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NOTICE

Life-members and Subscribers of the Krishak Samachar are requested that while informing any change in their addresses they should send the wrapper of the last issue received by them.

Freedom from Hunger

APPROPRIATELY, enormous importance was attached to the 15-day World Food Congress held at Washington, U.S.A., from June 4 to 18, 1963. Sponsored by the Food and Agriculture Organisation of the United Nations, the Congress was attended by 1,200 delegates from 100 countries. The Congress dealt with the problems of hunger, mal-nutrition and the enormous growth of population in the world.

Its significance was further enhanced by its inaugural session being addressed by two Presidents, Mr. Kennedy and Dr. S. Radhakrishnan, one representing a country of surplus in food and the other representing a country of chronic deficit. Both of them stressed the urgency of solving the World's food problem. "Food Supply", said Dr. Radhakrishnan, "is the most elementary state of life". His reference to the needs of "the weaker and developing nations" was much more than a mere statement of fact. Declaring that "persistence of hunger is unacceptable either morally or socially", President Kennedy rose to a great height in suggesting a five-point guideline for furtherance of the "Freedom From Hunger" Campaign.

Unfortunately, the inescapable fact of the starvation of over half of the world's population remains. Addressing the press on the eve of the inaugural session of the Congress, Dr. B.R. Sen, Director General of F.A.O., stated that more than half of the world's population lives on one quarter of the world's food supply. It is, indeed, an irony that in these days of scientific and other advancement, one half of the world's population mostly concentrated in the developing countries of Asia and Africa should be facing this staggering poverty. At the same time there are countries having surplus production because of their advancement in technology. Some of them even suffer from over-production. This division of the world into "haves" and "have nots" in the sphere of food poses a moral as well as political problem which should be unacceptable to all lovers of world peace. The advanced countries, therefore, owe a duty to the less fortunate countries.

The U.S.A. has no doubt been a generous aid-giving country in the matter of food as in many others. India has been a great beneficiary under PL-480 and has currently secured more to meet her acute shortage of food. Food aid, however, cannot be a permanent solution of the world's hunger problem. To quote Dr. Sen once again, "the food supplies in some countries, especially North America, even if distributed as outright grant or aid, cannot substitute the long-term need for food production in the developing countries".

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Mechanised Farming In India

SHRI B.K.S. JAIN

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MECHANISATION' is today a widely used terms. It touches every sphere of industry. Agriculture cannot be an exception. When this term is used in the agricultural context, mechanisation means :

* relieving the farmer (and his animals too!) of the drudgery of work

* enabling him to do his job better and quicker

* enabling him to earn more leisure and devote himself to other things

* enabling him consequently to earn a better living.

With this explanation of the term 'mechanisation' in mind, we should not hastily conclude that mechanisation can only mean putting tractors on farms. Nor should we make statements about tractors not being suited to Indian soil conditions. Both these view points are extreme. We should appreciate mechanisation in the context of Indian agricultural conditions. For our country, it is important that mechanisation must be economical. Ours is a mixed economy. Areawise, the number of holdings over 25 acres occupy over 33 per cent of our cultivated land. To opine that even in such holdings agriculture cannot be mechanised through tractor farming would be wrong. On such holdings with animal power alone, we are neither able to farm effectively and efficiently nor do we have the adult work-stock bovine population to provide adequate motive power. Mechanisation, therefore, in the context of Indian agriculture will have to be on the theory of co-existence of two primary sources of power on the farms. They are :

(a) Animal power (be they bullocks, buffaloes, horses, camels or even elephants),

(b) Tractor Power.

TRACTOR FARMING

The wheel tractor population on Indian farms is now well over 40,000.

Tractor farming became hurriedly popular in the country with the abolition of 'Zamindari'. Land owners, who had vast tracts of land, were given the option of either bringing the entire land under their own plough or they faced the risk of losing it. Tractor farming on certain size of farms either cultivated individually or farmed by co-operative methods has come to stay. It is difficult to define the minimum acreage which will justify the use of a tractor. Such a definition will have to take into consideration the types of soils, crops grown, facilities available such as irrigation, manure and returns to the farmer. It will also have to be considered whether farming operations during the year would provide a work-load for a tractor at a rate of about 1000 hours in a year.

The sharp rise in the population of tractors on Indian farms shown below is in itself an evidence of their utility and efficacy.

| Year | Farm Tractors |
|------|---------------|
| 1945 | 4,524 |
| 1951 | 8,631 |
| 1956 | 20,980 |
| 1961 | 35,000* |
| 1262 | 40,000* |

(* Estimated)

It may, however, be added that the Government policy on the encouragement of tractor farming has been mixed. Sometimes, statements are made by some politicians against tractor farming. However, the following measures of the Government may be interpreted as the Government's intention to encourage tractor farming :

- Exemption from payment of import and excise duties on tractors which are used for agriculture.
- Grant of funds, subsidies and other facilities to farmers who wish to purchase tractors.
- Establishment of mechanised farms.

- Establishment of training and testing centres for tractors and farm machinery.

TRACTOR IMPLEMENTS

With mechanisation by tractor, the farmer has to be careful in selection of implements. Soils and agricultural conditions in our country are diverse. One implement which may be suited to work in a particular type of soil conditions may not give such a good performance on other soil conditions. Moreover, it is not certain that all imported implements, without modifications, would perform well under our conditions. There has been lack of attention to this aspect. Tractor manufacturers, distributors, dealers, farmers and Government agencies can all co-operate in ensuring that implements suitable for regional needs are developed, manufactured and made available.

AFTER-SALES-SERVICE

Price is, of course, one of the primary considerations in the purchase of a unit. But there are many other items which must also receive the farmer's attention. The tractor should give him good service for about 10,000 working hours (this is the theoretical life assumed for computing cost calculations). If a farmer has 1,000 hours of work every year for the tractor, he should be able to use the tractor for 10 years. During these 10 years, the farmer will require services on the tractor by way of repairs, overhauls and replacement of spare parts. While selecting a tractor one must ensure that he is assured of good after-sales-service. Farmers in this country have had to face difficulties where they have bought tractors which are inadequately represented in the country or not represented at all, and where availability of after-sales-service is meagerly available or is not available at all.

GARDEN TRACTOR

There has been, lately, developing an interest in the country in

New Vice-President—Dr. Deshmukh.

Dr. Punjabrao S. Deshmukh, President, Bharat Krishak Samaj, has been elected as one of the Vice-Presidents of the International Federation of Agricultural Producers during its 13th General Conference held at Bray, Ireland, from May 16 to 29, 1963.

Garden Tractors despite the fact that early last decade quite a few such tractors came in the country but did not become popular. A garden tractor must do more than what a pair of bullocks can. The haulage aspect of the tractor has to be developed further. It should be able to haul loads of at least a tonne, off the highway. A well powered unit, reasonably priced and backed by matched implements for our conditions, is what the farmer needs.

BULLOCK FARMING

The "tractor farmers" (let us call them that) have benefitted a lot by recent advancements in technological fields. Some developments have closely followed progress in the automobile field. There have been a few developments especially from the agricultural point of view, e.g. hydraulic lift, differential lock, choice of a large number of operating gears, etc. But the farmer, depending on bullocks as his motive power, has been deprived of advantages gained from recent technological developments. He still carries on most of the time his subsistence farming with implements which have been adapted and carried through centuries. He and his animals still work a 'dawn-to-dusk' day and seven days a week.

THIRD PLAN

In the Third Five-Year Plan, mechanisation, aiming to relieve him

of some of the drudgery, has been stressed upon. It is expected that in an agricultural country like ours "bullock-drawn" farmers would be able to benefit and take advantage of recent scientific advancement. We, in India, have not lagged behind in our technological progress. (We have "Apsara"—the atomic reactor, and our own jet plane.) It should, therefore, be possible for us to make a much better and quicker head-way in the field of mechanisation on bullock operated farms. Bullock-power remains inadequately utilised. Transmission losses are high and there is a scope for developing an appropriate harness and hitch.

Attempts are being made in certain quarters to improve the lot of the "bullock farmers". A universal tool carrier (farmers have even called this a bullock drawn tractor) has been developed which takes implements for all tillage operations as well as attachments for haulage application. Over a thousand of such tool carriers have now been put in use and reports on their performance have been encouraging. Such ideas have to be developed and processed further for practical exploitation. A lot of interest has been shown in the tool carrier developed in this country by international organisations and by several countries abroad where animal power is still the primary motive power on the farm.

A BUSINESS

In conclusion, it may be stated that mechanisation under Indian conditions has to be achieved by a combination of various factors. There can be no ready-made formula where under one set of conditions only tractor farming is best suitable while under another only bullock-drawn. In fact, it is unnecessary to indulge in any controversy on the

'tractor versus the bullock' subject. Agriculture, to a farmer, is a business. He must select for his motive power either one of them or a combination of both to ensure the highest returns. We should mechanise our agriculture fast, be it tractors or bullocks. For agricultural progress, better implements are as important, if not more, as good seeds, irrigation, manures and fertilisers. This article may be concluded with a popular Telugu proverb :

"Yield is proportionate to tillage, as happiness to wisdom".

(Courtesy : Industrial Times)

Contd. from page 1

What is really needed, therefore, is a long-term and effective solution. It is imperative that food production in the developing countries be stepped up vigorously. According to the survey of F.A.O. over a four-fold increase in food production would be necessary by 2,000 A.D. if reasonable levels of nutrition is to be achieved. Hence, what is needed from advanced countries, apart from food supplies, is technical know-how for increasing farm production. Simultaneously, the respective governments in the developing countries should strengthen their extension service and launch a vigorous campaign to educate the farming community to discard the outmoded traditional methods of production and take to scientific and modern methods. It is not that the food production has not increased in the last few years. The food output in the world has, indeed, increased by about 50% since pre war years. But the present situation is due to the tragic combination of concentration of population and low productivity. The growth of population is galloping and per capita food supply is proving difficult to be stepped up. This enhances the necessity of population control side by side with the need to step up food output in a massive way. It is here that international organizations like W.H.O. and the F.A.O. can significantly contribute. The World Food Congress will have served its purpose if it brought home to the advanced countries the urgency and the need for assisting the less developed countries with technical know, how and capital to raise the farm production.

Soil-erosion : Problems and Remedies

Shri D. N. Misra

Forest Extension Officer, U.P.

THE organisation of civilised societies is founded upon the measures taken to wrest control of soil from wild nature and not until complete control has passed into our hands can a stable superstructure of what we call civilisation be created in the land. The great advances in science and particularly in transport during the last hundred years have enabled civilised men to penetrate to every corner of the earth, carrying with them the mixed blessings and curses of civilisation. In the beginning everything seems to go well, but very soon these civilisations begin to will and tend to die. For, no structure howsoever strong can ever stand unless its foundations are carefully and properly protected. And the foundation of all civilisation, in fact of life itself, is soil. Today, as a result of human mismanagement, the very basis of life—the soil—is disappearing continuously, being washed away by water and blown away by wind.

The destruction of the earth's thin living cover, which holds the secret of all life within its folds, is proceeding at a rate and on a scale unparalleled in history and when that thin cover is gone, the fertile regions will become uninhabitable deserts. It is estimated that well over a million square miles of new deserts have been formed and a far greater area all over the world is approaching desert conditions. In spite of the fact that scientists are inventing new machines, new methods of cultivation and new chemicals for increasing soil fertility, the world figures of agricultural production show that the output per acre is falling steadily.

FALL OF EMPIRES

There is a limit to which applied science can improve soil-fertility, but there is no limit whatsoever to which soil erosion can permanently reduce it. Throughout history, the story of the rise and fall of many

an empire can be traced directly to the management and mismanagement of soil. In Mesopotamia the river Tigris, which once irrigated and enriched the empire of Babylon and Assyria, now flows on a raised bed of eroded soil brought down from the hills when the forest cover was removed in search of new areas for cultivation and settlement. The floods consequent upon the destruction of vegetal cover on the hills swept away their homes and fields and ultimately destroyed their civilisation.

The Persian and Carthaginian empire vanished under the drifting desert sands which completely overwhelmed the cultivated fields. The lands were cleared, vegetation on the desert fringes was destroyed, soil exhaustion caused crop failures and the desert sands sweeping over the cultivation completed the story of the downfall of these proud empires.

Greece and Rome flourished for some time, but they too fell a prey to loss of soil-fertility caused by continuous cultivation, disforestation, over-grazing, soil exhaustion add erosion. Today the whole of the region from Spain to Palestine is devoid of forests, the climate is pronouncedly arid and its rich top soil lies at the bottom of the sea. One after another, the great empires and civilisations of the past have been swept out of existence by soil-erosion. Nearer our own times, the USA offers an interesting study of colonisation of virgin soils, rich returns for some time and then the conversion of the land into howling dust bowls. Over forty million acres of new land brought under the plough during the war has been eroded beyond repair or been classed as sub-marginal land to be left for Father Time to apply his healing touch. There are other instances to where soil-erosion is taking a heavy toll. It is particularly virulent in America, Australia and South Africa.

Erosion, unaided by the human agency, is however a beneficent pro-

Strike! Not Work But Invader

cess of nature. It has continued through thousands of years and has shaped the world into its present form. This erosion or denudation is a geological process which continues slowly, breaking up rocks and converting it into soil by the action of water and wind. Without it, perhaps, the world would have remained an uninhabited planet, devoid of soil, and therefore devoid of all life. The formation of soil brings in plants which help to hold the soil in its place and by adding organic matter of plant and animal decay, improve its texture and fertility. This is the rich virgin soil in which denudation is almost unnoticeable. The top soil wears off slowly and is replaced by the formation of new living soil from the underlying dead rock. An equilibrium is struck between the processes of denudation and soil-formation and the earth continues to change its old worn-out mantle by new soil, unnoticed and unmarked. But man intervenes and disturbs this delicate balance. Thoughtless and ignorant cultivation, deforestation and over-grazing soon upset this balance, resulting in the loss of soil formed during the course of thousands of years, in a small-time—a mere matter of hours and days. This accelerated denudation is what is commonly called soil-erosion.

A NATIONAL PROBLEM

Until quite recently, erosion was regarded as a matter of merely local concern ruining a few fields and farmsteads here and there, and compelling the affected tenants to abandon their homes and move on to new lands; but it is now recognised as a contagious disease spreading destruction far and wide irrespective of private, district, State or national boundaries. Like other contagious diseases erosion is most easily checked in its early stages; once it has advanced to the stage when it

Your Mite Is Nation's Might

threatens the entire social structure, its control is extremely difficult. When erosion becomes a national problem it affects all classes and interests adversely, causes a progressive lowering of the general standard of living and introduces into the people a feeling of insecurity.

The basic cause of erosion is a maladjustment between the agricultural practices and the requirements of the soil depending upon the differences in climate, structure, fertility and topography. The basic principal of using soil is that its fertility is maintained at a high level. The notion that soil-fertility can be restored by applying quantities of artificial manures now available is not correct, for loss of soil-fertility causes not merely a deficiency of plant-food material but also a change in the soil-structure which makes it easily erodible by wind and water. No quantity of artificial manure can ever improve or restore this soil-texture. An exhausted soil is an unstable soil; nature has no use for it and it is removed bodily.

SOIL-EXHAUSTION

Soil-exhaustion and loss of soil-fertility are thus the main reasons and the earliest stage of soil-erosion. The onset is usually insidious, its early harmful consequences are usually ignored, and not until it has become an epidemic over a large area is the need realised for adequate control measures. The most significant physical deterioration in the soil is loss of porosity and cohesion. Rain water that was absorbed before runs off the surface carrying soil with it and sheet erosion begins. Since only a fraction of the soil is lost this is usually not noticed. But this process gradually gathers momentum and the run off increases. This causes the scouring of water-courses which soon turn into gullies and ravines. The ugly scars on the landscape produced by gully erosion are the first warning that something serious has been happening. At the stage when gully formation begins, the soil-exhaustion and erosion has already reached a stage when it loses the most important quality of a good soil—its capacity to hold water and moisture. Normally, the water-holding capacity of the soil is confined to the top few inches of the soil

only where fresh humus, formed from decaying plant and animal remains, accumulates. This not only increases the run off and causes further erosion but it has adverse effect on vegetation in arid and semi-arid regions where all the rain water instead of being held by the soil runs off and is lost to the soil and vegetation.

In areas of heavy rainfall, this causes severe floods causing immense damage and harm to flourishing fields and villages.

In our own country the regions where soil-erosion is extremely active are the Punjab Siwaliks, the Vindhyan region, the Himalayan region, the banks of the river Yamuna, Chambal, Mahi, Narmada, Kosi and Damodar, etc. Areas bordering on Rajasthan desert and sea-coasts are also threatened by the sands blowing in and engulfing the arable fields.

SERIOUS THREAT

In the Uttar Pradesh soil-erosion is a serious problem in the districts of Agra, Mathura, Etawah, Etah, Mainpuri etc. where large areas of ravined lands exist. Similarly, in the Vindhyan and the Himalayan regions also soil-erosion poses a serious threat to the happiness and well-being of the peoples of the State.

Basically soil-erosion is of two types—"vertical" and "lateral". Vertical erosion consists of washing away of soluble salts and plant nutrients from the soil; lateral erosion is the common loss of soil by wind and water. In other words vertical erosion means the removal of soluble parts and lateral erosion the removal of insoluble parts. Vertical erosion is liable to occur in humid regions where the movement of water is predominately downwards. Lateral erosion on the other hand occurs in the humid tropics owing to the effects of extreme heat and torrential rain. Natural vegetation counteracts vertical erosion by keeping the soluble plant nutrient in circulation through the plant and back of the surface of the soil when the plants die and lateral erosion by the soil-binding effect of the slant roots, by the physico-chemical effect of decaying humus on the soil-structure

and by mitigating the impact of rain and wind in the soil.

MEASURES TO PREVENT EROSION

The remedial measures of soil-erosion consist of short-term and long-term projects. Amongst short-term projects are such methods as bunding and terracing, fully-plugging and providing pucca spillways erecting dams and the like. The aim is to break the velocity of water so that further erosion is stopped and to trap the soil washed down into small reservoirs created by building small dams. Amongst the long-term project are such methods as afforestation of banks of rivers and nalas.

The first principle underlying all measures for controlling water erosion on semi-arid land is to reduce the velocity and amount of run off especially the velocity. One of common methods of reducing run-off velocity is to break a slope by terracing. Damming water courses is another method of checking run off. As water flows down a slope it accelerates under the force of gravity and its erosive power increasing as the square of its velocity. By throwing a dam or a terrace across the direction of flow run-off water is held up, soil carried in suspension is deposited and by skilful management any excess of water not absorbed by the soil is put to some useful purpose. Terracing is the oldest method of counteracting soil-erosion. The design of terraces and dams is becoming a specialised engineering job in which local characteristics of climate, topography, geology, soils and vegetation have to be taken into account.

ENGINEER'S ROLE

Now-a-days however a diminishing importance is being attached to the part the engineer can play in soil conservation. An outstanding feature of the modern outlook on soil conservation is the emphasis laid on the superior value of the biological as compared with mechanical erosion-control. If the soil is performing its natural biological function of feeding and being led by living organisms it will not, in general, erode seriously. Great attention is, therefore, being given to the possibilities of utilising plants not solely as eco-

Self-Reliance and Self-Confidence are the Backbone of Defence

onomic crops but also in their natural role as protectors of soil-fertility. The biological control of erosion by means of plant may be likened to treating a disease by dieting and so maintaining good health by temperate living, and mechanical control to a cure by operation. Immunity is however better than either prevention or cure, and can usually be obtained by growing plants to feed the soil. Almost any plant cover will do this to some extent but the art of soil-conservation by afforestation consists in finding the best plants and the most appropriate method of cultivating them so as to secure the maximum soil-protection compatible with the economic maintenance of the cultivator. It may be mentioned that the structure of the indigenous plant cover is usually related to that of the soil in such a way that the vegetation and soil together form a natural non-eroding system.

The indigenous wild vegetation can also be relied upon to succeed in its natural habitat without human assistance and is, therefore, ideal from the soil-conservation point of view. Where the indigenous vegetation can be maintained indefinitely and at the same time be utilised economically, the problem of soil-conservation ceases to exist. This is the object

of sustained yield forestry and controlled grazing. Sustained yield forestry consists in managing a forest so that only as much wood is cut every season as is contained in the trees that would have died in the natural course of events. Similarly, controlled grazing involves management so that the floral composition of the pastures does not change or at least does not deteriorate.

STRIP-CROPPING

Difficulties in applying these principles arise when there is insatiable world demand for wood and sustained yield forestry and controlled grazing run counter to world economic forces. Terracing gully plugging, damming, regulated forestry and grazing, afforestation, selective weeding cover cropping, mixed farming and crop rotation, strip cropping—these are the basic measures now being adopted and developed to conserve eroding soil. The first three are mechanical, the rest are mainly biological. Strip cropping, i.e., sowing close-growing and clean filled crops in alternate, narrow strips laid out across a slope on contour line combines biological control of erosion by crop rotation with mechanical control. Strip cropping by forming a series of wind breaks is equally effective in preventing soil-drifting on level plains. It is one of the most hopeful developments in soil-conservation.

The adoption of soil-conservation practices as the basis of land utilisation is a trend in a social evolution whose direction can be guided but not determined by organised conscious effort. The modern soil-conservation movement is of such recent date that most countries are still at the stage where their main

concern is to induce individuals to save the land they occupy. But erosion is not a local problem. Where forests have been cleared on the upper slope of a hill, it is useless to adopt conservation measures down below, for their fate is linked up with the fate of the eroding upper slopes. Where a river has run amok as a result of erosion, every dweller in valley in country and town is affected by the use made of the land which the river drains. It is therefore essential for successful conservation measures to adopt a whole river catchment basin as the unit for applying soil-conservation measures.

Forestry plays an important part in the conservation of soil in numerous ways. The spread of cultivation across the world has led to the destruction of great areas of natural vegetation and particularly of forest. The result of all this wanton destruction of forest cover the world over has been untold suffering to millions of peoples through floods and soil losses.

In Uttar Pradesh soil-conservation work is being done through the Forest & Agriculture Departments. The ravines of Agra, Mathura, Etah, Mainpuri, Etawah, etc., are being tackled by the Forest Department, and very good work has been done in establishing tree cover in these cut up regions. The afforestation of Rajasthan desert border is also proceeding apace. In the Vindhyan and the Himalayan regions also work of soil-conservation through establishing plant and tree cover is going on. But the problem here is extremely acute. The worst regions of erosion are not the forest areas where some soil cover already exists and where soil losses are not so great.

(Courtesy : Pioneer)

Towards A World Free From Hunger

The Presidents of India and the USA called from the same platform for assistance in the form of surplus food grains and education to increase food production so that hunger might be eliminated from the world in the present generation.

The two Presidents were addressing the inaugural session of the 15-day World Food Congress in Washington from June 4 to 19. The World Food Congress was sponsored by the Food and Agriculture Organization of the United Nations to mark the 20th anniversary of its founding and the mid-point of "Freedom From Hunger Campaign". More than 1,200 delegates from 100 nations participated in the Congress.

Dr. Radhakrishnan, President of India, while emphasising the need to satisfy the elementary needs of humanity and rousing the conscience of the world for the purpose to ensure better distribution of existing resources and knowledge, said: "We have the necessary resources. There is only the cussedness of the human heart which prevents the fair distribution of these things". The President of India further noted that the President of U.S.A., representing a country with over-production, and himself, representing a country with under-production, were both present on the same platform so as to make an appeal to the world that they stood together for the ideals which they both pursue, ideals by which weaker and developing nations of the world can be helped by aid and assistance to increase food production so as to make them enjoy the basic conditions of life.

The Five Guidelines

Inaugurating the Congress President Kennedy said that peace could not be maintained in a half-hungry and half-fed world. The peoples and the governments should address themselves to the task of making a dent in the world food problem so that in their life-time all the people

of the world could be given an opportunity to eat.

Mr. Kennedy pledged full support of the U.S.A. for the 'Freedom From Hunger Campaign' and suggested the following five guidelines for the furtherance of the Campaign :

1. Persistence of hunger is unacceptable either morally or socially,
2. The fact should be recognized that nations deficient in food can solve their food problems with assistance from other countries,
3. International cooperation in organization and action is indispensable,
4. No single technique of politics, finance or education can, by itself, eliminate hunger, and
5. World opinion must be concentrated upon International effort to eliminate hunger as a primary task of this generation.

The delegates later discussed the basic freedom which all men were entitled to—freedom from hunger and want.

Closing Session

Addressing the closing session of the Congress on the 19th, Dr. B.R. Sen, Director General of the F.A.O., said that the result of the race between the population and resources would determine whether the earth would live at peace or at war. Observing that there was much awareness today than ever before of the existence of hunger, he said : "What is

more important is that the consequences of the growth of inequality, of the growing misery of the developing countries and of the ever-increasing enrichment of the rich are now better realised"

Reports

The Congress concluded its two weeks' session with the adoption of reports by Committees on various aspects of the world hunger problem.

One report said the main hope for increasing agricultural output lay in improving the yield of land already under cultivation, rather than opening up new land. In most developing countries, yields could be doubled or tripled.

Another report called for an extension of 'World Freedom From Hunger Campaign' and the extension of modern farm techniques to under-developed countries.

The economic and social committee reported that the barriers to exports from developing countries and the instability of world prices jeopardized their economic growth and the conquest of hunger.

Other recommendations made in reports included : (1) Establishment of an international pool of seeds, machinery, fertilizers and pesticides (3) Establishment by the F.A.O. of an international agency to evaluate the needs of developing countries in agriculture (4) A study of feasibility of "solidarity and development funds"—by saving from military expenditures—to increase the flow of capital investment.

13th IFAP Conference

The Thirteenth General Conference of International Federation of Agricultural Producers was held on May 16—29 at the International Hotel, Bray, Ireland, about 13 miles south of Dublin. In addition to the meeting, there was a tour in Ireland after the Conference, a week-end excursion during the meeting, and a number of receptions by the Irish Government and the National Farmers' Association.

The National Farmers' Association had made arrangements for the delegates to visit with Irish farm families, etc. Delegates were shown the headquarters of the Irish

Blood stock Industry, a co-op. apple packing factory, apple archards, a sugar factory, deep freeze plant, and a number of historical sites.

The Conference was divided into three parts : the opening meeting and debate on general policy which covered three days ; discussion for five days by commodity groups, Subcommittee of developing countries, the Standing Committee on Agricultural Cooperation and the Constitution and Membership Committee ; and for 3 days, discussion and approval of the general report of the Conference, the report of the Subcommittee and the closing meeting.

The following world leaders in agriculture and trade addressed the Conference held from 16th to 29th of May 1963.

Dr. A.H. Boerma, the Executive Director of the United Nations Food And Agriculture Organization—World Food Programme ; Richard Reuter, Special Assistant to President Kennedy in-charge of the U.S. Food for Peace Programme ; Charles Weitz, Co-ordinator of the Freedom From Hunger Campaign ; Dr. Sicco Mansholt, Vice-President of the Commission of the European Economic Community in-charge of Agricultural Policy ; L. Rabot, EEC Director General of Agriculture ; and Winston D. Porter, Organizer for Economic Co-operation and Development Director of Agriculture and Food.

Dr. P.S. Deshmukh, President, BKS, was elected as the Vice-President of IFPA.

Asian Common Market

A first step toward an "Asian Common Market" was taken at the recent annual session of the United Nations Economic Commission for Asia and the Far East.

The meeting, held in Manila, decided to convene a ministerial meeting of members and associate members of the Commission as a major move toward a common market.

Among the highlights of the meeting attended by about 300 delegates and observers were:

The Great importance which delegates attached to the forthco-

ming United Nations Conference on Trade and Development ;

The announcement of a second five-year programme for development of the Lower Mekong Basin—a new investigation programme expected to cost about \$ 25 million ;

Enthusiastic support for the Asian Economic Development Institute, which is to begin operations in Bangkok from January 1, 1964 ;

Agreement signed by delegates from 12 out of 14 Asian countries requesting the United Nations Special Fund to finance economic and technical surveys of the missing links in the Asian Highway which are in Burma, East Pakistan, Afghanistan and Iran ;

The welcome by delegates of the increasing role played by the Com-

B.K.S. President and Secretary in G.D.R.

At the invitation of the Farmers Mutual Aid Association of the German Democratic Republic the President, Dr. P.S. Deshmukh and the Secretary, Shri R.B. Deshpande, are on a visit to G.D.R. from the 25th June to 8th July. During their stay in the G.D.R. they will see the 11th Agricultural Exhibition of the G.D.R. in Leipzig — Markkleeberg and will also see the interesting developments in agriculture and allied subjects in that country.

This visit is in reciprocation of the visit to India by Mr. Sperling, the First Secretary, and Mr. Winter, Member of the Secretariat of the Farmers' Mutual Aid Association, last year. They were the guests of the Bharat Krishak Samaj.

mission's secretariat in the technical assistance work of the UN, and in particular, the establishment of a coordinating unit for the Commission's technical assistance work ;

The adoption of a resolution asking the Commission to investigate the potential of the cooperative movement to provide for a speeding up of the region's economic growth.

During the two-week meeting the delegates agreed on a number of basic propositions relating to the Asian

economy. These included : agreement that economic planning was essential for economic progress ; industrialization should provide the main driving force for the speeding up of economic activities, but energetic support should also be given to agriculture ; diversification of Asian economies would take considerable time, and measures were therefore required to raise the prices of raw materials to fair and stable levels ; the proposal for protection against short-term losses through an international compensatory insurance scheme should be put into effect as quickly as possible ; industrialized and developing countries should agree on a kind of "division of labour" with the former concentrating on production of more sophisticated goods and liberalizing imports of simpler manufactures on which the latter, the developing countries, should concentrate their efforts ; finally, it was agreed that trade was at the roof of Asian economic problems and that much more should be done to promote trade with other regions and also among Asian countries.

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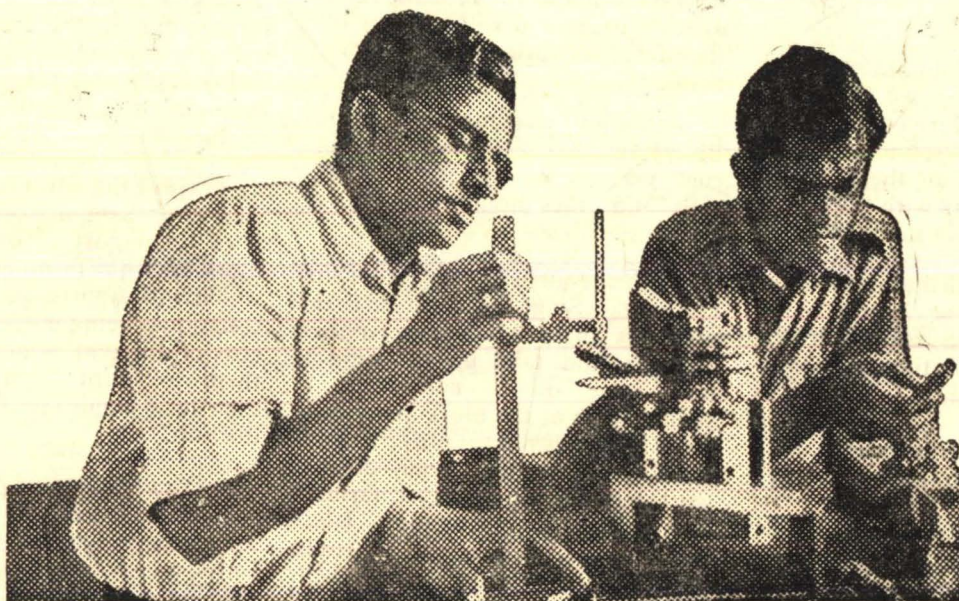
Cold storage Plant for Koraput

A cold-storage plant with a capacity of 40,000 mds. will be constructed by the Agriculture Department in Koraput district. The plant will be located near Jeypore. An amount of Rupees one lakh fifty-seven thousand will be spent on the construction of the building etc. and the entire project is likely to cost about Rs. 3, 00,000. The cultivators of Potato-crop and other perishable commodities will be much benefitted by this plant. Shri G.C. Das, I.A.S., Secretary, to Government in Agriculture and Animal Husbandry Department, Shri H.K. Mohanty, Director of Lift Irrigation, recently visited the site for the proposed plant accompanied by the Chairman and Executive Officer of Zila Parishad.

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DA-63/Ps

Punjab Farm Implements Co-operative Society

A general meeting of the members of the Punjab Krishak Samaj was held under the Chairmanship of Col. Sir Buta Singh at Chandigarh to discuss the details of the proposed Co-operative Society under the purview of the Punjab Co-operative Societies Act.

It was resolved that the Punjab Farm Machinery and Implements Production Co-operative Industrial Society Ltd. be registered with the Registrar of Co-operative Societies of Punjab and that the registered office of the proposed Society be at the office of the Punjab Krishak Samaj. It was also decided that the area of operation to be the whole of the State of Punjab.

A Managing Committee of 11 members for the proposed Co-operative Society was formed with Col. Sir Buta Singh as President. It was also decided to affiliate the proposed Co-operative Society with the Rupar Central Co-operative Bank Ltd.

It was also decided that the value of one share to be kept Rs. 100 with an admission fee of Rs. 5, payable 50% at the time of admission and the balance in 12 instalments.

Hoshiarpur Members Meet

Under the auspices of the Punjab Krishak Samaj, a meeting of the members belonging to its District Hoshiarpur unit was held recently. Baba Madhusudan Singh Bedi, Organiser, Hoshiarpur Farmers' Forum, presided. Prominent among those present on the occasion were: Shri Gurbanta Singh, Minister of Agriculture and Forest, Capt. Rattan Singh, MLA, Ch. Amar Singh, MLC, Ch. Balu Ram, MLA, Bhagat Saran Das, MLA, Dr. Baldev Parkash, MLA, and Shri Hoshiar Singh, Deputy Commissioner, Hoshiarpur.

The meeting started with lectures by Shri Kartar Singh on Horticulture and Soil Conservation. Later, Shri Karan Singh, Maize Botanist, spoke and stressed on the use of modern practices in the agricultural field.

Welcoming the Minister of Agriculture and Forest, Baba Madhusudan Singh Bedi asked for the Government's help and assistance in solving problems, particularly the problem of Cho in the district.

Ch. Amar Singh laid great emphasis on the need of strengthening such a useful organisation as Bharat Krishak Samaj more vigorously. He called upon the farmers of the district to join it without any further delay for fostering unity among them.

Attention was drawn by Shri Bhlu Ram, MLA, towards the corrupt practices of some of the officials and the non-availability of Potash (fertilizer) on credit.

In his concluding speech, Shri Gurbanta Singh wished that the members of the Bharat Krishak Samaj would take up the enrolment issue on a mass-scale. It should reach at the block and village levels if it desired to prove fruitful speedily. Had the Samaj created worthy leadership amongst farmers and persuaded them to adopt latest techniques of production, it would have really served its purpose well. He hoped that its members would help the Government officials in raising the off-take fertilizers, more and better quality of farm-produce, etc.

Further, the Agriculture Minister also explained the difficulties the government was facing to give utmost facilities to the agricultural community. He disclosed the steps being taken at the workshop, Nilokheri, to manufacture and supply

implements on a large-scale but at cheaper rates. He promised to look into the matters pertaining to hybrid maize prices and Cho scheme bottlenecks. And lastly, Master Gurbanta Singh gave a clarion call to farmers to unite and work under the banner of Bharat Krishak Samaj to safeguard their interests and attain self-sufficiency in this hour of national crisis particularly.

Rajasthan

On 'Bharat Darshan Yatra'

Fifty members of the Ajmer District Krishak Samaj are on Bharat Darshan Yatra by bus. The party includes 26 female farmers and 22 male. The Yatries reached Jaipur on May 22. They met the Governor of the State Dr. Sampurnanand. Shri Ram Niwas Mirdha, Speaker, Assembly, Shri Nathuram Mirdha, Minister of Agriculture and President of the Rajasthan Krishak Samaj, Home Minister Shri Mathura Das Mathur. The tour will last for two months. Members are expected to witness agricultural activities and development projects scattered throughout the length and breadth of the country.

Praising the adventurous spirit of members, Sampurnanandji emphasised the import of organising such tours by the farming community which will apprise them of various techniques being used by agriculturists of different States and enthrust them to adopt them according to their local conditions for better production.

Jaipur District Convention

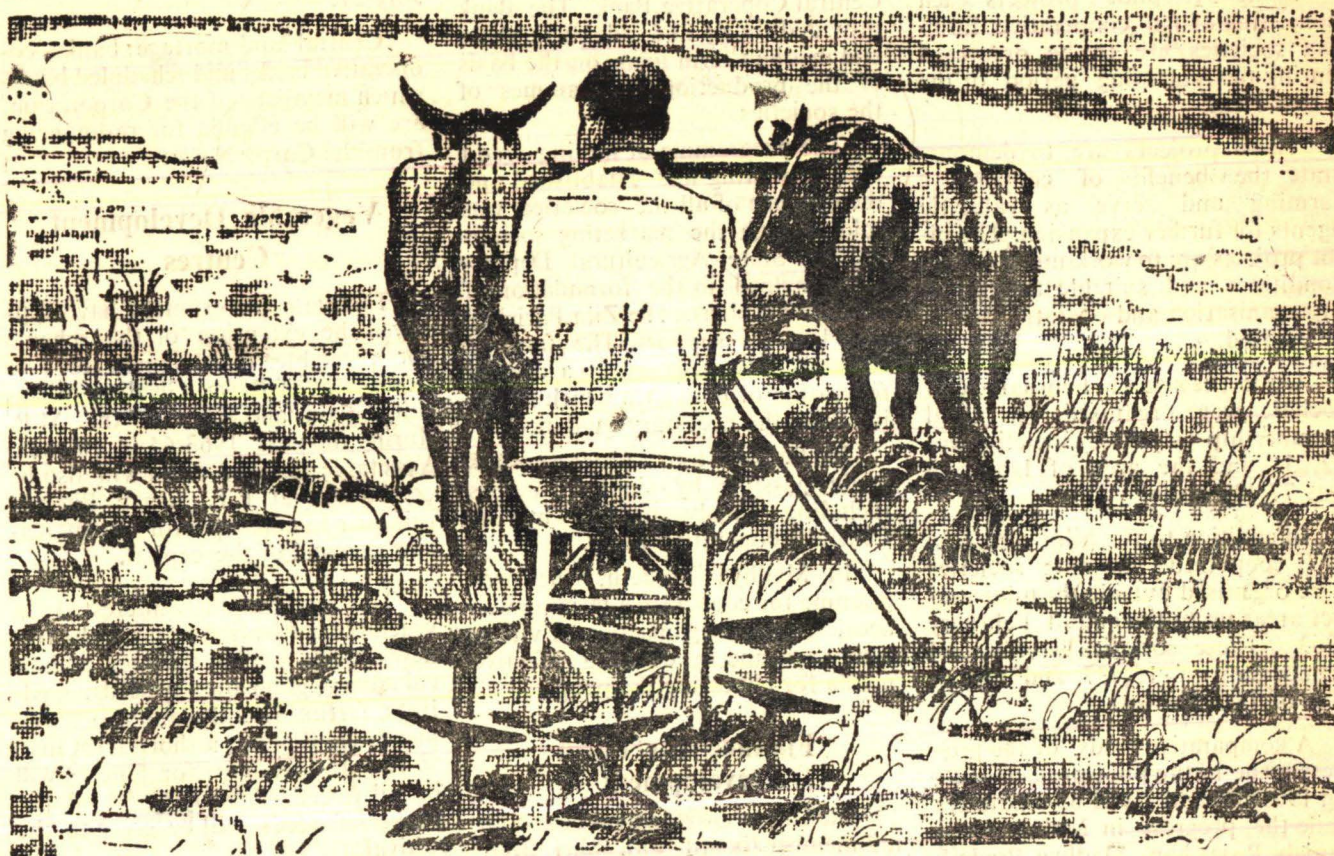
"Bharat Krishak Samaj is the only non-political organisation in the country weeded to the betterment of farmer community. Agriculturists should organise themselves under its banner", said Shri Ram Niwas Mirdha, Speaker, Rajasthan Assembly.

Shri Mirdha was speaking in the Seminar convened by the Jaipur District Krishak Samaj on April 22, 1963, during a two-day Convention. About 200 representatives drawn from the whole district participated.

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Substantial Increase in Co-operative Farming

Some 318 pilot projects each consisting of ten cooperative farming societies are to be organised during the remaining period of the Third Plan.

These projects are to demonstrate the benefits of cooperative farming and serve as catalytic agents for further expansion. The pilot projects are to work under varied conditions and suitable techniques of organisation and operation are to be evolved.

Up to the end of February, 688 societies were organised. The total membership of these societies was 12,251 and the area of land held was 77,427 acres.

In addition to the pilot societies, 717 cooperative farming societies were organised outside the pilot project areas up to the end of February 1963. These societies have a total membership of 15,437 and held an area of 95,591 acres.

A comparative study of the progress made in the pilot projects during 1961-62 and 1962-63 indicates while the progress in Maharashtra, Punjab, Rajasthan, Madhya Pradesh and Uttar Pradesh is encouraging, it has not been adequate in the southern and eastern States.

In the Dhulia district of Maharashtra State, about 54 cooperative farming societies are in existence. In this district, the target of organisation of ten societies allotted to the pilot project was completed in the first year itself. In addition, five non-pilot project societies were organised in the pilot block. Apart from this, about thirty non-pilot societies were organised in other areas of the district. In view of the favourable response, an additional pilot project has been allotted to another block in the district. Expansion of this nature was possible as official efforts were fully supported by non-official workers and the

Central Cooperative Bank. The Bank provided timely and adequate short and medium term loans on the basis of the production programmes of the societies.

The programme of linking credit with marketing was established and the produce of all the societies was sold through the marketing societies. The State Agricultural Department helped in the formulation of production plans. The Zila Parishad also lent its support. The farming societies have also set up a district federation of their own which is giving them the necessary guidance.

In Punjab too, progress was made possible by similar factors including timely finance by the Central Cooperative Bank.

In Madhya Pradesh, the programme for cooperative farming was accelerated by organisation of village campangis and by devising effective media for educating the people.

Finance for Farm Development

The Union Government has setup a 9-member board with Shri B.G. Kharge, Dy. Governor of the Reserve Bank, as its Chairman to manage the affairs of the proposed Agricultural Re-finance Corporation which will come into being on July 1.

The Corporation, which will be managed in collaboration with the Reserve Bank of India, is intended to assist the financing of reclamation and preparation of land, development of crops like arecanut, coconut and cashewnut and promotion of mechanised farming, use of electricity through tube-well and pumping sets, development of animal husbandry, dairy farming etc.

The Corporation will also guarantee deferred payment relating to imports of capital goods. Though the re-finance facilities will be available

only against Government guarantee, the Corporation may waive such conditions if adequate collateral security is available.

The Corporation will have authorized capital of Rs. 25 crores, divided into 25,000 shares of Rs. 1,000 each. The Share subscription list will open on July 1 and close on July 21.

Central land mortgage banks, cooperative banks and scheduled banks which members of the Corporation, are will be eligible for re-financing from the Corporation.

Vegetable Development Centres

The State Government have approved the extension of the scheme for vegetable development to five new towns of Rewa, Gwalior, Bilaspur, Ujjain and Sagar in the M.P. during the year 1963-64. A 100-acre Vegetable Sewage farm will also be established at T.T. Nagar, Bhopal, this year to cope up with the increasing demand of the capital.

The cultivators interested in vegetable cultivation around the five new centres will be supplied technical advice, good quality seeds, seedlings, fertilisers and plant protection measures. Besides, a short term loan @ Rs. 15- per acre for fencing will be advanced. Subsidy @ 50 nP. per packet of seeds will be given to the cultivators.

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