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Is Asian economic success built on 'surplus labour'? Are African economies 'labour-constrained'? Demography and industrialization in Southeast Asia and Sub-Saharan Africa, particularly Malaysia and Kenya

ABSTRACT

1. There is a perennially popular argument, inspired partly by the work of Caribbean economist W.A. Lewis on 'Economic development with unlimited supplies of labour', that industrialization in Asia has been possible thanks to the availability of cheap 'surplus labour' from an overpopulated countryside.

2. African economies, by the same argument, are 'labour-constrained' as a result of low rural population densities and the existence of an open agricultural frontier. This has often been said to explain the relatively high labour costs reported by industrial employers in Africa.

3. Ratios of population to arable land (regardless, however, of productivity) were generally much higher in Southeast Asia than in Africa around 1960, but are similar today due to Africa's more rapid population growth.

4. The available wage data (which are, however, of questionable quality) suggest that manufacturing labour costs were lower in Southeast Asia than in Africa around 1960, but that the Southeast Asian advantage shrunk after 1965 and disappeared around 1990. Labour scarcity cannot therefore account for the continuing weakness of African industrial growth today.

5. Although both the initial conditions and the subsequent movement of wage and population levels are broadly consistent with the labour surplus/constraint theory, the wage data can also be explained in other ways. Other factors include the initially heavy regulation and later (partial) deregulation of African labour markets. Southeast Asia has very free labour markets; in Malaysia, for example, there is no minimum wage legislation.

6. Contrary to the Lewis model, in which any improvement in rural living conditions threatens industrial growth, Southeast Asian industrialization coincided with rapidly declining rural poverty and with improvements in agricultural productivity which were not accompanied by reductions in demand for agricultural labour.

7. Contrary to the Lewis model, in which labour costs remain at subsistence level until the entire pool of 'surplus labour' is absorbed, manufacturing wages in Southeast Asia rose rapidly from an early stage of the industrialization process.

8. Africa is by far the poorest continent, and unemployment is said to be rife in African cities. If wages in African manufacturing industries are still high relative to African rural living standards, then simple logic suggests that the reasons for this are unlikely to lie in any absolute shortage of cheap labour.

9. The real explanations probably lie either in the segmentation of African labour markets - for example, by immobility, unionization, legislation, or educational disparities - or in urban-rural living cost disparities which are much wider than in Southeast Asia. Further research is needed on this topic.

10. Provisionally, efforts to make African labour more attractive to manufacturing employers should concentrate on deregulation, on education, and on policies designed to stabilize urban living costs and facilitate the location of factories in the countryside. Improvements in agricultural productivity and transport infrastructure are crucial here.

11. As far as the present day is concerned both the labour constraint argument itself, and the fatalism which this and other geographical or structural theories of African economic retardation entail, should be rejected.

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**Is Asian economic success built on 'surplus labour'?
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One of the most striking aspects of the modern developmental divergence between Africa and Asia is the virtual absence from Africa, comparatively speaking at least, of the kind of labour-intensive manufacturing activities - textiles, clothing, footwear, toys, electrical appliances, electronic goods - which since the 1970s have brought about a new and largely unanticipated type of industrial revolution in developing Asia. Malaysia alone, a nation of 26 millon people, now exports three times more manufactured goods, by value, than the whole of Sub-Saharan Africa, with its population of more than seven hundred million. Despite the fact that Malaysia is also a resource-rich country and a producer of oil, gas, palm oil, rubber and timber, since 1994 more than 70 percent of its exports have consisted of manufactures. Compare this with Kenya, a country with few natural resources which has made a serious attempt, by African standards, to follow the Asian example of export-oriented industrialization, but which has never managed to transform its economy in a similar way. Following the creation of official Export Processing Zones as springboards for exporting industry in 1990, the proportion of Kenyan exports consisting of manufactures rose briefly to a peak of 37 percent, only to slump thereafter to just over 20 percent. The contribution of manufacturing to total GDP, meanwhile, has barely climbed above 10 percent, compared to over 30 percent in Malaysia.

One common explanation for Africa's failure to attract or develop internationally competitive manufacturing industry is that whereas Asia, with its overcrowded countryside and masses of landless rural workers, has an almost inexhausible reserve of 'surplus labour' which can be employed at extremely low wages in industrial sweatshops, Africa, with its much lower population densities and its open frontiers of unused land, offers no such supply of people who have little choice but to accept low pay, long hours and harsh conditions as factory workers. The intercontinental 'comparative advantage' of Africa, in this view, lies inescapably in the export of primary products rather than manufactures.

> By comparison with other developing regions, Africa [...] has a comparative advantage in unprocessed primary products, whose input requirements - little skill and much land - match the region's distinctive combination of resources. It has too much land to have a comparative advantage in manufacturing (in contrast to Asia) [...]. (Wood and Mayer 2001:389.)

Assessing what Africa has to learn from the specific experience of Malaysia in the area of industrial policy, Chris Edwards (1995:254) doubts the relevance of the Malaysian model of export-oriented industrialization on the grounds that African countries lack Malaysia's crucial initial advantage of a cheap and abundant labour force.

> At the beginning of the 1970s, when Malaysia started its export drive from Export Processing Zones (EPZs), it had such a labour force available. The rice-producing and primary exporting (rubber, tin and oil palm) sectors provided a 'reserve army' of under-employed which, combined with anti-Trades Union action by the government and the widespread recruitment of women in the EPZs, ensured low real wage rates. (Edwards 1995:252.)

Recently, however, some have used the same logic to argue that the rapidly increasing density of rural population in coastal African countries such as Tanzania may soon help to tip the balance at last in favour of labour-intensive industrial development along Asian lines.

> By far the most dominant long-term growth potential relates to the combination of coastal location and labor surplus. [...] Translating growth into higher employment is important in light of the large labor surplus in agriculture and can be achieved through the use of market-friendly policies to attract lucrative labor-intensive private sector activity. (Mwase and Ndulu 2008:430.)

In this paper I attempt a very preliminary evaluation, with reference in particular to Malaysia and Kenya, but also to Indonesia and Nigeria, of the idea that Asian industrialization is based on 'surplus labour', and that Africa's failure to industrialize has had to do with its economies being 'labour-constrained'. The evaluation comprises: a look at some intercontinental demographic, geographical, and manufacturing wage statistics in relation to the basic premises on which the surplus labour theory is based; and an attempt to relate the labour cost data, albeit in a commonsense way without using statistical methods, both to the demographic situation and to other known or likely factors affecting wages and profitability in manufacturing industry. First, however, I will briefly sketch a little of the history and development of the surplus labour theory of industrialization.

'Economic development with unlimited supplies of labour': W.A. Lewis and his legacy

In the 1940s and 50s the Caribbean economist and later Nobel Prize winner William Arthur Lewis anticipated the orthodox development economics of the 1990s by arguing, in a very unorthodox way for his time, that the Caribbean countries should concentrate on labour-intensive, export-oriented industrialization, based initially on foreign direct investment (Girvan 2005). Industrialization, he proposed, was necessary because the land resources of the densely populated Caribbean islands were all but exhausted, so that new employment opportunities would have to be created outside agriculture. Given the small size of the countries and their domestic markets, the industry in question would have to be export-oriented. Since savings were low and domestic entrepreneurs knew little about manufacturing, foreign manufacturers would have to be brought in to set up factories producing goods for export to their home countries; later the resulting increase in national savings, combined with a learning process on the part of local entrepreneurs, would reduce the reliance on foreign capital. Labour-intensive industry, finally and most crucially, was the obvious area of comparative advantage in which to specialize because on Jamaica and many other Caribbean islands, rural overpopulation had created a pool of very cheap labour.

> In many economies an unlimited supply of labour is available at a subsistence wage. [...] The main sources from which workers come as economic development proceeds are subsistence agriculture, casual labour, petty trade, domestic service, wives and daughters in the household, and the increase of population. In most [...] of these sectors, if the country is overpopulated relatively to its natural resources, the marginal productivity of labour is negligible, zero, or even negative. (Lewis 1954:189.)

Although his ideas were initially developed in relation to the specific problems of the Caribbean, from an early stage Lewis also saw them as being relevant to developing Asia. It was actually when walking down a street in Bangkok, in August 1952, that Lewis conceived his formal model of 'economic development with unlimited supplies of labour', involving 'a dual (national or world) economy, where one part is a reservoir of cheap labour for the other' (Lewis 1980:4). And in the end it was of course Asia, much more than the Caribbean, which developed in something like the way Lewis had proposed. But he never intended his model to apply to Africa, which was much less densely populated and in parts of which he believed that far from being a labour surplus, there was 'an acute shortage of male labour' (Lewis 1954:140).

Lewis held that in overpopulated countries, industrialization on the basis of cheap, unskilled labour would not improve the living standards of the masses until such time as the rising industrial demand for labour absorbed the whole of the available surplus labour pool, whereupon wages would at last start to rise. This might take some time. He nevertheless recommended labour-intensive industrialization as a development strategy on the grounds that industrialist capitalists, who are at first its only beneficiaries, have a much higher propensity than peasant farmers to save and reinvest their profits, and that every additional piece of fixed capital they accumulate promotes further industrial growth and 'brings nearer the day when the demand for labour will catch up with the supply' (Lewis 1954:184).

It is interesting to note that in the Lewis model, any technological improvement in peasant agriculture under conditions of surplus labour poses a potential threat to the whole process of industrialization, capital accumulation, and economic development. Rising agricultural productivity is useful in so far as it means more cheap food with which to feed the growing industrial workforce. But if the price of food falls any less fast than production rises, then farmers will become better off, the 'reserve wage' at which industrial employers are able to recruit workers from the labour-surplus peasant economy will be increased, and industrial profits will suffer.

> Anything which raises the productivity of the subsistence sector (average per person) will raise real wages in the capitalist sector, and will therefore reduce the capitalist surplus and the rate of capital accumulation, unless it at the same time more than correspondingly moves the terms of trade against the subsistence sector. (Lewis 1954:172).

The profitability of export-oriented industry, in other words, depends on the continuing backwardness of foodcrop agriculture; industrial and agricultural progress, at least in the early stages of industrialization, are mutually incompatible.

> The main reason why tropical *commercial* produce is so cheap, in terms of the standard of living it affords, is the inefficiency of tropical *food* production per man. Practically all the benefit of increasing efficiency in export industries goes to the foreign consumer; whereas raising efficiency in subsistence food production would automatically make commercial produce dearer. (Lewis 1954:191.)

The incompatibility between agricultural modernization and industrial progress which is inherent in the surplus labour model will be important when we come to consider the empirical relevance of that model to what has happened over the last decades in Southeast Asia.

Ideas similar to those of Lewis became very popular among scholars of Southeast Asia in the 1960s and 70s under the influence of anthropologist Clifford Geertz and his 1963 book *Agricultural involution; The process of ecological change in Indonesia*. Geertz argued that the capitalist sector in colonial Java, albeit in the form of sugar factories rather than textile factories, had benefited from the low real wages resulting from overpopulation and underemployment in the peasant sector (Geertz 1963:56-58). Neither Geertz nor those inspired by his work, however, followed Lewis in seeing this demographic subsidy to industry as a long-term developmental asset. Nor did they foresee, with Lewis, the rapid migration of international manufacturing firms to the developing world.

The most detailed and influential recent expositions of the surplus labour theory of industrialization in developing countries are those of economist Massoud Karshenas, who in addition to his academic work on the relationship between industry and the agricultural sector in Asia and Africa (Karshenas 1995, 2001) has also written a substantial report on the same topic for the United Nations Conference on Trade and Development (Karshenas 1998). His work is more quantitatively and methodologically sophisticated than that of Lewis, but at its core, as Karshenas acknowledges, it boils down to the same basic proposition.

> Asian agriculture, given its high population density, by and large consists of highly differentiated peasant ownership structures, with a large part of the agricultural labour force taking the form of landless labourers or poor peasant farmers with the major part of their livelihood taking the form of wage income. Rural wages in these economies are well below the average product of labour. It was in fact in relation to these economies that the dual economy models, or the surplus labour economy models, of the 1950s and the 1960s were formulated (e.g., Lewis, 1954 [...]). (Karshenas 2001:323.)

Africa, by comparison, has less landlessness, and this means higher wages in both agriculture and industry, making its industrial development to a greater or lesser extent 'labour-constrained'.

> In the case of the Asian countries, the existence of an abundant supply of labour in agriculture allowed fast rates of industrial growth to take place at low and competitive wages. This also meant that, after a short period of learning and skill acquisition, the new industries in Asia could become competitive enough to export [...]. In the case of the sub-Saharan African economies, however, with a limited supply of labour and a relative abundance of cultivable land, the non-agricultural sectors faced relatively steep and high wage curves. This meant that, unlike Asia, most of the import substituting industries which were developed in the post-independence period could only be sustained under increasing protection. (Karshenas 2001:338.)

This immediately raises the question of whether the successful export industries of Southeast Asia really emerged from an infant development as protected import-substituting concerns, as Karshenas assumes; in my other paper for this conference, I argued that they did not. But the main proposition here is that the presence or absence of surplus labour, exactly as in the Lewis model, is crucial to the behaviour of wage levels, and hence to the profitability and competitiveness of industry in general, under conditions of incipient economic growth. Particularly illustrative of this effect, according to Karshenas, is the comparison between Nigeria and Indonesia.

> The two countries are oil-exporting economies of similar sizes, but with the difference that Indonesian agriculture has labour/land ratios which are three times those of Nigeria. [...] On the one hand, the oil boom of the 1970s, which led to a rapid growth of

> investment in the Nigerian economy, induced a substantial increase in real wages and an inflow of millions of immigrant labourers from neighbouring countries. On the other hand, the surplus labour economy of Indonesia, throughout a long period of rapid and sustained economic growth during the 1970s and the 1980s, has shown moderate increases in real wages and has remained a net labour-exporting country. (Karshenas 2001:326-327.)

In the remainder of this paper I will subject the assumptions of the labour surplus/constraint theory, so clearly summarized by Karshenas, to a brief critical examination, both on the basis of statistical comparisons and in the light of some commonsense observations on the conditions of labour markets in African and Southeast Asian countries.

Demography, geography, and labour costs in Africa and Southeast Asia: some figures

To begin with some crude demographic facts: there is no denying that population densities in Africa are on average lower than in Southeast Asia. Africa between the tropics is five times larger than Southeast Asia in terms of land area, yet in 1960 its population, at 220 million, was almost exactly the same as Southeast Asia's. On the other hand Africa's population has grown a lot faster than Southeast Asia's since 1960, and is now almost 40 percent larger. Actually this is an important subsidiary reason why in per capita terms, Africa's long-term economic performance looks so bad; if we take the aggregate rather than the per capita figures, Sub-Saharan Africa's GDP is now more than twice what it was in 1975, and its growth rate over the past decade has been as good as that of Southeast Asia in the 1970s. Nevertheless it remains true that the average population density in Sub-Saharan Africa as a whole is still only about a quarter of that in Southeast Asia.

The picture becomes more complicated if we look at individual countries. Nigeria was not much less densely populated than Indonesia even in 1960; since 1986 it has actually been more so, and today it is fully 30 percent more so. Malaysia is still more densely populated than Kenya, but only 25 percent more so. Of course these national figures do not take into consideration the strong geographical concentrations of the Indonesian and Malaysian population in Java and on the west coast of the Malay Peninsula, respectively; but then the internal distributions of the Nigerian and Kenyan populations are also far from even.

Part of the reason for the unevenness of the population distribution in Africa is that African environments are on the whole more problematic for agriculture than those of Southeast Asia, and large parts of most African countries are effectively unsuitable for farming, being either unoccupied or used only for extensive livestock grazing. If instead of considering total land areas we look specifically at the availability of arable land, we see that although the discrepancies between Southeast Asian and African countries were initially wide, they have become much narrower in recent decades. Kenya, for instance, had four times more arable land per inhabitant than Malaysia in 1960, but today it has only twice as much. More interesting still is what happens when we look at the ratio between arable land and the numbers of specifically rural inhabitants, excluding the urban population. On this measure Kenya, Malaysia and Indonesia have all now converged at an identical level of 500 rural dwellers per square kilometre of arable land, although Nigeria still has considerably fewer.

The quality and productivity of Africa's arable farmland, furthermore, is on average much lower than in Asia, and so by the same token is its ability to support the kind of people who in the Karshenas model push up industrial wages in Africa by choosing to work the land rather than work in factories. Less than one percent of Nigeria's cropland, for instance, is under irrigation, compared to twelve percent in Indonesia. Fertilizer use per hectare of arable land is more than 20 times higher in Malaysia than in Kenya, having increased by a factor of seven since 1965. In sum, if there was ever any truth in the assumption that Africa enjoys a higher ratio of agricultural resources to population than does Asia, as far as the present day is concerned, any such assumption would surely be misleading.

A second key assumption of the Lewis/Karshenas explanation for the failure of African industrialization is that industrial labour really is more expensive in Africa than in Asia. This is an extremely difficult topic for comparative statistical research, and the results of such research to date have been diverse and controversial; a useful overview of some studies comparing unit labour costs in African and Asian manufacturing is provided by Fukunishi (2004:10). Rather than attempt to blaze my own trail through this statistical minefield, I will proceed here on the basis of an extract from Karshenas' own comparative wage indices, as presented in his report for UNCTAD (Karshenas 1998:44). These figures were compiled by Karshenas from several sources including United Nations, World Bank, and Penn World Tables data bases, in ways which are not yet fully clear to me, but which were presumably consistent, and which certainly yield results which can be used to question as well as support the Lewis/Karshenas argument.

The most directly relevant of the figures given by Karshenas indicate 'consumption wages in international prices', for individual countries together with median figures for Africa and Asia, in the three periods 1965-1970, 1975-1980, and 1985-1990, using the Asian median figure for 1965-1970 (which has the value of 100 in the table) as a baseline for comparison, and not corrected for inflation. While these figures do indicate that manufacturing labour was much more expensive in Africa than in Asia in the late 1960s, they also show that by the late 1980s this discrepancy had all but disappeared due to rapid wage increases in Asia. Whereas in 1965-1970 the median African manufacturing wage was 80 percent higher than its Asian equivalent, in 1985-1990 it was only 12 percent higher. Comparing the national figures for Nigeria and Indonesia, the equivalent margin fell from 105 percent to 14 percent over the same period. In Malaysia, where in 1965-1970 the going wage was already three quarters of its Kenyan equivalent, in 1985-1990 it was 42 percent *higher* than in Kenya. Whatever caused the relatively unimpressive performance of the Kenyan Export Processing Zones after their initiation in 1990, then, it was almost certainly not, at least in any simple sense, wage bills that were excessive by Asian standards.

Alternative explanations for the initial Africa-Asia manufacturing wage disparity

Karshenas' own wage data, then, suggest that if low labour costs did give Southeast Asia an initial advantage over Africa when it came to industrialization, then that advantage shrunk after 1965 and disappeared around 1990. Labour scarcity cannot therefore help to account for the continuing weakness of African industrial growth today, almost two decades later. It cannot be denied that the closing of the wage gap between Africa and Asia between 1965 and 1990, given the changing balance between Africa's land and labour endowments over that period, is consistent with the predictions of the Lewis/Karshenas model. On this point too, however, some serious doubts about the applicability of that model need to be raised. A shortage of land relative to population is not the only possible explanation for Asia's initial wage advantage, and nor is African population growth the only possible explanation for the subsequent erosion of that advantage relative to Africa.

The most obvious alternative explanation is that in African countries the labour market, especially in the early post-independence period, has been artificially segmented in such a way that manufacturing workers earn systematically more than the poverty of their rural compatriots would permit under conditions of freer competition for jobs. Nigeria is a case in point. For political reasons, in the mid-twentieth century the Nigerian government repeatedly raised the wages of its own employees at rates which bore no relation to the growth of the economy as a whole. It also began to set minimum wages and favour the development of labour unions in other sectors. Since foreign companies and other large employers were in any case in the habit of matching pay settlements awarded by the government, this resulted in rapid wage inflation throughout the formal and urban sector. Bevan, Collier and Gunning (1999:121), comparing the development of the minimum wage paid by the government to unskilled workers with estimates of average national income growth, concludes that even assuming that in 1950 there was not yet any distortion, by 1965 wage earners in the privileged sectors were enjoying an income premium of 56 percent over other Nigerians. In subsequent years this premium was eroded by the deterioration of civil service finances, the inceasing ineffectiveness of legal wage regulations, and the declining power of the unions, until by 1981 it reportedly stood at around eight percent (Bevan, Collier and Gunning 1999:124). While these figures cannot explain the whole of Nigeria's early labour cost disadvantage relative to Indonesia as indicated by the Karshenas wage data, they are consistent both with the order of magnitude of that disadvantage, and with the improvement of Nigeria's labour cost position during the 1970s and 80s.

Kenya, too, has experienced marked political segmentation of its labour market (Bigsten and Collier 1995:208). Minimum wage legislation has existed in Kenya since independence (1963) and although imperfectly enforced, it has been partly effective in holding labour costs above market rates in the formal sector, particularly in large enterprises (Omolo and Omiti 2004). By contrast Indonesia had only a partial and haphazard system of regionally determined minimum wage regulations until 1989 (Agrawal 1995:16), while Malaysia, despite its in many respects exemplary attention to ensuring that economic growth benefits the poor as well as the rich, has never legislated any official minimum wage, in manufacturing or in any other sector. The power of organized labour to secure its own privileges is also greater in Kenya than in Malaysia or Indonesia. The Indonesian New Order (1966-1998) suppressed independent trade union activity almost completely, and even in democratic Malaysia, workers in the electronics industry have only been allowed to join in-house, not national, unions. The Kenyan government has also attempted to restrict union activity in export industries, but with less success: serious industrial unrest took place in Kenya's Export Processing Zones in 2003.

In refraining from setting a minimum wage, the aim of the Malaysian policy-makers has been to avoid suppressing economic growth and restricting overall employment expansion by granting premium wages to a privileged sector of the workforce, and thereby disadvantaging others. Statistical evidence from Ghana appears to confirm that minimum wage legislation not only reduces employment in the formal sector, but also reduces earnings in the informal sector - that is, among that part of the population which can least afford a reduction in income - due to the displacement of labour from formal into informal employment (Jones 1997).

Whether because of unionization, or strict conformity to wage legislation, or for other reasons, in general there is much evidence that large enterprises in Africa share more of their profits with their workforce than the supply price on the labour market would in itself necessitate (Teal 1996). Foreign-owned firms appear particularly inclined to pay their workers a systematic wage premium (Te Velde and Morrisey 2003). In Africa, wage levels in manufacturing appear to be correlated to an unusual degree with firm size: the more employees a firm has, the better it tends to pay them, even when they have no more skill or education than workers in smaller firms (Bigsten and Söderbom 2006:248-9). This may reflect particular difficulties in supervising and monitoring labour under relatively impersonal conditions, difficulties which large employers circumvent by offering their employees stronger financial incentives to work efficiently. It has been suggested that the supervision problem has to do either with the weakness of legal institutions for the enforcement of employment contracts, or with cultural characteristics of the tribal societies from which the African labour force is ultimately drawn (Fafchamps and Söderbom 2006:377).

Asian evidence, on the other hand, gives reason to be sceptical of both cultural and institutional arguments of this kind. Indonesia is notorious for the corruption and unreliability of its legal and administrative institutions, but this did not stop it from becoming part of the Asian economic miracle (Hofman, Rodrick-Jones and Thee 2004). The ethnic Malays who make up a large part of Malaysia's industrial workforce were long regarded by Europeans as a lazy, undisciplined people requiring intensive supervision if they were to work effectively in modern settings (Alatas 1977). But either the colonial stereotype was mistaken, or Malay behaviour quickly changed as economic development proceeded after independence.

A more promising line of inquiry might be to investigate whether the African combination of extreme rural poverty and only moderately low manufacturing wages does not simply reflect a particularly sharp difference in living costs between rural and urban areas. Lewis himself, noting that in practice 'there is usually a gap of 30 per cent or more between capitalist wages and subsistence earnings', explained this in terms of 'the higher cost of living in the capitalist sector', due in part to that sector being 'concentrated in congested towns, so that rents and transport costs are higher' (Lewis 1954:150). To this we may add the high and/or unstable cost of food in urban areas under African conditions of limited agricultural productivity, poor transport infrastructure, and weakly integrated markets. Although Karshenas states that his labour cost data indicate consumption wages at international prices, the conclusion that unexpectedly high African labour costs partly reflect rural/urban living cost disparities wider than in Asia would be in line with what I said in my first paper about agricultural development and 'rural bias' in Southeast Asia, as opposed to 'urban bias' in Africa. In Indonesia and Malaysia the Green Revolution (of which more shortly) served alongside price controls to keep food and other rural products affordable for urban consumers. At the same time, transport improvements and rural public spending began in the most populous and developed areas to break down the economic distinction between town and countryside entirely, with villagers commuting to and from city centres and textile factories rising among rural ricefields (McGee 1989, 1991).

Further reasons to doubt the surplus labour theory of Asian industrialization

If international wage cost comparisons are always dodgy, we are on stronger statistical ground when we look at chronological wage trends in individual countries. The surplus labour interpretation of Asian industrial growth would predicate such growth on the exploitation of 'unlimited supplies of labour' at low, static wages over long periods. But as we have already seen from the figures presented by Karshenas, wage rates in the industrializing Asian countries were not static. In Malaysia, in fact, other sources indicate that real wages in manufacturing rose fast and steadily almost from the very beginning of the export-oriented manufacturing boom of the 1970s, doubling between 1973 and 1985 (Mazumdar 1993:364, 370). By 1993, with a quarter of the whole national labour force working in manufacturing industry, there was talk of 'serious labour shortages' and concern that high wages would soon make Malaysian industrial products uncompetitive (World Bank 1995:i). This pattern, as John Drabble (2000:249) explicitly observes in his standard *Economic history of Malaysia*, 'did not fit the Lewis model of stability in the early stages of industrialisation'.

In Indonesia the situation was rather more complex. Manufacturing wages rose in the 1970s, but perhaps only as a result of increasing labour market segmentation; during the period of liberalization and growing industrial exports in the 1980s, wages in manufacturing remained 'relatively flat for an extended period', suggesting temporary conformity with the surplus labour model (Manning 1998:119, 131, 280). They started to rise steadily again at the end of that decade, however, prompting Manning (1998:132) to comment that 'contrary to popular opinion in Indonesia, labour-intensive growth is not inimical to wage increases'. Karshenas' observation that Indonesia continued to export labour throughout its period of sustained economic growth, whereas Nigeria attracted much immigrant labour during its own briefer oil boom, is not good evidence for a structural difference between the two countries with respect to surplus labour, for the simple reason that whereas Indonesia is mostly surrounded by much richer neighbours (Singapore, Malaysia, Australia), Nigeria's neighbours are, or were, even poorer than itself. It should also be noted that Malaysia did import more than a million of foreign workers in the 1970s and 80s, without preventing manufacturing wages from rising. The most obvious reason for this was that only three percent of the immigrants actually went to work in manufacturing, the vast majority of them finding employment in construction, plantation agriculture, and the service sector (Drabble 2000:249).

In the surplus labour model, as we have noted, any increase in the productivity and profitability of peasant agriculture, unless it also leads to an involuntary reduction in agricultural employment (or greatly reduces the price of food), endangers the process of labour-intensive industrialization by raising the 'reserve wage' paid by industrial employers. But almost everywhere in Southeast Asia, the industrial revolution was either preceded or acompanied by an agricultural revolution - the so-called Green Revolution - that increased the returns to agricultural labour without reducing the demand for it. In Indonesia, labour productivity in agriculture rose at an average of almost three percent per year between 1968 and 1992 (Fuglie 2004:222). And because the new crop technologies called for additional labour inputs in the application of fertilizers and pesticides, involved little mechanization, and were largely neutral with respect to farm size, they raised the incomes of farmers without augmenting the surplus labour pool by pushing labour out of agriculture (Booth 1988:179-89; Manning 1998:89-91).

Instead, the Green Revolution spearheaded a general boom in the rural economy, including its non-agricultural sectors: trade, transport, construction, handicraft industry, and informal sector services (Mellor 1995:325-329). Together with the rise of formal-sector manufacturing industry, in Java this all but eliminated rural underemployment and greatly reduced the use of wage labour in agriculture (Manning 1998:91). Even in the most densely populated parts of Java, *shortages* of agricultural labour as a result of *competition* from off-farm employment were already apparent in the 1980s (Preston 1989). Teenage Javanese girls who worked in factories increasingly did so not in order to provide badly needed subsidies to the income of their parental households, but rather in defiance of their parents, who would rather have kept them at work in the fields or the home (Wolf 1992:171-8). In the 1990s, labour shortages in agriculture were also widely felt in Malaysia and the Philippines (Rigg 2001:102-21). The spectacular growth of non-agricultural employment opportunities in Malaysia, indeed, raised the opportunity costs of labour to such an extent that agricultural expansion on the forest fringe, where Asian farming takes its most 'African' forms, was halted and reversed (Vincent and Rozali 2005:124, 173, 369; Angelsen 1995:1718). All this confirms that if manufacturing wages are still at competitive levels in Southeast Asia, the reasons have nothing to do with a 'labour squeeze' in agriculture.

If the economy of Java (the outer islands of Indonesia are a different story) was not labour-abundant, there can at least be little doubt that it was land-constrained. In the 1970s, between 30 and 40 per cent of all rural households on Java had no land of their own (Manning 1998: 46); in Kenya at the same period, by comparison, the figure was just over 20 percent (Bigsten and Collier 1995:227). In other parts of Southeast Asia, however, it was no more true to say that land was a tight constraint than it was to say that labour was available in unlimited quantities. In Thailand, agricultural growth from 1945 until about 1980 was dominated not by intensification but by a massive areal expansion (Siamwalla 1995). During this period there was a steady increase not only in the total amount of land under cultivation, but also in the cultivated area per agricultural worker. Yet by the time the agricultural frontier began to close at the beginning of the 1980s and the land area per farm worker started to decline, industrialization was already well under way, with manufactured goods making up more than half of Thailand's exports. At the end of the 1980s, by which time three quarters of exports were manufactures, the proportion of rural workers without land of their own was still less than 15 percent. Thailand's land-abundant pattern of agricultural growth in the late twentieth century was in fact directly comparable to that of many African countries, but clearly did not preclude dramatic industrialization on an export-oriented basis.

Perhaps the strongest reason to be sceptical of the labour surplus/constraint explanation for the Asia/Africa industrial divergence, however, is that it is against common sense. Southeast Asia is now twice as prosperous as Sub-Saharan Africa even in per capita average terms, and its more equitable distribution of wealth means that in terms of eradicating poverty its lead is greater still. It has been more than a generation, probably closer to two generations, since its poor were substantially poorer than the poor of Africa. Could cheap labour, then, really be the key to its success, and expensive labour the key to the economic retardation of Africa, by far the world's poorest continent? Could Kuala Lumpur, with its neat high-rise residential blocks and monorails, really be built on cheap labour, and Nairobi, with its corrugated iron shanty towns, held back by high labour costs?

Lagos is a huge delapidated metropolis of at least eight million people, full of garbage, slums, beggars, thieves, and a ragged, dogged informal sector on a scale I have never quite seen anywhere in Asia, not even in the still bigger city of Jakarta. Is it conceivable that the reason Lagos is not full of squeaky clean television and training shoe factories belonging to international companies is that in order to persuade the people of Lagos to work in them, the factory managers would have to pay them prohibitively high wages? And even in the unlikely event that this is true, is it conceivable that the ultimate reason why it is true, as Karshenas would effectively have us believe, is that if push comes to shove, too many Nigerians always have the option of retreating to cushier, more comfortable lives farming yams and sorghum in remote villages without hardened roads or electricity? If so, then what are all those millions doing in Lagos in the first place?

Occasionally the blatant contradiction between theory and statistics suggesting an African labour constraint, and everyday observations of an African labour surplus, is acknowledged in the literature. At one point Karshenas acknowledges it himself - only to dismiss it, somewhat uncomfortably, as an illusion caused by temporary urban economic crises.

> With the high rates of unemployment and underemployment of labour currently visible in urban centres in most sub-Saharan African economies, and the fast rates of population growth which are putting increasing pressure on fragile soils in African agriculture, to refer to these economies as labour-constrained economies may appear paradoxial. Labour constraints, however, are best highlighted in the context of resource requirements for sustained growth rather than the current state of employment in the crisis-ridden African urban economies. (Karshenas 2001:326.)

But urban unemployment is not a passing phenomenon in Africa; in many countries it has been notoriously high for decades. Kenyan government publications from the 1960s, for instance, already identify it as nothing less than 'Kenya's most pressing problem' (Fahnbulleh 2006:40). More convincing than the evasions of Karsehnas is the simple logic of Fukunishi Takahiro, who in his lucid report on *International competitiveness of manufacturing firms in Sub-Saharan Africa* reasons that if Karshenas was right about the effects of relative endowment of land to labour in Sub-Saharan Africa, then the unemployment rate among unskilled workers in Africa would automatically be low; and since this 'clearly is not consistent with the reality', the labour-constraint hypothesis can only be rejected (Fukunishi 2004:19).

Common sense and unprejudiced observation are useful when considering things from the Asian side, too. The image of labour-intensive, export-oriented industrialization conjured up by a reading of Lewis or Karshenas is one of grim sweatshops squeezing every last drop of profit out of the poverty-stricken overflow of the surplus labour pool, before sending them home to sleep in company barracks or private slums. There are some places in Asia which are indeed like that. But on the Malaysian island of Penang which I visited in February, manufacturing outpost of global electronics giants like Dell, Intel, and Motorola, you could be forgiven for not thinking so.

Penang's Free Industrial Zone, established in 1972, is the oldest and one of the most successful of Southeast Asia's planned concentrations of export-oriented manufacturing industry. Working conditions in the factories of Penang are certainly regimented, hours are often long, and there is no doubt much that does not meet European standards. But the workers do not live in barracks or slums. Most live in Singaporean-style high-rise flats with air conditioning and car parks, located not far from modern shopping malls, schools, and public health clinics. The most visible signs of poverty in Penang are a few surviving remnants of the old pre-Zone peasant and artisanal economies, such as a row of sagging fishermen's houses alongside the canal on the industrial estate. And the job vacancies advertised at the factory gates are obviously not for illiterate assembly line workers; they call for 'production technicians' with completed secondary schooling (including passes in maths and English) and a Malaysian standard tertiary technical training certificate. Again, not all Southeast Asian export industry is quite like this, and Penang itself used less skilled labour in the past than it does now. But neither has Southeast Asian industrial development simply been a matter of extracting profits from an inexhaustible supply of landless refugees from an impoverished countryside. Africans will not be inspired to imitate successful development strategies if they learn to regard those strategies as little more than new ways for the rich to exploit the poor.

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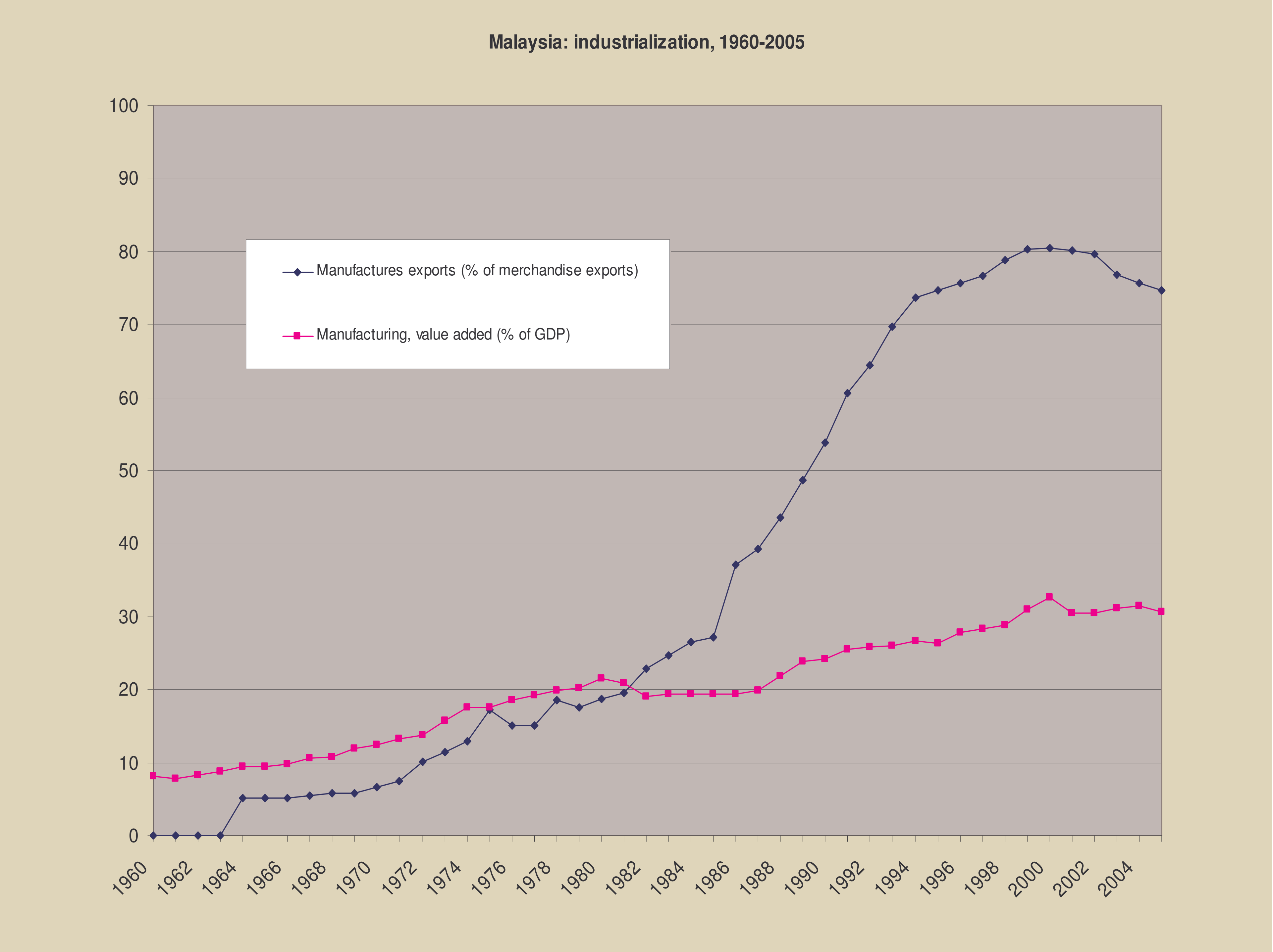
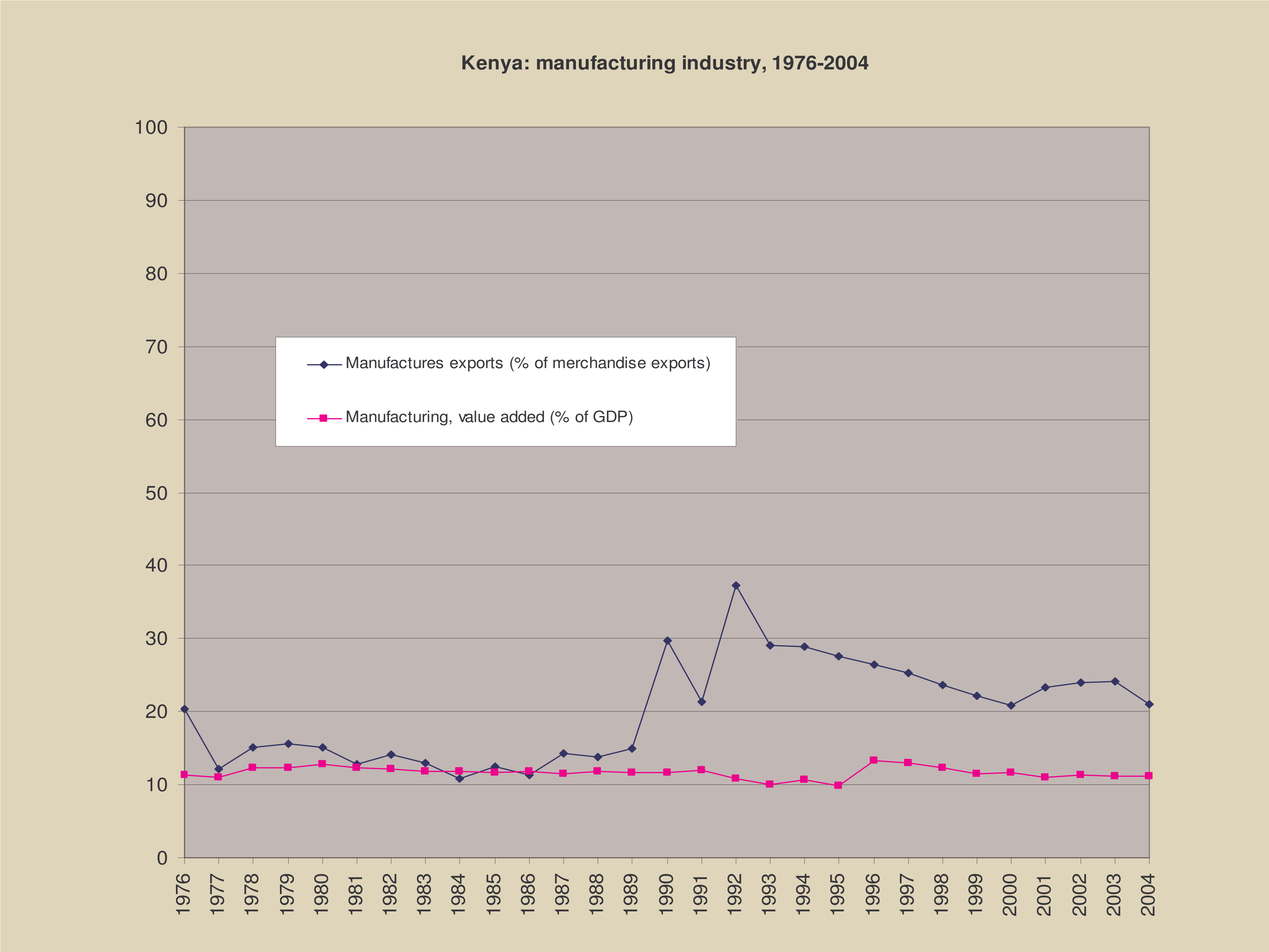
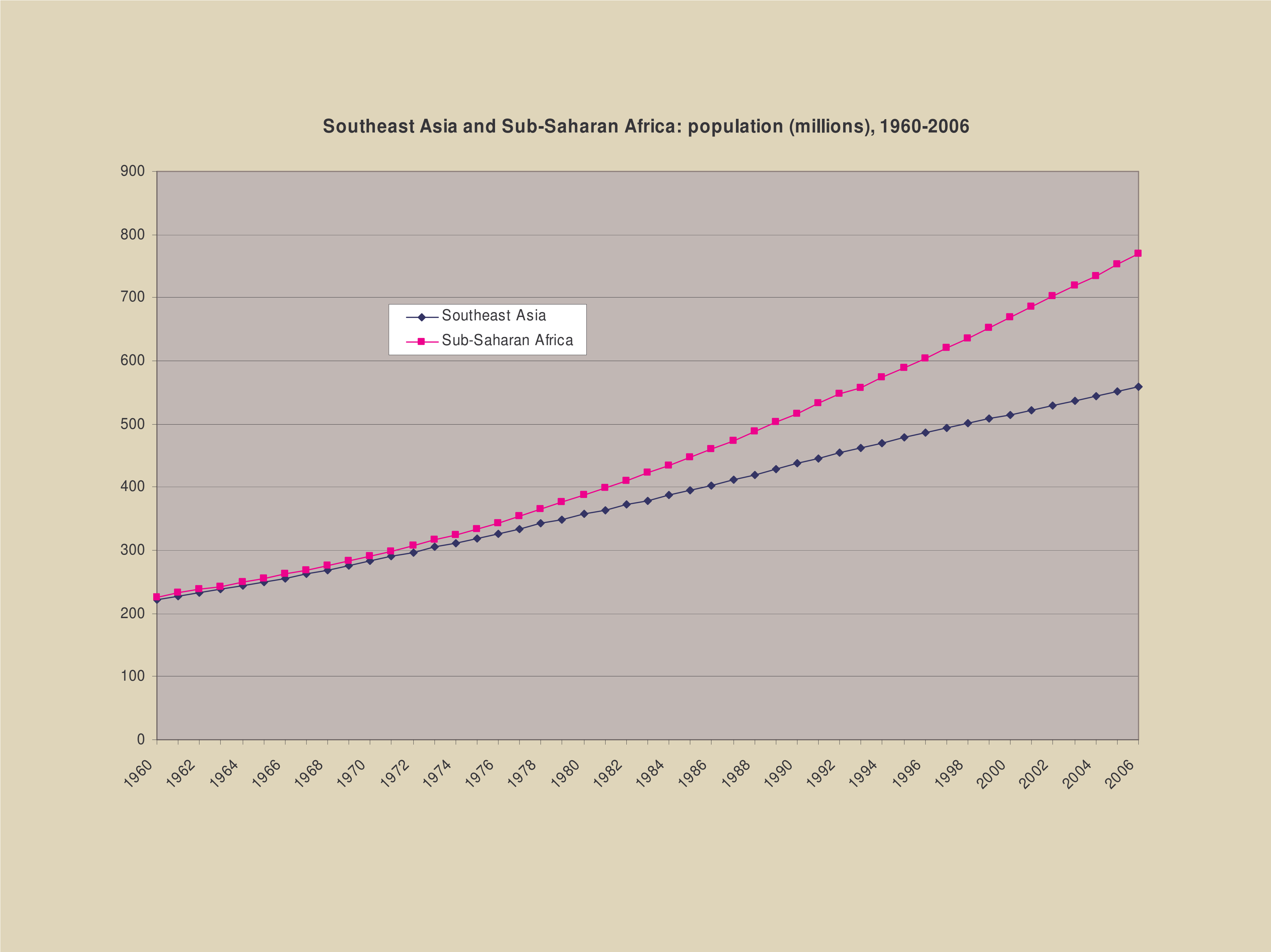
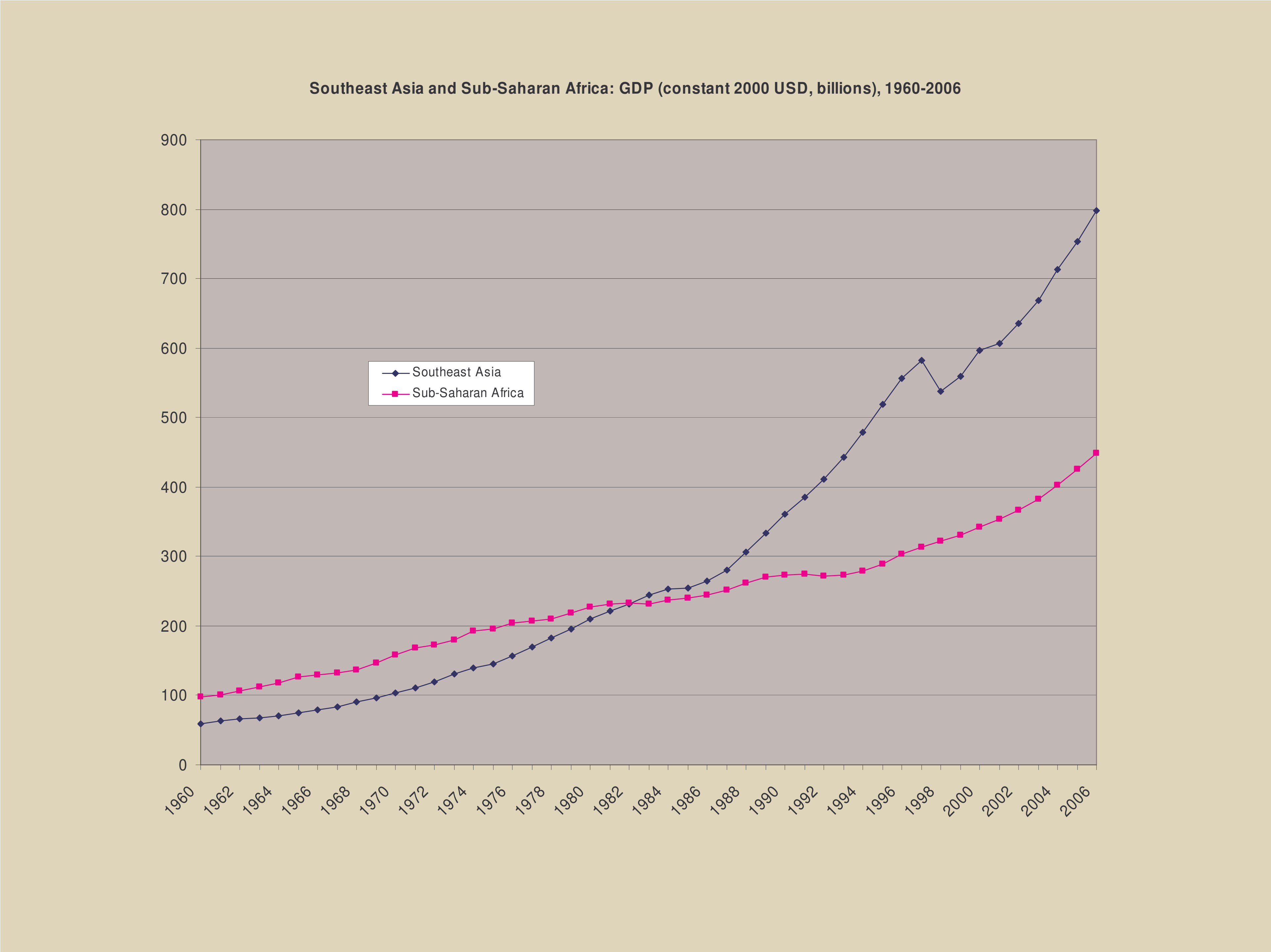


Malaysia: industrialization, 1960-2005
100
90
80
70
60
50
40
30
20
10
0
Manufactures exports (% of merchandise exports)
Manufacturing, value added (% of GDP)
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004

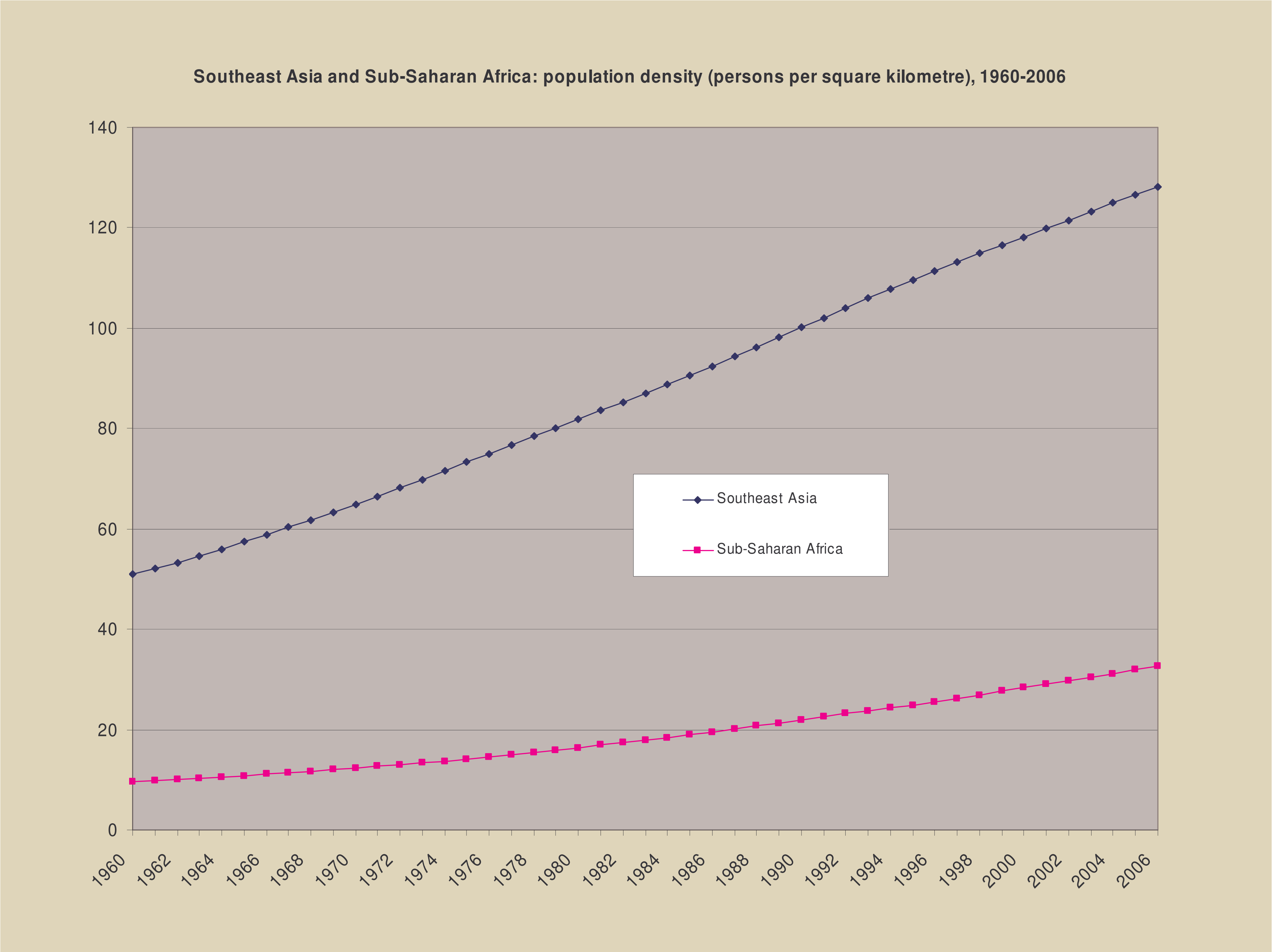

Kenya: manufacturing industry, 1976-2004
Manufactures exports (% of merchandise exports)
Manufacturing, value added (% of GDP)
100
90
80
70
60
50
40
30
20
10
0
1976
1977
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004

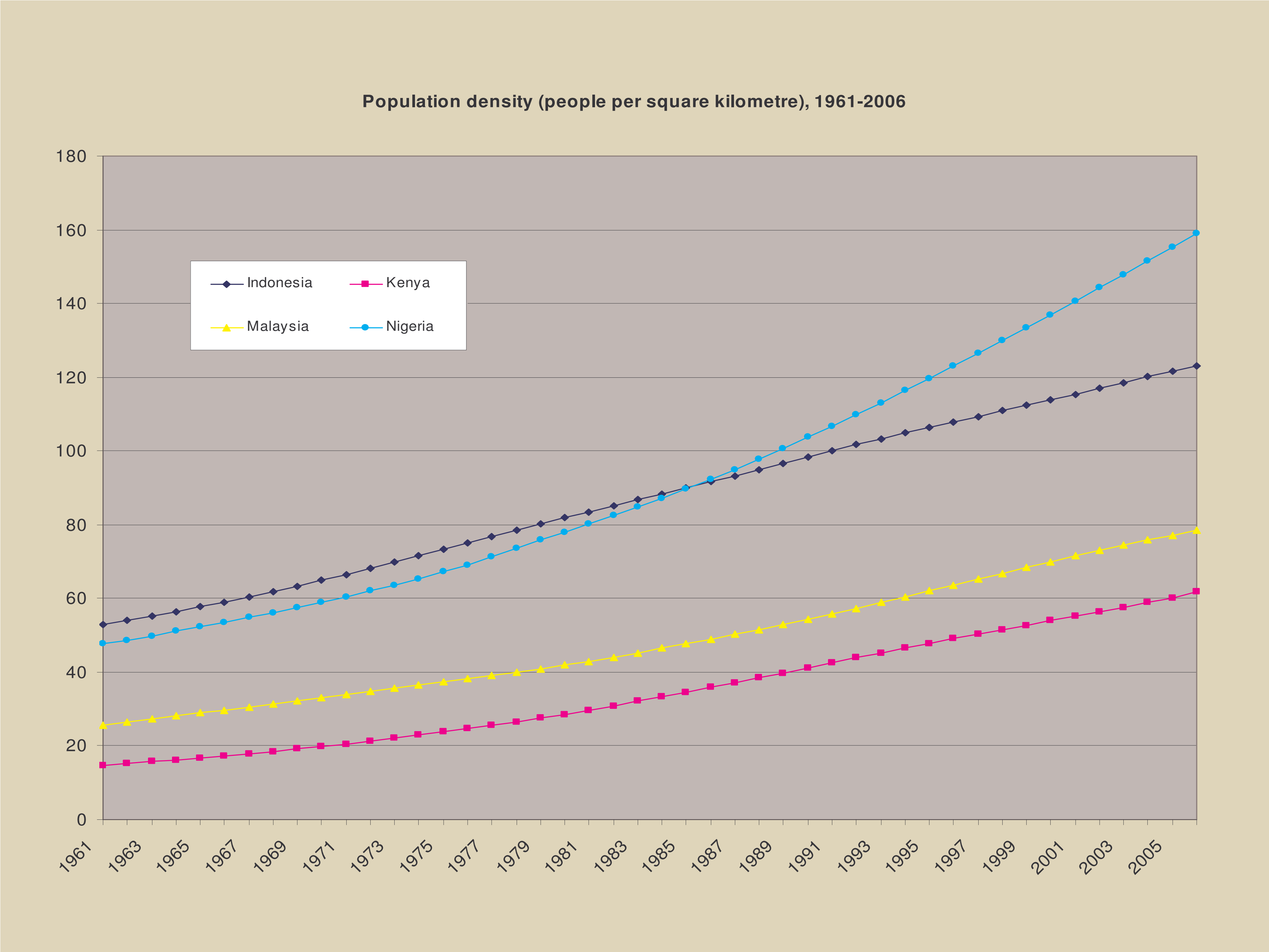

Southeast Asia and Sub-Saharan Africa: population (millions), 1960-2006
Southeast Asia
Sub-Saharan Africa
0
100
200
300
400
500
600
700
800
900
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006


Southeast Asia and Sub-Saharan Africa: GDP per capita (constant 2000 USD), 1960-2006
1600
1400
1200
1000
800
600
400
200
0
Southeast Asia
Sub-Saharan Africa
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006

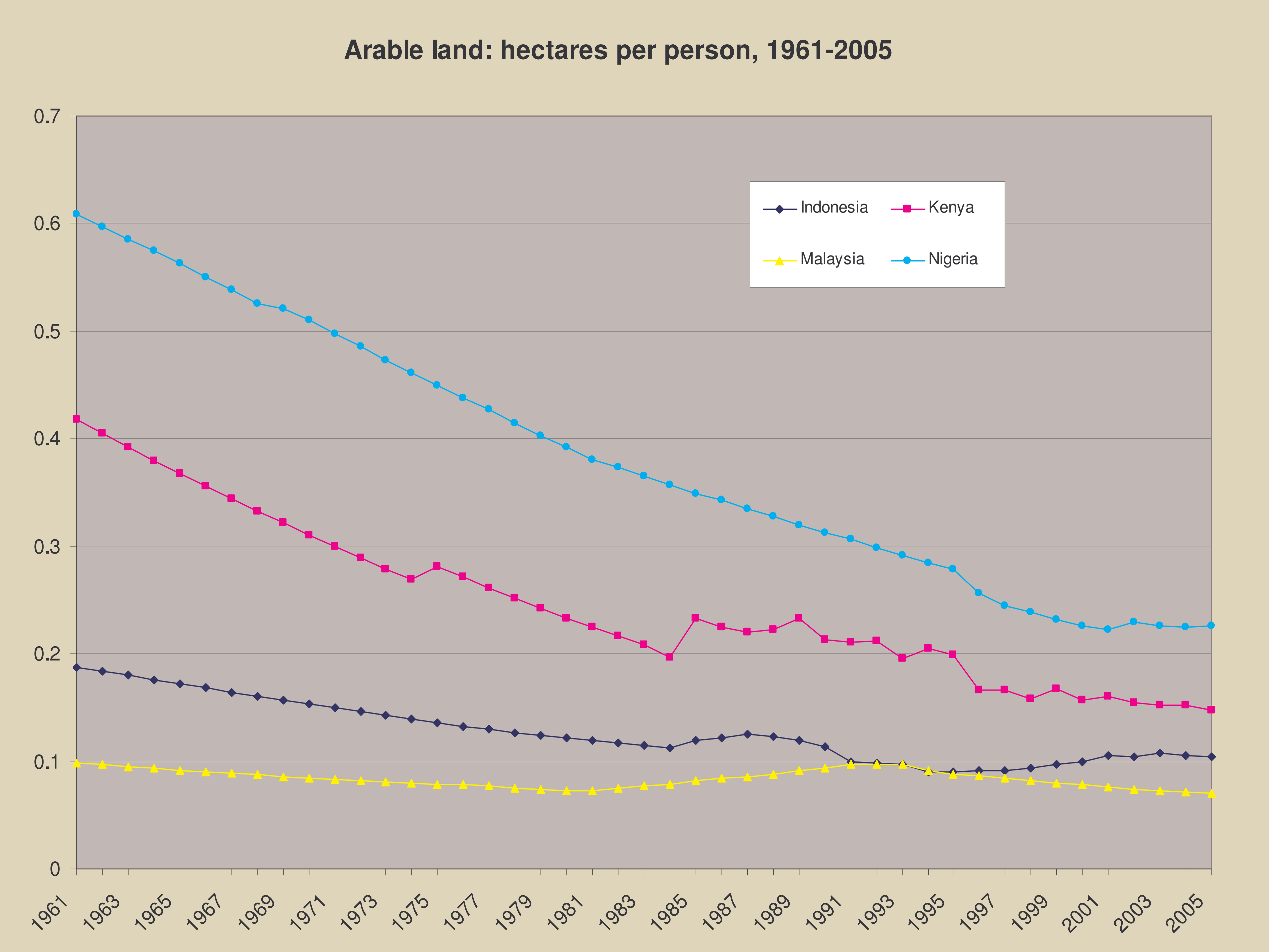


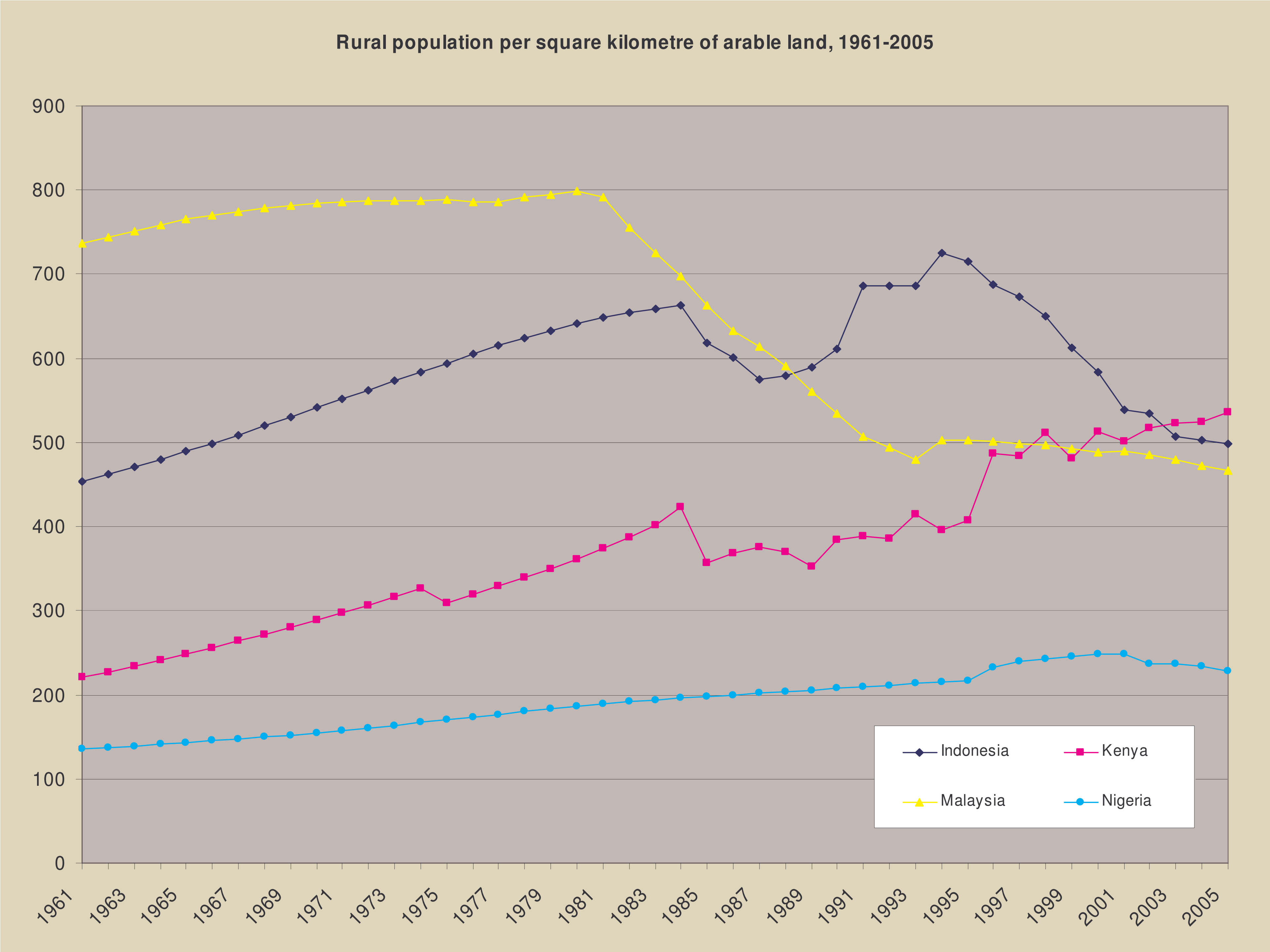
Southeast Asia and Sub-Saharan Africa: GDP (constant 2000 USD, billions), 1960-2006
Southeast Asia
Sub-Saharan Africa
0
100
200
300
400
500
600
700
800
900
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006


Southeast Asia and Sub-Saharan Africa: population density (persons per square kilometre), 1960-2006
0
20
40
60
80
100
120
140
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
Southeast Asia
Sub-Saharan Africa

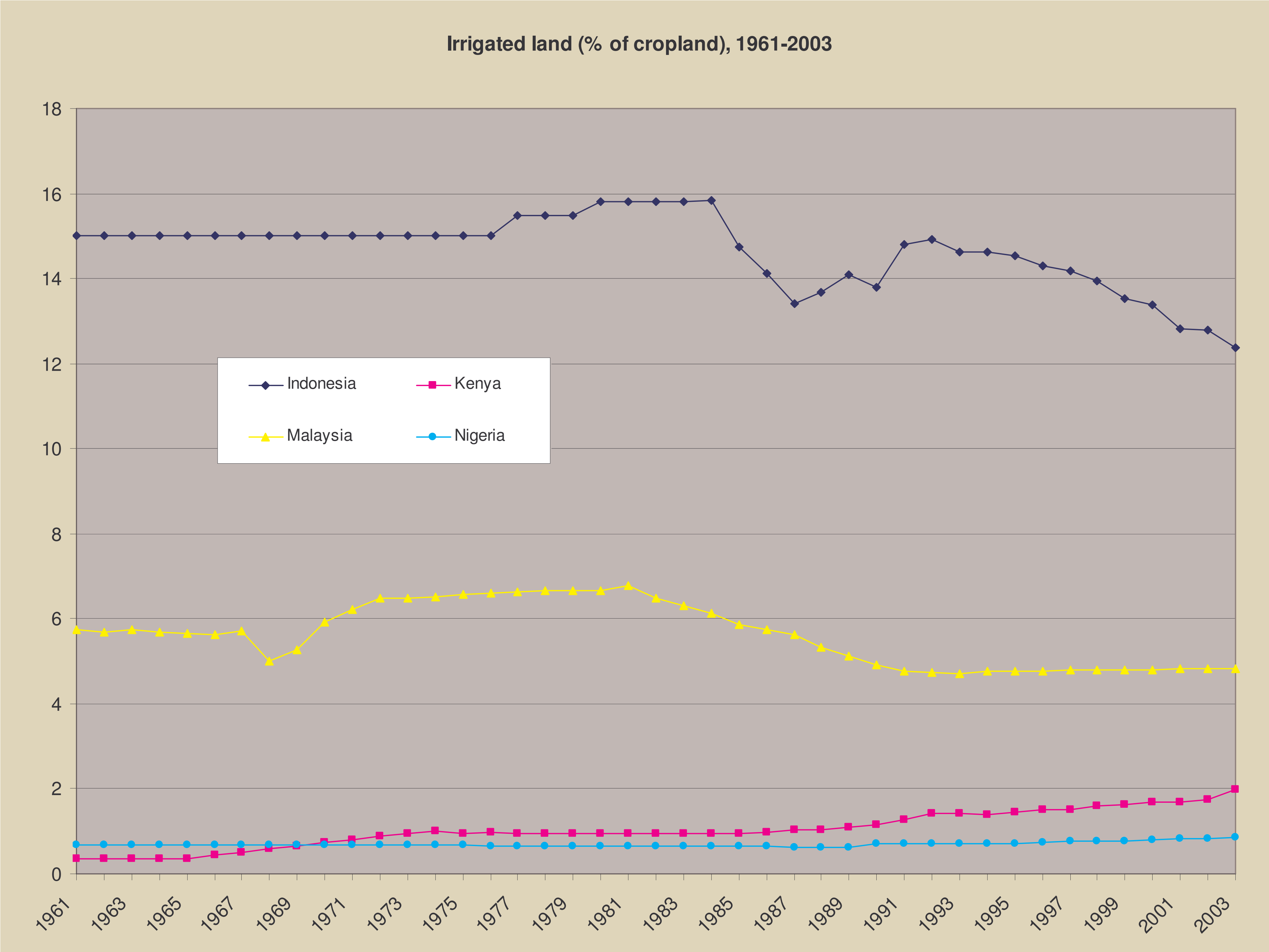


Population density (people per square kilometre), 1961-2006
Indonesia
Kenya
Malaysia
Nigeria
180
160
140
120
100
80
60
40
20
0
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005

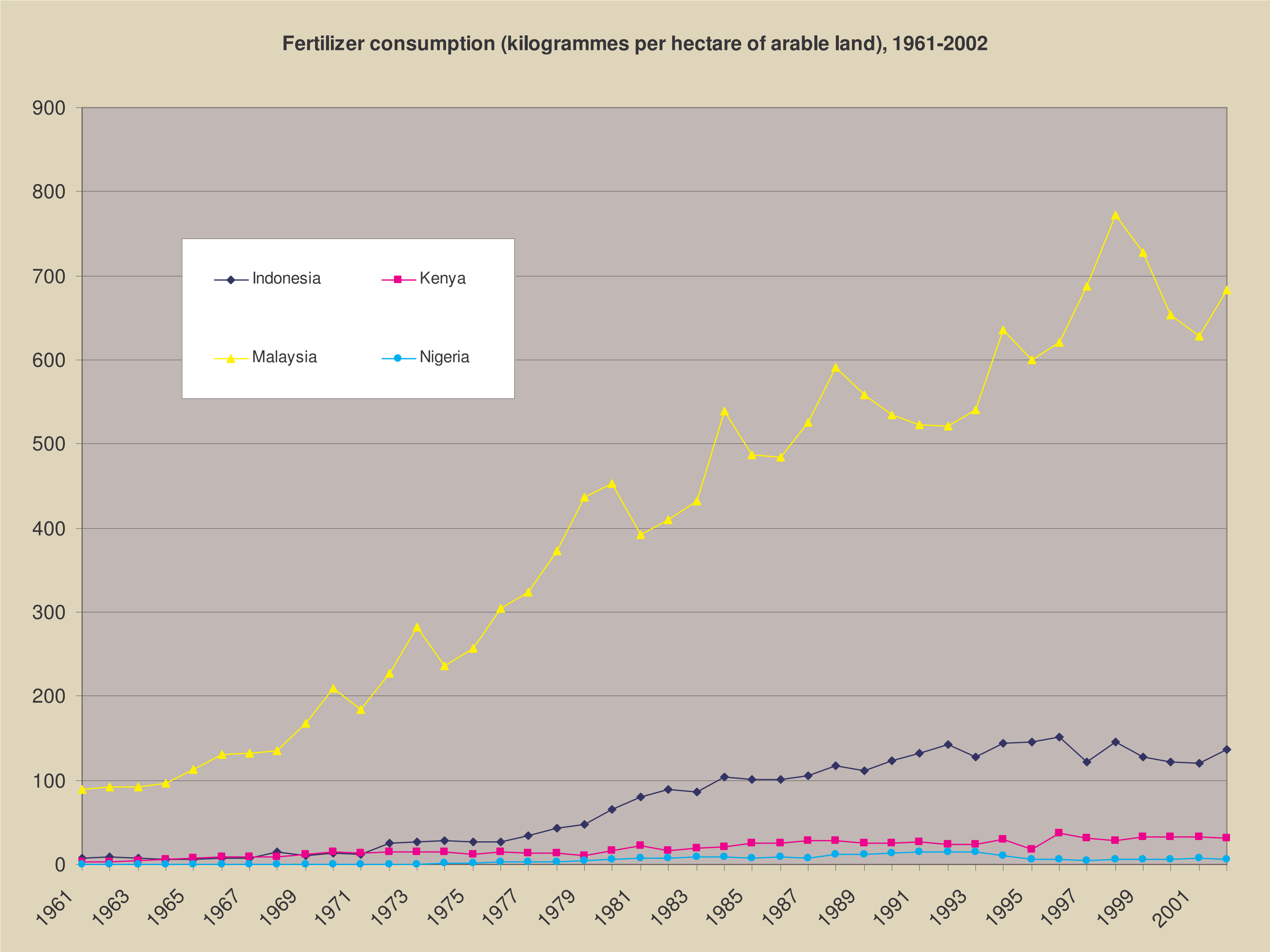

Arable land: hectares per person, 1961-2005
Indonesia
Kenya
Malaysia
Nigeria
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005



Rural population per square kilometre of arable land, 1961-2005
900
800
700
600
500
400
300
200
100
0
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
Indonesia
Kenya
Malaysia
Nigeria



Irrigated land (% of cropland), 1961-2003
Indonesia
Kenya
Malaysia
Nigeria
18
16
14
12
10
8
6
4
2
0
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003

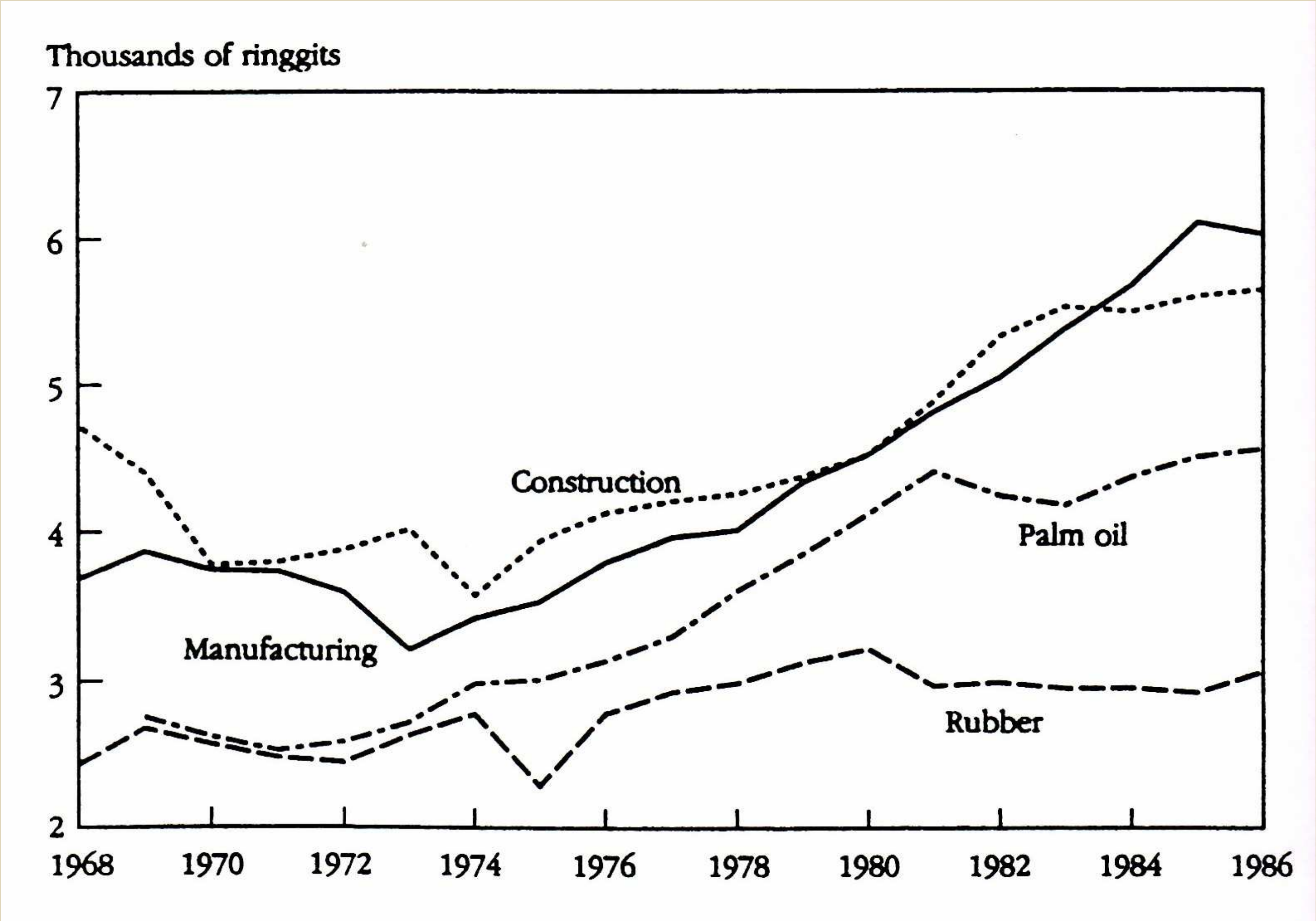

Fertilizer consumption (kilogrammes per hectare of arable land), 1961-2002
900
800
700
600
500
400
300
200
100
0
Indonesia
Kenya
Malaysia
Nigeria
1961
1963
1965
1967
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001

Africa and Asia: consumption wages (at international prices) in manufacturing, 1965-1990, according to Massoud Karshenas (Asia median 1965-1970 = 100)

	1965-1970	**1975-1980**	**1985-1990**
Kenya	187	330	508
Malaysia	145	274	720
Nigeria	82	218	344
Indonesia	40	112	302
Africa (median)	180	330	508
Asia (median)	100	197	454

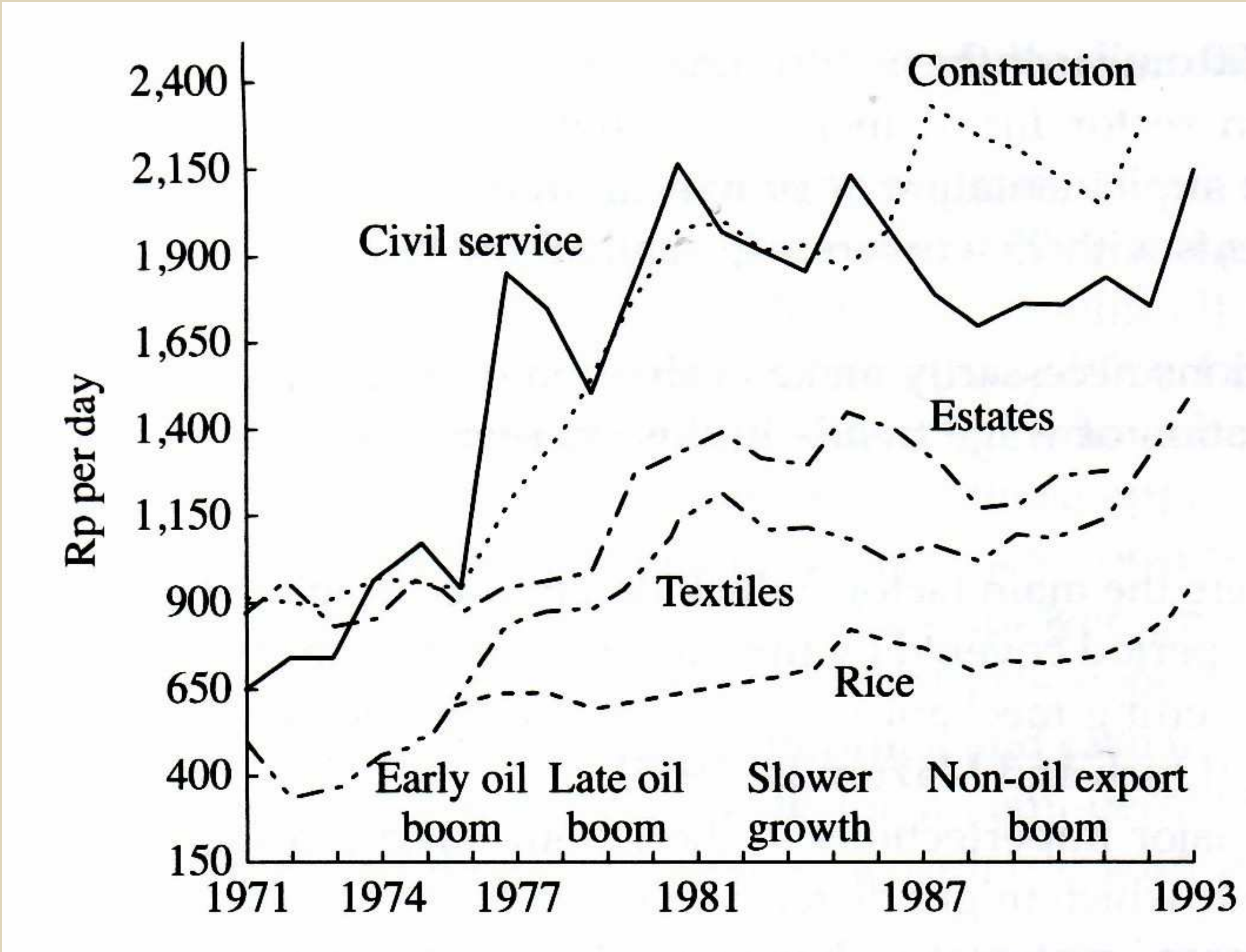
Source: Massoud Karshenas, *Capital accumulation and agricultural surplus in Sub-Saharan Africa and Asia* (Geneva: United Nations Conference on Trade and Development, 1998; UNCTAD/GDS/MDPB/Misc.1), p. 44. Compiled from various UN and World Bank statistics, and World Penn Tables.

Real annual earnings by industry in Malaysia, 1968-1986 (1980 prices)



Source: Dipak Mazumdar, 1993, 'Labour markets and adjustment in open Asian economies: the Republic of Korea and Malaysia' (World Bank Economic Review 7:349-380), p.370

Real wages in selected activities in Indonesia, 1971-1993 (rupiah per day, 1983 prices)



Source: Chris Manning, Indonesian labour in transition (1998), p. 118

PDF | The East Asian catch-up industrialization experience is often presented in the literature as a benchmark for Sub-Saharan African countries seeking to undergo an industrial revolution. A recurrent theme in the East Asian model is the use of the import substitution...Â Sub-Saharan African countries seeking to undergo an industrial revolution. A recurrent theme in the East Asian. model is the use of the import substitution industrialization (ISI) phase as a basis for technological learning and. international business.Â The key to success in industrialization requires that individual factories achieve â€•economies of scaleâ€– of. production. In most manufacturing processes a point of output is reached after which the cost of producing. Demography and economic growth in uganda. 1. Introduction.Â The report also identified broad "points of resemblance" of their economies: they fully exploited the world economy, maintained macroeconomic stability, mustered high rates of saving and investment, let markets allocate resources, and finally had committed, credible, and capable governments.Â Box 1: Policy frameworks to capture demographic dividend: lessons from East and Southeast Asia East and Southeast Asian countries stand apart from the rest of the world because of their extremely fast fertility transitions.Â Third, sensible labor laws need to be put in place to encourage formal employment, including the laws on gender equality. The Asian success stories often refer to the developmental state model, which highlights the pivotal role played by Asian political elites in catalyzing economic growth and broad-based development. The model includes economic liberalization and outward-oriented policies, with targeted support to â€“ and protection of â€“ strategic sectors and infant industries.How far is this underlying assumption supported by empirical evidence?Â Our review of economic and socio-political indicators tells a rather different story, but not the whole story. Nevertheless, the indicators fail to take into account all the historical, institutional and structural factors that matter a great deal for development.Â Sub-Saharan Africa, in contrast, is rather labour scarce and land abundant.