CHAPTER 3

NATURAL RUBBER PRICE STABILIZATION SCHEMES

3.1 Stevenson Plan, 1922-1928

The Stevenson Plan implemented in 1922 is the first formal price stabilization scheme implemented in Malaya. It was implemented when voluntary production restraint measures by the rubber industry failed to arrest the problem of price decline. In 1918, rubber planters in Malaya formed the Rubber Growers Association (RGA) to tackle the problem of falling prices that began during the First World War. When the price of rubber continued to decline after the war, members of RGA undertook a voluntary exercise to reduce their production by 20 percent in their bid to support the price. However, this attempt by the rubber producers did not last very long. In the years 1920 and 1921, rubber price again took another blow when the world economy was hit by the recession. The poor economic condition in the world coupled with a substantial number of rubber trees attaining maturity age drove the price of rubber down to less than 30 cents per pound. The decline in price again prompted rubber producers in the British colonies to reduce production by 25 percent. This time, the planters in Malaya were joined by planters in the Dutch East Indies. However, this voluntary restriction by rubber producers in the British and Dutch colonies was found to be ineffective and was eventually discontinued after 1921. These series of production restriction measures eventually led to the formation of the Stevenson

Committee which was set up to examine measures that could be undertaken to defend rubber price. After examining the various options at hand, the Committee came to the conclusion that compulsory production restriction would be a more effective measure to tackle the problem of price decline.

The mechanism used under the Stevenson Plan to restraint rubber production was export control. At the beginning of the implementation of the plan, export of natural rubber was confined to 60 percent of the 1920 standard production of each producer. A scale was drawn up to indicate the maximum amount of rubber that could be produced by each estate. Under this scale, the maximum amount of rubber that could be produced by an estate with trees that were eight years old and above was 320 pounds per acre per year. To ensure that producers adhere to the export quota allocated, punitive export duties were imposed on producers who breached the quota allocated. The smallholders were not spared under the plan. However, the administration encountered problems to determine the quota for smallholders since there was no record on the production of each and every smallholder. To solve the problem, the administration imposed a flat rate of 320 pounds of rubber production annually for mature holdings of smallholders. The flat rate was later increased to 426 pounds (Whittlesey 1931).

The export control instrument of the Stevenson Plan was equipped with an automatic adjustment mechanism which adjusted the production quota imposed upon the industry following price movement in the market. Under the plan, the price of rubber was reviewed on a quarterly basis. When the price of rubber went below the pre-determined "pivotal price range" of 24 cents - 30 cents per pound, the exportable quantity of the rubber would be reduced from 60 percent to 55 percent. On the contrary, when the price of rubber exceeded the upper range of the pivotal price range, the exportable quantity would be increased from 60 percent to 65 percent. Such adjustment would be repeated until the pivotal price range was reached.

The effect of the Stevenson Plan was felt in 1925 when price increased steadily to US$1.03 a pound. The substantial increase in price stimulated non-control countries, particularly the Dutch East Indies, to step up their production. The restraint on the part of rubber producers in Malaya and Ceylon and increased output in Dutch East Indies eventually caused rubber producers in Malaya and Ceylon to lose much of their market share. In response to the new development, the Stevenson Committee increased the exportable rate to 100 percent. The drastic change in policy coupled with increased production in Dutch East Indies brought the immediate effect of price decline and undermined the operation of the Stevenson Plan.

The Stevenson Plan was discontinued at the end of 1928. In retrospect, it is noted that the main weakness of the plan is that it did not involve major producers in other countries, particularly planters in the Dutch East Indies. Any such producer agreement could not hold on for long without the participation of all major producing countries. Many years later, the International Tin Agreement (ITA) faced similar problem when non-participating tin producing countries took advantage of the remunerative tin prices to step up their production, reaping substantial profit at the expense of ITA members.

3.2 International Rubber Regulation Agreement (IRRA), 1934 - 1943

Unlike the Stevenson Plan which involved only British colonies such as Malaya and Ceylon, the International Rubber Regulation Agreement (IRRA) was an international agreement that saw the participation of the British, the Dutch, the French and the Siamese. In a way, the signing of the IRRA is the legacy of the Stevenson Plan which encouraged increase in rubber planting following the rally in rubber price that went up to an unrealistic level. When producers in Malaya and the Dutch East Indies expanded their plantations under the Stevenson Plan, many of the trees began to reach maturity age by 1933. The sudden increase in rubber output drove price down to a very low level. In conjunction with the substantial increase in output was the aftermath effect of the Great Depression which added additional pressure on the rubber market. During the Great Depression that began in 1928, both prices of commodities and manufactured products suffered tremendous blow and never recovered after the worldwide economic crisis. Although the consumption of natural rubber began to pick up again after the Great Depression, its positive effect on the rubber market was offset by the increase in rubber output from the respective producing countries.

The instruments used under the IRRA to support the price of rubber were production control and export quota, termed basic quota and permissible exportable percentage respectively. The basic quota allocated to participating countries resembled production quota whereas permissible exportable percentage resembled export quota. Under the agreement, each participating country would be allocated basic quota indicating the production level allowed in the country. The permissible export percentage imposed on the basic quota stipulated the amount of rubber allowed to be exported by the country. The International Rubber Regulation Committee (IRRC), established to implement the IRRA reviewed the permissible exportable percentage on a quarterly basis and adjusted the export quota according to price movement in the market. In addition, the Committee was also empowered to adjust the export quota according to changes in demand condition as and when it deemed necessary. The basic quotas allocated to participating countries from 1934 - 1943 is shown in Table 3.1 while figures on permissible exportable percentage are shown in Table 3.2. It could be seen from Table 3.1 that a gradual increase in basic quota was allowed. Such gradual increase was permitted to allow for steady expansion of rubber industries in participating countries.

Under the IRRA, the International Rubber Regulation Committee was also empowered to appoint an Advisory Panel which consisted of two representatives from the United States and two representatives from other consuming countries. The function of the Advisory Panel was to advise the Committee on matters pertaining to basic quota, permissible exportable percentage and any other matters that affected the interest of consumers. Among the representatives from consuming countries, the representatives from the United States appeared the most important since the United States consumed up to three quarters of the total rubber produced in the world at that time.

Although the IRRA was extended in 1938, the Second World War that broke out later eventually brought an end to the IRRA. Comparing the IRRA and the

Table 3.1
Basic Quotas, 1934 - 1943
('000 long tons)

	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Malaya	504.0	538.0	569.0	589.0	602.0	632.0	642.5	648.0	651.0	651.5
Indonesia	352.0	400.0	500.0	520.0	540.0	631.5	640.0	645.5	650.0	651.0
Ceylon	78.5	79.0	80.0	81.0	82.5	106.0	107.5	109.0	109.5	110.0
India	6.9	12.5	12.5	12.5	13.0	17.5	17.8	17.8	17.8	17.8
Burma	5.2	8.0	8.5	9.0	9.3	13.5	13.8	13.8	13.8	13.8
North Borneo	12.0	13.0	14.0	15.5	16.5	21.0	21.0	21.0	21.0	21.0
Sarawak	24.0	28.0	30.0	31.5	32.0	43.0	43.8	44.0	44.0	44.0
Thailand	15.0	40.0	40.0	40.0	40.0	54.4	55.3	55.7	56.0	60.0
Total	996.5	1,118.5	1,254.0	1,298.5	1,335.3	1,519.0	1,541.6	1,554.7	1,563.0	1,569.0

Source: Compiled from Sir Andrew McFadyean, The History of Rubber Regulation, 1934 - 1943, Table of Basic Quotas, pp163

(Extracted from You, Man He, 1963).

Table 3.2
Permissible Exportable Percentage of the Basic Quota, 1934-1941

	Quarter			
	1st	2nd	3rd	4th
1934	-	87.14	87.14	87.14
1935	75	70	65	60
1936	60	60	65	65
1937	75	80	90	90
1938	70	60	45	45
1939	50	50	60	75
1940	80	80	85	90
1941	100	100	100	120

Source: Barlow Colin (1978), The Natural Rubber Industry, Its Development, Technology and Economy in Malaysia, Table 3.4, pp 65.

Stevenson Plan earlier, one noted that there had been substantial improvement in the IRRA. Unlike the Stevenson Plan that involved only rubber producers in Malaya and Ceylon, the IRRA is an international agreement that involved a majority of the rubber producers at that time. Almost all major producing territories were participating members of the agreement. In addition, the restraint on rubber output was aided by a provision in the IRRA that prohibited new planting and the export of rubber seedlings to other countries. The purpose of imposing a ban on the export of seedlings was to block the entry into rubber industry by other countries. Another advantage of the IRRA is that it took into account the interest of consuming countries via their views expressed in the Advisory Panel.

The main weakness of the IRRA is however its empowerment of the Committee to adjust permissible exportable percentage according to changes in demand for rubber. Although the Committee comprised experts who were supposed to make changes based on their objective judgment on demand condition, the experience in later commodity agreements indicated that there is always the tendency for producers to support prices at higher level. Worse still, at times the decision on price level was done based on political consideration rather than economic reasoning. In this connection, the automatic adjustment procedure that revises export quota automatically according to price changes as that under the Stevenson Plan and the later International Natural Rubber Agreement appears a better mechanism. It is one procedure which could avoid the influence of human weaknesses.

3.3 Malaysian Crash Programme, 1974 - 1975

The Crash Programme is a unilateral scheme on the part of Malaysia to reduce the supply of rubber in the international market amidst declining natural rubber price after the Oil Shock in 1973. When OPEC embarked its production regulation scheme in 1973, almost the entire world was hit by the energy crisis. Oil prices went sky high and the price of synthetic rubber followed suit. The price of Styrene Butadiene Rubber (SBR)[4] in the London market went up by 64 percent between January to November 1974. Under normal circumstances, natural rubber price would have followed suit and fluctuated upward as in the case of synthetic rubber. However, although the price of rubber did move up, the rally was a short one. After climbing to 265.31 sen/kg in January 1974, RSS 1 rubber price slipped to 112.45 sen/kg in November, falling by about 58 percent in just eleven months. The drastic decline in natural rubber price was largely attributed to the global recession induced by the Oil Shock. In an effort to arrest persistent price decline, the Malaysian government implemented the Crash Programme. The decision to undertake the programme also appeared to have been prompted by discontentment among the smallholders who made up the largest natural rubber producers since the 1960s.

Although the Crash Programme was a unilateral effort on the part of Malaysia, the Malaysian government seemed to be confident of its ability to undertake such an exercise on its own. Among the reasons that had prompted the Malaysian government to go ahead with the programme was that the Malaysian rubber industry still accounted for some 50 percent of world export of natural rubber in the 1970s. Given the substantial share of Malaysia's rubber export in the world market, it was possible for Malaysia to influence rubber price via export rationalization. In addition, in the light of Malaysian rubber's substantial share in the world market, Malaysia had more to lose compared to other countries when rubber price declined. Secondly, way back in the early 1970s, rubber was still the single largest economic sector in Malaysia. The drastic decline in price not only affected the country's export earnings but had severe social implications as well. Thirdly, the crash programme was meant to be a transient scheme from the outset. It was not meant to be a permanent price stabilization scheme but was launched to arrest price decline which many believed would not last very long.

The Crash Programme was implemented with two strategies in mind. They are:

(i) to reduce the supply of rubber by 190,000 tonnes over a period of twelve months; and

(ii) to raise productivity in the long-run by taking advantage of recessionary periods to accelerate replanting.

The measures undertaken under the two strategies above were as follows:

(i) the banning of the use of stimulant i.e. ethrel to reduce output from the trees;

(ii) the reduction of tapping frequencies by stopping tapping during public holidays and weekly rest days;

(iii) the call for increase in stocks in the trade sector;

(iv) direct purchase of smallholders' rubber by the government

(v) compulsory replanting within two years by all estates yielding less than 800 kg of rubber per hectare per year.

(vi) the encouragement of further smallholder replanting through the assistance of the Rubber Industry Smallholders Development Authority (RISDA).

It could be seen from the measures listed above that the measures undertaken under the Crash Programme are a combination of stock holding and supply rationalization. Following the implementation of the Crash Programme in 1974, rubber output of Malaysia declined by 4 percent in 1975. In conjunction with the decline in rubber output in Malaysia, rubber production in Thailand and Indonesia also fell. However, the reduction in rubber output in Thailand and Indonesia was not due to government intervention but rather due to the low rubber prices which must have deterred the smallholders from producing rubber. In response to the decline in output from these major producing countries, rubber price raised to a higher level in 1975 and 1976. The improvement in natural rubber price was also said to have been influenced by the cut in synthetic rubber production without which the recovery of natural rubber price would have been slower. In September 1975, the ban on the application of ethrel was lifted thereby signified the end of the crash programme. Following another increase in rubber price in 1976, the 22,000 tonnes of stocks held under the programme was completely sold.

3.4 International Natural Rubber Agreement for Price Stabilization, 1976

The International Natural Rubber Agreement for Price Stabilization (INRAPS) is sometimes referred to as the Association of Natural Rubber Producing Countries (ANRPC) efforts. ANRPC is a producing countries organization founded in 1970. It has seven member countries i.e. India, Indonesia, Malaysia, Papua New Guinea, Singapore, Sri Lanka and Thailand. Malaysia's effort in the late 1960s and early 1970s to stabilize prices was believed to have given ANRPC the impetus to formulate INRAPS that members of ANRPC hoped could be relied on to stabilize the price of natural rubber. INRAPS was concluded in 1976 after a series of meetings. Only four of the seven ANRPC countries became participating countries of INRAPS, i.e. Indonesia, Malaysia. Sri Lanka and Thailand.

The instruments used by INRAPS to stabilize the price of natural rubber is very similar to those used by the International Tin Agreement (ITA). Two instruments were proposed under the agreement i.e. international buffer stock and supply rationalization scheme. The size of the buffer stock was initially fixed at 100,000 tonnes of rubber in terms of RSS 1 equivalent or such sum of money equivalent to the value of 100,000 tonnes of RSS 1 based on a given price. The size of the buffer stock will be reviewed after a two year period. The supply rationalization scheme which was supposed to be enforced via the allocation of export quotas to participating countries is to supplement the buffer stock operation in maintaining a balance between the supply and demand of natural rubber in the world market by keeping total export in balance with the expected world demand.

Although it was successfully concluded and ratified by all member countries, INRAPS was never enforced and remained an agreement that has never been tested until today. The reason being that the successful conclusion of INRAPS had inspired both producing and consuming countries to negotiate for the International Natural Rubber Agreement (INRA), one of the ICAs identified under the Integrated Programme for Commodities of UNCTAD. When INRA was finally signed in 1979, INRAPS became redundant and was kept in abeyance by its member countries as a contingency plan to replace INRA if the need arise.

3.5 International Natural Rubber Agreement I & II, 1979 - 1995

As noted above, the ANRPC effort to formulate INRAPS is among the factors that contributed to the negotiation for the International Natural Rubber Agreement (INRA). In January 1977, a preparatory meeting on rubber was held in Geneva to consider the proposal to formulate a price stabilization agreement similar to that of INRAPS. Subsequent to the first preparatory meeting, two more meetings and four negotiating conferences held under the auspices of UNCTAD were convened to discuss the various issues pertaining to the establishment of INRA. After exhaustive negotiations, INRA was finally concluded in October 1979 in Geneva (Thomas 1982).

There are altogether nine objectives stipulated in the agreement. They are:

(i) to achieve a balanced growth between the supply of and demand for natural rubber, thereby helping to alleviate the serious difficulties arising from surpluses or shortages of natural rubber;

(ii) to achieve stable conditions in natural rubber trade through avoiding excessive natural rubber price fluctuations, which adversely affect the long-term interest of both producers and consumers, and stabilizing these prices without distorting long-term market trends, in the interests of producers and consumers;

(iii) to help stabilize the export earnings from natural rubber of exporting members, and to increase their earnings based on expanding natural rubber export volumes at fair and remunerative prices thereby helping to provide the necessary incentives for a dynamic and rising rate of production and the resources for accelerated growth and social development;

(iv) to seek to ensure adequate supplies of natural rubber to meet the requirements of importing members at fair and reasonable prices and to improve the reliability and continuity of these supplies;

(v) to take feasible steps in the event of a surplus or shortage of natural rubber to mitigate the economic difficulties that members might encounter;

(vi) to seek to expand international trade in and to improve market access for natural rubber and processed products thereof;

(vii) to improve the competitiveness of natural rubber by encouraging research and development on the problems of natural rubber;

(viii) to encourage the efficient development of the natural rubber economy by seeking to facilitate and promote improvements in the processing, marketing and distribution of raw natural rubber; and

(ix) to further international cooperation in and consultations on natural rubber matters affecting supply and demand, and to facilitate promotion and coordination of natural rubber research, assistance and other programmes.

All in all, the nine objectives could be broadly summarized into two categories, i.e. (i) the price stabilization scheme via buffer stock operation which aims at bringing greater stability to the price of natural rubber and also the export earnings of exporting countries, (ii) the longer-term development objectives pertaining to improving natural rubber's market access, supply, reliability. competitiveness, processing, marketing, distribution and transportation.

The first INRA ended in October 1985 and was extended for two years until 1987. Thereafter the second agreement was negotiated and concluded in 1988. When the second agreement ended in December 1993, it was extended twice until December 1995 pending member countries' decision to conclude the third INRA. As the extension period expired after December 1995, the International Natural Rubber Organization (INRO), the body established to implement INRA is now in the state of liquidation. However, it has been reported that the third agreement has been finalized, and under the provisions of INRA II there is still time for member countries to ratify the third agreement. At the time that this paper is written, it was reported that majority of the producing countries have indicated their intention to sign the third one but sufficient response from consuming countries is still being awaited.