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SOME OBSERVATIONS ON INCENTIVE POLICIES IN MALAYSIAN AGRICULTURE AND IMPLICATIONS ON GROWTH AND EQUITY IN THE SMALLHOLDER SECTOR

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Sinopsis

Dalam usaha untuk mencapai pertumbuhan dan pengagihan semula pendapatan di dalam keseluruhan ekonomi amnya, dan sektor pertanian khususnya, terdapat penyertaan secara langsung yang aktif dari pihak kerajaan dalam pembangunan pertanian, terutamanya bagi sektor pekebun kecil, dan perlaksanaan dasar awam yang menyokong sektor pertanian. Keadaan ini dapat dilihat melalui peruntukan perbelanjaan pembangunan awam yang terbanyak diberikan untuk rancangan-rancangan pembangunan pertanian. Bantuan yang diberi juga merangkumi subsidi, kredit, sokongan harga dan sebagainya. Kesemuanya ini merupakan kemudahan insentif pertanian. Insentif pertanian, khususnya dalam bentuk subsidi ke atas input dan output, kredit, dan kemudahan-kemudahan yang berkaitan, telah dapat menghasilkan pertumbuhan dalam pengeluaran dan daya pengeluaran pekebun-pekebun kecil. Di samping itu terdapat perkembangan modenisasi dan perubahan struktur dalam sektor pekebun kecil melalui rancangan-rancangan perairan, pembukaan dan pembangunan tanah baru, pemulihan dan penyatuan tanah, dan perkembangan teknologi baru.

Pertumbuhan pengeluaran dan daya pengeluaran telah mengakibatkan pendapatan yang meningkat di kalangan pekebun kecil, khususnya bagi peneroka-peneroka rancangan pembangunan tanah, pekebun kecil getah dan penanam padi. Beban kemiskinan antara pekebun-pekebun kecil didapati berkurangan walaupun masih tinggi, dan kesan pengagihan adalah tak seimbang. Dispariti antara pekebun-pekebun kecil masih ketara dan keadaan ini bukan sahaja berlaku di antara berbagai pekebun kecil (atau kawasan) tetapi juga di antara pekebun-pekebun kecil tertentu. Pengwujudan ketakseimbangan dalam pengagihan pendapatan adalah, antara lain, disebabkan oleh peruntukan dan pengagihan insentif pertanian dan sokongan kemudahan pertanian yang berbeza di antara aktiviti pertanian dan kumpulan pekebun kecil. Secara menyeluruh, keadaan ini telah mengakibatkan pemesongan dan ketakseimbangan dalam pengagihan pendapatan. Di samping itu ia mewujudkan dimensi baru di dalam sektor pertanian dengan membahagikan sektor kecil antara golongan yang miskin dan yang berpendapatan tinggi. Dengan yang demikian terdapat ketakseimbangan

yang meluas di sektor pekebun kecil di samping dispariti atau kebezaan ekonomi yang sedia wujud di antara sektor estet dan pekebun kecil.

Synopsis

In the efforts to stimulate growth and to enhance distribution of income in the economy and agricultural sector, in particular, there has been growing direct and active participation by the government, viz. public sector, in the development of agriculture, specifically the smallholder sector, and the implementation of public policies in support of agriculture. This can be seen largely through substantial allocation of public development expenditure for development of agricultural programmes and the fiscal as well as other measures. Assistance in the form of agricultural incentives, viz. subsidies, credits, price support, among others, has been a common feature. Agricultural incentives, primarily in the form of subsidies on inputs and outputs, credits and related facilities and services, have facilitated growth in agricultural production and productivity of smallholders. It has also brought about a gradual modernization and structural change in considerable parts of the traditional and smallholder sub-sector through programmes in irrigation, land development, consolidation and rehabilitation of smallholdings, and technological improvements.

Growth in production and productivity has significantly contributed to improvements in incomes of smallholders, particularly of smallholder-settlers in new land development schemes, rubber smallholders and rice farmers. The incidence of poverty has been observed to decline, though still persistently high, and that the distribution of income has been inequitable. Disparity of income exists not only among the various groups of smallholders, but also among the smallholders in the same activity. The considerable variation in income, among others, is due to the differential rate in allocation and distribution of incentive facilities between areas of agricultural activities and groups of beneficiaries. It has created a divergence and inequality in income distribution and, at the same time, brought about a new dimension in the agricultural sector, viz-a-viz dividing the smallholder component between the middle-class and poor farmers. This has resulted in greater inequality within the smallholder sector in addition to the already existing economic disparity between estate and smallholder segments.

Introduction

Interests on the question of and the relationship between growth, distribution and inequality in agriculture and general economic development are not new. There is considerable evidence in the economics literature drawn from extensive empirical research over the past few decades that points to adverse effects of economic growth on the distribution of incomes (Kuznets, 1955; Kravis, 1960; Oshima, 1962; Adelman and Morris, 1973; Paukert, 1973; Chenery, et al.,

1974; Fields, 1980). While, in most cases, the findings suggested that the distribution of income worsens with development, at least in the early stages, with a reversal of this tendency in later stages some of them had reservations, among others, about whether the increase in inequality with economic growth was inevitable. Other findings of such studies include the correlation of certain factors with income inequality in the process of development which could plausibly be interpreted as causal.

Experiences in many developing countries, particularly in Asia and Southeast Asia, during the past decade, however, have indicated that growth, in the agricultural sector in particular, has been quite satisfactory, but the pattern of growth did not favour the small farmers and landless labourers. The process of polarization could not be stopped, and the lowest of rural households could not participate in the process of agricultural growth or share its benefits to any remarkable extent (Vyas, 1982).

It has been recognised that many factors were responsible for this polarization of rural income, hence inequality. Among others, the introduction of the 'green revolution' technology, the extent of direct government economic activity and the extent of political participation, viz-a-viz public policies, much bear much of the blame.

In Malaysia, agricultural and general economic development, over the past few decades, have indicated similar trends. Agricultural development has, in part, been characterised by dualism, the existence of growth and inequality and persistent poverty. During 1960 and 1980 periods, agriculture has maintained a reasonably respectable growth with average annual rates of growth in output at 4.8% and 6.0% respectively (Malaya, 1961; Malaysia, 1981). However, the agricultural growth has been accompanied by a persistently high incidence of poverty (Malaysia, 1981) and some extent of uneven distribution of agricultural and rural incomes (Ishak Shari and Jomo K.S., 1980).

In the efforts to stimulate growth and, at the same time, to enhance distribution or redistribution of incomes, there has been growing government intervention via active and direct public sector participation in the development of agriculture, specifically smallholder sector, and the implementation of public policies in support of agriculture. The government's endeavour to support smallholder agriculture has been seen largely through substantial allocations of public development expenditure for development of agricultural programmes and the fiscal as well as other measures. Assistance in

the form of agricultural incentives, viz. subsidies, price support and credits, among others, has been a common feature.

Bearing in mind the above, this paper examines the nature and implications of agricultural incentive policies in the smallholder sector in the context of, viz-a-viz reviewing , the impact of, and the relationship between, growth and distribution as a result of agricultural incentives and the facilities in the development of smallholder agriculture. It is hoped that this paper will deepen the interest in the dimensions of agriculture and public policy in the process of agricultural development, particularly for the smallholders and peasantry.

Agriculture and Public Policy

Before proceeding to discuss the impact and implications of incentive policies in agriculture on growth and distribution in the smallholder agricultural sector, it is of implicit relevance to examine the status of the agricultural sector and public policy, viz-a-viz public sector involvement, in the development of agriculture. This will provide the background to the objectives and intentions of government policies and programmes necessitating the provision of agricultural incentives as instruments of public policy in stimulating growth and enhancing distribution in the agricultural sector.

Malaysian agriculture is basically dualistic comprising of the commercial, large-scale and relatively capital intensive estate sub-sector, and traditional small-scale sub-sector. Within the former, there is a further division between the government-organised smallholders, such as those in land development schemes, and the estates.

Estate-type agriculture accounts for about 30% of the total cultivated area in Malaysia and concentrates primarily on a few commercial crops like rubber, oil palm, and on a smaller scale, coconut, cocoa, tea and pineapple. The smallholdings, operated by approximately 670,000 small farmers and accounting for about two-thirds of the agricultural land, also produce estate-type crops, in addition to padi as a major activity. Land development schemes, concentrating mainly in the production of rubber, oil palm, and recently, cocoa, constitute about 10% of the agricultural acreage, largely in Peninsular Malaysia.

Rubber, oil palm, rice and coconuts are the principal crops of Malaysia, together covering more than 90% of the cultivated area. Although there has been emphasis on diversification, for example, to cocoa, coffee and tobacco, the four principal crops is still predominant, and this will persist for some time. However, the relative

importance of each of the four crops has shifted considerably through the years. The share of the area planted with rubber has steadily declined, though it still remains by far the most widespread crop,[1] as compared to that of oil palm which has significantly increased.[2] Similarly, coconut and other miscellaneous crops declined or showed small changes only, whilst the cultivated acreage in rice has increased with the expansion of double-cropping. Cocoa, although emerged fairly recently, has since become an increasingly important export crop.[3]

Growth in output has been significant to the development in agriculture. The total rubber and palm oil production had increased from 825,000 and 144,000 tonnes respectively in 1965 to 1,528,000 and 2,033,000 tonnes respectively in 1979. Significant increases in production resulted mainly from growth in yields, among others, made possible through technological advances in research and development. In rice, growth in terms of the average annual rate of increase in per unit yield, however, has not been as significant, averaging only about 1.6% and 2.8% per annum for the main and off season crops respectively for the 1955-76 period (M. Tamin, 1982).

After the cultivation of crops, important agricultural related activities are forestry and fishing. Forestry has been significant in terms of land-use and contribution to export earnings. Peninsular Malaysia has about 8.3 million hectares of forest, almost two-thirds of its total area; Sabah and Sarawak together have 15.7 million hectares, almost four-fifths, of their area. Production has been mainly for exports — primarily in the forms of saw logs as well as sawn and processed timber, including plywood, and its contribution to export earnings is ranked third next to rubber and oil palm (Malaysia, 1981). Fishing, on the other hand, being one of the traditional rural activities, has been significant in terms of employment. At the beginning of the 1980s, the fishing industry directly supported about 90,500 fishermen of which the West Coast of Peninsular Malaysia accounts for about

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[1]Structurally, the rubber sub-sector has changed significantly with the area under estates having declined from 753,000 hectares in 1965 to 507,000 hectares in 1980, mainly as a result of a switch from rubber to oil palm; whereas the area belonging to smallholders has increased from 1,000,000 hectares to 1,200 hectares during the same period.

[2]There has been rapid expansion in planted area in oil palm from a mere 122,000 hectares in 1965 to 880,000 hectares in 1980 representing more than 6.2 fold increase.

[3]Between 1970 and 1980, the area under cocoa had increased from 7,400 to 38,000 hectares, representing on eight fold increase.

55%, the East Coast has 29%, and the remaining 16% in Sabah and Sarawak. The production has been for export, in the case of fresh 'high grade' fish, and for domestic consumption. Between 15 to 20% of domestic fish consumption came from imports in the late 1970s, especially in the off-fishing seasons (E.K. Fisk and H. Osman Rani (Eds.), 1982).

Taken together with forestry, fishing and animal husbandry, agriculture has been the basic industry of Malaysia. It is also the main foundation of Malaysia's economy and society and carries economic, social and political importance. In 1980, the agricultural sector's contribution to the Gross Domestic Product (GDP) in constant 1970 prices was 22.2% (Malaysia, 1981). Export earnings from agriculture, comprising agricultural products, timber, fish and livestock, accounted for about 43% in 1980 (Bank Negara, 1981). During the 1960s and 1970s, the growth rate of agriculture has averaged over 5%, due largely to rapid expansion in land development, the adoption of high yielding varieties and the use of modern inputs, and the doubling of rice production through double-cropping. In 1980, agriculture, forestry and fishing employed about 41% of the country's labour force and has been the major source of employment (Malaysia, 1981). However, it is rather unfortunate that the agricultural sector also accounts for the highest incidence of poverty, accounting for 46.1% for all households in 1980 as compared to other sectors of the economy whose incidence ranged from 14 to 34%. Within the agricultural sector, the largest group in poverty are the fishermen (55.3%), padi farmers (55.1%), rubber smallholders (41.3%), and coconut smallholders (38.9%) (see Table I). In general, about 66.6% of poverty households were within the agricultural sector (Malaysia, 1981).

The development of agriculture, particularly the smallholder sector, and the improvement of socio-economic status of the general rural population, has always been given heavy emphasis in development and economic policies. In fact in agriculture, the government's role has, all the time, been "supportive". This has been clearly evident from policies and strategies outlined in the country's five-year development plans which symbolises the government's endeavour to achieve the stated objectives of development policy. Distinct in the policy framework is the pursuit to reduce the high incidence of poverty, particularly in the agricultural (and rural) sector. The whole process requires accelerated growth and structural transformation of the economy along lines which emphasise, among others, the modernization of agriculture and effective policy as well as public sector interven-

Table I
Peninsular Malaysia:
Incidence of Poverty in Agricultural Sector

	1970		1975		1980	
	Incidence of Poverty (%)	Percentage among poor (%)	Incidence of Poverty (%)	Percentage among poor (%)	Incidence Poverty (%)	Percentage among poor (%)
Rubber Smallholders	64.7	28.6	59.0	28.0	41.3	26.4
Oil Palm Smallholders	30.3	0.3	9.1	0.1	7.8	0.3
Coconut Smallholders	52.8	2.1	50.9	2.1	38.9	2.0
Padi Farmers	88.1	15.6	77.0	13.7	55.1	12.5
Other Agriculture	91.8	16.0	78.8	14.9	64.1	16.6
Fishermen	73.2	3.5	63.0	3.1	45.3	2.9
Estate Workers	40.0	7.5	47.0	7.1	35.2	5.9
Total	68.3	73.6	63.0	69.0	46.1	66.6

Source: Malaysia, (1981).

Note:

1. The calculations took into consideration the effects of programmes implemented during 1971-80 as well as changes in other factors, such as prices and costs.
2. Data from studies conducted by Economic Planning Unit and Socio-Economic Research Unit in Prime Minister's Department, Ministry of Agriculture, Department of Statistics and other agencies were used in the computations.

tion in the process of growth to maximise desired effects on distribution.

The main thrust of public policy (and public sector intervention) in agriculture has been directed to the peasantry and smallholder sector. They are specifically aimed at increased farm productivity and economic prosperity of the farming community through extensive irrigation schemes for rice farmers, new land development programmes for landless farmers and labourers, and substantial support programme for *in situ* development of agriculture. A very large proportion of the country's resources has been used in direct support of this policy. Under the Fourth Malaysia Plan (1981-85), agriculture and rural development has been allocated with $8.3 billion, i.e., 21.3% of total development budget, not to mention the equally substantial actual expenditures of $1.1 billion (26%), $1.79 billion (24%) and $4.6 billion (22%) during the First (1966-70), Second (1971-75), and Third (1976-80) Malaysia Plan, respectively.

The rationale underlying public policy and active public sector involvement in agriculture, particularly the smallholder sector, involves economic, social and political considerations. Economically,

agriculture provides livelihood for nearly half of the country's working population and still contributes significantly to the GDP and foreign exchange earnings. The socio-political considerations arise from the fact that agriculture is primarily an indigenous sector. Morever, the agricultural sector, or, at least, the peasantry and smallholder components, such as fishing, padi, coconut and rubber smallholders, has always been economically backward relative to the more advanced agricultural sector and the non-agricultural sector.[4] Also, and rather unfortunate, the smallholder sector is beset with many inherent and complex socio-economic problems, among others, including a high incidence of poverty. This, directly or indirectly, contributes to make the sector depressed or deprived when compared to other sectors in the economy. As the indigenous population, and the Malays being the majority in particular, are politically dominant, but constitute the majority of the poor in the country, it is imperative that the formation of any policy for agricultural (and rural) development must give as much attention to the effect of its policies on the welfare of the smallholders as to the effects on the general level of economic activity of the country as a whole. In other word, it is a political (and social) necessity that the development policy in agriculture should manifestly be to the advantage of the farming population in the smallholding or peasant sector, at least uplifting their income levels and improve their welfare.

Conceptually, public policy and public sector involvement in agriculture emanates from the Federal Government and the respective State governments. The major areas of policy actions include intensification, that is enhancing the productivity of existing land holdings through the application of new technology, improved planting materials, fertilizers, better irrigation, pest and disease control; extensification, that is extending the area of land in production by bringing new land under cultivation; and diversification, by increasing the range of products produced through the introduction of wider cultivation of new crops, or by increasing the value added

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[4]The peasantry and smallholder agricultural sector of the economy suffers, by comparison with other sectors, from both a lower income per head and an income which is more variable over time. The low and varying income are due primarily to their poor productivity arising from many interrelated factors. They include uneconomic size of farm units, price fluctuations of export and major crops, traditional and inefficient farm practices, lack of new knowledge and skills, and inadequate access to modern inputs such as credits, fertilizers, pesticides, improved planting materials, marketing and processing.

to processing before export, thus increasing opportunities for rural wage employment.

System of Agricultural Incentives

The system of agricultural incentives in Malaysia exists at two levels. At one level, there are the trade and other taxes, officially regulated prices, credit policies, general extension services, and public infrastructure which are the result of decisions implemented by the Federal government. At the second level, specialised public institutions operating in the agricultural sector, and entrusted with the responsibilities or directly concerned with the development of agriculture, frequently intervene between the Federal government and the farmer to influence output and input prices, grant credit on favourable terms, provide subsidies in the form of cash or goods and services, and otherwise affect the environment within which the farmer operates (Harcharan, S.K. et al, 1979).

The most important instruments of public policy affecting the incentive structure of agriculture are subsidies on inputs and output, taxes on imports and other direct and indirect taxes,[5] agricultural credit, guaranteed minimum prices (GMP) for agricultural products, and the provision of drainage and irrigation as well as other agricultural facilities and services, including extension, research and marketing, all of these affecting, primarily, the smallholder sector. They, directly and indirectly, helped to provide essential development inputs and a wide range of other agricultural services towards upgrading and improvement of income and productivity in traditionally padi-growing and other smallholder areas, including rubber, oil palm, coconut, tobacco, pineapple, and government smallholder schemes.

Acknowledging the fact that poverty and low productivity among the smallholders has been associated more with low technology, slow modernization due to low capital investment, inadequate access to modern inputs, including credits, and inadequate institutional support, the provision of various incentives in agriculture directly related to crop production would encourage positive response to improved output and productivity. These relevant incentives, in

[5]Taxes as instruments affecting incentive structure in agriculture include, for example, export duties on principal agricultural exports, including oil cake and other residues resulting from the extraction of vegetable oils, such as that of oil palm nuts or kernels and coconut (copra); tariffs on principal agricultural imports, such as tobacco (manufactured and unmanufactured), rice, pineapple and synthetic rubber latex; and tariffs on imported inputs into the agricultural sector, such as fertilizer, pesticides, insecticides, agricultural machinery, tractors, trailers, etc.

addition to agricultural facilities and services, include, particularly, subsidies and credits. Table II indicates the magnitude of agricultural subsidies, reflecting, in part, the heavy commitment and the 'supportive' role of the government in the development of smallholder agriculture. The allocation of agricultural credits, primarily through Bank Pertanian, for various agricultural purposes is given in Table III.

Table II
Subsidy Allocation in Agriculture on Selected Activities in Peninsular Malaysia, 1976-81*

Types of Subsidies	1976	1977	1978	1979	1980	1981
Seed farms and seeding nursery	137,134	168,032	289,003	439,736	515,450	1,000,000
Group farming and agricultural production	2,380,110	2,839,144	4,151,350	4,761,654	5,387,404	5,000,000
Farm mechanization facilities and services	1,756,472	1,386,202	3,168,578	5,248,551	3,617,092	500,000
Agriculture input subsidy	—	—	—	26,792,798	99,884,850	n.a.
Input Subsidy/Crop diversification	4,570,112	6,377,249	16,849,350	15,002,997	12,964,384	n.a.
Coconut replanting/rehabilitation	4,138,909	5,050,259	6,620,546	7,073,065	9,314,926	9,622,000
Financial assistance to fishing industry	1,030,685	1,156,595	13,273,250	11,065,134	18,058,606	17,484,238
Rubber replanting	28,642,497	21,480,307	28,520,960	48,369,163	93,626,010	78,340,000
Pineapple replanting	2,303,424	2,364,942	2,201,115	1,833,460	n.a.	1,489,859
Rice subsidy	—	—	—	—	110,603,000	n.a.
Total	44,959,343	40,922,730	76,074,152	120,586,558	453,971,722	113,436,097

Source: Budget Division, Ministry of Finance, 1981.

Note: *It does not include subsidies provide for livestock and other agricultural activities of lesser significance.
n.a. not available.

Table III
Loan/Credits Approved According Type, 1975-79
($'000)

Type of Lending/ Credits	1975	1976	1977	1978	1979
Padi Production	26,303	28,462	27,768	16,336	21,064
Tobacco Production and marketing	9,101	8,705	18,353	24,032	39,127
Equipment	903	593	1,579	1,836	1,687
Other crops	322	829	832	2,151	6,718
Livestock	335	76	522	493	7,022
Fishery	220	896	1,756	2,793	3,299
Agribusiness	999	5,007	5,749	2,793	3,299
Pineapple Credit	—	48	50	114	—
Total	38,183	44,616	56,600	53,257	83,550

Source: Bank Pertanian, Annual Reports (various issues).

The allocation and distribution of agricultural incentives cover a wide range of activities from *in situ* development and replanting/ rehabilitation to diversification and group farming. The categories of smallholders include the crop sub-sector, i.e., rubber, padi, coconut, pineapple, pepper, tobacco, etc. and fishing as well as livestock sub-sectors. However, what is immediately apparent is the different rate of support and subsidy provided to different areas of activities and to different groups of beneficiaries. Table IV, for instance, indicated the differential rate of support and subsidy for smallholder replanting which, in effect, involves primarily input subsidies such as planting materials, fertilizers, pesticides, etc.

The provision of agricultural incentive facilities to the smallholders involved, primarily, public sector participation via a large number of Ministries and agencies, both at the Federal and State levels.[6] An indication of the Federal public sector's involvement in the provision of agricultural facilities and services is shown in Table IV. It follows that, in addition to the wide range of facilities and services, i.e., research, extension, subsidies, credit, inputs and marketing, there are also specific incentive facilities made available to different agricultural commodities. These facilities were provided mainly through various development programmes in agriculture, including, among others, replanting programmes for rubber, replanting and rehabilitation programmes for coconut, double-cropping of rice, agricultural credits for production, marketing and equipment, support services for *in situ* development of agriculture, and price supports, etc.

The provision of input subsidies has been very significant. It covers technical advice, contract services, replanting grants, and supply of essential inputs such as fertilizers, pesticides, planting materials and chemicals, irrigation and drainage. These inputs are either directly subsidised or were supplied on more favourable terms than would have been possible without public sector, viz. government intervention.

Related to the subsidies on inputs is the provision of efficient credit facilities, at low interest rates, which ranged from production credits

[6]The Federal public sector's participation involves primarily four main Ministries — Agriculture, Primary Industries, Land and Regional Development, and Rural and National Development — which, apart the government Departments under them, have statutory bodies including several land development agencies such as FELDA and FELCRA and regional development authorities. The state public sector involvement, however, is mainly through State Economic Development Corporations, State Land Development Boards and State Agricultural Development Corporations.

Table IV

Smallholder Replanting Subsidy for Rubber and Other Crops, 1982

($ per hectare)

Crops / Payments*	Rubber	Coconuts	Oil Palm	Padi	Cocoa	Pepper	Clove and Nutmegs	Sugar cane	Ginger	Orange, Pineapple and tea	Orchid	Fodder
First	1,581.47 (1,235.53)	1,482.63 (1,235.53)	1,482.63 (1,235.53)	1,235.53 (988.42)	1,729.74 (1,482.63)	1,729.74 (1,482.63)	1,235.53 (988.42)	1,729.74 (1,482.63)	1,729.74 (1,482.63)	1,729.74 (1,482.63)	1,729.74 (1,482.63)	1,729.74 (1,482.63)
Second	889.58 (494.21)	617.76 (494.21)	1,112.17 (864.87)	988.42 (741.32)	741.32 (494.21)	1,235.53 (988.42)	617.76 (494.21)	988.42 (741.32)	1,235.53 (988.42)	741.32 (494.21)	1,559.11 (988.42)	1,236.53 (988.42)
Third	617.76 (494.21)	617.76 (494.21)	741.32 (617.76)	741.32 (741.32)	617.76 (494.21)	370.66 (247.11)	617.76 (494.21)	988.42 (741.32)	741.32 (494.21)	617.76 (494.21)	617.76 (494.21)	741.32 (494.21)
Fourth	617.76 (494.21)	494.21 (370.66)	370.66 (247.21)	741.32 (494.21)	617.76 (494.21)	370.66 (247.11)	617.76 (494.21)	—	—	617.76 (494.21)	—	—
Fifth	617.76 (370.66)	494.21 (370.66)	—	—	—	—	617.76 (494.21)	—	—	—	—	—
Sixth	617.76 (370.66)	—	—	—	—	—	—	—	—	—	—	—
Seventh	494.21 (247.11)	—	—	—	—	—	—	—	—	—	—	—
Total	5,436.30 (3,706.59)	3,706.57 (2,965.27)	3,706.78 (2,965.27)	3,706.59 (2,965.27)	3,706.58 (2,965.26)	3,706.49 (2,965.27)	3,706.57 (2,965.26)	3,706.58 (2,965.27)	3,786.59 (2,965.26)	3,706.58 (2,965.26)	3,706.61 (2,965.26)	3,709.59 (2,965.26)

Source: RISDA

Note:

*Provision and payments are given on instalment basis.

The figures in brackets indicated the amount of replanting subsidy provided for smallholders having holdings more than 4.05 hectares as against those with holdings less than 4.05 hectares.

to those for agribusiness. The former includes purchase and supply of inputs and agricultural equipment, whereas the latter concerns credits to industries dependent on agricultural sector as the primary markets for produce of the industry and those dependent on agriculture as a source of raw materials. These facilities have greatly helped to relieve farmers of financial burden and constraints resulting from rising production costs of modern farm inputs and application of new technology in efforts to modernise and promote diversification in agriculture and to encourage agro-based industries.

Another significant incentive facility is subsidies on output. They are provided specifically through price support policy where farmers were given a guaranteed price for their output regardless of the prevailing market price. This is applied primarily to rice[7] — for which it had long been used in the effort to encourage the production of the country's staple food — and to some extent, to rubber through government intervention in the market as a buyer when prices were particularly low.

The above incentive structure and policies have been complemented by considerable development of physical infrastructure and other socio-economic amenities in the agricultural (and rural) sector. They in general, have provided the peasantry and smallholders with effective protection and incentives to continue the production of the wide range of crops in the efforts to encourage diversification, modernization and growth in smallholder agriculture.

Structural Change and Growth

An important development accompanying incentive policies and greater public sector involvement in agriculture has been the gradual modernization and transformation of considerable parts of the traditional and smallholder sub-sector. Particularly in irrigated rice, and also in rubber, coconut and oil palm, the incentive policies and facilities has enabled the extension of better infrastructure and services, significant technological improvement with the use of high-yielding materials, and improved husbandry and processing and marketing to much of the smallholder sector.

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[7]It takes the form of a guaranteed minimum price (GMP) which is based on per picul of clean dry padi delivered at the mill door. Over the years, since it was first introduced in 1949, GMP has been increasing from $15 per picul in 1949 to $16 in 1960s, $28 in 1970s and $30 since 1980. The GMP is, in effect, a subsidy, the costs of which are borne by the entire urban as well as rice purchasing rural population.

One noteworthy change is in the construction of large-scale irrigation projects like the Muda and Kemubu schemes. As an incentive facility, the irrigation and drainage facilities has brought about one of the most rapid and remarkable economic transformation and structural change in the small-scale peasant agriculture. It made possible the irrigation of about 95,908.7 hectares and 57,464.3 hectares of traditionally rain-fed land, respectively in Muda and Kemubu areas. This resulted in the double-cropping of padi for more than 60,000 farm families following the 'seed-water-fertilizer revolution' involving increased use of fertilizers and crop protection chemicals, institutional credit and input subsidies, high-yielding rice varieties of short-term maturity, supply and management of irrigation water, etc., all of which representing the incentive facilities to rice producers.

Another area of remarkable transformation was in land development, including rehabilitation and consolidation of agricultural land, through incentive facilities provided for replanting, rehabilitation of existing cultivated areas and government-organised schemes. These programmes have been significant in terms of public development expenditure and land utilization. They concentrated primarily on tree-crop agriculture, viz. rubber, oil plam, coconut and cocoa.

Land development under FELDA and other related agencies, such as FELCRA and RISDA etc., particularly the former, have extended beyond agricultural technology to group organization. This included management inputs, and raising the efficiency and productivity of the smallholdings affected to the general level of many estates. In fact, the FELDA land development schemes being fully financed by Federal funds and concentrating mainly in rubber, oil palm and, recently, cocoa have been organised along the estate agricultural and production pattern in terms of management and provision of services and facilities to combine the efficiency of a capitalised plantation system with small-scale individual ownership of holdings. This provided the affected smallholdings with economies of scale, both in the cultivation and processing of the crop; thus contributing to the substantial increase in output. In other cases, i.e., those land development schemes organized and managed by Federal and state agencies other than FELDA and being on a smaller scale as well as partially subsidised by the Federal government, they concentrated mainly on rehabilitation, extension and consolidation of existing holdings. Technology and access to capital were improved through various incentive facilities, including replanting/new planting and rehabilitation subsidies,

agricultural extension services, etc., whilst the organizational and management aspects to a certain extent, were largely unaffected (E.K. Fisk and H. Osman Rani, 1982). Gradual modernization and structural transformation in other traditional and smallholder subsectors, particularly coconut, was also observed. This change, brought about mainly through incentive facilities such as input subsidies on fertilizers, pesticides and planting materials, extension, and credit on favourable terms provided through *in situ* agricultural development and government's programmes for replanting and land rehabilitation, has enabled not only technological improvements and improved husbandry, but also intercropping and diversification in existing agricultural areas.

Concomitant with modernization and structural transformation, over the last decade, smallholder agriculture has made significant progress both in total output and in output per unit of land or labour, especially in rubber, coconuts, oil palm and padi. Much of the increases in the rate of growth in output has been attributed to incentive structure and policies in the efforts by the government to improve productivity in existing agricultural areas. In addition, there has been improved access to technology and capital, and improvement in husbandry, processing and marketing. Programmes for replanting, land rehabilitation and land development have also helped. Other forms of assistance and incentives include extension services, subsidies, inputs, etc. All these have enhanced productive efficiency. An indication of increases in output and productivity of smallholder production is shown in Table V.

Significant increases in output has been observed in rubber smallholdings outside the land development schemes. The growth in output during the 1960-80 period has been at an average annual rate of more than 5%. This was accompanied by improvement in yields due mainly to replanting programmes which makes it mandatory for smallholders to replant with high yielding planting materials. From a mere 437 kg/ha obtained in 1960, the yield had increased by more than two fold to some 1107 kg/ha in 1980 (Mohd. Nor Abdullah, 1982).

Likewise, the large-scale drainage and irrigation projects has contributed to considerable yield improvement by padi farmers in the areas affected. The yield obtained in the major padi producing areas such as Muda, Kemubu and Besut, increased from an average of 1080 gantang/ha in 1970 to 1634 gantang/ha in 1980 (Mohd. Nor Abdullah, 1982). Over the same period, rice output rose at an average

Table V

Government Agencies Involved in Provision of Incentive Facilities
(By Subsector, Crop and Type of Facility)

Subsectors / Type of Facilities	Crop Subsector						Fisheries
	Rubber	Oil Palm	Padi	Pineapple	Tobacco	Other Crops	Subsectors
SUBSIDIES							
— Input Subsidies	RISDA		DOA, LPP			DOA, RISDA, LPP	DOF, MAJUIKAN
— Price Support			LPN				
CREDIT							
— Short Term	RISDA, FELDA, FELCRA		BPM, LPP	BPM	MTN, BPM	BPM, LPP, RISDA	BPM, MAJUIKAN
— Medium & Long Term	RISDA, FELDA,		BPM, LPP	BPM	MTN, BPM	BPM, LPP	BPM, MAJUIKAN
INPUTS							
— Seeds/Breeding	RISDA, FELDA, FELCRA	FELDA, FELCRA	DOA, LPP	MPIB, LPP	MTN,	LPP, DOA	DOF, MAJUIKAN
— Stock	FELCRA						
— Fertilisers	RISDA, FELDA, FELCRA	FELCRA	LPP	MPIB, LPP	MTN, LPP		
— Chemicals	RISDA, FELDA, FELCRA	FELCRA	LPP	MPIB, LPP	MTN, LPP	LPP	DOF
— Irrigation	JPT	JPT	JPT	JPT			
— Farm Power	RISDA, FELDA, FELCRA	FELDA, FELCRA	LPP, DOA			LPP, DOA	
EXTENSION							
— To Farmers	RISDA		DOA, LPP	MPIB, DOA, LPP	MTN	DOA, RISDA, LPP	DOF
— Training Farmers	RISDA		DOA, LPP	DOA	MTN	DOA, RISDA	DOF
— Training Operative Staff	RISDA		DOA, LPP	DOA		DOA	
MARKETING							
— Processing	MARDEC, RISDA	PORIM	LPN	MPIB	MTN, LPP	FAMA, LPP	FAMA, MAJUIKAN
— Grading			LPN		MTN, LPP	FAMA	
— Transportation			LPN			FAMA, LPP	
— Storage			LPN				
— Promotion							
— Pricing			LPN				
— Regulatory		PORIM, PORLA	LPN				
RESEARCH							
— Technical	RRI, MARRDB	PORIM	MARDI	MARDI	MTN	MARDI	MARDI, DOF, (FRI)
— Economic	RRI, RISDA	PORIM	MARDI, DOA	MARDI	MTN	MARDI, DOA	MARDI, DOF MAJUIKAN
— Social	RRI, RISDA		MARDI, DOA	MARDI	MTN	MARDI, DOA	MARDI, DOF, MAJUIKAN
— Marketing	MARDEC, RISDA	PORIM	MARDI, LPN	MARDI, FAMA	MTN		MARDI, FAMA, MAJUIKAN

Source: Ministry of Agriculture.

Note:
The above does not include private agencies, Regional Development Agencies, such as MADA, KADA, KETENGAH, KEJORA, etc., and State Development Agencies.

of about 4% a year due substantially to the increase in the proportion of rice land that is double-cropped from a negligible level in 1960 to 56% in 1980.

Positive impact of incentive policies on improved output and yield has also been recorded for many other smallholder crops, particularly coconut. This performance has been the result of a combination of a higher proportion of acreage being replanted through subsidies with high-yielding MAWA variety: this new variety has yields two to three times those of the traditional 'tall varieties'. Rehabilitation and intercropping, primarily with cocoa,[8] have also helped increase in the yields of existing coconut stands. In the case of other crops, the increases in output and yields have been the result of diversification through the provision of credit and subsidy facilities, and extension.

The structural change and growth in smallholder agriculture has increased the share of the national crop production capacity of the smallholders. This seems to be the case of, particularly, rubber where the share of the smallholder sector in the total national production has increased from 48.9% in 1970 to about 60% in 1980.[9] Smallholders are now responsible for cultivating a major share of the country's agricultural land, ranging from 44.3% for oil palm to 70.2% for rubber and 93.1% for coconut. This increasing trend in smallholding acreage, in addition to the acceleration of large-scale new land development schemes which has also been concentrating on tree-crop agriculture, implies a continuing significance of the smallholder sector in the economy.

Income Distribution and Poverty

The problem of poverty in Malaysia has been viewed essentially as a rural (agricultural) problem with its incidence being more widespread and concentrated among the peasantry and smallholders. Its prevalence cuts across both racial and regional lines although its incidence is more concentrated and widespread among the Malays (Jaafar Muhamad and Abdul Shukur Ariffin (Eds.), 1983). A general

[8]The suitability of cocoa as an intercrop with coconut has stimulated interest in growing it as a monocrop. Between 1970 and 1980, there has been rapid expansion of cocoa cultivation and the acreage has increased from 7,400 to 38,000 hectares resulting in an output of 32,000 tonnes of cocoa beans in 1980, representing an eight-fold increase.

[9]Structurally, this is due to a decline of rubber acreage under estates from 753,000 hectares in 1965 to 507,000 hectares in 1980 mainly as a result of a swithc from rubber to oil palm, whereas the acreage under smallholdings has increased from 1 million to 1.2 million hectares in 1980.

common cause of poverty has been low productivity, small and inadequate size of holdings and inaccessibility to capital and technology.

The existence of poverty in the rural (agricultural) sector has been widespread since the 1950s. The thrust of government policies in the mid-1950s toward rural infrastructure to improve the living conditions in rural areas and the provision of land to the rural poor to raise the productivity of small-scale farmers in the 1960s have shown little progress in the reduction of poverty.[10] It was estimated that 49% of households in Peninsular Malaysia in 1970 had incomes below the poverty line — the income required to provide basic nutritional and other non-food requirement — and that 86% of those households were in rural areas (Kevin Young, et al. (Eds.), 1980). However, over the last decade, the incidence of poverty in the agricultural (and rural) sector has been indicated to decline from 68.3% in 1970 to 46.1% in 1980[11] (see Table IV), reflecting, in part, improvements in output and farm productivity and the relatively favourable agricultural prices during the latter half of the 1970s.

The declining incidence of poverty amongst the agricultural (and rural) households, reflecting significant improvements in income levels of most of the smallholders, is in response to and because of the intensive development efforts carried out by the government and a strong political committment to programmes for eradicating poverty. Accordingly, incentive structure and policies for replanting, land rehabilitation and land development for export crops, extensive irrigation programmes for double-cropping of rice, and assistance, among others, in the forms of input subsidies and fertilizers, pesticides and planting materials, have been very significant in the attainment of higher agricultural and rural incomes.

Income improvements were observed among the rubber smallholders, padi farmers, and other smallholder groups. It has been indicated that the mean monthly income of rubber smallholders, constituting the largest identifiable group of farmers in Peninsular

[10]It has, in fact, been claimed on the basis of a comparison of data for 1957 and 1970 that the distribution of income worsened and the absolute incomes of the poor substantially declined. See for example E.L.H. Lee, "rural Poverty in West Malaysia, 1957 and 1970", in *Poverty and Landless in Rural Asia,* Geneva, ILO, 1977. Other arguements showed uncertainty in deterioration of incomes of the poor in the 1960s, but there was no evidence to suggest that they have increased.

[11]Within the components of the agricultural sector, the incidence among the rubber smallholders fell from 64.7% to 41.3% padi farmers from 88.1% to 55.1%, coconut smallholders from 52.8% to 38.9% and fishermen from 73.2% to 45.3%.

Malaysia and accounting for about 400,000 households of which 234,000 were considered to be in poverty, had increased from $228 in early 1970s to $450 in late 1970s. For padi farmers, constituting the second largest agricultural group in Peninsular Malaysia and accounting for about 150,000 households[12] of which about 77% were considered to be in poverty, the increase was from $110 in 1970 to above $154 in 1979;[13] while in the case of fishermen the increase was from $90 in 1972 to some $200 in 1979 (Mohd. Nor Abdullah, 1982). The income levels of most other smallholder groups, i.e., coconut smallholders and other categories of rural households, likewise, have also improved However, income improvements amongst these groups were only marginal ranging from $100 to $200 over the same period.

The most spectacular improvement in income, however, has been among the smallholder-settlers in land development schemes,

Table VI
Growth of Agricultural Output in Malaysia, 1971-80
(1975 = 100)

Crops	1970	1971	1976	1977	1978	1979	1980
Rubber	85.9	89.6	111.3	109.2	108.7	108.3	108.3
Palm Oil	34.3	46.8	110.5	128.2	141.9	173.8	205.9
Sawlogs	92.5	94.2	136.7	148.2	147.6	140.1	128.6
Padi	83.4	90.2	101.8	95.0	71.6	104.8	111.5
Pepper	94.9	84.1	113.8	85.0	94.9	n.a.	107.2
Fish	62.6	67.2	109.3	131.1	145.1	157.7	159.3
Livestock[1]	77.1	81.5	103.8	103.9	109.6	91.0	95.6
Miscellaneous[2]	79.5	91.0	120.7	123.6	124.7	132.6	138.2
Aggregate Production Index	75.9	81.5	116.1	120.5	121.9	128.7	133.3

Source: Malaysia, (1981).

Note:

1. Includes beef of buffalo and oxen, mutton, pork, poultry meat and eggs.
2. Includes sago, tapioca, cocoa, coffee, sugar cane, groundnuts, maize, fresh fruits, tobacco, tea, spices, food crops and other minor crops.

[12]This is based on households and those farmers who plant more than 75% of their cultivated acreage in rice, excluding those households who were involved in rice farming but at the same time also grow other crops.

[13]In the extensive Muda irrigation scheme, it has been estimated that, over a period of a decade (1965-75), the padi farmers enjoyed a 2.4 fold increase in household income (in real terms), originating almost entirely from padi production. See S. Jegatheesan, The Green Revolution and the Muda Irrigation Scheme: Some Implications for Productivity, Income Distribution and Reform Policy", Muda Agricultural Development Authority, Monograph No. 30, March, 1977.

particularly those in FELDA schemes. They received between $490 to $810 per month in 1979 compared with incomes of between only $80 to $120 per month from their previous occupations (Mohd. Nor Abdullah, 1982). As shown in Table IV, the nett monthly income for FELDA settlers indicated an average of $426 for settlers in the rubber schemes and $679 for the oil palm schemes. As a whole, settlers in the oil palm schemes were observed to have received higher incomes. The substantially higher income levels among the FELDA settlers have been anticipated, particularly, with improvement in management, greater accessibility to subsidies, capital and technology, and the concentration on the more viable crops. The better incomes from such land development schemes has been higher than that for the average rural Malay households.

Table VII
Average Monthly Income Among FELDA Settlers

Year	Nett Settler Income ($)	
	Rubber Schemes	Oil Palm Schemes
1976	340	514
1977	370	573
1978	398	804
1979	482	831
1980	472	709
1981	492	643
Average	426	679

Source: Jamalludin Lamin, (1982).

The overall contribution to increasing incomes, hence poverty redressal in the agricultural (and rural) sector, in part, came from the increse in employment. The employment growth has been an important source of poverty alleviation. Particularly in the 1970s, the wider adoption of double-cropping in rice, rapid progress in new land development, and the general improvement of the agricultural sector, has created considerable and greater employment opportunities. The expansion in double-cropping of rice, and the extensive irrigation in the rice sector as a whole, has considerably reduced seasonal unemployment and underemployment in the rice sector; while in land development schemes, an ownership of an economic-size holding enable productive employment. Similarly, in the case of the progress in coconut and other smallholder activities, through replanting, land rehabilitation, and diversification, there has been reasonable growth

in productive employment. All these provide a capacity to earn a better and higher income.

Although the rate of growth of agricultural output has been high with an average annual growth rate of over 5%, and there are indications that incomes amongst the agricultural households are generally increasing, the growth of real agricultural income during the last two decades had increased in the range of 2 to 3% a year. The per capital real incomes of smallholders were at least 25% higher in the late 1970s than in 1970, reflecting in part the payoff of past policies and incentive programmes in agriculture. Despite the apparent success of the policies of the government for small-scale agriculture, the income disparity between the traditional agricultural sector and the rest of the economy in Peninsular Malaysia widened, i.e., from about 1 : 2 in 1960 to more than 1 : 3 in 1970 (Kevin Young, et. al. (Eds.), 1980). The incidence of poverty among the smallholding segments, at the same time, despite significant decreases, also remained persistently high.

Distribution Effects and Equity Implications

Progress in agricultural development, particularly in the smallholder sector, during the last decade, has been quite remarkable. There has been substantial increase in farm productivity and total output and, likewise, significant progress has been achieved in improvement in income among the smallholders. However, the effectiveness of the incentive policies and general development programmes in agriculture towards attaining productivity and income objectives vary considerably, depending, for example, among others, on the rate of agricultural incentives and public support provided.

It has been apparent that there are specific incentive facilities and services being made available to different agricultural commodities (see Table V). The rate of public support and subsidies as well as the allocation of public development expenditure to the various smallholder components and development programmes in the agricultural sector,[14] also differs between activities and groups of beneficiaries (Table IV). Directly or indirectly, this differential rate in the allocation and distribution of support and subsidy has generated

[14]For a discussion on the allocation and distribution of public development expenditure for various agricultural programmes, see Zulkigy Hj. Mustapha, "Public Sector Investments in Malaysian Smallholder Agriculture: Issues and Implications", Occasional Paper, No. 23, Fakulti Ekonomi, UKM, 1983 (forthcoming).

some extent of disparity, both economic and regional, within the various components of the smallholder sector. It adds a new dimension to the structure of growth and equity in the agricultural sector in that it created economic disparity both between the estate and smallholding segments, which was already prevailing, and within the latter.

Although smallholder agriculture has made significant progress both in total output and in output per unit of land or labour and achieved respectable average annual growth rate in agricultural output, i.e., over 5% a year, reflecting, in part, the enhancement of productive efficiency through incentive structure and policies, it has been observed that the degree in improvements of yields and output varies from region and between activities as well as within the same activity. For example, despite apparent success in output growth and yield improvement in rice, whose total production in Peninsular Malaysia at 1.1 million tonnes in 1980 was twice that of 1960, the performance varies considerably between the main producing regions. Output and yield per hectare has been markedly higher in the West Coast and in irrigated areas than on the East Coast in unirrigated areas respectively (Ishak Shari and Jomo K.S., 1980). While accepting the fact that this is partly due to several factors, viz. soils, climatic and locational problems, and differential rate in the adoption of technology, it cannot be denied also that the varying rate of incentive facilities and service, including public support and subsidy, has been a significant, if not the main, contributing factor.

It has been argued that the introduction of large-scale irrigation projects, particularly in Muda and Kemubu areas, enabled the double-cropping of rice on some 95,000 hectares and 30,000 hectares respectively and made possible the use fo new and modern technology, including short-term-maturity rice varieties with increased fertilizer use, cropping intensity and the adoption of mechanized farming; thus stimulating growth in output and yield only in these areas. With only 56% of the total rice acreage under double-cropping, the single-cropped rice producing areas, representing the remainder 44%, served by smaller irrigation projects and receiving lesser rate of support and subsidy, have lagged behind, among others, in output and yield. This has impeded growth in these area and, as a result, it created economic disparity within the rice sector. It has implications on equity as substantial percentage of padi farmers, particular those under single-cropping, has yet to share the benefits of such policy and facilities and services. This, if it persists, will tend to create adverse economic,

social and political consequences when there still prevails a high incidence of poverty and the persistence of depressed incomes among the rice farmers, of whom 95% are Malays whose support the ruling party claims.

On the other hand, the relatively high rate of double-cropping in the Muda and Kemubu regions, the former being the traditional 'rice-bowl' area, has helped in the economic distribution as these areas have been previously poor and lesser developed. The beneficiaries include about 65,000 farm households with approximately 400,000 persons. However, as the rice sector supports the livelihood of about 300,000 households, and in as much as all rice farmers, including those in single-cropping and unirrigated regions, stand to gain from increased output and yield, efforts to increase output and improve yield as well as the provision of incentive facilities, including drainage and irrigation facilities, should be effectively and efficiently extended to areas outside the double-cropping regions for greater distribution.

Similar patterns of growth was observed in smallholder rubber and oil palm where total output and productivity indicated variations not only between the government-organised smallholders, such as in new land development schemes, and the independent unorganised smallholders, but also within the former. Again, this reflects the discriminatory allocation and distribution of incentive facilities and public support in addition to agronomic and related problems, technology and access to capital and management inputs.

The smallholders in the FELDA land development schemes, having access to better technology and capital and management inputs, have had higher output and productivity compared to other smallholders, including those in new and similar land development schemes other than FELDA, who were on a smaller scale and receiving a much lower rate of public support and subsidy as well as other incentive facilities. The number of households benefitted from the FELDA shemes has been about 62,000 and presumably not any higher from other government-organised smallholder schemes. This represents a small percentage in relation to the number of agricultural households below the poverty line — more than half a million, and those still having very small holdings, continuing lack of access to production facilities and services, and low productivity. Knowing that there is still a larger proportion of rural population and farming communities needing economic improvement, there is a great demand for land development programmes and a need for improved incentive facilities and greater public support for smallholders outside land

development schemes. Efforts to design development programmes for smallholders, thus, should continue with a view to spreading the benefits of development more widely.

While improvement of yields, among others, through irrigation, replanting, land development, better inputs and farming practices, and the apparent increases in the rate of growth of output have contributed significantly to the attainment of higher incomes amongst smallholder farming communities, the gains, however, again, varies from region to region and between activities as well as within the same activity.

As mentioned earlier, the most remarkable improvement in rural income has been amongst the smallholders in large-scale land developments, particularly that of FELDA's. They received substantially higher income well above the average agricultural or rural households compared to their counterparts in other such land development schemes operated by the Federal and State agencies, or the independent unorganised smallholders. This achievement reflects the benefits of access to incentive facilities and the higher rate of growth of output and productivity and, in part, due to the favourable process of agricultural commodities over the last decade and the economies of scale in land development areas. Consciously or otherwise, this has created a relatively, at least, between smallholders in government-organised schemes and other categories of smallholders. At the same time, by virtue of crop variation in land development schemes, indicating differential rate of returns, there also prevails another dimension in income inequality, that is, amongst the smallholder-settlers when those in oil palm scheme were found to be better-off. It has created a greater demand for land under FELDA schemes, especially in the oil palm schemes; thus perpetuating a divergence and inequality in incomes.

The benefits of improvements in income among rice farmers also indicated similar pattern. While increases in incomes of rice farmers in the West coast and in irrigated areas is far from impressive, reflecting the income disparty in rice farming. It has been estimated that the groups of rice farmers in the latter generally saw marginal change in their incomes, while for the latter the increase has been doubled. In addition to regional variations, inequality in income also exists within the affected regions, especially between large and small or non-landowning groups. In most instances, with the patterns of ownership and operation of padi land being unevenly distributed, and the majority of padi farmers only owning and operating small-size

holding,[15] the income benefits accrued has been more to the advantage of large land-owning farmers. Studies by Lai Kok Chew (1977), Jegatheesan S. (1977), Gibbon, et. al., (1978), Ishak Shari and Jomo K.S. (1980), etc., have indicated that income distribution among rice farmers, apart from variations, have worsened and becoming more unequal, among others, as a result of the introduction of new technology and subsidies, viz-a-viz incentive facilities.

This apparent economic disparity and regional variations in growth and income benefits reflecting, in part, the differential rate of public support and incentive facilities to different areas of agricultural activities and groups of beneficiaries indicates some extent of inefficiency in the allocation and distribution of resources when viewed in the context resources utilization. In addition, with the incidence of poverty remaining high in the rural and agricultural sector, and there still exists large parts of the smallholder sector where little has been achieved, particularly in food crops, the prevailing gaps in income inequality and divergence in income benefits among the various categories of smallholders, if they persist, will contribute to adverse economic consequences. It will impede growth and development, at least, in some parts of the agricultural sector.

Conclusion

Agricultural incentives and public sector involvement in smallholder sector, in general, have contributed significantly to overall growth and economic development in smallholder agriculture. Within the framework of the overall national policy, the increases in total output and improvement in incomes had accelerated the distribution of income to smallholder agriculture where the incidence of poverty is highest; hence contributing to equity. However, by virtue of prevailing differential rate in allocation and distribution of incentive facilities between areas of agricultural activities and groups of beneficiaries, it has created a divergence and inequality in income distribution. This has brought about a new dimension in the agricultural sector, viz-a-viz dividing the smallholder component between the middle-class and poor farmers. Consciously or otherwise, this resulted in greater inequality within the smallholder sector in addition to the already existing economic disparity between the estate and smallholder segments.

[15]Using the 1960 Agricultural Census as a guide, it has been estimated that the average size of rice farms ranges from less than 1 hectare in Melaka and Kemubu to 1.7 hectares in Tanjung Karang and Muda areas. Generally, however, the size of the average rice farm was only about 1.4 hectares.

It is often argued that such development, as observed to be leading to income polarisation both between and within sectors as well as sub-sectors of agriculture, is neither an efficient nor an equitable policy. However, in the light of economic, social and political importance of agriculture, particularly the smallholder sector, and that the ultimate aim of agricultural development is to increase farm productivity and improve the income of farming communities as widely as possible, agricultural incentive facilities, primarily subsidies, through public sector participation will continue to be essential to guarantee considerable growth and development in agriculture.

Acronyms and Abbreviations

BPM	=	Bank Pertanian Malaysia
DOA	=	Department of Agriculture
DOF	=	Department of Fisheries
FAMA	=	Federal Agricultural Marketing Authority
FELCRA	=	National Land Rehabilitation and Consolidation Authority
FELDA	=	Federal Land Development Authority
JPT (DID)	=	Department of Irrigation and Drainage
LPN	=	National Padi and Rice Board
LPP (FOA)	=	Farmers Organisation Authority
MAJUIKAN	=	Fisheries Development Authority
MARDEC	=	Malaysian Rubber Exchange and Licensing Board
MARDI	=	Malaysian Agricultural Research and Development Institute
MRRDB	=	Malaysian Rubber Research and Development Board
PORIM	=	Palm Oil Research Institute of Malaysia
PORLA	=	Palm Oil Registration and Licensing Authority
RRI	=	Rubber Research Institute

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