

## **VENEZUELA - ISSUES IN POST-REFORM AGRICULTURE**

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### **INTRODUCCION**

Venezuela is emerging from an era of big centralized government which included heavy intervention in the agricultural sector. Although there have been setbacks and delays, the Nineties have been a decade of on-going liberalization and decentralization of the public sector's role in the Venezuelan economy. In the agricultural sector, policy reforms in early years of the Nineties were far-reaching, as were reforms to the institutional structures of the public sector agencies and programs which serve the sector.

The economic reforms of the early Nineties established conditions which will lead to significant changes in the industrial organization of the Venezuelan economy. The agricultural economy itself is likely to experience significant transformation led primarily by the private sector's response to the new economic environment. Some five to six years after the basic reforms, this is becoming evident. Despite stubborn political resistance from some quarters, and despite several elements of policy "back-tracking" from the original market-liberalizing reforms, competitive forces have begun to replace government intervention in playing the dominant role in price formation and industry development. Correspondingly, the economic environment faced by sector participants is substantially different from that to which they were accustomed. In terms of the public sector, some of the services and institutions which played important roles in the pre-reform agricultural economy have either disappeared or become unnecessary as a result of the reforms. Likewise, a new set of services and functions, which were not necessary in the pre-reform economy, should now be assumed by the public sector.

This article contains an examination of several "second-generation" reform issues facing Venezuela's agricultural sector in the wake of the initial liberalizing reforms. The most important generic public policy matters facing the agricultural sector at this juncture are: the consolidation of the policy reforms; the control or regulation of market imperfections; the definition and protection of property rights for the factors of production and processing; the provision of public services; and the re-definition of the appropriate

role and structure for the Ministry of Agriculture and its related institutions. While not dealing with all of these broad topics in a comprehensive manner, this article addresses a set of somewhat more specific issues related to the above-mentioned generic policy questions. The issues addressed here are the following: the consolidation and maintenance of the basic sectoral policy reforms that were taken as part of the structural adjustment of 1989-92; the establishment of an efficient agricultural marketing structure; the establishment of property rights in land; the reform of the institutional structure governing irrigation and water resources management; and the establishment of a productive agricultural research system. For each issue, a brief analytical background is provided together with a recommended course of action for the public sector.

In limiting its focus to this group of issues, this article provides neither a comprehensive sector review, nor a fully articulated strategy for the sector. Further, several important issues are not touched upon at all. Conspicuously absent, for example, are the topics of rural credit, strategies for addressing the needs of the rural poor, and analysis of the interactions between agricultural activity and the sustainability of Venezuela's rich and varied natural resource endowment. The public sector's role with respect to these and other issues merits considerable attention but due to time and space constraints must be dealt with elsewhere.

## THE 1989 - 1992 AGRICULTURAL POLICY REFORMS

With the announcement of the Eighth National Plan in October 1989, the Government of Carlos Andres Perez instituted a program of economy-wide reforms. The program of reforms (often popularly referred to as *El Gran Viraje*) touched nearly every sector of the economy and had a strong impact upon conditions facing the agricultural sector. The unification of the exchange rate, eliminating the preferential exchange rate which had been applied to agricultural imports and exports, was particularly important in this regard. Also important were the other elements of the stabilization program and the general trade reforms which accompanied the program of structural adjustment.

Agricultural policy itself was the subject of a very significant and far-reaching set of reforms. After the period of protection experienced between 1984-1989, the agricultural

sector now found itself being weaned from its extensive network of explicit and implicit subsidies and increasingly exposed to a sector-neutral market-based incentive structure. In the area of international trade policy, several important measures were taken. The *ad valorem* tariff structure for agricultural products was drastically simplified and significantly lowered, as it was for all sectors. Prior to the reform, hundreds of different agricultural tariff positions existed, each with its own tariff rate, many calling for tariffs exceeding fifty and even one hundred percent. The reforms instituted a drastic simplification in the tariff schedules so that virtually all imported agricultural products now enter Venezuela under one of only three *ad valorem* tariff rates - ten, fifteen, or twenty percent.

Arbitrary import licenses (called *Nota 2*), which had been required in order to import any agricultural product, were phased out product-by-product beginning in 1991 until they were completely eliminated by mid-1992. For several commodities (milk, sugar, rice, wheat, white corn, yellow corn, sorghum, oilseeds, and poultry), licensing requirements were replaced in 1991 by a variable tariff scheme (referred to as a "price band scheme"). Price bands exist in one form or another in most of the Latin American countries, ostensibly to cushion domestic markets from excessive price variability on international commodity markets. Although called a price band scheme, the Venezuelan version was in reality not a price "band" at all and differed from most price band schemes in that it established price floors without establishing price ceilings.

The adoption of the Venezuelan price bands was an attempt to prevent domestic prices, for each of the included commodities, from falling below a moving average of historical reference prices. The reference prices employed for this purpose were the spot prices prevailing at the principal international market (with adjustments to correct for transportation costs) for each of the included commodities. Under this system of price bands, a variable levy would take effect for each commodity whenever its respective international market price fell below its moving average. When this occurred, a variable levy was collected which was just large enough to make up the difference between the current international price and its moving average. In such instances, the variable levy was charged in addition to the relevant *ad valorem* tariff which was always in effect. The price floors for the variable levy scheme were phased down over time in such a way as to ensure

that eventually (as early as 1995 it was thought) they would be so low as never to be binding. The stated rationale behind the adoption of the price band scheme was to allow a transition period during which the domestic industry would have the opportunity to become accustomed to operating under conditions of greater price variability and risk than had previously prevailed. In practice, the price floors were set low enough so that even from the outset they were seldom binding for any of the included commodities.

In the domestic marketplace, guaranteed minimum producer prices, which had been in place for many agricultural commodities, were entirely eliminated. Prior to their elimination, these minimum prices had been “set” during planning exercises orchestrated by the Ministry of Agriculture (MAC). At these meetings, representatives of producers and processors would negotiate with each other and with MAC, eventually arriving at “agreed upon” minimum producer prices for the season. The guaranteed minimum prices were supported through purchases of excess product as necessary by CMA, a marketing agency reporting to MAC.

Prior to the reforms, marketing channels for coffee and cocoa were subject to a significant degree of direct public intervention. Publicly owned marketing agencies, the *Fondo Nacional de Café* (FONCAFE) and the *Fondo Nacional de Cacao* (FONCACAO), held monopoly privileges over the purchase and trade of these two commodities. These monopoly privileges have been removed and, while FONCAFE and FONCACAO still exist, they now face competitors in their respective markets. Although they now operate in a competitive environment, neither agency has been subjected to the real discipline of the market place since both continue to receive subsidies from the government when they sustain losses. Despite this competitive advantage, their purchasing activities and marketing shares have fallen steadily as private sector competitors have captured market share. The future roles for FONCAFE and FONCACAO have never been clearly defined. Early on in the reform-stage, it was understood that their commercial activities would be discontinued over time and that their primary focus would be in the provision of technical assistance to producers. This, however, has not come about as it has been the technical assistance programs which have all but disappeared while it has been the commercial activities which have continued.

The subsidization of agricultural inputs was also somewhat reduced (and in some cases eliminated) by the program of reforms. Subsidies for fertilizers, previously at around 90%, were completely phased out by mid-1993. Interest rates on agricultural credit were brought closer to competitive market rates (see next paragraph). For irrigation water, the imposition of users' fees sufficient to cover the opportunity cost of the water and the concept of transferring irrigation system management responsibilities to local levels were agreed upon in principle but have not yet been completely implemented. Fuel prices remained heavily subsidized until early 1996 when a new set of macroeconomic reforms included substantial increases in prices of petroleum-based products.

Agricultural lending has long been subject to a significant degree of intervention. Important manifestations of this intervention included subsidies to credit provided through the banking system to medium and large scale farmers, and portfolio requirements which forced banks to loan fixed percentages of their portfolio to agricultural producers. Such subsidies and portfolio restrictions were lowered in 1992 (agricultural loans were now mandated to make up no less than 12.5% of commercial bank portfolios and to be made at interest rates calculated at 84% of the average lending rate) with the stated intention that they would eventually be eliminated entirely.

An important component of the reform package was the rationalization of the then-existing public institutions which lent to agriculture. One such institution, the *Fondo de Crédito Agropecuario* (FCA), was formally transformed from a first-tier to a second-tier lending institution. The Agricultural Development Bank (BANDAGRO), was liquidated and its remaining portfolio was transferred to FCA. The credit operations of two parastatal marketing organizations, the Coffee Marketing Fund (FONCAFE) and the Cocoa Marketing Fund (FONCACAO) were also closed down and their portfolios, too, were transferred to FCA and to the Small Farmer Credit Agency (ICAP). ICAP's substantial program of subsidized credit (at nominal rates as low as 3%, even when market rates reached above 70%) directed to small farmers and cooperatives (specifically, to beneficiaries of the agrarian reform) was the one element of public agricultural lending infrastructure left untouched by the program of reforms.

Taken as a whole, the program of agricultural reforms instituted during 1989-92 reduced substantially the level of public intervention in agricultural input and output markets. Closer integration with world markets occurred quickly and most agricultural prices fell much more closely into line with true opportunity costs of resources than had previously been the case. This enhanced agriculture's competitiveness in export markets while making foreign agricultural commodities more affordable. Both imports and exports of agricultural commodities have increased steadily since 1989. Domestically, the structure of relative prices within the sector was significantly altered. The new incentive regime favored a shift in production activities toward those areas in which Venezuela has a true comparative advantage. After the reforms, production increased significantly in beef, rice, tropical fruits and vegetables, coffee, and cocoa. Production of crops which had been artificially supported through subsidies began to decline - maize, sorghum, pork, and capital-intensive dairy operations in particular. Input usage also responded to the reforms. In the case of corn and sorghum, the decline came from reduced acreage as well as from reduced yields. Fertilizer use, heavily subsidized prior to the reforms, fell by almost sixty percent between 1989 and 1993. It can be argued that the reforms in Venezuela briefly resulted in one of the most liberal agricultural sectors in Latin America.

While the reforms represented positive developments in terms of the prospects for long-term growth, a painful period of adjustment was experienced in the short run as agriculture's over-all terms-of-trade with the rest of the economy was considerably weakened by the reduction in protection relative to that afforded to other sectors. Agricultural GDP fell by some 6% in 1989 and fell another half of a percent in 1990. However, as the reforms began to take hold and bear fruit, agricultural GDP rebounded more quickly than had been anticipated and grew by a solid 3% in 1991, and by another 26% in 1992. A number of elements combined to cause contraction in the value of agricultural output in 1993 and 1994 (and also, according to preliminary estimates, in 1995) on the order of three percent per annum. These elements included climatic stress, renewed macroeconomic difficulties, a severe financial sector crisis, and backtracking on the policy reforms in the agricultural sector.

The dismantling of so much of the Government's interventionary apparatus has done more than simply to remove distortions in the economic incentives facing agriculture's private sector. The reforms have also led to important changes in the incentives facing agriculture's public sector institutions. Prior to the reforms, a culture of "patronage," under which influential special interest groups vied for favorable interventions from the government officials, had become entrenched throughout the public sector. The Ministry of Agriculture was no exception. The reforms dealt an important blow to this system. In the absence of interventions, there are simply many fewer ways to give favors. Consequently, the potential reward to be expected from time spent lobbying the Minister and his Ministry has diminished sharply. Although representatives of special interests continue to make pilgrimages to the halls of the Ministry and its related institutions in search of favorable policies and lucrative public works contracts, increasingly they go away empty handed and the stream of lobbyists has begun to dwindle. From the point of view of public welfare and good government, this is an important positive change in the daily regimen of the Ministry.

If the old patronage functions of the public agricultural institutions are to be permanently left behind, they must be replaced through the development of a new institutional focus on the legitimate role of government in the sector. Some progress was made in this regard during the period of reforms in the early 90s. A number of changes in the public sector agencies were adopted which, if maintained and consolidated, would significantly alter the institutional landscape of the sector. Although several state marketing agencies continue to exist (most prominently CASA, FONCAFE, and FONCACAO), they were downsized and their marketing monopolies were removed. Other institutions under the Ministry of Agriculture were also down-sized and rationalized. These included several of the entities created in connection with the agrarian reform and also the national horse-racing agency. Several public agricultural banks were entirely liquidated with their portfolios being consolidated into one of the two remaining public financial institutions devoted to agricultural lending. The reforms have also touched upon the institutional structure of the Ministry of Agriculture itself. The Ministry has been down-sized, many of

its local (municipal) offices have been closed, and some of its functions have been rationalized.

In the newly liberalized environment, new services and functions are required of the Ministry. The public sector strategy for agriculture for the next few years should focus on re-orienting the public sector to this new liberalized environment. In this vein, the Ministry has adopted, in principle, a plan to pare back its operational and service role, decentralizing many functions to state and local levels of government. Under this plan, the role of the Ministry itself would be concentrated in the areas of policy and regulation. The implementation of this plan, however, is a process which is just getting underway. The Ministry has a good ways to go before it would have fully transformed itself into the institution which would be required in order to take full advantage of the opportunities presented by newly liberalized economic environment. While some positive steps have been taken, the process is a slow and fragile one, often hostage or victim to the vagaries of the political moment. Of further worry in this regard is the fact that a number of the important policy reforms which were taken have also been under constant threat of reversal. Some steps down this road have already been taken. A consolidation of the reforms to date and a new thrust to complete the original agenda remains as unfinished business.

## POST-REFORM AGRICULTURE

From the very beginning, the reforms were controversial and came under intense criticism from many powerful interest groups within the agricultural sector. These were, for the most part, the same groups which had benefited from pre-1989 policies. By 1993, most of the reforms had already been achieved, the momentum for further reform had been stopped and political pressure was mounting to re-introduce protectionist measures for agriculture. The financial sector crisis of early 1994, when a number of Venezuela's largest banks required enormous bailouts, and when very high real interest rates (in the neighborhood of twenty to thirty percent) prevailed, provided an opportunity around which lobbyists for renewed interventions in the sector were able to rally.



Significant post-reform interventions in the agricultural sector began to appear in mid 1994. The first of these occurred in the area of agricultural credit. In the wake of the financial sector crisis, the decision was made to restructure a large part of the then-existing agricultural portfolio (formally introduced through the adoption of the *Ley de Refinanciamiento de la Deuda del Sector Agrícola* which was published in the *Gaceta Oficial* No. 35,486 on June 20, 1994).

At around the same time (late June and early July of 1994), measures were taken by the Ministry of Development (*Ministerio de Fomento*) to impose price ceilings on over one hundred retail food items. A less transparent form of intervention into the agricultural commodity markets also crept into use in 1992 and is still observed. In the absence of a discretionary tool with which to control imports (such as the “*nota 2*” import permits of the pre-reform era), health import permits (*nota 6*) which are required for most imported plant and animal products have been with-held for long and indefinite periods of time for reasons unrelated to health and sanitation concerns.

Each of these post-reform interventions has been billed by the Government as “temporary”. It has consistently indicated that the imposition of the price controls, and also the interventions in the agricultural credit markets, would be transitory phenomena. Ostensibly, these measures would be completely discontinued as soon as it would be deemed possible to do so.

## POLICY RECOMMENDATIONS

Only a few general policy recommendations are offered here. With regard to domestic price policy, the system of price controls should be dropped. They do not serve their original purpose, are evadable, distort economic behavior in undesirable ways, and other more productive means could be employed to achieve the desired ends. The practice of intervening between producers and processors to negotiate prices (the so-called method of *concertación*) should be stopped. It is not transparent and invites manipulation.

With regard to fiscal policy, a complete public expenditure review for agriculture should be undertaken. This review should at the very least estimate all expenditures

relevant to the agricultural sector at each level of government. Agricultural expenditures by the national government should be broken down by category of expenditure, by agricultural commodity, and by geographic incidence. On the revenue side, the size of the agricultural budget should be determined at each level of government. With regard to revenue generation, agriculture's tax exemption should be re-examined. While it has been argued that agriculture deserves a tax break because it is chronically hard-hit by "Dutch-disease" effects, this is not obvious and the issue should be carefully analyzed.

With regard to trade policy, Venezuela should push to simplify and reduce the protective nature of the Andean Pact price band scheme. The formula should be altered to reduce price floors, and the list of commodities included in the scheme should be reduced substantially. Consideration should be given to dismantling the scheme altogether. Numerous studies have now discredited the basic justifications for the price bands while, as a practical matter of concern, the Andean Pact price band scheme may actually violate commitments to the GATT/WTO under which variable levy's are explicitly prohibited.

Also with regard to trade policy, the use of the Habilitation Law to justify the imposition of arbitrary interventions in agricultural imports and exports should be discontinued. In a similar vein, the practice of with-holding health import permits (*nota 6*) for reasons other than health and sanitation concerns should be stopped. The policy ends being pursued through the use of this mechanism (such as intervention in domestic commodity prices) have been questionable at best while the implementation of the practice itself is non-transparent, illegal, is in violation of Venezuela's commitments to GATT, and invites corruption.

In comparison to other Latin American countries, relatively little economic analysis of agricultural policy has typically been generated in Venezuela. The ministry's own capacity for such analysis has not been developed to the extent that it probably should have been. One of the important obstacles to the reforms in the agricultural sector was the lack of a coherently and convincingly argued analysis and defense of the principles behind the reforms. An agricultural policy analysis center should be established. The center should be established with enough autonomy from the Ministry of Agriculture and the Government to

be able to provide objective and credible policy analysis. Several possible models for such a center should be explored.

## 2. AGRICULTURAL MARKET STRUCTURE AND MARKET DEVELOPMENT

Many of the necessary changes in the role of the public sector have to do with the structure and functioning of agricultural markets in the post-reform environment. However, the precise nature of the public sector's role in this regard remains to be identified. For this reason, there is a real need at this time for a comprehensive review of the public sector's role in a number of areas having to do with the functioning of agricultural commodity markets. Several of the major issues which should be addressed are raised here and are accompanied with suggested courses of action. Prominent among these issues is the worrisome potential for excessive **market power** to be wielded by agricultural processors in their roles as purchasers of commodities at the farm level. Also discussed below is the potential role for the public sector improving the functioning of internal commodity markets while facilitating the development of marketing channels which would allow for increased exportation of agricultural products. Because of their unique characteristics and their particular importance to the Venezuelan economy, coffee and cacao are given special attention below.

### MARKET CONCENTRATION

The significant degree of market power held by agricultural processors is an important characteristic of Venezuelan agriculture. In part, this market power is a result of the high degree of concentration observed in the agri-processing sector. While the number of farmers producing virtually any of the agricultural commodity is relatively large (with the possible exception of a few specialty fruits and vegetables grown for export), only a very small number of agri-processing firms control a large share of all purchases at the farm level for a number of the important commodities. In each of the corn, cocoa, and dairy markets, one processing firm controls around 60% of the national market while, taken together, the two largest processing firms in each of these three markets control over eighty

percent of all purchases. In the case of coffee, rice, feed grains and beef, the top three processing firms taken together control around 50% or more of their respective purchase markets at the farm level. While these national market concentration figures are alarmingly high, in many local markets the situation is frequently even worse in that it is common for only one firm to control virtually all purchases of a given commodity in a particular geographic region. Such high levels of concentration on the purchasing side of the commodity markets for farm products raise the specter of oligopolistic practices and consequently threaten farmers' incomes as well as consumer prices.

Several characteristics of Venezuela's agricultural economy serve to exacerbate the situation by strengthening the already substantial degree of market power enjoyed by agricultural processors in these markets. One of these has to do with the relatively underdeveloped state of spot and forward markets for agricultural commodities. Related to this are the lack of well-developed infrastructure for price-discovery and price-transmission and the lack of instruments for managing price and production risk. Further exacerbating the oligopsony problem is the fact that farmers in general do not own their own facilities for storing agricultural commodities. Finally, the lack of a well-developed system for enforcing relevant anti-trust statutes hinders effective responses to this problem. Each of these issues is touched upon below.

## AGRICULTURAL PRICES

Basic market institutions for price discovery and transmission have never been well-developed in Venezuela. Until the reforms, farm-gate prices for the key agricultural commodities were, for the most part, determined prior to planting in one of two general ways - (1) publicly announced fixed prices applicable nationwide, and (2) isolated individual "negotiations" between individual farmers and the processors who purchased from them. Falling under the first of these two categories, farm-gate prices for corn, sorghum, coffee, cacao, and milk (in the case of small milk-producers) were all set at publicly announced levels prior to the harvest period. The publicly announced prices were determined through a series of discussions and negotiations between Government, representatives of farmers, and the agricultural processors - - a procedure often referred to

as “*concertación*.” This mechanism was feasible because it was backed by the possibility (often carried out) of government intervention to assure that the pre-determined price would prevail. For commodities subject to this price determination procedure, no real spot market existed since prices were pre-determined at these (essentially political) bargaining sessions arranged by the Ministry of Agriculture.

A second general category of pricing mechanism governed the determination of prevailing prices for many products including: live animals and poultry, meat, milk (in the case of large milk-producers), rice, fruits, vegetables, roots, and tubers. For these commodities, prices were determined in isolated and individual negotiations between buyers and sellers. In such cases, that prices were established in isolated individual negotiations and not in publicly observable fora meant that current market clearing prices could not be easily observed. Because they bought from large numbers of farmers nationwide, buyers typically had much more information about prevailing prices and market conditions than did farmers. Thus, they held important informational advantages when negotiating prices with individual farmers. This disparity in information between buyers and sellers served to exacerbate the market-power held by the buyers.

Under both of the pricing schemes described above, farmers typically entered into agreements with purchasers prior to harvest, and in some cases prior to the growing season. These agreements obligated farmers to sell their produce to a particular processor at the pre-determined price and obligated the purchaser to receive them at that price. One problem with this system was that the agreements between farmers and processors were never sufficiently standardized through contracts which were consistently enforceable. A common result was that farmers often did not honor the terms of their agreements and no reliable legal process was available to enforce the agreements. This is a problem which still needs to be addressed. Since the reforms, the first of the two general pricing mechanisms mentioned above is no longer generally observed.<sup>1</sup> The second, under which individual negotiations between farmers and processors prevails, has become much more important.

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<sup>1</sup> Some recent policy initiatives (since 1994) have led to situations in which farm level prices were indirectly fixed - - in some cases through variants of the *concertación* mechanism, and in other cases through explicit price controls. However, so far such interventions have been transitory and much more limited in scope than was the case in the pre-reform era.

This development places increased importance upon the establishment of a more standardized and enforceable system of contracts.

The post-reform environment has also sparked interest in other institutional innovations in the way in which agricultural commodity markets might function. Since the Government no longer intervenes to fix prices, agricultural prices at the farm level are, in general, much more subject to market forces and are subject to more variability than was previously the case. Neither farmers nor the processing industry were in a good position to operate in this new market-oriented environment since common mechanisms and institutions to facilitate price discovery and for dealing with price risk have never been developed. Consequently, a significant degree of interest has been generated over the past several years in the possibility of establishing a Commodity Exchange which would institutionalize trading in forward and future contracts in the agricultural commodities. The existence of such instruments would provide one mechanism for dealing with some of the elements of price risk faced by industry participants.

The extent to which Venezuelan commodity markets could sustain a viable Commodities Exchange is uncertain. For several reasons, it seems unlikely that the trading of futures contracts would be successful for any commodity in Venezuela, at least in the short term. It is possible that, for a limited set of commodities including coffee, sorghum, and beef, a successful Commodity Exchange could be established for trades in forward contracts. Each of these three commodities has sufficient trading volume and a sufficient number of buyers to make the launching of a Commodity Exchange for trading in forward contracts a potential success. Few, if any, of the other commodities exhibit the requisite characteristics to suggest that trading forward contracts on an organized exchange would be viable.

## AGRICULTURAL STORAGE FACILITIES

Currently, roughly one half of all agricultural commodity storage facilities are publicly owned, as are a number of the wholesale commodity market facilities. Virtually all other existing storage capacity is in the hands of agricultural processors. Very little on-farm storage or grain-drying capacity currently exists, and farmers themselves own almost none

of the country's off-farm storage facilities. Although they do not directly own such facilities, roughly one third of all storage capacity is managed by farmers' organizations under leasing arrangements with the public sector. A number of the other storage facilities owned by the public sector (including some of the largest and those most strategically located) are leased to private firms in the processing sector. Public sector entities manage only a handful of the some 50 facilities which are owned by the public sector.

That farmers have not invested in, and do not typically own, storage facilities is a result, in part, of the way in which farm prices were determined in the past. Since prices were fixed and were not allowed to fluctuate over the course of the season, farmers had little economic incentive to invest in facilities to store more of their crop than that held for own-consumption. Fixed prices did not permit arbitrage across time. With the economic reforms, farm-gate prices were liberalized and are no longer fixed by the Government (although, in practice, policy "back-tracking" has caused some prices to be subject to indirect external controls). No longer "guaranteed" a pre-set price, farmers now negotiate their own price and delivery conditions directly with purchasers for most commodities. Since most farmers have no secure access to storage facilities, they have little alternative other than to sell their crops to the processing industry immediately upon harvesting at whatever price they have managed to negotiate with processors. Without secure access to storage, farmers have little bargaining power in their negotiations with processors since most crops are highly perishable in tropical conditions. This being the case, farmers' already very limited market power is even further limited at the time of harvest and they are placed in a very vulnerable position relative to the purchasers of agricultural commodities. This not only poses a threat to the efficient functioning of the agricultural sector but is also undesirable from an equity point of view.

During the period of the reforms it was decided that the publicly held storage facilities would be privatized. This decision was taken in the context of the overall strategy of privatization which had been adopted by the Government. The inadequacy of the public

sector's management of these storage facilities may also have contributed to this decision.<sup>2</sup> Although several of the smaller facilities have now been put up for sale, preparations for the privatization have been very slow. The strategy and the mechanisms to be employed in carrying out the privatization have yet to be fully determined and the task of privatization has dragged out over several years with very little progress having been made. One complication has been that the facilities are held by several different public entities, including the Ministry of Agriculture among others. This fact has hampered the adoption of a unified strategy for the privatization.

Several basic issues should be addressed in a privatization strategy for the facilities. In view of the impact which the control of the facilities can have upon relative market power between farmers and processors, one issue which must be decided upon is whether or not the eventual ownership of publicly held storage facilities would be targeted (for example, to producers or producers' groups). Should the decision be made to target the ownership of the facilities, the questions of how to target the ownership of the facilities and how to price the facilities would become key issues. At one end of the spectrum of possibilities, some have advocated simply giving the facilities to groups of producers. At the other end of the spectrum, it has been argued that the facilities should be sold at market prices. Concerns with the Government's current fiscal difficulties provide one justification for this latter position.

With regard to the possibility of targeting the ownership of the storage facilities which are to be privatized, several issues must be considered. In several respects, the most eligible candidates to purchase the existing facilities are the agricultural processing firms. They already have experience in the management of storage facilities and in the business of storage and they also have the financial resources which would be required to purchase facilities as they are put up for bid. Few individual farmers have either the management experience or the capital required to make the purchase. In most cases, it also appears that farmers' associations do not have the financial means to compete with the private sector in

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<sup>2</sup> The majority of the facilities suffer from physical deterioration due to lack of proper maintenance. Even when leased for management by farmers' groups or the private sector, the incentive structure has not encouraged these lessors optimally to maintain the facilities. Further, taken as a whole, they have consistently lost money. Twelve of the Government's facilities are not even in operation.



bidding for the facilities. Some have argued that the farmers' associations have not demonstrated through their track record that they have the managerial capacity to successfully manage such facilities.

Given these realities, it is quite possible that the privatization could result in a situation in which agricultural processing firms would control almost all of the existing storage facilities. Such a result could be particularly disruptive in the corn market. Ninety percent of the existing Government-owned storage capacity is located in key corn producing areas of the country and/or is currently being used to store corn. Given the fact that two processing firms control over ninety percent of all corn purchases, further concentration of the storage facilities in the hands of these two firms (for example) could be undesirable. Anti-trust considerations would be clearly be relevant in such a case. Similar considerations could be relevant for other commodities as well. Geographically, the states of Yaracuy, Apure, Cojedes (all storage deficit states), and Portuguesa are particularly vulnerable to the possibility of a storage monopoly developing should the privatized storage facilities in those states all go to processors hands.

A further consideration with regard to the privatization of the facilities is that many of the publicly held facilities may be difficult to sell. A number of the storage facilities are now in a state of disrepair. Further, some of them are located in places where they are not likely to be needed. Finally, at present there is a significant excess supply of storage capacity in aggregate (although several local storage-deficit areas do exist).<sup>3</sup> All of these factors will tend to depress the market value of the facilities and it is quite possible that for some of the facilities no willing buyers will be found.

## EXPORT MARKET DEVELOPMENT

Quite important as an export sector in the past, agriculture now accounts for only about 2% of all exports and Venezuela is a large net importer of food and agricultural products. Around 80% of Venezuela's agricultural exports are made up of coffee, cocoa,

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<sup>3</sup> The current situation of excess capacity is a relatively recent phenomenon stemming, in part, from the reductions in total corn and sorghum production which accompanied the program of economic reforms.

fruits, and vegetables, most of which are destined for North America and Europe. Of these destinations, North American markets are by far the more important. Virtually all of the remainder of Venezuela's exports are accounted for through its cross-border trade with Colombia in a number of commodities (which together account for roughly 10% of Venezuela's agricultural exports).

Although Venezuela's recent entry into the free trade zone of the Andean Pact might seem to suggest an opportunity significantly to expand trade in food and agricultural products, this impression may be deceiving. Trade between the Andean Pact countries is quite limited in scale. This is primarily due to natural geographic barriers. Of the Andean Pact countries, only Colombia is important as a trading partner for Venezuela. Trade will likely continue to expand with Colombia. However, the markets to the north present much greater opportunity for trade expansion than does Colombia or any of the other Andean Pact Members (or, for that matter, any of the other South American countries in general). The markets to the north are much larger, and access to them is easy as transportation is relatively fast and inexpensive and barriers to trade are being lowered. For this reason, prospects for significant export market development depend heavily upon the development of trade relations and agreements with partners to the north - primarily Mexico, the Caribbean states, the United States, and Canada. Expanded trade relations through NAFTA, CARICOM, and other initiatives are being actively pursued. A tri-lateral free trade agreement has already been signed with Colombia and Mexico. Additional agreements are likely to follow.

Several of the factors which have served to limit expansion of agricultural exports could be addressed through public sector initiatives. One such limiting factor has to do with quality grades and standards for the principal export commodities. Currently, no official system of standards exists for fruits and vegetables. In the cases of both coffee and cacao, the standards commonly used in Venezuela are relatively crude and do not adequately meet the needs of the export markets because they do not distinguish between finer gradations in quality.<sup>4</sup> In meats, a new classification system has been introduced but

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<sup>4</sup> For coffee, only two basic quality grades are used "*Lavado Bueno*" and "*Lavado Fino*." For cacao too, only two grades are used: F1 (more than 65% of the beans in a container are fermented); and F2 (less than 65% of the beans in a container are fermented).

is not being applied in practice. For grains, too, the quality standards in use are not sufficiently refined to permit classification into grades.

For lack of adequate quality standards and grading systems, Venezuelan exporters cannot meet the needs of customers who want specific quality grades, nor can they take full advantage of being able to meet high quality standards because they do not have an official grading system through which to certify that their product is of a particularly standard. This is especially important in the case of cacao in which some of the Venezuelan product is of exceptionally high quality. To encourage growth in agricultural exports, it is important not only that more complete quality standards and grades be adopted in Venezuela, but also that standards be adopted which are consistent with those used in the principal importers of Venezuelan exports (i.e., in North American markets).

Related to the quality grading and standards issue is the absence of a well-developed market image for Venezuelan products. Very little effort has been made to cater Venezuelan products to niche markets, nor to promote their use in markets where they would already meet existing needs. This is particularly egregious in the case of cacao for which the extraordinarily high quality found in Venezuela should be marketed in a sophisticated manner.

A further obstacle to the successful development of potential exports markets has been the lack of proper cold storage facilities at transportation hubs. Adequate cold storage is not available at either the international airports or at sea ports. Without such facilities, quality control is almost impossible to achieve under tropical conditions for many of the perishable fruits and vegetables (and also chocolates).

## MARKET REGULATION

The Anti-Trust Law (in effect since January 1992) is designed to prevent monopolistic behavior. The monitoring and investigation of compliance with the Law is the responsibility of *PRO-COMPETENCIA*, a regulatory “watch-dog” agency created at the time of the economic reforms to watch over anti-trust and other competition issues. *PRO-COMPETENCIA* has been relatively active in reviewing cases of alleged anti-trust behavior. However, its authority has been somewhat under-cut by the application of the

“Habilitation” Law (see paragraph 38 above) which provides for exemptions from the application of the Anti-Trust Law in the case of the agricultural sector.

Although arbitrary import permits for agricultural products were eliminated with the program of reforms (see Section 2 above), health import permits (*nota 6*) which demonstrate that the imported commodities have met minimum health and sanitation requirements are still mandatory for all agricultural and livestock commodities. These permits are issued by MAC’s Animal and Plant Health Service (SASA). SASA’s capacity to review documentation that all incoming products meet minimum health and sanitation standards is limited, and its current capacity to inspect those items for which inspection is required is even more limited. Inconvenient and costly delays are the result, both at the permit application stage as well as stage of clearing customs at the port of entry.

## COFFEE AND CACAO

Coffee and cacao production in Venezuela are linked by a number of similarities. Both of these plantation crops play important roles in the history of the country. Prior to 1800, cacao was the country’s most important product, a distinction which was surrendered in the mid 1800s to coffee, and later (in the 1920s) to petroleum. Today coffee and cacao are both grown primarily by small holders under patterns of production which suffer from relatively low yields. In both crops, Venezuela has the potential to produce a product of particularly high quality. It enjoys very favorable growing conditions - especially in a number of micro-climates. The potential for high quality also stems from the characteristics of the native varieties. This is especially true of cacao - - the Venezuelan *criollo* variety of cacao is considered to be perhaps the best in the world. For both crops, market conditions imposed through marketing parastatals in recent decades have prevented dynamic industry development. Quality and productivity suffered as the existing plant-stock of both coffee and cacao plantations became old and poorly maintained. Until the onset of the reforms, few investments had been made for many years to upgrade and establish new stands of plant-stock of either crop.

Prior to 1991, state marketing companies held monopoly privileges over domestic purchases as well as imports and exports of the two crops - - the *Fondo Nacional de Café* (FONCAFE) in the case of coffee, and the *Fondo Nacional de Cacao* (FONCACAO) in the case of cacao. Both FONCAFE and FONCACAO were created in 1975 with the purpose of increasing productivity and the overall level of production of coffee and cacao, respectively, through: offering technical assistance to producers; providing targeted (and subsidized) credit to producers; establishing and guaranteeing prices; and, promoting and executing international trade. The original objectives behind the creation of the two *fondos* were never achieved. For both commodities, production was stagnant, Venezuela's much-heralded quality deteriorated, and markets were lost and prices eroded. Further, both *fondos* consistently suffered annual operating losses.

In 1991, as part of the program of reforms, monopoly privileges over the marketing of the two crops were removed from both entities. As part of the same restructuring, both were downsized and both were stripped of other functions such as the provision of credit to producers. Both FONCAFE and FONCACAO continue to operate as marketing entities for their respective crops but with diminished market-share. While part of the official justification for the continued existence of the *fondos* was that they would be important sources of technical assistance for growers, in reality their budgetary difficulties have precluded either *fondo* from being able to actually offer such technical assistance to any significant degree. Exports of both coffee and cacao are now supported with ten percent export subsidies (although delays in payments of the subsidies make them somewhat less valuable than ten percent of the value of the shipment). Only FONCAFE, FONCACAO, and entities which can demonstrate majority ownership by (Venezuelan) producers may export either commodity. This stipulation has, to some extent, impeded more rapid development of the marketing functions because firms which specialize in marketing but which are not engaged in production are effectively blocked from participation in the marketing of either commodity.<sup>5</sup>

Coffee. The coffee harvest is classified into several grades. The harvest undergoes two levels of processing. The first of these (washing and/or drying) is generally carried out

by the first purchaser of the beans. The beans are then sold for export or to roasters. Several varieties of coffee growers' associations (PACCAs) undertake marketing operations. FONCAFE holds a controlling share of 32 of the 50 or so PACCAs in Venezuela. Although it does not purchase coffee directly, operating through its PACCAs, FONCAFE wields a significant degree of market power and currently controls roughly 40% of all coffee purchases. The remainder of the harvest is purchased by PACCAs independent of FONCAFE, by a few private first-level processors, and by roasters. Even after losing its monopoly status, FONCAFE's market share at the level of the farm, as well as its status as a public institution (which to operate even at a loss), enabled it to function as the price leader in the coffee market for several years. However, FONCAFE's influence over the market has, to some extent, eroded over time with the gradual diminishment of its market share and its dwindling envelope of budgetary resources. Without further analysis, it is not possible to ascertain the degree to which the presence of FONCAFE in the market has limited competition at the level of farm level purchases. Of the more than 100 roasters currently operating in Venezuela, roughly 50 belong to the *Asociación Nacional de Industriales del Café* (ANICAF). Together, ANICAF's members control a large share of all purchases of unroasted coffee. ANICAF's market power in this regard was examined by PROCOMPETENCIA in a 1995 investigation which concluded that sufficient competition exists to obviate the need for any regulatory action.

Cacao. The cacao harvest is classified into two principal grades - - fermented beans (with classification F1), which go almost exclusively to the export market, make up about half of the harvest. The other half of the market is made up of unfermented beans (F2) which are purchased for domestic use. Fermentation of F1 varieties is a delicate process carried out at the farm level. The harvest is purchased by between five and ten firms. Among these are FONCACAO, several associations of cacao growers (the most important of which, until recently, was CACAOVECA), APROCAO (a non-profit association of cacao processors), and a handful of others. Of these, the most important are APROCAO (which purchases around forty percent of the harvest), FONCACAO (which purchases

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<sup>5</sup> In order to circumvent this restriction, a number of enterprising exporters of cacao have either purchased or established small plots of cacao so as to qualify as producers.

around a third of the harvest), and, to a now diminishing extent, CACAOVECA (which used to purchase around ten percent of the harvest but which has fallen upon hard times and has lost a good deal of its market share ). The market for F1 varieties is extremely competitive, with this competition coming primarily between private exporters. FONCACAO has seen its market share (now at about 20%) of the F1 market steadily decrease as its undisciplined (public sector) cost structure has made it less and less competitive. The market for F2 varieties is much less competitive. Domestic processors, through the single entity APROCAO, purchase around 80% of the entire crop of F2 cacao crop. APROCAO has been traditionally been able to exert pressure through the Ministry of Agriculture to hold down prices paid to farmers (through the mechanism of “*concertación*”) and to limit exportation of the F2 variety. Over the last two years, APROCAO has lost some of its influence and may begin to lose its market share as well.

## RECOMMENDATIONS.

As a general measure to address the market power issues raised above, it should be formally instituted that *PROCOMPETENCIA* should regularly review the basic oligopsony issues surrounding agricultural commodity markets, particularly for corn, cacao, coffee, and dairy. *PROCOMPETENCIA*'s authority to act on anti-trust issues should be re-enforced, and the Anti-trust Law should be made exempt from over-riding interventions under the Habilitation Law.

With regard to coffee and cacao, several actions can be recommended. First, consideration should be given to the full privatization of both FONCAFE and FONCACAO. Privatization could take several forms, including the possibility of a simple transfer of each to an association of producers. However, the specter of such a transfer worries some industry observers, and several options or models should be carefully explored with regard to how the privatization might be done. To bring improved service and efficiency to the marketing function for both commodities, the restriction that only producer-owned enterprises may export coffee or cacao should be removed. Finally, *PROCOMPETENCIA* should be commissioned to examine carefully the marketing power

exercised by ANICAF and APROCAO in their purchases of coffee and cacao for domestic use.

Several steps should be considered by the public sector in order to encourage the development of export markets for agricultural products. First among these has to do with Venezuela's stance relative to the various regional trade alliances emerging in the Latin America and world-wide. Venezuela has participated actively in the Andean Pact. In this regard, coordination between Andean Pact countries in terms of the establishment of common quality and packaging standards, as well as shared regulatory procedures and activities should be explored. For these export commodities, Venezuela should consider the formation of an export promotion organization. For the principal export crops, such an organization could be given the responsibility to establish, promote, and protect uniform quality grades and standards which are consistent with international standards. Also important for the development of the export markets is an investment to improve cold storage facilities at ports and airports.

With regard to the issuance of animal and plant health permits, several recommendations can be made. First, SASA should adopt a system of risk assessment to determine which commodities would require health permits and to determine which shipments should be inspected. This is a mechanism commonly employed in many countries to allow more thorough attention to be given to truly risky cargo while reducing the amount of time spent on very low-risk items. Inspection activities should be made more efficient and cost-effective at ports of entry through the strategic deployment of technicians with specific training in the inspection of plant and animal products. This is not currently the case. Finally, SASA should commission a review of the procedures it employs to control imports and exports of agro-chemicals. The potential hazards accompanying international shipment of these chemicals merit a closer scrutiny than is now mandated in Venezuela.

Given the basic geographic orientation of its trading activities in agricultural commodities as well as the potential for growth, Venezuela should consider actively pursuing membership in an expanded NAFTA. The fact that it has already entered into a free trade agreement with Mexico would probably facilitate the process of coming to terms



with the other members for such an expansion of the original Agreement. However, it is unlikely that such a development could be effected prior to the (currently-being-negotiated) entry of Chile into the NAFTA accord. Venezuela might also do well to consider developing a stronger alliance and coordination with the Caribbean countries. This might be pursued through exploring the initiative for the Association of Caribbean States, or perhaps through an expanded role for CARICOM as a free-trade zone.

In view of the expressed interest of the participants in the agricultural sector, careful consideration should be given to the establishment of a Commodity Exchange for agricultural products. It should be recognized that market conditions suggest that attempting to launch trading in futures contracts is not likely to be successful. It may, however, be possible to establish trading on a formal commodity exchange in forward contracts for coffee, sorghum, and meat. Whether or not a Commodity Exchange is opened, and particularly crucial if it were to be established, several additional steps should be taken to enhance commodity market efficiency and liquidity. Standardized forward contracts which are developed specifically for agricultural commodities should be written so that price is conditional upon the quality grade of the delivered product. Actions should be explored which would deepen spot markets for the major commodities. For grains, more storage and drying facilities in the hands of farmers or operators independent from the processing industry would help to improve the performance of spot markets. For meats (and livestock), wholesale markets (livestock sales barns) should be established in regional locations. For virtually all commodities, improved standardized systems for grading and classification should be established. To allow such a system to function, independent laboratories should be designated to supervise and verify quality grading results. This is particularly important in the case of exported products such as tropical fruits and vegetables, coffee, and cacao (see above).

Also quite important for the efficient operation of the commodity markets is the establishment of a warehouse receipt system which works. Receipts should be standardized in such a way that they could function as tradable standardized financial instruments. This would allow industry participants to use commodities stored in regulated silos and warehouses as collateral for the purpose of obtaining credit (and also as instruments of

delivery against forward and futures contracts). To accomplish this would involve establishing the regulatory framework for governing the storage function (including warehouse licensing, bonding of warehousemen, tax treatment for storage losses, and negotiability of warehouse receipts). The effectiveness of such an instrument would be highly dependent upon diversification in the ownership and management of commodity storage facilities.

A strategy should be formulated for the privatization of the publicly held agricultural storage facilities. The strategy should explicitly deal with the considerations mentioned above and should include an action plan for the actual process of carrying out the privatization. Because of the market power implications of the exercise, *PROCOMPETENCIA* should participate in the development of the strategy.

### 3. LAND TENURE

Clearly established property rights to the factors of production are a prerequisite for significant private investment in any sector. In agriculture, the fundamental factor of production is land, and in Venezuela property rights for agricultural lands are far from clearly established. Four basic elements would be necessary conditions for the establishment of clearly defined property rights for land: (1) a reliable cadastre; (2) clear titles linked to the cadastre; (3) a reliable registry for land which is linked to the cadastre and is consistent with the set of existing titles; and, (4) a legal framework to underpin the efficient operation of land markets.

Venezuela is very far from having any of the first three basic elements listed above. No national land cadastre has ever been completed. In those areas where cadastral work has been done (approximately one quarter of the country), the methodology employed was often incomplete or has been questioned. For such areas, it is frequently the case that several maps exist and contain contradictory cartographic information. In most cases, the existing cadastral information has not been updated. Of the lands used for agricultural purposes (an estimated 32 million hectares), roughly two-thirds have never been surveyed. Under Venezuelan law, titles to rural property may be registered without having ever been surveyed. Titles are notoriously unreliable both in terms of their property descriptions as

well as in terms of their validity. There is practically no correspondence between the cartographic information recorded in the land registry and that found in cadastral records, and no system exists to establish consistency between the two. At present, the Government of Venezuela has no complete record of which lands are owned by whom, not even a complete inventory of which lands belong to the national government itself (the so-called *tierras baldías*<sup>6</sup>).

## LAND TENURE AND THE AGRARIAN REFORM

Land distribution in Venezuela is extremely skewed and has been since colonial times. Agrarian reform initiatives in Venezuela date back to the turn of the century. The most significant Agrarian Reform was launched in 1960 with the enactment of the Agrarian Reform Law and is still on-going. Upon its passage, the National Agrarian Institute (IAN) was made responsible for the implementation of the Law. Among the Law's objectives was that of ensuring that whoever worked the land should also own it. This was to be accomplished through the granting of land to landless *campesinos* who demonstrated the desire to farm their own land.

Venezuela's Agrarian Reform was somewhat different from other Latin American land reforms in that it was launched in a context in which land was relatively abundant. At the time of the reforms, although lands under use were highly concentrated in the hands of relatively few people (and still are today), a great deal of arable land remained unoccupied and unexploited. Consequently, while some of the lands distributed to small holders were confiscated from large estates, most came from otherwise unutilized and/or unoccupied *tierras baldías* which were designated for this purpose under the agrarian reform program. In those cases where expropriations did occur, the original owners were generally compensated for the takings.

The original project of the Agrarian Reform is far from completed. Although it has recently been down-sized, IAN continues to implement the dictates of the Agrarian Reform Law and is still engaged in the process of the granting of titles to agrarian reform

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<sup>6</sup> "*Tierras baldías*" is a generic term defined by law to signify lands which are not privately owned.

beneficiaries. Together with its sister institutions<sup>7</sup>, IAN is also engaged in the provision of other services (such as directed credit, training, and technical assistance) to the Agrarian Reform's beneficiaries. The process of granting full titles to the beneficiaries has been exceedingly slow and the results have been less than satisfactory. Today, thirty six years after the Agrarian Reform's inception, roughly one third of the agricultural lands are still agrarian reform properties. Less than half of the farmers situated upon agrarian reform properties have any form of title, while most of those who have received titles have received only conditional titles which can neither be transferred nor used for collateral. A recent survey of agrarian reform beneficiaries<sup>8</sup> indicated that as of 1992, only 17% of the Agrarian Reform beneficiaries had been granted full transferable titles to the lands they received under the Agrarian Reform program. Only 12% of those who have received full titles (or 2% of all Agrarian Reform beneficiaries) have been successful in having their titles registered.

IAN itself is not completely to blame for its slow progress in granting titles to potential beneficiaries of the Agrarian Reform. Before it is possible for IAN to grant a title for a specific piece of land to any agrarian reform beneficiary, IAN itself must be the legal owner of the specific parcel. This ownership must be transferred to IAN by the *Procuraduría General de la Republica* (PGR). Before this transfer to IAN can occur, the parcels in question must be certified to be *tierra baldía* by the National Cadastre Office. Since, as described above, no reliable record exists with which to definitively identify which lands are *tierras baldías*, certification of *tierra baldía* status for most properties in question has been problematic for the National Cadastre Office. As a consequence, the transfer of ownership for these lands to IAN has been very slow.

While the execution of the actual titling process under the Agrarian Reform has been largely unsuccessful, IAN's performance in terms of producing and maintaining cadastral records for Agrarian Reform lands has also been unsatisfactory. The findings of the survey mentioned above indicated that the cadastral information maintained by IAN for

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<sup>7</sup> IAN's sister institutions, created to carry out the mandate of the Agrarian Reform, include the Agricultural Credit Institute (ICAP) and the Foundation for Training and Applied Research for the Agrarian Reform (CIARA).

<sup>8</sup> The survey was carried out in conjunction with the implementation of the World Bank and IDB financed Agricultural Sector Investment Project.

Agrarian Reform lands is completely unreliable. In its examination of information recorded for each parcel of Agrarian Reform property, the findings of the same survey indicated that for 64% of included parcels, the surface areas recorded in IAN's cadastral records were incorrect by an unacceptably large margin. Similarly, the names recorded as prior occupants of the parcels were incorrect in 64% of all records sampled. Parcel boundary descriptions contained in the IAN records were unacceptably mistaken in 86% of all records sampled. Even in those cases for which the records appear to be correct, the level of precision is often less than adequate so that the records are not sufficient for the purpose of demarcating property boundaries. To make matters worse, the records are falling further and further out of date in the absence of an updating mechanism.

Simply stated, Venezuela's legal and cartographic records with regard to land tenure are in a mess. The lack of a complete cadastre, the lack of confidence in the methods used in cadastre work to date, the lack of correspondence between the land registry and existing titles, the lack of correspondence between the land registry and cadastral records, and the out-moded nature of the registry itself (which badly needs to be computerized) all stand as important obstacles to the development of efficient land markets and the efficient use of this critical factor of agricultural production. The inability to grant titles through IAN to the beneficiaries of the Agrarian Reform in an efficient and timely manner has done a great disservice to poor farm families and has ensured the essential failure of the central thrust of the Agrarian Reform project.

While institutional deficiencies with regard to the establishment and maintenance of the cadastre, of a reliable land titling system, and of a reliable land registry have inhibited the efficient allocation of land by obscuring the clear assignment of property rights to land, other legal constraints to the use and allocation of property rights to land have worsened the situation. One example of such obstacles is the onerous requirement that, in order to demonstrate the validity of a title to a parcel of land, the historical roots of the title to the parcel must be supported with documentation which traces the history of the ownership of the parcel back in time to 1848. Other impediments to the efficient use of land are imposed by the Agrarian Reform Law itself in its attempt to ensure that "the tiller of land should be the owner of the land." In pursuit of this objective, the Agrarian Reform Law

prohibits rental arrangements for the use of agrarian reform properties and establishes upper limits on the amount of land which may be controlled by any one beneficiary. Together, these restrictions impose very severe limitations upon desirable resource allocation. Since virtually none of the agrarian properties may be transferred from one farmer to another through sales, rental arrangements would be the only alternative for matching lands with the most efficient farmer. Since neither sales nor rental arrangements are permitted, resource allocation is severely limited. The limitation upon the size of holdings has also proven to restrict optimal use of resources. While the limits vary according to the characteristics of the land, the upper limits have been particularly binding with regard to forest lands where plots larger than those permitted under the Agrarian Reform Law are necessary in order to undertake successful forestry operations. In order to improve the legal environment surrounding the use of land as well as the institutional arrangements for managing the cadastre, land titles, and land registration, a new Cartography and Cadastre Law was introduced into Congress in 1991. The proposed Law is still under review.

## RECOMMENDATIONS

Given the extent to which existing records are unreliable, the most prudent course for Venezuela at this stage with regard to its system for land tenure documentation is to “start from scratch.” A new cadastre should be undertaken to cover at least the entirety of the portion of Venezuela which falls to the north of the Orinoco River. The work should be carried out on a state by state basis - - completing one entire state at a time before moving on to the next. The Agricultural Sector Investment Project<sup>9</sup> (partially financed through World Bank Loan 3420-VE) includes a component which would begin this process. Expanding this work to cover the entire area north of the Orinoco will be an expensive undertaking and will require several years to complete. A goal should be adopted of

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<sup>9</sup> The Agricultural Sector Investment Project is a large program of investments in rural and agricultural infrastructure including, among other things, rural roads rehabilitation, rural credit, rehabilitation of irrigation systems, drainage, cadastre, animal and plant health facilities and programs, fisheries, and institutional strengthening for the Ministry of Agriculture. The Project (often referred to as the *Programa para la Transformación del Sector Agrícola*, or the PITSA) was financed originally by a US\$300 Million loan from the World Bank (Loan #3420-VE), a US\$300 Million loan from the Inter-American Development Bank (Loan # VE-0076), and US\$300 Million equivalent from the Venezuelan Government.

completing the entire area north of the Orinoco within a span of six years. The responsibility for carrying out this effort, as well as for maintenance of the completed cadastre, should be assigned to the National Cartography Office (SAGECAN) of the Ministry of Environment and Natural Resources (MARNR).<sup>10</sup>

A process should be initiated to survey and issue new titles for every parcel of land north of the Orinoco. Simultaneously, a process should be established to adjudicate claims where disputes arise as to the ownership of the land. This process should be carried out by a temporary commission established within MARNR. This commission should enter states one by one following SAGECAN's completion of the cadastre work for each state. A goal should be established of completing this process over a span of ten years.

A new office should be created within MARNR to administrate the granting and transfer of land titles and to establish and maintain a new computerized land registry. The new land registry should be separate from the general property registry. A computerized land information system should be established - - one facet of this system should be to ensure consistency between the cadastre, titles, and the registry. As new titles are granted by the temporary commission described above, the MARNR's new agency in charge of titling should register each new title in the new land registry.

The new national cadastre, titling, and land registration process should include lands currently designated as Agrarian Reform properties. All beneficiaries to whom Agrarian Reform properties have already been assigned (regardless of the stage of processing which their case has reached within current Agrarian Reform program) should be granted full unconditional titles to that property under this new process. Responsibilities for these Agrarian Reform lands should be removed from IAN. A formal review should be undertaken to decide whether or not the remainder of IAN's (and ICAP's) programs would be continued, and if so, in what institutional form.<sup>11</sup> Limitations upon the size of land holdings and restrictions upon rental arrangements for agrarian reform properties should be removed from the Agrarian Reform Law. The Cadastre Law currently before Congress

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<sup>10</sup> SAGECAN would be assigned this responsibility within draft cadastre legislation which has been pending Congressional approval for several years.

<sup>11</sup> This review should be informed by the findings of the February 1995 report prepared by the *Comisión Presidencial de Evaluación y Seguimiento de la Reforma Agraria* entitled "Evaluación de la Reforma Agraria."

should be subjected to a once-and-for-all comprehensive review from a representative panel of technical experts, should be modified accordingly, and should be passed into law.

#### 4. IRRIGATION AND WATER MANAGEMENT

Although aggregate annual rainfall is ample over much of the country,<sup>12</sup> irrigation is never the less quite important for Venezuelan agriculture. Even in areas of the country where rainfall is relatively high, the uneven pattern of rainfall across growing seasons has meant that investments in irrigation infrastructure have been capable of generating substantial returns. Over most of the country, ninety percent of annual rainfall is received during the wet season which stretches from May to November. Most irrigation occurs during the dry season, although in some areas the uneven distribution of rain during the wet season would justify occasional supplemental irrigations during that period as well.

Irrigation infrastructure has been developed on nearly one quarter of all lands under crop production (520,000 out of the 2.1 million hectares which are cultivated). These irrigated lands are scattered throughout the northern half of that portion of the country lying north of the Orinoco River. On roughly 180,000 hectares of these irrigated lands, the existing irrigation infrastructure was established through public sector programs of investments - mostly since 1958. The majority of the public irrigation schemes were used to provide small holdings upon which agrarian reform beneficiaries could be settled.

Public investments in irrigation infrastructure represent a huge commitment of resources. Although the physical infrastructure for these irrigation systems was for the most part well designed and constructed, the systems have not lived up to their potential in terms of their contribution to agricultural production and economic growth. In many cases, lands which could be serviced by this infrastructure lie completely unused, while lands which are in production often produce little more than could be produced under dry-land conditions. It is estimated that on over one third of such lands, irrigation water is never applied despite the existence of the irrigation infrastructure. The irrigation systems

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<sup>12</sup>Annual precipitation is between 1,000 and 1,500 mm. over most cultivated areas of the country although some coastal areas receive substantially less (particularly the fertile-when-irrigated Planicie Maracaibo in the northern part of the state of Zulia where annual rainfall is less than 100 mm.).



themselves have suffered from lack of routine maintenance. Although lined primary canals generally remain in very good condition, many of the secondary and tertiary canals as well as the unlined primary canals have deteriorated and are now virtually unusable without investments in rehabilitation.

In general, these investments have epitomized a central-planning approach to economic development. Massive systems of hydraulic infrastructure were put into place and managed by the offices of the national government. Farmers whose lands could be irrigated by these systems participated neither in the planning and management of the systems, nor in the financing of the operation and maintenance costs, nor in the financing of the initial investments. Further, the division of responsibilities for public irrigation and water infrastructure between two ministries - the Ministry of Agriculture (MAC) and the Ministry of Environment and Natural Resources (MARNR) - has made coordination of development efforts difficult even at the central level of government.<sup>13</sup> Meanwhile, in a few areas, public investment in new irrigation infrastructure continues.

Never fully exploited, the existing irrigation infrastructure presents a real opportunity to increase rural incomes through sustainable economic growth. The huge original investments are, at this stage of the game, properly viewed as sunk costs. For relatively little additional investment, significant benefits are achievable. These benefits, however, will never be fully realized without jettisoning the old central-planning, provider-based approach and substituting in its place a farmer-based demand-driven approach in which institutional responsibilities at each level have been clearly defined.

## A CONCEPTUAL FRAMEWORK FOR THE IRRIGATION SUB-SECTOR

Accumulated experience from other countries such as Mexico, Chile, and Colombia, is instructive with regard to the desirable characteristics for the irrigation sub-sector. Such experience indicates that at the level of the economic activity of individual farmers, reforms need to be taken to establish an institutional framework in which:

- irrigation delivery systems are controlled (owned and operated) by water users;

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<sup>13</sup> Currently, MARNR is responsible for the management, operation, and maintenance of dams and reservoirs and water conveyance systems to the point of entry into the irrigation systems. MAC is responsible for the

- water users are responsible for all costs associated with the irrigation systems (including those associated with operation, maintenance, and future investments); and
- all irrigated lands have titles which are freely transferable; and water rights have been clearly and legally defined, are held by individuals, and are freely transferable.

Public sector participation in the irrigation sub-sector should be transformed into an institutional framework within which:

- reservoirs are controlled (owned and operated) by regional public entities;
- the use of water from rivers, wells, and other sources is regulated by regional public entities;
- registers of water rights are maintained, and transfers of water rights are regulated, by regional public entities;
- registers of land titles are maintained, and the transfer of such titles is regulated, by the appropriate public entity;
- environmental externalities associated with reservoirs and irrigation systems are regulated by regional public entities;
- a rapid and transparent judicial procedure for handling water rights disputes is administered by public entities at the regional and local levels; and
- legal and policy frameworks for the sub-sector are defined at the national level and are implemented and enforced at the regional and local levels.

## RECOMMENDATIONS

In order to transform Venezuela's irrigation subsector into one which exhibits the above-mentioned characteristics will require a transformation of the institutional structure of the relevant public sector entities. Some elements of such a transformation can only be accomplished through a process of transition. Specific elements of a plan to achieve such a transformation would include the following:

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management, control, supervision, maintenance, and administration of the irrigation systems from the point at which waters leave MARNR's canals to the point at which they reach farmers' fields.

- the transfer by MAC of responsibilities for the operation, management, and maintenance of public irrigation systems to those user's associations capable of assuming these responsibilities (for example, in *los Valles de los Andes*);
- where user's associations do not yet exist which are capable of assuming responsibilities for the operation, the transfer by MAC of the responsibilities for the operation, management, and management, and maintenance of the existing public irrigation infrastructure, such responsibilities should be temporarily transferred from MAC to regional water companies (*empresas hidráulicas regionales*). In such cases, the regional water companies should be given the mandate to form user's associations and should gradually transfer the responsibilities for operation, management, and maintenance of the system to the newly formed associations;
- the strengthening of the already existing regional water companies (such as PLANIMARA) to help them to take on the new responsibilities, and , where they do not already exist, the creation of new regional water companies;
- the transfer from MAC and MARNR to the regional water companies of the responsibilities for administration, operation, and maintenance of existing publicly held dams, wells, and irrigation infrastructure, as well as for any new public investments in such structures;
- the undertaking of all steps necessary to assure the passage by Congress of the new Water Law (which has been before Congress for several years);
- the assignment to the regional water companies of responsibilities for the administration and implementation of environmental legislation with regard to irrigation and the environmentally sustainable management of related watersheds;
- the establishment of a Secretariate at the national level (separate and autonomous from MAC as well as from MARNR) to be responsible for the definition and administration of irrigation policies and to coordinate with MARNR policies regarding watershed management as related to irrigation activities. Such a Secretariate (which could be formed through designating additional rights and responsibilities to the already existing CONARSAT) would have a small permanent

technical staff as well as the administrative and physical facilities which would be required in order to carry out this function;

- the preparation and adoption of legislation and related regulatory infrastructure to establish clear property rights and markets for water. This should include the establishment of judicial forums within which disputes related to water rights would be adjudicated;
- the establishment of agricultural research programs within FONAIAP and the universities devoted to the development and transfer of new technologies designed to improve the productivity of smallholder irrigated agriculture.

## 5. TECHNOLOGY GENERATION

Productivity in Venezuelan agriculture lags far behind its potential. This seems to be true across the board from coffee and cacao, to the field crops, to dairy and other livestock products. For field crops and livestock products, Venezuelan productivity is very low relative to that found in North America and Europe. For most of these same crops, as well as for its tropical crops such as coffee, cacao, fruits and vegetables, Venezuelan productivity is also at the low end of the spectrum when measured against benchmarks such as Colombia and Mexico (and, in some cases, even against Brazil), countries with which its agricultural sector has much in common. In part, this undoubtedly is related to the fact that over most of the century the combination of policy measures and the “Dutch Disease” effects of oil have dampened incentives for the private sector to invest in the generation and adoption of agricultural technology, and have also discouraged the retention of human capital in the sector. It is also, at least in part, attributable to the relatively late and inconsistently supported efforts of the public sector to develop and maintain an effective agricultural research and technology transfer capacity.

The public agricultural research institution, *Fondo Nacional de Investigaciones Agropecuarias* (FONAIAP) is an autonomous agency under the Ministry of Agriculture which was created in 1961. FONAIAP is governed by the *Consejo Nacional de Investigaciones Agropecuarias* (CONIA), a Council which oversees the broad strategy and management decisions of the institution. FONAIAP maintains its headquarters just outside

of Maracay and over 20 field stations nation-wide. FONAIAP operates on an annual budget of roughly US\$25 Million and maintains a staff of approximately 2,500 people, of which roughly 1,000 are directly responsible for research (including around 500 who have been trained as professionals and another 500 who have been trained only at the technical level). The implied ratio of US\$50,000 in terms of total budgetary resources per researcher is very low relative to reasonable standards -- it is perhaps only one fifth of that which would be recommended. Because it is subject to the low salary scales which apply to all public institutions, it has been very difficult for FONAIAP to attract and to retain talented staff. In recent years, FONAIAP's budget has been almost entirely consumed in covering its staffs' salaries. Virtually nothing has been left over for operating expenses. Consequently, most of FONAIAP's research programs have come to a standstill and few new programs can be launched.

FONAIAP's activities represent a little less than half of all agricultural research expenditures in the country.<sup>14</sup> While both the public and the private sectors have had disappointing track records, a number of non-governmental non-profit organizations (NGOs) and universities do appear to have been dynamic agents of technology generation and transfer in Venezuela. NGOs such as the *Fundación Polar*, the *Fundación de Servicio al Agricultor* (FUSAGRI), and others, have been important sources of agricultural technology generation and transfer - - albeit on a relatively limited scale. A number of good agricultural research programs can also be found in Venezuela's universities. Of these, the most important in this regard is the Agricultural Faculty in the Central University of Venezuela (UCV) in Maracay which accounts for roughly one half of all agricultural research programs found outside of FONAIAP. Often, the university research programs of the major universities are complemented by active extension programs. The universities and the NGOs have been relatively dynamic in terms of their technology programs, but the scale of their activities is limited by the scarcity of resources available to them. While some private sector research activity exists, it is also relatively limited in scale as well as scope. Taken together, the activities of these various agricultural research have not fully compensated for the short-comings of the public sector institutions to date.

In recent years, the public sector has been particularly ineffective at technology transfer. Since the early Sixties, MAC's public extension service had extensionists in every state and virtually every municipality. However, by the end of the Eighties, the service had deteriorated to the point of virtual non-existence. Extensionists had no operating budget, typically lived in cities far from their offices, and often appeared in their offices no more than once per week. Further, many of the extensionists were simply ineffective at their trade and were not held accountable for results. The resulting extension service was largely ineffective.

Several recent public sector initiatives have been undertaken to strengthen the agricultural technology institutions. With regard to agricultural research, a new project (PRODETEC II<sup>15</sup>) was launched in 1992 to improve FONAIAP's research program and capabilities as well as its ability to disseminate its findings. For a variety of reasons (one of the most important being the lack of counterpart funds), PRODETEC II has had little impact so far and FONAIAP's budget difficulties have severely handicapped its effectiveness over the past few years.

In order to improve the transfer of technology from researchers to farmers' fields, a new Agricultural Extension Project (AEP<sup>16</sup>) was launched in late 1995. Under this Project, MAC's old extension service has been disbanded and a new decentralized agricultural extension service is being established to bring relevant technologies to poor farmers. Under this program, MAC participates with states, municipalities, and farmers themselves in financing the costs of hiring extensionists at local levels. Although MAC participates in the financing of the local extension services and in the provision of technical assistance to the extensionists themselves, it does not participate directly in either the field-level delivery of extension services or in the actual contracting of extensionists. Rather, in each participating municipality a farmers' association of the program's beneficiaries contracts a team of

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<sup>14</sup> Estimates suggest that FONAIAP accounts for roughly 40% of national research expenditures. This figure is difficult to confirm since data on research expenditures by other institutions is spotty at best.

<sup>15</sup> An earlier US\$74 Million project (PRODETEC) designed to strengthen the generation and transfer of agricultural technologies was financed by a US\$30 Million IDB loan signed in 1983. PRODETEC II is a US\$129 Million project of which one half is financed through the IDB and the other half is financed through the Government of Venezuela.

<sup>16</sup> The AEP is a US\$79 Million project of which US\$40 Million is financed by the Government of Venezuela and US\$39 Million is financed through World Bank Loan 3862-VE.

extensionists who come from outside of the public sector. Extensionists have been contracted from various sources - - some have come from the private sector, others from NGOs, others from universities. Although early reports are encouraging, it is perhaps too early to judge the effectiveness of the new extension system.

## RECOMMENDATIONS

While the new Agricultural Extension Project should improve Venezuela's ability to transfer agricultural technology from laboratories and test-plots to farmers' fields, agricultural technology generation itself remains an urgent concern. At this juncture, it is of immediate priority that MAC and (a revitalized) CONIA should formulate a new strategy for the entire agricultural technology generation system. Among the tasks to be accomplished in the formulation of such a strategy would be the following: (a) the careful identification of the future role for public sector in agricultural research activities themselves and of the institutional forms under which this role would be fulfilled in Venezuela; (b) the careful identification of the role for other players in the agricultural research activities including the private sector, NGOs, universities, and farmers associations; (c) the formulation of a vision for the nexus between educational programs (including secondary, university, graduate, and vocational levels of education) and agricultural research; (d) the identification of the means to be employed for improving access to technologies being developed abroad; (e) the identification of the institutional mechanisms to be employed to link agricultural research with the agricultural extension program; and, (f) the identification of the institutional mechanisms to be adopted to ensure a demand-driven element in priority setting for the use of public funds. While some of these issues were addressed in the design of PRODETEC II, the failure to generate a momentum in carrying out the original plans of the program leave Venezuela in need of a new strategy and a fresh start.

The role of FONAIAP itself will need to be carefully re-defined within the strategy formulation. It is clear that this role should include, among other things, programs at the very applied end of the research spectrum focused on production practices of small-holder agriculture and on the environmental consequences of current agricultural techniques. Whatever the role of FONAIAP is identified to be, its program should realistically reflect

the envelope of resources which it is likely to receive. Currently, it is clearly over-staffed given its budgetary resources. It is probable that the strategy which will emerge for FONAIAP will point toward an increased focus on quality in priority areas rather than on breadth of coverage. This will mean, among other things, an upgrading of human resources. It is possible that some programs and facilities will have to be abandoned in order to ensure that priority programs will receive enough funding to be effective.

It is also clear that there should be an increase in public funding for programs designed to foster collaboration between institutions in agricultural research. This could, for example, take the form of increased co-financing and research collaboration between universities and FONAIAP, or between FONAIAP and the private sector. Similarly, it might mean increased co-financing between farmers' associations and FONAIAP for specific research programs of particular. Such a program might include farmer support through a mixture "in-kind" contributions (farmers could provide land for test plots, equipment, field labor, etc.) and direct funding. This would not only help from a financial point of view, but would also directly incorporate farmer-feedback into the research program in that farmers would decide together with researchers upon the nature of the research programs to co-financed through their contributions. The Mexican experience with *Patronatos* should be examined as an example of this type of arrangement.

Some of the public sector's funding allocated to agricultural research (perhaps 15% to 25% of the total allocation) should be administered in the form of competitive grants. This could be administered through a revitalized CONIA, taking advantage of (and refining as necessary) the mechanism established under PRODETEC II. This would help to encourage productivity in research and provide a source of financial support for research programs in the universities and in NGOs.

In order to revitalize the level of human capital in agricultural research, the scholarship program contemplated under PRODETEC II for graduate-level education in agriculture should be launched in earnest. Eligibility for participation in the program should be open to a variety of participants in agricultural technology pursuits including (but not limited to) students, employees of FONAIAP and the universities, researchers at NGOs such as FUSAGRI, FUNDARROZ, and DANAC, employees of relevant Ministries, and



agricultural extensionists. Scholarships should be available for graduate work at both the Masters and Doctoral levels.

FONAIAP should establish closer ties with CIAT and the other CGIAR centers. Similarly, the possibility of establishing “twinning” relationships with foreign universities should be considered. Linkages between Venezuela and the broader community of international agricultural institutions have been inexplicably weak in recent years (although exceptions to this statement exist -- CIAT has a relatively strong presence in Venezuela with regard to rice, for example). Strengthening these relationships is a cost-effective way of maintaining access to technology developments abroad.

#### ANNEX 1

#### VENEZUELA

#### AGRICULTURAL TRADE FLOWS FOR SELECTED COMMODITIES (1993)

<b>Venezuela - Agricultural Exports to: (US\$ Thousand)</b>					
Commodity	ANDEAN PACT Countries	MERCOSUR Countries	NAFTA Countries	European Countries	Total
<b>Rice</b>	19,364	1	-	1	<b>19,366</b>
<b>Sugar</b>	6,096	-	3,490	-	<b>9,586</b>
<b>Maize</b>	1,134	-	721	-	<b>1,855</b>
<b>Wheat</b>	9	-	-	-	<b>9</b>
<b>Meat</b>	723	-	-	-	<b>723</b>
<b>Coffee</b>	-	-	29,910	3,390	<b>33,300</b>
<b>Cocoa</b>	8	-	6,405	3,390	<b>9,803</b>
<b>Fruit &amp; Veg.</b>	7,535	599	32,736	10,035	<b>50,905</b>
<b>Flowers</b>	-	-	490	14	<b>504</b>
<b>Total</b>	<b>34,869</b>	<b>600</b>	<b>73,752</b>	<b>16,830</b>	<b>126,051</b>

Source: Josling, Tim; *Agricultural Trade Policies in the Andean Group: Issues and Options*; unpublished report prepared for the Technical Department of the Latin American and Caribbean Regional Office of the World Bank (January, 1996).

**ANNEX 2****VENEZUELA****AGRICULTURAL TRADE FLOWS FOR SELECTED COMMODITIES (1993)**

<b>Venezuela - Agricultural Imports from: US\$ Thousand)</b>					
Commodity	ANDEAN PACT Countries	MERCOSUR Countries	NAFTA Countries	European Countries	Total
<b>Rice</b>	650	2	97	10	<b>759</b>
<b>Sugar</b>	54,871	56	958	485	<b>56,370</b>
<b>Maize</b>	17	40,817	111,646	1,381	<b>153,861</b>
<b>Wheat</b>	3	358	174,568	8,783	<b>183,712</b>
<b>Meat</b>	2,396	25	335	-	<b>2,756</b>
<b>Coffee</b>	56	-	16	1	<b>73</b>
<b>Cocoa</b>	99	1	92	442	<b>634</b>
<b>Fruit &amp; Veg.</b>	45,399	50,964	94,974	17,966	<b>209,303</b>
<b>Flowers</b>	863	-	101	80	<b>1,044</b>
<b>Total</b>	<b>104,354</b>	<b>92,223</b>	<b>382,787</b>	<b>29,148</b>	<b>608,512</b>

Source: Josling, Tim; *Agricultural Trade Policies in the Andean Group: Issues and Options*; unpublished report prepared for the Technical Department of the Latin American and Caribbean Regional Office of the World Bank (January, 1996).