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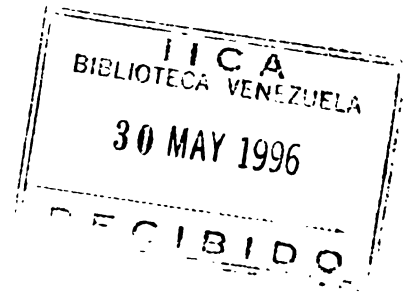
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PROBLEMS AND IMPLICATIONS
OF NEW ECONOMIC DEVELOPMENT
MODELS FOR AGRICULTURE, FOOD,
THE ENVIRONMENT AND RURAL POVERTY

San Jose, Costa Rica
September, 1995





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Draft document for discussion

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TABLE OF CONTENTS

1. **Executive Summary**
2. **Presentation**
3. **Economic Development Models and the Role of Agriculture in Latin America and the Caribbean**
4. **Expanded Agriculture: Has the Chain Broken?**
5. **Agriculture in the Macroeconomic Context**
6. **The Vision and Mission of Agriculture for the Year 2000**
7. **Towards the Collective Construction of a Renewed Approach to Agriculture and the Rural Environment**

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Executive Summary

Executive Summary

Presentation

The purpose of the present document is to encourage reflection on the need to identify and analyze the role played by agriculture in the current economic model, and on how to contribute to reappraising it, harnessing its current and future contributions to all of society.

To make this purpose viable, a working hypothesis will be tested. It contains two key components: One is that, contrary to what was hoped for with the application of stabilization and structural adjustment programs in the last 15 years, agriculture in a broad sense isn't behaving satisfactorily in its role in the global economy.

There are a combination of mutually-interacting causes for this, occurring in distinct dimensions, including the following:

In the Micro-Dimension

- i) Delays, inefficiencies, and even absences of structural adjustments in agriculture.
- ii) Structural reform actions in progress than require more time.
- iii) Resistance to changes due to the involvement of social, cultural, and political aspects.
- iv) A high degree of structural differentiation and heterogeneity.
- v) The severe deterioration of agriculture.

In the Meso-Dimension

- i) The institutional services gap is considerable.
- ii) Private efforts to fill this gap are still isolated and limited.
- iii) The agroindustrial structure is stagnant, highly concentrated, and has elevated barriers to entry.
- iv) The signals emitted from production units are distorted and interfered with.

- v) "Sectoral" and truly integral policies are non-existent.

In the Macro-Dimension

- i) Existing favorable macroeconomic frameworks are insufficient.
- ii) In addition, that context is in need of adjustment.
- iii) Limitations of macroeconomic policies, including: overvaluing of exchange rates; high interest rates; current accounts deficit; reincidence of inflation; absence of measures regarding spurious flow of foreign capital; fluctuations in savings and investment cycles.
- iv) The external context is adverse.

In the Meta-Dimension

- i) Public/private "institutionality" in expanded agriculture lacks effective presence.
- ii) The governability of the agricultural system is precarious.

The second key component of the hypothesis refers to the traditional, rigid approach and vision currently prevalent in agriculture:

- i) Today, this approach has become totally inoperative.
- ii) A new development model is being constructed; nevertheless, this (traditional) conception hasn't changed and, rather, persists.
- iii) A renewed approach to agriculture hasn't emerged yet in this process.
- iv) Changes in the world and economy are so dynamic that they can't be comprehended opportunely with the traditional vision.
- v) There's a severe lack of up-to-date knowledge concerning agriculture.
- vi) A result of the persistence of this inoperative approach is the inefficient, anachronistic performance of the majority of institutions and public and private agents participating in agriculture and the rural environment in one way or another.

This working hypothesis and its main components form the basis of this document.

It calls for the creation of a hemispheric movement capable of reappraising and positioning agriculture and the rural environment in the Americas, and the region's inhabitants.

The documents is divided into five chapters.

CHAPTER 1

Economic Development Models and the Role of Agriculture in Latin America and the Caribbean

1.1 Introduction

Agriculture has traditionally played an important role in the economies of every country in the Americas.

It's principle contributions to the rest of the economy are considered to be the following: a) supplying the population with food, b) the saving and generating of currency, c) channeling prime materials for industry, d) generating income, e) supplying labor for other activities, f) creating a market through the demand for products and services from other sectors, and g) channeling economic surpluses to the rest of the economy.

1.2. The Role of Agriculture in the Import Substitution Model

1.2.1. Agriculture's Subsidiary Role

Agriculture constituted one of the main pillars of the development of the import substitution industrialization model, which was in effect from the 50s until the end of the 70s. In many countries it was the main source of the resources that, to a large degree, financed industrial and urban development.

Its contributions to the rest of the economy changed in emphasis in along with the stages of the import substitution model. In the "easy" stage — when non-durable, labor-intensive goods were produced, which didn't require much economic-managerial sophistication, big markets, nor high protection levels and was, in addition, very profitable — agriculture mainly contributed cheap food, cheap labor, and economic surpluses.

In the second, import substitution "at all costs" phase, however, greatly agriculture's subsidiary role greatly increased due to the greater resources demanded by this socially more costly phase.

Inaccessibility, lack of competition, and easy, quick earnings created a context that impeded orienting the industrial effort toward international markets.

The accelerated urbanization that was generated by this model also exercised a big influence over agriculture, at the same time agriculture financed a good part of urbanization. With the greater economic crisis and demand for

currency, as well as the urban society's greater demand for resources, greater surplus was extracted from agriculture and the its importance increased even more.

1.2.2. Agriculture and Macroeconomic Policies

During the long import substitution industrialization process an industrial, urban macroeconomic context was created, to which macroeconomic policies contributed in a essential, highly-determinant manner.

Exchange policies were aimed at modifying internal production — by means of overvalued rates and a multiple exchange system — in favor of products destined for internal consumption.

In this way, imports became cheaper and exports more expensive, and thus lost both their internal and external competitiveness.

In strict agreement with this policy, **trade policy** also was oriented toward provoking the involution and protection of the economy, as required by the import substitution model. This was reinforced with direct, monopolistic state presence in the internal and external trade of goods and services, and with the control and closing of borders.

The external trade policy during this long period signified, in general, little or less protection for agriculture in relation to other sectors, and industry in particular.

Some other principle effects on agriculture were the worsening of rural-urban terms of trade, trade and above all technological lethargy, and the unequal assignment of resources, as well as the inhibition of the full exploitation of productive potential and comparative advantages.

Price stabilization policy was oriented toward administrative control of macro-prices and specific prices.

This policy was also aimed at protecting the consumer, disconnecting producers and consumers from market prices, and introducing a clear pro-urban/industrial bias.

Monetary policy was directed towards reactivating the productive plant by the distribution of credit resources which were generally subsidized for augmenting production and the productive and commercial infrastructure.

Spending and investment policy was oriented toward transforming the economic and commercial structure based on public investment. This investment effort had few effective, lasting results.

Until the 70s, the macroeconomic handling and combined effect of these instruments turned out to be anti-agriculture and anti-export, which had direct and indirect negative impacts on agricultural vitality. However, specific sectoral instruments were also applied in compensation for the most damaging effects of this macroeconomic management.

In general, these compensation policies consisted of establishing certain tariff preferences, subsidized credit, supply of capital goods and cheaper inputs, direct subsidies, fiscal exemptions, and income transfers by way of public investments and technical support programs for production and social assistance.

The combination of macroeconomic policies and compensation policies, however, led to a costly agricultural development pattern that, due to its characteristics and high administrative cost, was non-sustainable on the long term.

1.2.3. Agriculture and Public/Private Institutional

Institutionality in agriculture was impregnated with public sector influence, reaching levels of omnipresence of the State and subordination of producers.

This logic corresponded to a policy that promoted the separation of producers from markets, and the isolation of technological change and competition. Access to subsidies, credit, technology, inputs, irrigation, etc. benefited very few, generally the large interest and power groups, and to a much less extent, small producers and peasants.

1.2.4 Implications for Agriculture, Food, the Environment, and Poverty

Many countries became urbanized; social indicators, such as literacy rates, life expectancy, and others, rose considerably; the physical infrastructure increased visibly and both public and private institutions developed. However, poverty declined slowly as income distribution actually worsened.

The greatest part of this social and economic decline was concentrated in the Latin American countryside and agriculture.

In many Latin American and Caribbean (LAC) countries, agriculture began to show signs of a weakened growth rate beginning in the mid 70s.

Waste, impoverishment of large portions of the population, and country-city migration — which had been on the rise since the 50s — rapidly became features of the agricultural development model.

In synthesis, the causes of inaccessibility to food for large sectors of the population, poverty, and natural resource destruction are generally attributable to the non-sustainable "bimodal" or unequal development model promoted during those years, exacerbated by the adverse macroeconomic and international context, the narrowness of internal markets, and unequal income distribution.

1.3. The Role of Agriculture in the "Outward" Economic Model

1.3.1. A New Economic Development Model

The macroeconomic stabilization and structural reform programs are conceived of as some of the most outstanding instruments for achieving a new insertion in the international context, and as key pieces in the search for a new development style for Latin American and Caribbean societies.

The principle ingredients that define this new development style are: economic opening and integration; deregulation and liberalization of the economy; reduction of the State and privatization of public businesses; the search for macroeconomic equilibrium and stabilization of the economy; and efforts and advances in harmonizing macroeconomic and sectoral policies of the countries participating in integration processes.

1.3.2. Agriculture and the New Macroeconomic Policies

What changed for agriculture beginning with the application of stabilization and adjustment programs in 1982? Practically its entire internal logic and, above all, the nature of its relation to the rest of the economy.

Exchange policy was transformed considerably in an effort to elevate the exchange rate by way of nominal devaluations of local currencies. The general orientation of the exchange policy is that of increasing external and internal competitiveness, fomenting exportation and efficient importation substitution with a real exchange rate level.

Trade policy is directed towards the deregulation and demonopolization of external and internal trade by promoting the opening of external trade and regional and international integration. The general effect is the elimination of over- and under-protection of the economy through the gradual reduction of tariffs and depressing effect of internal prices. This policy is complemented with exchange rate management.

The handling of monetary policy has also transformed considerably in relation to the previous period. Credit rationalization measures allow the system to heal and turn into an instrument for reactivating and fomenting production efficiency. At the same time, subsidies are eliminated in this manner and the increase in internal savings, efficiency, competition, the creation of private banks, and financial intermediation are promoted.

In general, price policy is oriented towards lessening uncertainty and introducing greater price stability, and sending clear signals to increase private investment. Price deregulation is sought, with connection to regional and international prices, by eliminating subsidies or penalizations.

In the area of fiscal and public spending policy, profound adjustments are applied, eliminating agriculture's compensatory role. Fiscal deficit reduction is induced by reducing public spending, investment, and subsidies. At the same time, fiscal income increases through higher taxes and an increase in public tariffs on goods and services.

In the area of salary and income policy, the adjustment included its reduction as a complementary measure to the depression of the added demand, and also as an increase of this comparative advantage and as compensation of the ...

With this group of policies, the anti-export and anti-agricultural bias should have theoretically disappeared, and with this agriculture's subordination to the rest of the economy.

A deregulated, transparent economy, open to the exterior and continuously more integrated, should logically provoke the following effects in agriculture: an increase in primary efficient production and agroindustrial production; better prices and product quality; creation of transparent markets in rural zones; favorable terms of exchange and reduction of transfers of economic surpluses; greater savings and investment capacity, etc.

These advances, however, presuppose a strong industrial and commercial productive reconversion; the elimination or reduction of certain products and appearance of new ones; less use of marginal land and the "mobility" of the land resource; the rise of positive externalities that support this reconversion; greater competitiveness; fluency of credit and investment, among other aspects.

1.3.3. The Behavior of Agriculture after 1982 and Its Impact on Food, Natural Resources, and the Environment: A Worrisome Picture?

In general terms, there's a significant difference between the expected changes in agriculture as a product of the transformations that have occurred since 1982 and the changes that actually occurred more than a decade later.

When the aims of the new model are actually compared to the realities of agriculture, it's clear that agriculture is falling behind in many countries. The question is, "Is this a reflection of the role the new model assigns to agriculture? Is agriculture functioning properly? Or vice a versa, is the model functioning properly?"

1.3.3.1. Main Tendencies in Agricultural Behavior

The main tendencies in agriculture recently noted in the region are the following:

- Production is increasing slowly.
- Production destined for export isn't as dynamic as was hoped for.
- The mechanization of agriculture is increasing slowly.
- The capital stock are stagnating.
- Modernization of agriculture is polarizing and exclusive.
- Agriculture isn't generating more employment.
- The rural population isn't growing, it's emigrating.
- Poverty is becoming urban.
- The problem of access to food is increasing.
- Natural resources are deteriorating at an accelerated rate.

1.3.3.2. The Effects on Agriculture Itself

These tendencies appear to indicate that agricultural and forest activities in the region are experiencing slow productive reactivation, and that these production increases aren't in accordance with the requirements of an increasing population or

the demands of the rest of the economy. Nor are they achieving their full potential.

Insufficient financing is available for modernizing agriculture and increasing its competitiveness in a highly-competitive international and national market economy.

Finally, it can be observed that a significant mobility of productive factors isn't occurring.

CHAPTER 2

Expanded Agriculture: Has the Chain Broken?

2.1. Introduction

The agroindustrial linking process shows fairly dynamic growth in production and consumption, associated with a lagging behind in agricultural production and a narrow range of agroindustrial and agri-food activities, as well as with a recent de-structuring of these activities.

The openings and privatizations generate a worrisome situation, since these actions aren't enough to create a complete services link and productive and trade transformation of agriculture and agroindustry.

2.2. Consumption and Its Effects on Agriculture, Food, Natural Resources, and Poverty

In terms of the consumption link, the following tendencies can be observed:

- The consumption model of the developed countries continues to predominate.
- New consumption trends are appearing in the developed countries.
- The consumption model in developed countries is becoming increasingly predominant in Latin America and the Caribbean.
- The partial, differentiated mimicry of consumption patterns in the developed countries is increasing in various social levels.
- In global terms,
- Industrialization of food (fast food and street food) is on the rise in the region.

2.3. The Market and Its Effect on Agriculture, Food, Natural Resources, and Poverty

Decisions by agricultural and agroindustrial producers regarding investment and production depend principally on the markets.

The main market trends currently observed are the following:

- The dynamism of world trade is much greater than that of world production, but the region's export sector is rapidly deteriorating.
- Nevertheless, the region's export orientation is accelerating.
- The basic export products are losing ground.
- Heavy protectionism makes it difficult for our products to penetrate the big markets.
- The demand for agricultural products globally is tending to shrink.
- The majority of total exports and agriculture in the region remain highly concentrated.
- The high levels of over-protection of agricultural products in the developed countries elevates their competitiveness.
- The majority of agricultural product prices continue to decline internationally.
- The terms of exchange continue to be very unfavorable.
- The appearance of new competitive countries in our region.
- An extremely reduced domestic demand.
- International and national commercial practices are becoming complex.

2.4. Agroindustry and Its Effects on Agriculture, Food, Natural Resources, and Poverty

In terms of agroindustry specifically, the principal trends are the following:

- Agroindustry continues to have significant weight and is more dynamic than the agricultural sector.
- The degree of heterogeneity and polarization in agroindustry continues to be very high.
- New agroindustries are appearing.
- The big agroindustries are consolidating.

- The old agroindustries are falling behind.
- Rural agroindustries survive, disappear, and a minority become consolidated.
- Contract agriculture shows signs of development.

2.5. Services and Their Impact on Agriculture, Food, Natural Resources, and Poverty

The services link for agriculture and agroindustry is currently in a state of transition.

This is true in almost all services, including: research and technology transfer; extension and technological, managerial, and organizational training; financing and bank services; seed, fertilizer and other input production; animal and vegetable health; quality control; internal and external commercialization services; and information and basic infrastructure.

In this new market orientation, demand for access to services is the significant factor. While this is the definitive orientation, it should be considered that for many producers with productive potential, the possibilities for productive reconversion and access to needed services are being canceled.

The inadequacy of services in the context of an external development model where competition and survival depend on technological development, productivity, and competitiveness is one of the clearest manifestation of underdevelopment, which is condemned to perpetuate itself if this problem isn't resolved satisfactorily.

The poor performance of agriculture in the broadest sense in recent years, the worsening or stagnation of the current level of technological development in the entire agricultural chain — from planting to consumption — will increase poverty, the deterioration of natural resources, malnutrition, and starvation.

In synthesis, the linking or unifying of agriculture is seriously atrophied. On the one hand an exclusive consumption model is in operation, which is costly socially and leads to deterioration of natural resources and destabilization of food and nutrition. On the other hand, national markets are limited in many cases, and lack transparency and dynamism, and international markets are extremely difficult and adverse.

CHAPTER 3

AGRICULTURE IN THE MACROECONOMIC CONTEXT

3.1. Introduction

The nature and logic of agriculture's insertion in the past and present economic models are radically different, because the models themselves are so different, if not antagonistic.

Beyond considering that both vicious and virtuous cycles can exist in these models, the fundamental question is whether they are sustainable over time and if the model allows for sustainable development in agriculture as well.

3.2. Have We Really Eliminated the Anti-Export and Anti-Agricultural Bias?

The application of stabilization and structural adjustment programs in the region in the 80s immediately began to produce macroeconomic fruits.

After the initial stagnation and economic and social recession phase, which lasted until the end of the 80s, a period of economic and social recuperation was ushered in in the 1990s.

During the crisis in the 80s in the majority of the region, agriculture increased in importance in the national economy and played a "shock absorber" role.

This occurred because agricultural growth, although insufficient, was greater than in other activities, and because in many cases it grew at rates above population growth rates. It was also possible in adverse conditions, such as: falling internal prices; drastic credit and financing limitations; elevated interest rates; insufficient investment; and a reduction of public resources for training and research.

However, agriculture suffered severe decapitalization, the effects of which were postponed until the end of the 80s, and more visibly, until the first half of the present decade.

Therefore, it's not a coincidence that in many countries agriculture is the "black sheep" of the national economy, which is to say, one of the few activities exhibiting little growth — in some cases below the population growth rate — compared to other economic and commercial activities that are experiencing rapid recuperation.

While these past structural trends exert a large influence in agriculture's recent unsatisfactory performance, it's also necessary to refer to problems that originate in the present and that are exercising an equal or greater influence.

These problems can be attributed fundamentally to the macroeconomic framework that has been taking shape in the 90s. In this framework, the stabilization and structural adjustment policies and the effects of the macroeconomic policies that accompany them, can play an important role in solving the problems. But not handled correctly, these elements can also worsen the problems.

In the 90s, other problems have come back with a certain force, including: the trade balance and balance of payment deficit; capital flight; exchange rate appreciation; elevation of national interest rates; and, although hidden, the permanent threat of a rapidly growing debt.

One of the first impacts of this macroeconomic situation is the low competitive capacity of exports and LAC import substitution. This implies less currency generation and savings and a loss of, or exit from, markets. This last situation means the trade balance deficit grows and pressures the current accounts balance.

One of the mechanisms most frequently used to confront this is setting high interest rates to encourage net external capital flows to correct the current accounts deficit.

Those resources in turn concentrate in a few countries, are very volatile, and are prone to speculation and being used for consumption more than for production and investment.

High interest rates, accompanied by the fomentation of non-productive activities, imply a smaller structural adjustment and lower competitiveness. In addition, these capital flows generally lead to the appreciation of the exchange rate, and with it a greater loss of competitiveness of the economy.

The vicious cycle repeats. Less competitiveness, greater commercial deficit, monetary-financial urgency, devaluation, circulation and credit reduction, high interest rates, economic recession, difficulty in transforming the economy, real drop in salaries and employment, greater impoverishment of the population, and therefore less competitiveness.

With less competitiveness, greater macroeconomic competitiveness, and therefore a greater need for monetary-financial stabilization, and with that further economic recession, etc., etc.

Just the existence of exchange rate appreciation takes away competitiveness from productive activities, including agriculture. The anti-exporter bias, combined with the absence of plans for fomenting exports and import substitution, are extremely harmful, especially if the situation is prolonged indefinitely.

The interweaving of exchange rates with the rest of the economic variables provokes chain reactions that result in such a distortion in relative prices (proportionately) that it's reminiscent of past stages of adjustments in the economy that weren't very advantageous to the countries trying to make changes.

3.3. Towards a Global Picture

The strong association between economic growth and poverty reduction raises at least two questions regarding the sustainability of this association.

i) The first question has two components. First, if the investment process related to growth is more oriented towards third-level and speculative activities, as seems to be the case, than towards productive activities and their transformation to achieve greater productivity and competitiveness. And, if poverty alleviation is more linked to the exchange rate appreciation than the capital fluency provokes.

ii) The second question is regarding whether in this process of recuperating economic growth poverty alleviation originates from productive employment or simply assistance-type programs.

iii) There's no doubt that in both cases, poverty won't be mitigated in a sustainable manner if its mitigation is only linked to an assistance solution and exchange rate appreciation, and not productive employment. That's one aspect. Nor will it be mitigated if economic growth isn't sustainable, which is to say, if it doesn't achieve productive transformation and increases in competitiveness. Exchange rate management isn't enough.

It's very probable that agriculture contributed only minimally to this improvement in poverty rates and food. The improvement is more linked to exchange rate appreciation, investment, and growth in other areas, as well as to focalized aid and poverty alleviation programs.

i) In fact, this poverty alleviation was accompanied by greater economic growth, which agriculture only contributed to marginally.

ii) Urban under-employment also diminished, which agriculture didn't contribute to; rather it generated under-employment and migratory trends toward the cities.

iii) Lower inflation levels, as well as salary increases for the most qualified workers, also contributed significantly to poverty reduction. However, agriculture made a small contribution to generating qualified work. It did probably contribute to the low inflation rates.

While macroeconomic policies exert a great influence over agriculture, agriculture's structural conditions limit these impacts.

Agriculture's lesser growth rate compared to its full potential and the overall economy is related to various causes, as we have seen in this summary.

CHAPTER 4

THE VISION AND MISSION OF AGRICULTURE FOR THE YEAR 2000

4.1. Introduction

This chapter will make some projections toward the year 2020 in order to identify the most adequate approach to defining action strategies for the present.

4.2. The Probable Scenario in 2020

The probable scenario for 2020 will see almost absolute interdependence between countries from the economic, technological, ecological, cultural, and political point of view. The globalization of the economy will be consolidated and national frontiers will only be boundary posts of interpenetrated countries. National economic policies will have lost their autonomy and be more dependent on multilateral decisions. Trade will be the motor for growth and technological transformation will continue to be the basis for dynamism.

The dynamism of international trade, service, capital, labor, and technology flows will be accompanied by small but important growth in world production.

The sustainability of this scenario will depend on poverty alleviation. This is due to issues of governability, ethical and social justice considerations, and especially, because development and competitiveness will depend on human capitalization as will the post-modern phase of world capitalism itself.

In reality, this scenario is characterized by being fundamentally inclusive and sustainable. It exhibits a very interpenetrated, globalized economy, higher technological development, and more social justice.

Agriculture continues to be seen as interdependent with the rest of the economy, but also with its singularity.

In general, this set of conditions allow for sustainable development in harmony with nature, economic integration, and technological transformation, together with human capitalization and rural development.

4.3. The Paradox of Agriculture

A commonly accepted definition of "paradox" says that it's something strange or contrary to public opinion and common belief. It also refers to apparently correct reasoning which arrives at a false, contradictory conclusion.

This is precisely the situation of agriculture in many countries of this continent. The importance of agriculture is much greater than what is commonly known or recognized. Indeed, it's not an exaggeration to affirm that an inversely proportional relation exists between the growing importance of agriculture and its treatment and recognition.

Various phenomena express agriculture's apparent loss of importance. For example, various regional and world summits that deal with themes closely linked to agriculture no longer mention it specifically. These include the Cumbre de las Americas (Americas Summit) and the Cumbre de Desarrollo Social (Social Development Summit), both held recently. Agriculture doesn't appear in the organizational diagram of the Inter-American Development Bank or the World Bank, either. Both institutions have recently been restructured.

It can also be observed that the region's countries don't back up their stated "agricultural priority" with adequate actions, budgets, and public and private investments.

Another factor that demonstrates that agriculture is losing importance and becoming marginalized is the traditional view of agriculture's role in Latin America. This version falsely concludes that agriculture's usual contributions to the rest of the national economy "appear to be diminishing" in recent years.

Another significant factor that reinforces agriculture's apparent loss of importance is the negative overall picture of its behavior over the last ten to twelve years.

In contrast to this paradox, many arguments exist that can resoundingly demonstrate that rather than losing importance and becoming marginalized, agriculture is actually growing.

Food production and its relation with social peace and the continent's democratization process; large sectors of the population remaining in rural zones; and the aggregated value contributed by agroindustry and agribusiness in the context of hemispheric integration are unquestionable examples of agriculture's importance.

But beyond these commonly used arguments, we present others derived from this and previous chapters.

The scenario projected in this chapter is particularly illustrative of the broad network or structure of interdependencies of agriculture with other variables, including the following:

Agriculture with all national macroeconomic policies.

It's interdependence with food and nutrition, human health, and productive work can be clearly deduced.

Technological progress with the construction of agricultural competitiveness, and its relationships with human capitalization.

The evolution of these relations throughout the agroindustrial production chain and the construction of systemic competitiveness.

Human, animal, and plant health with the generation of currency from agriculture and hemispheric integration. These, in turn, with savings, investment, and with productive and commercial reconversion and technological development.

Another set of arguments relate to the immense potential of the Uruguay Round agreements for Latin American agricultural markets. The region's agriculture has the possibility of increasing exports and intra-regional trade.

These sums could eliminate the international aid currently received from the developed countries or correct the possible deficit in the current accounts and balance of payment deficit for the year 2005, and even contribute to increasing import capacity.

From another point of view, these same eventual resources represent the actual net external capital flow of almost all the Latin American and Caribbean countries; they could offset the effects on the exchange rate appreciation caused by these flows and leverage competitive internal interest rates.

Another element that deserves emphasizing is agriculture's importance in processes of uncertain growth. There's no doubt that the World Bank's prognosis regarding the main world economic variables for the next ten years (until 2003) is encouraging for most underdeveloped countries; nevertheless, the situation is less optimistic for Latin America and the Caribbean since it's one of the regions that will experience less growth in upcoming years.

Inclusively, with a slight deterioration in that outlook, this region would decline in per capita terms at a rate of 0.7 percent a year. This represents a more pronounced real deterioration per inhabitant than in Sub-Saharan Africa.

Regional economic growth rates of a little more than 3 percent presuppose a healthy agricultural sector with efficient contributions; however, lower economic growth rates (0.8%), regressive in terms of the per capita level, require an agricultural sector tending towards improved efficiency and growth to compensate for the possible deterioration to some degree.

Along these same lines, the important role agriculture could play to counteract current macroeconomic disturbances also stands out. This would occur through currency generation and savings for correcting the trade deficit and current accounts and balance of payment deficit.

Finally, another argument for agriculture's importance and enormous potential, and that expresses and synthesizes agriculture's interdependence with other aspects, is the so-called biodiversity prospecting, or exploration of biodiversity in search of commercially valuable genetic and biochemical resources.

In reality, this is an entirely new trend that makes it possible to re-value agriculture's rural environment, space and territoriality, and genetic resources from the perspective of productive conservation. This is possible through the combination of diverse factors such as technological advancement, especially in biotechnology; informatics and computers; and the development of human resources and awareness of sustainable development.

4.4. The Common Thread

If on the one hand, agriculture is truly important to a country's economy and society, but the agriculture paradox predominates, which is to say, a lack of awareness and even systematic non-recognition of its importance; and on the other hand, it's thought that agriculture's contributions will increase in importance under the current economic model, but its recent performance is unsatisfactory, how can we begin to untangle this ball of problems?

Although this is a contradictory situation with a complex set of problems and causes, one common thread does exist which can help to resolve it.

This thread is the approach to observing, conducting, and transforming agriculture.

At the base of agriculture's apparent lack of importance and real falling behind economically and socially, one finds that the majority of the public and private institutions and agencies are out of date and perform inefficiently.

While it's true that something has happened to agriculture in recent years, it's not exactly that it's become marginalized. What has become marginalized is the traditional, rigid vision of agriculture and its relationship to the greater environment. On the one hand, it's seen as an isolated primary productive sector; on the other, even when it has progressed to being perceived as expanded — which is to say, linked agroindustrially — a markedly rigid and excessively partialized short-term approach has predominated, of a generally economic, technical-economic tint.

This approach becomes totally inoperative in the face of today's globalization and the collapse of economic, political, and conceptual boundaries. The import substitution model has been collapsing for over a decade and in all the countries a new development model is being built. Nonetheless, the traditional conception of agriculture that accompanied the old model still persists; it hasn't been transformed.

A renewed agricultural approach hasn't emerged yet to accompany this process, an approach that's totally functional and responds to new challenges, an approach that deactivates this apparent but false "marginalization" of agriculture and promotes its growth and development.

This is what thoroughly explains so much difficulty in seeing agriculture's true importance and what, in the end, impedes its reactivation and development.

CHAPTER 5

TOWARDS THE COLLECTIVE CONSTRUCTION OF A RENEWED APPROACH TO AGRICULTURE AND THE RURAL ENVIRONMENT

5.1. Introduction

The objective of this last chapter is to develop some general ideas for encouraging discussion on the need to transform the approach to agriculture. The proposal is to reinvent the application of a systemic approach to agriculture and rural environment that assists in achieving rural human development.

5.2. Towards a Systemic Approach to Agriculture

The central idea is to contribute to renewing the approach to agriculture, reinventing the application of a systemic approach to agricultural concerns, food, natural resources, poverty, and rural development. This approach will allow the multidimensionality and interdependence of agriculture and the rest of the economy and society to be apprehended.

The idea is to recognize agriculture's true importance, now and in the future.

5.3 The Systemic Agriculture Approach

The Systemic Agriculture Approach contains three principle elements: a practical conception, a policy purpose, and an action strategy.

5.3.1. The Systemic Agriculture Approach as Conception

The systemic agriculture approach is a multidimensional, interdisciplinary, dynamic conception or vision of agriculture, including its complexities and links, in terms of four kinds of interdependencies:

i) The set of technical-productive, agricultural, and forestry interdependencies, where agents organize to manage the conservation and productive exploitation of natural resources and the environment in rural zones with an inter-generational vision (the micro-dimension of the structure).

ii) The set of interdependencies formed between agricultural and forestry activities and the transformation of their products, generation of inputs, domestic

and international trade, and support services in this whole chain, consumption, nutrition, health, and "sectoral" policies (the meso-dimension of the structure).

iii) The set of interdependencies that appear between macro-socioeconomic relations and agriculture (the macro-dimension).

iv) The governability interdependencies that occur in the whole agricultural structure and dynamic and the rest of society, the economy, and the world that assure the effective direction of the different processes (the meta-dimension).

5.3.2. The Systemic Agriculture Approach as Finality

As a finality, the systemic agriculture approach aims at sustainable development of agriculture, defined in terms of competitiveness, equity, and solidarity that interact and articulate — with new content — the technical-economical, sociopolitical, and cultural and ecological aspects of a new sustainable agriculture on a medium- and long-term basis.

i) Competitiveness, understood as achieving dynamic competitive advantages interlinked with, and productively protective of, the environment and natural resources and capable of capturing and maintaining control of a portion of national and international markets.

ii) Equity, understood as a way of organizing society that incorporates the results of simultaneous action of the achievement of competitiveness and human capitalization (which is to say, through the combination of productive employment, education, food and nutrition, health, and social security). It's not limited to expressing inequalities, but also encompasses the expansion of individual and social capabilities and respect for rights.

iii) Solidarity, defined as achieving of social cohesion. It recognizes that it corresponds to everyone, according to their possibilities, to diminish the social debt. Solidarity is the basis for achieving governability of the system, which is sustained by restructuring institutionality. New forms of government are constructed based on public-private networks and through a process of redefinition of public and private and reconstruction of effective direction. Concertation is the fundamental mechanism; it goes beyond negotiation and coming to agreements to incorporate follow-up and fulfillment of agreements by the socioeconomic actors.

5.3.3. The Systemic Agriculture Approach as Strategy for Action

Finally, induced transformation is the central idea of the systemic agriculture approach as a strategy for transformation and action. It encompasses four kinds of transformations as necessary for building sustainable modern agriculture (competitive, equitable, with solidarity): human, productive, trade, and institutional changes. These transformations are aimed at social and human transformation in the framework of international agreements and growing American integration.

transform

5.4 Towards the Identification of Agriculture's Role and Principle Contributions

Identifying agriculture's role and principle contributions in the context of the new development model is an important aspect of the process of constructing a renewed agricultural approach.

Agriculture is called upon to continue playing a relevant role: to produce and commercialize, with efficiency and competitiveness but without endangering the environment, and to add value in its entire systemic structure.

In general, systemic agriculture makes great contributions to a country's economy.

- i) One contribution is the productive conservation of natural resources and restoration of the environment. There's no doubt but that agriculture will continue handling and sustainably exploiting biodiversity and the majority of the earth's natural resources — water, forest, air — and animal resources in general.
- ii) In addition, systemic agriculture increasingly fulfills restorative health and well-being functions that play a determinant role human capitalization levels reached by society at a given point in time.

Activities such as agri-tourism and agri-recreation and production of natural (without contaminants) nutritive, food, health, and medicinal products play an increasingly important role in our society. As is the non-traditional use of agricultural products, especially in biotechnology and the production of micro-organism-based products.

All these services — agri-business, agri-tourism and agri-recreational — as well as the new production, certainly have a place in national economies. This is important to quantify when possible.

iii) **Agriculture contributes to reinforcing the macroeconomic contexts, which are maintained under a delicate equilibrium. It does so through three main actions: a) exploiting international and intra-regional agricultural markets which are a product of the Uruguay Round and hemispheric integration to aid in activating the national economy; b) adjusting the macroeconomic framework through greater systemic competitiveness (or vertically and horizontally integrated competitiveness) of agriculture; c) capitalization of the rural human resource (with a priority on women and children) to sustain competitiveness and equity, and**

iv) **It also contributes to governability in terms of three actions: a) extending decentralization and reconstructing agricultural institutionalality to allow for greater democratization and reactivation of agriculture; b) strengthening of self-management, sovereignty, participatory management, and concertation of all agricultural levels, rural and urban; and c) consolidation of social cohesion, guaranteeing social peace, and stability in the countryside.**

Systemic agriculture also presents a set of profitable activities and source of business opportunity for all kinds of producers and businesses.

The function of creating markets will be greatly increased as systemic agriculture is constantly valued as value is added to its entire structure.

Six value adding circles can be identified:

- 1. To natural resources and biodiversity.**
- 2. To expanded agriculture products and services.**
- 3. To activities integrated in agricultural territoriality and the rural environment.**
- 4. To macroeconomic activities that create conditions for a sustainable valuation process.**
- 5. To governability of agriculture and its institutions.**
- 6. To the development of human resources, the main source of added value.**

The systemic agriculture approach ponders the human resource for three powerful reasons: First, because it's the means to realizing productive, commercial, and institutional transformations. Without the human resource, it's impossible to achieve transformations or even induce them. Second, the human resource is the very finality of transformation. Why do we induce changes if it's not to achieve rural human development? Three, its capitalization is the essence of

competitiveness, equity, and solidarity, and of the sustainability of these transformations. It's also the principal source of valuation of systemic agriculture and the rural environment.

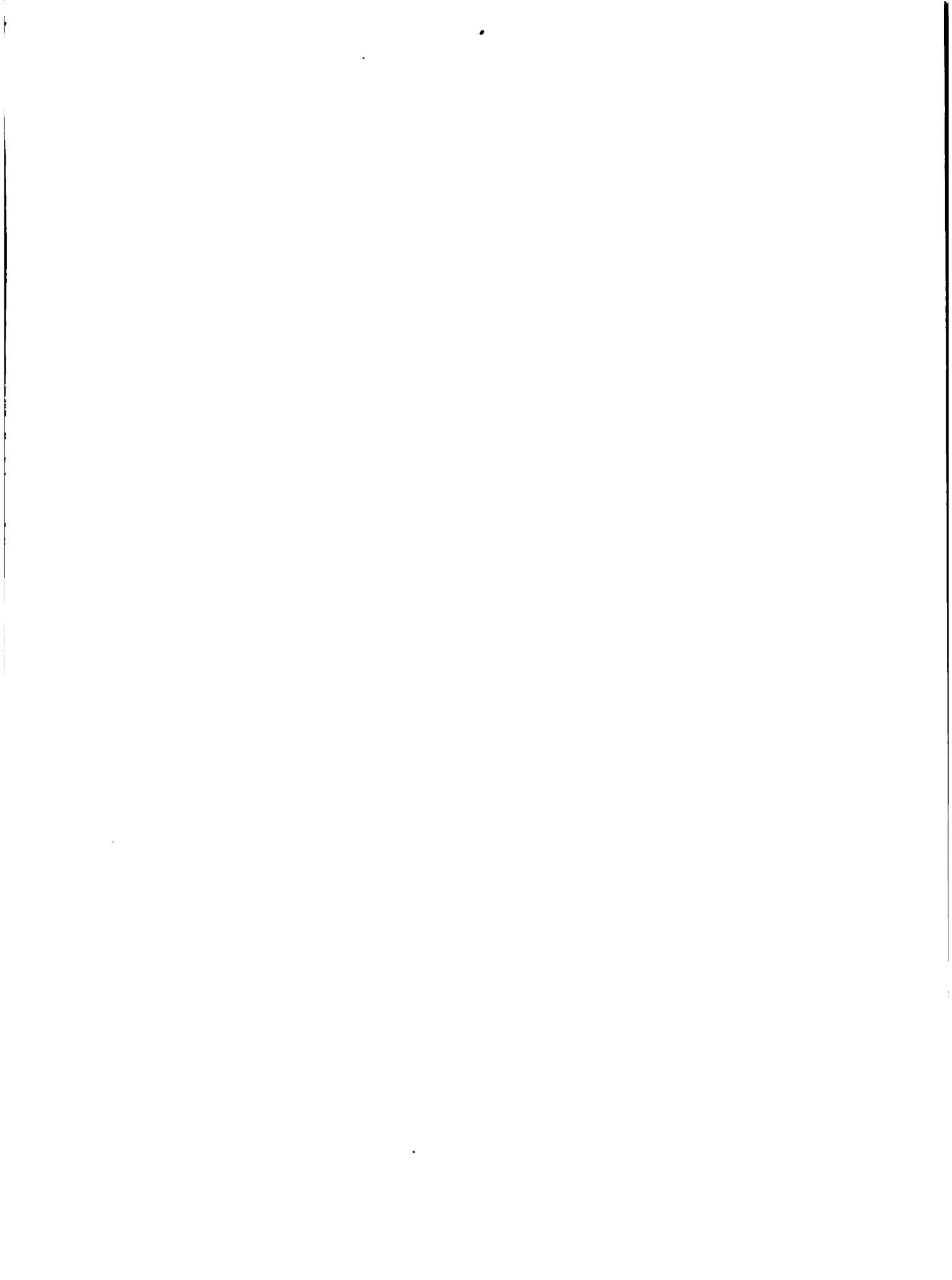
Finally, the task still remains of encouraging the creation of a hemispheric movement to initiate a process of re-valuing and positioning the rural environment, inhabitants, and agriculture of the Americas.

Some of the activities that could come out of the reflection provoked by this document are the following:

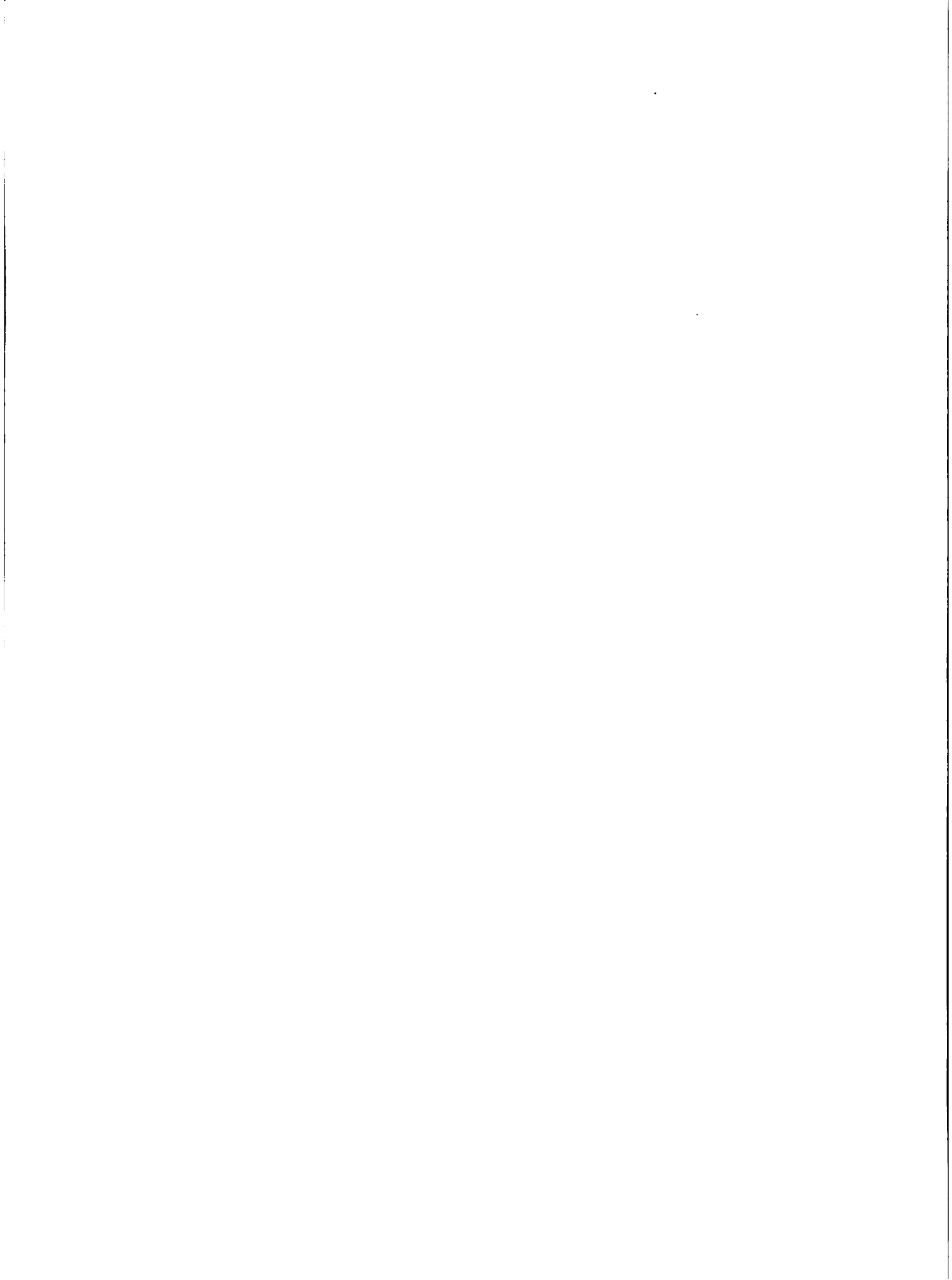
- i) The honing of this and other hypotheses from this and other documents.**
- ii) Develop a method for testing this working hypothesis.**
- iii) The construction of a renewed approach to continental agriculture, and**
- iv) The definition and design of a short- and medium-term strategy and action plan on the positioning and re-valuing of agriculture, and the rural environment and its inhabitants.**

This would require further work and should be collectively (and on a consensual basis) developed on the national, multinational (regional) and hemispheric level.

The construction of a renewed approach and an action plan towards hemispheric integration and the 21st century, a plan to reactivate growth and sustainable development, is a task still ahead of us, and its basically a collective task. Devoting ourselves to this urgent task, still in its initial stage, we dedicate these notes.



FOREWORD



Foreword

The purpose of this document is to stimulate reflection on the need to identify and discuss the role played by agriculture in the current economic model and what can be done to revalue it and strengthen its present and future contributions to society as a whole.

To achieve this purpose, a working hypothesis with two key components is proposed. One is that, contrary to what was expected following the implementation of the stabilization and structural adjustment programs over the past fifteen years or so, **expanded agriculture¹ is not performing satisfactorily² in terms of either its own development or its role in the global economy.**

This situation cannot be attributed to any single factor. Rather, there are a number of causes in different areas that interact with each other³. The following are the most important of these:

At the "micro" level⁴:

- i) Agriculture is progressing too slowly and is beset by inefficiency and even a lack of structural adjustments⁵;**
- ii) Certain ongoing structural reform actions will need more time before the changes become apparent,**
- iii) There is resistance to the changes as social, cultural and political issues are involved that need to be reexamined in introducing the changes,**

¹ The concept of expanded agriculture refers to all the activities linked to this sector. These range from primary agricultural, livestock, forestry and fishing activities to the industrial processing of these products, capital inputs and goods, marketing, the market, consumption and all the support services provided throughout this concatenation.

² Not satisfactory in relation to three elements: a) the requirements of the economy, b) the dynamism demonstrated by many other activities, and c) its true potential.

³ Each of the following statements contains part of the truth. However, the balance and weight of all of them taken together can only be fully recognized at the level of each of the countries in the region.

⁴ The array of technical-productive agricultural, forestry, hunting and fishing activities in which the economic-social agents interact in using and processing natural resources and the environment.

⁵ In particular, with respect to land security and tenure, the production infrastructure (irrigation and roads), research and technology transfer, organization and training, among others.

- iv) A high degree of differentiation and heterogeneity exists between regions, products, producers, production conditions, marketing, access to resources and capabilities. As a result, policies have differentiated impacts,
- v) Agriculture was seriously weakened by its subordination to the import substitution model and the reinforcement of this role during the crisis of the Eighties. As a result, economic surpluses and resources were extracted on a scale that has left the sector chronically decapitalized.

At the "meso" level⁶:

- i) The large gap or vacuum in service activities⁷ left by the withdrawal of the State from key agricultural linkages or the redefinition of its role is being insufficiently and only slowly filled by civil society economic actors,
- ii) Even though these movements of the private sector display a measure of efficiency at the micro level, they constitute an as yet isolated and limited effort compared to the actual need to establish and strengthen actions at the higher levels that underpin them,
- iii) The agroindustrial structure has stagnated, the barriers to entry into this field are considerable, and it is highly concentrated,
- iv) The messages emanating from the surroundings of agricultural production units and from the latter to their surroundings, are subject to interference and in many cases are distorted, due to the existence of negative intermediation structures that hinder transparent communication between the senders and receivers of the messages⁸,

⁶ In other words, the array of activities that link primary production activities (agricultural, forestry, hunting and fishing) with the industrial processing of their products, the generation of their inputs, domestic and international trade, consumption, the support services provided throughout this concatenation, and "sectoral" policies.

⁷ Including research and technology transfer; managerial and organizational extension and training; financing and banking services; the production of seeds, fertilizers and other inputs; animal and plant health; quality control; internal and external marketing services; and information and basic infrastructure.

⁸ In other words, the existence of obstacles or "negative intermediation structures" that distort the process and structure of price formation and markets; ultimately they distort the efficient allocation of limited resources. This situation mainly affects small farmers and the different segments of the campesino economy. G. Escudero. "Evolución de la política macroeconómica y sectorial agropecuaria en América Latina," in La modernización del campo mexicano, FMDR/FHA, Mexico 1991.

- v) There are no "sectoral" and really integrated policies to reinforce the transformation and recovery of activities and maximize opening to foreign markets and hemispheric integration.

At the "macro" level⁹:

- i) The existence of favorable macroeconomic frameworks is not sufficient to bring about the expected changes in agriculture,
- ii) This context is also in need of adjustment, and some of these changes are not favorable to agriculture,
- iii) Some of the limitations of macroeconomic policies are: overvalued exchange rates that undermine external and internal competitiveness; the continued existence of higher national than international interest rates; the growing trade and current account deficits of the countries; the reappearance of high levels of inflation in some countries; the absence of measures to check the false trend in external capital flows; maladjustments in the savings and investment cycles, and even errors in the management of macroeconomic balances.
- v) External conditions are unfavorable due to: the opening of economies with minimum tariff levels and insufficient reciprocity on the part of the developed countries; the existence of strong barriers to the entry of our exports; the contraction in the demand for these products; the unfavorable terms of trade and falling international prices; and the large subsidies granted to farmers in the developed countries, among others.

At the "meta" level¹⁰:

- i) There are serious gaps in the public/private institutional framework in expanded agriculture vis-à-vis institutions that perform production-related and policy-setting functions and provide services, as well as those that promote participation, dialogue, concerted action, and the monitoring and follow up of obligations. This adversely affects relations between the actors

⁹ That is to say, the complete range of macro-socioeconomic relations that determine the performance of the entire system.

¹⁰ In other words, the social relationships of governability of the entire structure and the dynamics of agriculture. The focus of attention here are the new public-private relationships and the appropriation of knowledge and information that are becoming the elements of power throughout the systemic structure of agriculture.

engaged in these activities, and between them and other macroeconomic, macrosocial and macropolitical institutions,

- ii) The governability of the agricultural system is uncertain given the problems that exist in all areas; this situation is compounded by the institutional gaps and the lack of information and communication.

The second key component of the working hypothesis concerns the **traditional rigid approach to, and vision of, agriculture that still pertains today¹¹**.

In this regard, the working hypothesis points to the fact that:

- i) Given the globalization and tearing down of economic, political and conceptual frontiers, this approach is totally obsolete,
- ii) The dismemberment of the import substitution model has been underway for over a decade and a new development model is being constructed in all the countries¹²; however, the traditional concept of agriculture has not been renewed and continues to hold sway,
- iii) A renewed approach to agriculture has not yet emerged to support this process; what is needed is an approach that is entirely functional, consistent with the new challenges and makes it possible, on the one hand, to neutralize the erroneous idea that agriculture is no longer important and, on the other, to set it on the road to further growth and development,
- iv) The changes in the world and the economy are so dynamic that they cannot be properly understood from the traditional perspective, indeed they cannot even be correctly deciphered,
- v) There is a serious lack of up-to-date information on the phenomena that affect agriculture,
- vi) Lastly, due the continued existence of this obsolete approach, many of the institutions and public and private agents that participate in agriculture and

¹¹ On the one hand, viewing agriculture as an isolated sector engaged in primary production; and on the other, even where the concept has progressed beyond this and agriculture is looked upon as an expanded sector, i.e. with agroindustrial linkages, it retains a marked rigidity and an excessive bias in what is generally an economics-oriented, technical-productive and short-term approach.

¹² The main elements of this new model are economic and social liberalism, opening, integration, the market and the leading role played by producers; but it also inherently acknowledges the need to alleviate poverty, human capitalization, democratization and human development.

the rural setting in one way or another are inefficient and anachronistic. This includes national and international public and private institutions and economic agents. As a group, we are all responsible, either directly or indirectly, for the poor performance of agriculture in the region, and also for not neutralizing the idea that is current in other spheres of national life that the sector is no longer important; although this idea has no basis in fact, it silently undermines agriculture.

This working hypothesis, with its two basic components, constitutes the main thrust of this document.

After making initial attempts to prove the hypothesis in the different chapters of this document, it is then argued that a concerted hemispheric effort is needed to create the momentum for a process that would revalue the role of agriculture in the Americas, the rural setting and rural dwellers.

This would call for work in the future on the following issues, which should be developed collectively and consensually at the national, multinational (regional) and hemispheric levels:

- i) Fine-tuning of this or other hypotheses that may be modified and emerge as a result of this or other documents.
- ii) Execution of the process of proving the working hypotheses in question.
- iii) Development of a renewed approach to agriculture in the hemisphere; and
- iv) Definition and design of a strategy and a short and medium-term action plan on the role and revaluation of agriculture, the rural milieu and rural dwellers.

Ahead lies the task of developing a renewed approach and an action strategy aimed at reactivating the growth and sustainable development of agriculture to meet the challenge of hemispheric integration as the XXI century draws near. It is a task that basically calls for a collective effort. This document is intended to contribute to the first stage of this urgent task.

The document is arranged in the following way. It begins with an executive summary, an overview of the main ideas set out in the document. This is followed by five chapters.

In the first, agriculture is discussed in the context of the import substitution model and the current "outward-oriented" model of opening and deregulation.

The second chapter contains an analysis of the recent performance of expanded agriculture¹³.

The third chapter presents a global analysis of the implications for agriculture of the difficult macroeconomic context facing the region in the Nineties.

The fourth chapter compares the future vision of the context in which agriculture will probably be carried out over the next two or three decades with the current idea that it is no longer important, its poor performance, and the obsolete approach to, or vision of, agriculture today.

Lastly, chapter five outlines some ideas regarding what the renewed approach to agriculture could be.

¹³ See note No. 1.

Chapter 1.

Economic Development Models and the Role of Agriculture in Latin America and the Caribbean



CHAPTER 1

Economic Development Models and the Role of Agriculture in Latin America and the Caribbean

1.1 Introduction.

This chapter describes the role of agriculture in the economic development of LAC during two separate periods. The first of these is the period between World War II and 1982, and the second, from 1982 up to the present. This division recognizes the fact that two different economic development models were in operation: first, that of industrialization aimed at import substitution, and second, the model that is still in a process of transition and could be described as "outward-oriented", or geared to opening and deregulation.

This chapter is not intended as either a historical essay or a discussion of the economic models of LAC¹⁴. It is merely an attempt to define the role of agriculture in the two models.

Agriculture has traditionally played an important role in the economies of the countries of the Americas. It is a role that has different connotations, depending on the type of economy involved and the level of development it has achieved, and the prevailing economic model.

Agriculture is generally recognized as making an important contribution to the rest of the economy by: a) supplying food for the population, b) economizing and generating foreign exchange, c) channeling raw materials for industry, d) creating jobs, e) supplying labor for other activities, f) creating a market through the demand for products and services from other sectors, and g) funneling economic surpluses into the rest of the economy¹⁵.

¹⁴ For a review of this type of discussion, see: Toward Renewed Economic Growth in Latin America. Bela Belassa, Gerardo M. Bueno, Pedro-Pablo Kuczynski and Mario Henrique Simonsen. Publishers, El Colegio de México, Fundação Getulio Vargas and the Institute for International Economics, 1986. Also, José A. Ocampo, Eduardo Sarmiento Palacios, Editors, ¿Hacia un nuevo modelo de desarrollo? Un debate. Published by Tercer Mundo Editores, Fedesarrollo y Uniandes, Colombia 1989.

¹⁵ Bruce F. J. and J. W. Mellor. "El Papel de la agricultura en el desarrollo económico." In, Desarrollo Agrícola. Selecciones de E. Flores. FCE México, 1972.

1.2 The role of agriculture in the import substitution model.

1.2.1 The subsidiary role of agriculture.

The inelasticity of the demand for primary products in the industrialized nations and the constant deterioration in the terms of trade was the basic argument put forward in the Fifties for funneling resources into import substitution.

Capital resources, labor and land were to be concentrated on achieving this objective through tariff protection and taxes on exports of primary products.

While it is true that at that time the concept of "inward-oriented" development contained elements that supported this argument, it is also true that this model was maintained for too long, at a high cost to society in general and agriculture in particular.

The region's isolation from a rapidly changing international context and the failure to comprehend the inherent limitations of a closed model were perhaps the reasons for that high cost. Among other things, it led many countries in other parts of the world, such as the Asian nations, to distance themselves from LAC and gear themselves toward greater growth and development. At the same time, it made the agriculture of the LAC countries the "feet of clay" of their economies.

Agriculture became one of the linchpins of the model of industrialization based on import substitution that held sway between the Fifties and the late Seventies. In many countries it was the main source of the resources that in large measure financed the development of industry and the cities.

Food production in particular was to facilitate the process of industrial accumulation by making food and non-food wage goods cheaper. The same applied to the production of raw materials for use by the fledgling agroindustry. In both cases the aim was to substitute as many of these imported goods as possible, thus making agriculture the principal economizer of foreign exchange.

The implementation of anti-export measures notwithstanding, it also generated the foreign exchange needed in any case to drive the industries geared to import substitution.

At a time when the countries were basically rural, the abundant supply of cheap labor from agriculture for use by fledgling industries and services was an equally valuable asset. The generation of jobs and employment in agriculture itself created demand and a market for the products of industry and services, thus reinforcing the rationale of the model itself.

Disconnecting the domestic economy from the international setting simply meant transferring the unfavorable international terms of trade to the national domain, to the detriment of agriculture. This situation in fact proved to be doubly damaging, as agriculture was required to export under unfavorable international terms of trade, while at the same time it was penalized by domestic anti-export and anti-agricultural policies that resulted in its economic surplus being extracted.

As a result agriculture had to contend with the unfavorable terms of trade prevailing in the domestic economy and the international economy alike.

The emphasis of its contributions to the rest of the economy shifted over time in line with the stages of the import substitution model. During the "easy" stage, non-durable, labor-intensive consumer goods were produced that offered high profit margins and called for neither great economic-business sophistication, large markets nor high levels of protection. Agriculture's main contribution was in the form of cheap food, cheap labor and economic surpluses.

However, the subsidiary role of agriculture took on even greater importance during the second stage of import substitution "at all costs", as this socially more costly phase called for more resources.

At the same time, the emphasis of agriculture's contributions shifted toward exports in order to obtain the growing amounts of foreign exchange required. It also shifted toward the cheap production of the raw materials to support the agroindustrialization process of the Sixties and Seventies, and even more unfavorable terms of trade for agriculture.

While the production of cheap food and labor, as well as the demand for manufactured products, machinery, implements and inputs in general (which increased as a result of the so-called process of agricultural modernization) continued to grow, they were of secondary importance.

In the absence of larger markets that could have been created by regional integration, inward-oriented development took place that was very costly and highly concentrated in, and monopolized by, a few companies in the industrial sector. This in turn made it necessary to increase the level of protection and isolation from the rest of the world.

The combination of this isolation, the lack of competition and the easy, fast profits to be made, created a context that hindered the orientation of the industrial effort toward international markets. All the advantages and incentives enjoyed by the State in its leading role meant that domestic and foreign capital was directed toward import substitution rather than exports. Moreover, given the existence of the domestic option - a market offering guaranteed high prices, big profits, and a monopolistic or

oligopolistic position - there was no reason to take risks in the international market, much less embark upon technological innovation and change.

The anti-export bias and the absence of a manufacturing industry connected with world markets, but increasingly dependent on raw materials and imported spare parts, soon created a crisis in the external sector.

The rapid urbanization generated by this model also exerted strong pressure on agriculture, although at the same time it financed a good deal of its development. The greater the economic crisis and the demand for foreign exchange and the urban society's need for resources, the more surpluses were extracted from agriculture and the more important its contributions became.

1.2.2 Agriculture and macroeconomic policies.

During the long process of industrialization geared to import substitution, an industrializing and urban context was created in which macroeconomic policies played a vital and decisive role.

A brief review of the management of the main macroeconomic and sectoral variables during this period will make this context clear.

Exchange policy was geared toward changing the internal composition of production in favor of products for domestic consumption, through the management of overvalued currencies and a multiple exchange rate system. The overall effect of this policy was to overprotect the economy, with a negative impact on exports and the trade balance, and also on costs and incomes and relative prices.

As a result, imports became cheaper and exports more expensive, with a resulting loss of competitiveness at both the external and internal levels. This made it impossible to promote agricultural expansion and diversification and the substitution of agricultural imports. The latter in fact grew steadily from the Seventies onwards.

Closely linked to this policy, **trade policy** was also used to bring about the involution and protection of the economy, as the import substitution model required. This was reinforced through the State's direct and monopolistic involvement in the domestic and foreign trade of goods and services, and the control and closing of borders.

Foreign trade policy throughout this long period meant, generally speaking, little or less protection for agriculture in comparison with other sectors, and with industry in particular. Various tariff and non-tariff mechanisms were used to control imports

and limit exports. In addition, agricultural exports benefitted from fewer subsidies and other compensatory mechanisms than industry.

Some of the other main effects on agriculture were a deterioration in the terms of trade between the countryside and the city, sluggish trade - and especially technological - development, and the uneven allocation of resources, as well as the failure to capitalize on the productive potential and comparative advantages.

The policy of price stability was implemented through the administrative control of macro prices and specific prices. This caused a severe distortion and great instability in relative prices, especially in the final phase when it was accompanied by inflation and even hyperinflation.

This policy proved unfavorable to agriculture and increased uncertainty, leading to indecision and the contraction of private investment and production for export.

The policy was also intended to protect consumers by disconnecting producers and consumers alike from market prices and introducing a clear pro-urban and industrial bias.

Monetary policy was geared toward reactivating production facilities by distributing largely subsidized credit resources in order to raise production and the production and trade infrastructure.

Though agriculture and agroindustry were granted special privileges, their positive effects were on the whole short-lived. The end result was a big loss of resources and a limited level of domestic savings. This increased the public deficit, created inflationary pressures and decapitalized the financial system.

While the capital stock in agriculture did initially increase, it then declined rapidly along with production. This policy also encouraged an anti-productive culture and poor resource allocation. It also had the effect of creating inertia by accustoming producers to subsidies and the repeated cancellation of their debts.

Expenditure and investment policy was aimed at transforming the economic and trade structure through public investment. This investment effort produced few effective and lasting results. It was also largely unsuccessful in generating sustained private investment and produced only low returns on investment. It did lead to a substantial increase in the agricultural and agroindustrial capital stock, but this proved unsustainable over time, having a limited multiplier effect, combined with the absence of a self-sustaining real investment process.

Up until the Seventies, macroeconomic management and the combined effect of these instruments proved to be anti-agricultural and anti-export, and this had direct

and indirect negative effects on the buoyancy of agriculture. However, specific sectoral instruments were also implemented to compensate for the most detrimental effects of macroeconomic management.

Generally speaking, these compensatory policies consisted of the establishment of certain preferential tariffs, subsidized credit, the supply of cheap capital goods and inputs, direct subsidies, tax breaks and transfers of income through public investment and technical support for production and social assistance programs.

This phase was in fact characterized by a long period of state intervention and the regulation of both the production and trade process and the conditions for the reproduction of the agricultural system. State policies actually managed to transform conditions in the countryside, as they were geared to developing scientific research, professional training, the production, distribution and dissemination of inputs, technology transfer and adoption, capital formation, improvements in the physical infrastructure, the readjustment of markets, among other effects.

However, the combination of macroeconomic and compensatory policies led to a costly pattern of agricultural development that, given its nature and high administrative cost, proved unsustainable over the long run.

1.2.3 Agriculture and the public/private institutional framework.

The State's dynamic presence and intervention in the economy in general and agriculture in particular naturally called for policy-setting and operative institutions throughout agriculture, as well as politico-cultural instruments and mechanisms to complement it.

In general terms, and with big differences from country to country, the institutional fabric of agriculture was characterized by the leading role of the public sector to the point of government omnipresence and the subordination of producers.

Even when they were able to take advantage of its benefits, producers were trapped in a penalization-compensation syndrome that resulted in a loss of autonomy and the capacity for self-management. A paternalistic and subsidiary politico-client relationship was established between them and the State institutions.

The State's omnipresence and the paternalistic relationship that restricted the initiative of the actors was accompanied by a policy designed to disconnect producers from markets and isolate them from technological change and competition. Access to subsidies, credit, technology, inputs, irrigation, etc., benefitted very few, generally the big pressure and power groups, and to a lesser extent small farmers and campesinos.

1.2.4 Implications for agriculture, food, the environment and poverty.

Agriculture played a key role in the sustained and relatively dynamic expansion of the economy, in aggressive industrialization based on import substitution and a significant expansion in investment, especially public investment.

Many countries were urbanized, social indicators such as the literacy rate, life expectancy at birth, and others, improved considerably, the physical infrastructure visibly increased and both public and private institutions were developed. However, poverty was reduced only slowly, while the distribution of income actually deteriorated.

The countryside and agriculture of Latin America was largely bypassed by this social and economic development.

During the stage of import substitution "at all costs", production rose by over 50% (54% in the agricultural subsector and 60% in the stock raising subsector¹⁶). The value of their exports nearly sextupled during the same period and imports grew even more. At the same time the region's traditional favorable balance of agricultural trade was maintained.

As a result, the foreign exchange available for other sectors of the economy rose from US\$3,800 million to US\$18,000 million. As late as 1980 the region's agricultural exports accounted for over one third of its total exports.

A large part of this effort was accompanied by the modernization of agriculture. This is clearly reflected, among other indicators, in the use of fertilizers, which rose by 9.2% a year and nearly quadrupled - from 10.4 kgs./ha. per hectare to 39.1 kgs./ha. - over the same period. A similar increase in the number of tractors was recorded: this rose from 472,000 to 1,045,000, at an annual rate of 5.4%.

A slowdown in the rate of growth of agriculture began to be noted from the mid-Sixties onwards in many Latin American countries. It fell to an average of 3.5%, and then 2.8% in the first half of the Eighties.

A development model rapidly took shape within in it that was characterized by attrition, the impoverishment of large sectors of the population, and an increase in

¹⁶ These and the following data under this subheading (1.2.4) are taken from FAO, La política agrícola en el nuevo estilo de desarrollo latinoamericano. Chile 1994.

poverty and migration from the countryside to the city, the pace of which had been quickening since the Fifties¹⁷.

In 1960 the agricultural population accounted for 48.6% of the total population. By 1970 this figure had fallen sharply to 41.5%, and by 1980 had declined even further, to around 32.6%. This means that by 1960 countries like Mexico, Argentina, Chile, Uruguay and Venezuela were already largely urbanized. And by 1970 a further three countries - Brazil, Colombia and Peru - had joined the ranks of the urbanized nations.

In 1960 the population of LAC living below the poverty line was 110 million, or 51% of the total population. The absolute number of poor people increased slowly in the Sixties to reach 113 million, but then rose dramatically in the Seventies to 136 million.

In 1970 some 62% of the households in rural areas were below the poverty line, and 34% below the absolute poverty line. As a result of intense migration from the countryside to the city, these percentages had improved by 1980 in relation to those of urban areas - they were down to 54% and 28% respectively, while in the cities they dropped from 26% to 25% and from 10% to 9%, respectively. The latter is made even more clear if the absolute number of persons is observed.

In 1980 both poverty and extreme poverty were concentrated mostly in rural areas. Of the region's 136 million poor, 53.7% were to be found in rural areas, while 63.9% of the 62.4 million people living in extreme poverty were concentrated there. As will be seen below, by 1986 these figures stood at only 44% and 56%, respectively.

Even allowing for the relevant shortfalls, the increase in food production and the availability of calories and proteins¹⁸ meant that the problem lay not on the supply side (i.e. in agriculture) but was specifically a problem of access to food (i.e. basically a question of income).

The rapid depletion of natural resources, on the other hand, was due to three basic factors. The first was the fact that the model excluded broad groups of farmers and rural dwellers who were condemned to surviving under deplorable conditions.

¹⁷ For example, whereas the rate of population growth in LAC was 2.8% in the Fifties, 2.7% in the Sixties, and 2.5% in the Seventies, the growth of the agricultural population was 1.1%, 0.0% and 0.2%, respectively.

¹⁸ In these two decades, the per capita availability of calories/day rose from an average of 2,363 between 1961 and 1963 to 2,693 between 1979 and 1981. Protein availability per person per day also rose from 61.9 to 66.9, respectively.

Their use of resources was an understandable part of their survival strategy but nonetheless entailed high social costs in terms of the destruction of natural resources and human capabilities alike due to poverty and its inexorable human decapitalization.

The second factor involved the agricultural modernization processes that got under way in many countries of the region in the Fifties and gathered momentum in the Seventies. The result was a severe depletion of natural resources, particularly due to cultural practices and excessive tractorization and poor soil and water management, as well as the incorrect use of inputs such as pesticides, herbicides, fertilizers, etc., which are extremely harmful to health, the environment and natural resources.

Other actions, such as uncontrolled logging and the "mining" of forest resources, and intensive stock raising that destroys the biomass, also had a substantial adverse impact on natural resources and the environment.

The third factor concerns the extraction of surpluses and the excessive transfer of resources from agriculture to the other sectors of the domestic economy that accompanied the import substitution model. The ultimate effect of this logic was the failure to place a value on land, water and forest resources in the exchange between the countryside and the city, where they were regarded as cost-free goods with no economic or social value. Due to the low prices usually imposed upon agricultural products and the need to maintain certain levels of profitability in agriculture, nature was made to foot the bill of this unfavorable relationship in regard to the terms of trade.

In short, the causes of the inaccessibility to food of large sectors of the population, poverty, and the destruction of natural resources, basically lay in the unsustainable bimodal or uneven development model promoted by the style of development that prevailed at the time, and they were exacerbated by adverse macroeconomic and international conditions, the limited size of domestic markets and the uneven distribution of income.

1.3 The role of agriculture in the "outward-oriented" economic development model.

1.3.1 A new economic development model.

Macroeconomic stabilization and structural reform programs were implemented in our countries in response to the economic crisis of the last decade. In the Nineties they have come to be regarded as one of the most important instruments for achieving a new insertion into the international context, and a key element in the search for a new style of development for Latin American and Caribbean societies.

The main components of this new style of development are: opening and economic integration; the deregulation and liberalization of the economy; the trimming-down of the State and the privatization of public enterprises; efforts to achieve macroeconomic balances and stabilize the economy; and attempts at and progress toward the harmonization of the macroeconomic and sectoral policies of the countries participating in integration processes.

Other elements underpinning this style of development are the democratization and pluralism of societies, the fight against poverty, the inclusion of the most vulnerable and unprotected groups (indians, women and children), educational reform, health and the protection of the environment, and efforts to combat corruption, smuggling and drug trafficking, among others¹⁹.

Since 1982, LAC has been undergoing what could be described as a transition from a model which had run its course - although, as is only natural, some of its elements and inertia are still being felt. What has been taking shape in the region since 1982 is undoubtedly a development model very different from that of import substitution. But it also has to be said that this model is not yet firmly rooted, nor is it fully developed.

1.3.2 Agriculture and the new macroeconomic policies.

What was it that changed for agriculture following the implementation of the stabilization and adjustment programs from 1982 onward? Practically all its internal rationale and, above all, the nature of its relationship with the rest of the economy.

In point of fact, agriculture changed its terms of insertion with the rest of the domestic and international economy. The implementation of the stabilization and structural adjustment programs changed the entire system of relative prices, resource allocation in the economy, and the terms of its international insertion. In general, a new approach to agriculture was adopted, creating a less restrictive and more favorable framework by eliminating the anti-export and anti-agricultural bias that had been the hallmark of the previous model.

¹⁹ "Our thirty-four nations share a fervent commitment to democratic practices, economic integration and social justice. Never before have our countries been in a better position to express their aspirations and learn from one another. The conditions for hemispheric cooperation are favorable. Therefore, on behalf of all our peoples, in whose name we sign this Declaration, we take this historic opportunity to create a pact for the Development and Prosperity of the Americas." "Declaration of Principles," Summit of the Americas, December 9-11, 1994, Miami, Florida.

The exchange rate policy changed considerably, with the exchange rate being raised through nominal devaluations of local currencies. Broadly speaking, the exchange rate policy is used to enhance external and internal competitiveness by encouraging exports and the efficient substitution of imports by means of a real effective exchange rate. In general terms, this normally has the effect of helping to maintain levels of competitiveness and stimulating exports; reducing the trade deficit; reducing substitutable imports; and correcting the distortion in relative prices.

This policy heralded important changes for agriculture. It indirectly benefitted farmers geared toward exports, as they now found themselves in a better position to compete, and also those whose products were intended to replace imports (more expensive under this policy).

It also brought about changes in the structure of relative prices in favor of tradable goods, the category to which most agricultural products pertain. Specifically, it enhances the external and internal competitiveness of agricultural and agroindustrial goods.

Trade policy was geared toward deregulating and de-monopolizing international and domestic trade by promoting the opening of the countries to foreign trade and regional and international integration. This policy has the overall effect of eliminating the overprotection and underprotection of the economy by gradually lowering tariffs and pushing down domestic prices. It was complemented with the management of the exchange rate.

A range of measures were implemented, such as the elimination of red tape and export restrictions, the abolishing or reduction of quantitative and non-quantitative restrictions on international trade (abolishing of import and export quotas, permits and prohibitions, gradual lowering of tariffs, etc.), the freeing of prices and subjecting the economy to strong foreign competition.

In the case of agriculture this translates into an improvement in the terms of trade between the countryside and the city. It also reconnects the producer with the internal and external market and encourages technological transformation and the harnessing of productive potential and comparative advantages.

The management of monetary policy also underwent important changes in relation to the previous period. It has in fact been a very important policy within the adjustment, as it is being used to bring about a contraction in aggregate demand by reducing credit and pushing up interest rates. This results in a sharp rise in the cost of money and, therefore, in production costs.

Credit rationalization measures make it possible to put the system on a sound footing and turn it into an instrument for reactivating and encouraging efficient

production. This policy also eliminates subsidies and boosts domestic savings, efficiency and competitiveness, the creation of private banks and the promotion of financial middlemen.

The anticipated effect is a gradual increase in the levels of loan recovery and domestic savings, which are promoted through the application of positive real lending and borrowing rates. The aim in so doing is to capitalize the national financial system and generate a bigger supply of credit, thus making it possible to bring down interest rates.

As far as agriculture is concerned, this policy is designed to make more credit available and encourage its rational and efficient use, i.e. a better allocation of the resource. It is also to be expected that the subsidiary inertia that exists among large numbers of small and large producers would be eliminated.

In general, pricing policy was geared toward reducing uncertainty, making prices more stable and sending a clear signal and promoting further private investment. Efforts were made to deregulate prices and bring them into line with regional and world prices by removing subsidies or penalties.

Fiscal policy and public expenditure have undergone radical adjustments and their compensatory role has been eliminated. A reduction in the fiscal deficit is achieved by drastic cuts in public spending, investment and subsidies. Fiscal revenues are also increased through higher taxation and hikes in the cost of public goods and services.

As this was one of the main planks of state intervention, the implementation of this policy during the adjustment had a negative effect on the global process of productive investment, the general level of economic activity and, in many cases during the initial stages of the process, on government social spending.

Wages and incomes policy was aimed at reducing them as a complementary measure to forcing down aggregate demand, and also at increasing this comparative advantage and boosting profitability.

In agriculture, where the lowest wages are usually paid, this reduction compensated for the high cost of imported inputs, intermediate goods, and money. However, it especially favored commercial farming operations which basically use hired labor and thus adversely affected the campesino economy that supplies the labor force.

This transformation of the macroeconomic context was therefore a radical departure from the way that agriculture was previously inserted into the domestic and

world economy. The anti-export and anti-agricultural bias had theoretically disappeared, and their subordination to the rest of the economy along with it.

A deregulated and transparent economy, open to foreign trade and increasingly integrated and complemented, should logically result in an efficient allocation of natural, human and productive resources, and also in important changes in their use. As they become scarcer, they recover their true value. This in turn leads to a better combination of factors and opportunities.

In the case of agriculture this basically means: the growth of efficient primary and agroindustrial production; higher prices and better quality products; the creation of markets from rural areas and the transparency of same; favorable terms of trade and a reduction in the transfers of economic surpluses; a greater savings and investment capacity; the generation of more productive employment; high incomes, more foreign exchange and greater food security; and greater protection of natural resources.

Attaining the above goals, however, requires major changes in the structure of production, industry and trade; the elimination of certain products and the emergence of others; even the crowding out of inefficient farmers and changes in their methods; a reduction in the use of marginal land and the "mobility" of the land resource; the emergence of positive externalities to underpin this change in the production structure and greater competitiveness; the inflow of credit and investment; a neutral protection of all economic activities and products, without either overprotecting or underprotecting any of them; a new type of public and private institutional framework; a renewed juridical and legal framework; and more and better "knowledge" and information which circulates widely and is no longer monopolized.

If this logical scheme of expected effects is compared with the recent trends in the region's agriculture that are discussed below, the only possible conclusion is that what has been done so far in agriculture is insufficient and that a long and complex task still lies ahead.

1.3.3 The performance of agriculture since 1982 and its impact on food, natural resources and the environment: is there cause for concern?

In general terms, there is a significant difference between the changes in agriculture that were expected to result from the transformations that have taken place since 1982, and the changes that have actually been achieved over a decade later.

If we compare the tenets of the new model with the actual situation of agriculture, and its performance with that of the other activities of the economies of the countries, the conclusion is that in many cases it is being left behind. The question

that then must be asked is whether this is a reflection of the role that the new model assigns to agriculture, whether agriculture is performing the specific role assigned to it adequately or, vice-versa, whether the model is functioning properly.

1.3.3.1 Principal trends in the performance of agriculture.

The following is a summary of some of the main trends recorded recently in the agriculture of the region:

Production is growing very slowly. This is a long-term characteristic of agriculture that tends to limit its dynamism²⁰.

Basic commodities and products destined for domestic markets are being left behind. In contrast, the production of export and agroindustrial products and those linked to stock raising, fishing and forestry is on the rise²¹.

Production for export is not as dynamic as one would expect. The exceptions are Chile, Costa Rica, Paraguay, Venezuela, the Bahamas, and a few other countries, where exports are growing very rapidly²².

The modernization of agriculture is progressing slowly. Higher yields and a slowdown in the incorporation of new land account for the higher production of most products²³.

²⁰ During the Seventies it grew by an average of 3.5% per year; in the Eighties, by 2.6% in the first half of the decade and 1.6% in the second; and between 1990 and 1994 it averaged slightly less than 2% per year.

²¹ FAO Agricultura: hacia el año 2010. Twenty-seventh Period of Sessions. Rome, Italy, November 1993. Others have also addressed this issue. See, for example, G. Arroyo, G. Escudero et al. ¿Es la biotecnología una salida para la crisis alimentaria?. Ed. Plaza y Valdez, Mexico 1988. R. Batt, Barkin and R. DeWalt. "La sustitución entre los granos de A.L." in, Modernización y estancamiento. Twomey/Helwege A.FCE, Mexico 1994.

²² Agricultural exports over the last 10-12 years have increased by 0.7% per year, rising from 35.7 thousand million dollars to just under 40 thousand million nominal dollars. This means that agriculture's share in the region's total exports has fallen from 30.3% to 16.2% (CEPAL, Políticas para... p.82). The share of manufactured exports based on agricultural products dropped from 14.4% to 14.2%. This represents a real increase of 30%. While this shows that there has been vigorous growth at this level, it is still well below that of other export activities.

²³ "Given the weak growth in the surface area under cultivation, the increase in production (2.2% in the last two decades) was largely due to higher economic productivity per hectare, i.e. better physical yields or the use of the land for economically more profitable crops," p. 140. La política agrícola en el op. cit., FAO, 1994.

The use of fertilizers, tractors, improved seeds and irrigation is also rising slowly, while the use of labor is declining²⁴.

The capital stock is stagnating. The public and private investment process has yet to recover from the effects of the crisis of the Eighties. The decline in the rate of public investment impacts capital formation, while private investment is also sluggish.

The modernization of agriculture²⁵ is having a polarizing and excluding effect. This continues to vary from region to region and from one type of producer to another. It is selective and biased, and this has polarized the production structure even further.

Agriculture is not generating more employment. Employment in agriculture has stagnated in recent years²⁶.

The population in rural areas is no longer growing, instead it is emigrating. In the Fifties it grew by an average of 1.1% per year. By the Eighties this figure had fallen to 0.4%, and zero or even negative population growth is predicted for the Nineties²⁷.

²⁴ The number of tractors per 1,000 hectares rose from 7.4 in 1970 to 9.1 in 1989. The average number of workers per hectare fell from 0.48 in 1970 to 0.45 in 1989. The ratio of the average amount of fertilizers per hectare also confirms the changes in production patterns. The use of fertilizers rose from 48 kgs. per hectare to 66 kgs/ha over the same period. La agricultura de las Américas al inicio de los noventa. Vol. 1 Principales transformaciones productivas y de comercio. IICA, San Jose, CR, 1993.

²⁵ See the various case studies on the modernization of agriculture by product or agroindustrial linkages in countries such as Argentina (grains), Brazil (soybeans and orange juice), Chile (fruits), Colombia (flowers), Costa Rica (dairy products and stock raising), Ecuador (shrimp) and Mexico (vegetables) (IICA. Modernización de la agricultura en ALC, 1990. San Jose, Costa Rica.); also, for a global view of agriculture in Argentina, Brazil, Central America, Chile, Colombia, Ecuador, Mexico, Venezuela and Peru, see M. Twomey and A. Helwege, Modernización y estancamiento, op. cit., 1994.

²⁶ While the agribusiness component of agriculture is a net eliminator of jobs, campesino agriculture generates underemployment. The EAP employed in agribusinesses fell by over one million, while the campesino EAP grew by eight million (from 18 million in 1950 to 26 million in 1980). Its share of the agricultural EAP rose from 65% to 75%. Recent data from ECLAC suggests that "employment" in agriculture is continuing to grow in the Nineties.

²⁷ In 1970 the rural population accounted for 41.6%, while in 1990 the figure was 26.4%. The population in the cities is growing by 4%, but in the country as a whole by only 2%. Intense migration from the countryside to the city therefore accounts for this change.

Poverty is becoming an urban problem. The majority of poor people are to be found in urban areas, and the dynamics of the growth in their numbers suggest that there will be a further rapid increase²⁸.

Food problems are growing more serious. The problem is not one of supply, but of access and, therefore, of income. The food shortages of the Seventies were overcome and an oversupply and lower prices were achieved. As a result, the situation changed from one of relative self-sufficiency to "universal access"²⁹.

Natural resources are being depleted at an increasingly fast rate due to either modernization or poverty. Competitiveness is mainly based on the intensive use of natural resources and labor³⁰.

1.3.3.2 Effects on agriculture itself.

These trends would appear to suggest that the region's agricultural and forestry activities are slowly being reactivated, but that increases in production are not keeping pace with the needs of a growing population, nor with the demands of the rest of the economy, and much less with their true potential.

Nor is there sufficient financing to modernize agriculture and increase its competitiveness in the presence of a market economy and strong international and domestic competition.

Lastly, there is no significant mobility of the factors of production. Migration from the countryside to the city is more visible and in fact constitutes a transfer of the

²⁸ "In 1989 there were 79.5 million people living in poverty in rural areas, and 48.3 million in extreme poverty. In 1980 the figures were 73 and 39.9 million respectively, representing an 8.9% increase in the number of people living below the poverty line and a 21% rise in the number living in extreme poverty. The growth of poverty in urban areas was even more dramatic: the number of poor people rose by 65.5% and the figures for those living in extreme poverty, by 21.1%. In 1989 there were 20.3 million households living in poverty in the cities, compared with 14.3 million in rural areas; and 7,600 and 8,200 respectively, living in extreme poverty." FAO, *La política agrícola..*, op. cit., pp. 157 and 158.

²⁹ Availability does not appear to be a problem, as it has remained stable in recent years; dependence on exports has fallen; access, on the other hand, is a problem, especially as far as the most vulnerable sectors are concerned. Schejtman, A. *Economía política de los sistemas alimentarios en América Latina*, FAO, 1994.

³⁰ For example, the rate of deforestation is over seven million hectares per year. In the last 30 years 200 million hectares have been deforested. The surface area is being deforested at a rate of 0.8% per year, and only 10% of the land deforested is reforested. The forest is mainly used for fuel (charcoal and firewood - 66%).

poverty of rural areas to the cities. Natural resources are also being consumed very rapidly.

The interdependence of the foregoing trends gives rise to the following phenomena:

The rate of growth in the production of tradable goods, particularly for export, is lower than expected and is therefore a cause for concern, as it has a bigger impact on rural incomes than non-tradable goods. Also worrying is the fact that agricultural productivity in general is lagging behind that of other activities, particularly where non-tradable products are concerned. Higher productivity has a bigger income effect on tradable goods³¹.

The current modernization of agriculture in the region is far below the levels, scope, rates and areas required to bring about a meaningful change in the production structure. Investment levels are low, not only compared to previous decades but also in terms of the amounts required to make up for the capital depletion that occurred in the Eighties. They are also too low to raise competitiveness to the levels needed to meet present and future challenges. They are insufficient to keep pace with market opening, as inadequate technological transformation at the farm level is combined with the slow modernization of infrastructure - irrigation, warehouses, roads, highways, ports, etc.

Static comparative advantages are seemingly greater than dynamic comparative advantages, a situation that, in view of the opening and economic integration, could mean that many farmers will be unable to rise to the challenge. And this applies not only to many in the campesino economy, but to modern farmers also.

The modernization that got under way with the Green Revolution and continued with the biological revolution is reflected, in the case of Mexico, in products and areas such as wheat³², vegetables, soybeans and poultry farming³³; in Costa Rica, in dairy products; in Ecuador, in the shrimp industry; in Colombia, in flowers; in Bolivia, in edible oils; in Brazil, in soybeans and citric fruits; and in Argentina, in meat

³¹ "A one per cent increase in the productivity of tradable goods generates an annual increase of 0.2% in rural incomes. However, an increase in the productivity of non-tradable crops (many of which are produced by campesinos) would have more limited effects: for each increase of one percentage point in the productivity of non-tradable goods, rural incomes would rise by 0.06%." E. Lora and A. M. Herrera "Ingresos rurales y evoluciones macroeconómicas," González C., Jaramillo C.F. Competitividad sin Pobreza. Fonade TM editores, Colombia, 1993.

³² C. Hewith, La modernización de la agricultura mexicana 1940-1970. Ed. S. XXI, Mexico 1978.

³³ Arroyo G., Escudero G., et al. La pérdida de la autosuficiencia en México y Centroamérica. Mexico, 1988, ed. P&V.

and cereals³⁴. These are merely exceptions to the norm, however. The general picture is one of immobility and a failure to modernize, which tangentially affects agriculture and a minority of its actors³⁵.

Inputs and services in general (fertilizers, machinery, credit, energy, information, etc.) tend to be developed through market and transparent mechanisms, but accessibility remains a problem for many producers³⁶. Even more pronounced is the absence of either a public or private rural institutional framework. The market mechanism apart, it has so far been unable to establish other complementary and temporary mechanisms to provide greater access to them.

1.3.3.3 Effects on food and nutrition.

These trends in the performance of agriculture are having an adverse effect on the food and nutrition of large sectors of the rural population.

First, while rural-urban migration can in practice mean that farmers cease to produce inefficient foodstuffs on marginal lands, it ultimately results in a drop in food production. Although this is not necessarily negative either, given the urban poverty and the lack of alternative employment it is exacerbating the problem of access to foodstuffs faced by this sector.

Second, falling employment, lower salaries and underemployment, however much they may improve the profitability of firms that use hired labor, have a direct and fundamental impact on the purchasing power of workers and campesinos, and their access to food and nutrition.

Third, the lower rate of growth in production, be it for the domestic market or for export³⁷, impacts the incomes of farmers and workers, thereby reducing demand and making greater access to food impossible. Besides failing to generate more foreign exchange to complement the availability of food at the national level through imports,

³⁴ IICA, Modernización de la agricultura, in op. cit. 1990. San Jose, Costa Rica. The case studies can be consulted in this work.

³⁵ A particularly instructive case is Chile, where agricultura, despite having grown by 6.5% last year, is in crisis due to the fact that modernization was achieved on only 30,000 units; a further 260,000 units were excluded from the process.

³⁶ IICA. El papel de los sectores público y privado en la provisión de servicios de apoyo a la agricultura. 1993. IICA, World Bank and others.

³⁷ IICA, La agricultura de las Américas al.., op. cit. 1993.

production for export has a big impact in terms of its multiplier effects, especially due its high ratio of value added and the indirect employment that it generates.

Fourth, the problem of insufficient capital formation resulting from inadequate investment has an impact on employment, production and incomes. At the same time, the failure to increase competitiveness means that the continued existence of producers in the market in the medium term is not guaranteed, which in turn will have an effect on demand and make access to food by large sectors of the population impossible.

Increased agricultural modernization means, on the one hand, higher productivity and production, with a resulting reduction in the unit costs of production and the generation of productive employment, and, therefore, greater access to food. On the other hand, however, it also reduces absolute employment which has a polarizing and excluding effect and, in the absence of the generation of alternative jobs, be they within agriculture or outside of it, creates a barrier to access to food by large sectors of the population.

1.3.3.4 Effects on rural poverty.

The problem of rural poverty is basically one of accessibility to the minimum resources needed for production and to the income-earning opportunities which allow an individual and his/her family to satisfy their basic needs. The agricultural trends that have been discussed have an especially adverse impact on the poorest members of society.

First, the relative reduction in agricultural employment (whether due to a slump in production or mechanization), underemployment and a fall in real wages, directly impact the impoverishment of the human resource.

The effect on the competitiveness of work, and therefore on earned income, is negative. In this case the effect is more pronounced on those who depend totally or largely on their labor force (wage earners).

On the other hand, the effect tends to decrease when the family's income strategy involves the diversification of their sources of income (production, paid employment, leasing of plots, etc.).

While poverty is not the sole cause of emigration from the countryside³⁸, strong migratory flows, especially from the countryside to the city, are unquestionably driven by high levels of poverty.

Second, the reduction in the production of non-tradable goods, if not accompanied by changes in the production structure, has a negative impact on the poverty levels of the campesino economy, as it reduces its consumption and its sales. The sluggish growth in, or the falling prices of exports, generally reinforces poverty due to the fact that fewer jobs are created and lower wages are paid.

Third, the modernization of agriculture in practice generally means greater capital intensity and a decline in paid employment. When combined with the absence of other alternatives, this factor impacts rural poverty via the fall in employment levels. On the other hand, when this applies to the production of foodstuffs that are consumed on a wide scale, production tends to rise and the cost of the products falls (making them more accessible).

When modernization does not occur as a result of capital intensification and, for example, takes place in campesino agriculture, workers lose their jobs. However, given the high levels of underemployment that exist in this subsector, it allows farmers to diversify their sources of income through the alternative use of this surplus capacity and to benefit from the increase in food production and the resulting income. Rural consumers also benefit from lower prices.

Fourth, the failure to increase the productivity of non-tradable goods has an adverse income effect on producers, who are usually found in the campesino economy, contributing significantly to their impoverishment.

Fifth and last, the modernization of agriculture essentially has the effect of excluding and impoverishing campesinos and, in the absence of other job and work alternatives, deepens bipolarity in the countryside and reinforces the structural heterogeneity through greater poverty and exclusion.

1.3.3.5 Effects on natural resources and the environment.

There are many reasons for the deterioration in natural resources, and most of them are to be found in agriculture. Poverty and agricultural modernization play an

³⁸ Since, among other things, i) types of seasonal and complementary emigration exist, ii) emigration is associated with the high opportunity costs of living in the countryside as compared to access to services or higher wages in the cities, or iii) the modernization of agriculture.

important role in the depletion of natural resources. In consequence, recent trends in agriculture have had a basically negative effect.

First, the type of modernization involved exhausts resources, as growing tractorization affects the structure of soils and makes them susceptible to erosion. More energy is also expended due to the use of fertilizers and pesticides. Irrigation increases, but poor management results in the salinization of the land³⁹.

Second, the changes in the technological model, when they are associated with a more intensive use of resources and the conversion of natural ecosystems to other uses⁴⁰, create, among other problems, deforestation, pollution and the overexploitation of resources and valuable species.

Third, the slowdown in demographic growth in rural areas to some extent alleviates the pressure on, and the additional destruction of, resources. But the lack of financing and investment for agriculture and the high cost of credit makes it difficult to use them for the protection of natural resources.

Fourth, poverty (like opulence) leads to the destruction of natural resources and, associated as it is with a decline in rural incomes and production, generally results in the pressure caused by this situation being exerted over natural resources in the form of abuse and overexploitation.

³⁹ Over the past two decades, over five million hectares have been incorporated into irrigation: the figure rose from 11.3 million hectares in 1970 to 13.7 million in 1980 and 15.8 in 1990. This is particularly important as it leads to a substantial increase in productivity and is generally associated with important transformations in production in the areas irrigated and, due to a spillover effect, in the surrounding rainfed areas.

⁴⁰ For example, the replacement of animal and cereal production systems with continuous cereal and soybean farming systems (Argentina and Brazil), or the increase in vegetable and fruit exports with consequences for pollution (Chile and Mexico), and the exhaustion of underground waters (e.g. in the case of flower-growing in Colombia). A particularly critical case is the expansion of shrimping enterprises in mangrove swamps (Ecuador, Honduras, Guatemala, etc.) which continue to destroy large areas of these woodland formations, and also results in the death of coral reefs and the decline of small-scale coastal fishing. IICA-GTZ. Tecnología y sostenibilidad de la agricultura en AL. 1992.

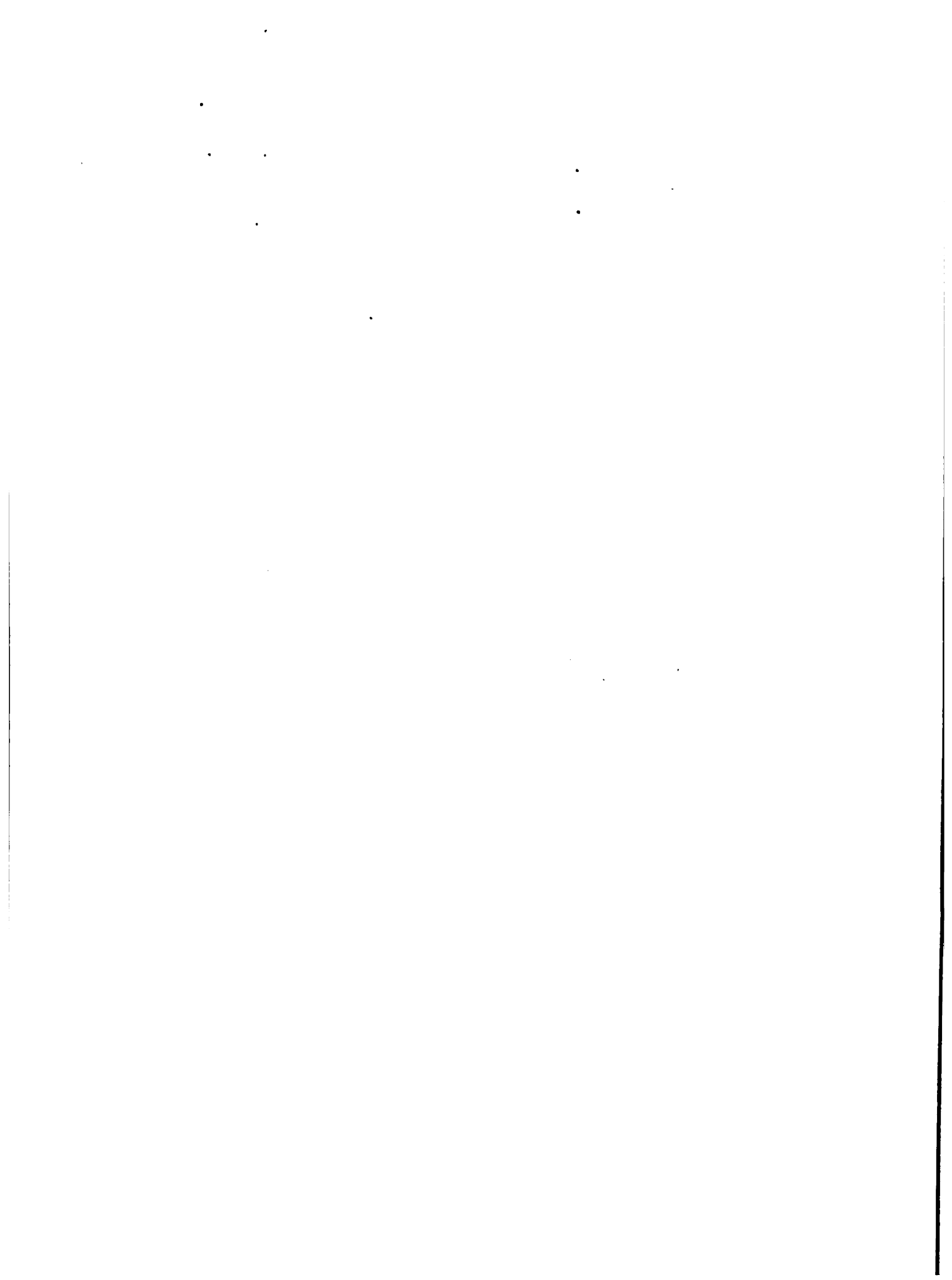
Fifth, the lack of awareness and education, and of regulations and effective government, private and social control⁴¹ play an important role in the destruction of resources⁴². Corruption is also an extremely dangerous element, as it tends to thwart any attempt to provide a solution.

⁴¹ "The problem lies basically in establishing a legal framework and an institutional structure that would guarantee effective control in order to penalize productive activities that generate negative externalities for the environment and natural resources, and establishing incentives for those that make efforts to avoid causing damage of this kind." R.Moreno. "Recursos Naturales y Medio Ambiente," p. 115, in Apertura Económica, Modernización y Sostenibilidad de la Agricultura, IV Latin American and Caribbean Congress on Agricultural Economics, Villa del Mar, Chile, 1993.

⁴² "One of the most drastic changes with regard to the efforts to achieve sustainability concerns education. A complete about-turn in current educational systems is required.." IICA, 1992. Tecnología y sostenibilidad de la agricultura... op. cit..

Chapter 2

The expanded agricultural sector: have linkages atrophied?



CHAPTER 2

The expanded agricultural sector: has linkage come to a standstill?

2.1 Introduction

The process of agroindustrial linkage in Latin America and the Caribbean has continued along the same lines as in recent decades. Production and consumption have experienced relatively dynamic growth, while agricultural production has faltered and agroindustrial and agri-food activities have remained very narrowly focused, and more recently, have undergone a sort of destructuring. As economies have opened and deregulated, two closely interlinked phenomena have emerged.

In the first place, when economies become more open and integrated, companies come under heavy pressure to compete domestically with foreign products and to seek out external markets, where they discover that competition is also fierce.

At the same time, public enterprises have entered into active processes of privatization, and public and private roles have been redefined. In fact, some public functions are actually being torn down in certain areas that are strategically important links in the agroindustrial chain because of their implications for agriculture and agroindustry. These are: research, technology transfer and extension; financing and banking services; production of seeds, fertilizer and other inputs; animal health and plant protection; and quality control.

Competition and a more efficient private sector can be highly beneficial. They must, however, exist alongside processes and in environments in which producers and enterprises will have unhindered access to technology and know-how in the quantity, quality and prices they need. Only then can they proceed with full transformation and remain competitive horizontally and vertically.

In general, these processes and environments have not changed enough in Latin America and the Caribbean. Borders have opened very quickly⁴³, but under highly

⁴³ "Most historical experiences, as well as the cases examined here, disprove the hypothesis that by neutralizing incentives, dismantling protection and eliminating subsidies, a country can bring about a spontaneous, low-cost reallocation of resources toward those sectors in which it has comparative advantages. Chile's experience demonstrates the high costs of drastic liberalization, when all selectiveness is abandoned. These costs (essentially transitional) are not easily offset by the ... greater growth that might eventually come about after adjustment is complete. If import liberalization policies had been more selective and less drastic, and if firm support had been provided for exports to Asia, the entire economy would have performed more
(continued...)

adverse external market conditions, as will be seen later. Developed countries have offered very little reciprocity, and conditions of competition are frankly unequal for producers in the region's countries. The most striking failure has been the lack of policies and actions that would encourage fuller use of economic opening.

The main concern is how quickly the changes come about. More particularly, policy makers must be constantly aware of the need for import liberalization and export promotion to maintain to take place symmetrically and gradually⁴⁴.

As a cautionary note, consideration should always be given to the possibility of transforming existing production capacities, rather than dismantling them. Otherwise, liberalization might move much too quickly, without foreseeing some of its implications.

The present situation is worrisome, as actions taken so far are insufficient to consolidate a full-fledged, efficient structure of services to back up the transformation of production and trade in agriculture and agroindustry.

Below is a description of the main characteristics of each link in the agroindustry chain.

⁴³{...continued)

dynamically. If production is to be transformed efficiently and bring about greater opening and a qualitatively different fit in international markets, it is not enough simply to wield the stick of liberalization. Incentive policies are needed to provide the necessary carrot. Clearly, this does not mean a return to past policies of high, indiscriminate protection. Indeed, it could be argued that the now-discredited import substitution policies were actually more indiscriminate than selective. Today's economies need to be much more selective than in the past, in the sense that any exceptions to neutrality should be few and well chosen. Selectiveness should also guard against the anti-export bias of past policies. In other words, export producers and suppliers of local markets should both receive equivalent incentives. Under today's conditions, in view of the small size of most of the region's economies, it would be reasonable to defend frankly pro-export policies." Agosin R. M. and Ffrench-Davis, "La liberalización comercial y desarrollo en América Latina," p. 66-67. In Nueva Sociedad, 1994.

⁴⁴ "Experience shows that imports can be liberalized more effectively if sustained export growth is achieved first and the production structure has already undergone dynamic transformation. The East Asian countries bear clear evidence (Sachs, 1987). Although it is too late for many Latin American countries to opt for this path, the Asian experiences hold out an important lesson: import liberalization alone is not enough to transform exports; instead, a more dynamic export economy needs to be specifically targeted. All the countries of Latin America that have undertaken profound reform began by taking steps to dismantle or curtail export promotion programs that had been successful in the past. This suggests that liberalization will exact a high price in terms of growth during the transition toward a new balance." M. Agosin / R. Ffrench-Davis, op.cit., p. 66.

2.2 Consumption and its impact on agriculture, nutrition, natural resources and poverty

Consumption, the first link, is experiencing the following trends:

The consumption model of developed countries continues to spread, with its high-energy, high-protein diet, growing reliance on animal protein, burgeoning markets for industrialized products that are highly differentiated, produced and marketed by an increasingly monolithic structure, and disseminated massively.

New trends are emerging in developed countries, and the watchwords are "Natural!" and "New!" Products that contain no chemical additives or environmental contaminants are highly valued. New types of products, or "exotics," are also becoming very popular.

The consumption model of developed countries is sweeping through the region of Latin America and the Caribbean. As this trend not only persists, but is clearly gaining ground, native products find their popularity waning⁴⁵.

Broad groups of society are adopting partial or differentiated imitations of the consumer habits of developed countries. As part of this trend, industrialized foods account for an increasing proportion of local diets, the tertiary sector of the food industry is developing rapidly, with more added value in the form of services, and local diets are increasingly differentiated.

Moreover, the process of opening and deregulation has intensified "universalization" of consumption in recent years.

In overall terms, the aggregate supply of calories and proteins in the region has held steady⁴⁶. In the 1960s and 1970s, the total food supply posted annual average growth of 0.7 percent, but in the 1980s, growth came to a standstill.

⁴⁵ "... it is instructive to compare consumption trends common in the early 1960s ... with those of the late ... 1980s, focusing on the relative weight of native or traditional components, which were the foundation of the popular diet, and the share of ingredients that, for lack of a more specific name, can be called "introduced." The tendency in nearly every region has for the relative share of the former to decline. Thus, for example, the corn-based diet is losing ground in the Andean countries, Mexico and Central America. The same is occurring with tubers and legumes in Brazil, the Andean countries, the Caribbean, Mexico and Central America. By contrast, wheat and rice are gaining a larger share, as are vegetable oils." Schejtman, A., Economía op. cit., p. 57-58. FAO, 1994.

⁴⁶ "The region's total food supply held steady, in terms of both calories and proteins. However, the daily per-capita supply of calories declined in 11 countries, while the per-capita protein supply dwindled in nine." FAO, La política agrícola... op.cit., p. 155, 1994.

Consumption is becoming increasingly industrialized, especially in the form of fast food and street sales in the region. This is a by-product of trade opening processes, entry of women into the work force, and growth of the informal economy.

These consumption trends interact in complex ways. Consequently, today's consumer model seems to hold ambiguous repercussions for agriculture, nutrition, poverty and natural resources.

2.2.1 The effects on agriculture, nutrition, poverty and natural resources

These consumer trends have a multi-dimensional impact on agriculture. In developed countries, and in this region as well, they have tended to make the sector more diversified and sophisticated. This, in turn, brings new possibilities for reorienting farming methods, and opens interesting marketing niches. The growing popularity of natural, innovative, additive-free consumer goods promises new markets for organic farming and "natural" industrial processing.

Natural resources will also feel some impact. This model continues to be based on a wasteful attitude, despite the increasingly common focus on mechanisms to reduce the use of and impact on natural resources. Therefore, the emergence of niches for natural, innovative products may have a favorable impact on the conservation of natural resources.

The impact on poverty and nutrition has also been ambiguous. Nutritional levels are bound to improve with the development of balanced, nutritional, natural consumer products; but this impact will generally be felt only by high-income groups.

As societies increasingly adopt various parts of this consumer model, social costs will be higher per each calorie or unit of protein produced. Nutritional levels will inevitably suffer from the consumption of foods that have a high commercial value, little nutrition, and are widely, massively distributed. This will be felt above all by low-income consumers.

Given current patterns of income distribution, the rapid spread of this consumer model intrinsically bypasses the majority of consumers in the countries of the region⁴⁷.

⁴⁷ "The model now being imitated will never become widespread because it presupposes a certain level of income, exacts foreign exchange costs, and requires too much commercial energy per unit of food energy; it will continue to be present only if it can be contained and limited to a minority sector." Schejtman, A. *Economía política*, op.cit. p. 64.

2.3 The market and its impact on agriculture, nutrition, natural resources and poverty

Domestic and foreign markets are extremely important in the current economic model, providing the essential grounds on which agricultural and agroindustrial producers should base investment and production decisions.

Several current market trends are relevant:

World trade is much more dynamic than world production⁴⁸, but the region's export position is rapidly declining on world markets. LAC exports totalled 12 percent of world trade in 1950, but had fallen to only four percent by 1990.

Nonetheless, the region is becoming more export oriented. In the 1970s and 1980s, exports hovered at around 15 or 16 percent of total GDP, but by 1993, the figure had risen to 23 percent⁴⁹.

Basic commodity exports are losing ground, while manufactured goods are occupying a growing share of total exports⁵⁰.

Heavy trade protectionism in developed countries in the form of tariff and non-tariff measures keeps our products from entering their markets. Under the terms of the Uruguay Round agreements, these barriers will be sharply curtailed by the year 2005.

The demand for agricultural products is falling worldwide. Many causes can be cited, including improved agricultural production in regions which previously suffered deficits. Other factors are declining population growth rates (1.8 percent annually in the 1980s), slowdown in the world economy and falling income levels in many underdeveloped countries.

⁴⁸ From 1974 to 1980, world trade grew by 5.4 percent, but world GDP rose by only 3.5 percent. From 1981 to 1990, while trade grew by 4.9 percent, GDP rose only 3.3 percent. World Bank, Global Economic Prospects and the Developing Countries. Washington, 1994.

⁴⁹ From 1980 to 1993, GDP increased by only 29 percent, while production of goods and services for export rose by 89 percent.

⁵⁰ In 1970, basic commodities (a category which includes most of the products of agriculture, such as foodstuffs, live animals, beverages, tobacco, oils and fats, and others) made up 65 percent of total exports; by 1990, its share had shrunk to 41 percent. The difference was made up primarily by manufactured goods, which rose from 10.9 to 32.9 percent during the same period. More specifically, agriculture produced 38 percent of the region's total exports in 1980, but only 29.3 percent by 1991. FAO, La Política, op.cit.

The region's total export activity continues to be concentrated in only a few countries and is regressive by international standards⁵¹. Mexico, Brazil, Argentina and Venezuela continue to ship over 70 percent of the region's total exports. Only five countries (Brazil, Argentina, Chile, Mexico and Colombia) account for over two-thirds of the region's agricultural exports.

Agricultural production in developed countries continues to enjoy high levels of protection. As a result, exports and import substitutes produced in those countries are very difficult to compete with⁵².

The international prices of most agricultural products have been experiencing a prolonged slide⁵³.

The terms of trade continue to be very unfavorable for the region's agricultural products⁵⁴.

Our products are faced with competition from newly-emerging countries whose comparative advantages are similar to or even greater than our own (low-cost labor, natural resources, proximity to markets, etc.), or that have dynamic competitive advantages. This raises the pressure to compete for markets in developed countries, and even for the region's own home markets.

⁵¹ "This mainly includes: textiles, foodstuffs, raw materials of agricultural origin, petroleum, grains, tropical products such as sugar and tobacco, and mineral raw materials for metallurgy and iron and steel production. By contrast, the most dynamic sectors, such as high-technology products, electric and electronic supplies, computers, telecommunications, plastics and automotive parts, are concentrated in very few countries and are not representative of the region's exports." FAO, La política agrícola, op.cit. p. 37.

⁵² "In 1991, the OECD countries transferred a total of US\$320 billion to agriculture ... Per-farmer subsidies averaged US\$16,000. Farm producers in the United States received US\$22,000 on average, and Scandinavian farmers averaged US\$35,000 ... Per-hectare subsidies range from US\$98 per hectare in the United States to over US\$8,000 per cultivated hectare in Japan." FAO, La política agrícola, op.cit. p. 41.

⁵³ world prices fell by over 68 percent from 1950 to 1993. Hardest hit were tropical commodities (coffee and cocoa, nearly 70%; sugar 60%; rubber 50%; cotton 45%; and oilseeds 40%). Grain prices fell by 20 percent, beef by 12 percent, dairy products by five percent, leathers and skins by six percent, and forestry products by nine percent." FAO, La política, op.cit., p. 62.

⁵⁴ The international ratio of goods traded fell by 63.6 percent from 1980 to 1993: "In 1993, Latin America exported over twice as many goods as in 1980 (214%). However, it received only 50 percent as much foreign exchange. This 64-point difference can be ascribed to the fact that the price index for Latin American exports has fallen by 70 percent from 1980 levels. By contrast, import levels grew by only 40 percent from 1980 through 1993." FAO, La política agrícola, op.cit. p. 56.

Domestic demand is extremely low. During the 1980s and early 1990s, grain production slipped by an average of 0.5 percent per year. At the same time, however, total agricultural production posted average gains of two percent per year. Where was the increase coming from? Figures show that the growth could be attributed to export production, agroindustry and livestock products.

International and national trade practices are becoming extremely complex, with the following features coming to light: i) an active, dynamic international marketing mentality; ii) successful implementation of sales strategies, marketing logistics and advanced market intelligence methods; iii) accurate, up-to-the-minute knowledge of markets and their structures, dynamics and preferences; iv) more competitive marketing; and v) growing influence by a market in which "demand creates its own supply," and "production creates its own demand;" these act as consumption-inducing tactics practiced basically by the large transnational consortia and companies.

These complex trends and the dynamic ways they interact are having an amiguous impact on agriculture, nutrition, rural poverty and natural resources.

2.3.1 Effects on agriculture, natural resources, poverty and nutrition

The outward orientation has had mostly positive effects on agriculture; however, the process also has certain negative characteristics that are detrimental to agriculture.

First, it is true that the boom in world trade has created a favorable environment and a new orientation for the region's economies; however, it is also true that our countries' relative share of world trade has fallen drastically.

In the majority of the countries, the agricultural sector has lost market share and even absolute volume of trade on the world agricultural market and even in the countries' own structure of exports. This has coincided with a slump in the worldwide demand for agricultural products, all of which has minimized the benefits of market growth.

Second, even as export growth has been slower than anticipated for agricultural manufactures and practically zero for commodities that have little added value, it has also been highly concentrated on two levels: it is limited to only a few countries of the region, and even in those countries, to a very small number of producers.

Third, when new products enter the international market to compete with our exports and even with our domestic products, the effect is negative if competition is

less than transparent or genuine⁵⁵; but when competition is honest and reflects transparency and healthy trade and production practices, it induces transformation that leads to greater competitiveness and more efficient allocation of resources.

Fourth, agriculture may find a strategic avenue for expansion by pursuing the still-incipient but significant trend toward increased exports of products that are novel, organic, agroindustrial, highly profitable, value-added, highly technological, and competitive.

Fifth, while the new markets are very complex, they also offer the instruments, information and know-how necessary for taking an active stance toward trade. The positive impact on agriculture is three-fold: a) markets become more transparent, and because producers have a degree of bargaining power, the old, distorting trade structures begin to disappear; b) production is systematically, continuously attuned to market signals; and c) production tends to become more stable and efficient.

Sixth, as international prices have declined drastically and terms of trade have crumbled, the sector has suffered.

Then international price declines cannot be offset through increased productivity or other mechanisms, agriculture becomes less profitable.

Seventh, the region's agriculture can only be hurt when producers in developed countries receive generous subsidies and heavy tariff and para-tariff protection.

It is true that the payment of fat subsidies to agricultural producers in industrialized countries has an impact on international prices, albeit usually a minimal one⁵⁶; it is equally true, however, that producers in developing countries are operating in an environment of open borders in which their competitors have a usually substantial level of artificial profitability, guaranteed ex-ante.

Producers who are not similarly favored, and who in many cases operate at survival levels with the thinnest of profit margins, can be overwhelmed by the aggressive competition they must face.

Although the future elimination of subsidies will have a very small impact on international prices, in most cases, the effect on market competition will be enormous.

⁵⁵ Whether through unfair trade practices, subsidies, dumping, over-exploitation of natural resources, contraband, triangulation, or other types of distortion.

⁵⁶ This argument, with which it is considered better not to wait for major increases in international prices when these subsidies are eliminated in accordance with the final act of the Uruguay Round, is essentially true.

Under the status quo, the industrialized countries are heavily involved in competitive actions and artificial income, subjecting the region's producers to unfair, disproportionate competition.

Eighth, from every angle, the possibilities for sustained growth in agriculture are threatened by the failure of the developed countries to exercise reciprocity as our countries open their markets and curtail subsidies.

The countries of the region, as "price takers," are very vulnerable to these conditions. Even though agreements have been made to eliminate subsidies and trade barriers in the future, it would be unfortunate if local producer groups were to respond to the current environment of unfair competition by demanding that protectionist policies per se be preserved or restored. This would indefinitely postpone the necessary process by which markets can become more competitive, counteracting the distortions of the current situation, and basically providing a sound, sustainable foundation on which to build the future.

Market trends have been mostly favorable for nutrition, although in some senses, the benefit has been limited.

First, the booming domestic and international market inevitably improves the food supply. An active market triggers an increase in both the production and trade of foodstuffs. It also tends to push down international prices and, when it is broad, has many participants and is not monopolistic, defuses any possibility of exercising "Food Power."

Second, these benefits are being inhibited by certain problems. Over the short term, subsidized foodstuffs may be more accessible. Over the medium and long term, however, such practices are of little value and become unsustainable. They act as a disincentive for producing these foods and eventually push up food prices.

It is true that the short-term increase in exports generates foreign exchange and can improve nutrition by making foods more available and easily accessible. However, as was stated, the ultimate impact is low and limited.

Unregulated, open markets can be expected to have a beneficial impact on reducing poverty.

First, as we have seen, more trade means more food production, more transparent price structures, generally lower prices, and a greater food supply. All this would tend to reduce poverty. If the opposite were to occur, poverty rates would rise.

It should be stressed that the emergence of distorted, noncompetitive marketing processes and market structures will worsen poverty levels, forcing the poor to

sacrifice undue amounts of their scarce monetary or other kinds of resources. For many of the poor in Latin America and the Caribbean, especially in rural areas, this is reality.

Second, both formal and informal trade activities generate employment and income, even for street vendors, many of whom are of peasant origin.

In the field of natural resources, the same market trends described above can be cited. In many cases, the natural resource sector stands to gain considerably from the growth of markets with price transparency, where the true value of scarce natural resources is reflected accurately.

Just as such a market would lead to more rational use of resources, a situation of stunted, non-transparent markets would be very detrimental.

2.4 Agroindustry and its effects on agriculture, nutrition, natural resources and poverty.

The region reports the following trends in agroindustry:

Agroindustry continues to account for a large share of overall manufactures (nearly 20 percent) and of the total agri-food industry (over four fifths). It is more buoyant than agriculture per se, even during times of economic recession⁵⁷.

Agroindustry in general, especially food agroindustry, continues to be highly heterogeneous and polarized⁵⁸.

Various countries of the region have recently embarked on a fast-moving process of creating new agroindustries. Basically, these companies are highly

⁵⁷ Nonetheless, agroindustrial products continue to make up a much smaller share of total agri-food consumption than in developed countries. Agroindustry accounts for less than 30% of consumption in most of the countries of Latin America and the Caribbean, compared with 80% to 90% in developed countries. Schejtman, A. Economía política de los... op.cit., p. 26.

⁵⁸ "In Mexico, for example, 8% of all agri-food companies generate over 50% of production, while at the other extreme, 63% of the units generate less than 4.5% of total production. In Colombia, the eight largest agri-food companies generate 55% of gross production value, based on average production by the different component parts of these companies (Machado, 1991, p. 236). In Ecuador, the 29 largest industries generate 53% of production (Urriola and Cuví, 1986); in Chile, 11% of the establishments accounted for 75% of aggregate production value, while at the other extreme, 41% of the companies generate only 2% of the aggregate value (Martner, 1989)." Schejtman A. Economía política de... op.cit. p. 29.

profitable, very integrated, export-oriented, and specialized in new types of products. They have modernized very quickly and target specific market niches⁵⁹.

Large agroindustries are consolidating. These companies first appeared under the momentum of new urban growth processes in the region in the 1950s, gaining speed in the 1960s and 1970s. Although most are transnational companies, generally associated with agri-food production⁶⁰, the trend has also swept through large locally-owned firms, some of which have begun to internationalize their trade or even production processes within the region. This has happened mostly under agreements for economic integration and liberalization and opening of borders.

Traditional agroindustries such as sugar and cotton have lagged behind. This trend is not universal, as many traditional agroindustries in such fields as bananas, coffee, cocoa and others, have undertaken total or partial processes of technological modernization⁶¹. This is especially true in countries where public enterprises have been privatized.

Many rural agroindustries, especially the peasant companies created in the 1970s, have survived; others have folded, and a few have consolidated.

Contract farming, bringing industry and agriculture closer together, is still a weak movement but has recently been showing signs of development. Some

⁵⁹ Typical cases include flower production in Colombia, where production has risen from a 1978 level of 6000 tons of flowers exported for US\$10 million to 87,000 tons worth over US\$200 million, for total growth of 12% per year. Fruit production in Chile grew from 500,000 tons worth US\$12 million in 1970 to over 2 million tons worth US\$527 million ... Another example is the modernization of citrus production in Brazil, especially oranges. Concentrated juice exports grew from a little over US\$300 million in 1980 to over US\$1 billion in 1989, and now account for 85% of the world trade in this product. Marine aquaculture in Ecuador, which had 12,000 hectares under cultivation in 1980, modernized and expanded to 120,000 hectares in 1988, with production rising from 4500 tons in 1975 to 10,000 tons in 1980 and 65,000 in 1988. It is now the country's second largest source of hard currency after petroleum exports, bringing in US\$14 million in 1975, US\$57 million in 1980 and nearly US\$400 million in 1988. Vegetable production in Mexico generated over 40% of total agricultural exports, rising from 1.6 million tons in 1970 to 4 million tons by the mid-1980s, and bringing in nearly US\$1 billion in exports. Argentina's grain sales account for over 90% of all agricultural exports and around 50% of total exports. From 1965 to 1988, grain production more than doubled, making the country a major player in the world grain trade. Another typical case in Costa Rica, where dairy and dual-purpose livestock production have replaced traditional beef production. IICA, Modernización de la agricultura en... op.cit.

⁶⁰ G. Arroyo, et al. Agricultura y alimentos en América Latina: el poder de las transnacionales, UNAM, ICI, Mexico, 1985.

⁶¹ IICA. La agricultura en el desarrollo económico de centroamérica en los 90, 1992, San Jose, Costa Rica.

countries have seen the formation of bipartite partnerships (business / farmers) or tripartite arrangements (farmers / state / business).

2.4.1 Effects on agriculture, nutrition, poverty and natural resources

All these trends interact in a dynamic relationship. As in the cases already described, whether their net impact is positive or negative depends largely on the nature of relationships among the parties involved, how much knowledge and information they possess and can wield effectively, and how much clout they have, especially in the form of bargaining power.

First, when agriculture and agroindustry are fully and directly linked together⁶², transaction costs are lower. If product marketing takes place in an environment of integration, agroindustry generally provides a greater transparency to the markets.

Second, in many cases, agroindustry can provide a source of production financing. Thus, it offers a means to modernize agriculture and to introduce technological innovations, raising productivity and lowering production costs.

Agroindustry generally serves as a driving force for agricultural production. It nearly always raises employment levels and generates greater added value.

Third, it can become an agent for consolidating agricultural production, especially among small and medium-scale peasant production units that tend to be widely scattered. Thus, it offers excellent possibilities for obtaining economies of scale.

It is usually present in areas where foreign exchange is generated, and in many cases is able to buffer or even reverse the international price declines and deteriorating terms of trade. Agroindustry is generally associated with better-quality products that have a more attractive appearance.

Fourth, the positive effects have in many cases been clouded by circumstances involving the bargaining power of farm producers. For example, agricultural producers generally find that they are expected to shoulder the added risk⁶³ unilaterally.

⁶² Whether in the form of land ownership or rental, or through contractual relationships for raw material supply.

⁶³ Agroindustry generally requires agricultural producers to engage in monocropping, which is inherently risky. Typically, farm producers become dependent on the industry's timetables and find that they alone must shoulder the greater economic risk. Thus, the processing company is able to cut its risks by raising those of the farm producer.

Fifth, agroindustry has generally lived side by side with the skewed brokerage structures that continue to be the norm in many rural areas, and that usually block any real integration among activities. The anticipated benefits of agroindustry become distorted in the face of resource flight and transfer of farm income.

Moreover, several major stumbling blocks stand in the way of introducing new agroindustries, mostly involving economies of scale and control over certain technological processes that require massive investment. Another visible impediment is that production in certain types of agri-food or agroindustrial activities is highly concentrated.

The most beneficial impact of agroindustry on poverty is that it generates employment and income for poor laborers and peasant farmers in rural zones. The impact on employment is greater in agriculture and agroindustry than in any other economic activity⁶⁴.

Agroindustry has a generally healthy impact on nutrition, despite certain drawbacks. On the positive side, it preserves highly perishable foods, thus improving prices and stabilizing income.

It also facilitates food handling and preservation, improving hygiene, quality standards and nutritional levels.

It tends to differentiate food products, especially in the most far-flung rural zones where the diet is much more monotonous.

On the negative side, methods of food processing, hygiene and quality control can jeopardize nutrition when preservatives are used incorrectly, or when the focus is on products harmful to human health because of their low level of nutrition and poor hygiene.

Finally, with respect to natural resources, experience has shown the environment suffering from the high levels of technology involved in agroindustry, especially in the case of soil and water. This is especially true for the new types of agroindustry, such as flowers in Colombia, fruit in Chile, and the like.

⁶⁴ "Indeed, a superficial analysis of coefficients of direct and indirect impact on agriculture and the agri-food industry, per unit of final demand, compared with other sectors, reveals: i) that the effect on employment is significantly greater in agriculture and agroindustry than in other sectors of the economy; ii) that the effect on demand for inputs is..." Schejtman, A. Economía política de... op.cit. p. 27.

Case studies demonstrate that this type of modernization poses high risks of damaging natural resources⁶⁵.

2.5 Services and their impact on agriculture, nutrition, natural resources and poverty

The next link is services for agriculture and agroindustry, a sector that is currently in a stage of transition⁶⁶.

Nearly all services fit this description, including: research and technology transfer; extension and technological, managerial and organizational training; financial and banking services; production of seeds, fertilizers and other inputs; animal health and plant protection; quality control; domestic and foreign marketing services; and information and basic infrastructure.

Services have also been strongly affected by recent processes of redefining public functions and privatizing companies and certain services.

Three different factors converge to give shape to this transition: a) the condition of services prior to the transition; b) new needs for technology; and c) the problems entailed in restructuring.

Under the first heading, many public services prior to the transition were inadequate and inefficient, and access for most producers was limited and selective.

As services have been privatized and the government has moved away from an active role, the private sector must necessarily become more involved. This means services become more market orientated and are designed to meet real demands. However, in many countries and service sectors, very little participation has been forthcoming from the private sector, NGOs, producer organizations, and the like.

⁶⁵ These case studies suggest that certain market limitations provide the private sector with economic incentives to overexploit natural resources, and disincentives on resource protection. Environmental capital has a very low value, the relationship between private and social benefits and costs is severely distorted, and the social discount rate is very high. Profit maximization is the explicit objective for any private attempt to modernize the sector. Unless a company can see that its profits are threatened by deterioration of natural resources, environmental protection plans will have low priority. When the impact is on commonly owned resources, private companies will try to avoid any responsibility." IICA, Agricultural modernization and resource deterioration in LA, J. Torres Zorrilla, 1994; and IICA/GTZ, Tecnología y sostenibilidad de la agricultura in AL. San Jose, Costa Rica, 1992.

⁶⁶ For more detail, see El papel de los sectores público y privado, op.cit., 1994. IICA, World Bank et.al.

The needs for technology have changed in response to numerous factors. First, as markets have opened, competitive pressure has grown fierce. Dynamic competitive advantages have become the key to winning new markets, and this requires transformation of technology, trade and management. All of this means new priorities, new technologies and new services.

Many new problems and challenges are arising from this state of transition. One of the most critical is the very difficult task of modernizing services for financing and human capital, which for too long responded more to bureaucratic concerns than to true demand.

The three main problems to be overcome in the short and medium term are: a) production and supply; b) producer access to services; and c) setting priorities and protecting them through laws and regulations.

In nearly all the countries, the need for most services far outweighs supply. As a few examples, marketing services are still in their infancy, animal health and plant protection services are a crippling bottleneck, research and extension are inefficient, and marketing services are inadequate.

Naturally, as services have become more market oriented, real demand for them has become a deciding factor supplying them. Although this is the ultimate criterion for channeling services, nonetheless many producers with legitimate production potential may find themselves shut out of opportunities to transform their production and achieve access to the services they need.

Finally, before priorities can be set or rules and regulations can be defined to govern services, a clear picture needs to be given of the scope and orientation of existing services. The final solution will depend to a great extent on the "mix" between public and private functions, and above all on the extent to which an institutional structure is needed for this purpose.

Present services are clearly inadequate for an outward oriented development model, where competition and survival depend on technology development, productivity and competitiveness. This is one of the clearest manifestations and most stubborn causes of a self-perpetuating form of underdevelopment.

Under the import substitution model, technological progress was desirable but not absolutely essential. Under today's model, it is desirable, essential, and an absolute prerequisite for anyone who hopes to continue being present in the markets.

Services provide the material and technological foundation for boosting competitiveness all along the agroindustrial chain and in agriculture itself. Forms of modernization that exclude certain production sectors have begun to spin in a vicious

circle with poverty, malnutrition and plundering of natural resources. It is a circle than can be broken only with technology services, information and needed knowledge are incorporated.

Agriculture in the broadest sense has performed very poorly in recent years. At the same time, the levels of technological development at every level, from the farm all the way to the consumer, have regressed or stagnated. This trend will inevitably lead to greater poverty, depleted natural resources, hunger and malnutriton.

When the general level of technology use in the expanded agricultural sector declines, value is transferred toward the most productive, competitive activities, terms of trade deteriorate, and markets are lost.

In summary, the entire chain of agricultural linkages is severely atrophied. The current model of consumption is characterized by exclusion, poses high social costs, plunders natural resources and produces nutritional imbalances in the diet. At the same time, domestic markets are often limited and lack transparency and vitality. Finally, international markets are extremeley complex and forbidding.

Moreover, the structure of agroindustry is very underdeveloped and imperfect, and the system of agricultural and agroindustrial services is inadequate. Finally, the agricultural sector is lagging behind the rest of the economy in its growth and modernization and is failing to meet up to its own potential.

Chapter 3

Agriculture and the macroeconomic setting



CHAPTER 3

AGRICULTURE AND THE MACROECONOMIC SETTING

3.1 Introduction

Having taken a look at the economic model that held sway in the past and the one that is ascendent today, we find that agriculture fits into each one in a unique way. The nature and logic of this fit varies radically from one case to another because the different models, while not necessarily antagonistic, are at least very different from one another.

In the first place, the economy has moved from a system in which prices were set primarily by government intervention to a system in which the market directs prices.

In the second place, the orientation of the economy is completely different now from what it was before. In the past, the focus was on the domestic market; now it is on the external market.

In the older model, the government played the lead, with the private sector in a supporting role. Today the government serves more as a facilitator, and the private sector is the protagonist.

The macroeconomic context has also changed. The import substitution model applied its implacable logic to all policies on exchange rates, trade, monetary issues, prices, fiscal affairs and wages. Today the model that sets the tone for these policies is based on the market, opening and integration.

It is true that every economic model may contain vicious circles coexisting with virtuous circles. The essential question to ask, however, is whether these models and their circles are sustainable over time, and whether each model also allows for sustainable development in agriculture.

As we have seen, under the previous model, agriculture was expected to parallel and even uphold vigorous industrialization intended to replace imports, along with urban growth and the strong expansion of investment, especially public investment.

We also saw that as many countries pursued urban development, social indicators improved considerably, physical infrastructure expanded noticeably, and both public and private institutions developed. Nonetheless, poverty declined only slowly, while income distribution actually worsened.

Even as this push for industrialization urban development unfolded, the rural areas in Latin America slipped into social and economic backwardness as agriculture slumped.

Agriculture had been completely severed from competition and from markets. As a result, private investment dried up and no progress was made in transforming production, trade, institutions or human resources. Macroeconomic decisions were penalizing agriculture, mostly through exchange rate, trade and price policies, all of them duly offset by policies on investment, expenditures, monetary issues and fiscal affairs. This combination of countervailing policies triggered the following inter-related, clearly unsustainable results:

a) Agriculture succeeded relatively well in supplying sufficient low-cost foodstuffs, raw materials, foreign exchange and labor, as well as employment, markets and economic surplus in general. All this was achieved at a high cost -- deterioration of natural, human and economic resources, which became manifest in the different crises that have hit the sector since the beginning of the 1970s, or in some countries, since the mid-1970s.

b) Agriculture became highly heterogeneous technologically, economically and socially. As a result, the sector was strongly polarized and large contingents of peasant farmers, many of them with significant production and organizational potential, found themselves blocked from becoming "viable" producers. Moreover, broad sweeps of land, often with high potential, lacked any concrete options for development.

c) Poverty rates rose throughout rural areas, where most of the poor and indigent in the countries became concentrated. This fed processes of rural flight and hastened the deterioration of natural resources.

d) Both social and private organization processes were held back, and the self-management movement failed to thrive. This can be attributed to the prevalence of a public-private institutional structure which was paternalistic and interventionist, exclusionary and inefficient, based on corporatism and patronage, highly political and, in more than a few cases, corruptible.

e) The resulting growth pattern was costly and, by its very nature and administrative cost, unsustainable. This became obvious from the moment the economy, built on the same foundations, began to show signs of widespread fatigue in the 1970s.

Under these conditions, agriculture became seriously debilitated. The sector served an extremely important function in the crisis of the 1980s, but its role still

reflected the nature and logic of the prevailing economic model, and the it was further weakened as a result.

3.2 Did we really eliminate the anti-export and anti-agriculture bias sustainably?

Before proceeding to analyze the performance of agriculture under today's model, we will take a brief look at the adoption of stabilization and structural adjustment programs in the region in the late 1980s, which began to show macroeconomic fruit immediately.

This first stage of stagnation and economic and social recession lasted basically until the end of the 1980s. The 1990s saw the beginning of a new phase of economic and social recovery⁶⁷.

Economic indicators began to grow once more, starting with total GDP (by 3.4 percent) and per-capita GDP (by 1.7 percent). Plummeting employment figures gradually began to rebound. Productivity began to improve, which had not occurred in the adjustment phase.

Inflation had soared everywhere, becoming hyperinflation in many cases; but now it was dropping to moderate or even low levels. Public finances came into balance. Exports took on new vitality, although quickly surpassed by imports. Previously low net flows of external capital became high, and net transfers of financial resources became positive, offsetting the ballooning deficit in the current account. Savings and investment rates moved from low to moderate and rising.

After a downward slide throughout the 1980s, the incidence of poverty registered a slight improvement in the 1990s. Wages, which had collapsed totally, began to recover during the same period.

It is still too early to tell whether the events in the region in early 1995 mark a turning point in this stage of recovery, or merely a passing blip.

However, it would be wise to remember that the stabilization and adjustment programs are being reinforced⁶⁸. Thus there is no compelling reason to believe that these events signify a reversal in the road to economic recovery or to the impressive

⁶⁷ Gert Rosenthal. ECLAC. Evolución histórica, estado actual y perspectivas de las economías de la Región. Lecture on economic integration in the hemisphere. IATRC-IICA, San Jose, Costa Rica, 7-9 June 1995.

⁶⁸ This was being done in 1995 in Mexico, Argentina, Venezuela (since 1994) and Costa Rica. Other countries are preparing to begin.

progress achieved in the 1990s. Nonetheless, it is undeniable that progress is slowing down in such areas as employment, reduction of poverty and economic growth.

Agricultural production trends have fallen into two distinct phases. Prior to the crisis of the 1980s, agriculture generally grew more slowly than the rest of the economy. In the most critical phase of the crisis, from 1980 to 1985, agriculture was actually growing more rapidly than the rest of the economy. Since that time, its growth has been comparatively slower.

The explanation can be found basically in the fluctuations of overall economic growth, rather than variations in agriculture⁶⁹.

Once again, agriculture tends to be free of extreme cyclical changes. It follows a dynamic that is more slow-moving and long-lasting dynamic than other economic activities.

Indeed, during the crisis of the 1980s, agriculture's share of the national economy increased in most of the region. The sector thus served as a buffer to cushion the countries from the crisis.

This happened because agriculture succeeded in growing at a rate that, while insufficient, nonetheless outpaced other activities, and in many cases, surpassed even population growth. This growth took place under many adverse conditions, including falling prices on the domestic and external markets, drastic credit and financing limitations, high interest rates combined with insufficient investment, and curtailment of public resources for training and research.

Notwithstanding this success, agriculture did suffer from severe capital depletion, whose delayed effects were felt at the end of the 1980s, and more visibly in the first half of the present decade.

It is thus no coincidence that in many countries, agriculture is seen as the "black rice" of the national economy. In other words, it is one of the few activities that post lower growth rates, sometimes even less than population growth, in the context of other economic and commercial activities that in fact recover much more quickly.

⁶⁹ The region's total GDP grew by 5.6% per year in the 1970s, falling to 0.6% from 1980 to 1985. It then rose back to 1.9% from 1985 to 1990, and from 1991 to 1994 continued to rise by more than 3%. (World Bank, *Global Economic Prospects...*, op.cit., 1994). Changes in agriculture during the same periods were: 3.5% (1970s), 2.8% (1980-1985), 1.3% (1985-1990) and almost 2% (1991-1994). Thus, agriculture was more buoyant during the first half of the 1980s.

Because agriculture has seen very little influx of investment, credit, and capital for many of its activities in the region, transformation of the sector becomes impossible. This in turn prolongs the sector's backwardness, capital depletion and low competitiveness.

The heavy loss of capital dates back to the time when import substitution models were first adopted, and it became noticeably worse as the sector began to serve as an economic buffer in the crisis.

Although these structural trends from the past have strongly influenced the recent unsatisfactory performance of agriculture, certain additional problems are arising even now and need to be discussed openly. These latter-day problems have at least as much impact as the earlier ones, sometimes even more.

The problems can be ascribed basically to the macroeconomic setting that has been taking shape in the 1990s. Many of them can be overcome through the stabilization and structural adjustment programs being adopted, along with relevant macroeconomic policies; on the other hand, they can actually be worsened if these programs and policies are not handled correctly.

During this present decade, the trade balance and the current balance of payments have once again gone into deficit. Capital flight has reappeared, exchange rates are appreciating, local interest rates are high and rising, and the debt continues to grow rapidly, posing an ever-present, albeit hidden, threat. These problems merit further discussion.

First, the deficit in the region's current balance of payments grew from US\$35 billion in 1992, to US\$45 billion in 1993 and US\$53 billion in 1994. The trade balance in the countries of Latin America and the Caribbean posted deficits of US\$10 billion, US\$15 billion and US\$21 billion in the same three years. These deficits are placing the countries under relentless pressure, especially over the past two or three years⁷⁰.

⁷⁰ In the 1960s, the value of the region's exports grew by an average of 5.7% annually, and imports, by 6.3%. In the 1970s, the figures swelled to 20.8% and 20.6%. Stabilization and adjustment programs administered a powerful shock in the first half of the 1980s, and the rates plummeted to -0.8% and -8.0%. By the second half of the decade, the economy began to gather speed and run into higher deficits, with exports growing by 4.5% and imports, by 7.5%. Finally, from 1990 to 1992, this imbalance became acute, with growth of 1.4% and 15.6%. Data taken from ECLAC, Políticas para mejorar la inserción, op.cit., p.33, 1994.

The deficit coincides, or appears simultaneously, with the widespread, abrupt, drastically liberalizing trade reforms that took hold in the majority of the countries over two- or three-year periods between 1989-90 and 1992-93⁷¹.

The second problem has to do with the characteristics of the external capital flowing into the region. When capital started entering the region once again, net flows became positive beginning in 1991⁷²; even so, these flows are highly debatable and extremely sensitive. In fact, from 1991 through 1994, an average of US\$50 billion entered the region every year on the average. Mexico and Argentina alone accounted for nearly 70 percent of this, mostly in the form of short-term resources.

Beneficiary countries are not exempt from running destabilizing risks, given the very volatile, short-term nature of these resources. The money is not connected to production activities, oriented instead toward seeking high returns that can be quickly converted into cash. ECLAC had already started warning of this situation in 1991, and Venezuela (1994), Mexico and Argentina, as well as other countries, demonstrated in 1995 how very volatile this capital can be.

The third problem is the gradually rising exchange rates in many countries of the region. This was partly triggered by the shift in international capital flows, and also reflects the fact that productivity has not grown fast enough to offset overvalued currencies.

Unless the countries make substantial progress toward becoming more competitive or adopting new stabilization and adjustment programs, this exchange-rate imbalance brings a loss of international competitiveness, not only for exports, but also for import substitution. The current balance of payments and the balance of payments are thus placed under severe pressure in these countries, and delicate macroeconomic balance come under threat of being destabilized.

A fourth problem coming to the surface is that the countries need to raise local interest rates to attract external and internal capital flows. The problem is that savings and investment possibilities become inaccessible because of the high cost of money. The process of modernizing production and trade then suffers lengthy delays.

⁷¹ Agosin / French-Davis, op.cit. 1994.

⁷² Several conditions made this repatriation of capital possible: a) the risk of collapse in the international financial system was averted (safeguards and reserves were introduced, mechanisms were implemented for restructuring the debt over longer terms, and so forth); b) adjustment policies were applied massively in the countries, restoring solvency and stability; c) the industrialized countries entered a period of recession and falling interest rates; and d) foreign investors gained renewed confidence because of the successful adoption of reforms.

The **fifth** underlying cause for concern continues to be the foreign debt. Although this issue received much attention in the early 1980s, it has clearly faded from view lately. It would be very encouraging if the situation continued to improve, but in fact, there are no convincing reasons to believe that another crisis is at hand.

At the time the 1982 debt crisis broke out, US\$330 billion dollars in debt had been disbursed. By 1995, the total had topped US\$550 billion. While these figures represent a worrisome increase from 30 percent to 44 percent of the GDP in those years, during the intervening period it soared to nearly 60 percent. As a reflection of the export push in the countries, debt service has dropped from 42 percent of exports to 18 percent.

However, if the external environment and domestic conditions in the countries were to worsen seriously, the governments would quickly come up against barriers to meeting their present or future obligations, and the debt problem would again burst onto the scene. It would serve as a reminder that the problem is still there and is by no means solved, even with safety valves and emergency help, as occurred in Mexico, which quickly received assistance from international banks such as the IDB, the United States and other countries.

One of the conclusions that can be drawn from the difficult straits some countries are experiencing⁷³ is that stabilization programs and economic reforms are not **sequential** problems, but rather need to be applied **simultaneously**. The stabilization programs themselves need to be given new relevance and a leading role.

Many of the countries strengthened their stabilization programs in 1995, including Mexico, Argentina, Venezuela (1994), Costa Rica and Brazil. This demonstrates that such programs continue to be one of the most important priorities on the agenda for the 1990s.

Under these macroeconomic conditions, LAC exports and import substitutes quickly become less competitive. The countries begin losing their ability to generate and save foreign exchange, and begin withdrawing from their markets. Thus the trade balance deficit deepens, and the current balance of payments comes under greater pressure.

One of the most common approaches for responding to this is to promote net flows of external capital and set high interest rates to remedy the balance of payments deficit.

⁷³ Not only Mexico and, to some degree, Argentina, Venezuela, Costa Rica and Brazil, but also because of the alarming status of important economic indicators in many of them.

The resulting resources tend to be concentrated in a small number of countries. They are a highly volatile source of income, lend themselves to speculation, and can easily be used for consumption, instead of for production and investment.

High interest rates, together with the promotion of non-productive activities, act as a negative structural adjustment of the economy and a detriment to competitiveness. Furthermore, these capital flows generally activate an exchange-rate appreciation, and the economy becomes less competitive.

This completes the vicious circle: loss of competitiveness, higher trade deficit, monetary and financial panic, devaluation, restricted money supply and less credit, high interest rates, economic recession, impediments to economic transformation, real declines in wages and employment, greater impoverishment of human resources, and thus, less competitiveness.

Loss of competitiveness brings macroeconomic imbalance, a greater need for monetary and financial stabilization, and consequently, deeper economic recession, and the circle spirals on.

When exchange rates appreciate, production activities, including agriculture, become less competitive. An anti-export bias, combined with a vacuum of programs to foster exports and substitute imports, can be extremely detrimental, especially if the situation goes on indefinitely.

Because exchange rates are closely meshed with other economic variables, this triggers a chain reaction that completely distorts relative prices. The situation is reminiscent of certain past experiences, now overcome, when the economy became so out of synch that the countries were unable to consolidate the transformations they had undertaken.

3.3 Toward a tentative balance sheet

This section will describe some of the essential ways in which agriculture, nutrition, poverty and natural resources work together under the current economic development model. Bear in mind that most of the available studies have fallen out of date, unable to keep up with the rapid pace of events. It would be worthwhile to exert pressure for them to be updated⁷⁴.

⁷⁴ Sources include: IICA, Ajuste macroeconómico y pobreza rural en América Latina. M. Twomey / Helwege, Modernización y estancamiento. La agricultura, op.cit., Mexico 1994. La política agrícola en el nuevo, op.cit., FAO, 1994. Apertura económica, modernización y sostenibilidad de la agricultura, ALACEA, Viña del Mar, Chile, 1993. Ajuste estructural, políticas agrarias y sector agropecuario en Bolivia, Chile, Ecuador y Perú. Agrarian debate No. 20, Lima Peru, (continued...)

We appear to be witnessing the death throes of the economic recession that characterized the entire decade of the 1980s.

The phenomenon, which began in 1991, should provide new possibilities for attacking poverty and improving nutritional levels.

Per-capita GDP growth rates had remained stubbornly negative, with a cumulative annual average of -9 percent from 1980 to 1990. However, a turnaround has now begun, and annual averages have gone into the black, registering a cumulative 1.7 percent from 1991 to 1994⁷⁵.

Most notably, numerous countries, including Argentina, Bolivia, Chile, Mexico, Uruguay and Venezuela, managed to reduce absolute poverty rates in both urban and rural zones during the early years of the 1990s⁷⁶.

Because economic growth and poverty reduction are so closely associated, at least two questions must be asked about how long this association can be sustained.

- i) The first question is two-pronged. On one hand it looks at growth, which in a number of countries is based mostly on an influx of foreign capital and appears to orient investment more toward speculative and tertiary activities than toward productive or transforming production processes to be more productive and

⁷⁴(...continued)

1994. El agro colombiano ante las transformaciones de la economía. TM publishers, IICA and FUNDAGRO, Colombia, 1994. Competitividad sin pobreza, op.cit., Colombia, 1993. Apertura, crisis y recuperación. La agricultura colombiana entre 1990-1994, FONADE and TM Publishers, Colombia, 1994. Per Prinstrup-Andersen and Rajul Pandya-Lorch: Alleviating Poverty, Intensifying Agriculture and effectively managing Natural Resources. IFPRI, 1994. J. Garrett: Food, Nutrition, Agriculture, and Environment in Latin America: A Review, 1970-1995. Washington, 1995. M. Sánchez-Guiñan, Seguridad alimentaria y estrategias sociales, IIN-Peru, 1995. H. Delgado, Seguridad alimentaria nutricional en hogares rurales y urbanos, INCAP, Guatemala, 1995. J.M. Peña and J. Arriola, Reformas institucionales en el campo latinoamericano hacia el año 2020, Mexico, 1995. E. Trigo, Agricultura, cambio tecnológico y el medio ambiente, Argentina, 1995.

⁷⁵ ECLAC, Panorama económico de América Latina, 1994. ECLAC, Santiago, Chile.

⁷⁶ All these improvements took place in an environment in which per-person output was on the rise. From 1990 to 1992, aggregate per-capita output grew by 15.5% in Argentina, 11.7% in Chile, 9.2% in Uruguay and 11.8% in Venezuela. In Bolivia and Mexico, per-person output from 1989 to 1992 grew more slowly: 4.5% and 3.7% respectively. In all these experiences, poverty was reduced at the same time that inflation was in decline. By the end of 1992, stabilization programs had brought down monthly consumer price variations in these countries to less than 2.5%, with the exception of Uruguay, where it was around 5%. During the period under consideration, this facilitated the process whereby the employed population, especially wage-earners, recovered real income levels. ECLAC, Panorama social de América Latina, 1994.

competitive; the second part of this question is whether the alleviation of poverty is more closely associated with the appreciating exchange rates triggered by the influx of capital.

- ii) The second question is whether the alleviation of poverty in this process of resuming economic growth reflects productive employment of the poor, or simply stronger social assistance programs.
- iii) In either case, it is clear that the alleviation of poverty will not be sustainable if it is based only on assistance measures, and not on productive employment. Equally important, growth of the economy needs to be sustainable, meaning that production must be transformed and made more competitive in ways that go far beyond mere exchange-rate manipulation. An overvalued currency is not the solution, as it actually tends to inhibit the transformation and modernization of production.

It is very likely that agriculture has made only a small contribution to relieving poverty and improving nutrition. In fact, improvements are associated more with appreciating exchange rates, investment and growth in other activities, and the implementation of narrowly focused aid and poverty relief programs.

- i) In fact, this alleviation of poverty took place in a setting of greater economic growth, in which agriculture hardly participated.
- ii) Another factor was an improvement of underemployment problems in the cities, but agriculture was not a factor in this. Instead of generating employment, agriculture tends to generate underemployment and rural-to-urban flight.
- iii) Other major factors in the reduction of poverty were lower inflation rates and higher wages for skilled labor. Agriculture plays a negligible role in generating skilled employment, although it probably did contribute to the lower inflation.

Even when macroeconomic policies hold sway over agriculture, structural conditions in the sector tend to counteract the impact.

Examples of these structural conditions include: very little resource mobility; most activities are subject to such biological factors as long-term production cycles and heavy space requirements; particularly complex processes of price formation and markets; and most of all, generally low income elasticity of demand for its products.

Why has agriculture failed to grow as much as the rest of the economy, or even to live up to its own potential? A number of causal factors can be cited. Some interpretations stress three different realms of analysis: macro, micro and meso.

At the macro level:

- i) The macroeconomic environment has been favorable for recovery; thus, the shortcomings must lie inside agriculture itself.**
- ii) A favorable macroeconomic environment, in and of itself, is not enough to trigger the anticipated changes in agriculture.**
- iii) This environment still needs adjustments, some of which are not favorable for agriculture; this requires more attention.**
- iv) A number of macroeconomic policy constraints can be cited, including: overvalued currencies, which jeopardize competitive positions on both the domestic and international markets; local interest rates which continue to be higher than international rates; the trade balance and balance of payments in the countries continue to post growing deficits; a resurgence of high inflation rates in some of the countries; measures are needed to deter the spurious flow of external capital; mismatched savings and investment cycles; and even errors in managing macroeconomic balances.**
- v) Many adverse factors lie in the external environment, such as: economies are opening up and tariff levels are at a minimum, but the developed countries have not fully reciprocated; impenetrable barriers continue to block the entry of our products; demand for these products is contracting; unfavorable terms of trade and declining international prices; high subsidies for producers in developed countries; and so forth.**
- vi) Even though the macroeconomic framework is favorable for reactivating production, agricultural and forestry producers are failing to pick up the signals of this new environment⁷⁷.**

At the micro level:

- i) Structural adjustment in agriculture, where it has existed at all, has lagged behind or taken place inefficiently.**
- ii) More time is needed before current structural reforms produce visible change.**

⁷⁷ In other words, certain obstacles or "brokerage structures" distort the price structure and the process of price formation; ultimately, they distort the efficient allocation of scarce resources. This situation particularly works to the detriment of small-scale producers and the different segments of the peasant farm economy. G. Escudero, "Evolución de la política macroeconómica y sectorial agropecuaria en América Latina," in La modernización del campo mexicano, FMDR/FHA, Mexico 1991.

- iii) **There is still resistance to change because of the force of social, cultural and political factors that need to be reconsidered whenever transformation is induced.**
- iv) **The various regions, products, producers, production conditions, marketing processes, resource endowments and production potentials are extremely heterogeneous. As a result, all policies have differential impacts.**
- v) **The agricultural sector is severely eroded. First it was placed at the service of the import substitution model. Then it needed to redouble its contributions during the crisis of the 1980s, when the countries turned to agriculture to extract economic surplus and resources. The sector ended up with chronic capital depletion.**

At the meso level:

- i) **When the government began to redefine its role in providing services, and to pull out of many areas of activity, a large vacuum was left behind at key points for agriculture. Economic agents of civil society are slowly beginning to fill these gaps, but it is not enough.**
- ii) **Even when these gestures by the private sector are somewhat effective at micro levels, they continue to be limited, isolated efforts. Higher-level processes need to be set up to strengthen and unify these localized efforts.**
- iii) **There is a need for "sectoral" policies per se, or meso-level policies to drive the processes of transformation, recovery, opening and external integration.**
- iv) **The signals exchanged between agricultural production units and the environment are subject to interference and often distorted by negative brokerage structures that block transparent communication between the transmitters and receivers of these signals.**

At the meta level:

- i) **There are large gaps in the ensemble of public and private institutions in the expanded agricultural sector, both in institutions that play a productive, regulatory or service role, and those involved in participation, dialogue, consensus-building, monitoring and follow-up on commitments. This also affects relationships among the people engaged in these activities and their relationships with other macroeconomic, macro-social and macro-political institutions.**

- ii) **The agricultural system⁷⁸ is barely governable because of the problems present in every dimension; this is heightened by institutional gaps and the lack of information and communication.**

By combining these different positions, it is possible to derive two broad provisional conclusions:

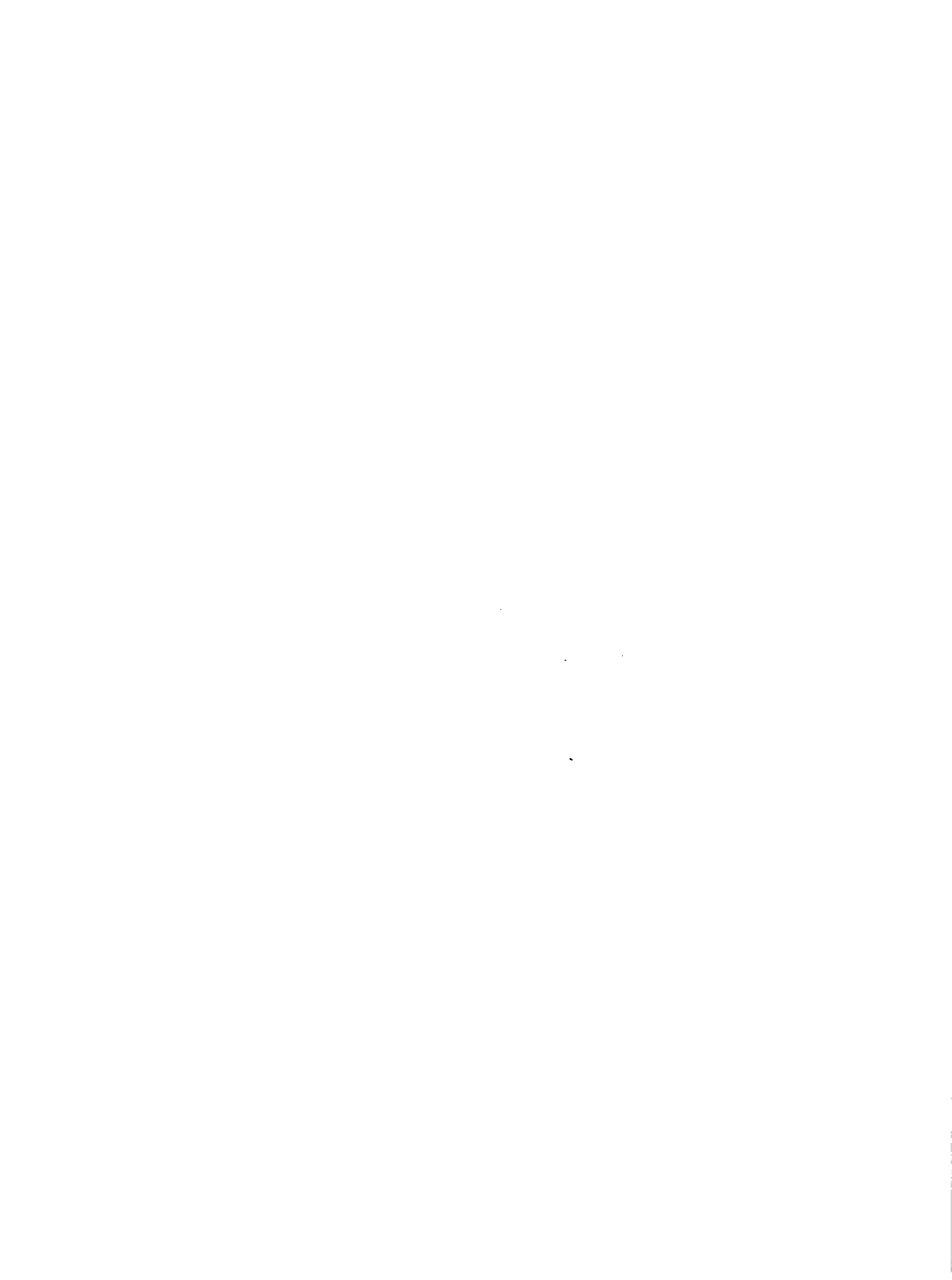
- a) **First, it needs to be recognized that each of the above statements contains part of the truth. However, these partial truths can be fully identified only in each different country of the region. The task still pending, then, is to begin this type of analysis.**
- b) **Second, agriculture is subject to powerful influences by the macroeconomic environment and by the different dimensions in which the sector operates, including its linkages with agroindustry, its external markets and its own limitations. It is this full array of dimensions, in which the macroeconomic environment stands out, that will determine the role agriculture is to play under the current model.**

The current model, despite its inherent limitations, is unquestionably less restrictive and more favorable for the development of agriculture than the import substitution model. However, it is also clear that in and of itself, this policy environment is not perfect. It does not go far enough, and it is not entirely favorable.

⁷⁸ **This embraces all activities, under in the four dimensions described here, that target agriculture and its interlinkages at all levels.**

Chapter 4.

The vision and mission of agriculture to the year 2020



Chapter 4

The vision and mission of agriculture up to the year 2020

4.1 Introduction

This fourth chapter discusses the implications of the trends in agriculture mentioned in the preceding chapter. These are discussed in the context of a far-reaching and global transformation of the economy that has upset the economic development model of the region.

Agriculture is now in a completely different position than it had been heretofore, inasmuch as it now plays a different role than under the import-substitution model.

Furthermore, agriculture has become highly interdependent with other dimensions and variables, in the external, macroeconomic and agroindustrial context, as well as in the microdimension in which it operates. It is also closely linked to food production, nutrition, poverty, the deterioration of natural resources and competitiveness.

In this chapter, an effort is made to project some of these trends to the year 2020, with a view to reflecting on what might be the most appropriate approach for defining action strategies for the present.

The first question to be asked is whether it is possible to define and implement a short and long-term strategy that would respond to the challenges arising from changes in economic policy and to improve the situation of agriculture, food production and the environment in the Americas, looking towards the horizon of the year 2020.

It is extremely difficult to project trends based on a situation such as the current one, which is so fraught with transformations and ambivalence, and in which it is not clear what the environmental situation will be over the next few decades. Change itself, in fact, will be the only factor that remains constant.

Beyond this difficulty, however, the search for answers will be interesting, inasmuch as the question itself calls for reflection on the current view of agriculture. At this point in time, this view is being severely tested by the turn of events themselves and by the challenges posed by the present and the foreseeable future.

Three provocative statements might be made in order to show the extent to which the rigid traditional view of agriculture is being brought into question.

In the first place, it might not be unreasonable to say that trying to imagine what agriculture will be like in the year 2020 is just as much a challenge as it is to imagine it today, in 1995. This is so because those who hold the rigid traditional view of agriculture cannot understand that the world, including agriculture, is changing rapidly, and hence, all kinds of boundaries are being erased, i.e., economic, ecological, social, political, scientific and technological boundaries, and especially, the boundaries of knowhow and of world views.⁷⁹

In the case of the economic and social agents concerned with agriculture, especially those involved in analysis, production, policy making and management -of programs and organizations-, and even those responsible for globalizing the economy, the changes are taking place too rapidly to allow for a proper decoding and understanding of their impact on agriculture.

In the second place, it is not unreasonable to suggest that agriculture itself does not hold the solution to the problems of the environment, of rural security (as regards food and nutrition), rural poverty and even production of and trade in agricultural products, although it can make a substantial contribution to that end.

The solution is not to be found solely in agriculture. It is more universal than that, inasmuch as account must also be taken of overall rural issues, as well as of services, urban issues, industrial aspects, macroeconomic factors, and the entire economy and society of a country. The world economy and society are also increasingly important.

By the same token, solutions will not always be of the same type, inasmuch as they will involve economic, ecological, scientific and technological, social, cultural, institutional and political factors.

In the third place, it should be noted that an understanding of current changes and their impact on agriculture will greatly help in meeting the challenge of trying to picture agriculture and define an action strategy aimed towards the year 2020.

This is the case basically because the changes that have taken place since 1982 have and will continue to have significant and lasting effects on our countries over the coming years.

4.2 The probable scenario in the year 2020

⁷⁹ "The disappearance of boundaries between sectors, the closer linkage between different activities and the systemic integration of different sectors make it necessary to increase the levels of flexibility, adaptability and joint vision." *Transformation of Production Patterns with Equity*. ECLAC, 1990.

The probable scenario in the year 2020 will be one in which countries are almost entirely interdependent on each other from the economic, technological, ecological and probably, also, cultural and political standpoints. The globalization of the economy will have been consolidated and national boundaries will be no more than demarkation points between countries that have already become deeply involved with each other.⁸⁰ National economic policies will no longer be self-contained, but will be increasingly dependent on multilateral decisions. Trade and technological change will be the moving forces promoting growth.

The dynamism of international flows of goods, services, capital, manpower and technologies will go hand in hand with significant rates of growth of the world population.

The sustainability of this scenario will depend on a solution being found to poverty. This is the case because of the problem of governability, as well as considerations relating to ethics and social justice, and especially because development and competitiveness, as well as the postmodern phase of world capitalism, depend on capitalization of human resources.

What are some of the more visible medium-term trends that allow us to picture the probable scenario for the year 2020?

The globalization of the economy has been consolidated. Worldwide integration in the field of trade, investments, capital flows, technology, communication and manpower created a network of ties among nations that made them vitally interdependent. The establishment of trade blocs has facilitated multilateral agreements that are leading to hegemonic patterns of world economic leadership.

International trade flows are multiplying rapidly. International opening up to exchanges of goods, services, investment and capital, manpower and technologies, have led to a strong dynamism in world trade, which is growing more dynamically than world production, thus reinforcing the trends that had been taking place since the Second World War.⁸¹

⁸⁰ Nevertheless, there is still the possibility that there might be "countertrends"...such as a kind of territorial "feudalization" within the countries, involving economic, social, cultural and even political aspects.

⁸¹ According to World Bank estimates, world trade will grow even more rapidly; between 1994 and 2003, it will grow by 5.9% per year, the highest rate for the last two decades. Between 1974 and 1980, the growth rate was 5.4%, between 1980 and 1990, it was 4.9%, and between 1991 and 1993, it was estimated at 3.3%. World Bank, *Global Economic Prospects*, *op. cit.*, p. 2. World Bank, 1994.

The growth of world trade will be furthered as a result of the successful agreement reached at the Uruguay Round of GATT, as well as with the entry into force of the North American Free Trade Treaty (NAFTA) and the various free trade treaties and economic complementarity agreements signed by many countries, especially in Latin America. The Summit of the Americas provides a significant incentive to trade integration processes in the hemisphere.

The world market and national markets are already operating without major distortions. Distortions that do exist are circumstantial and temporary, whether they are the result of unfortunate State intervention, of the existence of monopolies or power groups, of inadequacies in market mechanisms or of poorly developed markets. Competition and price systems operate more freely, but sometimes work simultaneously with specific intervention measures aimed at correcting distortions and flaws in the markets.

There is no longer any discrimination against agriculture or any other activity; economic isolation and trade barriers no longer exist. Bilateral and, in particular, multilateral agreements ensure that this is the case.

The markets of developed countries are open, on a reciprocal basis, to products and services from other countries. Free access to markets of the developed countries would allow the developing countries to obtain additional revenues from exports, in amounts equivalent to the amounts received in aid from those countries during the 1990s.

According to different estimates, the underdeveloped countries of the world could benefit from an additional agricultural market of up to US\$ 70 billion per year.⁸² This figure is significant, inasmuch as it is equivalent to as much as twice the annual value of agricultural exports from LAC during the 1990s.

The fact that the main macroeconomic variables are stable, throughout the world, is a factor that fosters the growth of the underdeveloped countries. Another positive factor is the recovery of the economy of the United States and, in general, of the Group of Seven, whose growth rate over the next ten years will be more than double the 1.2% recorded between 1990 and 1993. In addition, the inflation rate of these economies will decline to an estimated 2.7% per year. International interest rates will also remain low, and international prices of major products are expected to stabilize.

⁸² World Bank, *Global Economic Prospects... op cit.*, p. 19.

All the above will go hand in hand with a strong flow of capital towards the underdeveloped countries.⁸³

It is well known that a stable macroeconomic context is one of the most important public goods that the State can guarantee. This is reflected, basically, in public expenditure with a minimum deficit, a well-controlled and reasonable monetary level, a stable financial system with low interest rates, steady growth that does not generate inflation, stable currencies and a balanced exchange rate, and one-digit inflation rate. As regards foreign and domestic debt, the countries have recovered their solvency and are reducing the levels of their indebtedness and of their debt service, and the flow of resources is clearly positive, thanks to the addition of foreign investments.

The countries of the region have -and will continue to increase- a significant pool of knowhow as regards the management of macroeconomic and sectoral policies, as a result of the implementation, during the 1980s and the 1990s, of macroeconomic stabilization programs, as well as economic adjustments and reform.

Skill in management is further reinforced by the fact that these measures must be carefully balanced, both because of the complex techniques and the political sensitivity that are required. Constant social pressure is exerted by impoverished sectors and middle classes whose interests are affected, as well as by the wealthier sectors that do want to be winners, not losers.

The macroeconomic maladjustments that occurred during the mid-1990s and created significant vicious circles have evidently been quickly deactivated, given the experience gained by the countries over a long period of time.

The third industrial revolution is fully underway, and continues to be one of the fundamental moving forces behind economic and commercial growth. The world is different now, as a result of the rapid changes that took place after the Second World War. These changes have occurred over a wide range of fields, including science and technology, information and communications, art and culture, welfare, health and the economy. The economy, the society and the State have undergone a metamorphosis. What has taken place has been what Peter Drucker called a dividing line, i.e., a transformation of major proportions, of the type that happens only rarely in the history of mankind and which leads to a new world -- where the world view, the basic values, the social and political structure, the arts, and the key institutions of society undergo major adjustments.⁸⁴

⁸³ *Idem., op. cit.*

⁸⁴ Peter Drucker, *La Sociedad, op. cit.*, 1994.

Technological progress plays a central role in all this. The first technological revolution -from the late eighteenth to the mid-nineteenth century- was characterized by the invention of the steam engine and the use of coal and steel. The discovery of oil, and the use of electricity and the internal combustion engine were the hallmarks of the second industrial revolution -from the late nineteenth to the mid-twentieth century. The distinguishing feature of the third industrial revolution -from the mid-twentieth century to the present- is the exploration and manipulation of the structure of matter.

We are now living in a "global village"; the world has shrunk as technology has advanced at a dizzying pace, allowing almost absolute intercommunication and integration. Economic, ideological and conceptual barriers are falling down everywhere.

Open economies and external integration arrangements have greatly encouraged innovation and the dissemination of techniques, as well as proper utilization of resources. Technical progress has allowed for a much more productive use of resources than at any other stage in history. However, productivity has been growing more slowly in the underdeveloped countries than in the industrial ones.

Emulating countries such as the Republic of Korea, the United States, Japan, Singapore and the more prosperous economies of Europe, the countries have been making an effort to gain competitive advantages on the world market, following the principles of competition.

The free circulation of technology has helped encourage national producers to reduce their production costs through the adoption of new techniques, and to create new and better products.

Opening up to trade in goods and services, as well as to foreign investment, and limiting to a minimum the use of quantitative and non-quantitative restrictions allowed for an international flow of many types of techniques, such as foreign investment, study abroad, technical assistance, export licenses, transmission of knowhow through the movement of manpower, and exposition to foreign products, and techniques used in the import of capital, equipment and goods for intermediate production.

Knowhow is the fundamental factor of production. With these changes, knowhow has become extremely important, as it is now the main factor of production. Thus, information has become the basic input in almost every sphere of life.

The importance of knowhow transcends its role in the economy, as a factor of production, inasmuch as it now is the source of power throughout society and the State.⁸⁵

Investment in human capital is still one of the fundamental levels of technological and economic development of a country. Obviously, education accelerates the adoption of new techniques and makes the domestic economy more productive. Investing in human capital is highly profitable from the economic standpoint. In the underdeveloped countries, this activity (as well as health, nutrition and social security) has not been left to the free play of market forces, especially in order to ensure that the poorest sectors of the population have productive jobs, education, health, food and social security.⁸⁶

There is agreement among the different schools of thought in economics, as well as among international agencies, governments and business in general that intellectual endeavor and the human resources involved in it are the key elements of any technological revolution and of economic, cultural and social change, and that they are essential to any effort to consolidate a new development style.

There can no longer be any question about the interdependency that exists between education, food supplies, competitiveness, productivity and human resources. Technical progress has made it possible to increase productivity and competitiveness, and this process has depended mainly on capitalization of human resources.⁸⁷

Although competitiveness and productivity depend on many variables, such as production, trade, technological change, services, as well as policies, availability of natural resources, distances between production centers and markets, etc., in the final analysis, everything hinges on the farmer, the industrialist, the public official, the manager, the worker, the trainer, the researcher, the extension worker, the

⁸⁵ "Control of knowhow is the key issue in the world power struggle that will take place in each and every human institution..." Toffler, Alvin. 1990. *El Cambio del Poder: Powershift*. Barcelona, Spain: Plaza & Janes, Editores, S.A.

⁸⁶ "Although the availability of natural resources is very beneficial for the progress of society, the factors that really determine progress are the human resources and the ability to articulate them and mobilize them." *Equidad y transformación productiva: un enfoque integrado*. ECLAC, 1992.

⁸⁷ "Education and training are basic factors determining the competitiveness of countries. There is no doubt that educational reform based on quality is the fundamental requirement for achieving a long-term and lasting improvement in the region's competitiveness and in the quality of life of its population." *Política para...*, op. cit., p. 176. ECLAC, 1994.

communicator. In other words, everything depends on the human resources required in each specific situation throughout the chain of activities involved in agriculture.

Human capital has thus become the axle of technological change and the main target of the action taken by many countries. Since the training of human resources is essential to an adequate approach not only to the present situation, but even more so, to the future, many other countries, especially in LAC, have begun to realize that they can no longer ignore the importance of this factor.⁸⁸

Industry exercises universal hegemony. As a result of the first two technological revolutions, the hegemony of industry over all other activities was well established, and processes became increasing interdependent, as economies were globalized and countries were integrated. But with the third technological revolution, this hegemony was further strengthened and extended, as it became much more specialized, diversified and universal.

In this process, with industry leading all other economic activities, not only did it induce and determine its own production and commercial processes, but it also imposed industrialization in each one of them.

Agriculture was also affected by the universalization of industry in many countries, especially in the developing world, where it had been making significant progress towards industrialization on its own. This has been the case, although to different extents and in different ways, of the Eastern Asian countries, China and several Latin American and Caribbean countries.

In these countries, there has been a rapid increase in the use of computers on farms and the application of modern irrigation techniques. The analysis and evaluation of soils and of organic components and nutrients has been automated and computerized, improved seeds have been developed that are resistant to pests and droughts. Other techniques are biological controls based on the use of microorganisms, self-fertilization of plants, accelerated plant growth, advanced diagnosis of plant and animal diseases, reproduction and genetic breeding of animals, embryo transplants, and the use of information science and telematics in marketing.

Another significant development is the use of biotechnology in the food industry, the substitution of raw materials obtained from agriculture and the use of

⁸⁸ In seeking ways to ensure a successful entry into the twenty-first century, it will be important to accumulate economic resources, to achieve equilibrium at the macroeconomic level, and to ensure the efficiency of the State; above all, however, a strategy must be sought for the use of human resources... IDB. *A la búsqueda del siglo XXI: Nuevos caminos de desarrollo en Costa Rica. Informe de la Misión.* IDB. November 1994.

agriculture for nontraditional purposes, as well as the discovery of new uses for agricultural products, byproducts and waste materials.

The world economy is characterized by the predominance of flexible production structures that make it possible to compete with lower unit costs and to meet the demands of markets that are increasingly specialized and dynamic. This has meant that production lines have had to be integrated both vertically and horizontally, so that they are perfectly symmetric, interdependent and versatile. Consequently, the relationship between agriculture and industry has become so close that they are barely distinguishable.

The rate of growth of the world population has continued to slow down. By the year 2010, the world population will be 7.2 billion, by comparison with 5.3 billion in 1990. Ninety-four per cent of the total population increase -1.8 billion people- occurred in the developed countries. Nevertheless, the rate of growth continued to decline; thus, the annual growth rate between 2000 and 2010 will be 1.4%, compared with 1.9% between 1970 and 1980.⁸⁹

The gap between real incomes in the industrial countries and in the more advanced developing countries has continued to shrink; this has not been the case, however, in the more backward underdeveloped countries, where progress has been slow.

Outside the Eastern Asian and some Latin American and Caribbean countries, the differences between industrial countries and developing countries in other regions are obvious. For many underdeveloped countries, the so-called lost decade of the 1980s, in the twentieth century, was a period of regression which set back their recovery.

It should be remembered that at the end of the twentieth century, many of the poor countries had per capital incomes that were significantly lower than those prevailing in the United States at the beginning of the nineteenth century.⁹⁰

Despite the dramatic progress made by some countries, there are still significant disparities in per capita income from one country to another and from one region to another.

⁸⁹ *Agricultura: Hacia el año 2010, op. cit.* FAO, 1993. Data and projections taken from United Nations world population estimates for 1990.

⁹⁰ *Le défi du développement. Rapport sur le développement dans le monde, 1991.* World Bank, Washington, 1991.

Standards of living have risen significantly. The time required to achieve notable changes in quality of life has been reduced gradually over the centuries, making it possible, by this time, to improve living standards quicker than in the late twentieth century.⁹¹

During the first two decades of the twenty-first century, significant and visible progress has been made in overcoming poverty in the poorest countries of the world. Development indicators for different countries have begun to converge, although more in some countries than in others. One of the more significant developments is the improvement in health and life expectancy.

Infant mortality is also declining rapidly in most of the countries, including the low-income countries. Literacy rates are improving, which are improving at a faster rate than at the end of the twentieth century.⁹²

This progress has been possible thanks to improvements in food, housing and medical coverage, increased family incomes, progress in medicine, and public investments in health and hygiene, waste removal and the development of health services. Basically, however, the greatest factor of economic progress is technological development.

Technological innovations have led to significant advances in agriculture, industry and services. Famines disappeared from Western Europe in the mid-nineteenth century, from Eastern Europe in the 1930s and from Asia in the 1970s. Africa, the last bastion of this scourge, has finally managed to overcome it during the first decade of the twenty-first century.

Sustainability is no longer a policy goal but a present reality. No matter from what angle one looks at agriculture, one always comes to the issue of sustainability. Although the term has been defined in many different ways,⁹³ the issue of the

⁹¹ It took the United Kingdom 58 years to double its per capital production during the period 1780-1838. It took the United States 47 years to achieve the same result between 1839 and 1886. It took Japan 34 years to double its per capital production during 1885-1919. After the Second World War, many countries did better, e.g., Brazil doubled its per capita production in 18 years (1961-1979), Indonesia achieved this in 17 years, the Republic of Korea did it in 11 years (1966-1977), and China achieved it in 10 years (1977-1987). *Le défi du développement. Rapport sur le développement dans le monde.* p. 15. World Bank, Washington, 1991.

⁹² *Idem, op. cit.*, p. 15. World Bank, Washington, 1991.

⁹³ Specialists in this field have drawn up a extensive set of more precise definitions which stress specific dimensions of the concept. *Tecnología y sostenibilidad de la...*, *op. cit.*, p. 28. IICA-GTZ, 1992.

continuity of agricultural activity, i.e., its reproduction, is a consideration that is always brought up, either implicitly or explicitly.

Originally, the problem of sustainability was considered in terms of the deterioration of natural resources and the environment observed in many regions of the world. It was the seriousness of this problem that raised general awareness of it, and led to the decision to develop means and institutions to deal with it.

Since the late twentieth century, the issue has been addressed by many agencies and institutions, at meetings and conferences. Legislation and regulations have been drawn up, in both the public and private spheres, at both the national and international levels, all with a view to dealing with sustainability and related issues.

Farmers and other inhabitants of rural areas, whose work is most directly linked to natural resources and the environment, are no longer being blamed for their deterioration.⁹⁴

As the multidimensional nature of the causes of environmental deterioration have been recognized, the concept of sustainability has been expanded to include conservation of natural resources and the environment as one of the most important components of policies in this area. The problem is thus viewed from the standpoint of the ecological, economic and social development of mankind.

Moreover, sustainability, considered as an issue of reproduction and well-being, is not seen as merely the repetition of the same act of production over a given time; rather, bearing in mind the whole issue of development, the notion of upward, or expanded reproduction has been introduced. At the same time, the horizon of repetition of activities is expanded to cover not only a lifetime but over an entire generation, and the succeeding generations. In this regard, the concept has been directly linked to the cross-generational relationships of mankind.

It is now universally recognized that a cost is involved in the use of natural resources such as water, air, mangrove patches, seas and rivers, as well as microorganisms and other elements of flora and fauna, all of which had been considered to be freely available, and of no economic or social value.

From the macro standpoint, they have in fact been included in national accounts. And from the micro standpoint, this is also true with regard to the formulation and evaluation, as well as the negotiation, of investment projects.

⁹⁴ R. Moreno, *Recursos naturales...*, FAO, *op. cit.*, p. 113.

In many countries, the sudden withdrawal of the State from many activities was seen as a quick way to transform institutions and, above all, to create a new institutional structure. Over the long term, however, because the civil society was so slow to fill in or take over those spaces and other, newly created ones, the process was deficient, and was probably more protracted and costly than it should have been.

On the new scenario, it is perfectly feasible to have a deliberate development strategy that is in harmony with the market, and does not entail the easy but false confrontation of State and market, intervention and *laissez-faire*.⁹⁹

There is consensus regarding the need for selective intervention in areas such as those pertaining to the social, physical, administrative and legal infrastructure, the war on poverty, social and distributive investment, equilibrium and macroeconomic stability, the incorporation of technical progress in production and trade, education and training, and environmental conservation.

In considering a new type of intervention, however, two key issues must be considered. The first is the accelerated pace of institutional change, and the creation or re-creation and strengthening of the institutions responsible for carrying out these objectives and implementing the new style of intervention made necessary by the changing circumstances.¹⁰⁰

The second aspect of the new intervention has to do, essentially, with its efficiency. Not only is it necessary to make up for deficiencies and gaps caused by the operation of the market, as well as those caused by the State's corrective intervention, but this intervention must be precisely on target as regards the object of the intervention, as well as the actual actions to be carried out.

Moreover, the problem of institutional structures is not limited to the new sphere of action of the State apparatus; it must also take into account two factors. The first is the need for the civil society -especially the organized groups of society- to participate in the State apparatus. These groups will no longer be playing the role of counterparts as they did under the old paternalistic State, nor will they be cast in the outdated role of clients of the State.

⁹⁹ "This situation has been demonstrated by the successful experiments of the Eastern Asian countries or Japan itself." *Le défi du développement...*, *op. cit.*, p. 6. World Bank, 1991.

¹⁰⁰ "Although sectoral policies in much of the Asian continent are similar to the industrialization policies implemented in Latin America, they are different in that the incentives applied have exactly the opposite bias, being pro-export rather than pro-substitution; supported activities are constantly monitored, with penalties being applied when necessary; and the institutions responsible for providing support are quite strong." *Equidad y transformación productiva: un enfoque...*, *op. cit.* ECLAC, *op. cit.*, p. 122.

On the contrary, their relationship with the State will be reoriented so that democracy is strengthened and public resources are decentralized. The apparatus will thus become a part of the mechanisms used to develop the broad-based dialogue that is needed between the forces of society and the State.

In the second place, new apparatuses are emerging out of the civil society, many of which play a role that had previously been played by the old State apparatuses, and which are now within the private sphere, or a combination of State and civil society. Some examples are the marketing firms, banks, companies, schools and research and extension centers, planning offices, production and marketing service centers, that have emerged over the past few decades, but more rapidly since the State withdrew from production and commercial activities and generally stopped intervening, as under the old economic model.

Finally, the capacity for negotiation and consensus building of the social agents and of the State has been considerably strengthened wherever there is a new type of institutional structure, with clear goals, strategies and tools.

All these trends are likely to be features of the scenario in the year 2020. The scenario is one which will be characterized fundamentally by the qualities of inclusiveness and sustainability. The economy will be a global one, with a high level of technological development, and a less unjust and more inclusive social order. In particular, the need for a proper balance between growth and social development will be recognized as a prerequisite for competitiveness and growth, as well as governability.

With regard to agriculture, under this scenario it will continue to be viewed as interdependent with the rest of the economy, but also having its own unique features.

In general, the overall conditions will exist to allow for sustainable development, in harmony with nature and with economic integration, technological change and, especially, with the capitalization of human resources and rural development.

4.3 The paradox of agriculture

How might we visualize the role of agriculture under this probable scenario of the future?

A commonly accepted definition of the word "paradox" is that it is "an opinion or statement contrary to received opinion." It is also defined as "an argument which through a valid process of deduction arrives at a self-contradictory conclusion".¹⁰¹

¹⁰¹ *The Living Webster Encyclopedic Dictionary of the English Language*. The English Language Institute of America. Chicago, 1977.

This is precisely the situation of agriculture in many countries of the continent. Agriculture is much more important than is usually known. Its importance is often not acknowledged. In fact, it would not be an exaggeration to say that the real and increasing importance of agriculture is inversely proportional to the degree of recognition and acknowledgment it is given. In other words, the more important it is, the less its importance is recognized.

It is quite accurate to say that it is common knowledge among those who are involved in agriculture, from farmers and public officials to international agencies concerned with funding as well as with technical cooperation, that over the last several years, less and less attention is being paid to agriculture. There is much talk of the importance of agriculture, but when it comes to action, the sector is virtually ignored.

There are many phenomena that point to the apparent decline in the attention paid to agriculture. For example, it has not even been mentioned at a number of regional or world summit meetings that have dealt with issues closely related to agriculture; this was the case with the Summit of the Americas, or the Summit on Social Development, both of which were held recently. Moreover, the Inter-American Development Bank (IDB) and the World Bank, which both underwent a major reorganization recently, no longer include the field of agriculture in their organization charts.

The countries of the region are not backing up with action or with adequate budgets and investments, both public and private, the so-called "priority of agriculture". The ministers of agriculture have been hampered by a lack of resources, and thus, they have not been able to carry out their duties effectively or to exert a constructive influence on decision making in other spheres of policy that have a decisive impact on the performance of agriculture.

Another factor that shows that agriculture is being neglected is the fact that in referring to the traditional view of the role of agriculture in Latin America, the false conclusion has been drawn that in recent years, the contribution of agriculture to the rest of the national economy has been minimal.

The following cases should be considered:

- i) The contribution of agriculture to domestic GDP has declined sharply. From a contribution of 20% in 1950, it fell to 10.5% in 1990. Even expanded agriculture has declined, although at a lower rate.**
- ii) The number of jobs generated is negligible. Fewer jobs are being generated in agriculture, as the economically active population (EAP) in agriculture, which accounted for 53.6% of total EAP in 1950, fell to 26.4% in 1990.**

- iii) **The rate of generation of foreign exchange has been low. Its capacity for generating foreign exchange has been declining more and more in recent years, although not in absolute terms.**

Although there is indeed a clear trend -and a positive one- towards exporting agricultural products in more highly manufactured form, it should be noted that while total exports from the region more than doubled (approximately 120%), agricultural exports only rose by 35%.

- iv) **Production has grown slowly. The rate of growth of production and of the demand for agricultural products with respect to other economic activities will continue to decline over the next few years. This is due to several causes, including the slowing down of the growth of the world population, which was 1.8% per year during the 1980s, and tends to be around 1.6% during the 1990s, with estimates for the first few decades of the twenty-first century showing it at barely 1% per year. (In Latin America, the rates would be 2.1, 1.7 and 0.9%, in that order).**
- v) **At present, the food problem has to do more with access than with supply, so that attention is being focused on incomes rather than on agriculture *per se*. The supply of food has continued to increase; hence, the food problem will have to do less with agriculture as a source of supply, and more with measures taken on the demand side (income) in order to make food more accessible.**
- vi) **The rural population is shrinking. From 42% of total population in 1970, it accounted for only 26% in 1990, and will only represent 10% or 12% of the overall population during the 2020s. This means that the rural population was 118 million in 1970, and 115 million in 1990, while it will only be 85 million in 2025.**
- vii) **The exodus of poor people from rural areas to the cities is increasing, and thus, attention is being focused on the cities more than on the country.**

It is evident, then, that if the contributions of agriculture are to be viewed from the standpoint of its traditional role in the national economy, the performance of this set of factors would reinforce the unfounded idea that agriculture is declining in importance.

Another significant fact that tends to reinforce the idea that agriculture is declining has to do with the status of agriculture as seen in its performance over the last ten or twelve years. As mentioned in previous chapters, agriculture has been suffered, in many countries, from backward in production techniques and an absence of change, e.g., in the form of modernization, better allocation of resources, greater

competitiveness, mobility of resources and productive conservation of natural resources.

By contrast with this paradox, there are many arguments that show definitively that agriculture is not declining in importance, that it is not a marginal activity, and that, on the contrary, it is growing.

The production of food and its relation to social peace and the promotion of democracy in the hemisphere, the continued presence in rural areas of significant contingents of population, and the value added by agroindustry and agribusiness in the context of hemisphere-wide integration are all irrefutable examples of the importance of agriculture.

Beyond these commonly used arguments, there are others that have to do with the issues discussed in this and previous chapters.

The scenario projected in this chapter is particularly eloquent as a reflection of the broad structure or network of interdependencies between agriculture and the many variables that pertain to other dimensions, such as:

The relationship between agriculture and each of the macroeconomic policies implemented at the domestic level, and the relationship between these and the world macroeconomic context and the external sector.

There is also a clear interdependence between agriculture and food and nutrition, human health and jobs in production.

Likewise, technological progress is related to the construction of competitiveness in agriculture and its relation to the capitalization of human resources.

These relations also evolve along the entire chain of agroindustrial activities and the building of systemic competitiveness.

The same situation obtains with regard to the interdependency of agriculture and natural resources and the tremendous potential for adding value to biodiversity.

Human, animal and plant health are related to the generation of foreign exchange from agriculture and from hemisphere-wide integration. These in turn are related to savings and investment and to re-engineering in production and trade, as well as to technological change.

Institutional structure is related to governability and the strengthening of the synergies of society.

Another set of arguments has to do with the potential benefits which the Uruguay Round agreement offers the agricultural markets of the LAC countries, inasmuch as they have the opportunity of increasing their exports and their intraregional trade.

As a result of these opportunities, our countries stand to gain significant amounts that could allow for the elimination of the international aid they currently receive from the developed countries. Or, these amounts could be used to make up for potential deficits on the balance-of-payments current account of our countries to the year 2005, and still help improve their current capacity to pay for imports.

From another standpoint, these same potential resources represent the current net flow of external capital to almost all the LAC countries, and could offset the impact of these flows in raising exchange rates. They could also be used to leverage competitive levels of domestic interest rates, which are currently high in order to attract capital flows from abroad.

It is also worth mentioning that agriculture plays an important role in processes whose growth is uncertain. Indeed, there is no doubt that the World Bank's forecasts¹⁰² of the main world economic variables for the next ten years (up to the year 2003) are encouraging for most of the underdeveloped countries; however, this is more likely to be the case in some countries than in others. Eastern Asia, Southern Asia and China are so dynamic that they will continue to move away from the other countries in this group, and will eventually leave them way behind.

The prospects are less promising for Latin America and the Caribbean, inasmuch as this region will have one of the slowest growth rates over the next few years, probably even slower than the Eastern European countries.

A somewhat less optimistic macroeconomic scenario would be extremely difficult for countries such as those in sub-Saharan Africa, but would be especially bad for the Latin American and Caribbean countries. With a slight deterioration in this regard, LAC would decline, in per capita terms, at a rate of -0.7% per year, i.e., the per capita decline, in real terms, would be more serious than even in sub-Saharan Africa.

As regards the Asian countries, they would suffer much less; in fact, if at the high rate envisaged their growth could be described as "miraculous", the term could still be used even in a less optimistic macroeconomic context.

¹⁰² World Bank. *Global Economic Prospects...*, *op. cit.*, p. 19.

Growth rates -for the economies of the region- of slightly over 3% are still indicative of a healthy agriculture which makes efficient contributions to the economy; however, lower rates of growth of the economies (0.8%) and regressive rates at the per capita level call for an agricultural sector that is able to improve its efficiency and even its rate of growth, in order to offset, to some degree, the potential deterioration.

Along this same line of thinking, it should be noted that agriculture could play an important role in offsetting the current macroeconomic maladjustments that exist in many of the countries of the hemisphere, as noted in chapter 3. This would be possible, in particular, through the generation and savings of foreign exchange based on greater competitiveness and sustainability, in order to overcome the trade deficit and the deficit on the balance-of-payments current account.

Finally, another argument that clearly shows the importance of agriculture and its great potential, and which, furthermore, reflects the network of interdependencies between agriculture and other spheres and factors, has to do with the so-called prospecting for biodiversity, i.e., the exploration of biodiversity in an effort to find genetic and biochemical resources that have commercial potential.¹⁰³

Actually, there is a whole new trend towards emphasizing the value of the space and territoriality of agriculture and its genetic resources, from the standpoint of productive conservation, through the working together of factors such as technological progress, especially biotechnology, advanced knowhow and information, the use of information science and computers, the development of human resources and an awareness of the issues of sustainability and development.

The creation of what might be called bioindustries is already a reality, as evidenced by many examples throughout the world and in the region.¹⁰⁴

4.4 Getting out of the maze

If agriculture is truly important to the economy and the society of a country, but the paradox prevails -there is no awareness of the importance of agriculture, and it is even systematically ignored-, and if agriculture is likely to play an increasingly important role under the model of economic development being implemented, but its

¹⁰³ *Prospección de la biodiversidad: El uso de los recursos genéticos para el desarrollo sostenible.* World Resources Institute (WRI), U.S.A.; Instituto Nacional de Biodiversidad (INBio), Costa Rica; Rainforest Alliance, U.S.A., and African Centre for Technology Studies (ACTS), Kenya. Costa Rica, 1994.

¹⁰⁴ In Costa Rica, the Instituto Nacional de Biodiversidad is a good example of a non-profit and conservation-oriented bioindustry.

recent performance has been deficient and unsatisfactory, how can we begin to get out of this maze of problems?

How can we explain the contrast between the future and the present, as far as the importance of agriculture is concerned? What is there in the present situation that can explain this apparent decline in the role of agriculture and its inadequate performance over the last few years?

There are many complex issues and causes behind this contrast between "what we see in the future" and "what we see at present" in regard to agriculture, its importance and its performance. There is, however, a clue which can help us get out of the maze.

This clue is to be found in the approach that is taken in observing, in managing and in attempt to change agriculture. The approach is an inoperative one that makes it difficult to understand the multidimensionality and the interdependence of agriculture with other components which, at first glance, might not appear to have much to do with agriculture, but which actually interact with it.

In the first place, it should be noted that those who are engaged in agriculture still tend to hold a traditional -autarchic, partial and static- view of agriculture and of the world that surrounds them.¹⁰⁵ In the second place, the changes that have taken place in the world and in the economy are so dynamic that this traditional approach does not allow room or time for properly interpreting them, even if they have been adequately decoded. And in the third place, there is a serious lag in knowledge of the phenomena affecting the sector.

This apparent decline of agriculture, its actual backwardness in economic and social terms, is due to a large extent to the inefficiency and anachronistic structure of many of the institutions and agents, both public and private, that are involved in agriculture, in one way or another.

The whole range of public and private, national and international institutions, as well as economic agents, are all responsible, either directly or indirectly, for the inadequate performance of agriculture in the region.

While it is true that in recent years, something has happened to agriculture, this does not mean that it has been set aside. What is being set aside, rather, is the traditional and rigid view that still prevails regarding agriculture and its relationship with its environment. On the one hand, it is viewed as an isolated, primary production sector, and on the other hand, even when it is viewed in a broader context, as

¹⁰⁵ Under this approach, the tendency is to focus almost exclusively on the sector, on production, nutrition, rural issues, to mention a few.

expanded agriculture -with agroindustrial linkages- the prevailing view is still very inflexible and partially oriented, usually towards economic or technical and economic issues, and short-term in its approach.

In view of the prevailing trend towards globalization and the breakdown of economic, political and conceptual barriers, this approach simply does not work. For more than ten years, the important-substitution model has been breaking down, and all the countries are building up a new development model; yet the traditional view of agriculture that went hand in hand with the previous model has not been renovated, but continues to prevail.

This new model of development is based on the opening up of the economy, on integration, market economics and a leading role for producers; however, there is also recognition of the need to relieve poverty, to capitalize human resources, to promote democracy and to foster human development. Throughout this process, however, no new approach to agriculture has yet been devised that would be compatible with the recent developments, that would be fully operational and would be capable of responding to the new challenges, in order to deactivate the apparent, though not actual, "setting aside" of agriculture, and to reactivate its growth and development.

This is why the true importance of agriculture has not been appreciated and, in the final analysis, why the sector has not been reactivated and developed.

Chapter 5

Towards the construction of a new approach to agriculture and the rural environment

CHAPTER 5

Towards the construction of a new approach to agriculture and the rural environment

5.1 Introduction

In this final chapter, we shall present certain general ideas with a view to encouraging discussion of the need to take a new approach to agriculture. It is suggested that the systemic approach should be reinvented and applied to agriculture and the rural environment as a means of contributing towards human development in rural areas.¹⁰⁶

5.2 Towards a systemic approach to agriculture

The central idea is to promote a new approach to agriculture by reinventing the application of the **systemic approach** to agricultural affairs, food, natural resources, poverty and rural development, in order to allow for a more accurate understanding of the multidimensional and interdependent nature of its linkages with the rest of the economy and of society.

This approach would also promote and put in practice a greater appreciation of agriculture and the rural environment and the role they play as hemisphere-wide integration becomes a reality and as we approach the twenty-first century.

This approach entails **abandoning**, once and for all, the sectoral, static and isolated view of agriculture; **enriching** the view of expanded agriculture, i.e., the agroindustrial and agrofood complex; and **incorporating** other dimensions and disciplines, and identifying the interdependence between them.

The true importance of agriculture, now and in the future, will be stressed, not only for the benefit of those who directly or indirectly depend on it for a livelihood, but also for the economy and the society as a whole. The real importance of agriculture cannot be appreciated through a sectoral approach. The systemic approach, however, not only brings to light its importance and necessity, but enhances the role of agriculture.

¹⁰⁶ IICA Medium-term Plan 1994-1998. Official Documents Series N° 57. IICA. See also: "*Agricultura y salud: una interdependencia de la agricultura sistémica*". Address by Carlos E. Aquino, Director General of IICA, at the Ninth Interministerial Meeting on Animal Health (RIMSA IX), April 1995. Washington D.C.

In view of the fact that agroindustry itself has continued to grow rapidly, as a result, among other things, of the hegemony and universalization of industry, and considering that the systemic view is still valid as regards the analysis and management of agroindustry, it can be seen that a partial approach is not adequate when it comes to understanding all the complex changes that affect agriculture.

The concept of agricultural or agroindustrial systems or complexes, based mainly on the disciplines of physics and engineering, was adopted in the mid-twentieth century. This vision was brought to the Latin American region around the mid-1970s, mainly at the academic level. During the 1980s, in a few countries, parallel structures were used -somewhat partially and artificially- to try to incorporate the concept at the level of public action and in the definition and implementation of government policies.¹⁰⁷ This approach to analysis and management represented a significant advance and provided a basis for defining a more interdependent agriculture, as it took into account the many vertical linkages -technical, production, economic and commercial- of agriculture, both "backward" and "forward",¹⁰⁸ as well as the horizontal linkages in each of the links of this chain.

Nevertheless, the attempt to apply this view took place in a context that was unfavorable to agriculture, in which the following conditions prevailed: (i) international isolation and macroeconomic policies that tended to penalize agriculture, combined with sectoral policies designed to offset this effect; (ii) a structure of public institutions whose style was welfare-oriented and corporate, and which tended more to reinforce the diversity of structures in rural areas than to bring lasting and sustainable benefits for small-scale agriculture, and (iii) a strict demarcation of the "sectoral functions" of the institutions concerned with agriculture, which were scattered and uncoordinated. In practice, therefore, it was impossible to effectively introduce the systemic view of agroindustry. In fact, the predominance of institutions that alone were able to translate policy into action made it imperative to "go back" to the sectoral view of agriculture.

This agroindustrial systemic approach had little impact on the way agriculture was managed. With the crisis of the 1980s, this already feeble effect was further

¹⁰⁷ In the early 1980s, the concept made great strides in the region, although less so in the application of a systemic view of agroindustry at the level of government policies; an example of this is the design and implementation of the Mexican food system (SAM). Aside from its successes and errors, there is no doubt that at the conceptual and design level, the idea was a highly advanced one at that point in time.

¹⁰⁸ Goldberg, R. *Agribusiness Coordination. A System Approach to the Wheat, Soybean and Florida Oranges Economy*, Harvard Business School. These types of relations exist between the following links: (a) the supply of inputs, machinery and services to agriculture; (b) agriculture per se. (c) industrial processing of agricultural raw materials, (d) marketing of products, and (e) consumption per se.

weakened and, in fact, practically disappeared. Since then, the rapid pace of changes, the emergence of actions and the priority given to global approaches and macroeconomic problems created by the debt crisis and by stabilization and structural adjustment programs, not only prevented the development -not so much at the level of design as of execution- of alternative proposals for agriculture, but in many cases, caused policies and budgets to be neglected altogether.

Today, however, in the mid-1990s, the situation is different, and will continue to change. For one thing, there is a tendency to do away with the anti-agriculture anti-export models, under which the prevailing macroeconomic policies had a negative impact on agriculture.¹⁰⁹

In addition, certain changes have occurred which point to the building of a new institutional structure. The pruning of the State and the privatization of public enterprises has led, in rather disorganized fashion, to a breakdown of institutional inflexibility and the sectoral approach.¹¹⁰ The slow emergency of a new structure of public and private institutions in agriculture, although still inadequate, seems to indicate that new and more flexible types of government and management will be adopted. This, along with the new macroeconomic context, will improve the opportunities for agriculture to adapt to the systemic approach.¹¹¹

In particular, the hemisphere-wide integration process is the basis for the new agenda of agriculture. In it, the systemic approach makes more sense, since it a process involving maximum interdependence, but at the hemisphere-wide scale.

These and other phenomena discussed in the preceding chapters have made it possible to take advantage of the concept of a global system which by definition entails the integration of many different elements from a multidimensional perspective. Viewing all the different aspects as a whole means abandoning the separate approach to different disciplines (humanities, social sciences, biology, chemistry, physics or professional disciplines), and adopting a more cross-disciplinary world view that brings together physical, biological, economic, political, cultural and social aspects.

¹⁰⁹ Nevertheless, there are cases in which such policies have reappeared. Also, it would seem that agriculture has gone from being "regulated but unprotected" to being "deregulated and unprotected". Perhaps we still need to work on a third model: that of agriculture that is "deregulated but protected".

¹¹⁰ Although, as mentioned earlier, there has also been an "institutional vacuum" in agriculture.

¹¹¹ This adjective may be defined as "pertaining to or affecting the entire bodily system or the body as a whole". *The Living Webster Encyclopedic Dictionary of the English Language*. The English Language Institute of America. Chicago, 1977.

5.3 The systemic agriculture approach

The reinvention of the systemic approach to issues relating to agriculture, food and nutrition, poverty and natural resources is a task for the whole region, which calls for the participation of many different professionals and institutions, as well as the farmers themselves. It also allows for a strategy of action to be drawn up which can be used by the agents of agriculture, including governments and ministries of agriculture, universities and research centers, producer organizations and businesses, and financial and technical cooperation agencies, among others.

The systemic agriculture approach is made up of three central elements: a **practical concept**, a **political purpose** and a **strategy for action**.

5.3.1 The systemic agriculture approach as a concept

As a concept, the systemic agriculture approach represents a multidimensional, interdisciplinary and dynamic view of agriculture, according to which it is recognized as a systemic structure, with its complexities and its linkages in terms of four types of interdependence:

- i) The interdependency among the technical and production aspects of agriculture and forestry, where, through their social relations, agents organize to manage the conservation and productive utilization of natural resources and the environment in rural areas, with an cross-generational vision (the microdimension of structure);
- ii) The interdependency among the different activities involved in agriculture and forestry and the processing of products, the generation of inputs, domestic and international trade, and the support services required for this whole chain, consumption, nutrition, health and "sectoral" policies (the mesodimension of structure);
- iii) The interdependency among social and economic relations at the macro level, and agriculture (the macrodimension), and
- iv) The interdependency that has to do with governability and which is evident throughout the structure and the dynamics of agriculture and the rest of society, the economy and the world, and which allows for effective management of the different processes (the metadimension of structure).

Because it tends to "encompass and organize" the first three dimensions mentioned above, the metadimension focuses on the **governability** and the **institutional structure** of agriculture (i.e., the interaction between the civil society and the State),

and on knowhow and information, as the central element of power and control throughout agriculture.

The determining or controlling factor is no longer considered to be a "material" activity, as industry was previously defined to be,¹¹² but knowhow and hence the human resource, and information, which is no longer considered to belong in one specific spot on the chain of interrelated activities, but rather, is present throughout the system.

5.3.2 The purpose of systemic agriculture approach

The purpose of the systemic agriculture approach is the sustainable development of agriculture, which is defined in terms of competitiveness, equity and solidarity, whereby the technical, economic, social, political, cultural and ecological aspects of modern agriculture interact in order to ensure its sustainability over the medium and long terms. These components are:

- i) **Competitiveness**, understood as the achievement of competitive advantages that are dynamic, linked together, and that protect the environment and natural resources, and make it possible to gain and maintain control of a place on the national and international markets;
- ii) **Equity**, understood as a style of social organization incorporating the results of simultaneous action to achieve competitiveness and capital human resources (i.e., through a combination of jobs, education, food and nutrition, health and social security). Essentially, it is not limited to stating what the inequalities are, but entails improving individual and social capabilities and respecting the rights of all;¹¹³ and
- iii) **Solidarity**, understood as the attainment of social cohesiveness, with recognition of the co-responsibility everyone bears for reducing the social debt insofar as possible. This is the basis for achieving governability of the system, which is based on a reorganization of the institutional structure, with new forms of government based on public and private networks, as well as a redefinition of what constitutes public and private sectors, and the rebuilding of effective leadership and of consensus, as the fundamental mechanism - going beyond

¹¹² R. Vigorito, *Transnacionalización y desarrollo agropecuario en América Latina*. 1984. ed. Instituto de Cooperación Iberoamericana, Madrid.

¹¹³ For a more precise description of the categories "capabilities" and "rights" see *Desarrollo microregional: Una estrategia hacia la equidad*. Plaza, O.; Sepúlveda, S. IICA, 1993.

negotiation and the achievement of agreements, and including follow up and honoring commitments on the part of social and economic agents.

5.3.3 The systemic agriculture approach as a strategy of action

Finally, as a **strategy for directing action**, the central focus of the systemic agriculture approach is **induced transformation**, which includes four types of changes considered necessary to the modernization of agriculture (to make it competitive, equitable and mutually supportive), that is sustainable over time: changes in the human element, in production, in trade and in the institutions. The aim is to achieve social and human transformation in the context of international commitments and increasing integration of the Americas.

5.4 Towards the identification of the role of agriculture and its main contributions

An important aspect in moving towards a new approach to agriculture is to identify its role and the main contributions it can make in the context of the new economic development model.

Agriculture will definitely continue to play a significant role. In fact, it has one single role to play, namely: **to carry out efficient and competitive production and marketing activities without jeopardizing the environment while adding value to the entire systemic structure.**

If this is seen as its role, it can continue to perform any of its traditional functions. However, its contributions will be related more to some of these than to others.

This is the case with the function of promoting savings and efficiently generating foreign exchange. Considering the fact that the deficit on the balance-of-trade current account is growing, agriculture has a strategic role to play. By the same token, it is essential to ensure economic and social efficiency in the production and marketing of food and raw materials for the domestic market, in the context of an economy that is open to foreign markets and of integration at the hemisphere-wide and international levels.

The role of generating jobs and manpower, on the other hand, will not be so significant. This will also be true with regard to the transfer of economic surpluses; in this case, technological progress and productivity, on the one hand, and linkages with international prices, on the other, will be the factors determining which agricultural products sell and which do not.

The function of market creation will be strengthened as systemic agriculture is appreciated because of the part it plays in adding value throughout its structures. This will be even more so if it is modernized, diversified, and integrated -horizontally and vertically- so as to cover other activities, such as agricultural services, recreational activities, agribusiness, agroindustry and bioindustry.

All in all, systemic agriculture can make a significant contribution to a country's economy, particularly in the following areas.

- i) The productive conservation of natural resources and the restoration of the environment. Without a doubt, it is agriculture that will allow for the sustainable management and exploitation of biodiversity and natural resources - land, water, forests and air, as well as animal resources in general.**
- ii) Systemic agriculture also has an increasingly important role to play in recreational activities aimed at restoring health and well-being, thanks to its capacity for promoting the capitalization of the human resources of a society at a given point in time.**

Activities such as tourism and recreation, carried out in the context of agriculture, as well as the natural production -free of pollution- of food and health and medicinal products, are becoming more and more important in the development of society. The same may be said of nontraditional agricultural products, especially those used in biotechnology, and products developed from microorganisms and other materials produced through agriculture.

All these functions -business, tourism and recreation- as well as the new products, play a part in the national accounts of a country, and it is important to quantify them insofar as that is possible.

- iii) Agriculture helps strengthen the macroeconomic framework, which is held in a delicate balance, by means of three basic actions, namely: (a) taking advantage of international markets and intraregional trade in agricultural products, made possible by the Uruguay Round negotiations and hemisphere-wide integration, in order to strengthen the sector itself and to strengthen the domestic economy; (b) adjusting and strengthening the macroeconomic framework by enhancing the systemic competitiveness (or vertically and horizontally integrated competitiveness) of agriculture; and (c) capitalizing human resources in rural areas (especially women, children and young people), in order to sustain competitiveness and equity.**
- iv) Finally, it also contributed to governability, through three actions, as follows: (a) promoting decentralization and rebuilding agricultural institutions, in order**

to foster democracy and reactivate agriculture; (b) strengthening self-management, sovereignty, participatory management and consensus-building at all levels of agriculture and its rural and urban environment; and (c) consolidating social cohesiveness and guaranteeing social peace, certainty and stability in rural areas.

The above are some of the main functions of agriculture which demonstrate how important it is to the new model of economic growth and the development of modern society.

From this standpoint, it is imperative that we realize that systemic agriculture represents a whole range of profitable activities and a source of business opportunities for all kinds of producers and enterprises.

The appreciation of agriculture may be understood as the process whereby value is added in each and every activity and resource carried out within systemic agriculture.

Consequently, six circles where value is added may be identified, namely:

1. Natural resources and biodiversity
2. Products and services in activities related to expanded agriculture
3. Activities related to the territoriality of agriculture and the rural environment
4. Activities in the macroeconomic sphere that create conditions for sustainability in the process of adding value
5. Governability of agriculture and its institutions
6. Development of human resources, the main source for adding value

The systemic agriculture approach assigns considerable weight to human resources for three reasons. **Firstly**, because they provide the **means** for effecting changes in production, trade and institutions. Without human resources, no change can be carried out or even attempted. **Secondly**, because people are the very **reason** for seeking change. What is the point of promoting change if not to promote human development in the rural areas? **Thirdly**, because the capitalization of human resources is the very essence of competitiveness, equity and solidarity and, in the final analysis, of the sustainability of the changes themselves, as well as the main source of the value added to systemic agricultural and the rural environment.

Finally, we still face the task of promoting the creation of a hemisphere-wide movement that will begin the process of appreciating the value and role of agriculture throughout the hemisphere, as well as of its rural environment and its people.

We would suggest carrying out some of the following activities, as a result of reflecting on and responding to this paper:

- i) Further defining this or other hypotheses as they are modified or as they emerge from this or other papers,
- ii) Testing these working hypotheses,
- iii) Constructing a new approach to agriculture in the hemisphere, and
- iv) Drawing up and designing a short-term and a medium-term strategy and plan of action aimed at enhancing the position and role of agriculture, the rural environment and the rural population.

Further work would need to be done on this; the effort, which should be a collective one, based on consensus at the national, multinational (regional) and hemisphere-wide levels.

The task we face is to build a new approach and a strategy of action for achieving hemisphere-wide integration on the threshold of the twenty-first century, in order to reactivate the growth of agriculture and ensure sustainable development. This task is essentially a collective one. These reflections are presented as a contribution towards the initial phase of this urgent task.

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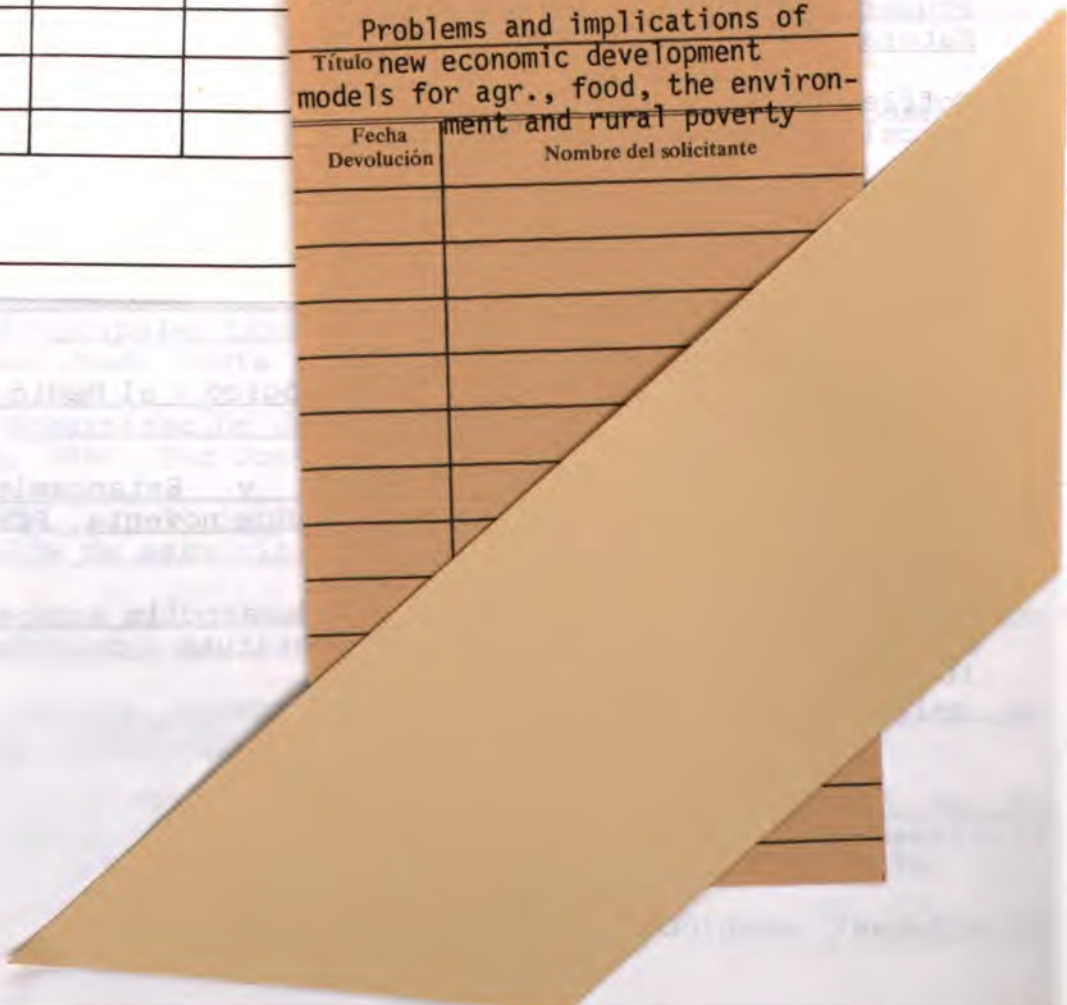
Autor

Problems and implications of

new economic development
models for agr., food, the environ-
ment and rural poverty

Fecha
Devolución

Nombre del solicitante





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