The evolution of agricultural policies in East Timor

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Abstract

This paper presents an overview of policy issues affecting the agricultural sector and indicates a number of cash crops, such as coffee and sandalwood that need to be developed in the years ahead. For years, domestic policies, including East Timor’s agricultural transformation, were guided by a set of economic objectives. Current East Timor agricultural, trade and environmental policies, and exploitation of natural resources have been questioned in relation to their economic viability and their impacts on sustainable rural development, efficient trade and degradation of the environment. The economy of East Timor is dominated by the agricultural sector which contributes about one-third of GDP and employs about 80% of the working population for production for consumption and trade. Given the strong link between the growth of the agricultural and non-agricultural sectors, it is important that adequate resources in East Timor are channelled into the agricultural sector to get the economy moving.

Policy challenges to get agriculture moving again include agricultural extension services; openness to international markets in view of current external developments and investments in physical infrastructure. While markets remain poorly developed there is a case for a more interventionist regime. However, it is not obvious that East Timor will have either the resources or the capacity to manage such a regime. Under the current, very tight, fiscal regime the agricultural extension service has been trimmed severely. In these circumstances the key will be to work with local institutions and communities. Much of the required extension services need not be capital-intensive — better mulching, improved coffee pruning, local irrigation systems and basic road maintenance can all be developed through local community organisations, combined with judicious extension inputs.

Introduction

The need to reconstruct East Timor’s economy has forced policy makers to rethink the role of agriculture in the economy, society and the environment. Inaugurated with the publication of the Brundtland Report in 1987, the principle of sustainable development has quickly become an important feature of East Timor’s economy. Agriculture is not only required to enhance rural incomes, increase yields and expand export earnings, it is also expected to sustainably manage ecological processes, environmental services and economic goods.

Employing more than 80% of the population, contributing 40% of GDP, and accounting for 90% of foreign exchange, agriculture is of vital importance in the economy and life of East Timor. Despite the setbacks caused by the destruction of September 1999, agriculture is the activity that depends most on the Timorese themselves and is also the sector that is now showing the clearest signs of recovery in the three years since independence. However, many problems prevent the majority of East Timorese escaping from poverty. The pockets of malnutrition that persist are found especially in the highlands, often in coffee-growing areas. As coffee is the territory’s main cash crop, there is a danger of it becoming a monoculture in areas more suitable for other crops, forestry and livestock. The people’s best protection against food insecurity lies in diversification, which deserves greater attention.

1 The World Commission on Environment defines Sustainable Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.
The purpose of this paper is to examine the policy options available to East Timor to achieve its plans. This requires an overview of the performance of East Timor’s agriculture in a poor open economy and a look at the likely evolution of production and trade in the future.

**Sustainable agriculture?**

Like other small island countries of the Pacific region, East Timor is attempting to establish a planning framework to design and implement its development policies. The development strategy focuses on growth, employment, improved living standards and better delivery of services in a culturally appropriate and environmentally sustainable manner (see Box 1).

The emphasis on sustainability presents today’s agricultural policy makers with a formidable challenge: how to develop appropriate market incentives, institutional structures and regulatory systems that are not only compatible with ecologically sustainable agricultural development, but that contribute towards it? To address this task, producers, suppliers, processors, marketing bodies, and governments need to answer several questions:

1. how is deepening international economic and environmental integration influencing East Timor’s domestic agricultural policy objectives?
2. what are the pathways by which international trade and environmental agreements shape and constrain how agricultural producers and traders use natural resources?

Questions such as these are leading to calls for small nations to actively contribute in mutually supportive ways to the common goals of sustainable development and improvement in quality of life.

**Current agricultural practices**

The following traditional agricultural production systems are commonly used by farmers in East Timor:

- swidden cultivation of rainfed crops, mainly maize
- lowland cultivation of rice, either rainfed or irrigated
- household gardens with rainfed crops of maize, cassava, and beans and small livestock such as chickens, goats, and pigs
- production of Bali cattle and buffalo for marketing and for puddling paddy land in preparation for planting of rice (the technique of herding many animals around the field, called rencah)
- harvesting forest products such as tamarind, candlenut, fuel wood and stand-by foods such as yams.

A World Bank study in 2002 indicated that, in addition to these production systems, certain areas have extensive plantings of tree crops such as coffee in the highlands and coconuts in the lowlands. Some are large plantations established by the Portuguese but the majority are smallholder plantings. The agricultural systems overlap each other with swidden cultivation of maize being by far the most dominant activity. In some parts of the country, swidden

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**Box 1. Key Development Indicators**

1. Increased food production, rural incomes and per capita nutritional intakes
2. Increased total area (ha) planted to new crop varieties
3. Higher incomes and employment among farmers adopting a farming systems approach
4. Increased foreign exchange earnings from exports of quality agricultural and fisheries products
5. Higher proportion of irrigated land relative to total arable land
6. Higher crop yields and productivity due to intensification, adoption of new varieties, farmer training, and improved genetic stock in livestock, aquaculture and fisheries
7. Increased number of agricultural service centres, along with production and post-production infrastructure
8. Quality standard improvements in agriculture and fisheries products
9. Increased number of livestock volunteer workers, water user associations and other farmers’ associations
10. New protected areas through improved resources management and development, terrestrial and marine parks, law enforcement and information dissemination
11. Enhanced utilisation of forestry and fishery products
12. Increased production and quality of fishery products due to training, improved harvest and post-harvest fish handling and infrastructure development

Agriculture is practised on a sustainable basis with long rotations while in other areas population densities are too high (>50 persons per sq km) for sustainable swidden cultivation. This gives rise to a need to promote conservation and resettlement.

Degradation of upland areas is a serious environmental concern. Numerous cases indicate that the “slash and burn” farming frequently practised by local farmers can initiate or exacerbate land degradation through soil erosion, loss of fertility, build up of weeds and loss of forests (Da Costa, 2001). Long-term conservation and rehabilitation programs with adequate funding and the participation of local communities are essential to address and reverse land degradation.

The mountainous topography of East Timor gives rise to a diversity of microclimates which affect crop production. Productivity of most crops has shown a decreasing trend over the last decade. Reliable rainfall is restricted to the months of December to March when over one-half of the annual precipitation occurs. But even during these four months, distribution can be uneven. The annual average temperature is above 21°C and Timor can be included in the hot climate zones (A. Miller’s classification) of the equatorial type (Agencia Geral do Ultramar, 1960). However, temperature varies considerably because of altitude and some mountain areas, which rise up to 3000 m, can be quite cool. The dry season usually occurs from June to October, when there is very little rain, and food shortages are common. Conservation practices in dryland farming systems, through moisture retention during the dry season and erosion control during rains, are of critical importance to avoid resource degradation in the uplands.

Accurate assessments of agroclimatic conditions and suitable primary commodities and technologies are needed to obtain maximum benefits from the land. Almost all farmers rely on traditional technologies to cultivate food crops and pursue food security. Farming systems are predominantly rainfed with extensive fallow periods due to long dry seasons. Typical yields for staple food crops are sufficient for domestic consumption with little surplus for sale due to the absence of improved technology appropriate to the conditions of the country. In the case of cattle, supply of drinking water and improved veterinary services could have a significant impact on growth of the livestock sector. In fisheries, efforts are required to improve the infrastructure, technology and manpower to explore the potential resources on the coastline of East Timor (Timor Timur Dalam Angka, 1997).

The importance of agriculture in the economy

Aid and related spin-offs dominated much of the economy of East Timor during 1999–2002. However, this is an artificial economy that is not sustainable. Although it grew by 18% over the period 2001–02, this growth was from a base of almost zero, fuelled mainly by reconstruction, development and humanitarian aid and supplemented by the local coffee industry, where world prices are improving after several miserable years (da Costa, 2002).

East Timor has a very high level of imports, at more than 70% of total trade. This is due to the fact that most basic needs and commodities are imported, even food such as rice and materials for reconstruction. To correct this imbalance, East Timor needs investment in productive sectors so as to increase its exports. The country needs to continue to invest in and develop fields such as agriculture, fisheries and tourism. This can only be achieved through a carefully designed strategy of diplomacy, clear economic and financial policies, and a transparent legislative framework.

Total real growth is estimated to be negative in 2002 and 2003 (−0.5% and −2.2% respectively), projected to commence recovery in 2004 and 2005 (1.2% and 3.3%), and then continuing to achieve its longer-term underlying potential of 5.1% and 5.9% in 2006 and 2007 respectively (Fig. 1). Significant progressive withdrawal of the international presence from 2002 is the main negative influence on growth in the early years, with negative impacts on transport and communications, wholesaling, hotels and restaurants, utilities, construction, finance, rents, business services and government services.

A number of sectors were expected to sustain positive growth throughout 2002, notwithstanding the decline in foreign presence. As shown in Fig. 2, the main sectors with expected positive growth are agriculture, forestry and fisheries; quarrying; and manufacturing. Most other sectors are expected to directly or indirectly experience negative effects from the international drawback, before recovering and reaching their underlying potential production and growth levels, beginning from around 2004. Many of the transitional negative effects will be felt in urban areas; with large parts of the rural population insulated from them, providing growth in productive sectors (especially agriculture) can be sustained.

The largest structural change expected to occur over the period relates to the declining importance of

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2 Information for this section of the paper has been drawn largely from the Report of East Timor Development Plan (2002).
Production and trade for East Timor — the likely evolution

An important question for the future is: how will East Timor use resources to the economy’s best advantage? The following considers key areas to be developed in the years ahead.

In the medium term, the government needs to prioritise the building-blocks (investments, laws, regulations, policies, public good activities) that define the enabling environment for agriculture. Investments would include re-establishing adaptive research stations and agricultural training facilities, and providing extension services for agriculture, land management, and rural household management/self reliance. Laws and regulations would include the establishment of rules and regulations for agriculture, livestock, forestry, fisheries, land management, resource management, and conservation. Whenever possible, the government should adapt existing regulations and policies used by other countries to develop its own standards as a first step, and only create new regulations where absolutely necessary.

An example might be competition policy. In addition, it would be advisable to recognise the testing and certification processes of other countries, such as Australia, so that East Timor need not establish its own institutions to conduct certification of agricultural products. Foreign grants for agriculture over 2000–2005 are likely to be considerable, exceeding US$10 million in FY 2001–02 alone. These foreign grants are likely to be one-off events and should be used to put in place the framework and infrastructure for a vibrant agriculture and for longer-term sustainable development of the sector (World Bank, 2002). The primary goals of government policy should be geared to achieving:

Box 2. Guiding Principles of Macroeconomic Policy Framework

The following broad principles will guide economic policy development and the management of the economy and public finances:

1. A market economic system; but with strategic and regulatory roles for government, including the provision of a social safety net during difficult times
2. A strong role for the private sector in development
3. Open trade and investment policies
4. Government’s role will be limited to ensuring that physical and social infrastructure and services are provided and to establishing a growth enabling policy and legal environment; including provision of macroeconomic stability
5. The government will not venture into particular areas, including operating commercial business ventures such as banks and airlines, regulating/controlling prices, or trying to pick winners and providing subsidies/exemptions to particular businesses or industries
6. Effective, transparent and corruption free management of the economy and public finances
7. Pursuing a fair and equitable economy and society with equal opportunities and improving living standards for all
8. Developing ways to preserve the beautiful environment, traditions and customs of East Timor

Figure 1. Real Total GDP Growth, 2000–2007(%). Source: RDTL, 2002.

Figure 2. Sector components of real Total GDP (%). Source: RDTL, 2002.


- food security through improvements in the production of a diverse set of staple foods and the restoration of household and village crop storage facilities
- improvements to the production of niche crops and animals, and promotion of internal markets and alternative income generation able to provide cash income for subsistence communities
- improvements to swidden farming systems in the uplands that will improve livelihoods and reduce environmental degradation

**Rice**

East Timor’s economy resembles the economies of most small islands that have gained independence from colonial rule. Despite significant efforts in the primary and construction sectors within East Timor over these years, marketed consumption needs were largely met by imports from outside. The increase in rice imports was stimulated by several policy initiatives that deserve some comments. During the 1990s,
the amount of rice imported reached an average of 30,000 tons a year (Fig. 4). Although there are no official reports on rice imports prior to 1984, one would expect them to have been much higher as most of the paddy fields were either not producing due to lack of irrigation, drying, and storage facilities or farmers were displaced from the fields.3

Imported rice has been reaching markets throughout East Timor, especially where local rice has difficulty penetrating. Rice imports increased from an estimated 10,600 tons in 2000 to 20,500 tons in 2001, 57% from Vietnam, 35% from Indonesia, and 8% from Thailand (via Singapore).

Prior to 1999, rice was imported into East Timor by Budan Urusan Logistik (BULOG), the Indonesian buffer stock body responsible for maintaining rice stocks nationally. Annual imports are estimated to have been between 36,000 and 38,000 tons per annum. Following the 1999 disruptions, Indonesian imports suddenly ceased and were replaced by other sources. These included the donor community, traders and smugglers. Quantities imported by the donor community and traders are registered at UN Border Control and these figures suggest that in 2000 and 2001, about 10,600 and 20,500 tons of rice were imported respectively. However, data from the Timor Lorosae Household Survey (TLHS, 2001)4 suggest that some 50,000 tons of imported rice was consumed in East Timor in 2001.

Based on this figure, smuggling accounted for about 30,000 tons of rice in 2001. However, the World Bank states that the distribution of imported rice between donors/traders and smugglers (which has huge implications on the effectiveness of any tariff) is not clear, and will require further investigation.

In addition, time series data on the per capita consumption of rice in East Timor is difficult to obtain. Based on surveys carried out by the Pilot Agricultural Service Center design team5 and advice from the Ministry of Agriculture, Forestry and Fisheries (MAFF), a consumption of 84 kg/head/annum is estimated. Per capita consumption is about 65% that for Indonesia, reflecting cultural differences and the use of maize as a substitute. Based on this figure and population estimates, annual consumption of rice rose to 74,566 tons in 1998, declined in 1999 to some 58,400 tons and rose again to 78,394 tons in 2001 (Fig. 5). Analysis of TLHS data suggests that per head consumption of rice in late 2001 was around 95 kg/annum. The TLHS estimated a population of 825,000 people compared to earlier estimates of just under 740,000, so latest estimates of national annual consumption of rice suggest consumption to be around 78,000 tons. For a more comprehensive overview on rice production and consumption, see The World Bank (2002).

The current estimated rice consumption of 78,000 tons per annum comes from local production estimated at 29,000 tons (in 2001) and imported rice estimated at around 50,000 tons. Production, consumption and imports were all disrupted following the 1999 violence but production has improved and seems to be returning to pre-1999 levels, while consumption is thought to be higher than pre-1999 levels.

The World Bank (2002) study suggests that rice imports are undertaken by private traders responding to market forces rather than by a government agency, donors and smugglers. Some 57% of traders’ imports come from Vietnam, 35% from Indonesia and 8% from Thailand according to UN Border Control data. Local rice tends to retail at marginally lower prices than foreign rice.


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4 A nationwide survey sponsored by ETTA, the World Bank, and UNDP.
5 Eight pilot agricultural service centres initiated by the World Bank, providing agricultural services, staff training and community radio stations for technical information and advice, land mapping, training for research, research laboratories and experimental stations (US$6.0 million).
Imported rice is slightly more expensive in rural areas including the centre, the highlands and some urban areas in the districts. Imported rice is cheaper in urban areas including Dili/Baucau and in the west. In response to the difficulties experienced by rice farmers, the thrust of policy should be to address the issues affecting them, such as post-harvest processing, packaging, marketing, credit access, and facilitating the availability of inputs coupled with tariff exemption. At the same time, allegations of smuggling need to be investigated. Rehabilitation of irrigation systems, where warranted by long-term sustainability, also needs to be accelerated. But, since the solutions to these problems will take time to implement, powerful pressures for increased protection in the form of higher tariffs on rice have arisen. Such a policy could perhaps be warranted if the higher tariff was modest and temporary — to allow a reasonable time-frame for the above adjustments to be developed.

The World Bank study also highlights a number of serious drawbacks to raising the tariff on rice. First, rice farmers comprise about 26% of the population and the proportion of net sellers is considerably less than this; any boost to their incomes from higher protection must be weighed against the loss of purchasing power by the rest of the population, in particular the reduced consumption of rice by poor consumers in urban areas and upland farmers (the latter is where poverty is most acute). Second, as rice is a basic consumer good, raising its price would exacerbate problems with competitiveness. Third, even if a higher tariff was intended to be temporary, international experience indicates that reversing higher protection can be very difficult in practice.

This, in turn, could promote shifts in cropping patterns not necessarily beneficial or sustainable in the long term. These factors suggest that a hasty decision on higher protection should be avoided, and any such decision should be preceded by developing feasible ways to assist the poorest rice consumers, particularly those in the uplands, who are currently benefiting from the greater availability of imported rice.

Coffee

Coffee has traditionally been East Timor’s principal export commodity, earning about 90% of export revenue. Between 1987 and 1990, coffee exports contributed some US$12.5 million to foreign exchange earnings. Successive policy makers have attempted to increase the production of coffee from the approximately 78,000 ha grown mainly in Ermera, Manufahi, Bobonaro and Liquisa districts. The most obvious attempt was the abolition of the monopoly by PT Denok Hernandez Indonesia and other related companies which came into effect in 1992 (Saldanha, 1994). Since then, small and medium-sized coffee growers have had greater opportunity to produce, process and trade with other agents. With the presence and assistance of an American company, National Cooperative Business Association (NCBA) in the producing areas of Ermera, Liquica, and Ainaro, there was a gradual increase in coffee exports to overseas markets. For Figure 5. Rice Production, Consumption and Imports in East Timor (1991–2001). Source: World Bank, 2002.
example, in 1997, East Timor exported about 500 tons to the United States, Europe, and Japan with increases expected in the following years (Saldanha and Da Costa, 1999).

Over the past decades, exports of primary products, such as coffee, sandalwood, cinnamon and candlenut, decreased substantially as a result of continuing mass movement of people and a monopoly in marketing of these products. Coffee exports declined by almost 3000 tons in the early 1980s, did not regain pre-invasion levels of 5000 tons per year until 1986, and then fell to 1000–4000 tons per year in the late 1990s (Fig. 6). During the 1971–1974 period, coffee exports averaged 5000 tons a year, consisting of 60% arabica and 40% robusta (Gonçalves et al., 1976). Variations to the total plantation area have contributed to the decline in coffee exports at different times.

A recent representative survey of coffee growers conducted by the World Bank (2001) in the major coffee producing areas concluded that most farmers would be prepared to invest more effort in production if it resulted in increased income. If they were given free saplings of good quality, they would be prepared to replant on a significant scale. Also, most indicated that they would welcome access to communal facilities for processing cherries and thus producing a better quality coffee bean. Almost all were ready to join an association or other cooperative entity if that were to facilitate access to better facilities.

Because of low inputs into coffee production and the favorable climate, East Timor’s coffee can be certified as organic and is in demand, both for this reason as well as for its flavor characteristics. A campaign to inform farmers of the importance of organic certification would be desirable in order to increase the proportion of exports that can obtain the organic premium as this segment of the global market grows.

For the more immediate future, however, most income gains will be made by improving the quality of processing, a change that requires investment in rehabilitating and building new communal facilities, and the provision of good quality saplings and advice to farmers. With adequate financing arrangements, such as microfinance schemes, part of the cost of such additional infrastructure and services could be borne jointly by the farmers, with the state perhaps providing some form of catastrophe insurance.

**Sandalwood**

Prior to 1975, sandalwood was a high value-added crop for the East Timorese but most trees were destroyed due to over-exploitation in the 1980s. There is now no foreign exchange from sandalwood and production has continued to decrease very rapidly in the last decade.

Very little effort has been made to replant sandalwood, which was one of the most valuable commodities in the Portuguese era. Sandalwood and sandalwood by-products also declined from 1981 onwards. Exports of sandalwood declined dramatically from 244 tons in 1981 to one ton, four years later, with no wood since exported, possibly due to its extinction (Fig. 7). As a result of the decline in sandalwood, extraction of oil also declined and oil exports dropped from eight tons in 1981 to less than two tons in 1996. The export of sandalwood powder fluctuated significantly, indicating that extraction was from remaining stored wood. As in the case of

![Figure 6. Coffee Production and Export (1980–1997).](image-url)

*Sources: BPS (Timor Timur Dalam Angka) various issues; Kanwil Departemen Perdagangan various reports.*
coffee, the government ensured that PT. Denok and its associates controlled the export of sandalwood and its products in the 1980s and there was little opportunity for competition to develop.

It was the lure of vast sandalwood forests that first attracted the Portuguese to Timor in the 16th century but only a few stands now remain and logging of the species is strictly forbidden. The highly-prized sandalwood encourages illicit trade, with cargo believed to be heading for sale in Indonesian West Timor. Recent events have revealed large stockpiles of sandalwood in Baucau, which are being intercepted by authorities (ABC News online, 23 September 2002).

Equally, other vital commodities such as candlenut and cinnamon also suffered as a result of the Indo-Polish invasion in 1975, as well as the lack of investments and incentives to farmers. For example, candlenut exports plummeted from 945 tons in 1981 to 461 tons in 1986. Cinnamon exports also declined dramatically from 256 tons in 1981 to five tons in 1987 (Brahmana and Emanuel, 1996).

Livestock

Another important sub-sector of East Timor’s national economy and household economic resource, livestock production, was also negatively affected by the invasion and annexation. The 1976 livestock figure of 848,000 head declined to 109,677 head in 1980 (Fig. 8), resulting in a sharp decline in the population-livestock ratio from 0.7 in 1972 to 0.1 in 1980. Although the declining trend was reversed in 1985, the ratio was still far below the pre-invasion level. Except for goats, sheep, and ducks, all other livestock numbers remained well below levels of 1976.

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6 Estimates based on sources from the Indonesian Department of Agriculture indicate a worse situation. For example, according to Soesastro (1991), the livestock population fell from 1,350,000 in 1976 to 409,300 in 1980.
Fisheries

East Timor has a large fishery potential with many valuable species, including tuna, skipjack, snapper and prawns. Around 10,000 families depend at least partly on fishing. Around half live around Dili or on Ataúro Island. Potential fisheries output has been estimated at around 600,000 tonnes per year, though probably less than 1% of this is currently harvested. The most common form of fishing vessels are dugout canoes and many other boats with outboard motors.

Future income from fisheries can be boosted by increasing investment in the national fishing capacity and by licensing foreign vessels. The main obstacle at present is the lack of internationally recognised fishing zones. This has created considerable uncertainty and also encouraged widespread irregular fishing that could be depleting important resources. One priority for the new government therefore will be to establish economic and fishing zones. This would enable the government to gain income from fishing licences of, perhaps, $2 million a year, as well as an income for the East Timorese Navy from charging fines.

The Department of Economic Affairs has outlined a fishing strategy for East Timor with fishing grounds about 33 times larger than in the past. Based on 25% of what the Indonesians are now taking in the area, the annual catch in this zone could be worth between $25 and $35 million (UNDP, 2002).

The fishing strategy must, however, consider such issues as sustainability and protecting the interests of traditional fishing communities. Government agencies, the fishing industry and local communities will need to work closely together to find ways to increase capacity and productivity. Since local fishing communities do not yet have sufficient technical capacity for large-scale fishing operations using trawlers and netters, the government will have to issue most of the licences to foreign operators.

The fisheries sub-sector is not well developed but may have the potential to improve food security and contribute to small-scale development and exports. East Timor has about 650 km of coastline but very little continental shelf, with depths of 200 m reached within 2–8 km of the shore and depths of 2000–3000 m within 20 km. Coastal resources are limited to a narrow stretch of steeply-sloping seabed.

The biggest problem in the fishing industry is lack of demand due to lack of purchasing power. The poor consume about 10 g of fish per head per week, while even the ‘rich’ consume only about 190 g according to the latest data (TLHSS, 2001). The low local demand for fish is only likely to increase as overall incomes rise.

A recent UNDP study (2001) that focused also on marine needs and priorities in East Timor concluded that East Timor’s marine ecosystem, if used in a planned and non-destructive manner, has considerable potential to support economic development and sustain the population. Using figures from other similar areas of marine waters, the study estimated that, even after providing East Timor’s population with a minimum recommended annual fish consumption of 13 kg per capita, exports could still be sustained.

Once East Timor delimits its exclusive economic fishing zone, offshore resources will be available for larger-scale commercial exploitation, either by East Timorese fishers or preferably through licensing arrangements with foreign fishing vessels. Experience in other Pacific Island countries indicates that East Timor’s pelagic resources would include not only small species such as Indian mackerel, scad, sardines and small tuna but also high-value species of large tuna (World Bank, 2002)

MAFF’s Fisheries Division has developed a strategic plan that aims to sustain East Timor’s aquatic resources, establish a profitable private sector-based fishing industry that maximises sustainable economic returns, and asserts jurisdiction and control over the marine resources in the seas surrounding East Timor. The government’s role is to be limited to providing the enabling business environment and framework within which the sector’s private fishing and associated businesses will operate.

External assistance at this stage should be channeled towards developing the regulatory and legal framework for inshore fisheries management and investment in offshore fishing. Enforcing fishing regulations through partnerships between government, communities and private operators (co-management arrangements) and recognition of user rights for coastal communities have proven effective in many Asian-Pacific countries.

Information for this section was drawn partly from the UNDP Report (2001) and the World Bank study (2002).

Prospects offered by external events

An economy with a small and skewed natural resources base and with limited financial resources should actively engage in trade if it wishes to develop its economy rapidly. The growing interest often found in small island economies is opening up trade and so offering the prospect of improved opportunities for the expansion of domestic production and exports of primary and other products (Selwyn, 1975; Legarda, 1984). As stated in the National Plan, the East Timor development strategy
aims to integrate the country’s economy with regional and international economies to improve opportunities for markets.

In the interest of East Timor, the most important aspect is to progressively allocate resources (ideally through technical assistance of the funding agencies) to conduct research (empirical analysis) on the advantages and disadvantages of joining the multilateral trading system, the World Trade Organisation (WTO) and other regional organisations. The stronger disciplines and greater certainty associated with the WTO should boost investment both directly and through encouraging continued and greater openness of national economies (Anderson and Pangestu, 1995). Other sub-regional organisations such as the EU-ACP partnership potentially offer great benefits for East Timorese agricultural exports if East Timor can meet the requirements.

**Conclusion**

One of the clearest messages from recent policy developments is that the world is becoming much more integrated as a consequence of various multilateral, regional and unilateral reform programs being implemented simultaneously. For East Timor this means new export market opportunities abroad as well as increased import competition on the domestic market. Given that half of the workforce is still in agriculture and the vast majority of the poor in East Timor still live in rural areas, the effects on agriculture of the country’s structural and policy changes in the future will have major effects on real income, growth, poverty alleviation, and environmental degradation. How East Timor’s agricultural development proceeds depends on the rate of overall economic growth and accompanying structural adjustments that would result if there were no policy changes on market or policy shocks at home and abroad. Such changes could alter East Timor’s terms of trade as well as agricultural policy developments at home.

Sound economic policies and an innovative private sector are critical if the economy is to be shifted onto a sustainable development path. The government of East Timor can nurture the growth of the private sector by providing competitive tenders to local firms, by encouraging joint ventures with foreign companies and by developing extension services to advise farmers and exporters on market opportunities. East Timor’s agricultural strategy should be geared towards rural development. This could include encouraging manufacturing sector activities in rural areas in order to generate employment opportunities and the processing of raw materials to increase value adding and contribute to export revenues and poverty reduction.

Efforts to encourage investment in rural infrastructure would have benefits for other areas, not only for agricultural production. With better transport and communications infrastructure and better-educated workers, East Timor’s rural areas would be more attractive to investors in low-skill, intensive manufacturing and related service activities. This would boost the off-farm earnings of farm households, allowing a more efficient and fuller use of the rural workforce, particularly during non-peak seasons. In agricultural areas with fertile soils and favourable climatic conditions (such as exist on the southern coast of East Timor), intensification will require competitive markets, good management practices and timely information. Complementary improvements can also be made through public and private investments in agricultural research to encourage new technologies for sustainable development.

**References**


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7 The ACP–EC Partnership Agreement (more commonly referred to as the Cotonou Agreement), was signed by 77 countries from Africa, the Caribbean, the Pacific and the European Community on 23 June 2000 in Cotonou, Benin. It represents a historical step in the long relations between these two groups of countries and a milestone in the definition of development policies and north-south relations on a global scale. In fact, with 93 signatories, the agreement constitutes the world’s largest cooperative grouping for development and involves close to one billion people from half the sovereign states on the planet.