

AGRICULTURE AND AGRIBUSINESS**KEY POINTS**

- Since 1998, Indonesia has liberalised significantly its agricultural trade and investment regimes; this should promote more efficient use of agricultural land and resources, and rural income growth.
- Agriculture's contribution to the economy is important but diminishing, generating under 20 per cent of GDP but over 40 per cent of employment.
- However, agricultural productivity in several sectors is below world averages; the Government's new ten point plan prioritises raising agricultural productivity and farmers' welfare, using programs to increase rural credit facilities and infrastructure.
- Since the crisis, Indonesian markets have opened for key agricultural commodities; this should benefit Australian exporters. More efficient agricultural policies also should generate opportunities for agricultural equipment and service exporters.
- Reforms liberalising foreign investor participation in plantations, freshwater fisheries, milk processing and agricultural product distribution offer good opportunities for agribusiness investment based on technology transfer. Foreign investment in the food sector markedly increased during 1999.

New reforms in agricultural trade and investment regimes should assist stronger and more efficient growth in Indonesia's agricultural sector. Furthermore, Indonesian demand for agricultural produce will grow and diversify as incomes grow. Rising domestic demand, moderately low levels of agricultural productivity and recent reforms generate many opportunities for Australian businesses, including agricultural producers, agricultural and related equipment exporters, and agribusiness investors.

Agriculture is important to the Indonesian economy and society; it contributed around 19 per cent of output and 41 per cent of employment in 1999 (Table 10.1).¹ The Government is removing monopoly importing and distribution mechanisms and high trade barriers that in the past hampered agricultural trade and productivity growth. This chapter identifies recent reforms and developments, and the opportunities for Australian agricultural product and equipment exporters and investors these reforms generate.

AGRICULTURE IN THE ECONOMY

Indonesia's agricultural sector employs over 40 per cent of the population and is significant in world terms, despite its declining share of output and exports. Indonesia is the world's largest producer of coconuts, second largest producer of copra, palm kernels, palm oil and natural rubber, and third largest rice producer. The country has 19 million hectares of arable land, with rice and corn farming representing almost 80 per cent of the total food crop area (Food and Agriculture Organisation, 1998).

Small scale subsistence farms account for about 87 per cent of total cultivated land; are labour intensive; and grow predominantly food crops. Concentrated in Java, Sumatra and Sulawesi, these farms produce 90 per cent of the country's rice and corn.² Large state owned and private estates account for the remaining 13 per cent of cultivated land; they use hired or contracted labour and engage in agribusiness and export cropping. Although estates account for a small share of total agricultural output, they dominate agricultural exports. Major producers of rubber, palm oil, coffee and cocoa are in Sumatra; rubber, cocoa and cashew nut plantations are in Sulawesi.

¹ Until the mid 1970s, agriculture's share of GDP exceeded that of other major sectors; however, this share fell as Indonesia's industrial development advanced.

² Java accounts for around 60 per cent, Sumatra 20 per cent and Sulawesi 10 per cent.

Table 10.1

Agriculture Provides Jobs, Rather than Exports**Agricultural Growth, Share of GDP, Employment and Exports**

	Agriculture	Industry	Services	
Per cent of GDP				
1977	29.6	34.3	36.1	
1987	23.4	36.3	40.3	
1997	16.1	44.3	39.6	
1999	19.5	45.3	35.2	
Average annual growth				
1980-90	3.4	6.9	7.0	
1990-98	2.8	9.9	7.2	
1997	1.0	5.2	5.6	
1998	0.8	-15.1	-16.2	
Per cent of employment				
1996	44.0	14.7	41.3	
1997	41.1	14.0	44.9	
1998	44.9	11.3	43.8	
1999	41.0	14.1	44.9	
Per cent of total exports		Oil/gas	Industry	
1994	7.0	24.7	63.3	5.0
1995	6.1	22.1	66.7	5.2
1996	5.9	24.2	64.8	5.1
1997	5.6	20.8	66.8	6.8
1998	7.2	14.7	73.6	4.5
1999	5.8	20.0	68.2	6.1

Note: Industrial exports also include processed metals and minerals.

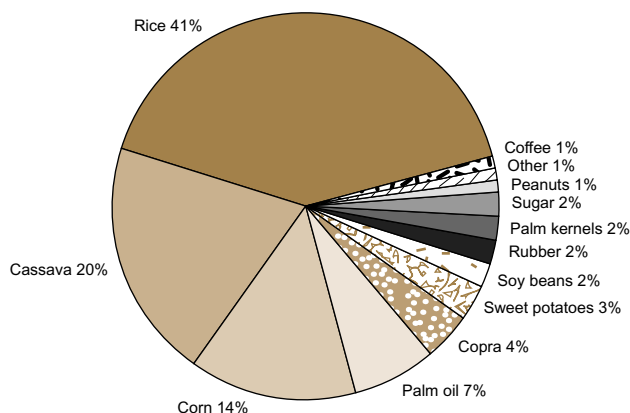
Source: Asian Development Bank, 1999; and CIEC, 2000.

Given rural workers generally have small plots and low wages, dismantling agricultural trade barriers, along with improved rural credit and agricultural extension services should help rationalise agricultural production and raise productivity; this is generally low compared to other sectors and agricultural sectors elsewhere (Table 10.2). At the margin, land use could shift from low value, low return crops like rice and maize into more labour intensive, higher value added crops and activities including fruit and vegetable growing, chicken and livestock rearing, and fish farming.

Figure 10.1

Rice, Corn and Cassava Dominate

Composition of Agricultural Output, 1998, Per cent



Note: Other includes cloves, nutmeg, pepper, tea and tobacco.

Source: International Monetary Fund, 1999b.

Such rationalisation eventually would raise agricultural productivity and rural incomes, and probably consolidate some farms, providing economies of scale and boosting productivity. With fewer trade barriers, Australian exports to Indonesia, particularly of broad acre crops like rice, wheat, animal feed cereals and sugar, and capital intensive, cooler climate dairy products, should increase. However, the Government aims to maintain rice self sufficiency and rice farmers' incomes; consequently, rice market liberalisation may occur more gradually than other agricultural product reforms.

Output

Although agricultural output grew more slowly than industry and services, growth was significant at around 3.4 per cent per year between 1980 and 1990, before slowing to 2.8 per cent per year between 1990 and 1998. Output is concentrated; five crops accounted for around 85 per cent of total output in the 1990s. Rice dominates production; annual production of around 30 million tonnes accounted for 35 to 40 per cent of total agricultural produce in the 1990s (Figure 10.1). Output of cassava and corn, the next most important crops, as well as palm oil, sugar, copra, sweet potatoes, soy beans and rubber grew steadily in the 1990s, but the 1997 El Nino drought cut recent output (Figure 10.2).

Exports

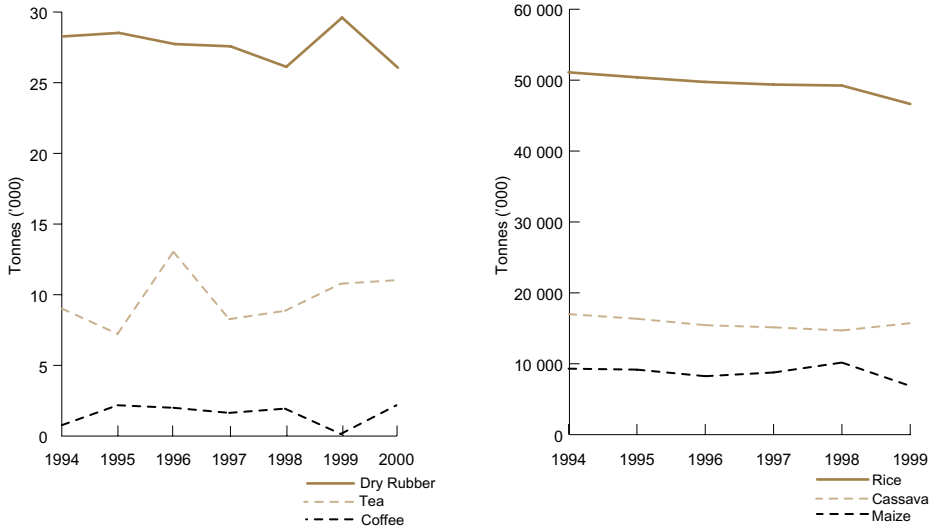
Although Indonesia is a leading exporter of several agricultural commodities, in 1999, agricultural commodities accounted for only 5.8 per cent of export revenues (Table 10.1).³ In US dollar terms, Indonesia's agricultural exports grew on average by 5.4 per cent per year between 1988 and 1999, led by coffee, palm oil, rubber and tobacco. Estate crops, including rubber, palm oil and coffee, account for almost 50 per cent

³ Since 1994-95, commodities such as palm oil, other foodstuffs and copra cakes have been classed as manufactured products rather than agricultural products.

Figure 10.2

Production of Most Crops Static

Output of Key Agricultural Commodities



Source: Cabalu, 2000.

of agricultural exports (International Monetary Fund, 1999a). Rupiah devaluations helped boost agricultural exports, particularly during the post crisis period (Appendix Table 10.1) (United States Department of State, 2000). Despite this, except for the 1998 crisis year, the share of agricultural exports in total exports declined steadily throughout the 1990s, reflecting rapid growth in manufacturing and oil exports.

Productivity

The agricultural sector's disproportionately large share of employment compared to output implies labour productivity is lower than in industry and services. Small scale subsistence farming dominates, with few economies of scale, reliance on labour intensive technologies, and poor access to credit and other key inputs.⁴

A rapidly growing population and slowly growing productivity cause periodic shortages of key foods including rice, and failure to achieve the government's objective of rice self sufficiency. Rice productivity grew strongly during the 1980s owing to new high yield varieties, new irrigation schemes and state assistance through subsidised inputs and technical advice. Indonesian rice productivity now is above world average and significantly higher than that of Thailand and the Philippines, although below China and Australia (Table 10.2). However, productivity growth waned in the early 1990s, due mainly to lack of competition with imports and minimal consolidation of producers; hence the Government imported 5 million tonnes of rice between 1995 and 1997. With the 1997 drought, rice imports rose further to 5.9 million tonnes in 1998 and 3.6 million tonnes in 1999 (Table 10.4) (Economist Intelligence Unit, 2000).

⁴ Typically, farms are less than 5 hectares, with the average size around 1 hectare.

INDONESIA'S RICE POLICY EVOLVING

Since the mid 1960s, the Indonesian Government has targeted self sufficiency particularly in rice, at stable and affordable prices. Government schemes provided price support for domestic producers, reduced agriculture taxes, erected extensive import barriers, provided irrigation infrastructure, subsidised credit, fertilisers and pesticides, and disseminated high yield seed varieties. By the mid 1980s, 85 per cent of rice farmers used high yield variety seeds, compared with 50 per cent in 1975, and Indonesia was self sufficient in rice.

The Government established *Badan Urusan Logistik*, BULOG, to control the domestic price of rice using a buffer stock arrangement. BULOG also monopolised the import of staples such as wheat, flour, sugar and garlic (Department of Foreign Affairs and Trade, 2000; and Library of Congress, 2000).

Rice shortages in the late 1990s and new reforms led authorities to restructure BULOG's role in the rice market. Now BULOG targets food security through subsidising rice, rather than stabilising retail prices or building up large, costly public stocks (International Monetary Fund, 1999b). Rice varieties only BULOG previously imported attract a transitional 30 per cent import duty of Rp. 430 per kilogram, to protect domestic producers against a fall in income (Cabalu, 2000). Following a critical state audit, BULOG also plans to adopt a more transparent accounting system and efficient operating structure.

Several key crops, including maize and soy beans which do not receive intensive public assistance, suffer from low productivity (Table 10.2).

Post crisis agricultural trade reform should assist Indonesia meet its food security objectives, even if Indonesia moves away from its rice self-sufficiency policy. This is because major food exporting countries like Australia and Thailand will increase capacity to meet Indonesian food production shortfalls, reducing variations in food prices due to local weather patterns.

AGRICULTURAL LIBERALISATION AND OPPORTUNITIES FOR AUSTRALIA

New reforms extended the Government's mid 1990s trade liberalisation program into agricultural trade and marketing. Extensive agricultural trade and market reforms provide important opportunities for Australian exporters, and more relaxed foreign investment laws allow Australian investment in commercial plantations.

Table 10.2

Scope to Improve Agricultural Productivity**Average Yield of Selected Agricultural Crops for Selected Economies, 1999, kg/ha**

Economy	Paddy rice	Cassava	Maize	Ground nuts	Soy beans	Sweet potato	Garlic	Rubber
Australia	10 071	na	5 500	1 560	2 271	17 143	na	na
China	6 321	15 869	4 880	2 799	1 671	19 827	12 763	1 128
India	2 929	24 000	1 667	913	1 008	8 333	4 525	1 507
Indonesia	4 261	12 795	2 646	1 523	1 186	9 610	3 599	690
Japan	6 414	na	2 400	2 336	1 730	22 652	na	na
Philippines	2 863	8 508	1 719	1 012	1 154	4 370	2 507	687
Thailand	2 327	15 493	3 561	1 612	1 416	17 821	5 568	1 420
Mexico	4 816	11 705	2 536	1 405	1 616	18 750	7 321	1 833
United States	6 622	na	8 398	3 039	2 452	16 197	19 148	na
World	3 845	10 136	4 313	1 336	2 148	14 887	9 672	926
World max	10 071	27 333	23 000	6 075	3 571	34 091	27 500	1 981
Top producer	Australia	Barbados	Kuwait	Israel	Ethiopia	Israel	Haiti	Ivory Coast

Note: na Means not applicable or not available.

Source: Food and Agriculture Organisation, 1999.

Agricultural Trade Reforms

Post crisis reforms have lifted most restrictions on domestic and international trade in agriculture.⁵ In 1998, tariffs on most food items fell to a maximum of 5 per cent, and tariff rates on non-food agricultural products fell by 5 percentage points (Table 10.3). However, the 70 per cent depreciation of the rupiah in 1997-98 offset the removal of many of these trade barriers, making many Indonesian producers competitive at world prices. The Government's removal of BULOG's monopoly on a range of imports allows imports to compete with all commodities, in some cases replacing import bans with transitional tariffs. The Government also abolished import subsidies for wheat, sugar and soy beans by classifying them as 'general imports', and eliminated the Clove Marketing Board.⁶

⁵ In the early 1990s the Government started some agricultural trade reforms. For example, in 1991, the Government lowered non-tariff barriers so they affected only 30 per cent of agricultural production. In mid 1992, it abolished non-tariff barriers on rye, oats, barley and sorghum. Further reforms were pledged under the Uruguay Round.

⁶ BULOG's involvement in wheat and soy beans ended in September 1998, and in December 1998 for sugar.

Table 10.3

Huge Tariff Reductions Open up Indonesian Agricultural Markets
Tariff Rates of Selected Agricultural Commodities, 1995 and 1998, Per cent

Commodity	1995	1998
Meat from cattle, sheep, goats, poultry and pigs	40-70	5
Fish, crustaceans (fresh, frozen, chilled)	100	5
Dairy products	50-238	5
Edible vegetables and certain roots and tubers	60-90	5
Edible fruit and nuts, citrus peel or melon peel	60-90	5
Coffee, tea and spices	100	5
Wheat/meslin	30	0/5
Rye	70	5
Barley	70	0
Oats	70	5
Maize	70	0
Rice	180	0
Grain sorghum	70	0
Other cereals	70	5
Wheat/meslin flour	30	5
Rye and corn flour	10	5
Rice and other flour	10	0
Other milling industry products, malt, starches, inulin and wheat gluten	70	5
Soy beans	30	20
Sugar	na	25
Ground nuts	45	5
Copra and palm kernels	45	5
Tobacco and tobacco substitutes	45-130	15
Bread, pastry, cakes and biscuits	80-100	5
Cotton, carded and combed	60	15
Hides	50-60	0
Natural rubber	50	15

Note: na Means not applicable as imports were banned.

Source: United States Department of Agriculture, 1999.

AGRICULTURAL TRADE OPPORTUNITIES

Australia is a large, competitive, close and reliable supplier of many major Indonesian agricultural imports (Table 10.4). Reforms to key commodity markets have accentuated this natural complementarity of the two economies, generating many new opportunities for Australian producers.

Table 10.4

Australia a Big Exporter of Major Indonesian Agricultural Imports Trade in Selected Agricultural Commodities, 1998

	Indonesia's total imports		Australia's total exports	
	Quantity (^{'000} tonnes)	Value (US\$ million)	Quantity (^{'000} tonnes)	Value (US\$ million)
Rice	1 895.0	861.1	551.8	225.8
Wheat	443.8	630.4	15 231.1	2 210.2
Wheat flour	23.9	4.9	205.3	49.6
Soy beans	343.1	98.7	3.3	1.5
Sugar	1 047.5	349.5	4 498.6	1 377.5

Note: Rice includes paddy, husked, milled paddy and broken rice.

Source: Food and Agriculture Organisation, 1999.

Rice

As Indonesia is the world's third largest producer and consumer of rice, in the newly deregulated environment where trade in all qualities of rice is open to general importers and exporters, even small domestic shortfalls can offer exporters significant opportunities.⁷ Rice varieties only BULOG previously imported, attract a transitional 30 per cent import duty of Rp. 430 per kilogram, to protect domestic producers.⁸ The International Rice Research Institute forecasts Indonesia's rice demand will rise by 38 per cent over the next 25 years. Australia leads the world in rice yields and production growth (Table 10.2). Its proximity to Indonesia indicates it would be a highly competitive supplier to the expanding Indonesian market (Food and Agriculture Organisation, 1999; and Economist Intelligence Unit, 2000).

⁷ Previously, private traders imported high grade, 5 per cent broken rice, and BULOG alone imported lower grades of rice, including the popular 25 per cent broken variety.

⁸ The import tariff level and BULOG's procurement price for rice, which acts as a floor price, was reviewed and adjusted in August 2000, before the next crop. At the end of 1998, the procurement price was 12 per cent higher than BULOG's open market selling price.

Wheat and Wheat Flour

Currently, Indonesia is Australia's second largest wheat export market, consuming up to 4 million tonnes of wheat annually. Wheat is used primarily in noodles and bread. With all wheat import barriers recently removed, new opportunities should open for wheat exports, but the removal of subsidies on wheat flour imports may partially offset them.⁹ Liberalisation of flour milling has increased raw wheat imports as domestic flour now competes with imports. Six months after the market was liberalised, Indonesia imported a substantial 150 000 metric tonnes of flour and wheat based pre-mixes (Cabalu, 2000).

Soy Beans

Soy beans are an increasingly important and popular secondary source of protein in the Indonesian diet, primarily as tofu and tempe, with annual per capita consumption of over six kilograms. Most current soy bean imports come from the United States, Latin America and India. Since BULOG's monopoly ended, private sector imports of soy beans have increased due to their significantly lower prices.¹⁰ Australia's soy bean production is concentrated in the high quality market, for which demand is currently small. However, as incomes rise, so should consumption, boosting opportunities for Australian producers (Austrade, 2000).

Sugar

Current annual per capita consumption of sugar of 14 to 15 kilograms should grow rapidly with rising incomes, boosting imports. A transitional 25 per cent tariff replaced a sugar import ban, opening the market. Australia's efficient sugar industry, with yields well above world average and a significant export capacity, is well placed to access these opportunities (Tables 10.2 and 10.4).¹¹

Fertilisers

New reforms have opened up the import and distribution of fertilisers, including urea, super phosphate, ammonium sulphate and potassium chloride, providing an opportunity for Australian exporters.¹²

Processed Foods

Lower tariffs and a growing market boost export opportunities in the processed food industry (Table 10.3). Although the local processed food sector is relatively large, valued at US\$5.94 billion in 1997, cooking oil and frozen seafood for export dominate and domestic per capita consumption is only US\$30 per year.¹³ Hence, potential for market growth is considerable. The urban middle class, which comprise 20 per cent of the population, consume most processed food; the staple unprocessed village diet consists mainly of rice, vegetables, eggs, chicken and meat.

⁹ The pre-crisis subsidy on wheat flour imports reduced flour prices by about 40 per cent. However, without the subsidy, prices of wheat products are likely to rise, so wheat import demand probably will fall. Despite lower import demand, Australian wheat exports are more competitive than competing exports from the United States because of the weaker Australian dollar.

¹⁰ Domestic retail prices are about US\$395 per tonne, over US\$100 per tonne above world prices (United States Department of Agriculture, 1999).

¹¹ Australia was the world's sixth largest producer of sugar cane and second largest exporter in 1999.

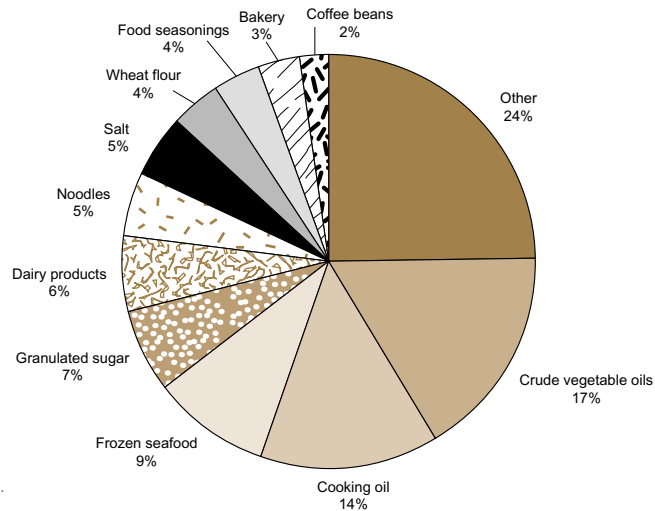
¹² PT Pusri, a state owned firm, previously was the monopoly distributor of all types of fertilisers, such as urea, super phosphate, ammonium sulphate and potassium chloride, for farmers. PT Pusri now is responsible only for procuring and distributing subsidised fertilisers, and maintaining buffer stocks.

¹³ The most recent year for which data are published.

Figure 10.3

Oils Dominate Food Processing Industry

Indonesia's Food Processing Industry, 1997, Total Value: US\$5.9 billion



Source: Cabalu, 2000.

Australian export opportunities exist in frozen and chilled meat, which is highly competitive and popular in the Indonesian market. In addition, fresh fruit, dairy products, snack foods, wine and niche products like frozen french fries and seasonings have gained good market acceptance. Demand for confectionery and baking ingredients for the biscuit and snack food industry, and whey products for the dairy and baking industry also is expanding.

Agricultural Equipment

Export opportunities for Australian suppliers also exist in food processing and packaging equipment. Palm oil and sugar industry liberalisation is increasing demand for sugar processing machinery, milling machinery, tractors, hydraulic excavators, motor graders, dryers for agricultural products, backhoe loaders, machinery to extract fats or oils, and water tube boilers. The Indonesian market for palm oil equipment has averaged 40 per cent growth per year since 1997. Total imports of palm oil equipment, worth US\$397 million in 1997, should grow at a rate of 30 per cent per year over the next five years.

Development of Indonesia's cold chain infrastructure also offers opportunities for the export of frozen produce and cold storage equipment. Gradually, supermarkets are replacing village wet markets, offering additional opportunities for exporters.

Distribution of Fresh Produce

Indonesian retailers vary greatly in their capacity and handling capabilities, constraining the distribution of fresh produce, but providing opportunities for exporters to the distribution sector. Forklifts are rare and only a few importers use pallets. Cold storage equipment is scarce. Although refrigerated truck

numbers are limited, trucking remains the preferred means to distribute fresh produce. Failure to maintain adequate temperatures, lack of humidity control, scarcity of ethylene oxidisers to prevent premature ripening and limited experience in implementing storage guidelines also hamper fresh produce distribution. These factors may constrain short term exports of fresh produce, but imply opportunities for Australian equipment exporters and logistics firms who could help overcome these difficulties.

REFORMS TO INDONESIA'S RURAL CREDIT SCHEMES

New reforms weaken the dominance of state banks in providing credit to the agricultural sector, and provide opportunities for the Australian finance sector. Before the crisis, a network of state owned regional development banks, village banks and cooperatives, and people's credit banks distributed subsidised credit, primarily for rice production (Lapenu, 1998). With post crisis reforms, only commercial banks meet farmers' credit requirements; they bear all risks of non-repayment of principal and are fully autonomous in credit decision making. The Government also will eliminate all lending quotas and targets for these institutions. Large commercial banks, possibly including some Australian operators, are better suited to managing risks in the sector.

Source: International Monetary Fund, 2000.

FOREIGN INVESTMENT REFORM

Reforms in mid 1998 liberalised foreign investment in plantations, including those producing palm oil and sugar and finished/semi-finished rattan products, and eliminated restrictions on foreign investment in the wholesale and retail trade, including distributing agricultural products. Foreign firms now can operate retail outlets in most major urban areas, although restrictions remain in the provinces (United States Department of Commerce, 1998; and Austrade, 1999).

In August 2000, the Government opened the freshwater fishery sector to foreign investment, including freshwater turtles, tilapia nilotica, anguila, bullfrogs, freshwater giant shrimp, milk fish and thillapya. Foreigners now can fish for demersal fish such as grouper, snapper and other varieties, except in the Malacca Strait and Arafura Sea exclusive economic zones. The Government also liberalised milk processing, in addition to repackaging powdered and sweetened condensed milk. Agricultural sectors totally closed to any form of investment include exploiting natural forests, lumbering, collecting and exploiting sponges, and producing alcoholic beverages such as spirits, wine and beer.¹⁴

The agriculture and food sectors attracted significant foreign investment applications from 1995 to 1997; while these dipped sharply in 1998, domestic investment in some sectors started to recover in 1999 (Table 10.5). While foreign investment in plantations and food crops is still below pre-crisis peaks, food industry investment is recovering well.

¹⁴ Indonesia's New Negative Investment List can be retrieved electronically from www.usembassyjakarta.org/econ/investment0800.html.

Since the agricultural sector opened to foreign investment, some established plantation firms have sought foreign joint venture partners to boost expertise and capital investment. Some state agribusiness enterprises also are available for purchase under the privatisation program.

Table 10.5

Foreign and Domestic Investment down**Domestic and Foreign Investment Approvals, 1995-99**

	1995	1996	1997	1998	1999
Domestic					
<i>Plantation and food crops</i>					
Number of projects	55	123	127	33	16
Value of projects (US\$ millions)	723.3	1 598.3	1 531.1	405.7	147.4
<i>Food industry</i>					
Number of projects	72	53	53	32	28
Value of projects (US\$ millions)	595.2	1 585.7	1 505.1	774.2	1 468.1
<i>Total</i>					
Number of projects	775	810	718	324	237
Value of projects (US\$ millions)	8 056.9	11 616.5	13 826.2	7 006.8	6 176.5
Foreign					
<i>Plantation and food crops</i>					
Number of projects	61	18	3	32	27
Value of projects (US\$ millions)	1 104	1 168	234	949	508
<i>Food industry</i>					
Number of projects	38	37	26	32	48
Value of projects (US\$ millions)	1 332	691	573	342	681
<i>Total</i>					
Number of projects	799	959	790	1 035	1 164
Value of projects (US\$ millions)	39 945	29 929	33 833	13 563	10 891

Source: Cabalu, 2000.

SUMATRA EMERGING AS AN AGRICULTURAL CENTRE

Strategically located on the world's busiest shipping lane, Sumatra offers significant opportunities for Australia. Agriculture contributes 35 per cent of the total provincial GDP, with local firms profiting from rubber, palm oil, cocoa and coffee plantations, particularly since the crisis. These operators plan to diversify, especially into processing and downstream activities, providing considerable investment opportunities for Australia, including exporting agricultural automation and equipment (Cabalu, 2000).

Increasingly, food, beverages and fishery businesses are interested in joint ventures with foreigners. Australia's success in the region's agribusiness sector, including developing sugar farming and feedlots, means it is well placed to contribute. A new Austrade office and branch of the Indonesia-Australia Business Council, both in Medan, the capital, add to the support network for Australian firms in the area.

Source: Austrade, 1999.

INVESTMENTS IN AGRICULTURAL PRODUCTION

Investment opportunities in agriculture are promising, especially in agri-industry. Although scattered, small scale farms can challenge foreign operators familiar with larger scale operations, rewards exist for investors seeking joint ventures with local operators and offering networks disseminating technology, credit, quality inputs and expertise.

Downstream Processing

Investment opportunities exist in producing and processing estate crops like sugar and palm oil milling; developing fisheries such as shrimp farming; capturing, producing and processing fish based on deep sea fisheries and aquaculture; and raising livestock such as sheep and cattle by integrated animal husbandry. Eastern Indonesia, Kawasan Timur Indonesia, including Kalimantan, Sulawesi, Nusa Tenggara Barat and Irian Jaya are the most promising provinces for these sectors. Kawasan Timur Indonesia offers relatively abundant underdeveloped natural resources, although infrastructure and skilled human resources are considerably less developed than in the western region, Kawasan Barat Indonesia.

Significant opportunities also exist in downstream processing of agricultural products. Investment in food processing, including sauces, drink concentrates, noodles, biscuits, infant formulas and snack foods, is increasing as local companies seek joint venture partners to inject much needed capital. Other opportunities include food and estate crops and their downstream industries, aquaculture, including inland and brackish water fisheries, marine fisheries and related processing industries. Palm oil plantation and related processing; wood processing, including pulp, paper mill and medium density fibres; furniture and handicrafts; and fruit processing, including pineapple canning and producing banana puree, all are promising sectors. Investment in these sectors is prominent in foreign investment inflows.¹⁵

¹⁵ Of the 94 foreign investment plans approved in July 2000, around half were for investments in export and import replacement sectors.

Sale of IBRA assets and privatisation of state enterprises also presents opportunities for Australian companies to acquire established agribusiness firms. Around 35 per cent of corporate assets held by IBRA are in the agribusiness sector, with some to be sold in early 2001, including Indomarket, Indomilk and Indomiwon. Thirty three state enterprises are in the agribusiness and consumer goods sector, accounting for close to 15 per cent of all state enterprises by turnover. (See Chapter 3 - *Foreign Investment*.)

LINKING THROUGH INVESTMENT AND TECHNOLOGY TRANSFERS

In August 2000, the Government opened the caged fish culture sector to foreign investment, providing opportunities for investment, technology transfer and research. Australian has expertise in caged fish culture and technology, with strong ties between the scientific community and fishing industry, such as with Southern Bluefin Tuna. Australia also has expertise in marketing live fish to markets in Asia and elsewhere.

Some Australian private companies accessing these opportunities include Western High Pty Ltd, which began its association with a fish farm in Seram Island in 1997. This linkage helped the original operators access Australian technologies, products and marketing networks. The new operation has a centralised hatchery producing fingerlings grown cheaply in local village waterways, with satellite aquaculture production based around the hatchery. Western High supplied fingerlings, constructed cages and distributes premium fish in established markets in western Indonesia, Hong Kong and Singapore.

This operation is part of a network of Australian and Indonesian expertise under the Australia Indonesia Investment Area, with breeding research underway at the University of Tasmania and Patimura University in Indonesia. (See box on Australia-Indonesia Development Area, Chapter 5 - *Australian Opportunities*.) A Tasmanian net manufacturer and an Australian feed provider, Pivot Nutrition, also are involved.

Source: Australia-Indonesia Development Area, 2000.

PROSPECTS

Recent reforms in Indonesia's agricultural trade and foreign investment regimes promise more rapid and efficient growth in Indonesia's agricultural sector. They also provide good prospects for Australia to contribute expertise and investment to assist the sector's growth. Australia's competitive agricultural exporters also are well placed to benefit from these reforms. Many bulk agricultural products like wheat, rice and sugar now are freed from monopoly import arrangements and high non-tariff barriers. The growth of Indonesia's middle class suggests strong growth in demand for value added processed agricultural products.

Appendix Table 10.1

Rubber, Palm Oil and Shrimp Dominate Exports
Indonesia's Major Agricultural Exports 1970, 1992-98, US\$ million

Commodity	1970-71	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	Average annual growth 1992-98
Rubber	247	1 052	949	1 307	2 012	1 789	1 361	9.4
Palm oil ^a	35	496	578	1 047	1 028	1 001	1 578	na
Coffee	69	264	340	946	643	602	597	33.6
Tea	18	144	149	106	93	115	172	7.1
Tobacco	21	80	73	60	81	80	140	16.4
Pepper	3	58	59	85	160	91	170	35.5
Shrimp	na	1 270	1 435	1 519	1 691	1 640	1 897	8.6
Tapioca	na	120	96	65	79	45	19	-26.3
Other foodstuffs ^a	na	460	463	646	710	777	809	12.7
Copra cakes ^a	30	63	65	79	78	106	80	7.0
Hides	6	43	43	53	43	37	57	8.9
Other	50	1 377	1 550	1 626	2 352	2 341	2 889	113.2
Total	479	4 157	4 365	4 248	5 463	5 100	5 405	6.0

Note: a Since 1994-95, commodities such as palm oil, other foodstuffs, and copra cakes have been reclassified as manufactured goods. Their export values are indicated but not included in the total.

na Means not available.

Source: International Monetary Fund, 1999b.

REFERENCES

- Asian Development Bank, 1999, *Key Indicators of Developing Asian and Pacific Countries*, Oxford University Press, New York.
- Austrade, 2000, Information supplied to the East Asia Analytical Unit by Paul Martins and Timotius Wirawan, November, Jakarta.
- ___ 1999, 'General Investment Policy' in *Establishing a Business Presence: Indonesia*, www.austrade.gov.au/IOOM/INDONESIA, accessed on 17 May 2000.
- Australia-Indonesia Development Area, 2000, '*Opportunities in AIDA*', www.aibc.net.au/aidaopps.htm, accessed on 11 October 2000.
- Cabalu, H., 2000, 'Report to the East Asia Analytical Unit on the Indonesian Agricultural Sector', Perth.
- CEIC, 2000, Asian Economic Database, Hong Kong, accessed on 5 October 2000.
- Department of Foreign Affairs and Trade, 2000, *Indonesia: Country Fact Sheet*, www.dfat.gov.au/geo/fs/indo.pdf, accessed on 11 October 2000.
- Economist Intelligence Unit, 2000, *Country Report First Quarter 2000: Indonesia*, EIU, London.
- Food and Agriculture Organisation, 1999, 'The State of Food Insecurity in the World 1999', www.fao.org, accessed on 10 May 2000.
- ___ 1998, 'Special Report: FAO/WFP Crop and Food Supply Assessment Mission to Indonesia', www.fao.org/giews/english/alertes/1998/srins984.htm, accessed on 8 May 2000.
- International Monetary Fund, 2000, 'Letter of Intent', May, 2000.
- ___ 1999a, 'Indonesia: Statistical Appendix', IMF Staff Country Report 99/39, IMF, Washington DC.
- ___ 1999b, IMF, 'Statement of Development Policy', IMF, Washington DC.
- Lapenu, C., 1998, 'Indonesia's Rural Financial System: the Role of the State and Private Institutions, Sustainable Banking with the Poor', Discussion Paper, www-esd.worldbank.org/html/esd/agr/sbp/.
- Library of Congress, 2000, lcweb2.loc.gov, accessed on 17 October 2000.
- United States Department of Agriculture, 1999, 'Indonesia Agricultural Situation Food and Agricultural Update: April 1999', Global Agriculture Information Network Report No. ID9 028, Foreign Agricultural Service, www.usda.gov, accessed on 17 May 2000.
- United States Department of Commerce, 1998, 'Investment Climate in Indonesia', Washington DC.
- United States Department of State, 2000, 'FY 2000 Country Commercial Guide: Indonesia', Washington DC.

