



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

CUBA'S AGRARIAN REVOLUTION AND ECONOMIC DEVELOPMENT

Lic. Jose Acosta Santana*
(University of Havana, Cuba)

Introduction

A description and analysis of Cuban economic development after the beginning of the Revolution, (1st January 1959), as well as the difficulties and obstacles which confronted the development process in an underdeveloped country, can only be effected after a review of the historical conditions which show the strategy adopted by our country.

Cuba's Economic Structure at the Beginning of the Revolution

Cuba's economic structure at the beginning of 1959 was the direct result not only of centuries of colonial domination under the Spanish metropole but also of decades of neo-colonial domination by American imperialists. This domination brought about a profound distortion in the country's economy against which the Revolution has had and still has to put up a strong fight.

Following are some of the characteristics of the country's situation at the beginning of the Revolution in 1959.

1. *Cuba was a country with an agrarian economy with no economic or technical integration between its sectors.*

According to the *Truslow's mission*, about 1950 Cuba's industry barely produced 10 per cent of the Gross National Product (G.N.P.) (excluding the sugar industry). Moreover, not only was industry of relatively little importance in the GNP but the lack of a machine-tool industry and the extreme weakness of the country's raw material base is reflected in the fact that during 1963 and 1964, when the Revolution was in full swing, 51 per cent of total imports fell into the category of intermediate goods and 25 per cent into that of capital goods.¹

2. *The Cuban economy was backward and was characterised by the domination of 'latifundium' type of land exploitation.*

As a consequence of this the large majority of the peasants did not own the plots of land which they cultivated. Of 160,000 farmers, only 58,000 fell into the category of landowners, the others being tenants, subtenants "colonos", share croppers, squatters, etc.

Distribution of land ownership in pre-revolutionary Cuba can be seen in Table 1. This distribution of land between *latifundium* and big land owners, on the other hand, was not only reflected in the brutal conditions of exploitation of the latter by the former but also in the fact that the form of *latifundium* ownership increasingly engrossed the country's cultivable areas, making agricultural activities increasingly inefficient and irrational.

Thus, while in 1945 there were 4,423 farms of more than 400 hectares covering 58.89 per cent of the total area in farms, in 1959 this number had fallen to 3,597 but they controlled 73.7 per cent of the total

* Translated by Cherita Girvan.

¹ Review of the Cuban Economy and the Prospective Development of the Industrial Sector.

area, while the number of small farms (both owners and non-owners) had increased to 140,000.

In 1958 the sugar companies owned 2,670,960 hectares of land or 27 per cent of the country's total farm land. Of this, 2,050,200 hectares (83 per cent) were controlled by 28 companies, who, therefore, controlled 22.7 per cent of the farm land.

The degree of exploitation, previously indicated was, perhaps, greatest in the cattle-rearing *latifundia*. Forty large cattle-rearing *latifundia* owned 25 per cent of the total grazing areas, that is 990,260 hectares of land or 10.9 per cent of the country's farm lands. In short 34 per cent of the country's cultivable lands was controlled by 68 companies, while 86.4 per cent of all farms held only 19.9 per cent of the total area.

3. *Another important feature of Cuban agriculture was the degree of monopolization which went much deeper than the 'latifundium' type of land ownership.*

The difference between the price paid to the small farmer and that paid by the public generated a profit which was appropriated by the middleman and which fluctuated between 500 and 3,100 per cent of what was paid to the peasant. If we add the rents paid to landowners to this parasitical type of exploitation on the part of the middleman, we can see clearly the situation of the peasant class in the years preceding the Revolution. A good example of the results of the exorbitant rents paid, is the great instability of the peasant mass.

Twenty-seven per cent of non-land owning peasants in cultivated areas spent less than 5 years in any settlement area, while a further 21 per cent spent from 5-9 years.

4. *The Cuban economy was characterized by the large percentage of landless agricultural labourers in the agricultural work force and at the same time by structural incapacity of the economy to guarantee gainful employment to the large masses of the population. These labourers exceeded the number of peasants and numbered around 500,000.*

This is by no means an accident, bearing in mind the importance of the *latifundia*, and the extensive nature of agricultural production in the predominantly sugar economy.

Of 477,383 agricultural labourers registered in 1946, only 11.2 per cent were permanent workers. The rest worked 123 days per annum on the average, mainly in the sugarcane harvest. The level of unemployment at that time is reflected in Table 2.

In the report which accompanied Table 2 on unemployment in Cuba it was said, in fact that "within the group of employed people a large percentage received less than US\$75 monthly for their work."

Items (b), (c) (d) and (e) in Table 2 give us a total of 34.8 per cent of the total labour force of the country under very difficult conditions for the attainment of a bare subsistence. To this we should add the mass of exploited peasants to get an idea of the large masses of people who went on strike and fought for a radical change in the existing social structure.

5. *Cuba's economy was an open economy which depended on external trade for its supplies (including agricultural supplies).*

The preceding characteristic is well known, for example, in 1957 total imports rose to almost US\$800 million compared to the GNP of US\$2,700 million to US\$2,800 million.

We have indicated previously, the lack of raw material base in the country and the effect that this has had on the importation of intermediate goods. Moreover, Cuba, an agricultural country with relatively good climatic conditions, lands, etc., was importing by 1956, an annual average of \$190 million worth of foods

and agricultural raw materials producable at home. Over the period 1948-1956 agricultural imports into Cuba totalled \$1,800 million which is most significant in an economy with chronic deficit units balance of payments.

6. *The Cuban economy was a monocrop export economy dependent on an unstable crop - sugar.*

Sugar production accounted for some 25 to 30 per cent of the GNP, and 80 per cent of the country's exports. Apart from the production of sugar, Cuba only exported tobacco, minerals and certain kinds of vegetables and fruits in small quantities.

7. *The major sectors of the Cuban economy were in the control of North American monopolists.*

Because of this control of the Cuban economy by foreign interests, it was said that Cuba was a neo-colony of the United States rather than an independent state.

North American Monopolies owned all gas, electricity, telephone services and 50 per cent of rail transport. In the sugar industry they owned 36 of the 161 sugar mills and in 1959 produced 41.64 per cent of the country's sugar production. Thirty-one of these American sugar farms were owned by 9 firms which thus owned 46 per cent of all cane growing areas. The Cuban land monopoly owned extensive tobacco plantations especially in the province of Pinar del Rio; cement production was controlled by the Cuban Cement Co. Portland S.A., a subsidiary of the Lone Star Cement Co.. Petroleum refining was in the hands of Standard Oil, Texaco and Shell (the latter belonging to European capitalists); the textile industry was controlled by Abbott, Park. Davis and Squibb monopolies. The manufacture of soaps, detergents and toilet articles was monopolized by Crusellas and Co. and Sabates S.A.; firms which had come under American control after 1929 and 1931 respectively.

The foodstuffs industry was under the influence of Burrus Flour Mills which produced 40 per cent of the wheat flour consumed in Cuba. In addition the Ward Co. and Pan American Standard Brands Inc. had installed several yeast factories; carbonated beverages were controlled by the Coca Cola, Canada Dry, Orange Crush and Royal Crown Firms; the automotive market was under the control of General Motors, Ford and Chrysler; the electrical appliances market was under the control of Westinghouse, General Electric and Philco; the network of commercial establishments of Woolworth and Sears Roebuck had put an appearance in the biggest towns in the country.

The banking system just like industry and export agriculture was deeply penetrated and largely controlled by North American capital. Thus, while 35 Cuban banks in 1957 had assets approaching US\$771 million, 7 North American banks had in their hands, assets valued at US\$401 million.

This control of American monopolies over our economy was a result of neo-colonial political control, which began with the North American intervention in the war of independence (1895-1898), the imposition of the Platt Amendment and the establishment of the Reciprocal Trade Treaty in 1902, which was complemented by a similar Treaty in 1934. These Treaties gave to Cuba certain tax privileges for exportation of sugar to the United States. Cuba, in turn, practically eliminated custom's duties on all North American products. Thus, the single-crop structure of the economy was definitely consolidated.

The control of North American capital over the Cuban economy guaranteed for North America a stable and very large source for obtaining huge profits which were not normally reinvested but rather flowed back into the country of their origin. The differences between the capital invested and the profits obtained in North American-owned sugar companies are an example of the degree of exploitation to which the Cuban economy was subjected. It can be seen in Table 3. The flow of profits obtained by North American firms established in Cuba which went to the country of their origin is seen also in Cuba's balance or international payments.(See Table 4.) This outflow of capital was many times bigger than new investment and reinvestment of North American capital in the country.

The Victory of the Revolution and the Agrarian Laws

The Sierra Maestra Agrarian Reform Law (October 1958)

The 10th of October 1958, five years after the attack on the Moncada barracks, law number 3 was proclaimed, while the Revolution was at its height. The revolutionary thought which had its first clear expression in the defense speech of Fidel Castro at the trial of the survivors of that historical episode, reemerged in this revolutionary law. The distribution of land was carried out by means of a census in which the amount of land necessary for the maintenance of a family with two, three or more children was calculated, thus establishing the right of all landless peasants or peasant with small plots of land to receive up to 67 hectares of land as long as they were working the land at the time of the proclamation of the law, and as long as they were tenants, share-croppers, squatters, etc..

Of that land they would receive up to 26.8 hectares *pro gratis*, with the option of purchasing a further 80 hectares. Simultaneously, the law guaranteed technical assistance from the State for the purpose of preventing, especially in the initial stages, the new owners from being bound through loans to their old exploiters, the owners of the *latifundia*. The proclamation of the Sierra Maestra Law Number 3 had its immediate political effects. Consequently, the peasants relied with the greatest confidence on the fact that their interests would not be forgotten, once Batista's government was overthrown.

The La Plata Agrarian Reform Law

On the 17th of May 1959 the first agrarian reform law of the Revolution in power was proclaimed. This law marked the beginning of the process of structural transformation of ownership in Cuba. The big land owner received a crushing blow and the social character of the Revolution began to be seen in effective measures. Only the triumphant revolution of 1st of January 1959 had sufficient political courage to confront the big Cuban and North American *latifundia*-owners. By this action was demonstrated that within the narrow framework of the *bourgeois* power measures with democratic content were excluded. Thus, the maximum amount of land which any person in private or official capacity could legally possess was reduced to 402.6 hectares.

In order to establish a practical norm for fixing the limits within which the peasant workers would be included, the limit of 67 hectares was adopted, bearing in mind backward agro-technology, the lack of mechanization, etc. even at the risk of the fact that among the great mass of small and middle peasants enclosed within that limit some truly wealthy peasant might exist.

The following effects of this law were noticeable.

In the first place, the entire system of exploitation of the peasant masses by the landowners broke down. The law reinforced the provisions of the Sierra Maestra law with respect to the provisions of minimum (and maximum acreages for non-land owning peasants).

Secondly, the law extended its effects to agricultural labourers particularly in extensive enterprises like sugar growing and cattle-rearing by preventing the division of these large holdings but maintaining them as cooperative farms.

Thirdly, those producing units whose levels of productivity and utilization of resources were exceptionally high and operated bigger tracts of land than the maximum size established by the law, (402 hectares) were exempted from the process of expropriation as long as they came to observe the law with regard to the wages of their workers, income tax etc.

Fourthly, in the case of tenants, etc.. who were living on or cultivating lands with areas bigger than 67 hectares but smaller than 402.6 hectares, were allowed to buy the land under a system of compulsory sales enabling present holders to buy the plots they occupied.

Fifthly, a state organization (National Institute of Agrarian Reform) was set up, which was to be in charge of carrying out the law, with regard to distribution of land among small farmers, as well as to the organisation of cooperatives.

These profound changes brought about by the law in a few years caused a total transformation of the social structure of Cuba's rural areas. The intense revolutionary purpose of the law is seen in Table 6.

The sector of wealthy peasants, ex big land owner, etc. however retained a relatively high degree of power as some two million hectares remained in their hands. The wide span of inequality in land tenancy was reduced to a considerable extent. The number of farms up to 67 hectares increased noticeably, while farms bigger than 67 hectares were still 11.7 per cent of the total area.

The most important results of the first agrarian reform law were the rapid reduction of unemployment in rural areas and the increase in cultivated areas, agricultural and cattle production.

Second Agrarian Reform Law (3rd October, 1963)

When the process of land distribution ended, in accordance with the law of May 1959, there were some 10,000 *bourgeois* farmers remaining in rural Cuba. The affiliation of the Cuban *bourgeoisie* with the hierarchy of imperialism forced the government to take immediate drastic measures.

Although the existence of a sector of *bourgeoisie* land owners is incompatible with the development of socialist revolution, the counter-revolutionary attitude which they assumed forced the country to go quickly along the path of expropriation. This new law, the last agrarian reform law which the Revolution was to pass, reduced the maximum amount of land in private hands to only 67 hectares. Consequently, about 2 million hectares of land came under the hands of the State. The Revolutionary State came to control 76 per cent of the country's land, 24 per cent remaining in the hands of small farmers. Thus the Revolutionary Agrarian Reform Law accomplished the following:-

1. *To hand over the land to peasant workers occupying plots which they did not own.*
2. *To use the 'latifundia' for the organisation of large state farms.*
3. *To guarantee the possibility of small farmers forming production cooperatives.*

As a general result of this process, the fundamental responsibility in the development of crop and cattle production came into the hands of the State. The State had to carry out the development in close cooperation with small farmers who were considered allies in the revolutionary process of constructing the new society.

Evolution of Agricultural Credit after the First Agrarian Reform Law

Agricultural credit became available to the private peasant sector after the proclamation of the first agrarian reform law. Any transformation of the pre-existing agricultural structures necessarily implies, not merely the distribution of land among small farmers and the expropriation of the land of the *latifundia*, but also the creation of suitable mechanisms which could guarantee the impossibility of returning to the previously existing state. The agrarian reform laws in Cuba abolished the possibility of further concentration of land in private hand, as well as the resurgence of forms of exploitation such as share-cropping, tenancy, etc. since the law demands that lands which were received in the process of agrarian reform could not be transmitted by any title other than one of heredity, sale to the State, or exchange authorized by the authorities responsible for the application of the law.

This legal abolition needed an economic counterpart which would prevent all possibilities of retrogression and which provide for the small farmer, the resources necessary for efficient operation. Thus, agricultural credit underwent a qualitative change in distribution as well as in terms of the amount of

resources used for this purpose.

Up to 31st of May 1963 - after two years of operation - the then Department of Credit of National Association of Small Farmers (ANAP) granted credit to the value of US\$136,400,000 for production and more than \$44 million for development. These were six times greater than the amounts granted in the pre-revolutionary period.

The development of credit system demanded a substantial increase in the number of agencies and offices allocated to this activity. Thus, in contrast to the 13 credit offices which existed in 1958, there were 83 agencies in 1966. The development of loans continued to grow in successive years. The balance of credit granted in 1963, 1964 and 1965 shows 298 millions in loans and 293 millions in returns or borrowed money. In 1965 more than 85 per cent of the credit granted came under the heading of production and the rest under development. According to the estimates total credit to small farmers in 1965 was about 30 per cent of the value of the private sector's production. The change in social direction of the credit policies can be judged not only by the growing amount of credit, but also by the systematic reduction of interest on loans.

Credit associations in the capitalist era only granted loans up to 60 per cent of the value of the harvest, and to 80 per cent of the value of the property at interest rates of 6 per cent and 8 per cent respectively. Since 1959 a fixed interest rate was established at 4 per cent per annum in the case of loans of less than \$5,000 and at 6 per cent in the case of larger loans bigger than that amount. After the terrible catastrophe of the hurricane Flora which lashed the eastern provinces of the country, outstanding debts to the sum of \$12 million were cancelled, and similar actions were taken when other natural disasters took place.

At the beginning of 1967 almost all taxes which small farmers paid on their production were abolished, the only exception being tax on cut cane and this was abolished on 17th of July 1967. Another important step was the abolition of all kinds of interest on loans granted by the State to the small farmers.

Agricultural Organisations in the Peasant Sector

With the liquidation of the large landownership a result of the Agrarian Reform Law of May 1959 and the expropriation of the property of the large land holding class by the Law of October 1963, the small farms' sector became the basis of the development of national food and cattle-rearing production.

Different forms of organisation were established in ANAP which, though sharing in general principles, have specific differences. These organisations have been changing in content as well as in their internal operational mechanisms with the social and economic transformation in the country.

The principal similarities are, firstly, a desire to avoid very large size by not taking in too large a territory or having too many members in order to guarantee the best political attention for their members. Secondly, the members of the managing council are elected by a general assembly of all the members. Thirdly, all state organisations are supported in order to carry out the activities or functions which relate to the peasants (education campaigns, public health campaigns etc.).

From the point of view of production, the most relevant common characteristics are:-

- (a) The granting of credit by National Bank is carried out through these agencies.
- (b) The organisations participate together with state organisations in the determination of the plan of production and for ensuring the fulfilment of the goals set by the peasants in discussion.
- (c) ANAP similarly watches over the execution of the plans of the Acopio¹ agency at different levels of activities.

¹ "Acopio" is the agency through which the peasants sell their produce to the State.

The kinds of constituent organisations of ANAP are:

- (a) Peasants' associations;
- (b) Cooperatives for credits and services; and,
- (c) Agricultural and cattle-rearing societies.

Peasants' Associations

Peasants' associations are a sort of neighbourhood committee which have their origins in the struggle against eviction and for better working and living conditions which the peasants demanded during the regime of capitalism. There are, in fact, a voluntary union of small farmers whose fundamental purpose is political apart from being a first attempt on the part of the farmer towards more socially advanced forms of ownership.

In the peasant association the farmers do not give up their rights as owners as they can leave the association when they wish without losing any right to their lands or other means of production, given that these are their individual property. Nevertheless, there are cases where these associations, in order to encourage efficient achievement of their production tasks, sometimes obtain equipment such as tractors which their members could not individually obtain because of the large expenditures involved for purchase. Under these conditions the equipment becomes the property of the association and not of any particular person. The first elements of collective ownership are therefore seen in the very heart of this organisation. Moreover other forms of cooperation developed such as the Mutual Aid Brigades whose objective is to lend assistance in the tasks of the association's members such as harvesting etc. and also to participate in work being carried on in other areas, including state farms during the sugar harvest. Table 7 shows the number of mutual aid brigades in several provinces in Cuba.

Cooperatives for Credits and Services

When the agrarian reform law was proclaimed it became necessary to utilise the sheds where tobacco was cured, giving collective services to the old sharecroppers who had just turned land owners. It was for that reason that cooperatives of credits and services were formed in which together with individual ownership of farms by farmers, collective ownership emerged. Tobacco curing sheds, machinery which belonged to the old owner and other goods of common use became available to the farmers.

The cooperatives of credits and services were established on a strictly voluntary basis and unlike the peasant associations, the bonds of the cooperatives give certain sense of obligation to its members.

The fundamental purpose of this cooperative is the acquisition of loans as well as obtaining contracts for different productive services for which the cooperative assumes a legal responsibility. Simultaneously, the cooperative establishes its productive plans, as a part of the conditions for obtaining loans and services which thus become a contract obligation for the State. The peasants can choose to integrate a part of their means of production including the land into the cooperative. He may withhold some of his resources as security in event of his withdrawal from the cooperative. Only those goods integrated for common use for which they are paid according to their value are affected.

The possibilities of this kind of cooperative applying for, and receiving technical assistance, guarantee greater availability of productive resources which in the framework of strict individual ownership are not within the reach of the small farmers.

Agricultural and Cattle-rearing Societies

Agricultural and cattle-rearing societies are formed on the basis of family groups which have decided voluntarily to combine their land, equipment, and draught animals, etc. transforming their small individual holdings into one collective property. In this way the work is carried out according to standards which they themselves have established, and incomes are distributed proportionally to the work carried out by each

member of the group. All the means of production, once the association has been set up, become the property of the collective and the members of the group abandon their rights as private owners.

When this sort of cooperative was being formed all the goods which each member handed over were valued, so that the society could affect the gradual amortization of these goods. The society's net income is distributed according to rules set up by the society, in the following way: up to 30 per cent of the payment of annual amortization of goods handed over; 50 per cent amongst members in proportion to the work done; 10 per cent as a reserve fund for investment in the cooperative and the remaining 10 per cent for the creation of social funds for taking care of emergencies.

If any member wishes to leave the society he does not have the right to take with him any of the goods he handed over, but the society pays him for the value of the goods.

One of the characteristics of this organisation is that production is totally planned in accordance with State plans and contracts are made annually with regard to sales to the State and the quantity allocated for members' consumption.

The general evolution of these organisations in the private sector can be seen in Table 8.

Developments After 1968

After 1968, the necessity for evolving new forms of relationships between the State owned and the privately owned agricultural sectors became evident, following the development of the agricultural sector and the massive increases in public investment in the sector.

Changes followed on detailed investigation of the conditions needed for the accelerated development of the agricultural sector. After studies of the soil and region peculiarities were carried out by the Institute of Physical Planning, the Government determined the areas which were adequate for the intensive development of several crops, such as rice, citrus, sugarcane, etc. Along with that, they carried out studies with a view to achieving the greatest degree of self-sufficiency possible in the provinces. These elements implied a serious redistribution of the areas allocated to cultivation and cattle-rearing production in the country.

The inherited structures of production were totally unsuited to the achievement of these objectives. For example, the majority of such crops as bananas, cassava, etc. and grains, which were consumed in the city of Havana, were brought from the eastern provinces of the country, particularly from Oriente. Nevertheless, the studies carried out made it possible to determine that large areas of the province of Havana were perfectly suitable for these crops but were being utilised. It became evident that proper zoning and the rationalisation of the sugar industry would generate significant savings in transport and storage etc., even if substantial initial investments were required. It was estimated that not only would the savings in transport and storage etc. quickly cover the cost of the new investment, but also the reorganisation of the agricultural sector would have permanent positive effects on the national economy.

In addition to the above-mentioned brigades, there are others which are organized with the participation of the female members of the peasant associations and the militants of the Cuban Women's Federation (FMC). These brigades seek to incorporate women into productive activity (see Table 10).

The new forms developed to achieve greater economic and social integration in the society, corresponded to a certain conception about the role of the peasants in a socialist economy, signifying a major step in the development of the agrarian revolution.

In the last resolution of the Production Commission of the Fourth Congress of ANAP which took place in December 1971 it is said: "Trapped within the social and material confines of this little piece of land, by the historical imperatives of our colonial dependence and the recent *latifundia* in the pre-revolutionary period, the peasant lived isolated and excluded within his own country. Isolation and

desperation, logical consequences of that situation, must be eradicated in a process of progressive evolution in which the peasant consciously participates. Agricultural individualism which identifies the old system is incompatible with the present and future needs of agricultural and cattle production. The social development of the Revolution in accordance with the opinion of the peasants, ratified their willingness to participate in an increasingly more organised way in the process of economic and social development of the country, to the extent that they are integrated into agricultural and cattle-rearing plans, since they recognised that the development of agriculture is possible only through those plans where greater use can be made of technology, labour force, and material resources in general."

The new relationships did not erode the organisational forms previously analysed, but provided further integration of the peasant sector by providing the following:

- (a) *Specialised plans* - that is, those made by peasants incorporated along with state units under specialised territorial development. Supplies of technology and materials are obtained through the plan; production is planned and directed by the State, each producer receiving an income according to what he sells to the State.
- (b) *Directed plans* - which are variations of the specialised plan where the peasants, traditionally engaged in certain kinds of production (tobacco, coffee, etc.), are organised in one single production plan, under state direction.
- (c) *Integral plans* - where the land and the producers themselves are integrated into state plans for development, each one receiving an income benefitting his new condition as a worker in the plan and according to the goods that he had contributed.

Finally, an important section of the peasantry continued in their old relationship with the State, through the organisation of selling their output to the State.

The distribution of the peasants in the different types of plans, in October 1971 is shown in Table 11. The small farmer holds approximately 32 per cent of the country's lands and that 25 per cent of them, holding 24 per cent of sector's land, are incorporated into specialised and integral plans.

Development of National Agricultural and Cattle Production

Development of the national agricultural and cattle production in the revolutionary period can be evaluated from Table 12.

In the table we see that the sugarcane production is almost doubled (186 per cent) between 1962 and 1970 showing a 55 per cent increase over the period 1968/69 to 1969/70. On the whole, agriculture (sugar and non sugar) grew from \$555 million in 1962 to \$745 million in 1970. Its growth from 1968/69 to 1969/70 was more than 25 per cent.

Fishing has been one of the most highly developed branches of agriculture. The catch has grown from 21.9 thousand tons in 1958 to 80 thousand tons in 1969.

Taking the whole agricultural and cattle production we can see an increase from \$893.6 million to \$1,181.6 million between 1962 and 1970, a growth of 32 per cent over the period. Between 1968/69 and 1969/70 there was a considerable increase in sugar production but a decrease in other sectors important to local consumption such as tubers and roots, vegetables, and in export products such as tobacco. Such decreases in some items and the interruption of the growth rate in the nation's cattle are a reflection of the problems posed by the Prime Minister of Cuba on 26th of July, 1970. One of the causes of these decreases lay in the impossibility of solving the complex problem of total mechanisation of the cutting of cane. This fact, is associated not only with complicated problems of industrial construction and technology but has aspects which are derived from sugar agrotechnology, brought about the participation in different periods of 1,200,000 workers from other sectors. At the height of the sugar harvest, the figure reached more than 500,000 men daily.

This great effort to harvest the sugar crop led to less attention being paid to other crops such as roots and tubers and to the incomplete harvesting of these crops.

The Revolution has adopted measures for the purpose of guaranteeing not only a boom in organisational work which was affected by the conditions mentioned, but also to secure the means of the active participation of the masses, the reinforcement of revolutionary work. The process of increasing the participation of the masses has already demonstrated its advantages in terms of funding the potential reserves which exist in the heart of the people and which, once they are picked out, will be able to cooperate in the liquidation of the temporary obstacles which confront the Cuban revolutionary process in the economic field.

On the basis of the planning experiences accumulated over these years, and with the existence of a revolutionary social structure and the resources of infrastructure, etc. which are available and will be available in the more immediate future, the economic organisations of the Revolution have prepared a development programme up to 1976 for the agricultural and cattle sectors. In spite of the fact that there are certain uncertainties due to the openness of the economy and its reactions to random variations in external markets as well as unforeseen natural disaster, these programmes can facilitate or make more difficult the attainment of these goals.

In global terms the growth of agricultural and cattle output has been projected at 33-40 per cent for the 5-year period 1972-76 and will reach between 1.33 and 1.40 times, with an annual average rate of 6-7 per cent. This growth is based, in the first place, on a projection from 1966-1970 which shows an annual average growth rate of 7 per cent. In the second place, the development of the infrastructure and technology guarantee the attainment of these indices.

In 1970 the capacity of totally finished dams was 2,180.7 million cubic meters of water, while in 1958 was only 30 million. The actual area under irrigation is approximately 600,000 hectares, a figure which will increase rapidly to the extent that the fundamental effort which in recent years has put into the construction of dams is channelled into the massive construction of irrigation systems.

The number of kilometers of highways built was grown from 5,953.3 in 1959 to 8,137.6 in 1970 (an increase of 2,204.3 kilometers) and the kilometers of roads have grown from 4,174.6 in 1959 to 10,407.9 in 1970 (an increase of 6,233.3 kilometers). In order to guarantee the transportation of cane to the mills, between 1963 and 1969, 145,594 kilometers of cane roads have been constructed.

In the cattle-rearing in 1971 there were more than 780,000 heifers of grade F-1 to F-5 in the state sector, the result of crossing Brahman cows with dairy bulls chiefly Holstein and to a lesser extent, Brown Swiss. This great work is bringing about a radical transformation of the mass of Cuban cattle. The number of heifers which are guaranteed attention under the artificial insemination plan at 10 centres with more than 4,500 adequately qualified officers carrying out the insemination, grew to more than one million head after 1967.

In addition, the national inventory of tractors is more than 50,000 units, which together with the possibilities of further importation in the future, provide a technical base for the conduct of development projects.

The consumption of fertilisers which had been on the increase in recent years is part of the base for the growth of agricultural output. This consumption of fertilizer was valued at US\$39.5 million in 1966, at US\$62.2 million in 1967, at US\$69.8 million in 1968, at US\$68.9 million in 1969 and at US\$53.4 million in 1970. The levels of national production and imports of fertiliser guarantee a high degree of fertilisation for agricultural production. It is only in this context that we can evaluate the seasonal difficulties produced by the severe drought which befell the country after 1969. In this period Cuba suffered one of the most prolonged droughts of this century which began during the dry season of 1969 to 1970 (November to

April) when precipitation was 20 - below the average level for that period. In the rainy season of 1970 (May to October) it was 32 per cent below the level of the preceding years. This was again critical in the 1970-71 dry season, when precipitation was 54 per cent less than the average level, and was prolonged during the months of May, June, July and August, 1971, that is the rainy season when the rainfall was 48, 28, 26, and 90 per cent respectively, below the average level for each of the month. The bad effects on cane and other crops are therefore evident. At present, there have been signs of an end to the drought. Even the usual rainfall in these early months have had further negative effects on the sugar content of the canes in this present harvest.

In spite of these difficulties which technology and man are not yet able to control, the conditions and elements which we have presented allow us to foresee that under relatively normal circumstances the goals put forward correspond to purposes objectively and subjectively guaranteed. Thus the perspectives of Cuban agriculture for the present quinquennium is quantitatively similar to and with the annual growth rate projected, from the achievements made in the 1966-70 quinquennium. But qualitatively it is definitely superior.

The increase of economic efficiency, the rise in productivity and the improvement of the organisational structure and of the methods of control will permit the creation of all conditions, together with a much more developed material basis than in the preceding quinquennium for the achievements of the proposed plans.

As has been demonstrated, agrarian transformation and agrarian reforms in Cuba created an optimum social and economic basis for breaking with the old structure which chained the country to underdevelopment and yanqui neo-colonialism.

TABLE 1. LAND DISTRIBUTION IN CUBA BEFORE 1959

Size of Farms (hectares)	Owners	Non-owners	Non-owners as % of Total Farms	Total
1 - 25	34,673	76,805	68.8	112,278
25 - 75	14,031	18,027	52.2	32,058
75 - 500	5,924	6,362	44.5	14,286
500+	1,506	830	35.5	2,336
Total	58,134	102,024		160,958
% of Total Farms	36	64		100
% of Total Area	56	44		100

TABLE 2. EMPLOYMENT AND UNEMPLOYMENT IN CUBA, MAY 1956-APRIL 1957

	Number (^{'000})	Percentage
a. Employed people	1,439	65.2
b. Partially employed ¹	223	10.0
c. Employed without remuneration	154	7.0
d. Unemployed	361	16.4
e. Others ²	27	1.3
Total	2,204	100.0

Notes: ¹ Working less than 40 hours per week.

² With job, but not working at the time.

Source: Consejo Nacional de Economia. *Symposium de Recursos Naturales de Cuba*. Feb. 1958.

TABLE 3. CAPITAL AND NET PROFITS OF SOME NORTH AMERICAN-OWNED SUGAR COMPANIES

Companies	Period	Invested Capital (US\$m.)	Net Profits
Cuban Atlantic Sugar Co.	1935-57	10.0	78.5
Central Violeta Sugar Co.	1935-57	2.7	12.5
American Sugar Refining Co.	1935-57	15.0	50.0
Manati Sugar Co.	1938-57	0.4	10.8
Cuban American Sugar Co.	1935-57	8.2	52.6
Francisco Sugar Co.	1937-57	5.8	13.1
Guantanamo Sugar Co.	1937-57	0.4	9.5
Vertientes Camaguey Co.	1938-57	9.4	33.5

Source: Jacinto Torras, *Periodico HOY*. Oct. 1959.

TABLE 4. BALANCE OF PAYMENT DATA: CUBA, 1946-1955

Year	Capital Outflows (\$m.)
1946	66.5
1947	100.0
1948	87.2
1949	59.6
1950	66.5
1951	70.8
1952	56.6
1953	33.7
1954	38.0
1955	50.9
Total	629.8

Source: Banco Nacional de Cuba.

TABLE 5. SITUATION OF LAND TENANCY AT THE BEGINNING OF 1959 (in accordance with the legal declaration of owners in the process of the first agrarian reform)

	1 - 67 ha.	67 - 402.6 ha.	402.6+ ha.	Total
Extension	628,673	1,641,440	6,252,163	8,522,276
(%)	7.4	19.3	73.3	100.0
Farms	28,375	9,752	3,602	41,792
(%)	68.3	23.2	8.5	100.0
Owners	20,229	7,485	2,873	30,587
(%)	66.1	24.5	9.4	100.0

Source: Departments Legal del INRA, 1959.

TABLE 6. SITUATION OF LAND TENANCY AFTER THE FIRST AGRARIAN REFORM

Size of Farms (hectares)	Number of Farms (no.)	Area (hectares)
1 - 67	154,703	2,362,113.9
67 - 133.9	6,062	611,145.0
134 - 267.9	3,105	613,939.5
268 - 402.5	1,456	510,435
402.6+	592	379,701
Total	165,918	4,477,334.4

Source: Cense ganadero 1961. Cuba Socialista No.21, 1963.

TABLE 7. MUTUAL AID BRIGADE (not including Cane Brigades)

Province	Members of ANAP	Brigades	No. of Members	Crops
Pinar del Rio	28,201	343	2,549	Tobacco, Coffee
Pinar del Rio ¹		109	834	Crops
Havana	15,251	583	9,665	Others
Matanzas	12,774	360	5,661	Others
Las Villas	56,346	317	2,824	Tobacco
Las Villas ¹		94	897	Coffee
Camaguey	22,948	926	6,496	Others
Oriente	76,904	3,794	35,549	Others
Oriente ¹		7,226	81,017	Coffee

Note: ¹ These brigades are considered mixed because they consist of peasants from the area as well as labourers, women, relatives etc.

Source: *ANAP Report*, Oct. 1969.

TABLE 8. FARM ASSOCIATIONS IN CUBAN AGRICULTURE, 1961-67

		1961	1963	1965	1967	1967 (Dec.)
Peasant Association	Number	1,500	2,611	2,467	2,590	2,849
	Farmers	-	-	121,833	140,000	137,154
	Lands Caballeria* (cab)	-	-	181,077	-	129,798
Credit & Service Cooperatives	Number	300	587	884	1,119	1,301
	Farmers	-	-	55,069	77,933	79,067
	Lands (cab)*	-	-	37,019	51,920	57,429
Agricultural Societies	Number	-	345	270	136	126
	Farmers -	-	-	3,200	1,707	1,511
	Lands (cab)*	-	-	2,995	1,530	1,458

Note: * A Caballeria is equal to 13.4 hectares.

Source: *ANAP Report*, Dec. 1967. The extent to which this movement has penetrated the peasantry is seen in the total figure for Dec. 1967.

TABLE 9.

Numbers of organisations	4,276
Number of members	217,732
Number of caballerias (13.4 hectares each)	188,686
Peasants (not members)	15,947
Extension of non-members' lands (in caballerias)	8,437

Source: *ANAP Report*, Dec. 1967.

TABLE 10. BRIGADES COMPRISING FMC-ANAP

Provinces	Brigades	Members
Pinar del Rio	555	5997
Habana	407	4571
Matanzas	133	1128
Las Villas	526	4713
Camaguey	342	2920
Oriente	1526	12875

Source: *ANAP Report*. Oct. 1969.

TABLE 11. PEASANT PARTICIPATION IN AGRICULTURAL PLANS: CUBA, 1971

	Specialised Plans		Integrated Plans		Total of the Country	
	No. of Farmers	Area	No. of Farmers	Area	No. of Farmers	Area
Pinar del Rio	1,148	336	1,779	1,305	26,219	14,841
Habana	8,070	6,611	5,281	7,629	13,681	26,796
Matanzas	7,000	5,450	845	1,977	8,701	10,026
Las Villas	2,000	1,839	15,480	15,480	46,744	45,570
Camaguey	200	343	693	1,108	16,431	22,804
Oriente	7,610	1,323	450	650	91,000	70,000
Total	26,028	15,904	24,528	28,073	202,776	180,038

Source: Documents of the IV Congress of ANAP.

TABLE 12. VALUE OF GROSS PRODUCTION: AGRICULTURAL SECTOR, CUBA

	1962	1/7/68 - 30/6/69	1/7/69 - 30/6/70	Index 1962 = 100		Index 1968/69 = 100	
				1962	1968/69	1969/70	1969/70
(\$m.)							
Cane Agriculture	226	319.3	493.9	100	120	186	155
Final Output	227.7	233.9	468.0				
Capital Formation	38.3	85.4	25.9				
Non Sugar Agriculture	329.0	268.8	252.0	100	82	77	94
Final Output	313.5	254.8	235.5				
Capital Formation	15.5	14.0	18.5				
Cattle	261.5	317.9	313.9	100	122	120	99
Final Output	254.5	330.2	325.5				
Variation of Weight	7.0	(12.3)	(11.7)				
Fishing	19.4	36.5	43.6	100	188	225	117
Agricultural Services	16.0	70.0	80.0	100	389	444	114
Total of the Sector	893.9	1,012.5	1,183.3	100	113	132	116
Excluding Agricultural Services	875.9	942.5	1,103.3	100	108	126	117

Source: Cuba Report. FAO 1970

TABLE 13. PROJECTED OF GROWTH OF AGRICULTURAL OUTPUT, 1970-76

	Per cent
Cane agriculture	205
Non-cane agriculture	79
Cattle-rearing	94
Average	126

Source: Cuba Report. FAO 1971.