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INTENSIVE DEVELOPMENT APPROACH IN AGRICULTURE IN INDIA: THE REASONS, POSSIBILITY AND A SCHEME

N. C. AGRAWAL

*Reader and Head
University Department of Applied Economics and Commerce
Magadh University, Gaya*

SUMMARY

The food situation of India between 1949-50 and 1966-67, governmental efforts to increase the food production, the possibility of the extension of cultivation to the uncultivated land and the results thereof have been examined at the outset. Such an examination clearly points out that either the maintenance or an increase in output is possible largely through intensive agricultural development and only marginally through any extension of cultivation. With the secular trend of rise in population the need for the import of not only foodgrains, but also of other agricultural products, is increasingly felt. Exports from India are not sufficient enough to pay for the imports. This further necessitates intensive agricultural development.

On a comparative estimate of the average yield in India with that in other countries of the world and with the average yields obtained from the plots entered for crop competition in India, certain conclusions of far reaching importance have been arrived at. The main conclusion is that acre for acre the yield in India can be increased appreciably and that it requires immediate supply of inputs.

Amongst the inputs for intensive development of agriculture in India water and the supply of credit have been considered as the most important inputs. Really speaking, greater part of the country doesn't suffer on account of want of water, but for want of proper means of prevention of its waste and of storage and regulated distribution. In this connection, as little has been done to insulate every village from the shortage of water, it has been suggested that an earthen reservoir or pond, etc., be either renovated in a village where one exists or constructed where one does not exist. Immediate steps be taken in this direction. With regard to the supply of credit a scheme has been suggested for the institutionalization of credit. This may be made possible with the introduction of Transfer Deeds similar to the one currently in vogue for the transfer of the shares of a public limited company. The availability of credit at cheap rate will enable the cultivators to buy other inputs. All emphasis be given on these two steps even in case of the intensive development approach and they are sure to pull the country out of the present difficult economic situation.

INTENSIVE AGRICULTURAL DEVELOPMENT PROGRAMME

SHIVABHAI J. PATEL

Dehgam, District Ahmedabad

SUMMARY

Attempts that were made soon after Independence to find out a solution for our food problem have been outlined in the introductory remarks. The experiments carried out at the Institute of Agriculture, Anand, had showed that if farmers possessed five acres of land in compact blocks with readily available irrigation, necessary inputs, marketing facilities and technical guidance, they were capable of raising yield more than double. In spite of intensive agriculture adopted in these experiments, the problem of unemployment for half the family labour out of the total available family labour had remained unsolved. How that problem could be solved along with the development of agriculture has been given out in a plan prepared by a band of constructive workers in the booklet entitled "Full Employment Plan of A Village."

The Paddy Pilot Schemes launched by the erstwhile Bombay State in 1957 seem to have served as a basis for the package scheme suggested by the Ford Foundation Team.

Glimpses as to the working of some IADP schemes have been given and some of the bottlenecks encountered in enhancing production are pointed out. The example of the crusade carried out for wheat cultivation in Gujarat State in 1965-66 and the results achieved have been given. In spite of serious shortage of crude oil and the arrivals of fertilizers very late, an enhanced increase in the production of wheat by 68 per cent over the average of preceding five years was achieved. The creation of confidence in farmers accompanied by the prevailing remunerative prices of wheat—a commodity that was likely to be in short supply—were the main factors for this high increase.

It has been observed that in the Surat district small farmers whose holdings are less than two acres do not take interest in intensive agriculture. As the haphazard way in which they utilize their land will not be conducive to increased production, a suggestion has been made to evolve ways and means to get them interested in intensive agriculture.

Regarding overdue debtors, it has been suggested to link credit with marketing to avoid the problem from becoming more complicated.

In view of the availability of *Gram Dan* and *Prakhanda Dan* villages where ownership rights on land have been liquidated and village people as a whole show firm determination towards better life, it is suggested to see whether the development of agriculture can be intensified there.

The intensive educational programme having practically failed in the Pali district, it is suggested to overhaul it and also to see how farmers can be made technological-minded.

Besides other subsidiary occupations, the introduction of an eight-spindle Ambar Charkha is advocated as it helps the whole family to be self-sufficient in clothing and also to earn some additional income during the period of unemployment.

Regarding price incentives, it has been observed that though there is so much talk for incentives they are not seen particularly when the support prices declared by the Agricultural Prices Commission failed to take into account even the changed market situation.

INTENSIVE DEVELOPMENT APPROACH TO AGRICULTURAL DEVELOPMENT

CARL C. MALONE

*Farm Management Consultant
The Ford Foundation, New Delhi*

SUMMARY

A selective intensive agricultural development approach best fits India's agricultural production needs in the period ahead. A much faster pace of production increase is essential to match population growth, the increase in per capita income and to make up present food arrears.

Selective intensive development, if properly organized and implemented, would insure that the more limited productive resources were used where they would add most to farm output. The supply of key resources, especially commercial fertilizer and trained agricultural workers, will be insufficient for all locations during the Fourth Plan, so a selective process is necessary in any case.

Wise strategy would use four guiding principles for deciding where, how and under what conditions the scarce productive resources should be employed: (1) they would go to areas which have favourable soil-water conditions for increased production; (2) trained workers, technical inputs, responsive crops and varieties and favourable soil-water situations would be combined in each location based on the principle of complementarity; (3) a scientific package of improved interacting production increasing practices, adapted to local conditions and crops, would be worked out and promoted in each selected location; and (4) an intensive programme would be mounted in each area so that effective and continuous impact would be made on local people and service institutions. This combination would help farmers move rapidly to adopt modern methods and speed up production increase. The high yielding varieties would be made a part of the improved package of practices in the above combination which is the logical place for them to maximize their benefits.

The Intensive Agricultural District Programme already in use has demonstrated the pattern that should be followed and has worked out the degree of intensity needed. It also has identified the restrictions to rapid progress which frequently occur under Indian conditions that have limited IADP accomplishment to date.

For agricultural development purposes three categories of districts would be identified in each State: intensive, preparatory and normal. The number of intensive districts would be based on the current supply of essential resources and requirements for programme intensity in each selected district. Additional districts would become intensive as rapidly as resource supplies permit.

All aspects of rapid agricultural development would be emphasized. The intensive district approach lies at the heart of an effective development process since it provides an effective way to help the farmers who must produce the increased output.

INTENSIVE AGRICULTURAL APPROACH UNDER INTENSIVE AGRICULTURAL DISTRICT PROGRAMME

S. M. PATHAK

Farm Management Specialist

AND

J. B. SINGH

*Directorate of Extension
Ministry of Food and Agriculture
Government of India, New Delhi*

SUMMARY

The Intensive Agricultural District Programme popularly known as 'Package Programme' was started on a 'pilot' basis in 1961 in seven selected districts. The programme was subsequently extended to nine more districts. At present there is one 'package' district in each State; in Kerala, there are two districts. These districts together comprise 311 Development Blocks and a total gross cropped area of 8.2 million hectares, forming a little over 5 per cent of the total cultivated area of the country.

The concept behind the programme is that instead of spreading the developmental efforts on a uniform basis throughout the country without getting any striking results, concentrated and intensive efforts should be undertaken with the combination of all technological improvements, manpower and resources in selected areas which have optimum conditions for stepping up agricultural production within a comparatively short time. The 'package' here refers to the use in agriculture of all inter-related factors, physical, social and institutional in appropriate combination.

Farm planning is the core of this programme and is used as an educational tool to approach the individual farmer, to educate and motivate him in the adoption of improved technology for effecting increase in farm production.

Farm planning as an extension tool was a new concept both for extension workers as well as farmers in the country. There was hardly any experience in the field of the application of this technique before, on such a large area to go by. At this stage, it was also realized that revolutionizing of farming systems from traditional to scientific lines should be completed in stages and these stages should be arranged so as to take the farmer forward step by step, suiting his ability, towards scientific farming on sound technical and economic lines.

Taking into account the realities of the situation, farm planning programme was phased in to three stages. These stages are : (1) Implementation of simple farm plans which emphasize the use of a package of improved practices on a few acres on key crops. (2) The refining of package of practices based on experience on scientific and economic lines and using them on all the crops and enterprises taken on the farm. (3) Developing full use of farming resources by working out the optimum combination as to enterprises, practices and methods.

Stage I—Farm Planning:— The first stage of farm planning brought into its fold more than half of the farm families by the end of 1964-65 in the first set of seven districts. During this period, about one-third of farm families were covered under the first stage of farm planning in the second set of districts.

Under the first stage of farm planning, half of the total gross cropped area in the first set of seven districts and about one-fourth of the gross cropped area in the second set of districts were covered by the end of 1964-65.

In accordance with the number of farm plans, the consumption of commercial fertilizers has also increased by the end of 1964-65. The consumption of nitrogenous fertilizers in the first set of districts increased more than double while phosphatic fertilizers more than two and a half times. The consumption of nitrogenous and phosphatic fertilizers in the second set of districts has also shown an increase but not to the extent as in the first set.

The use of other inputs also increased simultaneously. The increased uses of improved inputs have not been uniform among the districts as these districts did not start from the same level of agricultural and co-operative development, etc.

The composite demonstration which is a package of practices demonstration was used as a major tool to show the technical feasibility and economic soundness of these packages to the farmers.

Stage II—Farm Planning:— Though, all the districts are still in the first stage of farm planning, some districts have shown more progress than others. The districts of Thanjavur, Ludhiana and West Godavari have fared better and are now ready to move in stage II farm planning. These districts have already initiated stage II programme in a few of their selected blocks and got encouraging results.

Impact of Programme on Production and Yield:— In order to study the impact of the programme on production and yield, the Indian Agricultural Research Statistics conducted crop cutting experiments in selected fields every year. The result of crop cutting shows that production of major cereals have increased by 23 per cent in the first set of seven districts. During this period the increase in production of the respective States was only 9 per cent. Similarly, production in the second set of districts has increased by 21 per cent as against 17 per cent in the respective States. The increase in yield in the first set of districts is 20 per cent while it was 17 per cent in the second set of districts.

THE STRATEGY OF INTENSIVE AREA APPROACH

BAIDYANATH MISRA

*Professor of Economics
Orissa University of Agriculture and Technology
Bhubaneswar-3 (Orissa)*

SUMMARY

In view of the fact that farm planning does not have much scope to increase agricultural production, the scarce resources available should be intensively used in certain areas to improve the quality of material factors and to increase the skill of the farming community to break through the traditional pattern of agriculture. This will not only avoid the uneconomic use of the scarce factor, but will also constitute strategic growing points from which the impulse towards growth will spread to the rest of the economy.

This is alright so far it goes. But when there is an attempt to change the entire economic structure to create necessary pre-conditions for a self-sustained growth and to bring about economic integration for establishing political unity and social harmony, investment must be made on a broad front so that the various parts of the country can move forward in balance without jerks and explosions.

To avoid conflict between these two goals, it seems inevitable to take shelter in Marshallian time analysis and make both complementary instead of competitive.

SOME OBSERVATIONS ON IADP AS A NEW STRATEGY IN AGRICULTURAL PLANNING IN INDIA**BENUDHAR MISHRA**

*Lecturer in Economics
Ravenshaw College
Professor Para, Cuttack-3 (Orissa)*

SUMMARY

The food crisis has been one of the baffling problems of India. To help ease the situation, under the auspices of the Ford Foundation in 1959 two teams of experts in agriculture visited India. On their recommendation developed the intensive area approach to agricultural development in our country. The central idea behind this new approach is concentration of input factors in agriculture in selected areas to step up production of foodgrains and to provide sufficient encouragement to farmers by means of demonstration. This is based on the concept of an 'optimum mix' of all production essentials in agriculture. Popularly this scheme goes by the name of "package programme." Even though the Community Development Programme was started since 1952 it did not prove to be very much successful for it failed to have the necessary impact on the agriculturists. Since this impact is sought to be imposed through the package programme, therefore it may well be described as an 'impact programme.'

The underlying principle of intensive area approach is the law of equi-marginal returns. Even though a sound economic principle in the field of resource utilization, it leads to certain fallacies when applied in actual field.

It leads to disparity in inter-regional agricultural development and the problem assumes even wider dimensions in the context of a subsistence agriculture. It affects the welfare of the country as a whole. It can be mitigated provided a part of the additional benefit from these areas is syphoned off to other areas where such concentration has not been made. But in the initial stages it is not possible as it may hamper the incentive in these areas.

This may also be tackled by making the programme 'farmer-based' and not 'region-based.' It will also have a more effective impact on agricultural production than what it has with the present set-up. The 'region-based' package programme is suitable for commercialized farming whereas 'farmer-based' package will be more appropriate for subsistence farming.