# SUGAR REGIMES IN MAJOR PRODUCING AND CONSUMING COUNTRIES IN ASIA AND THE PACIFIC

Mr Kaison Chang, Senior Commodity Specialist, Sugar and Beverages Group, Commodities and Trade Division, FAO.

# INTRODUCTION

Sugar is one of the world's most important crops and one, which is of prominence to countries represented here. It has widespread implications for the earnings and well being of farm communities, as well as for consumers of this important food item. Today it is my task to briefly introduce existing sugar regimes in selected countries in Asia.

Before touching on some of the salient features of individual sugar regimes, it is useful to place the Asia and Pacific region in its global context in as far as production, trade and consumption of sugar are concerned.

# OVERVIEW

Of the nearly 128 million tonnes of sugar produced globally more than 36 percent was produced in the Asia and Pacific region with major producing countries being Australia, China, India and Thailand. In terms of trade, the region accounted for 43 percent of global exports and 29 percent of imports in 1998. The major net exporting countries were Australia, Thailand, India and Fiji and net-importing countries included China, Indonesia, Japan, Malaysia and the Republic of Korea.

I would like to turn now to some of the features of individual policy in selected countries. My presentation is restricted to only a few countries due to time limitation. However, several more countries are included in the document that has been circulated.

# AUSTRALIA

#### Introduction

Australia's sugar industry is widely acknowledged as one of the lowest cost in the world. Australia currently ranks seventh among world sugar producers behind the European Community (EC), China, India, Brazil, the United States and Thailand. Among exporters, Australia is surpassed at the global level only by the EC and Brazil, competing with Thailand for third place.

About 95 percent of Australia's sugar are produced in Queensland, one of Australia's seven States located on the northern half of Australia's eastern coast. Most of the remaining production is in New South Wales (NSW), to the south of Queensland.

#### **Regulatory Framework**

The Queensland sugar industry was regulated by the Sugar Acquisition Act and Regulation of Sugar Prices Act enacted in 1915 until 1991 when a new Sugar Industry Bill was introduced. NSW sugar was produced and marketed within this general framework, while a Commonwealth/State agreement allowed the domestic price of refined sugar to be regulated.

The Sugar Industry Act of 1991 introduced significant regulatory reforms, which were reviewed once more in 1995 putting in place policies aimed at developing the industry over the next decade according to the aspirations of the cane-growing and milling sections. This review of the evolving de-regulation came to be known as "Vision 2000."

#### Vision 2000

A Sugar Industry Review Working Party (SIRWP) which included representatives of Commonwealth and Queensland governments, growers, millers, Queensland Sugar Corporation (QSC) and users commenced operations in October 1995. The objective was to develop the industry to be a sustainable competitive raw sugar industry, which is environmentally responsible, focused on improving productivity and the preferred supplier to all outlets.

The principle recommendations were adopted and implementation began on 1 July 1997. These were:

- 1. The removal of sugar import tariffs combined with the strengthening of anti-dumping laws to provide protection for industry producers.
- 2. On marketing and related arrangements:
  - a) The retention of the current single-desk selling arrangements for raw sugar. -
  - b) The QSC continued to be the statutory body responsible for domestic marketing of Queensland raw sugar but in relation to domestic pricing, raw sugar prices should be set at export parity levels.
  - c) Pool differentials (6 percent in 1997) were phased out and abolished by 1999.
- 3. Cane supply and processing arrangements.
  - Cane growers retained the right to negotiate collectively with mill-owners, while also enabling the negotiation of individual agreements.
- 4. Ownership and Management of Bulk Terminals was given to the QSC.
- 5. Production and marketing institutional arrangements:
  - Regulatory functions were separated from commercial functions. Consequently the QSC was divested of any regulatory functions, except those which were clearly ancillary to its marketing role.
- 6. Research development and extension arrangements:
  - This would remain with the industry, which had a long-term commitment to research and development.

#### Outlook

As a result of the de-regulation of the past decade, the regulatory system based on mill area assignments can no longer be regarded as hampering the industry's ability to expand, or to rationalize, as may be necessary to deal with changing market circumstances and opportunities. Nevertheless, its seems likely that the industry will continue to operate within an overall

broadly integrated framework and continue to be overwhelmingly export-oriented. Indeed, it is expected that the present export dependency ratio of 85 percent will rise to 90 percent by 2000.

# CHINA

# Introduction

Since the founding of the People's Republic of China, and especially since the Government's commencement of the economic reform process and opening up in 1978, the sugar industry in China has made rapid progress. The national sugar output (not including Taiwan province of China) has developed from 260 000 tonnes in the early 1950s to 2 million tonnes in 1978 and then to more than 8 million tonnes in the early 1990s. During the same period sugar consumption expanded from 2.08 million tonnes in 1978 to 7.6 million tonnes in 1992. On a per caput basis from 2.9 kg to 6.5 kg.

Currently it is nearer to 7 kg per year which is relatively low compared to other countries with similar economic status.

# **Regulatory Framework**

China does not have a specific policy per se for sugar. Sugar is embodied in the overall sectoral policy on agriculture and self-sufficiency in basic food items. From 1978 to the early 1990s government policy favoured the expansion in sugar output to the point where it even rewarded growers of sugar crops (cane and beet) with grains. In addition investment in the sugar industry increased during this period (Seventh Five-Year Plan) developing 4 new production bases in selected provinces.

Reforms in the production and marketing of grains and sugar brought new contradictions in 1992. The readjustment of grain prices through changes in pricing policies favouring grains rather than sugar production resulted in a 3 year decline in sugar output until it bottomed out as 5.3 million tonnes in 1995. Output recovered as government attempted to bring parity into grains and sugar production, but not to the levels of 1992. Consumption in the meantime has fluctuated but not increased considerably as the competition from substitutes has become significant.

# Outlook

China continues to be a net importer of sugar do its domestic supply is insufficient to meet its demand. Although net imports will likely stabilize around 1.0 to 2.0 million tonnes in the next few years, the longer-term outlook is that self-sufficiency will become ever more difficult to achieve and imports will continue to increase. Increased competition from other crops is expected to reduce sugar area in traditional growing regions. Despite the guidance prices set for sugar crops, producers may continue to find procurement prices for grains to be more profitable. In cases where sugar mills are unable to pay producers in cash, payment with IOU's may also dampen producers' intentions to grow sugar crops.

Thus, the available domestically produced sugar supply is not expected to keep pace with the growth in domestic consumption. The population expansion rate has averaged 1.4 percent over the last decade and this is likely to continue, and there has also been significant income growth in the last decade and this is expected to increase its rate as well. The ongoing growth will most likely increase consumer demand for sugar-based processed foods, beverages, snacks, and desserts.

# FIJI

# Introduction

Fiji, as a small island economy, like many sugar producing Caribbean states, faces obstacles in the development process that are not present in larger countries. With a small population, economies of scale are difficult to achieve in domestic markets, and investment in infrastructure are relatively more costly and often uneconomic. Superimposed on the problems of smallness, Fiji is relatively geographically isolated, prone to natural disasters, and suffers constraints on the availability of land and its productivity.

The future viability of the sugar industry will depend on being able to produce sugar at a profit, at a mix of world market prices and possibly lower returns from shipments to the EC.

#### **Regulatory Framework**

The sugar industry is regulated through its Sugar Industry Act. The main features are the regulation of production through quotas or contracts and restriction in production areas. Milling areas coincide with the location and servicing of the 4 mills. To ensure an equitable pricing system there is a formal revenue sharing ratio of about two thirds to one third in favour of the growers, and finally a regulatory mechanism is administered by an independent Fiji Sugar Commission.

#### Outlook

With the right incentives there is ample scope for the sugar industry to improve efficiency, particularly in the cane-growing sector. A recent study undertaken for the industry identified ways yields could be increased by 25 percent with better farming practices, without the introduction of irrigation. In addition, major efficiency improvements are possible within the existing cane transportation system, by introducing a quality payment system for cane, adopting appropriate mechanisation, and by enhancing labour utilisation. Thus the appropriate policy emphasis should be on improving the efficiency of the existing industry and not on encouraging large-scale transfer of land out of sugar. This is indeed necessary as no single crop or group of crops have been identified that could replace sugar in the foreseeable futures.

I must add at this point, that FAO and in particular the Sugar and Beverages Group of the Commodities and Trade Division has begun work in assisting some of these countries in analysing the efficiency of sugar industries and work together in improving sustainability.

#### Introduction

India's position in world sugar production fluctuates between being the second and third largest producer. In India the white sugar industry is of considerable economic importance. It is the second largest after the cotton textile industry. Sugarcane farmers and their families, numbering over 35 million, constitute about 7 percent of the rural population. The sugar industry employs 350 000 workers and also provides substantial indirect employment through various ancillary activities.

#### **Regulatory Framework**

In India, government polices, both at the Federal and State levels, have played crucial roles in the development of the sugar industry. The main objectives of the national policy are to ensure a fair price to cane growers, adequate returns to the industry and a supply of sugar to consumers at reasonable prices. The situation is more complicated because of the existence of a large cottage industry that manufactures open-pan sugar, specifically gur (solidified cane juice) and khandsari (semi-white centrifugal sugar).

While the Central Government regulates the sugar industry, the State Governments exercise control over supply and distribution of cane as an agricultural crop. Thus, the State Governments announce State Advised Prices (SAPs) for sugarcane in respect of cane supplied to mills within their boundaries. The SAPs which mills are required to pay are generally substantially higher than the Statutory Minimum Price (SMP).

Within this regulatory framework, the cane growers encounter three different market situations. The first is the unorganized market where cane is sold to the gur or khandsari producers. The second is the private sector sugar mills, and the third the co-operative mills. In each of these markets a different price for cane may prevail. In the unorganized market, the price tends to be the lowest, except in seasons of shortage, when gur producers have greater flexibility to bid for supplies. In the case of co-operative sector mill, the tendency is to offer prices, which initially are slightly higher than the Statutory Minimum, while the private sector mills generally pay the State Advised Price (SAP).

Government procurement prices of levy sugar are fixed on the basis of the SMP of cane plus conversion costs as recommended by the Bureau of Industrial Costs and Prices. However, as indicated above, the actual support prices of cane are generally much higher than the prescribed minimum prices.

#### Outlook

Although gur and khandsari are still the main sugar products consumed in rural areas, demand for white sugar is expected to continue to increase both in absolute and per caput terms. Rising incomes and urbanization are expected to result in further shifts in demand from open pan to white sugar. Moreover, the growth of sugar demand by food industries and other non-household users estimated to account for about 40 percent of total utilization, will provide additional impetus to longer term market growth. Under the assumption that pricing and distribution policies remain unchanged, the domestic market could absorb much of the perspective increase in production. In addition, net imports could be needed periodically to offset short-run crop shortfalls. However, if the general liberalization of the Indian economy extends further also to the sugar sector, it may be expected that domestic price levels would adjust upwards, leading to some weakening in the growth of demand and possibly to added incentives to production expansion.

#### JAPAN

#### Introduction

Japan is one of the largest importers of sugar in Asia, about 1.5 million tonnes annually. Japan produces tow types of sugar beet and cane sugar. However, Japans total sugar imports have followed a gradual yet fluctuating decline since 1991 as the demand for sugar substitutes has steadily increased rising 6.93 percent annually from 1975 to 1995.

#### **Regulatory Framework**

After partial liberalization of sugar on imports in 1963, Japanese domestic prices fluctuated widely with international prices. To protect domestic producers and consumers from wide price fluctuations, a policy measure aimed at stabilizing sugar prices was introduced in 1965. Under this measure, a government agency would buy and sell imported and domestically produced sugar to keep domestic wholesale prices in a range between the low limit and high limit prices and to provide subsidies to domestic sugar producers.

This policy, which is still in effect, hinges on several administered prices, which are determined annually by the government. The low and high limit prices define the price range the government considers appropriate within which to stabilize sugar prices. The domestic producer target price indicates whether adjustments on imported sugar price are necessary and also indicates the price at which producers should aim to produce. Producer prices of beets and cane are determined by the parity method. Under this method, cost of living in rural areas and farm-input prices are taken into account.

The main focus of the policy is the establishment of minim producer prices for beets and cane. Also the agency keeps the price of sugar it sells between the low and high limit through purchases and sales. Subsidies to domestic producers are finance by an adjustment charge on imported sugar and funds from the government.

Prices paid to domestic producers are considerably higher than the agency sale price. The difference is adjusted by two elements: The adjustment charge fund for the difference between the agency sale price and the target price and the government pays the difference between the producer price and the target price.

As a result of government intervention, prices paid to domestic producers are considerable higher than import prices. This government protection is much higher for cane than for beet sugar producers, as cane producers are considered to be more dependent on income from sugar than are the beet producers.

# Outlook

Japan's sugar consumption is project to decline by 1.2 percent p.a. for the period 1995-2010. Although income elasticity is positive) about 0.3 percent, declining population beyond 2005 and taste change work to depress the demand.

# THAILAND

# Introduction

Thailand is the sixth largest producer of sugar in the world and competes with Australia for third exporting country. Currently most of the sugar factories are still plagued with under utilization problems; they are forced to choose to maximize sugarcane volume, not sugar yield, to mitigate costs. This leads to fierce competition for sugarcane and consequently worsens conditions of crushed sugarcane in terms of purity and freshness. Hence, sugar yield is negatively affected.

# **Regulatory Framework**

The regulatory framework as contained in the Cane Sugar Act of 1984 is geared mainly

for exports and allows exports only of annual surplus of production over domestic requirement. Hence, the export availability depends on how fast and by how much output exceeds consumption.

The two main features of the Cane Sugar Act (1984) include:

- 1. The determination of the annual export quota by the Cane and Sugar Board, by deducting annual consumption from total production. However, as exports are measured in calendar years (January-December) while production is by crop year (October September) there is usually a difference between export quota and actual shipment volumes.
- 2. The revenue sharing system (70/30).
- 3. The Cane and Sugar Board divides annual sugar output into 3 quotas namely quota A for domestic sales, quota B for exports under industry's long term contracts and quota C for exports under the individual export contracts. Cane payment is determined by:
  - i) adding up all the gross sugar proceeds from domestic sales (quota A) and exports (quota B + quota C);
  - ii) gross expenditure is then deducted from gross proceeds; and
  - iii) The 70: 30 division is made in favour of the grower.

# Outlook

According to international sugar production cost analysts, Thailand ranks among the world's lowest cost producers. Efforts to expand cane production to better match milling capacity should enhance this status. However, Thailand's future as a low-cost producer is not certain in view of sharply increasing land costs reflecting rapid industrialization and rising labour costs.

Domestic demand is likely to continue to expand rapidly, but growth in production should continue to allow Thailand to need only about 25 to 30 percent of annual output for use at home

In terms of exporting the industry has identified 3 areas for improving the management of their export sector:

- 1. The transportation system should be updated to cope with larger volumes of sugar to be transported from the sugar factories to export terminals; sugar availability at terminal prior to the contractual shipment period must be assured.
- 2. A clearing house for bulk sugar should be established to allow swaps of sugar under fair established settlement procedures, and
- 3. The bag loading system should be modernized to cope with labour shortages.

# OTHER COUNTRIES IN BRIEF INCLUDE: INDONESIA

A major challenge facing the Indonesian industry is to the extent to which domestic production can be expanded. Despite the dynamic growth in output between the early-eighties and the early-nineties, in more recent years production of sugar appears to have stabilized reflecting the emergence of constraints at both the agricultural and industry level. Competition for land, particularly irrigated areas, not only from other crops and livestock production, but also increasingly from urbanization in densely populated areas of Java, has resulted in a shift in the cultivation of sugarcane to non-irrigated areas to poorer lands. Thus, unless yields can be sufficiently increased to enhance the economic viability of crop, possibilities for growth will continue to be dampened, particularly because scope for raising producer prices is limited by the need to maintain balanced growth in paddy production, acceptable profit sharing with millers, and adequate margins in the marketing, storage and distribution of supplies without unduly raising retail prices for this essential and sensitive consumer product.

In the processing sector, there is also scope for enhancing mill efficiency, thereby contributing to better returns to both industry and agriculture. However certain structural rigidities make the rationalization of the industry, particularly in the older mills of Java difficult to achieve, including the need to find alternative employment and income opportunities for mill workers.

Given current production and market developments, sugar import demand is expected to remain relatively large by historical standards. The longer-term viability of the industry would, however depend on improved agricultural and industry productivity, particularly as the sector becomes increasingly integrated into the world market and exposed to free market forces.

# MALAYSIA

Government policy is not geared for an expansion in the production area, but encourages improved productivity in existing areas. It supports the industry with sugar import quotas and relatively high domestic retail prices. According to the National

Agriculture Policy plan, more research and development efforts are to be channelled to the development of alternative sources for sugar.

Therefore, in the foreseeable future it will continue to import increasing quantities of sugar. As for the refining industry, unless refining capacity is expanded, a greater share of domestically processed refined sugar will be retained in Malaysia and less will be available for export. On trade policy, the general view is that Long Term Agreements have served Malaysia well, and the agreements with Australia and Fiji are likely to be renewed in the near future.

#### PAKISTAN

Pakistan will likely reduce sugar imports in the near term, as recent firm internal prices are likely to provide some stimulus to domestic production, as well as constraints on consumption. This would conform to long-stated self-sufficiency goals. But with good alternative crops and clear limits on irrigation water, self-sufficiency for Pakistan in any one commodity, such as sugar, will come at the price of foregoing production of other crops. The price of refined sugar in the world market in the last decade has been more stable than in earlier decades, and as world trade becomes based more on market-oriented policies, the world price may become a more clear "opportunity cost" against which to compare domestic prices. However, in the longer run, improved efficiency will be required to create the basis for a competitive industry.

#### PHILIPPINES

In the Philippines, production has had difficulty in keeping pace with consumption. Government recognizes the need to expand both area and productivity. However, several factors stand in the way of this target. These include the need to improve research and development, and extension services particularly to the smallholders. In addition, the land reform policy whereby larger parcels of land have been re-distributed in 5 ha lot, particularly to form farm estate workers, has come with its associated problems of economies of scale, etc. However this policy is now under review.

It is estimated that additional land could be made available for sugarcane cultivation in the future, but the present 370 000 hectares under cultivation may soon be reduced by as much as 10 percent to provide for urbanization and withdrawal from marginal lands. However, considering price elasticity, comparative trends in other developing economies and population growth, indications are that the country's consumption of sugar would continue to outstrip domestic supplies, even if the potential expansion in production areas materialize.

However the major policy issue which need to be addressed is the cost sharing system between sugar mills and planters as a disincentive for mill investments.

#### VIETNAM

The development of the sugar industry in Vietnam is one of the most dynamic developments occurring in the region. The sugar industry is currently undergoing a fundamental change, fostered by the governments' programme towards expansion and self-sufficiency. The government's goal is to increase production to 1 million tonnes of sugar by 2000 from 450 0000 tonnes in the mid nineties.

However, constraints to this development include the lack of infrastructure, particularly transportation. While movement of cane by water can help to minimize this issue, especially in the Mekong River Delta, deficiencies in the rural road system continue to be a major constraint. In several areas where sugar production is scheduled to expansion, the issue of availability of rural labour for sugarcane production and harvest may act as future constraint. In some areas, increased competition for cane between the cottage industry mills and commercial mills or between the commercial mills themselves may emerge. The role of government in setting price policies will be extremely important to the achievement of its targets. The annual setting of cane price relative to other commodity process may influence planting intentions and affect the predicted area expansions. There could also be a role for price stabilization policies.

The role for trade will become increasingly complex, including the level and composition of imports and their origins. For instance, the impact of Vietnam's tariff structure from its joining of ASEAN has affected access to its market from non-ASEAN countries.

#### CONCLUSION

The financial crisis in South East Asia, which unfolded from mid-1997, has caused concern in the world sugar market. More so because the dynamic expansion in consumption in the region that had occurred in the decade prior to the crisis was curtailed. Declining real incomes and increased cost of sugar imports resulted in a reduction in the consumption of sugarbased products. However, as sugar is considered to be one of the basic food items, a significant reduction in household consumption of sugar did not occur. In addition, complete price transmission to the consumer did not materialise.

In the short term the impact globally was a reduction in the demand growth rate. However, in the longer-term, growth rates before the crisis should be regained. Much will depend on government policies as well as structural adjustment measures to restore economic growth in Asia. In countries like the Republic of Korea and Malaysia, signs for economic growth are positive. On the supply side, the potential for substantial increases in production was realized resulting in low prices. Hence, unless demand conditions improve, this situation is expected to continue over the next year or two.