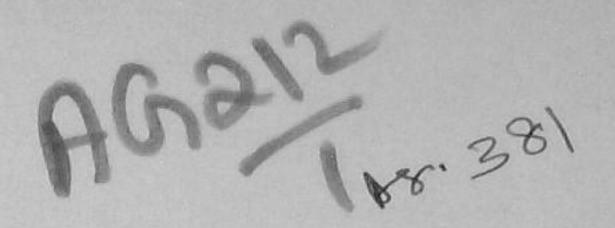
GROW MORE FOOD

ISSUED FOR THE MINISTRY OF AGRICULTURE BY THE PUBLICATIONS DIVISION, MINISTRY OF INFORMATION AND BROADCASTING, OLD SECRETARIAT, DELHI

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JUNE 1950



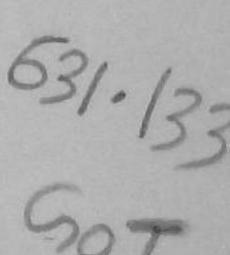
INTRODUCTION

The Prime Minister's broadcast to the Nation, his subsequent pronouncements on the food shortage and the need to solve the problem on a war footing have brought home to us the seriousness of the situation. This calls for concerted action by the Government and the people. It is gratifying that all sections of our people have decided to co-operate with the Government in this matter and lately we have been receiving a number of enquiries from social organizations such as the Rotary Club, student bodies, the Y.M.C.A. and many others with regard to what they can do to help the Government in its drive for self-sufficiency.

We have tried to include in the first part of this pamphlet all such items which the various groups visiting the villages will be able to tackle without any technical knowledge of farming. The second part deals with the work that can be done in urban areas.

The need of the hour is for enthusiastic bands of men and women from towns to visit the countryside with humility and a keen desire to help the village people on a footing of equality. Only such an approach will enable them to do real service. It must be noted here that the impulse which takes these groups to the villages and the ability to tackle the work that faces them are two different things. The willingness to make sacrifices is not enough. The prosaic routine of village life requires steady application and hard work. Only those groups which have determined and sober minded leaders will succeed. Such leaders alone know how to direct the idealism of individuals into channels of constructive daily work.





India has been importing large quantities of foodstuffs for nearly 20 years. Colossal sums have been spent by the Central Government on such imports. With the attainment of independence, however, the requirements of nation building programmes as well as the need to readjust our economy make it impossible for the Government to spend large sums on the import of food grains. Moreover, it is also a matter of shame that an agricultural country like India should find it necessary to do so. The Prime Minister has emphatically declared that, irrespective of consequences, India must completely stop importing food grains after This decision makes it imperative for the Government of India to make a supreme effort to achieve sulf-sufficiency in food in about two years. The Central and State Government will leave no stone unturned to make the drive a success. This will, however, largely depend on the co-operation that they receive from voluntary organizations.



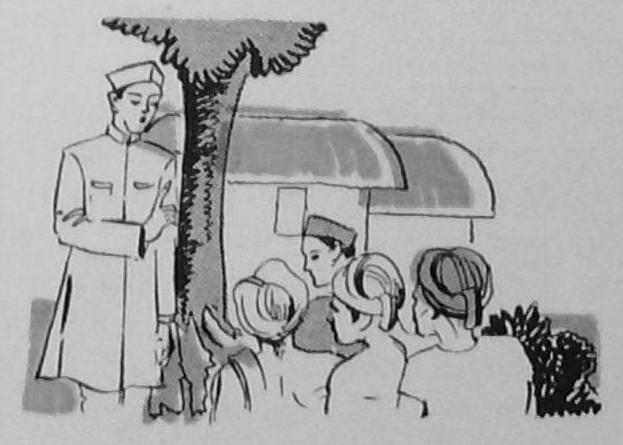
THE ORGANIZATION

It is essential that the organization that we set up to this end should be well planned and efficient. It is also necessary that only genuine workers be recruited for this purpose. Those who join must do so willingly, and with the full determination not to quit till the work has been successfully done. The organizers must make sure that the recruits are free from political, communal and provincial prejudices. In this organization there will be no room for bickering or quarrel-

ling. It must be an army of well disciplined soldiers. They must be completely selfless and never question the authority of those who formulate plans and direct operations. It may, however, be stated that plans and programmes will, as far as possible, be chalked out in consultation with all concerned. In a period of national emergency, time must not be wasted in unnecessary discussion of petty details. Quick decision and prompt execution alone will lead to ultimate success.

Though the exact composition of each group going to a village may vary in number according to local conditions, it is suggested that it should consist of five members under a leader. This group should select a village and concentrate all its efforts on this target and repeatedly visit it till the object is achieved. In the long run it would be more useful to concentrate on a small area and achieve results rather than make half-hearted attempts in a larger area with no lasting effect. Concentration on a particular area is therefore essential.

It has already been suggested that those who take up work in a village should have no feeling of superiority towards the villager. This is the easiest way to offend him, thereby losing his co-operation. Indeed, the villager's present low standard of life is not entirely his fault; to some extent the well-to-do have also their share of responsibility for his pitiful condition.



The best way of enlisting the farmer's whole-hearted support for the self-sufficiency drive is to make him feel that he has a very important part to play in it and that the success of the scheme depends largely on his initiative and hard work. He must be told that although he was neglected in the past the Government are now determined to do their utmost to give him an honoured 'position in society. He must be asked to shed his sense of inferiority and forge ahead full of faith in himself and in his future.

These groups will serve as a link between the village and the urban population. Through cultural programmes they will attempt to remove the gulf which separates the two sections of our people, thus leading the village people towards moral regeneration, an essential element in the country's prosperity.



An important piece of work for these groups would be to make a thorough study of the social conditions of the areas where they work and bring to the notice of the Government the difficulties under which the villagers suffer. In many instances the case of the villager goes by default, because these difficulties are not known to the authorities.

They must also keep the villagers informed of the facilities available to them and the need to approach the proper authorities with their genuine demands.

An important task for the workers would be to carry the necessary literature with them and explain it to the farmers.



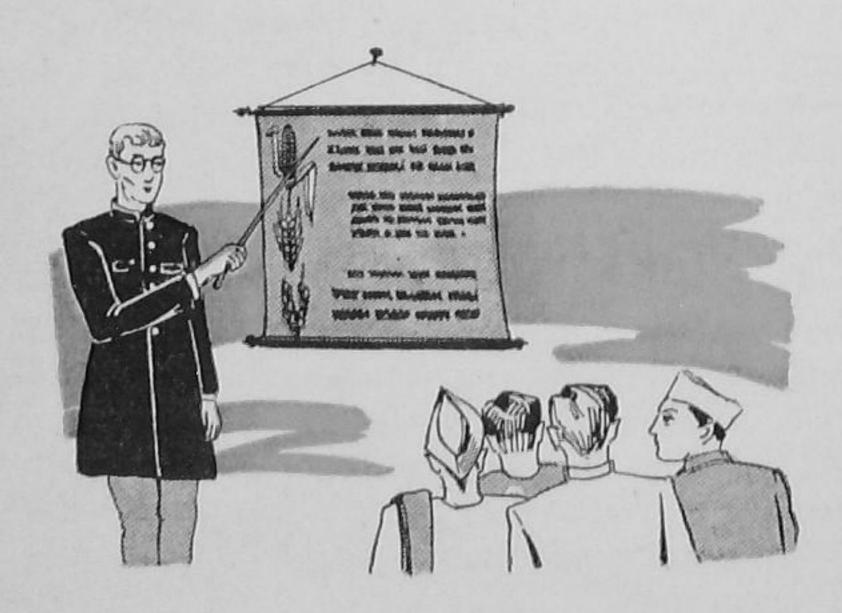
An indication of the nature of the work that you can do in the villages is given in the pages that follow. The notes are in no way comprehensive and in fact much more can be done than is indicated. Indeed, much is left to the initiative of the groups to tackle the problems as they arise from time to time in the localities where they are working.



HINTS FOR EDUCATED WORKERS

It is generally assumed by educated city-dwellers that scientific agricultural practices are either not applicable to our rural conditions or that they are the exclusive business of the Departments of Agriculture. This assumption is totally wrong. The towns have a wealth of intellect and drive which can be harnessed for the country's present urgent needs, especially the production of enough food to stop imports and to improve the health of our people.

If all the possible avenues of increased production by simple methods which do not require much knowledge or capital investment were explored, there would be no need to import any food and in fact India would be exporting food to other countries. Here are some of the methods which are easily understandable to people of education and culture.



1. Conserving Village Waste Material including Human Excreta

A recent report from the U.S.A. indicates that experiments have shown that by the mere pitting of all



village rubbish, including human and animal excreta, two-thirds of their manurial value per annum is saved. In other words by leaving this material exposed to the sun and air, two-thirds of its food producing value is lost. If, therefore, we were able to pit all this organic matter and use it as manure, it can safely be assumed that by applying it to our crops, our yield would go up appreciably. Our present overall deficit in the country is said to be about ten per cent. The next point is how to induce the cultivator to carry out the pitting. This can easily be done by the townspeople visiting them repeatedly in batches and doing the pitting themselves in the presence of the villagers. They should come back after six months to open the pit and help them to apply the manure to the field thereby showing the result in increased yield. The use of human excreta is a delicate problem at present but even in this respect the Father of the Nation has done a good deal to remove prejudice. The famous Wardha trench latrine is a standing example of how human excreta can be trenched in the field to help enrich the soil and preserve sanitary conditions.

Perhaps the most valuable organic waste is the urine of cattle in the villages. At present most of this is wasted. A very simple way of preventing a large part of this waste is to spread earth where the cattle stand and to stir it occasionally. Secondly, once a week the

earth at the animal's head should be interchanged with the earth at its tail. In this way all the earth spread under the animal gets soaked with urine and in about 3 weeks is ready to be transferred to the pit. At least 6 inches of earth should be spread in the first instance. That the urine-soaked earth is better than ordinary village waste as manure can be proved by a simple experiment. This can be done by keeping the two separate and applying them in equal quantities to an irrigated crop.

2. Prevention of Soil Erosion

It is seldom realized that our cultivated area, especially in one of the world's most famous grain producing belts, viz. the Indo-Gangetic plain, is shrinking at a rapid rate. A recent computation of the shrinkage is that as much as one per cent of good cultivated land becomes sub-marginal land each year and five per cent of sub-marginal land goes completely out of cultivation every year. If this loss by erosion could be prevented, and it is easily preventable, the Indo-Gangetic plain would probably not need anything else to enable it to produce enough to feed the population inhabiting it. It is seldom realized by the cultivator that each year millions of tons of the valuable top soil is carried away from his fields by the monsoon rains into the rivers and to the sea. The first five inches of soil are the most valuable to the farmer and to the nation. Indeed these five inches of top soil comprise the largest single item in the national wealth of India and it is these five inches which are most easily washed away, because the sloping land is exposed to the effect of heavy rainfall. It is easy to explain to the cultivator the reason why the top five inches of soil are the most

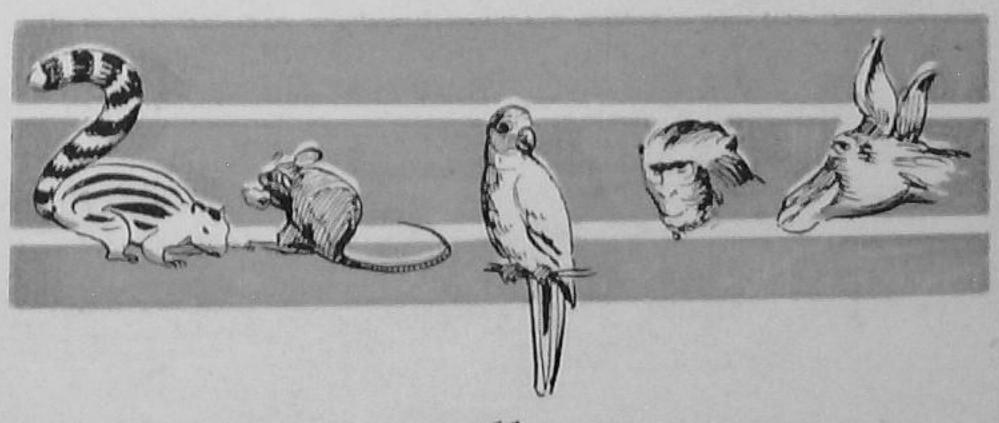


valuable. The fact is that it is in these five inches of soil that all animal droppings, all decayed vegetation, all washings from higher ground and all human excreta accumulate. Therefore, it should be easy to convince him that it is his duty as well as to his profit to save this top soil from erosion. The method involved is extremely simple and costs nothing but manual labour. In most fields, any intelligent person will be able to tell at a single glance which way the field is sloping. The thing to do is to put up a mend or daol or low embankment, roughly one and a half to two feet high and about the same width at the base, to prevent the soil from being washed away. In time the lower end of the field, especially where the gradient is great, will tend to level up the field and make it more profitable as agricultural land.

Where heavy erosion has taken place for some time and gulleys have formed, it is equally simple to plug these gulleys with soil, branches, trees, stones, etc., and so to prevent a rapid flow of water in them. At the same time it is desirable to plant on the sides of the bigger gulleys such hardy drought resistant trees as babul, prosopisjulifolia and so on. This will provide fuel, food for goats and cattle, help to conserve moisture and add to the grazing value of an otherwise barren land.

3. Prevention of Losses in Storage and from Pests and Diseases of Food Crops

There is no more potent cause of the food shortage in the country to-day than the loss we suffer through



- (a) faulty storage of food grains;
- (b) the ravages of animal pests such as monkeys, deer, wild bear, neel gae, rats, squirrels and birds, especially parrots.

A chemical called Gamexine, used judiciously, can prevent losses from insect pests in food in storage. In some cases there are strong prejudices against destroying certain animals. These prejudices must be overcome if the nation is to survive in its struggle for existence the present conditions of a rapidly increasing population and a rapidly decreasing cultivable area. The Government of Bihar has managed to destroy thousands of monkeys without upsetting the cultivator. Secretly many have desired a similar achievement elsewhere. The same applies to the neel gae, which name is the chief reason why it is held in respect. In one State it has been decided to change the name from neel gae to neel ghora. The cultivator must be told that there is no resemblance between a neel gae and a cow. Parties of shikaries should be organized by the townspeople and a systematic attempt should be made to destroy wild animals harmful to crops, while the patriotic youth of the country should be prepared to face any opposition to such useful national work. There may be a sentimental objection to the destruction of particular animals, but is there any reason why proved enemies of agricultural crops like rats, squirrels, jackals, parrots, etc., should not be mercilessly exterminated by organizing pest control groups?

In such a campaign, the Plant Protection Adviser of the Ministry of Agriculture would be glad to help, especially if the campaign is directed against rats. One estimate of the number of rats in India is 800 millions and the amount of food which they eat or destroy has been calculated at 1/8 chhatak per rat per day. This amounts to a loss of 7'8 million tons of food per annum. The benefit which the nation will derive from the

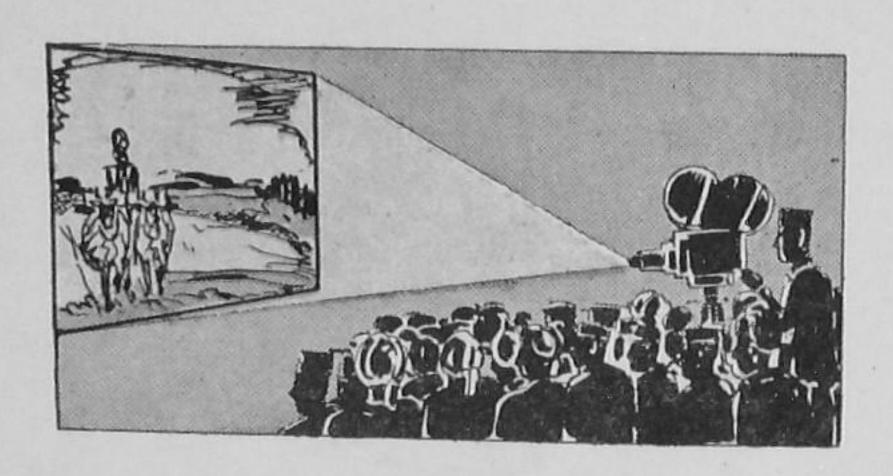
destruction of rats alone can easily be imagined from these figures. As far as the diseases of crops are concerned, the matter is not quite so easy, but even in this respect a great deal can be done for the village by the educated townsmen. For example, we lose each year a very considerable tonnage of wheat and barley through the attack of rust. There are however certain rust resistant varieties of wheat the seed of which is now becoming available. It should be possible to carry out experiments in at least a few villages to prove the difference between this seed and ordinary seed. In the case of certain insect pests like the gundhi bug which attacks the paddy fields in large numbers in certain seasons, the villages can be organized by parties of students to collect the insects and to destroy them in good time. Insects which do damage at night are generally collected easily by having a lantern in the field with a trough of water nearby containing kerosene. Full instructions regarding this can be obtained from the Plant Protection Adviser of the Ministry of Agriculture.

4. Co-operative Destruction of Noxious Weeds

In almost every village, there are noxious weeds which cause much damage from year to year, because they are not destroyed at the right time, viz. before they run to seed. An example is the *Poli* weed which is said to destroy at least 20 per cent of the wheat crop in Delhi and East Punjab. The cultivator is so busy harvesting his crop in the month of March that he leaves the weed standing in the field in the green state instead of removing it. The thing to do is for organized parties to move into the fields during the harvest to remove the weed and destory it with the help of the cultivators themselves as a practical demonstration that the following year the field will be free from any weed. The same applies to baisurai, bathuwa, piazi and many others.

Side by side with actual work in the field the city

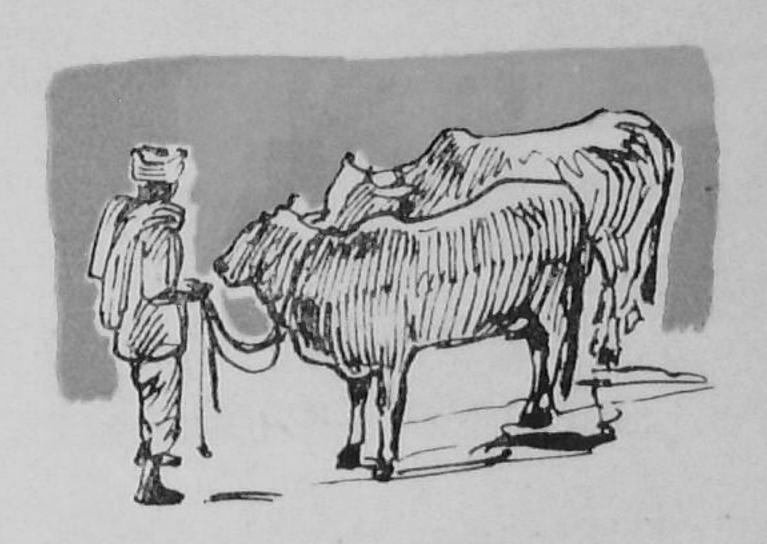
intelligentsia could establish cultural relations with the villager and help him to appreciate the good things of life which have been denied him through the centuries. For this purpose, lantern or cinema film lectures, music, plays and exhibitions, from time to time, would be beneficial if accompanied by discussions. On this point the Director of Publicity, Ministry of Agriculture, will be glad to advise those who may be interested.



5. Care of Animals

One of the most appalling facts in our country is that while we have the highest cattle population of any country in the world, our cattle are among the most unhealthy and have the lowest milk yield in the world. There are many reasons for this, some of which need no longer exist, because the cultivator has at his disposal the accumulated scientific knowledge of many decades concerning the growing of fodder, improvement of grazing lands, the feeding and care of cattle, the fighting of diseases, and so on. While it is not possible for the city intellectuals to take up the scientific training of the villager in the proper management and care of cattle, they can do a great deal to bring to him the simple facts which he is at present neglecting, such as the use of disinfectants like potassium permanganate, the segregation of cattle suffering from disease, the castration of useless bulls which are likely to spoil the herd and the giving away of diseased and useless cows to Gowshalas and Pinjrapoles. Thus

much can be done even by non-technical men. Any advice required on this point can be obtained from the Animal Husbandry Commissioner of the Ministry of Agriculture, Government of India, New Delhi. For such advice, the local experts should be contacted in the first stance.



CONSERVING FOOD IN URBAN AREAS

While it is recognized that food has to be produced in the rural areas, it is also important that every effort should be made to conserve food in the urban areas.

Some of the points which need emphasis are listed below:

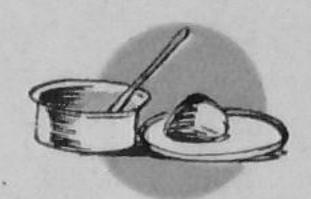


1. The Government have decided to curtail rice imports drastically in view of its high price. People should either give up or reduce the consumption of rice, substituting it with other foods.



- 2. Our citizens should not entertain lavishly nor join in lavish entertainments. It should be our duty to curtail the number of guests invited to parties.
- 3. If entertaining is unavoidable, all food regulations must be observed. As far as possible, subsidiary foods should be served and cereals saved.

- 4. All waste should be avoided in the kitchen and on the table. Besides being uneconomical, it is also unpatriotic to waste food. Undermilled rice and wholemeal flour should be popularized. They are not only more nutritious food, but also help to meet India's shortage of rice and wheat.
- 5. Food should not be allowed to get stale or go bad. It should be cooked and served in quantities which can be conveniently consumed before it gets stale.



6. Rice should be cooked in a small quantity of water to conserve its nutritious elements. The excess water should not be thrown away.



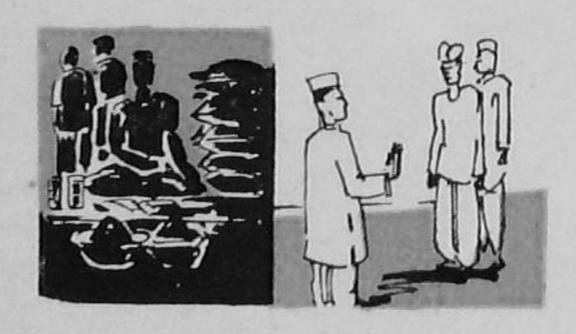
7. You must encourage people to grow and eat more vegetables. They are rich in vitamins, minerals, starch and sugar.



8. Dissuade people from buying in the black market. Impress upon them the fact that but for their purchases, the black market would cease to exist.

CONCLUSION

In the foregoing pages we have endeavoured to tell you how you can be of help both to the producer and the consumer. If your efforts are successful you will not only be helping your country to overcome its food shortage but you will also be laying the foundations of a better social order. Yours, therefore, is a very important mission and on it will largely depend the success or failure of the whole scheme. Every effort, therefore, must be made by you to arouse a spirit of competition amongst the villagers in order to raise the yield of their fields to the maximum.



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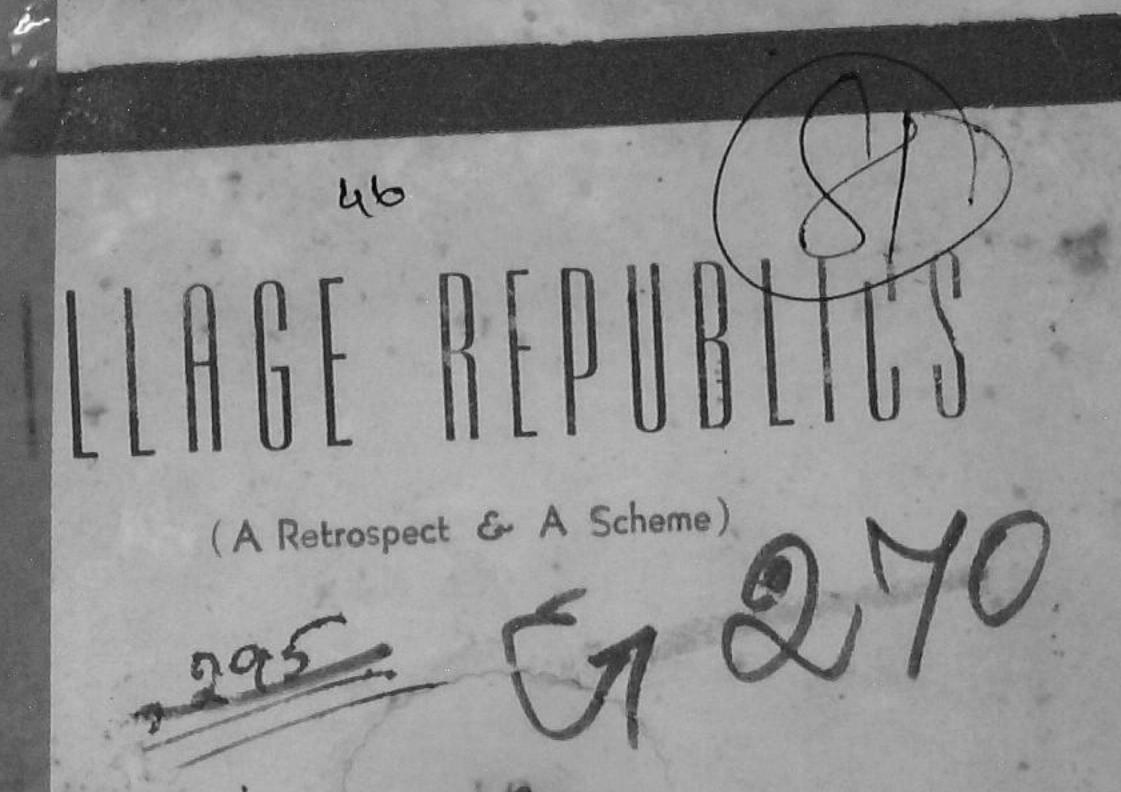
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