

## **The cotton textile industries of Southeast Asia and 'Bantu' Africa, 1840s to 1950s**

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Significant in import substituting industrialisation in Southeast Asia and Africa, cotton textiles rarely gave rise to exports beyond the immediate region. Excessive protectionism and regulation were common weaknesses, generally exacerbated after independence. Tariffs, quotas, licences and monopolies were double-edged swords, providing an initial spur to investment, but causing deep structural inefficiencies. Nevertheless, foundations were laid for future growth. (Brown 1997: ch. 14; Kilby 1975)

Rather than replacing craft forms of production, modern textile plant modified them, and sometimes developed them. While artisanal spinning everywhere declined, the same was not true of weaving. Factories, whether local or overseas, made available cheap, strong and reliable machine-made yarn, as well as improved looms or parts of looms. Similarly, craft printing, dyeing, embroidery and clothing manufacture benefited from falling prices of machine-made cotton cloth, chemical dyes, waxes, and so forth. (Booth 1991: 38-9; Vuldy 1987; Johnston 1978: 260, 265)

The growth of mechanised cotton factories in Southeast Asia and Africa was uneven. Zones of dense population and artisanal production were generally to the fore, with the availability raw cotton and cheap hydroelectricity as other positive factors. Also favoured were cities, notably transport nodes. Regions which lagged behind tended to have a scarce population, and sometimes a marked specialisation in primary production for export.

Industrialists faced a mixed bag of natural and social conditions. Savings could come from cheap energy, land, transport, building

materials and raw cotton. On the positive side of the ledger were also natural protection, rising populations, growing incomes, and entrepreneurial dynamism. (Booth 1991: 36) However, skilled labour and capital were exceedingly costly. Even unskilled labour was expensive, as low wages were generally more than offset by low productivity. A supply of local raw cotton could be a mixed blessing, given poor quality and irregular deliveries. Whether a cotton textile sector would have flourished without the stimulus of 'infant industry' protection is thus open to debate.

Key players diverged in their perceptions of the desirability of fostering textile industries. Metropolitan workers, seeking to guarantee employment at home, were those most consistently opposed to 'exporting jobs' to the colonies. Small metropolitan entrepreneurs in declining regions tended to ally with organised labour, fearing the loss of protected colonial markets. However, dynamic textile bosses were keen to cut costs and develop new markets. Colonial elites of all backgrounds generally backed manufacturing, unless they stood to lose valuable import licences. These tensions have been explored in greatest detail for the French and Portuguese empires. (Marseille 1984; Clarence-Smith 1985)

Colonial officials shielded textile industries reluctantly and late, for they feared proletarianisation and urbanisation. Protectionism was usually a short-term response to plummeting export revenues, swelling unemployment, inflation resulting from shortages, and political agitation. Bureaucrats often discriminated against foreign entrepreneurs, planned poorly, neglected connections between economic sectors, and adopted a 'beggar my neighbour' attitude towards other empires and countries. They overvalued exchange rates, to dampen inflation and secure the worth of remittances to the metropolis, thus hampering exports beyond imperial markets. This complicated already significant problems of reaping economies of scale in small and poor territories.

Successive external shocks galvanised bureaucrats into action. Attempts to set up modern industries in the middle of the nineteenth

century have hardly been explored at all, and seem not to have depended on any more than vague official benign good will. The trade depression of the 1870s and 1880s led to efforts to turn colonies into a *chasse gardée* for metropolitan industries, but at times protecting local activities as an unintended consequence. The First World War severely disrupted supplies and stoked inflationary pressures. Although many of the industrial gains made in 1914-18 proved ephemeral, the 1930s recession stimulated a renewed and more durable interest in manufacturing, as import purchasing power dried up and unemployment swelled, in a context of rising nationalist fervour. Independence, or at least the granting of a significant degree of political autonomy, was the final driving force. (Booth 1991: 36-7; Allen and Donnithorne 1954: 256-8; Dixon 1991: 119)

In addition, the rising tide of Japanese imports acted as a spur to raising tariffs and imposing quotas. (Sugiyama and Guerrero 1994; Austen 1987: 136) The stated purpose was generally to preserve the position of metropolitan industrialists, but the consequences could be beneficial to local manufacturers and artisans. For areas with abundant labour, such as Java and Tonkin, Japanese industry was also seen as an example to be emulated, especially when the recession led to a worrying surge in unemployment. (Booth 1991: 37; Bernard 1937: 82-4)

### **Modern textile industries in Maritime Southeast Asia**

Sparsely peopled zones, concentrating on primary exports, mostly shunned consumer goods industries, notably Malaya. No modern spinning and weaving industry developed in the peninsula. (Allen and Donnithorne 1954: 256) At best, there was some finishing of cloth and making of garments in Singapore, leading to a modest current of exports in the interwar years. However, this accounted for only about 2% of the urban labour force from 1931 to 1957. (Huff 1994: 117, 213, 407)

Of the heavily populated areas with an old weaving tradition, the Philippines were the pioneer in Maritime Southeast Asia. As Spanish rule was about to give way to that of the United States, the Tondo and Malabon Cotton Mill was set up in the Manila area in 1897. Employing some 200 Filipinos, the factory worked mainly with raw cotton imported from the United States, mixing in a little short staple local cotton. There were 7,420 spindles and 222 looms in 1905, and the company's coarse white shirting enjoyed a good reputation. However, the mill went bankrupt in 1923. (Doeppers 1984: 17-19, 150-1)

The Philippines industry slowly regained significance. The Tondo mill was sold in 1929 and re-opened in 1930 as Philippine Cotton Mills. With some 300 employees, the company had 7,420 spindles and 320 power-looms. However, the machinery was antiquated and profits were low. (Doeppers 1984: 18-19, 151; Yoshihara 1985: 110; Stifel 1963: 36) The Toyo Shirt Factory produced clothing of various kinds from 1934. The Oriental Industrial Company, or Kinka Meriyasu, employed 40 Shirano non-automatic looms to make cotton cloth with imported Japanese yarn from 1937, effectively imitating Ilocos and Visayas traditional products. (Guerrero 1967: 43-5; Stifel 1963: 33-4) In 1941, this firm employed about 800 workers in 200 power-looms, 200 sewing machines and 90 knitting machines, producing mainly shirts and sheets. (Yoshihara 1985: 71)

A large spinning factory opened in Manila in mid-1939, incorporating weaving, bleaching, dyeing and printing divisions. By 1941, it possessed 20,000 spindles and 500 power-looms. The aim was to reduce imports by about a third by the middle of the decade, and the mill sold some yarn to already existing weaving enterprises. Almost entirely dependent on imports of American raw cotton, the company planned to boost local cotton farming, although the territory produced only 18.5% of its needs in 1940. (Brown 1989: 208-9; Stifel 1963: 34; 45-7)

The Second World War was particularly destructive in the Philippines, with the battle for Manila one of the most fiercely contested. In 1946, only a quarter of pre-war textile capacity remained, and only 18,000 spindles were operative in 1948. The damaged Philippine Cotton Mills were scrapped. (Stifel 1963: 34-7; Yoshihara 1985: 112)

In contrast, growth was so rapid in the 1950s that the threat of oversupplying the Philippine market loomed. There were 18 textile firms by 1959, with 284,386 spindles, 6,105 power-looms, and 14,880 workers, producing 49.4 million pounds of yarn and 105 million yards of grey cloth. The garments industry expanded at the same break-neck speed. The industry was overwhelmingly concentrated in Manila and its immediate environs, although one government-owned NDC mill opened in Ilocos Sur in 1949. The labour force, highly unionised, mainly consisted of men and a minority of unmarried women, for employers disliked generous maternity benefits. (Stifel 1963: 37-45, 124-8, 135)

Indonesia was slower off the mark. Padang, in West Sumatra, was home to the first known modern factory equipped with power-looms, which opened in 1922 (Oki 1979: 150; Allen and Donnithorne 1954: 257) This was the colony's only mill of this kind in the 1920s. (Palmer 1972: 21) Small 'factories' appeared in East Java from the mid-1920s, but they were probably equipped with hand-looms. (Matsuo 1970: 30)

The real growth of modern mills came in the 1930s, with the number of Indonesian power-looms rising from 40 in 1930 to 9,800 in 1941. (Sitsen 1943: 33) Java was the epicentre of this revolution, as the collapse of the sugar industry released numerous workers accustomed to industrial discipline. Textile wages were comparatively high, and labour relations were generally good. (Matsuo 1970: 26, 30, 42, 50; Antlöv and Svensson 1991: 113-5) By 1939, Indonesia as a whole employed some 70,000 workers in the modern textile sector, although the colony still only produced about one seventh of its total consumption of woven goods. (Dick 1990: 310; Segers 1987: 155) The 1939 census revealed 231

weaving factories in Java and 8 in the Outer Islands, apparently including indigenous enterprises that had adopted power-looms. (Sitsen 1943: 41) Raw cotton supplies failed to keep up, even falling from already fairly low levels in the late 1930s. (Palmer 1972: 41)

The Indonesian textile industry suffered grievously during the Japanese occupation of 1942-45, recovered quickly under partially restored Dutch rule to 1949, expanded in the early years of the republic, and then drifted towards disaster in 1965. (Palmer 1972; Palmer and Castles 1971) In 1949, there were 6,488 power-looms on Java, more or less back to the 1939 level. The rest of Indonesia trailed behind, with 253. (Matsuo 1970: 42-3) By 1962, after a last big spurt, the number of power-looms had risen to 20,284 across the country, but most of them lay idle. (Palmer 1972: 81-100)

### **Modern textile industries in Mainland Southeast Asia**

Attempts to set up modern mills in Vietnam went back to the 1860s for spinning, and to the 1880s for weaving, but these initial efforts proved unsuccessful. (Meuleau 1990: 25, 135) A new spinning factory opened in Hanoi in 1894, followed by two more in Tonkin, in Haiphong and Nam Dinh. The three companies had 62,000 spindles and 1,800 workers in 1910, and imported some 3,000 tons of raw cotton from India. The firms merged in 1913 to form the Société Cotonnière de l'Indochine, which branched out into weaving. (Robequain 1944: 280; Murray 1980: 349; Nørlund 1991: 88) By the late 1930s, enthusiasm for taking Vietnam along the 'Japanese path' was on the increase. (Bernard 1937)

The Société Cotonnière de l'Indochine closed its Hanoi operations, and concentrated its main activities in Nam Dinh, where it acted like a state within the state. It disposed of 84,000 spindles in 1933, of which 54,000 were in Nam Dinh, which also housed all of its 1,300 looms. Out of around 5,000 workers, four fifths were in Nam Dinh. Four years later,

the company had an output of about 8,000 tons of yarn, 702,000 cotton blankets, and 2,212 tons of miscellaneous goods, largely towels. In 1938, many of its 10,000 labourers worked somewhat irregularly, with about a quarter between 14 and 18 years of age. In 1939, the company produced some 11,000 tons of yarn, 3,000 tons of cloth and over a million blankets. Nine tenths of its raw cotton was imported, mainly from India, China and the United States, following a decline in local output. (Robequain 1944: 280-1; Murray 1980: 349-50) There was little competition, although a spinning mill in Haiphong, probably that of the Société des Fileries de l'Indochine, employed 430 workers in 1933. (Robequain 1944: 281; Murray 1980: 350)

Burma's spinning and weaving mills developed from the 1920s. The dry zone of the centre was well populated and had abundant raw cotton. Units were small, and provided rather seasonal employment, mainly to Burmese. In 1931, about 6,500 people were recorded as employed in modern textile factories. (Thompson 1947: 31, 49; Hlaing 1964: 104-6) The Burma Spinning and Weaving Company was established in 1921 at Myingyan, in the centre of the country. It ginned, spun and wove locally produced cotton. Output was geared to local consumption, at that time dominated by imports from India. The company came to consume 7% of Burma's output of raw cotton, and its output of grey yarn was equivalent to 12.5% of imports. (Thet 1989: 73-6) By 1942, there were also several small cotton mills in the Rangoon area of Lower Burma. Only about a tenth of the colony's entire local consumption of cotton textiles was thought to be locally produced, but this estimate may have been too low. (Brown 2000: 114, 120)

The Thai army set up a small spinning and weaving mill for its own needs in the 1920s. This was upgraded as the Siam Cotton Mill, in 1935, with about 10,000 spindles by 1949. Two other mills at the time totalled 10,000 to 12,000 spindles, and these three establishments were the only ones producing textiles out of a list of 107 factories. In 1950, Bangkok

Cotton Mills was set up, with 23,000 spindles and a capacity to produce 3,500 tons of yarn a year. Low production of raw cotton, only rising to 3,000 tons in 1941, was a potential bottleneck, at least in times of war. (Ingram 1955: 121-2, 144-5; Brown 1997: 211)

### **Modern textile industries in Equatorial Africa**

Angola was precocious in boasting cotton textile factories from 1857. They were small and reliant on imported yarn, but the two that were situated on the southern coast successfully exported their wares on sailing vessels, together with dried fish, to the Congo estuary. They only disappeared after 1892, by which time their equipment had become dated. (Azevedo 1958: 432-3; Clarence-Smith 1979: 23)

Angola re-entered the fray in a timid way in 1933, when the Sociedade Fabril de Angola set up a cotton wool unit in Luanda, with a monopoly guaranteed till 1941. (Lefebvre 1947: 143) A proper textile mill for Luanda was authorised in 1943, but Textang did not initiate production till late in 1946, employing some 600 people in the following year. (Azevedo 1958: 440) The main products were destined for the native market, such as cotton blankets for the northeastern diamond mines. (*Boletim da Associação Industrial de Angola*, 3, 13-14, 1952: 26) The mill aimed to install 24,000 spindles and 900 automatic looms. (Pitcher 1993: 163-4) However, in 1958 Textang still disposed of only 3,500 spindles and 150 looms, giving work to 122 Whites and 862 Blacks. (Bravo 1963: 73) Imports of woven fabrics were still worth nearly ten times as much as local output at about this time. (Castro 1978: 409) A second mill thus began to be constructed in Luanda in 1957. (Azevedo 1958: 439)

The Société Textile Africaine, Texaf, founded in 1925, was an ambitious Belgian undertaking. The plant was situated in the Congo's capital city of Léopoldville [Kinshasa]. (Heyse 1938: 7-12) Texaf disposed of a state of the art integrated spinning and weaving mill, and its modern



machinery was driven by cheap hydroelectric power. By 1930, the mill consumed about a fifth of the raw cotton produced in the colony. It remained the only textile factory till 1946.(Vellut 1985)

The impact of the world recession on Texaf was severe, notably from 1931 to 1933, but the company overcame the crisis. (Vandewalle 1966: 39) Texaf became a holding company, and the textile business was renamed Société Usines Textiles de Léopoldville, Utextléo, in 1934. (Heyse 1938: 7-12) The managers cut the labour force, raised productivity, obtained an injection of fresh capital, and did not replace machinery. (Strihou 1961: 51-2, 62, 65, 78) Output went from 930 tons in 1931 to 1,640 tons in 1940, while remaining at about a third of local consumption. (Belgium 1949: 576)

The Second World War inaugurated palmy days. The Congo was not involved in fighting but restricted imports severely, allowing Utextléo's output to reach 2,670 tons in 1945. (Belgium 1949: 576) The company took on more workers, and managed to acquire some good spindles and some indifferent second-hand looms in 1942-43. Production rose by 63.4% between 1940 and 1945, and the company imported foreign cloth to meet demand that it could not satisfy. (Strihou 1961: 52-4)

Production continued to rise rapidly in the last years of Belgian colonialism, which came to an abrupt and messy end in 1960. Utextléo engaged in large scale new investment, and improved the quality of its finished goods. (Strihou 1961: 53-5) A competitor, FILTISAF, was founded in Albertville [Kalemie], on the other side of the colony, in 1946. (Vellut 1985)

French Equatorial Africa and Cameroun were laggards, with no known modern textile industry in 1938. (ANSOM 1938) Although there were good sources of raw cotton in southern Chad and northern Cameroun, the region as a whole suffered from low population densities and incomes. Texaf set up a subsidiary in French Equatorial Africa in 1931, Cotonaf, but seemingly only to deal in raw cotton. (Heyse 1938: 8)

The first textile mill in Cameroun appears to have been the Cotonnière Industrielle du Cameroun, CICAM, set up after independence in 1964, with factories in Garoua and Douala. (DeLancey and Mokeba 1990: 69)

### **Modern textile industries in South, Central and East Africa**

Even in precociously industrialised South Africa, cotton textiles had a low profile. A Cape blanket factory, founded in 1891, may have been at the origin of the sector, possibly processing wool rather than cotton. Wool and cotton blankets long continued to be the country's only significant textile products, and in 1933-34, there were only twelve textile establishments, employing 2,358 workers. The post-war boom led to a diversification of output, and by around 1960 there were 104 factories and 29,142 workers. (Cronje 1952: 24; Du Toit 1978: 33, 37-8, 43; Beinart 1982: 24-5) Clothing, emerging in the 1890s, did somewhat better from the First World War, but was only semi-industrial in nature. Poor Afrikaner farm girls, drifting into cities, were often employed. (Saron and Hotz 1955: 362-4)

British Central Africa followed a broadly parallel course. (Clarence-Smith 1989a: 173-5) The garments industry made a modest appearance in Southern Rhodesia [Zimbabwe] from 1920, when the Bulawayo Clothing Factory appeared in the records of the Registrar of Companies. (Wolfgang Döpcke, personal communication) In 1938, seventeen small clothing enterprises represented a mere 3.2% of Rhodesia's industrial output by value, or 17% of net imports of textiles and clothing. (Mlambo et al. 2000: 25; Southern Rhodesia 1946: 63-5) However, garment exports to neighbouring territories were already noted in 1930. (Mosley 1983: 209)

The Second World War was the turning point. In Southern Rhodesia's Gatooma cotton spinning mill began experimental production in 1943, and output expanded rapidly, with 17,500 spindles installed in

1948. A second spinning mill followed in 1952, giving rise to small weaving and knitting units. (Kilby 1975: 483) The textile and garments industries grew at an average rate of 20.8% from 1946 to 1953. By 1957-58, spinning and weaving, including cordage, employed 6,574 people in 26 establishments, while the figures for apparel and footwear were 9,391 and 90. Expansion was in part driven by rising exports, for up to a third of Southern Rhodesia's textile output was destined for South Africa in the 1950s. (Mlambo et al. 2000: 31, 45-7) By 1964, exports of textiles were worth roughly half as much as imports. (Mosley 1983: 218-19)

East Africa's modern textile sector also developed after the Second World War. In 1950, a large textile factory was nearing completion in central Mozambique. Located at Chimoio [Vila Pery], on the railway inland from Beira, it was close to the frontier with Southern Rhodesia, and about twenty miles from an abundant source of cheap hydroelectric power on the Revué river. The skilled workers were immigrants from Portugal. (Spence 1951: 83) In 1958, this factory consumed 1,774 tons of raw cotton for 14,500 spindles and 460 looms, and in 1960 it employed some 2,000 people. (Bravo 1963: 82-5; Gersdorff 1958: 66-7) In 1954, three textile establishments were recorded, accounting for the most investment in any sector after sugar. (Gersdorff 1958: 66)

British East Africa had a fledgling clothing sector by the 1930s, but only developed textile factories in the 1950s. (Kilby 1975: 477-8) In 1963, the combined textile, apparel and footwear sector employed 3,701 people in Kenya, and a further 3,250 in Uganda. (Kilby 1975: 478) Uganda's Nyanza Mills, or Nytil, built in Jinja in 1954, integrated spinning and weaving. It was built mainly to consume cheap hydroelectricity from the Owen Falls dam, as well as abundant local raw cotton. (Kilby 1975: 478; Elkan 1961: 5-7, 59-60; International Bank 1962: 275; Pearson 1969: 125) A Kenyan textile mill was set up in Thika towards the end of the 1950s, and exported within British East Africa. (Swainson 1980: 125, 128; Mosley 1983: 212, 222) In 1952, Tanganyika had two 'textile dyeing'

firms, employing 80 people, and a cotton weaving shed with 30 workers. By 1961, there were five weaving mills, all quite small, processing imported yarn, and situated in the Dar es Salaam area. The smaller 47 'tailoring' establishments were spread around the country. (Silver 1984: 74-5, 90-1, 94-5, 102-3)

Somalia, under Italian trusteeship from 1945 to 1960, had a single small private textile mill in Mogadishu [Muqdisho], belonging to the Société de Manufactures Cotonnières Somalies. In 1954, the factory had only 100 looms, and could only meet about a sixth of internal consumption. There were plans to acquire 10,000 spindles and a further 180 looms, with which it was hoped to satisfy nine-tenths of the territory's consumption. (Administration Italienne de Tutelle de la Somalie 1954: 81-2)

### **Artisans in Indonesia**

Java boasted an ancient cotton textile tradition, based on spinning wheels and simple looms. Indeed, the Dutch East India Company obtained tribute partly in cotton yarn, of which the finest quality was exported to Europe. The local aristocracy also received tribute in cotton cloth. (Matsuo 1970: 1-5, 77). In Sundanese-speaking West Java, weaving with dyed thread was the preferred technique. In contrast, Javanese-speaking central and eastern Java specialised in batik, decorated with natural dyes by the use of wax. (Matsuo 1970: 33-4; Segers 1987: 152-3)

Spinning declined in nineteenth century Java, with imports of cheap machine-made yarn, but the very same imports stimulated artisanal weaving. (Matsuo 1970: 11-13). The latter met an estimated half of the island's commercialised consumption in 1860, a figure that would have been higher had home weaving been included. As prices of imported yarns fell, weaving expanded, became more geographically specialised,

and exported regionally over longer distances. (Segers 1987: 152) Artisanal weaving received a further boost towards the end of the century, as chemical dyes began to enter from the West. From the 1880s, the spread of wider looms, worked with pedals, animated weaving in the Bandung region of West Java. (Matsuo 1970: 14-18, 80)

There was also artisanal weaving in Indonesia's Outer Islands. South Sulawesi was particularly prominent, exporting 'to all Malay countries' in 1785. (Pelras 1996: 241-3) The region sent woven cloth to Java and Sumatra in 1880. (Segers 1987: 153) West Sumatra was another area where weaving did well, even if spinning died out. (Oki 1979: 148) Sumba, in the Lesser Sunda Islands, wove a cloth that was popular with Dutch buyers. (Hoskins 1989: 141-3)

Imports of plain cotton cloth favoured Java's batik production, which successfully saw off Dutch attempts to flood the market with industrial copies from the 1820s. This was largely due to the introduction of stamps (*cap*) from India, allegedly increasing labour productivity a hundredfold. Made initially of wood and then of metal, these stamps were used to print standard patterns by hand. Output of batik probably doubled in the 1870s, with the spread of larger *cap* made of copper, together with better transport. Cheaper cloth, chemical dyes and paraffin wax further lowered costs from around the 1880s, and the scale of workshops grew. The central Javanese provinces of Surakarta [Solo], Yogyakarta, and Pekalongan were the major centres in 1916, with Surabaya and Rembang most significant in the East. In that year, the Dutch counted 577 batik workshops on the island, employing 7,606 people. (Matsuo 1970: 78-80, 83; Segers 1987: 160-1; Shiraishi 1990: 23-5; Vuldy 1987: 107-13, 125)

After the disruptions caused by the scarcity of semi-manufactured imports during the First World War, the availability of good cheap Japanese cloth caused a new spurt in the production of Java's *batik cap*. This was partly at the expense of *batik tulis*, drawn by hand and using

natural dyes, but this activity continued to occupy a niche market. (Vuldy 1987: 124, 141-3; Vleming 1926: 221-3; Segers 1987: 161) The Dutch recorded 4,384 batik workshops around 1931, particularly in central and western Java. (Cator 1936: 118; Angelino 1930-31) The largest *batik cap* 'factory' around 1930 employed several hundred women and 180 men, but there appears to have been no application of non-human energy. About 20% of Java's output went to the Outer Islands of Indonesia, and a further 5% to foreign Asian destinations, such as Singapore and Sri Lanka. (Matsuo 1970: 80-6)

As woven tunics became more popular along the north coast of central and eastern Java, local production outstripped imports in the 1920s. (Segers 1987: 153, 156) This excluded the output of traditional looms. There may have been up to a million of these in Indonesia, with a potential output of 200-250 million meters of cloth a year, well above the combined production of advanced hand-looms and power-looms. (Palmer 1972: 42-3)

The Priangan region of West Java, notably around Majalaya, became the most dynamic artisanal weaving centre in Java. Workshops thrived with cheap and strong Japanese machine-made yarn. Moreover, improved TIB [Textiel Inrichting Bandoeng] hand-looms were locally produced from 1921, and were further refined in 1926, with a flying shuttle. According to one calculation, a TIB loom could produce about five times the output of a traditional loom in a given time, and about a third of that of a power-loom. However, a TIB loom was also five to six times as expensive as a traditional loom. (Matsuo 1970: 15-16, 26, 36, 47; Antlöv and Svensson 1991; Schwencke 1939; Segers 1987: 154; Dobbin 1996: 182-4; Oki 1979: 150; Palmer 1972: 21).

Parts of the Outer Islands participated in this weaving boom, as TIB looms were introduced there. South Sulawesi's cloth competed with factory-made items, and the Minangkabau carpenters of West Sumatra copied TIB looms, enabling the area to expand its output. (Oki 1979: 150-

1; Pelras 1996: 303) A semi-industrial workshop was set up in Padang, West Sumatra, in 1933, equipped with advanced hand-loom. (Palmer 1972: 21)

The recession temporarily hit incomes, causing sales of batik to fall between 10 and 20 percent from 1929 to 1933, but the industry then expanded again. (*Indisch Verslag* 1933, 1935, I, 132). Some 70 million units of batik were produced in 1937, mainly tunics for indigenous consumers. While this might be a spare-time activity for women, some workshops employed significant numbers of full time workers. (Mitchell 1942: 205-6)

Artisanal weaving did even better in the 1930s, as the number of TIB looms in Indonesia rose from around 500 in 1930 to 49,000 in 1941. Tunics were the main product of this sector, satisfying 47% of Indonesia's consumption in 1937. The rise of modern factories was largely aimed at producing mechanically spun yarn for this market, twisting it more to the liking of local artisans than imported qualities. (Sitsen 1943: 6-7, 15, 33, 47; Matsuo 1970: 27) The Priangan region contained fully 80% of improved hand-loom in Java in 1938. From 1939, electrification led to the introduction of small power-loom in this West Javanese sector, blurring the distinction between artisanal and factory output. There also remained several centres of craft weaving in central and East Java. (Matsuo 1970: 29-40) In Pekalongan, Central Java, workshops wove *palekat* in the 1930s, a checked cloth formerly imported from India. (Vuldy 1987: 135)

Outside Java, South Sulawesi probably remained the main centre of weaving with improved hand-loom. (Pelras 1996: 243-8, 303-4) Artisanal weaving also grew under the same conditions in West Sumatra during the 1930s, with some exports to the north and east of the island. (Oki 1979: 150) In addition, the output of old-fashioned looms remained high. Indonesia imported about 11,000 metric tons of yarn in 1937, at a time when the combined needs of power-loom and improved hand-

looms stood at about 7,000 metric tons, and modern spinning mills had hardly begun production. (Palmer 1972: 47) In contrast, Christian missionary efforts to develop lace production in West Sumatra from 1908 faded away during the First World War. (Oki 1979: 152) More radically, weaving allegedly almost vanished in Malaya, where labour for primary exports and food production remained in relatively short supply. (Allen and Donnithorne 1954: 256)

Both the returning Dutch and the Indonesian republic sought to stimulate weaving with improved hand-looms, but with mixed results. There were 56,248 TIB looms on Java in 1949, above pre-war levels, and another 2,408 in the Outer Islands. (Matsuo 1970: 42-3) By 1962, this figure had risen to 223,905 in the country as a whole, but a high proportion could not function for lack of yarn and spare parts. (Palmer 1972: 81-100)

### **Artisans in the Philippines**

The Philippines had a lively weaving tradition. Panay cloth, mixing cotton, silk, pineapple and hemp fibres, was a dynamic export in the early nineteenth century, but ceased to be sent abroad from around 1880. (McCoy 1982: 296-307) However, cotton weaving persisted across the archipelago, with 569,906 cotton spinners and weavers registered in the American census of 1903. Although the 1939 census returned only 91,299 persons active in weaving, this may have reflected different categories, rather than a real decline. (Stifel 1963: 23, 25) The Tondo mill provided coarse yarn for weavers, and the main purpose of the 1939 textile mill in Manila was to increase the supply of yarn to weavers, although in 1941 it sold only 0.42 million pounds of yarn, at a time when local consumption stood at 32 million pounds. (Brown 1989: 208-9; Stifel 1963: 34-6)



Embroidery was particularly successful in the Philippines, where exports rose fast from 1909. Nineteen concerns gave employment to some 60,000 Luzon rural women in 1918, together with 1,700 salaried women in Manila workshops and 350 peripatetic agents. Embroideries made up about 5% of the colony's total exports by value in the 1920s and 1930s. (Doeppers 1984: 13, 22-3; Philippines 1933: 219) In 1930, some 50,000 women worked in 18 'factories' in Manila, and there were another 53 establishments. (Mendinueto 1930: 9-10) By 1939, there were 113,810 people employed in the sector, including dress-making, nearly all women working part-time. (Mitchell 1942: 229)

Philippine embroidery relied mainly on imported cloth, chiefly cotton but including some linen. This was cut and stamped in Manila establishments. Travelling agents or contractors provided advances of cloth, other inputs and cash to women across southwestern Luzon. Agents then bought lingerie, handkerchiefs, tablecloths and children's clothing, and took them to Manila, where they were graded and prepared for export by further 'sewing, trimming, ribboning, ironing and packing.' Women engaged in these tasks were occasionally brought together in large buildings, but this was for greater supervision and division of labour, rather than to apply mechanical power to production. (Gleek 1975: 69-73; Miller 1932: 472-9; Doeppers 1984: 17, 22-3)

Weaving persisted after Philippine independence in 1946, as some upgraded hand-looms were diffused. In 1952, a training school was set up. A 1956 survey estimated that 44,000 households engaged in some domestic production of fabrics, although a United Nations technician counted only 18,000 looms, of which 4,000 were in the Ilocos region. In addition, there were 23 workshops in 1955, employing up to 50 workers, and relying on hand-looms. One bottleneck was the high price of yarn, produced by inefficient local mills, or subject to huge import barriers. Production concentrated on mosquito nets, blankets and terry cloth. (Stifel 1963: 24-5, 71)

## **Artisans in Mainland Southeast Asia**

Numerous peasant part-time weavers operated in Vietnam, concentrated in the north in the Tonkin delta. (Dixon 1991: 115) Merchants developed a putting out system for lace, embroidery, blankets, various kinds of cotton cloth, and garments. The Société Cotonnière de l'Indochine itself provided much yarn for village weavers. Of the 6.5 million inhabitants of Lower Tonkin in 1937, 0.2 million worked for much of the time in such tasks, and 0.8 million for a few weeks a year. (Murray 1980: 245, 350, 408) Some urban workshops also wove, even in Cholon, Saigon's largely Chinese twin city in Cochinchina, an area where primary production for export generally crowded out manufacturing. (Robequain 1944: 281)

In Burma, 234, 892 people spun and wove cotton in 1931, of whom about 40,000, almost all women, gave this as their principal occupation. (Thet 1989: 99) Most women were part-time producers, turning out coarse but durable blankets and tunics. (Thompson 1947: 31) Brown argues that falling imports of yarn indicate a slight contraction in weaving during the 1930s depression, but he ignores local production of machine-made yarn, and a possible return to hand-spinning in difficult times. (Brown 2000: 114)

Imported yarn, together with some locally produced factory yarn and aniline dyes, kept hand-loomers busy across Thailand. Imports of yarn rose from 1,380 to 3,795 metric tons between 1920 and 1941. By 1949, this figure had reached 5,760 metric tons. Even local spinning wheels remained active in remote areas of the north and northwest. (Ingram 1955: 114-19)

## **Artisans in 'Bantu' Africa**

Connections between semi-manufactures and African textiles have hardly been noted in the literature, Although this may reflect implicit assumptions, competing textile traditions constituted notable barriers. In heavily forested zones, bark cloth was the rule. This was a felted rather than a woven product, usually derived from the lower part of different kinds of Ficus trees. On the fringes of the equatorial forest, weaving of raffia fibre was more common, taken from seven varieties of palm. Leather and skins were also commonly employed . (Picton and Mack 1989: 33-43, 83-90, 131; Darish 1989; Beinart 1982: 24-5; Alpers 1975: 16, 21) However, spinning and weaving cotton was well established in a great arc around the forest, from western Cameroun through Somalia, and down to the northern Transvaal. In places, people relied on wild cotton. (Davison and Harries 1980; Picton and Mack 1989)

In northern and western Cameroun, African weavers and dyers creatively adopted imported yarn and cloth over a long period. (Lamb 1981: 167-8, 171, 176) These areas were strongly influenced by West and Sudanic Africa, where the cotton textile tradition was strong. (Picton and Mack 1989)

On the other side of the continent, the Benadir coast of southern Somalia was famous for its cotton textiles. There were about a thousand spinning and weaving households in Mogadishu alone in the 1840s, a number which remained fairly constant for decades. These households specialised in producing textiles, buying in their food. Local cotton was extensively employed, spun by women with a simple spinning wheel. Men did the weaving on double-heddle pit-loom, similar to those employed in Gujarat. Slaves and ex-slaves formed a significant part of the labour force. Exports of plain white cloth to the western Indian Ocean were substantial, estimated at 360,000 to 380,000 pieces in the 1840s, and much also went inland into the Horn. However, this activity was adversely affected by cheap imports from around the 1880s. (Alpers 1983: 79-92;

Reese 1996: 95-8, 149-50; Guillain 1856-57: II, 454, 532, 535, and III, 323)

The crisis was overcome by importing machine-made yarn, often chemically dyed. Western yarn was important at first, but India and Japan became the chief sources after 1914. (Alpers 1983: 87-92) Weaving in Mogadishu was said to remain 'flourishing' in the 1890s, and Somalis preferred local to imported cloth. (Cattelani 1897: 88; Robecchi-Brichetti 1899: 618-20) Yarn imports for weaving in the 1890s were substantial. (Cattelani 1897: 67, 72-3, 88-9, 135) Aden received nearly 2.5 million pounds of yarn from India in 1894-95, much of which was redistributed to the Somali coast. (Great Britain 1896: 46, 56) Embroidered caps were a speciality of Brava [Barawe]. (Reese 1996: 94) An Italian report of 1920 noted that 'a few hundred' looms were active in Mogadishu, worked by men, while women could still be seen spinning. Other towns along the Benadir Coast also produced cloth, notably Merka, and there were exports to Mombasa and Zanzibar. (Stefanini 1922: 39) Indeed, the 1920s and 1930s witnessed a renaissance of Somali weaving, with men taking up the craft in substantial numbers. (Alpers 1983: 92-3)

In the 1950s, over 1,000 households were reported to be weaving in southern Somalia. Merchants provided yarn in a putting out system, decried by local Marxists as rank exploitation. Local textiles had become prestige goods, employed for special occasions. (Alpers 1983: 93-7) Benadir ports also exported artisanal caps and shawls to neighbouring countries. (Administration Italienne 1954: 79-80)

Although British East Africa never boasted such a flourishing artisanal sector, sweeping statements about demise or lack of tradition are out of place. (Swainson 1980: 26; Pearson 1969: 124) Tanganyika certainly had an established tradition of weaving cotton. (Davison and Harries 1980: 185; Silver 1984: 3; Alpers 1983: 97) Fabrication of embroidered caps also spilled from Somalia into the Lamu region of

Kenya, if the biography of 'Abdallah Ba Kathir is anything to go by.  
(Martin 1971: 538-41)

As large textile factories developed in East Africa in the 1950s, there was little synergy with small producers, even those making garments in workshops. (Pearson 1969: 124) Indeed, the International Bank for Reconstruction and Development criticised the Jinja mill in Uganda for the not selling yarn or plain cloth in the colony. The British managers seem to have feared competition from small producers using semi-manufactures to produce finished cloth. (International Bank 1962: 275)

Weaving cotton textiles had long been established further south, in what became Mozambique, British Central Africa and the northern Transvaal. Imported blue Gujarati cloth had even been unravelled and re-woven in sixteenth century Sofala. (Davison and Harries 1980: 175-81) The *machira* cloth of the lower Zambezi and Shire rivers had an especial reputation. (Newitt 1995: 10, 22, 28, 66, 75, 78, 94, 141, 190, 214, 232, 239; Alpers 1975: 55) *Machira* production was flourishing in the 1850s and 1860s, and Alpers confesses to not knowing how it fared in later decades. (Alpers 1975: 25, 36) However, a 1945 report from central Mozambique noted that people depended on sales of raw cotton to pay for imported cloth, and that low fixed prices for cotton meant that they could not afford to meet the regime's prudish regulations on native dress. At the same time, all production of bark cloth was said to have ceased by the mid-1950s. (Vail and White 1980: 298-9, 376)

That said, cheap imported yarn and plain cloth were employed by some local artisans of southeastern Africa from around the 1850s, and the statement that spinning and weaving skills were 'almost forgotten' by the 1950s sits uneasily with much of the evidence unearthed by Davison and Harries. To be sure, import penetration probably undermined craft production from the 1880s. More telling is the apparent lack of any effort

to upgrade the fixed single-heddle ground looms characteristic of this area. (Davison and Harries 1980: 181-91)

Much of Angola and the Congo were in the raffia weaving zone, but this did not prevent Africans from spinning, weaving and dyeing cotton. One observer believed that these activities were declining in Angola in the 1890s, due to competition from European imports, but he advanced no evidence for this. (Contreiras 1894: 63) The fact that Utextléo's yarn output rose twice as fast as its production of cloth in the 1950s suggests artisanal spin-offs of some kind. (Strihou 1961: 55)

### **The impact of official policies in Southeast Asia**

The Dutch initially sought to reserve Indonesia as a market for their burgeoning cotton textile industry, even prohibiting the establishment of modern spinning and weaving mills in their colony in 1841. This measure was abrogated by a Liberal government in 1866. However, imported yarns were taxed at the same rate as cloth, to protect Dutch textiles. (Segers 1987: 153-4)

As the Dutch adopted the 'ethical policy' for relieving rural poverty from 1901, a concern with industry and crafts emerged. (Sitsen 1943: 39) However, refusal to grant tariff protection in the Netherlands contributed to the failure of Christian missionary attempts to develop lace production in West Sumatra from 1908. (Oki 1979: 152) Dutch looms, introduced in 1909, proved unsuitable, and the Commission for Factory Development, appointed in 1915, produced more plans than anything else. (Palmer 1972: 19, 21)

The 1920s witnessed more consistent efforts. A Textile Institute was formed in Bandung, West Java, in 1921, as a centre for technical education and advice, working on looms, dyes, knit-wear, design, patterns and management. Itinerant teachers spread through the island, weaving schools multiplied, co-operatives sprouted up, and small concerns received credit. (Sitsen 1943: 36; Allen and Donnithorne 1954: 257-8; Matsuo 1970: 26) In 1927, the 10% import duty on yarn was

halved, with no corresponding reduction for cloth. (Segers 1987: 153) A batik research centre was established in Yogyakarta in 1929. (Segers 1987: 162; Sitsen 1943: 36)

However, Dutch reactions to the 1930s depression probably harmed batik's recovery from 1933. Imports of Japanese textiles, which had provided a welcome boost, ballooned up to 60% of the total for Indonesia. Import quotas for bleached cloth were imposed in 1933, and were extended to unbleached cloth in 1935. It took some time for locally produced factory cloth to provide a partial alternative. (Dick 1990: 318; Matsuo 1970: 87; Segers 1987: 154, 161, 163)

Ham-fisted efforts to transfer ownership of workshops from 'Foreign Orientals' to local people made matters worse for batik, and were an irritant to weavers. (Vuldy 1987: 130-2) The development of co-operatives from 1936 was also of dubious utility. Licences were required from 1935 for sheds with 15 or more hand-loom, but Chinese and Arab entrepreneurs avoided these restrictions by multiplying the units that they controlled. When regulations were extended to workshops with 5 or more hand-loom in 1937, the number of establishments with 4 looms shot up. (Segers 1987: 154-5, 161-2)

Nevertheless, draconian restrictions on imported cloth favoured artisanal weaving, together with modern spinning and weaving, in both Java and Sumatra. Artisans gained from the abolition of import duties on cotton yarn in 1933, leading to a surge in imports, and from an increasing supply of locally spun factory yarn. Import duties on textile machinery were abolished in 1934, resulting in rapid growth in imports, and providing a boost to industrialists. (Matsuo 1970: 26-8, 30, 48, 50; Antlöv and Svensson 1991: 113-5; Segers 1987: 154; Oki 1979: 150)

The Japanese occupation, and the bitter war with the Netherlands that ensued, decimated Indonesia's textile industry. Java was unable to import raw materials, semi-manufactures or machinery from 1942 to 1945, and was even obliged to transfer looms to other parts of the new

Japanese empire. The returning Dutch stimulated a rapid but brief recovery, notably through foreign exchange allocations for machinery. However, insecurity was such that no real progress could be made. (Matsuo 1970: 42-5; Palmer 1972: 47-58)

Independence created new problems. The republic had grand aims, but Sukarno's governments followed confused and contradictory policies. They were generally intended to favour improved hand-loom employing yarn from a modern spinning industry under state control. Large firms were nationalised, new state spinning mills were built, and co-operatives, marketing, credit and imports were regulated. Corruption spread, output of raw cotton fell, and acute shortages of foreign exchange led to spiralling shortages, only partially alleviated by a vigorous black market. The spinning and weaving industry continued to expand in terms of installed plant, but it produced further and further below capacity. Woven cloth output began to fall from 1955, and batik did likewise from 1957. (Matsuo 1970: 49-54, 88-91, 99-100; Palmer 1972: 4-6, 81-100; Palmer and Castles 1971: 318-25; Pelras 1996: 303-4) With Sukarno's regime on the verge of collapse in late 1964, foreign exchange was virtually unavailable to import either raw cotton or yarn. It was rumoured that all improved hand-loom lay idle and that only 5% of power-loom were operating. (Palmer and Castles 1971: 325-6)

The American decision to implement free trade between the United States and the Philippines in 1909 had a contradictory impact. On the one hand, it propelled the development of embroidery. (Miller 1920: 370, 402, 461; Miller 1932: 473-4) A stiff US duty on competing European products, together with disruptions in European supplies during the First World War, favoured this sector. On the other hand, Spanish tariffs had protected the Tondo and Malabon Cotton Mill from both Japanese yarn and Madras cloth. High duties against India, China and Japan were maintained in 1909, but duty-free American imports were a formidable threat. That said, the immediate cause of the Tondo factory's closure in



1923 was an imprudent speculation in raw cotton. (Doeppers 1984: 13, 17-19, 22-3, 150-1; Stifel 1963: 61)

Tariffs and quotas provided a more encouraging environment for the resurrection of modern spinning and weaving in the Philippines in the 1930s. (Brown 1989: 214) This seems to have prompted the establishment of two small Japanese concerns in 1934 and 1937. (Guerrero 1967: 43-5) The achievement of Commonwealth status in 1935, which implied progressively winding down free access to the United States market, engendered ambitious plans. The National Development Company [NDC], responsible for opening the Manila factory in 1939, was a government agency. Business interests attacked this venture as a folly, committing public funds to an enterprise that could never be truly competitive with Japanese imports. (Brown 1989: 208-9) Thousands of home weavers protested against the initial plans, for fear of losing their livelihoods. (Mitchell 1942: 237-8) This may have led NDC personnel to stress the supply of yarn to 'home weavers.' (Stifel 1963: 32-3)

Philippine independence in 1946 resulted in steeply increased government support, with predictable consequences. High tariffs and elaborate planning were adopted from 1946, but the real protection came from radical exchange controls imposed in 1949. Indeed, some textile and clothing businesses became a cover to obtain precious American dollars, and spinning and weaving equipment lay idle. Weaving capacity was artificially depressed, as the real profits were to be made from foreign exchange allocations to buy imported cloth. The industry generated high profits but was astonishingly inefficient in world terms. It was estimated that, in the absence of import controls, a protective duty of 440% *ad valorem* would be needed to shield finished goods. In addition, subsidised raw cotton from American surplus stocks was channelled to the sector, undermining cotton farmers in the Philippines. The government decided to sell its two textile mills in 1958, arguing that public

ownership could only be temporary. The real reasons were mounting costs and inefficiency, as managers lost control of workers and marketing. In the event, the sale had to be delayed for several years for political reasons. The authorities also tended to turn their backs on the artisanal sector, seen as an 'anachronism.' (Stifel 1963: 25, 35-7, 42-67, 70-3, 82-3, 87-90, 98-101, 114, 156-8)

In Vietnam, the French were initially vexed that metropolitan cotton yarn, imported for handicraft weavers, could not compete with that from British India. Raising import dues in 1892, as part of the Méline tariff, provided sufficient protection for a local spinning industry to grow in Vietnam from 1894. Tariffs still protected more valuable French cottons at the upper end of the market, consumed by the elite. (Murray 1980: 349-50) In the inter-war years, industry was increasingly seen as a panacea for overpopulation, unemployment and social strife. (Nørlund 1991: 81; Bernard 1937)

British officials in Burma placed more emphasis on handicrafts than on modern industry. The Department of Industries, set up in 1921, was primarily oriented towards 'cottage industries.' In 1924, the Saunders Weaving Institute emerged under its auspices. This tradition continued, despite growing pressure from nationalists. By 1937, 20,400 hand-loom weaving units received government assistance. Not till 1938, following administrative separation from India, was a State Aid to Industries bill passed, receiving royal assent in 1939. An Industrial Board was set up, with cottons as one of the sectors singled out for attention. (Thet 1989: 57-9)

Independent Thailand, pursuing a cautious policy of low tariffs to avoid irritating Western powers, witnessed little development. The 1926 treaty revision led to some increase in duties, but essentially for revenue purposes. The army set up a small factory for its own requirements in the 1920s, which was expanded in 1935 into the Siam Cotton Mill, but it remained insignificant and dependent on the state for its survival. Blame

for this state of affairs was attributed to the small domestic market, poor local raw cotton, and a lack of capital, labour, entrepreneurship and fuel. (Ingram 1955: 121, 135-6, 139-40; Brown 1997: 211)

### **The impact of official policies in 'Bantu' Africa**

The Belgians faced an unusual situation, in that their colony, taken up in 1908, lay at the heart of the Congo Free Trade Zone. Set up in 1885 and confirmed with minor modifications in 1890 and 1919, the zone entailed Belgian inability to afford protection to metropolitan products. At the same time, the zone provided a market stretching into the southern reaches of French Equatorial Africa and Cameroun, East Africa, southern Somalia, northern Mozambique, a sliver of Northern Rhodesia [Zambia], and northern Angola. (Clarence-Smith 1989a: 176) The arrival of increasing quantities of Japanese cotton textiles onto this market after 1918 stimulated Belgian officials to search for fiscal and administrative methods to develop their own local industry, resulting in the decision to allow a textile venture in 1925. (Lacroix 1967: 19-20)

Although significant southern portions of French Equatorial Africa also lay within the Congo Free Trade Zone, and the terms of the Cameroun mandate prohibited discrimination against member states of the League of Nations, French textile companies hoped to find some way of turning the whole area into a protected market. They thus strenuously opposed plans to set up textile industries transforming local raw cotton. (Poquin 1957: 91; Marseille 1984: 194-5) There were complaints of Japanese and Czechoslovak 'dumping' in 1933, and small amounts of cotton textiles were imported from the neighbouring Belgian Congo, in the Congo Free Trade Zone. (Bouesse 1971: 139-41; Bertieaux 1953: 122-3) Trade figures for 1937 indicate that exactly half French Equatorial Africa's imports by value of cotton cloth came from Japan, whereas less than a tenth came from France. (ANSOM 1935-37) It was not till 1939 that the

authorities expressed concern about supplying the population with cotton textiles in time of war, especially as Utexléo could not meet the Belgian Congo's own internal needs. (ANSOM 1939)

The highly protectionist Portuguese tariffs of 1892 were designed to reserve for metropolitan industries the parts of Angola and Mozambique that lay outside the Congo Free Trade Zone, making up a little over half the total area of the two colonies. (Clarence-Smith 1985: 84-6) This killed off what remained of Angola's fledgling weaving industry, by sharply raising the cost of imported British yarn. (Clarence-Smith 1979: 23) Rumours of British plans to jump the tariff wall and set up factories in Angola in 1897 led to strong protests in Oporto, at the heart of the Portuguese textile industry. (Capela 1975: 168)

Plans for textile industries in Angola and Mozambique resurfaced after the creation of the Belgian Congo's factory in 1925. However, there was strong resistance in Portugal, increasingly in the grip of Antonio Salazar's despotic regime from 1926. (Teixeira 1934: 446; Macedo 1939: 280) A decree of 1932 guaranteed high fixed prices for colonial raw cotton in Portugal, in return for prohibiting the creation of textile mills in the colonies. (Clarence-Smith 1985: 163-4) The 1933 authorisation of a cotton wool factory in Luanda was a mere sop to those desiring industrialisation. (Lefebvre 1947: 143)

It took the supply dislocations of the Second World War, affecting Portugal despite the country's neutrality, to make Salazar think again. (Azevedo 1958: 330) The government's change of course, first announced in Luanda in 1942, stirred up violent controversy, but a Portuguese textile company was authorised to build a mill in Angola in May 1943. The provisions of the 1932 decree were formally annulled a year later, though they were replaced by a restrictive licensing system. (Clarence-Smith 1985: 164-5) A psychological barrier had been breached, even if textiles were not produced in Luanda before the end of 1946. (Azevedo 1958: 440)

The low profile of textiles in the 'White' territories of British Africa, despite settler power leading to industrial development in other sectors, reflected two fairly constant preoccupations. The first was a foreign policy objective of maintaining good relations with Britain, an important guarantor of military security. This gave leverage to the politically powerful Lancashire lobby, which effectively opposed tariffs against its textiles. Secondly, White miners and farmers were unhappy with protectionism which might force up the wage rate, or damage their export prospects. (Mlambo et al. 2000: 12-13; Brett 1973: 266-81)

In South Africa, there was the added complication that the authorities perceived secondary industries, especially textiles, as a preserve for poor White workers. Politically represented and unionised, they were particularly costly to employ. (Cronje 1952: 25; Saron and Hotz 1955: 364-5)

Southern Rhodesian agreements with South Africa and Britain favoured imports of British and South African textiles. (Mlambo et al 2000: 12-22) At the imperial Ottawa Conference of 1932, the Rhodesians made specific concessions on imports of British cotton piece goods, in return for guarantees on mineral products. (Cole 1968: 29). In contrast, the 1935 agreement encouraged South African firms to jump the tariff barrier and produce in Rhodesia, including a company producing cotton blankets. (Mosley 1983: 211; Döpcke 1992: 104-5)

Free trade with South Africa initially tended to favour Rhodesian clothing exports to the south. (Mlambo et al 2000: 12-22) Fierce competition between Japan and Britain in supplying cloth further benefited the garments sector. (Brigden 1934: 17, 27) When Southern Rhodesia placed duties on some South African imports in 1935, South Africa retaliated by slapping a 50% duty on garments from Rhodesia. (Brigden 1936: 6-7, 24) The Salisbury Clothing Factory then declared that it could no longer compete in South Africa with Cape Town companies employing cheap farm girls. (Döpcke 1992: 105)

As supplies came to be seriously disrupted by war, the Southern Rhodesian government intervened to encourage the textile industry from 1941. The authorities developed experimental spinning at their Gatooma cotton research station from 1943, and this turned into a full-scale spinning mill in 1948. The factory made modest profits, but was sold off in 1959 or 1960, as the intervention of the public sector was seen as a temporary aberration. (Mlambo et al. 2000: 31; Kilby 1975: 483)

Exports were stimulated by renewed free trade agreement with South Africa from 1948 to 1955, followed by a similar arrangement within the new federation of Central Africa from 1953 to 1963. Some distortion was introduced by independent India's embargo on exports to South Africa. This led to processing in Rhodesia, to meet South African criteria of 25% of local value added, a proportion raised to 75% in 1955. (Mlambo et al. 2000: 37-8, 42-5; Mosley 1983: 212, 218-19)

British East Africa and southern Somalia were included in the Congo Free Trade Zone, allowing Japanese textiles unhindered entrance, and yet the Lancashire lobby in England hoped to turn the area into a protected market. In the interwar years, all requests to set up textile mills were thus turned down. This was despite Kenya's crossing the 'technological threshold' for such industries in 1925, and the establishment of a free trade area with Uganda and Tanganyika a year before. (Swainson 1980: 26-7, 43-5, 124)

Shortages caused by the Second World War led to a cautious reappraisal in East Africa. Despite grandiose British declarations that East Africa needed industrialising, the licensing system introduced in 1943 was restrictive, and applied to cotton yarn, piece goods and blankets. In 1959 only one textile mill had been authorised for Kenya and Uganda respectively, although several licences were granted thereafter. (Swainson 1980: 116-21, 125; International Bank 1962: 275) Licensing and a stiff protective tariff in Tanganyika led to more but smaller units. (Silver 1984: 90-1) Despite a protective tariff of 22%, the Jinja mill made

large losses. The state-owned Uganda development Corporation therefore purchased the enterprise in 1957, increased tariff protection to 30%, and managed to turn a profit. (Kilby 1975: 478; Pearson 1969: 125-6)

## **Entrepreneurs**

Neither natural conditions nor government action sufficed for effective industrialisation, which required the intervention of dynamic entrepreneurs. (Booth 1991: 36) These can be roughly divided into five main groups. Textile industrialists in the West invested in plant overseas, usually in colonies under their own flag. Large Western trading concerns diversified into manufacturing, albeit rarely privileging textiles. Entrepreneurial diasporas, typically Chinese, Arab, Indian, or Jewish, took the cotton industry more seriously. Indigenous capitalists were numerous, but rarely produced on any scale. Finally, the state occasionally played a direct entrepreneurial role.

Batik and weaving workshops in Java were mostly in indigenous hands, but the larger ones tended to be owned by 'Foreign Orientals'. This label usually meant Chinese and Arabs, but could include Indians, Oriental Jews and Armenians. Many small Javanese workshops had contractual or putting-out relations with Asian merchants, who supplied inputs and credit, sub-contracted some operations, and distributed finished articles. In the last few years before the Japanese occupation, 94 sales of weaving workshops by Indonesians were recorded, of which 52 went to Chinese, 15 to Arabs, and 27 to Indonesians. As the scale of production increased, and as electrification altered productive conditions, Asian expatriates began to blur the distinction between workshops and factories. (Matsuo 1970: 39-40, 80-2; Vuldy 1987: 129-30, 138-42; Cator 1936: 117-8; Palmer and Castles 1971: 331-2; Angelino 1930-31)

Expatriate Asians later gravitated towards modern mills. Segers only writes about the Chinese, even though his own figures for 1939 show that enterprises owned by 'other Foreign Orientals' employed 32% of the labourers., a proportion equal to that for the Chinese, and exceeding the 22% recorded for Europeans. (Segers 1987: 155) In 1942, 40% of installed power-looms belonged to 'Europeans', possibly including assimilated persons, compared to 31% for Chinese, 22% for Arabs, and 7% for indigenous entrepreneurs. At this time, Arabs owned three of the seven largest textile concerns on Java. (Matsuo 1970: 47-8) A particularly impressive cotton textile 'empire' was created by the Arab Bin Marta' family from Hadhramaut. (Clarence-Smith 2000: 235-6; Post 1996: 104-5) South Asians played a lesser role, but were possibly of some significance in East Java. (Matsuo 1970: 30)

Dutch firms also woke up the textile bonanza, with the first investment on Java seeming to date from 1933. (Segers 1987: 154) By 1941, they had built up a considerable stake. (Allen and Donnithorne 1954: 258; Matsuo 1970: 48, 50) In that year, a Dutch textile industrialist set up a joint venture with the state, the Jantra cotton spinning mill, with public intervention perhaps necessary to counter growing fears of a Japanese invasion. (Allen and Donnithorne 1954: 258)

After the Second World War, restrictions on ownership of artisanal concerns by 'Foreign Orientals' fell into disuse, and most Chinese and Arab entrepreneurs adopted Indonesian citizenship. They took over an increasing proportion of West Java's textile sector. While the Chinese were more numerous and attract all Matsuo's attention, his figures show that the Arabs tended to have slightly larger numbers of looms per workshop. (Matsuo 1970: 44-7) At the same time, the state increased its stake in large units. (Palmer and Castles 1971: 322)

The Philippines embroidery business was almost entirely in the hands of 'Syrians', usually of the Jewish or Christian faith. These communities had strong ties to diasporas in the United States, notably



those controlling the immense New York garments industry. (Clarence-Smith, forthcoming) Indeed, there was a close correlation between an inflow of Oriental Jews into the Philippines and rising exports of embroidery. (Griese 1954: 49)

Spinning and weaving in the Philippines had a chequered entrepreneurial background. British capitalists owned the Tondo mill from 1897. The Philippine National Bank foreclosed on the company in 1923, and sold it cheaply to Vicente Madrigal in 1929. Of a Catalan father and a Filipina mother, Madrigal had made a fortune in shipping, and progressively built up a diversified portfolio of interests. However, the mill only made a net profit of 5% on investment, the lowest figure for any of his businesses. (Doeppers 1984: 17-19, 150-1; Yoshihara 1985: 110; Quirino 1987: 71; Stifel 1963: 36) Of the two Japanese firms that opened mills in the 1930s, the Oriental Industrial Co., or Kinka Meriyasu, had no mill in Japan, and was thus presumably a trading firm. (Guerrero 1967: 43) As for the National Development Company, owner of the 1939 Manila mill, it was a state concern, set up in 1919 and reorganised in 1936. (Brown 1989: 208-9; Stifel 1963: 31-2)

The war marked a significant shift. The assets of nationalised Japanese mills were sold, and political barriers were placed against renewed Japanese investment. (Yoshihara 1985: 71) The government also decided to sell its mills in 1958. (Stifel 1963: 35-6) Of the eighteen private textile firms that emerged in the 1950s, ten belonged to families of Chinese extraction, often adopting Filipino nationality, and five were Filipino. (Stifel 1963: 95) However, Filipino firms were often bought out by Chinese entrepreneurs, or acted as fronts for them. Most Chinese in the business were Hokkien importers who initially diversified into garments, but Eastern Textile Mills were founded in 1956 by the former owner of a textile plant in Shanghai. (Yoshihara 1985: 92-3, 96, 102-4) One exception to ethnic Chinese domination was United Textile Mills, founded in 1953 by the Lebanese Assad family, who had earlier specialised in

importing cotton textiles. (Yoshihara 1985: 117, 162; Clarence-Smith, forthcoming) English Calico set up a subsidiary in 1953, Allied Thread, to jump the trade barriers, and there was one Swiss concern (Yoshihara 1985: 78; Stifel 1963: 95)

The original Vietnamese mill in Hanoi was founded by 'several large French industrialists,' but Robequain does not give details. Nor does he indicate whether expatriate Asian capital, notably Chinese, played any role. (Robequain 1944: 280)

In Burma, South Asians were prominent. The Burma Spinning and Weaving Company was unusual, in that ownership passed from Indian to Burmese by 1923, albeit still relying on loans from South Indian Chettiars. The company soon experienced acute financial problems, and loans from the government led to nationalisation in 1927, followed by sale in 1938 to Steel Brothers, a British trading company, which amalgamated it with other interests to form the Consolidated Cotton and Oil Mills Ltd. (Theet 1989: 73-6)

The Thai government's monopoly was only broken in 1950, when Shanghai and Hong Kong Chinese capitalists set up Bangkok Cotton Mills. They used machinery from Shanghai that had presumably been removed as the Communist grip tightened over China. (Ingram 1955: 121)

In the Belgian Congo, metropolitan textile firms invested overseas. The two men who set up Texaf in the Congo were Belgian textile entrepreneurs, who bought a concession from a European settler. (Heyse 1938: 7-8) They benefited from the expertise acquired in their Belgian operations, as did the Flemish industrialists who founded the Albertville factory in 1946. (Vellut 1985) However, an unspecified Belgian bank acquired a controlling stake in Utexléo in the early 1930s. (Strihou 1961: 78)

The Portuguese pattern was slightly different. The Sociedade Algodoeira de Fomento Colonial, which came to own the mills in both

Angola and Mozambique in 1950, was a fusion of three interests. Companies with concessions to purchase compulsory cultivated colonial raw cotton formed one strand. The second was a land concession company in Angola. However, the financial muscle derived from Arthur Cupertino de Miranda's Banco Português do Atlântico, founded in 1942 on the back of remittances to northern Portugal from emigrants in Brazil. (Pitcher 1993: 163-5, Clarence-Smith 1985: 169)

In South Africa, investment in garments and textiles differed sharply. Jews, mainly Ashkenazim immigrating from Lithuania via Britain from the 1890s, enjoyed a commanding position in the early clothing industry. (Saron and Hotz 1955: 362-4) The Rhodesian garments industry, and the private textile sector, were apparently extensions of South African Jewish activities. (Cinamon 2004) In contrast, the post-1945 spinning and weaving boom relied heavily on investment by textile firms from Britain, France and Italy. Lacking power and raw materials at home to meet shortages due to war, they relocated in South Africa. The low productivity of African labour was a disincentive, however, and investment fell drastically from 1951, as world shortages turned to glut. (Cronje 1952: 26-7)

Wealthy South Asian entrepreneurial communities were at the forefront of industrial development in East Africa. (Clarence-Smith 1989b) The small garments sector that emerged in the interwar years was in their hands, and they repeatedly asked for permission to set up textile operations. (Swainson 1980: 27; Kilby 1975: 477) In the 1950s, the only textile mill in Kenya was an Indian concern. (Swainson 1980: 125, 128-9; Kilby 1975: 477) Despite a monopoly, 22% tariff protection and cheap hydroelectricity, Calico Printers of Manchester lost so much money in Jinja that the Uganda Development Corporation bought the mill in 1957. Astonishingly, Calico Printers remained as managing agents. (Kilby 1975: 478; International Bank 1962: 275) By 1963, the Indian firm of Mehta was

building a new textile mill, symbolically situated on the opposite bank of the Nile. (Pearson 1969: 127)

### **Southeast Asia and 'Bantu' Africa in comparative perspective**

Southeast Asia had much in common with 'Bantu' Africa. They covered a similar area, and were both tropical sparsely populated regions. Moreover, they had both been almost entirely subjected to Western colonial rule by the late nineteenth century. However, their textile histories diverged markedly.

The most striking and suggestive difference lay in the links between artisans and modern mills. Textile factories in Southeast Asia almost invariably developed in close symbiosis with hundreds of thousands of weavers and dyers. Their main strategy was to turn out yarn for indigenous looms, or cloth for batik, embroidery and lace producers. Governments shored up this strategy by disseminating improved machines and techniques. In contrast, modern mills in Africa seemed to turn their backs on local artisans, seeking out hydroelectric sites where they could obtain cheap power and control the entire productive process from start to finish. At best, they provided cloth for Jewish or South Asian garments workshops.

The reasons for this profound difference are not easy to grasp. A weaker cotton weaving and dyeing tradition in Africa probably forms part of the answer. However, so little has been published on this sector that it is hard to be sure. Moreover, this should not have precluded a determined official campaign to diffuse the necessary skills.

Weaker expatriate entrepreneurial groups in Africa may also go some way towards explaining the difference. Not until the very end of the period considered here did South Asian, Jewish, Arab, Greek, or even Portuguese traders obtain much leverage over textile enterprises in Africa. On the one hand, they faced powerful and organised White settler

communities, determined to frustrate their rapid economic advance. On the other hand, they encountered metropolitan industrialists and bankers desiring to control the process themselves. To be sure, there were elements of this situation in Southeast Asia, notably in Vietnam, but the relative power of economic actors differed.

That Southeast Asia's growth was initially the more rapid of the two regions partly reflected greater distance from colonial metropolises, and correspondingly greater proximity to dynamic textile exporters in East Asia. This made Western protectionism harder to enforce, as the 'tyranny of distance' ensured that duties high enough to protect metropolitan manufactures would simultaneously stimulate local enterprise. The existence of the Congo Free Trade Zone somewhat complicated matters, but not to a sufficient extent.

Conversely, the Second World War and its aftermath explain a certain reversal of roles from 1942. Japanese forces occupying Southeast Asia were obliged to adopt crude autarkic policies almost as soon as they had taken over. After the war, bitterly contested independence struggles perpetuated violence and instability for decades, and led to waves of nationalisation and economic mismanagement. In contrast, the war sparked off a phase of rapid African industrialisation untouched by fighting. Delayed independence also meant that it took longer for Africa to succumb to the destabilising political processes that ravaged the foremost Southeast Asian textile producers.

In the long run, however, the Southeast Asian scenario was more conducive to progress. Once stability had returned to most of the region, with Burma as the major exception, it was possible to build on human capital resources that had been shaken but not destroyed. The result has been the proliferation of 'Asian tigers' in the region. In contrast, large integrated African mills, like much of the modern sector of the economy, had few or no moorings in civil society. Once the crutch of authoritarian

colonial or settler rule had been removed, these enterprises often became white elephants.

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In-depth review of cotton and how it is prepared and used as a textile fibre in Southeast Asia and Indonesia. Cotton is a vegetable fibre extracted from the seedpods or bolls, harvested from a specific number of species belonging to the *Gossypium* genus – species that have evolved to have hairy seeds and have subsequently been domesticated. It is normally used in the form of a staple-spun yarn. All *Gossypium* species produce seed capsules that contain seeds with unicellular hairs, technically known as trichomes. Of great importance to the cotton industry was the repeal in 1774 of a heavy tax that was charged on cotton thread and cloth made in Britain. Combined with all the above factors were numerous inventions that transformed the British cotton industry and helped to make the UK the “workshop of the world”. In 1733, John Kay invented the “Flying Shuttle”. The hours that children worked in textile factories started to change in 1833 when an Act of Parliament was passed. The 1833 Factory Act forbade the employment of children under nine years of age in all textile mills (excluding lace and silk). Children under thirteen were not allowed to work for more than nine hours a day and not more than 48 hours in one week.