

* An Organisation to Check the Present Food Crisis in India

By

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AGENCIES THAT LED TO THE PRESENT CRISIS

(i) *Lessons of Agricultural Crisis in Retrospect.* In planning to end the crisis, a dive into the past agricultural crises will throw a flood of light to get over the present one. A crisis followed always a war of the first magnitude. The first in modern times was after the Napoleonic wars; the next, after World War I. A period of scarcity of food stuffs each time was followed by a slump and falling prices. An Agricultural Depression prevailed in Europe from 1824 to 1835; it recurred in 1875 and ended by 1905. Improvement in communications and the rise in the price of gold helped the recovery. According to the Economic committee of the League of Nations, "in 1909—13, cereal prices were 20% higher than the average level of the years 1891—1900". The Depression from 1929 to 1939 had its trough in 1934. To this Depression were ascribed the causes, of over production by various countries to supply food to the belligerents during the war and the technical progress in the U. S. A., by a heavy increase in the number of tractors and better farm equipment. In the trough of the Depression, these very farm-steads became bankrupt and the U. S. A. had to liquidate and possess them. The scorched-earth policy of World War II and the non-recovery from its effects by now of several countries and the the control and manipulation of currencies under dollar pools and sterling pools are responsible for the present scarcity of food. Statisticians, with periodicity curves in several branches of Agriculture and Industry, mention of an intensive coalescing Depression between 1951 and 1953. Were scarcity and slump to follow in close sequence as in the past, planning both short-term and long-range, to tide over the present crisis should be done with extreme care.

(ii) *Present Food Crisis — Remote and Immediate Causes.*

A. Remote Causes.

1. *Unbalanced agricultural economy and craving for more industrial goods.* With improvement in the standard of living, the comfort

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Food

and luxuries of a past age become the necessities of a subsequent age. The Administration operating the controls listed out as essential articles, a certain number of the consumers' requirements. How many of them were essential in Asoka's reign? In the reign of Prithvi Raj? Of Krishna Deva Raya? Of Sivaji? And at the present time? Would the present population agree to a pristine set up? Can the Administration arrange to educate the population, to have for their vocation, the production of food and cloth and deter them from the production of cash crops and manufacturing industries. The proportion in the pursuits of Agriculture and Industry have to be defined by the State to tide over the Crisis.

2. *Country bound by Western economy.* India for nearly two centuries has been fitted into Western economy. Currency, banking, exchange, export trade in raw products and import trade in manufactured goods are all interlinked. To escape the grip of these economic tentacles and have a sound food policy, India's agriculture must be bounty-fed.

B Immediate Causes

While such had been the remote causes, the immediate causes of the present food crisis have all their roots in the last Economic Depression.

Manure starved land in falling prices Cattle manure and the house-hold and farmyard sweeping are supplemented in any year, with other purchased manures with the rise in prices. These purchases were curtailed with the fall in prices and were next to nothing in the trough of the Economic Depression, when the value of the produce did not meet even production costs. Several cultivators in 1934 had to pawn jewels and pay taxes. The investment on the manure was in the decline; and when the Second World War broke out, the fertility of the soil was nothing more than that of the recuperating nitrates of the summer weathering, plus the available cattle manure, sweepings and offal from the holding. This was a great contributory cause for decreasing production, in the earlier years of the war.

2. *Best paddy land is diverted to non-food crops.* Production did not keep pace in spite of the make-up, or increase in area from marginal land, newly put under it.

3. *Political repercussions on indigenous paddy production* When the country took to hand spinning and paralysed the Lancashire Textile Industry, Lancashire products were diverted to Netherland Indies, Siam etc., which paid for them, by

importing, broken rice into Madras, at Rs. 3/- to Rs. 5/- (from 1931 onwards), per bag of 166 lb., with subsequent monetary adjustments between India and the United Kingdom. This was a factor beyond the limits of the Provincial Government and the Agricultural departments. This low priced import from the Far East and from Burma to the tune of fourteen million tons of rice annually, struck the local rice cultivator at the very root of his economics. The Government wanted the Agricultural department, at the time, to suggest alternative cropping, to enable the ryot to balance the expenditure on his holding and pay taxes by raising more remunerative crops. Paddy was discouraged and garden crops suggested till World War II. Food for the first time had come under Politics. There could be an International Wheat Agreement and not Rice Agreement.

Present pessimism on production and yields cannot be helped when price controls and subsidies to essential commodities are inadequate. The local rice cultivator stood unrecognised so long as the imports of paddy from the Far East and Burma were annually received. He could not then be helped with better prices or with subsidies. Even now price levels are maintained by the Central Government, the local Governments being only recommendatory bodies for price fixation.

5. *Transition of land from the cultivating small holder.* The small holder entirely dependent on Agriculture and with no subsidiary occupation, under indebtedness had to alienate his holding to the capitalist, the money-lender, or the landed-proprietor. To the first two classes, farming was a commercial proposition; to the third, all land beyond his capacity for cultivation was also a commercial proposition under falling or less attractive prices. Personal interest in land was thus lost in large regions in this transition.

6. *Lack of progress in the production of the old Deltas.* The old deltaic lands are fairly stabilised in their physical condition. The results of crop cutting experiments have shown, during the past three years in the Godavary Districts that paddy transplanted early i. e., prior to 15th July, yields higher than all subsequent plantings, as sub-joined results show.

The optima of water requirements at the planting, flowering and seed-setting stages are not met by more than a third of the paddy ayacut. As the earlier planted crops have 150-200% yields of the late planted, the construction of reservoirs and regulators high up on the rivers of these old deltas, would double production from existing deltas, in addition to crops on fresh ayacuts that spring up.

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District	Time of planting.	Percentage proportion in area.			Yield in lb. per acre		
		1945-46	1946-47	1947-48	1945-46	1946-47	1947-48
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
I. East Godavari.	Early (before 15th July.	34	33	28	1432*	1739	2397
	Middle (16th July to 15th Aug.	52	50	62	1798	1279	1985
	Late (after 15th Aug.)	14	17	10	1169	623	1069
II. West Godavari.	Early (before 15th July)	37	63	36	1462	1878	1944
	Middle (16th July to 15th Aug.)	46	51	54	1345	1215	1636
	Late (after 15th Aug.)	17	6	10	1159	1529**	1251

* Grain blown off these crops which matured in the severe cyclone of October 1945
 ** Late varieties in Kollair lake ayacut had a good season.

WAY TO END THE CRISIS.

I. Long-Term Policy.

1. *Large irrigation projects, the chief panacea* — *The G. M. F. Schemes collectively are no match to a helping season.* A summary of measures taken and concessions given by the Government is published, in a pamphlet under the title 'Grow More Food'. It will be expected from the grants made by the Central Government and Provincial Government and expended by the departments of Revenue, Agriculture, P. W. D., Co-operation, Industries etc., that more food is added year after year. It will be surprising to note that the production figures as given in some of the Season and Crop Reports are much higher for the early-war years than the late war or post-war years. The seasons of some of the early war-years were much better in enabling timely sowings and plantings, and in assisting to put crops in greater ayacuts under the same sources of irrigation than in the late-war or post-war years. It is not a loan or a bonus,

good seed or more manure, the remodelling of a channel or an ayacut, or measures of the kind that can end the crisis. Gigantic projects for irrigation coupled with flood control and hydro-electricity development can alone mend and end the present and future crises. By such planning, production can be increased to 200% by regulated water supply enabling timely planting etc., in the existing ayacuts; double crops can be raised in them; and fresh ayacuts developed for new production.

Drainage schemes follow as a natural corollary to all irrigation projects. Their need in the old deltas is manifest.

2. *Planning between Agriculture and Industry.* The value of agriculture, for promoting material prosperity beyond a stage is limited. The industrial world by bringing into existence fresh industries is absorbing much of the capital and skilled labour to the detriment of agricultural progress and development. Sri M. Visveswaraya, proposed to reduce the population supported by agriculture from 250 million to 200 million, in a ten-year plan. Organised planning between agriculture and industry should put a stop to diversion of pursuit from one to the other, without recourse to ordinances as in the present case of agricultural labour in the Central Provinces moving into "beedi" manufacture.

3. *Barter through failure of Western Economy.* Industrial supremacy, maritime commerce, liberation of specie from mining give power to control currencies and manipulate exchanges. India in its non-age in these respects, avoids western economy and resorts to the barter under bilateral agreements which she now pursues. Wheat from Russia and Australia, rice from Burma and the Far East, maize from Argentina, heavy machinery from Czechoslovakia, capital goods from Britain, automobiles from America are present examples. Planning is necessary to balance the trade and cut out imports of food beyond a limit.

4. *Minor engineering against scouring and soil erosion.* A permanent Soil Conservation department may be established. Part of the cess-funds for researches on crops may be diverted to the execution of projects under soil erosion.

5. *Constitution of economic holdings.* Agricultural progress was by rapid strides in other countries, with the constitution of economic holdings.

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In Denmark, the present farms were exempted from the inheritance by each child of a family. In England the law of Entail concentrated the land in a few hands. In Sweden, the State took the initiative and enforced that each peasant's land should be a single piece. In Austria, the economic holding has been recognised by law, with hereditary indivisibility and alienation from debts not extinguishable in a few years. In Italy, comprehensive measures have been taken to induce the people to form economic holdings. Legislation in India, for the purpose, should be such as to make small holdings coalesce and big holdings dwindle down into the economic unit of the region. Uneconomic small bits of holdings, may be purchased by the State and offered for sale to coalesce with the holdings of adjoining owner-cultivators.

II. Short-Term Policy by the Departments.

1. *Merger of food organisation in the Firka Development Scheme.* The All India Manufacturers' Association, under the leadership of Sri M. Visveswaraya, have a 'Village Industrialisation Scheme', for the 700,000 villages of the country, by grouping them into numbers ranging from 10 to 15. The province of Madras has the Firka Development Scheme and into this, the food organisation may be merged. A suitable committee from the firka is to be responsible for the production and distribution to meet the needs of the firka.

With a choice left to the ryot, to put more area or less area, good or bad land under food or non-food crops, based on prevailing prices, production cannot organise itself to the tune of requirement. The firka committee with the help of the village officers, a year in advance, may work out the food needs of the families in the firka, make it incumbent on the holders of land to grow their food first, before they think of non-food crops. The deficits in requirement as well as the surpluses will be intimated to a taluq organisation which will effect the necessary transfers. The district organisation will deal with inter-district transfers under advice of a Provincial Organisation.

2. *Grain Banks.* It was a policy of the Japanese Government to store rice to last two or three years, to prevent starvation in emergency. The construction of M. B. sheds may be extended to each village. To pool stocks of grains, grain banks may be instituted. This may be part of the firka development work referred to previously. As the owner-cultivators comprise 15% and the cultivating tenants 5% of the population, the former body may be suitably induced to cede

their food-grains over their requirements to the Bank. If the village is not self-sufficient in its needs of food, a Collective farm may be run to meet the village needs.

3. *A directory of agricultural improvements based on the Settlement Classification of Soils.* There are economic surveys of several districts in the Provinces and States conducted during the last three decades. More than these surveys, a directory of agricultural improvements with different crops of different kinds of soils is necessary. Though not endowed with a knowledge of the soil science and the requirements of crops, the Settlement Officers laboured hard for over 87 years to sort out and classify soils from their physical properties and from observations of crop stand, as alluvial, permanently improved, black-regar, red-regar, calcareous and arenaceous. The regars and the calcareous are further divided into clay, loam and sand and the arenaceous into loamy-sand and heavy-sand. Each of these sub-divisions are further detailed into 'best', 'good', 'ordinary', 'inferior' and 'worst', from experience of crop growth and productivity. The District Agricultural Officer of a district may prepare a directory of improvements for each crop that can be raised on every minor division of the soil in the district, based on this settlement classification. The costs of cultivation of crops may be worked out for each of these minor divisions, as bullock-days, men-days, women-days and juvenile-days, for permanent reference, avoiding the changing labour rates.

4. *The Comprehensive Scheme must justify its title.* The targets of production for the districts and the taluqs must ultimately be extended to every survey number of the Permanent Register of the village. The elaborated staff under the scheme must be made to tackle each survey number, assess the margin of production that can be enhanced by applying to the field of the survey number, one and all of the improvements of the 'directory' herein-before mentioned. The District work Register of the Agricultural department is to be written for every survey number. To implement this direction, the Agricultural Demonstrator may be supplied with the Settlement Registers of the villages in his jurisdiction.

5. *The economic manuring of each field.* "In most parts of India, soil fertility is stabilised at comparatively low level". So concluded Dr. Burns, after an examination of the results of over 5,000 manurial experiments in India. The results of crop cutting experiments on paddy, in the last three years, indicate enhanced yields of manured fields over those not manured, from 14% to 30% for the I crop

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Year and crop.

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and from 22% to 48% for the II crop in the Godavari Districts. With manure supplies ear-marked, this is the easiest way to improve production. The crop cutting experiments also show the percentage of land that got manured and the percentage in it that received supplies of cake and fertilisers from under the State Trading Schemes. The figures in the table below relate to the Godavari Districts.

Year and crop.	East Godavary		West Godavary	
	Percent of land that received manuring	Percent of land that received cakes & fertilisers from under Trading Schemes	Percent of land that received cakes and fertilisers from under Trading Schemes	
(1)	(2)	(3)	(4)	(5)
1945-46				
I Crop.	53	4	46	20
II Crop.	60	49	43	17
1936-47				
I Crop.	54	18	27	6
II Crop.	71	42	37	30
1947-48				
I Crop.	57	13	44	4
II Crop.	64	28	31	14

The State Trading Schemes accounted roughly to a third of the total manuring. These scheme aided by the floating capital may also merge into the Firka Development Scheme.

Present manure hunger is insatiable. Green leaves, green manure and the composts are the cheapest forms for unit production. The staff under the comprehensive scheme may strain every nerve to reach the targets of production for every survey number, with suitable manuring. Ramiah and Sahasrabuddhe worked out quadratic functions to indicate the response of paddy to oil cakes at different levels in the Agricultural Stations Aduthurai, Pattambi, Coimbatore and Maruteru. These may be translated into action, in the areas served by these Stations.

6. *Seed farms on right lines.* Crop Cutting Experiments have proved beyond doubt the efficacy of departmental strains of paddy. The following from the results of crop cutting experiments show the superiority of the strains over the parent varieties.

Percentage increases of strains over locals

District	1945-46	1946-47	1947-48	Remarks.
Vizagapatam	10	15	—*	*Drought and Monsoon.
East Godavary	25	72*	53	*Failure with drought of paddy under local in upland.
West Godavary	10	17	45	

Private agencies for the multiplication and distribution of improved seed are practically none and the department may have to continue its present activity in the line. Seed farms meant for pulling out rogue plants in wet land paddy would be ineffectual so long as paths to movement, are not provided at planting time, at 6 ft. distances, in the field. The owners of the crop may be compensated in this regard to permit of the operation and achieve purity in seed.

7. *Water requirements of crops, in their crucial stages.* Losses in production, with inadequate water supply in the crop maturation stage, are immense. The Agricultural Demonstrator may be commissioned with the control of the flow levels in the channels and the distributaries. He may be a member of the Irrigation Board, for his jurisdiction.

8. *Cultivable waste and mechanised farming.* In some of the northern Indian Provinces, 15 to 20% of the land, over-run by *Saccharum spontaneum* is available as cultivable waste. Such land may be straight-way put to tractor ploughing, instead of waiting to get the weed cleared by herds of cattle roaming about, for a number of years, as has been the local practice. Such lands with this weed are absent in this province. There is scope for mechanised farming in virgin land cleared from the 'partially excluded areas'. The service of tractors, gang and disc ploughs, on hire system to capitalist farmers, in areas insufficiently supplied by labour, may be continued.

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9. *Fight pests and diseases as a national concern.* Crop losses due to pests and diseases amount to several crores annually. The appointment of a special demonstrator for this work to each district is the beginning of the development to be undertaken in this line. Wide usage of insecticides and fungicides may be assisted under State subsidy.

10. *Markets and Prices.* "A cultivator can never protect himself against a sowcar who is both his banker and market". The hill tribes in the 'partially excluded areas' are the first to be redeemed from this pestilence. Forward transactions with mortgage of the crop in advance should be put an end to. The Firka Development body with the grain banks should take over these forward transactions and eliminate this kind of sowcar.



The Madras Agricultural Journal.

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