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THE DEVELOPMENT OF AGRICULTURE IN ISRAEL AND ITS APPLICATION TO TRINIDAD.

by

Moses Zur
Israeli Consultant,
Ministry of Agriculture, Trinidad.

SOCIOLOGICAL BACKGROUND

The foundation of modern Agriculture in Israel was laid in the early years of this century by youths from Europe called "Pioneers". They were driven by a muddy wave of anti-Semitism which turned later into bestial racial discrimination and genocide.

Beside this negative factor there was a positive one. These youngsters and their successors (youth who came wave after wave), bore in mind their dreams and wishes of the ancient prophets, and modern thinkers alike, and they were determined to put these ideas to reality.

Israel (then called Palestine) had been, up to World War I, a backward and underdeveloped country with most of the land desolated. The enormous deserts around enlarged their full reign and became rulers of more and more parts of this narrow strip along the eastern side of the Mediterranean Sea.

In the constant struggle between desert and fertile lands in nature, the former overcame with the help of the nomad Bedouin tribes and poverty-stricken fellahs. The tribes with their herds wandered from place to place leaving behind them devastation and wilderness. The small portions of land were cultivated in those times by primitive system and reminds one of the ancient epoch of the iron era.

The standard of living was very low and farming was of a subsistence nature - yields and varieties of crops and livestock left much to be desired. Professor Eleasair Voulkani gave an exact description of fellahs' holdings of those past times as follows:-

An Arab fellah's family comprised an average of six persons. The farm in the plain, spread out to over 80 - 100 dunam (20 - 25 acres) dry farming. The livestock

consists of one cow of 800 litres (about 200 gallons) milk yearly yield and about 20 hens each of which laid about 50 eggs per year. Oxen were used as draft animals with usually two oxen to each holding. The buildings were very simple and built of clay, mostly by the farmer himself. Also, the implements and tools were very simple and made by the peasant himself. The plough was wooden and only its points was covered with iron. Such a plough did not turn the soil, it only scratched it. Harvesting was carried out by a sickle or even by pulling out with the hands. (Cereals were trodden with the foot of a slashing sledge drawn around the threshing floor by oxen. The separation of the grains from the straw was done by scattering in the wind a wooden fork. The capital invested in such a form did not exceed TT \$3,000 in terms of World War II prices.

It is no wonder then, that the Halucim (Pioneers) had nothing to learn and should start all from the beginning.

AGRICULTURAL COOPERATIVE MOVEMENT

Here, it would be worthwhile to mention that Cooperative Movements all over the world, especially in the Nineteenth Century, failed because the approach of their leaders was a dogmatic one, with stagnant programmes set in advance. The Pioneers, although they had some ideas in their minds, they had no fixed programme in advance, which was to their particular advantage. Therefore, matters and problems, when they arose, were solved in a pragmatic and practical way.

The main principles of this Movement are:

- (a) National land
- (b) Cooperation
- (c) Mutual Aid
- (d) Individualistic work and the prohibition of hired labour.

(a) National Land

The nationalisation of Agriculture in Israel is a sequence of a concept to avoid the existing agrarian problems all over the world which became the explosive substance for bloody and ruthless revolutions. The settlers were determined to put into reality, a commandment mentioned in the Holy Bible (Leviticus 25/23) "The land shall not be sold for ever; for the land is mine."

Therefore almost all the agricultural land in Israel belongs to the nation. And the settler has right on his plot so long as he cultivates his farm. The acreage of the farm is suited to the planning of certain types of holdings. And the plots distributed among the farmers in the village are equal in quality and quantity.

A very important point worthy of indication is the non-fragmentation of the farms; that is, the holding is one undistributable unit, and after the farmer's death, one son inherits the farm.

(b) Cooperation

Every farmer in the village is a member of the co-operative society which has many aims of economic and social character. The co-operative is a member of the Central Marketing Cooperative named "Tnuva" ("yield or harvest").

The functions of the village cooperative are:-

supply of production requisites, financing, water supply, insurance, artificial insemination, etc.

By such an organisation the farmer is obviously able to devote all his time and attention to develop his farm by adopting all the inventions and novelties so frequent now in Agriculture. The outcome of this is a higher standard of living, adherence to the village and the prevention of population influx to the cities.

(c) Mutual Aid

"Cooperation is an economic system with a social content. Its idealism penetrates both its economic and its social elements. The economic ideals effect the business enterprise, its methods and operations. The social ideals have a direct bearing on the association of persons comprising the society, particularly as they affect the membership and personal relations." These words of Professor Casselman define a fundamental characteristic of the Cooperative Movement.

The idea of "mutual help" in cooperation essentially contradicts the conception of "war of all against all." It expends the belief in existence of some traits of altruism and idealism in the character of human beings.

The founders of the Israeli Agricultural Cooperative Movement appreciated very much the law, "But thou shalt love thy

neighbour as thyself." I am the Lord" (Leviticus 17/18).

It is acknowledged as a divine principle that the society in the Cooperative Villages is responsible for the minimum living of each family member.

In the event of death or any disaster which may happen to a member, the special mutual aid committee with the help of the financial resources of the community deals with all the problems of such a family.

If a farmer or his wife become ill another member according to a certain queue enters the farm to help.

Almost every farmer or worker in the country belongs to the General Sick Fund which constitutes a country-wide system of mutual aid.

In the last years the virtue of mutual help rose to a higher degree by the setting up of a special fund for help between villages in the frame of the General Movement of Cooperative Villages. Through this channel the more consolidated settlements help the newly established and still economically weak villages.

(d) Individual work and the prohibition of hired labour

This principle has a tight connection with the ideology of the Jewish National Movement which has proclaimed as a national task the return to physical and especially agricultural work. The choice youths of the European Jewery during two or three successive generations went to Israel in order to attain this goal.

But it happened that facing a dynamic and expanding agricultural economy, this law failed to stand up vis-a-vis to reality. In this case it is the task of the Management Committee to regulate the hired labour and keep it under constant control in order to avoid any serious breach.

"TNUVA" COOPERATIVE MARKETING SOCIETY

The first steps in the Cooperative marketing of agricultural produce in Israel were undertaken in 1900, with the establishment of the "Pardess" society for marketing citrus. A few years later cooperation was introduced into the wine industry. But the main development of cooperative marketing did not begin until after World War I.

The few Jewish agricultural settlements entrusted the marketing of their produce to "Hamashbir", the supply cooperative which had been formed during the war. "Hamashbir" began handling farm produce in 1922 selling at first only cows milk.

Gradually the scale of agricultural production increased and special departments began to deal with processed milk products, vegetables, eggs, and other products. The departments were conducted by members of the settlements.

The establishment of new settlements continued and as a result production increased rapidly.

Therefore, an independent cooperative marketing society became a necessity. A convention of "Hamashbir" in September 1926 approved a decision to set up a separate co-operative marketing agency named "Tnuva". Three regional societies were established, which years later, fused into one country-wide co-operative organisation.

In regard to voting it was decided to grant all affiliated settlements from one to three votes, depending on the population of the village but irrespective of the amount of produce.

Today "Tnuva" represents 500 villages and many hundreds of individual producers.

"Tnuva" is a Cooperative organisation for the manufacture and marketing of all agricultural products of the member settlements, except grains and fodder. "Tnuva" itself derives no profit from its activities. All the settlements which are members of "Tnuva" have the same rights irrespective of whether they are old or new, near to the main markets or removed from them, and whether they belong to different political or other groups. It is an open cooperative organisation and no restrictions nor special entry fee exists. On the other hand a settlement which affiliates itself as a member, undertakes to market all its agricultural produce exclusively through "Tnuva" because otherwise it would inevitably compete with its fellow settlements of "Tnuva".

Each department marketing the produce of a certain branch maintains a separate account of its expenses and of the income from commission charged to the producers to meet such expenses.

The main products disposed of by "Tnuva" are: eggs, vegetables, potatoes, poultry, all varieties of fruit, bananas, live pond-water fish, sea fish, cattle for slaughter, canned fruits and vegetables, cow and sheep's milk, honey, flowers.

"Tnuva's" marketing policy has two main objects: to dispose of all the produce supplied at a fair price to the producer, and to take into consideration the consumers' interests as well.

"Tnuva" has a chain of collecting depots scattered all over the country. These depots guide the distribution of produce from the farming areas to suitable markets, taking into account both the demand and prices and information from the settlements about the quantities, which they have to send to the markets.

The enormous increase of production faced "Tnuva" with a problem of building and expanding dairies, erecting proper coldhouses for fruit, grading stations for eggs, stores for wholesale marketing of all products, and generally expanding the grading and packing facilities.

"Tnuva" dairies process and market pasteurised bottled milk, butter, cream, cultured milk products, and various kinds of soft cheeses. Its dairies are equipped with the most modern machines. "Tnuva" dairies receive over 80 per cent of the marketed milk in Israel.

"Tnuva" participates in many partnerships, which in one way or another are related to agricultural produce.

"Tnuva" supplies to its settlement members packing material for all agricultural produce.

SUBSIDIES AND PLANNING

A fund for minimum prices for vegetables was set up in Israel in the year 1954 by the farmers themselves. Later on Government started to participate in this Fund by permanently increasing it. The "Vegetable agreements", which are signed one a year and have as their task the planning of the growth of vegetables, stem from the above - mentioned Fund. Government entered into the planning affair in order to assure cheap vegetable supply and to prevent an increase of prices which affect the index of consumer prices and cause additional salary payments. The most important considerations was not to leave the matter of vegetable supply to the free play of the supply and demand forces.

The planning of vegetable growth was destined to assure a stable supply to prevent fluctuating prices and production thereby preventing gluts.

The means to carry out this policy were: acreage-quotas for vegetable growth and minimum prices for those vegetables which could not find a buyer in the market. These minimum prices are usually adequate to cover cost of production.

In essence, any planning creates distortions to a certain extent (the existing system narrows the relative advantages of the most efficient producer). The problem arising is that the advantages of planning overlap the distortions which the system brings about. Also, planning has to be considered in the context of uneconomic factors which could not be eliminated from the efficiency aspect.

The allocation of tracts of land for vegetable growth is carried out by a supervised machinery on behalf of a vegetable board. Without policing there is no use for planning since the farmer may plant 20 acres of tomatoes instead of five allotted acres in the planning frame. The guaranteed minimum price is a source of enticement for the farmer to break the limits of this quota. If the farmer is anticipating good vegetable prices (and farmers have developed this sense throughout the years), he would cultivate more lands than his quota legally permits. The economic risk is negligible because the minimum prices are ensured. To avoid such phenomena, the Vegetable Board maintains a system to control and as it happens supervisors do instruct the removal of "conspiracy tracts".

Planning according to tracts can not cause an optimum utilisation of production requisites. Several farmers are tempted to use heavy amounts of fertilisers and water, in spite of inflated expenses, having as their sold ensurance the minimum price guarantee as their goal instead of costs of production geared to this price.

Regarding the consumer, planning has not achieved its target. The result is that great fluctuations in vegetable price occur both between seasons and also within a single season.

Guaranteed minimum prices bring about another fact: the market prices are never below them. Who would sell for 20¢ a pound when the Board pays 30¢? Surpluses are dumped in spite of the outcry of the society and the minimum prices turn into maximum prices when the consumer cannot get any produce below these prices.

It is therefore, proposed to introduced a system of quantity planning instead of acreage. This system may avoid some failures, although this alternative may not prove ideal.

Regarding this proposal, minimum prices would be related to a quantity of vegetables which would meet the anticipated demand. Vegetables over this quantity should not be entitled to minimum prices, and would be sold according to the market price. The result would be that farmers would endeavour not to exceed the allotted quota and certainly not utilise input exceeding the optimum. Every farmer would exploit his plot corresponding to his relative advantages, and would decide if to grow the allotted quota on five or ten acres. On the other hand, in marketing, minimum prices would stop being floor prices from which they cannot drop lower, (unless growers or sellers cause an artificial shortage, a danger which also exists in acreage planning.)

There are prospects of minimised surpluses if the amounts enjoying minimum prices are limited, the growers would do their best not to produce over planned quantities. Therefore, there would be no need for control.- machinery and a saving in administrative expenditure would be quite possible.

The first step in this direction has already been done. Minimum prices were fixed in a range of declining prices to increasing quantities.

There may emerge some unpredicted difficulties, which may be overcome in the running - in stage of this new system.

Concerning planning family farms, small well-planned holdings are ranging in size from 7 acres for daily production, 10 acres for field crops and 20 acres for dry crops with intermediate farms ranging from 7 - 10 acres for diversified farm branches of citrus-poultry, poultry-dairy, and dairy citrus farm types.

AGRINDUS, INTEGRATION OF AGRICULTURE AND INDUSTRIES.

Halperin, Professor of Agricultural Economies at the University of Jerusalem, expresses his opinion on problems of Agriculture and rural areas are facing our era, of fast changing patterns. The name of his book "Agrindus" in which he airs his ideas, is derived from "agri" and "indus" from the two words, agriculture and industry. Agrindus tries to suggest an avenue to avert a danger with which mankind is confronted, when the rural way of life is engulfed by the raging wages of industry.

Agrindus means the coordination of Agriculture and industry into one adjusted system in which both sectors would live in a harmonious way one warp and weft with the other.

In our age, Agriculture has assumed vast proportions but the village is beginning to vanish from the face of the earth. The technological revolution, industrialisation and high levels of productivity are attracting more people away from the orbit of Agriculture and thereby from the rural community.

But why should we give up rural society entirely? Would the urban society be more upright? Are there not more neighbourly relations in a village, and more effective mutual aid, sympathy and concern among the inhabitants? Yet the village is shrinking steadily and the reasons are well known and hence there is no necessity to detail them.

Is there no way of halting this trend away from the land, by removing, or at least reducing, the causes? Is it in the interest of society, the state of the world at large that the village should disappear?

Agriculture can be combined with industry without undermining that age-old society asset - the village.

We can improve and even reform the village and bring it into line with changing conditions.

Why should the sons and daughters of the land be compelled to leave their homes, their parents and relatives, when looking for employment? Why not develop non-agricultural sources of employment and livelihood in the immediate neighbourhood, so that when they have finished their work, they can return home and pool their earnings with those brought in by other members of the family employed in farming. The industrial centre will be set within a cluster of villages and equipped with a cinema, a theatre, cafes, cars and garages. The flight from the village will be checked and the deep-rooted and closely-knit rural society, which, at the moment, has a more definite image than the amorphous urban conglomerate, will be preserved.

It is far more desirable to establish an industrial centre in a rural setting. Within a group of 25 villages, let us say, an industrial centre would be developed possessing all those attributes of a city which the villages find so attractive. Thereby the gap between the urban and the rural standard of living will be narrowed, Agriculture will be preserved, and rural society will continue to exist though it will assume different forms.

A recent development in Israel, which in its new cooperative economic form has just emerged from its infancy in

agricultural areas, can serve as a sound foundation for the growth of the agrindus idea. If it is allowed to develop on the right lines it may serve as a model for other countries, especially those of a preponderantly agrarian character, which are eager to develop their industry.

As far back as the nineteen twenties, villages in Israel embarked upon the integration of Agriculture, industry, building, public works and security within a single collective unit, the dimensions of which were comparatively modest. Collaboration between a larger number of villages can make possible the establishment and development of larger enterprises - for example not only factories, but technical, economic and cultural services, the operation of large machines, cold storage plants and slaughter and packing houses, which are beyond the capacity of any single village, whatever its size. In essence, the proposal is comprehensive regional cooperation which will allow the development of plants not much smaller than those in the cities.

Partnership between villages and private capital in the operation of factories and services can be formed in these centres.. There can also be enterprises that are privately owned, or indeed under any combination of ownership.

A start has already been made in Israel where favourable conditions have almost matured and which would also be found suitable for other countries, if not immediately, in the course of time.

What is the purpose and what are the main principles of agrindus?

1. The purpose of agrindus is to secure cooperation between the largest possible number of neighbouring villages for the maintenance of agricultural services, the processing, storage, grading, packing, transport, marketing and financing of farm produce, and the establishment of factories and workshops to meet agricultural and other requirements. This co-operation must be extended to include cultural and sporting facilities, educational and health institutions and the like. At the highest level, cooperation in farm production is, of course, also possible.
2. The main feature of the entire project is agrindus-town, its social character, its dimensions, the lines upon which it is developed.

The two main and fundamental principles of the agrindus are:

- (a) integration of Agriculture, services and industries;
- (b) cooperation between neighbouring villages within a region.

The transition from the existing forms of rural organisation to the agrindus forms, which appear revolutionary, is a long-term process. It seems, that in Israel there is fertile soil for this in innovation; that some of the pre-requisites already exist; but even in Israel a beginning should be made with only a few agrindi in the more suitable regions.

It would be worthwhile to mention that a rubber factory established in Utah (U.S.A.) had a far-reaching influence on its agricultural environment. The intention was to halt the desertion of the land by establishing an industrial enterprise in which some of the local rural population would be employed. In this we come closer to the evolution of a specific American type of agrindus.

It is catastrophic for Mankind that, for the time being, at least, nuclear physics, has taken a destructive turn. But nuclear physics, we still venture to hope, will help build a nuclear society.

Agrindus can serve as the nucleus of a better society. These are, in short, the main ideas of Prof. H. Halperin concerning the conception of agrindus.

THE MARKETING SYSTEM OF TRINIDAD AND TOBAGO

Some information on the existing system of marketing of agricultural produce in Trinidad and Tobago except the usual export commodities:

The main produce is disposed of at 4 urban and 13 rural markets.

Port of Spain may inaugurate this year a new modern wholesale and retail market which would certainly improve the marketing facilities in the capital. A new modern market is planned in Scarborough. The Economics and Marketing Division of the Ministry of Agriculture has been improving the facilities in these markets.

The markets are run and managed by City or County Councils respectively. The new market in Port of Spain would be run by a Central Marketing Agency - a statutory Body to be set up this year.

A Marketing Board came into being in the year 1949.. Its main task, in addition to dealing in the supply of some production requisites to farmers, is to buy from farmers all over the country those crops which enjoy a guaranteed minimum price. These crops are: 1) Bananas, 2) Pigeon peas, green and shelled, 3) Red Kidney beans, dry shelled, 4) Black-eye peas, shelled, 5) Corn, dry, shelled, 6) Yams - Lisbon, 7) Plantains, French and Horse, 8) Tannias, 9) Cush-Cush.

This year additional crops would enjoy guaranteed minimum prices, e.g. yams other types, sweet potatoes, onion, dried-bulbs, garlic, dried, peanuts and carrots.

Pigeon peas

A fair response, of increasing production, came from farmers concerning pigeon peas. The guaranteed minimum price of 10¢ per lb. started in the year 1963: the quantities purchased were as follows:-

1963	1,194,000 lbs.
1964	1,442,000 lbs.
1965	2,943,000 lbs.

Apparently, there would be a decrease in production in the 1966 season due to unfavourable climatic conditions. Pigeon peas are processed by International Foods. A mobile service system of buying is carrying out for the collection of the crop throughout the country.

Bananas

The production of bananas remains stable. The marketing Board purchased 7,755,000 lbs. in the year 1964 and 7,420,000 lbs. in 1965 a decrease of about 4 per cent.

For years this crop has been incurring losses to Government. There are all the prospects that the initiated scheme in 1965 of ripening bananas would expand in 1966 and cause a recovery of this industry. A mobile service system of buying is carrying out the collection of this crop throughout the country.

Corn

The guaranteed minimum price for corn in the year 1963 was 5¢ and the amount purchased by the Marketing Board was

41,800 lbs. The price being apparently unsatisfactory in the opinion of the farmers, caused a drop in purchases in the year 1964 to 15,700 lbs. On April the 1st 1965 Government raised the guaranteed price to 7¢ per lb. and the purchases this year reached the amount of 533,600 lbs. It is a positive response of the farmers, and the year 1966 may show a further increase in production of this crop.

Other crops of guaranteed minimum prices

There is no adequate data on the quantities purchased during the year 1965, therefore, no conclusions could be made regarding the response of farmers for an increased production.

The Existing Marketing Practices

1. Producers who sell directly to consumers.
2. Farmers who sell to wholesale or retail vendors.

Usually every farmer organises the packing and transportation of his produce to the market. He goes to town together with his goods, spends the night in the vicinity of the market and sells his produce early next morning. This may happen twice a week or more depending on the volume of the harvest. In the Rio Claro area it may happen that about fifteen farmers would load their produce on one truck and all of them would go to town for disposing of their agricultural products. By this system of wasting time and strength no wonder that the farmer cannot concentrate his full ability for the improvements of his farm.

Another phenomenon is the lack of machinery which would assist in the even distribution of produce over all the markets in the country. A better distribution system would tend to avoid gluts and low prices in one place and shortages and high prices at the same time in another place.

Animals for slaughtering are sold on the hoof without weighing and obviously the farmer does not get the real price for his livestock.

CENTRAL MARKETING AGENCY (C.M.A.)

This statutory body which should come into being later this year would have tasks at national economic levels. It would regulate the wholesale marketing throughout the country of locally produced food crops, vegetable, livestock, etc. It would deal with purchasing and selling, storage and processing. The Agency would also be engaged in the exportation

and importation of certain agricultural products. Tacitly, the C.M.A. will absorb the activities of the Marketing Board and take over its assets.

Since there would be heterogenous functions, the work would be divided into sections as follows:-

1. Supply
2. Banana
3. Vegetable and root crops
4. Poultry and eggs
5. Livestock

The affairs of the C.M.A. would be run along commercial lines, even though, the materialisation of some policies of government may incur losses. All these diverse functions should be reflected in a proper system of accountancy.

The system should be built in such a way that it would be easily possible to comply with monthly financial reports which would give a vertical analysis for each of the five proposed sections and a horizontal one (each depot separately).

1. When the machinery of the Agency is set-up fully, its constant composition should be a sub-committee for each section, when one supervisor should be responsible for all the activities of his section all over the country. He would carry out all the decisions of the sub-committee concerning the section. With an increase in functions, an assistant-supervisor whose station would be the San Fernando depot, would help him in running the affairs in the southern part of the country.

Although the supervisors' station and address would be in Port of Spain their duty should be on the alert to react whenever it becomes necessary for the well running of the sections.

The Supply Section

When a supervisor is appointed his central task would be to extend the supplies to the farmers geographically and make them as far as possible heterogeneous. Cooperation between this section and other produce sections in case of transportation is liable to gain a comparative advantage. Trucks may go loaded to and from Country district. It would be worthwhile to investigate with the help of one of the existing institution in the villages (Village Councils, Agricultural Credit Societies, Community Development Centres) as to how, what, and where the supply of production requirements could be expanded for the benefit of the farmers.

The Banana Section

The affairs of this section have already been discussed in the former chapter.

The Vegetable and Root Crops Section

After appointing a supervisor for this section his duties would be:

Locating places for buying sheds

To investigate and locate, in the northern part of the country by himself, and in the southern part with the help of his assistant, the village in which farmers produce their commodities that fall in the compass of his section and are available for sale equipped with this information the supervisor would recommend to the Committee the places where buying sheds should be placed.

Containers

To suggest the type and quantities of containers required for:

- (a) Vegetable and root crops
- (b) Pigeon peas
- (c) Poultry
- (d) Eggs

The Committee would order quantities of containers after getting proper offers.

The containers would be brought to the buying sheds from two central stores one store in Port of Spain which would serve the northern part of the Country and another in San Fernando which would serve the south.

Grading and Packaging

Farmers would bring their agricultural produce to the buying sheds in their own containers. There the goods would be graded and prepacked into the C.M.A. containers which will bear a trade-mark and a label given a full description of the product.

The method of standardised weighing should be introduced for all the products transported from the buying sheds to the various selling depots. This system would facilitate and streamline the handling of increasing quantities of agricultural produce in all the depots, and particularly in the Port of Spain market.

Running the buying sheds

Every buying shed would have one or more buyers, depending on the quantities that would pass through it. The buyers would be paid by commission per 100 lbs. goods bought graded, packed and transported. Clerks from the nearest M.B. depots would visit the buying sheds to effect the payment to the farmers for the purchased products. The most capable men of this staff would be responsible for running the buying shed.

Determining list-prices

In the first phase prices would be fixed once a week, with the intention to shift, as soon as possible, to daily prices. And this would be done by the supervisor who would consult the General Manager before publishing the list-price. There would be buying and selling prices which should vary every week depending on the specific conditions prevailing in the market relating to each commodity separately. There should be two qualities, A and B, in grading and pricing alike.

This system would apply to the protected subsidised crops also, with the exception that the buying price will never be below Government's guaranteed prices.

Proper distribution of agricultural produce over the country.

The supervisor would be in daily contact with buyers on the one hand and with the depot-Managers on the other hand. This would make him aware of the quantities available and needed. There could be any transportation of goods from the sheds to depots without his prior instructions. In his decisions, regarding distribution, he would be guided by the policy of paying attention to all the consumers in the country, and the keeping of a stable level of price in all the markets. Later on, if the business expands, a special officer could be responsible for the distribution.

Transport

The trucks owned by the Marketing Board now would be utilised for transportation of agricultural produce and commodities, but their number should be increased. Although data on cost of transportation per ton by the M.B. trucks, have not been available (and it should be changed) it would not be unrealistic to state that hired trucks would cost less. It would be desirable to sign yearly contracts with carriers and in this way to assure a constant price and make easier the costing problem. The price per ton paid to carriers

may include the transportation of empty containers from the depots to the sheds.

A brief investigation which has been done proved that the cost of transportation of 1 lb. feed from Port of Spain to Arima is at least 0.4 cents when the same by a hired truck is no more than 0.12 cents.

In the beginning when the quantities purchased in the buying sheds may be small, it would be reasonable to probe an avenue that the Field Officer (paying clerk) equipped with a tender would collect the agricultural produce after finishing his duty in the buying shed.

The Poultry and Eggs Section

In the beginning one section would deal with both these commodities, but this arrangement should be a temporary one. With the increase in the scope of marketing it should be divided into two separate sections.

Pigs and Cattle Section

Going through the data collected concerning locally produced pork and piglets we got the impression that the industry is in a state of stagnation. Therefore the conclusion may be that some sort of incentive must be undertaken if we want to approach and reach our goal as soon as possible.

1. A supervised Credit system, when the farmer, the Agricultural Credit Bank, and the Central Marketing Agency, and the three angles of the triangular.
2. This industry should enjoy the same privileges accorded the poultry industry in reducing input and capital cost.
3. The Central Marketing Agency after introducing successfully the new marketing system at Waller Field, would endeavour the same on other villages.
4. Since the scarcity of piglets is hampering the development of the industry, some measure must be taken for recovery.
 - (a) The most diligent Waller Field farmers should be encouraged to specialise in breeding and so increase the production of piglets.

(b) Government would proclaim guaranteed minimum prices for piglets sold by the Central Marketing Agency:

1. 25 dollars for piglets no more than 30 lbs.
2. 30 dollars for piglets over 30 lbs.

5. Government would grant a bi-annual subsidy from January 1st, 1966 to the Waller Field farmers and all other farmers who will enter the pig industry and properly register.
This subsidy would be in the form or:
 - (a) 1 - Dollar per pig for transportation from the gate of the farm to the abattoir.
 - (b) 1 - Dollar per pig to meet the overhead expenses of the Central Marketing Agency. Pigs Section which would deal with disposal. The farmer would enjoy only two years of specialisation - period on this subsidy.

Regarding this proposal it would be worthwhile mentioning that about 21,400 pigs were slaughtered during the year 1964.

Marketing Associations

The undersigned has made a start to establishing Marketing Associations all over the country, which would give social basis to the activities of the Central Marketing Agency, but it is too early to envisage the prospects for success in this trial.

The effort in this direction should be maintained as it is in full accordance with the Government Five Year Plans.

Selling Depots

In the first instance we shall utilise the nine existing M.B. depots. But we would have to look for better and larger places in the wake of an increasing stream of agricultural produce.

In Port of Spain there must be found temporary places, until the market is ready, for those sections which must be opened without further delay.

The M.B. or the Agency would probe the possibility of shifting some depots in the small places into commission agencies, if the inefficiency is to continue despite all efforts and trials.

Also the trend would be to open new marketing depots in existing or forthcoming centres, first of all, on a commission basis.

SUMMARY

Marketing is only one aspect of agricultural development. If we strive for improvements and increase of production there should be as complete an economic integration as possible among all the factors that are necessary to produce and bring the food to the consumer.

Land use planning, for example, involves legal, economic and financial problems which will have to be solved first before any land use plan can be implemented. Wasteful land holding may frustrate even the most carefully devised plan.

Some economists consider that the imposition of an effective tax on idle land would go a long way to put these lands into productive use, and tax on cultivated land which falls short of a certain standard of intensity may lead to more intensive utilisation of the land.

Re-allocation of peasants' holdings is another aspect of land use planning. It is easy to conclude that such a function would bear positive fruits in the form of efficiency and higher production.

The introduction of guaranteed minimum prices by Government is the right move to encourage increased production. However, the failures of the Israeli system of planning based on acreage basis, but which was later changed to the quantity system of planning as mentioned above, should be kept in mind.

Trying to introduce more advanced system of marketing in Trinidad we encountered two main obstacles:

1. The adherence of the farmer to outdated avenues of marketing and
2. The suspicions to any new modern systems, and hence lack of will for any cooperation.

The setting up of cooperative societies is a long trudging task. Therefore, the start should be along loose associations around a simple and practical common interest.

A new system of marketing would soon be introduced for the produce of Waller Field farmers. It resembles the systems prevailing in Israel. A success in this case may serve as a bridge-head for further expansion.

It should be an unbreakable law that the produce of farmers settled on Crown Lands should be disposed of by a modern system. Being successful here, farmers would be more willing to follow the new avenues.

Since youths are more receptive to new ideas than the older man, candidates for settling should be selected from younger people.

The cluster of candidates should be organised at least a year before settling, and a precise educational programme should be carried out.

Now a few words concerning the existing extension system. The Extension Officers are now spread over the country on a geographical basis and each of them has to be an expert in many agricultural branches at the same time. This system should be gradually changed (for financial and staffing reasons) into a vocational system. An expert in dairy farming should advise in a certain geographical area only in livestock and an expert in bananas should advise in bananas only. The prompt shift to this system is a matter of urgency.

The above mentioned outlines are influenced by the Israeli pattern, and it would not be too optimistic to hope for success if the ideas are put into reality.