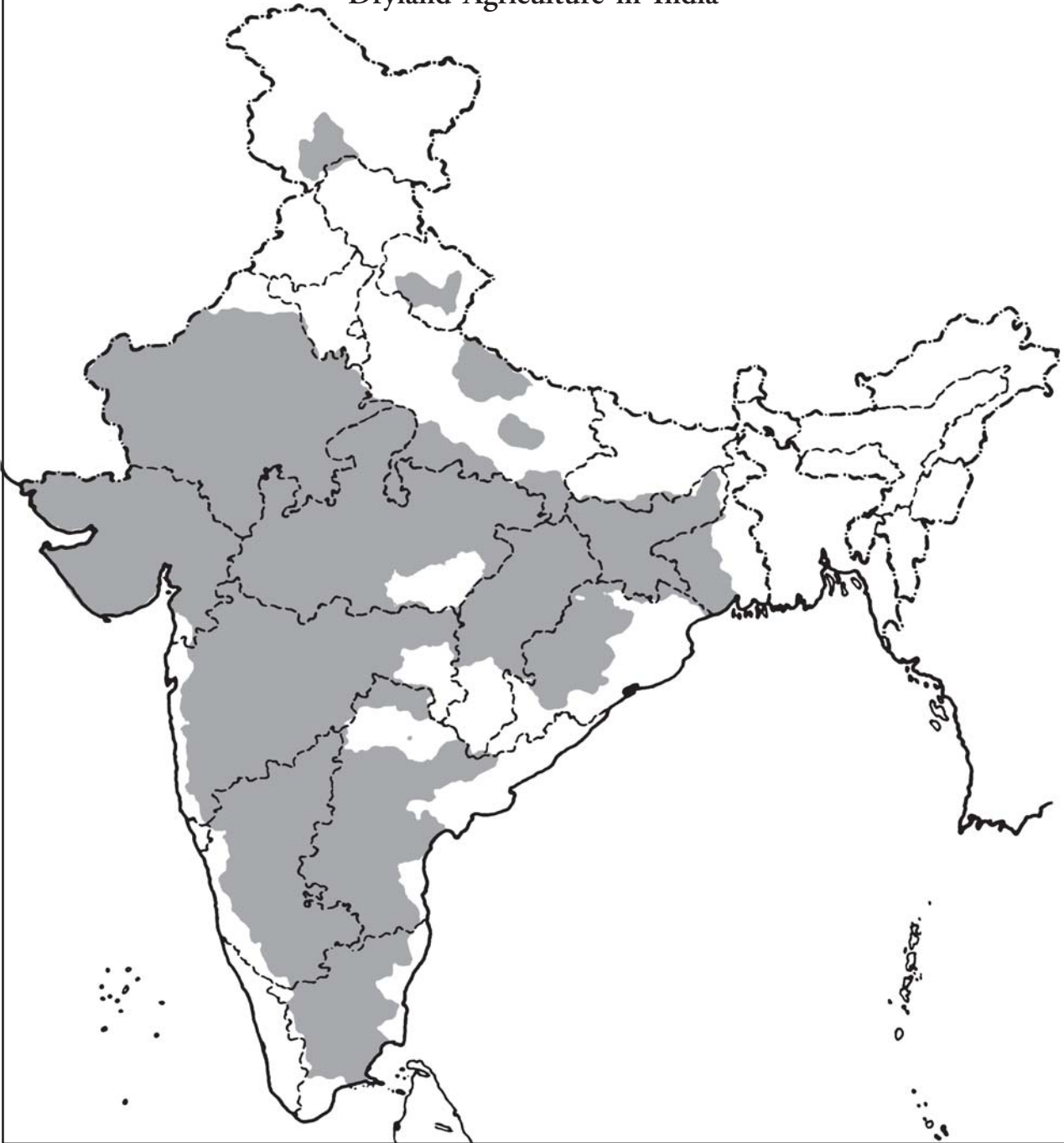


In which areas were the new methods of agriculture first tried? Why wasn't the whole country covered?

Why are different methods necessary for dryland areas?

In the box above, underline the different methods used to increase production in the dryland areas.

Dryland Agriculture in India



Shown in grey are the areas in which dryland agriculture is practiced. In these areas irrigation is not practical. What do you think are the reasons for this?