YELLOW PAPER II:
BEYOND EDSA: THE POST-ERAP REFORM AGENDA

STRATEGIC ACTIONS TO RAPIDLY ENSURE FOOD SECURITY AND RURAL GROWTH IN THE PHILIPPINES

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Food security and rapid rural growth are important goals for any administration. **What makes the critical difference for success is focused attention on a few, key, fundamental elements of sector governance.** Such focus enables effective implementation and real progress in the realization of sector objectives in the context of limited resources and overwhelming expectations.

Success in the implementation of the strategy outlined below will secure not only adequate, cheaper food supplies, increased rural employment and incomes and reduced poverty for all, but also rapid and sustainable advances in urban and economy-wide growth. Food security means ensuring that food is affordable for all households particularly the poor urban and rural households – that household incomes are sufficient to purchase adequate food at reasonable prices. Rapid, sustainable, and equitable growth is a necessary condition for the attainment of food security and alleviation of poverty since the majority of the poor are in the rural areas and their major means of livelihood depend directly on agriculture-related economic activities.

1.
Dismal Sector Performance Despite the Substantial Role of Agriculture in the Economy

In the Philippines, the agriculture sector has continued to contribute a very substantial portion of economic output. The sector continues to be a major source of income and employment, employing nearly half of the total labor force and contributing over 20% of gross domestic product (GDP). When all economic activities related to agro-processing and supply of non-farm agricultural inputs are included, the agricultural sector broadly defined accounts for about two-thirds of the labor force and 40% of the GDP. The sector, therefore, has a strategic role in the country's overall

economic development through its strong growth linkage effects as a source of food and raw material supply for the rest of the economy, and as a source of demand for non-agricultural inputs and consumer goods and services.

1.1. GVA: the Basic Indicator of Performance

Unfortunately, the performance of the agriculture sector has, since the 1980s, not only been poor – but also quite erratic. Philippine agriculture performed well relative to the other Asian countries in the 1970s – but the country has had one of the lowest average growth rates in gross value added in agriculture (GVA) and agricultural exports over the past two decades (**Table 1**). As world commodity prices declined in the 1980s the Philippines was unable to sustain the gains achieved in the 1970s. However, the other countries did not seem to have been as badly affected. In fact agricultural growth accelerated in South Asia and Indonesia as the impact of the Green Revolution spread. Meanwhile the agricultural sectors of China and Viet Nam rapidly emerged from collectivization to more market-based economies.

Table 2 shows the average annual gross value added by major commodities over the past four decades. The annual growth rates in the 1990's highlight the volatility of agricultural production. With the exception of livestock and poultry, growth rates of crops, fishery and forestry all decelerated over time. Indeed, gross value added in forestry has been contracting since the 1970s reflecting the unsustainability of forest management policies.

Crops and fisheries grew faster than livestock and poultry in the 1960s and 1970s. In the 1980s livestock and poultry GVA contribution (at current prices) rose from 13% to about 25% by the late 1990's. That growth was led by the rapid expansion of the poultry, then followed by the hog industry, as domestic demand grew and international technology transfer, contract farming, and economies of scale lowered costs of production.

Fishery sector GVA has been declining, from an annual average of 7% in the 1960's to only about 1.4%, significantly below the population growth rate. The poor performance of municipal fisheries has largely accounted for the decline of the sector. Prior to the late 1980s municipal fisheries dominated the sector, contributing more the half of volumes. By the late 1990s its share was down to 30%. Commercial fisheries grew at a modest but steady rate and now contributes about 30 % of value of fisheries output; except in the late 1980's, aquaculture grew very fast and now contributes more then 40% of fisheries output value.

The weakening of the fisheries sector has resulted from resource depletion caused by overfishing, destructive fishing, destruction of coral reefs and mangroves, and the pollution of major river and lakes *(*Israel 1999). The aquaculture industry is now plagued by the scarcity of fries for milkfish culture, diseases and high cost of production in prawn culture, and red tide problem in mariculture.

Since the 1980s, there has been a marked slowdown in the growth rate across crops to a rate way below that of population growth. The poorest performers are the major exports, i.e., coconut, sugar and even bananas. The high growth rate of a few non-traditional crops such as mangoes could not overcome the slow growth of many other crops. The main staple crops of rice and corn were growing at a relatively rapid pace even up to the late 1980s. In the 1990s however, corn production was on a decline through reductions in crop area planted to white corn. While growth in rice production was positive it was less than 1% annually.

Crops continue to account for 50 – 60% of GVA, and unless the performance of the crop sector improves, the prospects for agriculture are bleak. Problems related to a weak technology base, price distortions, weak property rights structure, constraints to land market operations, insufficient public support services and poor governance will need to be a aggressively addressed to accelerate agricultural growth.

1.2. International Agricultural Competitive Advantage and Trade

The slower growth of Philippine agriculture compared to other developing Asian countries suggests that the country has been losing its agricultural competitive advantage. Indeed, **Table 3** shows measures of revealed comparative advantage declining sharply for agriculture as a whole, and for all major agricultural exports. The country has turned from being a net exporter to a net importer of sugar. Although some sugar continues to be exported, these are only for the preferential US market at prices higher than world market. Even in non-traditional exports such as bananas and pineapples, the share of the Philippines in world markets has declined since the mid-1980s.

Agriculture has historically been the major source of foreign exchange for the Philippines. In the 1960s agriculture earned almost two-thirds of total exports and accounted for only a fifth of imports, including imports of manufactured agricultural inputs such as fertilizers **(Table 4).** However, agriculture's share in total exports decreased quite rapidly since then, dropping to just 7% in the late 1990s. Relative to total imports, its share also decreased but at a much slower pace. Consequently, the agricultural sector ceased to be a net earner of foreign exchange as agricultural

imports rose from about 30% of agricultural exports in the 1960s and 1970s to more than 150% by the late 1990's.

The rapid growth of agricultural imports stemmed from several factors. **First**, economic development increased demand for food products with higher income elasticities, but in which the country does not have inherent comparative advantage in production, e.g., wheat, milk and other dairy products, beef, etc., or which require agricultural inputs which are also cheaper to import than produce domestically, e.g., soybean meal, corn, fish meal, and other feed ingredients for the growing livestock and poultry industry. **Second**, declining competitive advantage in domestic production of food staples has led to greater imports or lower self-sufficiency ratios (e.g., sugar, rice, etc.). **Third**, agricultural modernization itself through technological change and commercialization induced greater reliance on mostly imported manufactured inputs such as fertilizers, agricultural chemicals, farm and agro-processing machineries and feed ingredients and veterinary medicines as the livestock and poultry sector shifted from backyard to commercial operations. **Lastly**, trade liberalization increased imports of former highly protected agricultural commodities and inputs such as fruits, fish and cattle.

As agricultural imports grew more than tenfold over the past three decades, its composition also changed. Interestingly, the import ratio of primary commodities increased from 22% around 1970 to nearly 60% by the late 1990s as the share of agricultural processed products, raw materials, and inputs decreased over time **(Table 5).** The five top imported agricultural commodities are wheat, dairy products, feeding stuff (soybean meal, meat and fish meal, etc.) rice, and fertilizers. The relatively high value of rice imports is observed only in the late 1990s, and similarly for sugar. Note that the slow growth of corn imports, an important feed ingredient, is inconsistent with the extremely rapid expansion in imports of other feedstuff, relatively high growth of the livestock and poultry industry and the negative growth rate in domestic production of corn. This could be explained, however, by the substitution of wheat and other higher cost grains for feeds due to the highly restrictive import policy on corn.

Agricultural exports basically stagnated during the 1990's. Agricultural exports more than doubled in the 1970s due mainly to the world commodity boom which was not sustained into the 1980s. Over the last 30 years, the composition of agricultural exports changed markedly **(Table 5).** Although coconut products continue to be the top foreign exchange earner, its share decreased from nearly 70% in 1970, to less than 40% by the end of the 1990's. The contribution of sugar to agricultural exports, which was second only to coconut in the 1970s (30%), is now only 5%. Export value of bananas alone has been about twice that of sugar, while fruits and vegetables as a group account for more than 20% of agricultural exports. Fishery products also contribute nearly as much,

though earnings from shrimp exports have decreased significantly since the mid-1990's as a result of disease infestation and lower world prices.

The composition of agricultural exports also shifted away from primary products which constituted around 80% in 1970 towards greater proportions of processed products (50%) and agricultural raw materials (10%) by the late 1990's. Exports of coconut products ceased to be mainly in copra form, in favor of coconut oil. Exports of canned and preserved fish, fruits, and vegetable products also expanded.

1.3. Rates of Protection

The declining competitive advantage of the sector is likewise evident from the increasing trends in trade protection among the major import-competing commodities (**Table 6).** Nominal protection rates based on comparison of domestic and border prices averaged about 70% for rice, more than 80% for corn, and nearly 90% for sugar, in contrast to the low rates of the 1970s. In fact, average rates of effective rates of protection between agriculture and manufacturing has narrowed. **(**During the 1970s and 1980s, estimates of effective rates of protection of the manufacturing sector ranged from 44% to 79%, much higher than those for agriculture which ranged from 5% to 9% (Tan 1979: Medalla et al 1995). By the mid-1990's, the average rates of protection for agriculture was about equal to manufacturing (Manasan 1996) as tariffs for manufactured products including agricultural inputs declined, NPR for import competing agricultural products increased, and the share of exportable agricultural commodities to the sector value added decreased.

1.4. Growth of Productivity

Whether and to what extent the declining trend in the competitive advantage of agriculture will be reversed and sustained depends critically on the rate of productivity growth. Thus any program for agricultural growth and food security must include the key elements for increasing productivity and overall efficiency: an incentive structure that promotes efficient allocation of resources, expenditure program that provides adequate public goods and support services, property rights and other institutions that enable efficient operation of output, land and other markets and a bureaucracy that is transparent, predictable, accountable and participatory.

Recent trends in the agricultural sector are alarming. Productivity has stagnated, competitive advantage has been lost and the growth of agricultural output has not only substantially slowed down – from an average of 5.8% per year in the 1970s to about 2% per year in the 1980s and in large part of the 1990s – but also considerably fallen vis-à-vis the country's population growth (suggesting either increasing food imports or dwindling agricultural exports, or both). Moreover, the sector's performance in the 1990s has been poor in relation to that in practically all developing Asian countries.

Table 7 shows the growth rates in gross value added in agriculture (including only crops and livestock), labor employment in agriculture, and cultivated and crop area. The slow growth in agriculture since the 1980s has been due largely to the poor performance of crops, as growth rates in livestock and poultry were relatively high.

The growth in the number of agricultural workers between 1980-1998 was about equal to the population growth rate. Somewhat surprising is the higher growth rate of cultivated area than crop area since the 1980s. Apparently rapid deforestation in the 1960s and 1970s lowered the cost of opening new land for cultivation vs. intensifying land use through irrigation expansion and/or double cropping or that longer-duration crops have become more profitable than shorter-duration ones.

The growth rates in partial productivity measures for the agriculture and crops sectors are reported in **Table 8**. Both labor and land productivities were increasing up to the late 1970s. Whereas labor productivity for agriculture as a whole recovered after dropping sharply in the early 1980s, it remained at the lower level for the crop sub-sector. Land productivity as measured by the trends in gross value added per cultivated area (or physical land measure) also stagnated in the 1990s, though recovering somewhat in terms of land productivity per crop area. It appears that growth in productivity occurred primarily in the livestock and poultry sector, where international technology transfer and greater scale of operations and other management-related innovations increased production efficiencies significantly.

1.5. Land Productivity by Crop

Table 9 presents the average annual growth rate in production, area, yield, and the relative contributions of area expansion and yield increase to production growth of major crops from 1960-1998. Consistently, growth rates of both area and yields were lower in the 1980s and 1990s compared to previous periods. However, the figures for the late 1990s may be somewhat lower,

because the recovery from the El Nino in 1999 has not been covered. The high world commodity prices and thus greater incentives for exportable crops such as coconut and sugar increased not only area, but yields as well. However in general, yields of these traditional exportable crops, including abaca were stagnating or even declining almost throughout the post-war period, as no major technological change was observed in the production of these commodities. Relatively high growth rate in yield can be observed in rice, corn, and non-traditional exports such as bananas, mangoes, and pineapple. Adoption of modern rice varieties, increased fertilizer use, irrigation expansion largely explains yield growth in rice, though that growth seems to have leveled off in the 1990's. Growth in yields in corn has been due mainly to the spread of hybrid corn and to a lesser extent to improvements in open-pollinated varieties; but the continued high growth rate in 1990s was caused partly by the concentration of production in more favorable areas as the decline in crop area occurred primarily in marginal areas in Visayas and Mindanao.

2.
The Basic Problems of, and Constraints in, Philippine Agriculture

The fundamental causes of poor agricultural performance and hence of poor sector competitiveness, food insecurity and poverty in the Philippines have been intensively analyzed and are well-known[1]. The key reasons are **lack of public investment** and **weak governance** in the key areas of **irrigation, rural infrastructure** and **agriculture and fisheries technology**, coupled with a **policy** environment, particularly in **trade policy** that does not encourage substantial and sustained farmer and private sector investment. The antecedents of these include:

2.1. Irrigation Expansion

Since the early 1980s, the near-cessation in **new** public investments in irrigation, particularly new **communal** irrigation. The country's total land area is fixed, and the rapidly growing population and increasing urbanization are steadily taking up more of the land. Therefore, given that only half

1 Among Others, See: Cristina C. David, 1999 "Constraints To Food Security : The Philippine Case", Paper Presented At The Ministerial Roundtable On "Beyond The Asian Crisis: Sustainable Agricultural Development And Poverty Alleviation In The Next Millenium", Fao, Bangkok, June 1999.; V. Bruce J. Tolentino "Organizing For Food Security And Poverty Alleviation: An Initial Action Program For The Department Of Agriculture," Philippine Institute For Development Studies, Forthcoming, 2001; Arsenio M. Balisacan, Framework For Agricultural And Rural Development With Focus On Food Security And Poverty Alleviation, 1999.

of all irrigable lands are irrigated, irrigation provides a very important way to raise cropping intensity – to produce multiple crops per year on the same plot of land. However, the performance of the government and the National Irrigation Administration in the expansion of irrigated agriculture has been quite poor. Investments in irrigation fell throughout the 1980s and early 1990s. The areas brought under irrigation declined from an average of 25,000 hectares per year in the 1970s and early 1980s to less than 10,000 hectares per year in the 1990s. The 1999-2004 MTPDP has ambitiously targeted over one million hectares (350,000 hectares new, 700,000 hectares rehabilitated) for irrigation expansion and rehabilitation. While the target is laudable, these represent levels of performance at least twice to more than four times historical records.

2.2. Rural Access Improvement

In the same way that irrigation infrastructure investments fell in the early 1980s, so did investments in **rural roads and ports** plummet. Analysis of the costs of doing business in the Philippines indicate that access and transport costs explain much of the difficulties and costliness of marketing and trade, leading to impaired competitiveness overall and in reduced benefits for producers and rural dwellers. Poor transport infrastructure also segments the Philippine economy, effectively separating the urban from the rural areas. This segmentation encourages the urban markets to look to imports for supplies as their access to domestic rural markets is restricted. Rural entrepreneurs and farmers suffer in two ways: (a) their costs of production are pushed up due to transport and communication difficulties; and (b) during those times when their production volumes are good, they are unable to bring these goods to market.

2.3. Agricultural Support Services Financing, Development and Dissemination

For agricultural productivity to be pushed, effort and investment must be focused on the development and dissemination of production technology over a sustained period. However, historically less than 40% of the budgetary appropriations have been allocated for productivity-enhancing expenditures such as irrigation, research and development, extension, and other support services. Management of natural resources and the environment accounted for about 20% of expenditures, mostly spent for forest management and rehabilitation. Close to 20% have been allocated for land acquisition and distribution; but at least half of that were used for operational expenses. The remainder were spent for price stabilization, and production support such as seed and

planting materials, postharvest facilities, farm equipment and credit subsidies. Since most of these are private and not public goods and services, their purpose is more redistributive in nature, rather than growth-enhancing expenditures.

In fact, many of these production support activities did not prove to be so useful to recipients, and the question is whether or not these policy instruments are cost-effective in redistributing income. For example, NFA's monopoly on grain imports together with its domestic marketing operations were found to exacerbate seasonal price instability. In the case of production support, the grain dryers/farm equipment distributed, and the agro-processing centers/farm level grain centers constructed by the government had been hardly utilized. Furthermore, the use of those policy instruments have promoted graft and corruption.

Among growth-enhancing investments, irrigation has received the highest allocation. Yet because of low world rice prices and high cost of irrigation per hectare, gravity irrigation projects have shown low social rates of return since the 1980s. Continuing investments in rehabilitation beg the question of how to improve the operation and maintenance, which may be a more cost-effective approach to address the problem of poor or delayed maintenance. Too little effort has been devoted to strengthen irrigators' associations that can take over O&M, nor to raising collection rates of irrigation fees to cover O&M cost. As water becomes increasingly scarce and groundwater use expands, the role of the public sector may have to shift away from direct provision of water service towards ensuring the appropriate, regulatory policy, and institutional framework for allocating and managing water resources.

Budgets for extension have been relatively large (P4 billion), about twice as much as that for R&D. Questions may be raised about the balance in funding between technology generation and extension, the effectiveness of the linkage between research and extension and other institutional issues, the methodologies adopted in technology transfer activities given dramatic changes in information technologies, and the increasing role of the private sector in R&D and therefore in extension.

R&D is clearly underfunded; public expenditures should increase by two or three-fold to be comparable with research intensity ratios in other countries. Increasing budgetary allocation, however, must be used to correct the misallocation of research expenditure across commodities/programs (i.e., favoring commodities of greater economic importance, market and technological potential), across types of expenditures (i.e., less PS and more MOOE and CO), and

between program vs. project type of funding. Resources must also be allocated for institution building and streamlining the organizational structure.

Bias toward Rice: Public expenditures for agriculture continue to be disproportionately in favor of the rice sector (nearly half), which presently contributes about 15% of gross value added of the sector. Aside from the budgetary allocation for irrigation and price stabilization, rice dominates expenditures for extension, land redistribution, credit programs, subsidies for farm machineries and postharvest facilities. By contrast, budgetary allocation for the exportable agricultural and fishery subsector has been quite meager. R&D expenditures for corn, coconut, fruits, and fishery, for example, have been very low relative to their gross valued added contribution.

The strong and persistent bias of public expenditure towards rice is often justified in terms of food security goal, defined as rice self-sufficiency. Such a bias, however, is counter to the MTPDPs objective of promoting diversification, and ultimately to the goal of food security which should ensure that all households have sufficient income to purchase food at reasonable prices. It is imperative that public resources are allocated in activities where social rates of return are highest, food prices reflect their social opportunity cost and not raised by policy intervention, and any food subsidies be targeted specifically for the poor.

2.4. Weak, Discontinuous and Fragmented Governance

The 1999-2004 MTPDP takes particular notice of the problems plaguing the governance of rural and agricultural development:

"The current institutional structure reveals a multiplicity of national government agencies presently involved in managing the development of agriculture, agrarian reform and natural resources. With no less than six departments, i.e. DA, DAR, DENR, DPWH, DOST, DTI and DILG, involved in sector development, functional overlaps, gaps, as well as fragmentation of responsibilities have become apparent in the following areas:

1. Upland development and mangrove development and management (including enforcement of appropriate regulations on conversion of mangroves into fishponds provided under RA 8550) where there is a need to clearly delineate the scope of responsibilities between the DA and DENR;

2. Provision of support services to agrarian reform beneficiaries (ARBs) by DAR vis-a-vis DA's programs on increasing agricultural productivity;

3. Research and development, wherein current efforts in agriculture and fisheries are fragmented with the existence of the DA's Bureau of Agricultural Research on the one hand, and the DOST's PCARRD and PCAMRD on the other; and

4. Infrastructure development which involves various agencies such as the DPWH, DILG, DA, DAR, and the LGUs.

Institutional weaknesses also exist within the DA, DAR and DENR which are primarily responsible for the sector. Operations have become fragmented, thus weakening the impact of development activities on the intended beneficiaries. In the DA, for instance, no less than five specialized livestock agencies exist despite the devolution of most of the technical and regulatory functions to the LGUs. In the implementation of CARP, the slow pace of land acquisition and distribution is attributed to lack of systematic land records, lack of political will and poor understanding of the philosophy of agrarian reform mainly on the part of officials and employees of the key CARP implementing agencies."[2]

Moreover, despite decentralization and devolution efforts, central level offices of national government departments continue to have dominant control of up to 80% of budgetary resources. Although some of the OSECs' project funds are disbursed through regional offices and LGUs, project design and budget control remain the responsibility of central level offices. Thus, the ability of the LGUs and regional offices to influence the strategic directions and program design developed by the central offices have been extremely limited. Indeed, studies have shown that IRA transfers were much less than commensurate to the responsibilities devolved to the LGU. Moreover, poorer regions which have a greater proportion of population in agriculture also have lower budgetary resources and fewer devolved personnel.

Finally, agriculture and rural governance has been unable to substantially nor implement a broad range of policy and institutional reforms necessary for long-term, sustainable growth and development. The unfinished reforms include: (a) completion of land transfer under the agrarian reform program, (b) cost-effective delivery of support services to all farmers; (c) competitiveness-enhancing reforms in grains, sugar and coconut; (d) revitalization of the NFA, (e) focus on investments in R&D, and (f) a consistent focus on irrigation investments.

Poor continuity in sector leadership is clearly a major factor in existing weakness in governance. Such discontinuity results in inadequate understanding in sector dynamics. Short

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[2] 1999-2004 MTPDP, p. 3-12.

periods of service emphasize short-term gains. Yet the task of agriculture sector management grows all the more complex with intensified domestic resource scarcity and global openness. The record of the Philippines in terms of the periods of leadership of the agriculture and rural development sector over the past three decades is instructive (**Tables 10 and 11**). Since 1986 all Secretaries of Agriculture and Agrarian Reform, with only a single exception in the case of Agrarian Reform Secretary Ernesto Garilao, have been unable to serve their full terms as provided by law. By far, Secretaries Conrado Estrella of DAR and Agriculture Secretary Arturo Tanco served the longest – in the process learning from both mistakes and victories. Mr. Estrella served for more than 20 years while Mr. Tanco served for 13 years.

Table 10
DA Leadership
(As of March 2001)

From – To	Secretary of Agriculture	Months of Service
January 1971 - June 1984	Arturo Tanco*	162
July 1984 – February 1986	Salvador H. Escudero	20
March 1986 – February 1987	Ramon V. Mitra	12
March 1987 - December 1989	Carlos G. Dominguez	34
January 1990 - June 1992	Senen C. Bacani	30
July 1992 – February 1996	Roberto S. Sebastian	44
March 1996 – June 1998	Salvador H. Escudero	25
July 1998 - April 1999	William D. Dar**	9
May 1999 – January 2001	Edgardo J. Angara	19
January – February 2001	Domingo F. Panganiban	1
February 2001 – present	Leonardo Q. Montemayor	?

* Including Environment, Natural Resources and Agrarian Reform.
**Acting Secretary

Table 11
DAR* Leadership
(As of March, 2001)

From – To	Secretary of Agrarian Reform	Months of Service
January 1966 – April 1986	Conrado Estrella	244
May 1986 – March 1987	Heherson Alvarez	11
July 1987 – June 1989	Phillip Juico	11
July - December 1989	Miriam Defensor Santiago**	6
January – April 1990	Florencio Abad**	4
April 1990 - June 1992	Benjamin Leong	30
July 1992 – June 1998	Ernesto D. Garilao	72
July 1998 – January 2001	Horacio Morales	30
January – February 2001	Conrado Navarro***	1
February 2001 - present	Hernani Braganza	?

*Prior to 1971, the Department of Agrarian Reform was known as the Land Authority
** Not confirmed by the Commission on Appointments
***Officer-in-Charge

The foreshortened brief tenures of the agriculture secretaries since the mid-1980s have contributed to the weakening of the agriculture and rural sector bureaucracy. As the leadership focussed on short-term gains the tasks of long-term structural change and strengthening was neglected. The weaknesses are evident in: (a) non-competitive compensation for mid-to-upper level staff; (b) declining overall quality of mid-to-upper level staff; (c) inadequate technical staff support for top managers, and (d) institutional and management structures not appropriate to current challenges and realities.

Clearly the compensation of mid-to-upper level employees in the bureaucracy has fallen far behind those of their counterparts in the private sector. Analyses by the Personnel Management Association of the Philippines and the Department of Budget and Management report that the gross monthly salaries of government staff below the rank of Division Chief (Grade 24) are "competitive" with the private sector. However, the salaries of all personnel of Grade 24 and above are substantially below that of comparable jobs in the private sector. Such a salary structure has resulted in the creation of mechanisms for hidden compensation, elaborate structures for allowances and other benefits, and graft and corruption.

Unfortunately, it is at the mid-to-upper levels of government officialdom and bureaucracy where technical analysis, administration, decision-making, policymaking, resource allocation and contracting take place. When compensation structures cannot attract and keep persons of sufficient training, experience and capability in the bureaucracy, certainly the effectiveness of the government as a whole will deteriorate.

3.
A Focussed Agenda for Rapid Agricultural Recovery and Growth

The government, particularly the DA and DAR, must **focus, focus, focus** on the fundamental problems and finally defeat these - once and for all – to succeed in attaining food security and alleviating poverty. The problems of inadequate public investment in, and weak governance of, the agriculture and fisheries sectors are paramount and should be attended to, first and foremost. Certainly there are many other concerns in the agriculture and fisheries sector. However upon scrutiny most of these other problems are symptomatic of, or are rooted in the fundamental inadequacies in public investment and governance. Therefore the government, the President and the DA must not be distracted from attending to the fundamental issues, since the resolution of these root causes will greatly reduce the effort required to deal with the other and more peripheral concerns.

3.1. Sustainable Income and Employment Generation for the Poor

Among the various factors contributing to poverty alleviation and food security, overall economic growth is the most crucial. The experience of a large number of countries shows that while economic growth may or may not reduce inequality, it unambiguously reduces absolute poverty. However, the benefits of growth are observed to accrue to different economic groups approximately in proportion to initial incomes. The spread of the benefits of growth is critically determined by its composition, initial distribution of productive assets (including land, human capital, and infrastructure), and institutions.

Growth propelled by an increase in agricultural and fishery output has alleviated poverty more significantly, simply because agriculture and fishery sectors are where most of the poor are. However, given the small size of average holdings and widespread landlessness, agricultural growth will not be enough to sustain increases in household incomes and standard of living. The farmers will require alternative employment opportunities in non-farm activities to deepen poverty alleviation and food security in rural areas. Therefore, in addition to diversifying agricultural production, a **diversified rural economy** must form part of the overall strategy.

The diversification of farming systems is essential for the economic viability of agriculture in the long run. This likewise offers the best opportunity to maximize returns from agricultural land and hence increase farm income. Normally, farmers diversify in response to market signals by adjusting their cropping patterns and enterprise mixes, unless constrained by policy and physical, agronomic, financial and marketing factors. Therefore, a sound approach to encouraging diversified agricultural growth in a dynamic setting like the Philippines would be to enhance the range of attractive options for farmers by supplying public goods and support services and providing a competitive input/output market.

Similarly, a critical element necessary to generate non-farm activities in rural areas is **local demand** for non-farm-produced goods and services. Demand for these goods rises faster than that for food as income increases (for staples, the income elasticity of demand is even negative). Agricultural income growth is the main source of demand stimulus for non-farm activities in the rural areas and forms a major explanation for the rise of rural industries.

But local demand alone may constrain sustained expansion of rural industries or prevent them from moving to a higher growth path. Export to urban areas or to the outside world offers an additional avenue for rural growth. This requires creation of an environment which encourages enterprises targeting for export to choose to locate in rural rather than urban areas, as well as providing rural people the technical and managerial capability (creation of rural entrepreneurs) along

with access to capital to set up these industries. Sustainable rural non-farm growth is not achieved by subsidies to induce firms that would otherwise prefer major city locations to shift to the countryside.

3.2. Direct Support and Protection for the Poor

Inequality in income, assets and opportunities are a major concern, since such inequity inhibits equitable sharing of the benefits of growth. In addition, it is now established that inequality inhibits growth itself. It is argued that concentration of wealth and resources leads to policies that protect sectarian interests and obstruct growth for the rest of the society. High inequality may also fuel social discontent, thereby increasing socio-political instability which, in turn, reduces investment. Since investment is a primary engine of growth, income inequality and growth are inversely related.

A robust predictor of future growth is access of the population to basic schooling, health and nutrition. Improvement in access to land is also considered a predictor. A more egalitarian distribution of land reduces poverty and boosts productivity.

It is unlikely that all regions or population groups in society will benefit uniformly from growth opportunities. This is due to differences in resource endowments, institutional constraint, and the physical environment. Also, not all the poor of the country are likely to benefit from the agrarian reform program. There may be special needs for poverty alleviation programs specifically targeted to these regions or groups.

The poor, by all definitions and measures, spend a large proportion of their income on food. Price fluctuation may easily render their entire income insufficient to buy the food they need. It is therefore necessary to introduce measures to minimize price fluctuations and to protect the vulnerable.

Immediate Reductions in Food Prices and Targeted Food Subsidies to the Poor - the NFA continues to monopolize rice imports. Rice imports are unavoidable in the medium-term because population growth is rapid and agricultural productivity will take time to recover. We should take advantage of the currently very low world prices of rice. The NFA can bid out import contracts to private sector traders – and the government can earn much-needed revenue. Also, the distribution of the cheap imported rice should be targeted at the poor through joint effort of NFA, DSWD, DILG and LGUs. In the above manner, simultaneously achieved is the reduction of budget

support for NFA, revenue opportunities for government, targeted support for the poor and partnership between the NFA, DA, DILG and DSWD.

3.3. The Key Components of the Program

The key components of a successful strategy to address poverty and food security in a sustainable manner are:

- Rapid growth in agriculture production through aggressive application of modern science and effective delivery of support services;
- Adequate rural infrastructure that reduces the cost of doing business in rural areas and gives access to urban markets and supplies;
- Investment in human resource development;
- Creation of rural finance system that will finance agricultural households in all their economically viable activities/enterprises including operating capital for small- and medium-scale businesses; and
- Access to productive resources, i.e. agricultural land.

Continuity is essential for a stable macroeconomic and policy environment which is open, competitive. This encourages people to engage in economic activities. The government will therefore continue the reform process initiated by the last administration and shall reinforce it with the necessary adjustment as dictated by the emerging situation. However, as all these activities are not within the jurisdiction of a single Department, effective implementation of a successful program to address poverty and food security is critically dependent on the quality of **governance – across departments.**

With respect to access to productive resources, the Government must accelerate the completion of the agrarian reform program. To exploit the synergies that exist between agrarian reform and other essential elements of rural development, this program will have to be phased in with the other critical activities necessary for the sustainable utilisation of land and to generate the backward and forward linkages for non-farm income. Farmers benefiting from the agrarian reforms must be given the opportunity and means to cultivate their land and market the produce. Adjustment of cropping patterns in accordance with market demand, along with opportunities to earn non-farm income, is essential for economic viability of the agrarian reform beneficiaries.

The Government must exert **coordinated governance in the agrarian reform communities** (ARCs) with priority in:

- Accelerating the completion of the agrarian reform program
- Providing the agrarian reform communities with support services necessary to maximize utilization of land for higher income, particularly:
  - ✧ Irrigation
  - ✧ Farm-to-market roads and related infrastructure
  - ✧ Improved technology for agriculture and small- and medium-scale enterprises
  - ✧ Information and extension
- Improving access to credit for agricultural households and agro-industries in all their economically viable activities/enterprises including operating capital for small businesses
-
- Enhancing human resource development commensurate to the needs and opportunities of agrarian reform beneficiaries
- Promoting partnerships with the private sector and LGUs in the identification, implementation, and maintenance of critical support services, as well as in the undertaking of farm/non-farm business ventures beneficial to ARCs.

3.4. Specific Thrusts

The specific thrusts which must be executed to rapidly attain the overall goals of food security and poverty alleviation are:

3.4.1. Agrarian Reform

Access to land is essential to ensuring that rural growth will substantially benefit the rural poor, thereby contributing to the attainment of equity goal enshrined in the Philippine Constitution. Highly inequitable distribution of productive assets, especially land, does not only limit the participation of the poor in production growth but also stifles the potential of the country to achieve long-term growth.

While an agrarian reform program is in place, some disturbing developments are standing in the way of successful implementation. First, its extremely slow pace has done unintended effects on the agricultural sector: it has bred uncertainty, effectively discouraging the flow of investments into

agriculture as well as encouraging non-planting and premature conversion of agricultural lands into non-agricultural uses. Second, the program has distorted agricultural land markets, thereby diminishing the collateral value of agricultural lands (and hence further decreasing the incentive of formal financial intermediaries to lend to agriculture). Third, access to forest lands and limited property rights under the agro-forestry and community-based forestry management programs are insufficient to encourage long-term investments for sustained productivity. Fourth, delivery of support services is extremely weak and fragmented, thereby severely limiting the beneficial impact of land transfer on agrarian reform beneficiaries. The key problem is the weak coordination among the agencies concerned with rural development. These factors have been important contributors to the sluggish performance of the agriculture and forestry sectors in recent years.

- *The DAR must implement aggressively the completion of the land transfer process nationwide within the next four years.*
- *The DAR must explore institutional arrangements that will restore the* **collateral value of lands** *covered by the agrarian reform program.*
- *The DAR must take the lead in vigorously implementing the* **land conversion and idle land taxes** *mandated by RA 8435 (Agriculture and Fisheries Modernization Act of 1997).*
- *The DENR, DAR, and DA must institutionalize arrangements with a view to ensuring* **land use rights** *conducive to proper resource management and development for sustainable forestry and agro-forestry uses.*
- *The DAR, DA, and other concerned agencies must improve the* **provision of farm support services** *to agrarian reform beneficiaries. To ensure sustainability of gains in agrarian reform communities established by DAR and to cover more such communities,* **stronger coordination** *among these agencies – particularly between DA and DAR – ought to be ensured.*

A Land conversion tax serves to regulate and slow down conversion and to substitute for discretionary restrictions on conversion of agricultural lands (irrigated or otherwise) to non-agricultural uses. One advantage of relying on a conversion tax is that more revenues can be raised for land reform. The other advantage is that, by sharing a substantial proportion of the tax with local governments, the national government can expect more cooperation from local governments, which are in a better position to monitor conversion, especially in reducing the number of conversions that bypass the government prescribed process.

Land valuation for purposes of landowner compensation is based partly on prevailing market prices, which are, in turn determined partly by existing output and input pricing policies as well as public policies affecting access to infrastructure and technology. While poverty and equity considerations are the usual justifications for most output and input subsidy programs in the

Philippines, these have tended to disproportionately benefit large landowners. Similarly, public investments in rural infrastructure have also been disproportionately located in regions or areas where farms are dominantly large. These advantages are capitalized on the market value of the land, further providing incentives for land accumulation. Thus, land reform schemes that require payment of the full market value are not likely to be attractive for small farmers who lack equity for building up viable farms and improving their living standards while repaying their mortgage. If the government absorbs part of the market value, the program will eventually run out of steam because full payment imposes fiscal difficulties that political forces are unwilling to bear. Thus, it is necessary that

- **Pricing and investment policy distortions***, which drive land prices above the capitalized value of farm profits, need to be dismantled. The continued presence of these distortions will make small farmer-beneficiaries continue to simply sell their lands to large farmers since the environment would still favor large ownership holdings.*

Evidence for scale economies in agricultural production is weak, especially when credit is not a constraint. Indeed, for a given crop, productivity (or profit) per hectare has been shown to be almost always higher for small farms than for large farms, a result contrary to the common assertion that small farms are less efficient than large ones. However, significant scale economies may attend processing, transport and distribution, suggesting the necessity for close coordination between the processors/distributors and the numerous agrarian reform beneficiaries. Such coordination may take several forms, including contract farming and related joint-venture business arrangements.

- *An environment conducive to the development of mutually beneficial production and marketing arrangements involving agri-business firms and agrarian reform beneficiaries (or their associations) must be promoted. The DAR, together with other concerned institutions, shall explore different models of such partnership arrangements, including joint-venture business arrangements.*

3.4.2. Irrigation and Water Resources

The Philippines has an estimated 4.7 M ha of potentially irrigable agricultural lands. Of these, an estimated 0.65, 0.44 and 0.4 M ha are national, communal and minor (shallow tubewells and low-lift pumps) irrigation systems service areas, respectively. The level of irrigation development by region ranges from 7.0% to 40.0%. The average nationwide is about 30%. The country is not realizing the full benefits from irrigation development. At 125%, the average cropping intensity in national irrigation system (NIS) and communal irrigation system (CIS) service areas is very low

compared to potentials of 160 - 220%. At about 3.4 t/ha, the average yield level in irrigated areas is low compared to yield potentials of 5 to 6 t/ha.

There are alarming indications of decreasing efficiency in the planning and implementation of NISs and CISs. On the average, the maximum area actually irrigated by these systems is only about 75% of the designed area. This implies that if NIS and CIS irrigation facilities are designed and developed for 100 ha, only a maximum of 75 ha, on the average, will actually be served. Larger systems seem to be less efficient than smaller systems. What is striking is the 20% decline in the ratio of actual area served over design area. Newer (after 1982) irrigation projects serve only 56% of their designed service areas in contrast to 94% before 1965. Most of the existing CIS and NIS are not sustainable. On the average, irrigation service fees only account for about 60% of the O & M expenses.

Fortunately, the country is blessed with abundant shallow groundwater resources. The National Water Resources Board estimated an aggregate of 5.1 M ha shallow well area nationwide. These potential shallow tubewell (STW) areas are mostly in rice- and corn- growing alluvial plains. In addition, the country is crisscrossed by natural waterways which are good water sources for small portable low-lift pumps (LLPs). These cost-effective, efficient, and farmer-controlled minor irrigation technologies offer the best growth opportunities for Philippine agriculture in the short and medium-term.

As mandated by RA 8435, the criteria for developing new or rehabilitating existing irrigation systems will include cost-effectiveness, sustainability, technical feasibility, full O&M cost recovery, affordability and greater degree of farmers' control. The Government should **devolve into the private sector** as much irrigation activities, support services, and functions, as possible. Therefore required is the massive expansion and acceleration of the construction and rehabilitation of irrigation facilities, specially communal systems co-financed with LGUs and private irrigation **small scale, private sector-led, farmer-controlled, and cost-effective technologies***, such as shallow tubewells and portable low-lift pumps.* These irrigation technologies have very short gestation periods (2 to 10 days) and low investment cost (P5,000 - P20,000/ha as compared to over P100,000/ha for national gravity irrigation systems). Furthermore, these modes of irrigation are easy to install and operate, usually owned by individual farmers, and are easily amenable to privatization. Where the technologies (e.g., Regions 1, 2, and 3) have been aggressively promoted, the private sector has taken over much of the development and investment activities. For every STW installed by the public sector in the above regions in 1997, the private sector installed more than ten units.

The large irrigation facilities and water management technologies are inappropriate for diversification. The traditional national and communal irrigation systems of NIA are designed basically for rice irrigation (continuous submergence without field drainage facilities). The lack of control of farmers over irrigation water, as well as the almost total absence of useful R&D outputs on irrigation and water management for non-rice crops, has been a major disincentive to farming systems diversification in irrigated agriculture. Third, access of good quality seeds on a timely basis in farming communities where farmers are receptive to crop diversification, is limited. Finally, inadequate infrastructure in rural areas hinders efficient operations of input and output markets.

- **Irrigation service fees** *for NIS and CIS should be reviewed to set such fees at full O&M cost recovery. This should, however, be carried with equal emphasis on improving irrigation and water management services and cutting down on O&M costs.*
- **Institutional reforms** *shall be undertaken to achieve timely and effective irrigation support services. The Government, through the NIA and the concerned agencies, should continue to ensure the proper operation and maintenance of the NIS and CIS during the interim or transition period of five years that such changes or reforms are being put in place.*
- *The DA must regularly monitor the operational status and other operational aspects of irrigation project implementation. However, an independent group – preferably a reputable research organization – ought to be tapped to* **periodically monitor the performance and impact** *of irrigated agriculture, irrigation policies and policy instruments and the extent of private sector participation, among other things.*

Many areas of the country are now experiencing water shortages due to increasing demands for water for various utilization objectives (e.g., domestic and industrial water supply, fisheries, sewage disposal, irrigation, power generation and transportation). With rapid urbanization, the competition is likely to further intensify in the coming years. There is a need to formulate a comprehensive water resources policy framework whereby the demands for water from all sectors are fully taken into consideration. This framework should also consider national development imperatives, sectoral development objectives and strategies, and resource capabilities and constraints. Eventually, a long-term irrigation master plan will have to evolve from the framework.

- *A national commission or task force with representatives from various sectors and subsectors concerned ought to be established for the task of formulating the* **comprehensive water resources policy framework**. *Toward this end, the mandate of the existing Task Force on Water Resources based at the DENR shall be reviewed and its membership expanded, if necessary, so as to enhance its technical capability to develop the framework. In due time, either the task force shall be institutionalized or its increasingly vital functions subsumed by other organization(s).*

3.4.3. Farm-to-Market Roads and Related Infrastructure

The absence of infrastructure, together with the poor condition of existing facilities in rural areas, is the single most important constraint to sustaining gains in food security and poverty alleviation. High transport and communication costs substantially weaken the employment-creating linkage between urban and rural areas and also between agriculture and the rest of the economy. This stifles the potentially strong response of poverty to the stimulus provided by agricultural growth, as well as to export and/or urban demand growth. One study shows that increasing real investment in rural infrastructure by 10% reduces the incidence of poverty by at least 10%.

- *The DA, DAR, and DENR should aggressively coordinate with Congress and concerned agencies to* **shift infrastructure development priority** *to rural areas. There should also be intensified pressure for an* **accelerated liberalization of policies** *in land transport, inter-island shipping, port handling, and telecommunications.*
- *The identification, planning, construction, and maintenance of rural infrastructure shall directly involve the targeted LGUs and beneficiary groups, as mandated by RA 8435.*

Massive expansion and acceleration of the construction of rural roads, particularly through local contracts administered by LGUs, the DA and the DPWH. These physical programs must be complemented by accelerated liberalization of policies in land transport, inter-island shipping, port cargo handling and telecommunications. The focus on transport infrastructure will bring down production and marketing costs across all sectors – not only agriculture.

- **Public-private sector collaboration** *in road building and maintenance in upland areas should be pursued whereby government (national, provincial or municipal) shall provide machinery (bulldozers, graders, trucks), materials (sand, gravel) and expertise (road engineers) while local communities shall provide the resources readily available at hand, labor. A* **matching-grant scheme** *shall be explored whereby the national government matches the LGU spending for road building and maintenance.*

3.4.4. Agricultural R&D

Past R&D efforts have been pathetic, to say the least. The country's spending in agricultural R&D, expressed as a proportion of the gross value added in agriculture, is much less than most Asian countries. Aggravating this are the extremely weak accountability of the R&D system, the lack of regard for incentive structure, and the failure to shift research efforts toward farming systems diversification (or, broadly, rural income diversification).

These developments are unfortunate, considering that the only important source of agricultural production growth in the medium- to long-term will be yield growth, and much of this growth will have to come from technological improvements. Furthermore, application of modern science is the only way to compete internationally in an increasingly open global economy.

From an efficiency viewpoint, returns to agricultural research are high, typically exceeding 60 percent. It is hard to imagine other types of investments – in either private or public sector activities – that would produce more favorable rates of return.

Technology Budgets, Clear Accountability for R&D and Rapid International Technology Transfer - Substantial increase in the overall budgetary allocation for technology development – to achieve the 1% of GVA in agriculture benchmark – about P1.83B. R&D resources must be distributed across commodities according to the share of the commodities in GVAA. The management of R&D resources must be consolidated into the DA. The fastest and cheapest way to access international technology as well as push HRD is to multiply the provision of graduate and undergraduate scholarships, professional research grants, continuing education and research faculty chairs. Given the increasing disenchantment of the academic and science community with government, the provision of these support opportunities will build not only technology, but also community with the scientific elite.

- *The DA, in coordination with concerned agencies, will aggressively raise the* **level of agricultural R&D efforts** *to international standards (i.e., one percent of gross value added in agriculture).*

- *The DA will push for a* **departure of research focus** *from almost exclusively traditional-crop, commodity-specific technology development into an* **integrated production system**. *This will enhance crop diversification to higher-value crops and farming systems, as well as enable vertical integration of agricultural production activities (from irrigation to appropriate farm mechanization to primary post-harvest operations up to tertiary processing of farm products and by-products). The objective is to raise the value added from farming, expand the menu of financially viable and environmentally safe technologies for small- and medium-scale farmers and fishers, and promote crop and rural-income diversification.*

- *Given the scarcity of development funds, public research investments will be focused in areas that would not be privately funded but which offer convincing expectations of positive social payoffs. The* **participation of the private sector** *in the provision of research shall be encouraged.*

- *The government shall establish a clear* **accountability for R&D**. *The process shall involve a clear definition of the respective functions of DA, PCARRD, PCMARD, SCUs, and other institutions.*

- *A departure from traditional commodity-specific development into an integrated production systems will enable* **vertical integration of agricultural production activities** *(from irrigation to appropriate farm mechanization to primary post-harvest operations up to tertiary processing of farm products and by-products).*

A production systems orientation allows, for example, optimum and multiple uses of farm equipment and facilities (engines to power irrigation pumps, hand tractors, farm trailers, threshers, shellers and dryers). It also allows the introduction of multi-crop dryers which may be more economically viable than single-crop dryers. Vertical integration of agricultural development activities improves the performance of agriculture. This approach generates value-adding and employment creating agro-industries which in turn increases the market value of the asset (mainly labor) of the underprivileged and other target groups. By so doing, this brings them into the mainstream of agricultural development.

As noted above, further increases in aggregate output through enlargement of cropped areas is no longer possible. The only remaining expansion areas are the upland ecosystems through incremental cultivation of marginal lands. Aside from their remote location, poor access, and low productivity, these sloping lands are difficult to manage as they are highly susceptible to soil erosion and nutrient loss. This renders them subject to rapid diminution of their already-low productivity, especially when stripped of protective forest vegetation and subjected to intensive tillage. Unless appropriate cultivation techniques are employed, the marginal benefits are likely to be far outweighed by the marginal costs, particularly if the these sites have been severely damaged.

Agroforestry, the deliberate integration of annual food crops with perennial or tree crops, is one of the components of DENR's community-based forest management program that has been found suitable to hillyland farms. The short-term agricultural crops fill the immediate food needs of the rural poor. Tree crops, on the other hand, yield subsistence (e.g., fuelwood) as well as commercial wood and non-wood materials (e.g., timber, wood fiber, latex, resin, etc.) and food products (e.g., fruits and nuts). They also provide the all-important ecological services of stabilizing slopes, conserving water and soil, recycling soil nutrients, and increasing organic matter to directly help raise and sustain on-site productivity. They significantly improve output levels in the downstream areas.

Further, the inherently diverse species mix in agroforestry systems minimizes the risks from destructive pest and disease attacks. These constitute an ever-present ecological hazard for vulnerable single-species crop systems such as in those rice production or orchard operations.

For all the abovementioned reasons, agroforestry should be a strategic tool for productive and sustainable use of otherwise marginal, ecologically vulnerable upland areas.

- *The DENR shall expand its* **community-based forest management program** *in accordance with Executive Order 263 of July 1995 (Adopting Community-based Forest Management as the National Strategy to ensure the sustainable development of the country's forestland resources) and in line with the companion DENR Administrative Order 96-29 of October 1996 (Implementing Rules and Regulations for Executive Order No. 263.), in order to encourage more upland communities to engage in sustainable agroforestry farming.*

3.4.5. Human Resource Development and Extension Support

The quality of human capital in rural areas determines the pace of diffusion of science-intensive agricultural technologies. From the viewpoint of poverty alleviation, human capital development, especially in rural areas where access to quality education is sorely inadequate, represents a main avenue to escaping the poverty trap. Hence, the importance of investment in human capital cannot be overemphasized.

The *raison d'être* of an extension system is to disseminate the stream of new technology coming out of the research system. Without this new technology, there is nothing for the extension system to extend. A second role of the extension system, arguably even more important than the first, is to convey knowledge of the problems actually faced by farmers back to the researchers. Both these reasons argue for the extension system as a channel of communication between farmers and researchers. Close coordination between the research system and the extension delivery system is therefore essential.

In the Philippines, apart from the generally poor quality of the extension workforce, research-extension coordination is also rather weak, especially after the devolution of basic extension services to LGUs. To be sure, a decentralized extension system has a great deal to recommend it. The problem is how best to link up a decentralized extension service with a centralized research system, because only then can the two work to their best advantage.

The vision for agricultural extension as a program requires redirection to reflect the location-specific needs and priorities of diverse farming communities, the effectiveness and efficiency of various approaches to the transfer of technology, and the proposed thrust towards eradication of absolute poverty. Currently the extension system focuses on demonstration of technology to leading farmers or groups of farmers, which is also practiced by the seed companies/farms, breeding stations, and the research institutes and universities. It should instead be focused on developing human resources and assisting farm households to design, plan and mobilize their resources, including credit, for higher productivity and off-farm and on-farm activities for a better quality of life. Support in the effective utilization of credit has proved very successful in many developing countries.

- *The DA and other concerned agencies will push for strengthening of the* **delivery of capacity-building and technology extension services***, as well as the formal agriculture and fisheries educational system, as mandated by RA 8435. Efforts shall be intensified to provide continuing education (and degree and non-degree) scholarship opportunities for agriculture and fisheries academics, professionals, scientists, and analysts, as well as bureaucrats and practitioners.*

- *DA, DAR, and DENR, with the involvement of SCUs, shall intensify the* **re-training of agricultural extension workers devolved to LGUs** *to enable them to effectively respond to the information requirements of a dynamic and technology-driven rural economy.*

3.4.6. Harnessing Public-Private Sector Synergy

For the above strategy to work, the substantial participation of the private sector in rural development has to be assured. The fiscal bind is more constraining than ever, necessitating that scarce government funds have to be channeled into areas that yield the maximum payoffs to society, i.e., those addressing the fundamental constraints to rural development. Further, these resources must not crowd-out private sector initiatives, i.e., public sector investment should **enhance** – not replace or diminish – private investment. Put differently, scarce public funds should not be dissipated to areas/concerns that otherwise would be better served/addressed by the private sector, as well as to areas where the investment does not contribute to the attainment of societal goals.

This framework stresses that the most fundamental constraint to rural development is the **high cost of doing business in rural areas**. This is attributable largely to the poor state of rural

infrastructure and to weak governance, including the failure to secure property rights and personal safety.

- *Private firms and individuals must find the rural sector to be a profitable place for locating and/or expanding production, either for exports or for domestic markets. Otherwise, they simply would not move into the sector, regardless of what the government says.*

- *The NFA's monopoly in the international trade of rice, and the SRA's control of sugar imports have prevented greater private participation in agribusiness and have not benefited consumers nor producers consistently and to the extent expected. The controls on rice and sugar trade have also cost the public very large subsidies that cannot be sustained.*

Experience worldwide has shown that subsidies directed to specific firms – such as income tax holidays, duty-free importation of capital and raw materials, and preferential access to credit – is usually **not** the main factor determining the choice of firms to locate (or not to locate) in rural areas. Rather, it is often the quality of rural infrastructure and support services, as well as the institutional environment (or, generally, rules-of-the-game), that matters most to private investors. Moreover, a focus on subsidies as the main instrument for attracting private investments into rural areas has often rendered rural development efforts unsustainable. Firms depending on subsidies for financial viability usually close shop when the subsidies dry up.

In the past, selected NGOs have been critical in playing direct roles to pursue an agricultural and rural development agenda in collaboration with government agencies. NGOs have performed partnership roles in terms of promoting pro-farmer policies, providing support services, and implementing specific programs and projects with government support.

- *The DA, DAR, and DENR must actively collaborate with* **non-government organizations** *in areas such as policy advocacy, program and project implementation, delivery of support services, and capacity building for farmers and fisherfolks towards agricultural growth and rural development. However, these agencies must institute/arrange for an effective benefit monitoring and evaluation system to enhance the accountability of NGOs at all levels of program/project implementation.*

3.4.7. Institutional Strengthening and Public Sector Accountability

The effectiveness of the above strategy in realizing the vision for a modern agriculture depends largely on the character of governance and incentive structure in place. In recent years, weak governance in public investment and support delivery has been the fundamental cause of the relatively poor performance of agriculture and the rural sector. The existing governance structure is quite insensitive to the needs and changing conditions of agriculture, fishery, and forestry sub-sectors.

The largely top-down research system hardly permits farmers' concerns and constraints to be adequately reflected in research priority agenda. This is partly because the link between research and extension is extremely weak. Second, the extension system is unresponsive to the demands of modern agriculture, partly because the incentive structure does not reward good performance. Third, the respective roles of national and local institutions involved in rural development – especially those of the DA, DAR, and DENR vis-à-vis LGUs, NGOs, and local communities – have not been properly clarified and rationalized. Accountability in the research system is weak since the respective functions of DA, PCARRD, PCMARD, SCUs, and other research institutions, have also not been properly rationalized. Finally, an effective and regular impact/benefit monitoring and evaluation system is not in place. This system would have been useful not only to enhance accountability but also to maximize returns from limited public funds and hence sustain rural development and poverty alleviation efforts. In part, this arises from the absence of technical capacity in the concerned institutions.

3.4.8. Partnership with LGUs to Revitalize Local Agriculture

Technology and support services must be delivered to farmers, fishermen and rural households. The central government cannot handle the task alone and thus must mobilize the entire nationwide network of LGUs, schools and universities, NGOs, POs and the private sector to rapidly and effectively deliver the resources for productivity and rural income generation. In particular, the confinancing by DA of the local agricultural development plans and programs of LGUs is extremely important. Partnership with the LGUs will also build a nationwide network of support for agriculture and rural development.

3.4.9. Strong and Unified Leadership of DAR and DA

Public resources for agricultural and rural development – particularly those for support services, are split between the DAR and DA – which needlessly compete and sometimes work at cross purposes. The leadership of both departments should be **unified** – so that institutional resources are not only properly allocated between land acquisition and transfer and support services, but also that the management of such functions is closely coordinated

In all of these thrusts and programs, the DA must serve as leader and resource, with the support of the rest of government, including Congress. The DA must set directions and devolve authority, responsibility and funds to its partners and implementors – the LGUs, NGOs, POs, the schools and universities and technology institutions.

The President and the Secretary of Agriculture (and the unified leadership of DA and DAR) must focus their resources and attention on the immediate, substantive and sustained execution of the above-listed imperatives, most of which have been long-delayed. *The opportunity should not be further wasted.* Strong, determined leadership is critical. The leadership must focus like a laser on the basic issues from day one, and not waver until the task is done.

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TABLE 1
Average growth of Ag GVA and Ag Ex in Asia

	1970-80		1980-90		1990-97	
	GVA	**Ex**	**GVA**	**Ex**	**GVA**	**Ex**
Philippines	**4.9**	**14.6**	**1.0**	**-4.6**	**1.8**	**6.4**
Indonesia	2.0	20.0	4.9	4.7	3.3	13.3
Malaysia	6.5	19.3	3.8	3.1	2.0	11.5
Thailand	4.2	21.2	3.9	4.9	2.9	7.9
China	2.7	13.1	5.6	2.7	0.2	
India	1.8	14.6	3.2	0.8	2.8	10.8
Pakistan	3.0	13.8	4.3	3.2	3.6	-4.0
Nepal	0.8	-2.9	2.7	0.7	2.1	2.0
Bangladesh	1.4	2.6	1.9	-1.5	1.7	-1.6
Sri Lanka	1.8	9.7	2.1	0.03	2.4	-4.1

TABLE 2

Growth of Ag GVA (at constant prices) by Commodity

	Overall	Crops							Livestock & Poultry			Fish	Forest
	Total	Total	Palay	Corn	Coco	Sugar	B'nana	Other	Total	L'tock	Poultry		
1960-70	4.2	3.8	**4.5**	**5.3**	2.3	4.8	5.5	3.6	3.2	3.1	3.7	6.9	5.1
1970-80	3.9	6.3	**4.7**	**5.9**	4.9	2.9	15.6	9.5	3.0	0.5	9.2	4.5	-4.4
1980-90	1.0	1.6	**2.7**	**3.5**	-4.9	-5.3	-3.0	1.1	4.7	4.9	4.4	2.4	-7.0
1990-99	1.4	1.9	**1.5**	**-1.4**	-0.9	0.6	1.8	1.5	4.9	4.4	5.6	1.4	-21.7
1990-91	1.4	2.9	**4.0**	**1.3**	-4.0	27.2	-0.3	2.7	2.1	1.2	3.4	4.0	-3.4
1991-92	0.4	0.6	**-5.6**	**-0.8**	0.3	4.8	3.6	0.4	5.1	0.8	10.0	1.2	-11.5
1992-93	2.1	2.9	**3.3**	**3.9**	0.2	7.9	0.3	0.9	5.3	4.7	6.2	1.4	-16.5
1993-94	2.6	3.4	**11.7**	**-5.8**	0.1	1.3	1.4	1.9	3.8	4.8	2.6	1.1	-15.0
1994-95	0.8	1.7	**0.0**	**-8.7**	8.0	-25.6	-1.0	5.0	5.2	5.2	5.3	2.0	-48.6
1995-96	3.8	4.2	**7.1**	**0.6**	-6.6	21.3	7.2	2.2	8.7		11.3	1.3	24.3
1996-97	2.9	4.2	**-0.1**	**4.4**	5.7	0.4	6.5	6.2	6.0		6.8	0.0	-41.4
1997-98	-6.6	-8.3	**-24.1**	**-11.8**	-13.1	-13.8	-5.8	-5.8	2.1	4.1	-0.3	1.2	-19.3
1998-99	6.6	7.8	**37.8**	**19.9**	-7.4	22.7	6.7	-4.5	2.5	4.7	0.9	2.5	-16.7

TABLE 3

Trends in Revealed Comparative Advantage, Major Agri Exports

	Agri	Coco	Sugar	B'nana	Fresh P'apple	Canned P'apple
1960	3.0					
1965	2.7	131.8	15.3			
1970	2.6	145.0	21.4			
1975	3.8	211.2	22.0	29.3		
1980	2.9	224.1	12.1	30.4	82.2	48.9
1985	2.4	212.3	7.6	31.2	91.6	59.7
1990	1.6	212.4	3.8	23.4	70.2	54.6
1995	1.1	153.5	2.0	14.2	41.5	23.6
1997	1.0	98.7	1.5	9.3	38.1	15.5

TABLE 4
Agri Share of Trade

	Agri Share of		
	Imports	**Exports**	**Ag Imports Over Ag Exports**
1960	19	64	31
1965	21	63	36
1970	14	44	34
1975	10	54	36
1980	8	35	31
1985	9	26	46
1990	10	15	96
1995	9	11	126
1996	9.0	8.8	159
1997	8	8	161
1998	10	7	151

TABLE 5
Philippine agri exports 1970-1998 ($ M FOB)

Description	1970	1975	1980	1895	1990	1995	1996	1997	1998
Total	884.2	1,294.5	2,119.7	1,300.3	1,626.8	2,395.5	2,196.7	2,234.5	2,143.9
Primary commodities	724.6	951.8	1,242.8	572.5	806.0	988.4	981.4	914.7	886.9
	81.9	73.5	58.6	44.0	49.5	41.3	44.7	40.9	41.4
Fish, fresh (live/dead), chilled/frozen	0.9	6.8	74.7	23.3	35.8	84.6	72.8	66.5	104.7
Crustaceans, molluscs & aquatics	1.5	8.3	28.4	74.7	256.7	291.0	219.6	221.0	198.1
Fruits & nuts, fresh/dried	25.1	107.5	249.7	218.9	258.2	368.8	393.8	379.9	360.7
Fruits & vegetables juices/unfermented	4.2	5.5	14.9	21.6	32.3	43.2	47.2	48.0	50.2
Sugars, molasses & honey	198.3	614.6	656.9	185.2	133.8	74.6	140.1	98.7	99.6
Feedng stuff for animals	17.7	34.1	85.3	37.9	56.8	80.3	72.2	64.4	45.1
Others	476.9	174.9	132.9	11.0	32.4	45.9	35.7	36.2	28.5
Processed products	123.9	285.0	790.0	633.5	675.8	1,234.9	1,015.4	1,127.0	1,120.9
	14.0	22.0	37.3	48.7	41.5	51.6	46.2	50.4	52.3
Fish, dried, salted/in brine; smoked		0.5	4.3	1.3	1.3	2.1	2.6	3.8	3.0
Fishery products, prepared/preserved		0.9	30.7	49.2	101.5	124.3	141.6	143.9	139.0
Fruits, preserved & preparations	23.0	39.9	100.2	109.0	121.1	135.6	154.1	149.9	134.2
Coffee, tea, cocoa and spices	0.5	4.5	65.4	81.3	29.6	31.2	30.0	28.3	25.9
Vegetable fat & oils	97.7	230.7	567.5	348.4	362.2	826.5	570.7	673.6	706.8
Others	2.5	8.4	21.9	44.3	60.1	115.1	116.3	127.5	111.9

Raw materials	35.7	57.7	86.9	94.2	145.1	172.2	199.9	192.8	136.2
	4.0	4.5	4.1	7.2	8.9	7.2	9.1	8.6	6.4
Tobacco & tobacco manufacturers	14.2	34.6	30.2	28.4	49.0	27.9	37.5	40.0	30.3
Natural rubber & similar natural gums	1.4	0.7	8.5	9.9	11.8	27.8	33.8	25.1	14.3
Vegetable textile fibers, unspun, waste	16.3	15.8	31.5	31.1	21.8	22.6	23.6	18.5	19.7
Crude animal & vegetable material	2.9	6.2	25.8	24.6	62.2	93.7	104.5	109.0	71.8
Others	1.0		0.8						

TABLE 6

Trends in nominal protection rated of major agricultural commodities, 1970-1998 (%)a.

	1970-79	1980-84	1985-89	1990-94	1995c	1996c	1997c	1998c
Rice	-4	-13	16	19	63	91	82	34
Corn	24	26	67	76	104	54	96	72
Sugarb	5	42	154	81	91	93	66	99
Pork	6	-9	43	31	44			
Chicken	34	46	39	74	84			

a NPR is the percentage difference between domestic wholesale price and border price covered by the oficial exchange rate.The border price is an FOB export unit value or an exportable products and the world price adjusted by 15% as a measure of CIF import unit value for importable products. In the case of pork and chicken, the CIF import value of Singapore was used.

b Weighted average of NPR on sugar exported to the US (ratio of export unit value to the US to the border) price and NPR on sugar for domestic use (ratio of domestic wholesale price to border prce). Border price is the FOB world price of sugar adjusted by 15% to obtain the CIFprice.

c Imports of rice, sugar, and recently corn, did not pay either the in-quota or our-quota tariffs, except for imports of sugar in the late 1998, which paid out

Source: David, Cristina C., "Agricultural Growth And Performance," In Philippines, Rural Development
And Natural Resource Management: Trends, Strategy Implementation And Framework Performance Indicator System, Government of the Philippines and World Bank, 2000.

TABLE 7
Growth rates of gross value added of agriculture (cops and livestock and poultry) and crops. Agricultural employment, cultivated land, and crop area (%).

	GVA (crops, livestock and poultry)			Labor	Land	
	Total	Crops	Livestock & poultry		Cultivated	Crop
1960-70	6.4	7.3	4.1	2.4	0.1	1.7
1970-80	4.5	5.1	0.7	3.1	3.3	3.2
1980-90	0.7	-0.6	4.3	2.0	1.8	0.4
1990-99	1.1	0.9	1.9	1.0	1.7	-0.7
1960-65	5.6	5.6	5.6	2.4	0.1	1.4
1965-70	7.2	9.0	2.6	2.4	0.1	2.1
1970-75	7.3	9.2	0.6	2.4	3.0	4.0
1975-80	1.7	1.2	0.8	3.8	3.6	2.4
1980-85	-1.6	-2.7	0.0	3.9	1.9	0.7
1985-90	3.0	1.4	8.8	0.2	1.7	0.2
1990-95	3.3	3.6	2.4	2.1	1.7	-0.5
1995-99	-1.5	-2.3	1.2	-0.4	1.5	-1.1

Source: David, Cristina C., "Agricultural Growth And Performance," In Philippines, Rural Development And Natural Resource Management: Trends, Strategy Implementation And Framework Performance Indicator System, Government of the Philippines and World Bank, 2000.

TABLE 8

Growth rates of labor and land productivity of the agriculture (crops and livestock including poultry), and crop sectors (%)

	Agriculture				Crops		
	Labor	Land			Labor	Land	
		Cultivated	Crop			Cultivated	Crops
1960-70	3.9	6.3	4.6		4.8	7.2	5.5
1970-80	1.4	1.1	1.3		2.1	1.7	1.9
1980-90	-1.4	-1.1	0.2		-2.7	-2.4	-1.1
1990-99	0.1	-0.5	-2.6		-0.1	-0.7	1.7
1960-65	3.1	5.5	4.1		3.1	5.5	4.1
1965-70	4.7	7.1	5.0		6.5	8.9	6.8
1970-75	4.8	4.1	3.2		6.6	5.9	5.0
1975-80	-1.8	-1.8	-0.6		-2.3	-2.3	-1.1
1980-85	-5.4	-35	-2.3		-6.5	-4.6	-3.4
1985-90	2.8	1.2	2.8		1.2	-0.3	1.3
1990-95	1.2	1.5	3.8		1.4	1.8	4.1
1995-99	-1.1	-3.0	-10.0		-1.9	-3.8	-1.3

Source: David, Cristina C., "Agricultural Growth And Performance," In Philippines, Rural Development And Natural Resource Management: Trends, Strategy Implementation And Framework Performance Indicator System, Government of the Philippines and World Bank, 2000.

TABLE 9

Growth rates of palay production, area, and yield by crop (%).

	1960-70	1970-80	1980-90	1990-1998
Total Palay				
Production	3.3	4.8	2.2	0.5
Area	0.4	1.1	0.1	0.7
	12.1	23.3	4.5	140.0
Yield	2.8	3.4	2.0	-0.2
	84.8	70.8	90.9	-40.0
First Semester				
Irrigated				
Production	4.3	5.5	3.2	1.1
Area	2.4	1.4	1.8	2
	55.8	25.5	56.3	181.8
Yield	1.9	4.0	1.3	-0.9
	44.2	72.7	40.6	-81.8
Rainfed & Lowland				
Production	4.1	3.0	-0.7	-2.5
Area	-0.6	-0.001	-3.1	-1.4
	-14.6	-0.03	-442.9	-56.0
Yield	4.7	3.0	2.4	-1.2
	114.6	100.0	342.9	-48.0
Second Semster				
Irrigated				
Production	16.7	6.4	4.3	2.2
Area	9.3	1.3	3.2	2.3
	55.7	20.3	74.4	104.5
Yield	6.8	5.1	1.0	-0.1
	40.7	79.7	23.3	-4.5
Rainfed & Lowland				
Production	16.8	4.9	-0.2	1.6
Area	10.1	2.9	-1.2	-2.7
	60.1	59.2	-600.0	-168.8
Yield	5.9	2.0	1.0	-0.04
	35.1	40.8	500.0	-2.5

Note: Figures under the standard row are ratio to production by environment. * growth rates were derived using regresion. Source: David, Cristina C., "Agricultural Growth And Performance," In Philippines, Rural Development And Natural Resource Management: Trends, Strategy Implementation And Framework Performance Indicator System, Government of the Philippines and World Bank, 2000