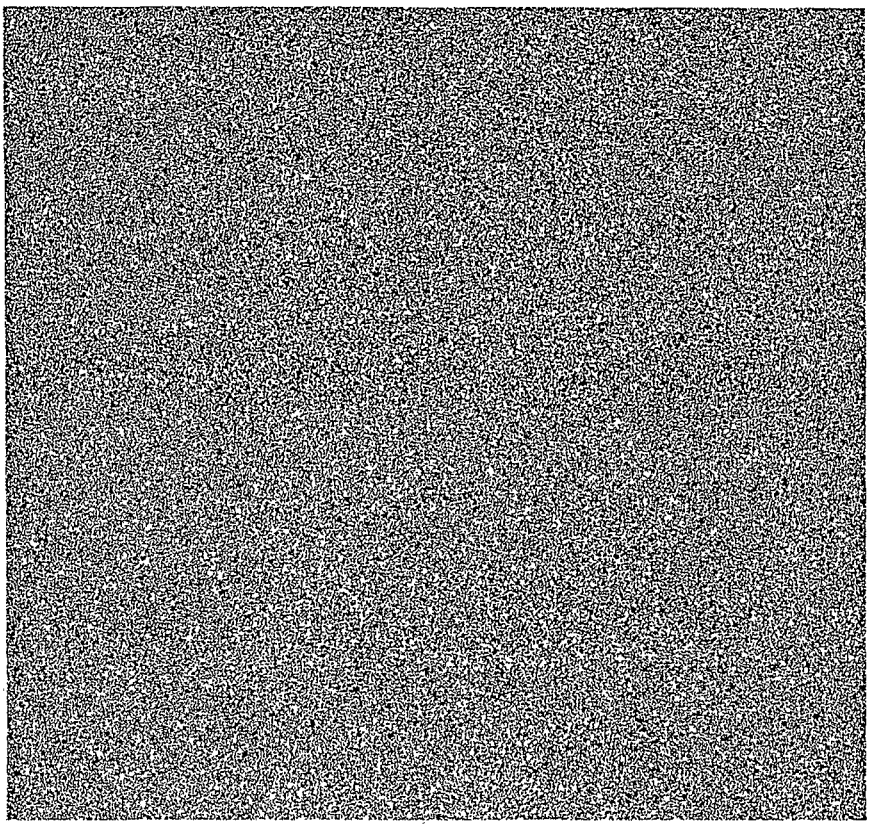
FLEXIBLE SPECIALISATION
The Potential for Jamaica
Report of an Exploratory Mission



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FLEXIBLE SPECIALISATION

THE POTENTIAL FOR JAMAICA

Report of an Exploratory Mission

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FLEXIBLE SPECIALISATION: THE POTENTIAL FOR JAMAICA

Introduction

Purpose of visit

We were invited by the Ministry of Development, Planning and Production for an exploratory visit to discuss the flexible specialisation strategy being pursued for manufacturing in Cyprus and to investigate the feasibility of launching a similar project in Jamaica.

Conduct of visit

The main focus of the visit was a series of discussions with industrialists. We visited 6 plants, and in all talked to some 40 industrialists from the food processing, textiles and clothing, furniture, chemicals and pharmaceuticals, and the business services sectors. We also had meetings with the Jamaican Exporters Association, The Jamaican Manufacturers Association, and the Small Business Association. In the public sector we talked to the main economic ministries, and the quasi public bodies, JAMPRO, the Scientific Research Council and its Food Technology Institute, the public banks, and the Management Department at the University, as well as UNIDO and UNDP. A full list of those whom we met is given in Appendix 1.

Flexible Specialisation

Over the past twenty years the regime of mass production that has been at the core of twentieth century growth has run into increasing difficulties. Its emphasis has been on productivity achieved through long runs of standardised commodities, using special purpose machinery and semi skilled labour. In a world of exchange instability, market fragmentation, and the growing importance of innovation as a means of competition, the hierarchical organisations and routinised systems of the mass producers have been ill adapted to what has been called 'the new competition'. The mass producers have found themselves crowded into the low margin end of the market, subject to undercutting from low wage economies, and to displacement by the quality, innovative producers. The United States and the UK who were the dominant economies of the mass production era, now find themselves with increasing trade deficits, and with institutions which make it difficult for them to respond adequately to the new challenge.

The successful economies have been Germany, Japan, Sweden, parts of Denmark, as well as middle Italy (the so called 'Third Italy'), which in Emilia Romagna has the fastest growing region in Europe over the past twenty years. Each of them have based their manufacturing success on production systems quite different from those of the Atlantic mass producers. Each are different but with certain common features. Together they have come to be known by the term 'flexible specialisation'.

The chart overleaf summarises the main contrasts between the mass production and flexible specialisation (FS) models. At the heart of FS is the adoption of general purpose machines and production methods which allow rapid changeover times from one product to another. A die press which takes 8 hours to change in a General Motors plant, can be switched in 4 minutes by Toyota. Programmable CNC machine tools are similarly allowing small batches to be produced with minimum down time.

Features of old and new production systems

		Fordism	Flexible production
1.	Production concept	Mass production. Economies through fixed capital and labour productivity within the production process.	Flexible specialisation/flexible automation Economies through working capital productivity between production processes and in distribution.
2.	Technology	Machinery purpose built and dedicated R&D functionally separate and discontinuous	General purpose, adaptable machinery. R&D integrated with production and continuous Importance of design.
3.	Products	Limited range of standardised products	Product variety and specialisation for for 'niche' markets
4.	Inputs	Materials and energy intensive	Materials and energy saving/information intensive
5.	Work process and skill	Fragmented and standardised tasks Strict division between mental and manual labour. Semi skilled workers	Open ended tasks/semi autonomous groups and decentralised responsibility/closer integration of mental and manual tasks/ core of multi skilled workers linked to sub-contract semi skilled labour
6.	Payment systems	Rate for the job Formalised pay bargaining	Payment for the person/rising income for skilled core More informal wage settlement
7.	Organisation and management	Managerial hierarchies Centralisation Multidivisional corporation	Flatter hierarchies Centralised information and planning systems with decentralised production. Networks, sub-contracting, franchising.
8.	Markets and customers	Domination of manufacturers over retailers, of producers over users. One way relations/mass advertising	Domination of retailing/two way relations between customer and manufacturer/firm rather than product advertising.
9.	Suppliers	Arms length/stocks held 'just in case'	Two way relations/stocks arrive 'just in time'
10.	Competitive strategy	Competition through full capacity utilisation and cost cutting Tends to over production, stock piling and mark downs	Competition through innovation Response to falling markets through diversification, and innovation

These changes have upended the old forms of production. For instead of having to produce for stock to gain economies of scale, flexible producers can produce directly for the market. Electronic Point of Sale techniques (EPOS) provide instant feed back of market demand. Manufacturers can now try out a variety of products, and - with short delivery times - produce in volume those that go well. In clothing and footwear, as in consumer durables, the life cycle of products and fashion seasons are becoming shorter. Product variety and 'market niching' is challenging the standard, mass produced commodity in sector after sector. And instead of production pushing through products on to the markets, the market is pulling through the products in response to its demand.

In Japan this has been called the Just in Time principle of production. It applies to intermediate as to final goods, the final demand being fed back to component suppliers who are likewise required to produce only what is immediately required by the market. Component delivery beside the production line has cut out the warehouse, and cut down the working capital locked up in stocks. Whereas Western car companies turn over their stocks (of inputs, work in progress and final goods) between 25 and 30 times a year, Toyota has a stock turn of 90, that is to say its stock changes on average once every four days. Working capital productivity takes its place beside labour productivity as an equal not a handmaiden.

Another aspect of working capital management is a new concern about quality. US studies of manufacturers quality suggest that 15-40% of manufacturing costs can in one way or another be traced to problems of quality: defective goods, re-runs, time spent in adjustment and fitting machine defects, customer returns, large quality departments. The Japanese have adopted the principle of 'getting it right first time'. They have brought statistical quality control to the shop floor, and given responsibility for quality as well as machine maintenance to the operator. This has entailed an upgrading of jobs and a multi-skilling of labour and stands the traditional 'Taylorist' organisation of work on its head.

A similar approach has been adopted with suppliers. Instead of handing down detailed specifications and asking suppliers to bid on cost, the post-Fordist firms looks for a supplier's capacity to innovate, working within broad specifications, and with the quality, and just in time principles that are required throughout the chain of production.

The Japanese have understood that Taylor's principles of Scientific Management, which centralise information and planning, and enforce commands through strict hierarchies and market discipline, are quite unsuited to an age where innovation and adaptability have become so central. Japanese managerial structures are therefore marked by decentralisation, to the shop floor, to plant managers as to suppliers. Central management is concerned with long term strategy, systems development, monitoring, and corporate diplomacy rather than co-ordination and command. Hierarchies are flatter, and horizontal linkages prevalent. Problems should be settled at the levels they are experienced not rise up to be resolved at the top.

The electronic revolution has been part of the new flexibility, but in general it has been 'software' rather than 'hardware' which has been most important. Many Japanese firms operate with a lower level of technology and older machinery than their American counterparts. US firms in their turn have found that new machinery does not ensure success if they have not taken on board the lessons of corporate organisation, of job design, of product design and innovation, and of a shift in seeing labour as an asset rather than a cost.

Indeed it is the change in attitude towards labour which conventional management has often found most difficult to accept. The surplus economies draw on pools of cheap labour for parts of their sub contracting, but they are not based on it. Many Japanese, German, Swedish, Danish and Italian firms pay substantially higher wages than the British and American firms whom they outcompete.

Inter-firm Networks

The above amounts to a new micro economics of the firm. The emphasis shifts from quantity to quality, from economies of scale to economies of scope, and to the economies of turnover time. But the logic of the new competition drives the demand for co-ordination outside the boundaries of any one firm. In Japan and Germany the co-ordination is organised by the larger assembly firms around which cluster hierarchies of subcontractors. In some countries it is the retailers who provide this dynamic planning function, in others like the Italian clothing industry, it is designers and distributors. Industrial associations, formal networks, cartels and consortia all contribute to this planned co-ordination, supported by different levels of the state. It is the economies of system, rather than of plant or firm size that have become critical.

The Third Italy is particularly noted for its small average firm size. Table 1 indicates the success of Italian firms in world export markets - but it is a success of smaller firms grouped in specialised industrial districts. In the shoe industry the average size of firm in Italy is 17 workers, in furniture it is 5.7, in clothing 5.3. Prato, a town near Florence of 160,000 people, has 14,000 clothing firms, yet accounts for one quarter of the world market in suit cloth. Ceramic tile production is centred in the small Emilian town of Sassuolo, woollen clothing nearby in Carpi. But these concentrations of firms are organised as if they were part of a single firm. They have specialisms between them. They share the kind of common services normally provided by functional departments and head offices. But at the same time they have the advantages of formal decentralisation, namely a capacity for innovation. The clothing firms of Prato alone produce more than 80,000 new patterns a year. The Italian experience suggests that in spite of the pressures for globalisation deriving from the need for international marketing, small firm industrial districts can be internationally competitive if they find ways of co-operating amongst themselves.

Table 1.

Production and Performance Characteristics of Firms Visited

	Sales Firm to Home Market	Sector	Batch Size	Product Variety	Capacity Utilisation	Number of workers	Source of Input	Level of final Stock	Stock Turns	Change-Over Times	Quality Control	Design and Innovation	Cash Flow Problems
A)	100%	Agro-food	Continuous flow	Narrow	30%(2)	20	Imported	Small	24	½ an hour	One person	Owner	Severe
B)	100%	Agro-food	Continuous flow	Narrow	65%(2)	150	Imported	Small	8-24	½ an hour	Three people	Limited	No
C)	100%	Agro-food	Large volume	Narrow	95%(3)	71	Imported	17 days	12	0-5 mins	Central department	Limited	No
D)	Large part	Textiles and Garments	Large volume	20	5%(3)	65	Imported	3 mths	2½-3	1 hour - 3 days	One person	From foreign associate	Severe
E)	80%	Textiles and Garments	Small and large batch	Wide range	n.a.	160	Imported	8 weeks*	4-5	4 hours	QC at 5 points	5 designers	No
F)	Zero	Furniture	Large batch (300)	Restricted	Low	110	Imported	Low	4	Low	n.a.*	Owner	n.a.

Source: Firm interviews

A decentralised state

Italy, like Germany and Japan, has also seen an important role for the state, particularly local and regional government. In Emilia Romagna the regional government helps finance common services, they contribute to training programmes, and to the encouragement of financial and export consortia. They also seek to ensure - by action in the labour market - that inter firm competition takes the form of innovation rather than wage cutting.

In the successful Baden Wuerttemberg region of West Germany, the regional government set up an innovation network of 1,000 academic research scientists, engineers and technicians to contribute directly to local technological innovation. Massachusetts - one of the US states to have taken on board the need for post-Fordist industrial policies - has established a network of small, specialist agencies to encourage innovations, manage company turnarounds, training, medium firm expansion and venture capital funding. Flexible specialistation, has, in short, grown side by side with what we might call a new type of flexible state.

Section II

The Relevance of Flexible Specialisation for Jamaica

Flexible specialisation is not a model which can be imposed. Its particular forms have depended heavily on particular cultural and historical traditions. On the other hand it suggests a set of questions and a general approach which we believe could be particularly relevant to a small island economy like that of Jamaica.

On the basis of the discussions we had with industrialists and government officials, and the background documents we were given it appeared that much of Jamaican industry is still based on the mass production model. This is most clearly the case in the 807 and CMT plants, but it is also true of many of the factories serving the domestic market. In this Jamaica is in no way extraordinary. Much import substitution and export expansion has been based on the mass production model. For basic products and larger markets this has been appropriate, but for small economies, like that of Jamaica, it has too often led to surplus capacity, poor quality and large stocks. Domestic production has been both more costly and less varied than the products of the world market. Many of the problems of import substituting industry such as that developed in Jamaica have been blamed on protection. In our view it is the production strategies that have often been at fault.

At the root of the difficulties has been the dependence of mass production on stability - of supplies, of markets, and of the industrial environment. But Jamaica, like many other developing countries, is subject to instability - political, climatic and economic. The effects of the oil price rise and international recession of the 1970's and the programmes of structural adjustment of the 1980's have been far in excess of those felt by developed economies.

In these circumstances volume producers have either had to rely on substantial and frequently revised protection, or to seek out stable sources of supply, and secure sales outlets on the world market. The former is reflected in high domestic costs, the latter in low

internal linkages and growth effects. Both appear to characterise Jamaican manufacturing. Protection is now being dismantled. But we were also struck by the relative lack of integration of the major manufacturing firms with the domestic economy. The point is clearest with the Free Zone companies. But there is also a marked dependence of domestic producers on foreign inputs, even where - as in the case of pork, and wood - there were local sources of supply. The result is a separation of mass producers from the small scale industry - low cost, flexible, but crippled by low volume - which continues to exist under the protection of distance and local knowledge,

From the evidence presented to us, it seems that there is some such dualism in Jamaica. Flexible specialisation suggests a number of promising paths both to those firms following a mass production strategy and to small scale producers:

- it seeks productivity gains through the reduction of stocks, of down time, poor quality and changeover times, rather than through new fixed investment, and is therefore much less dependent on Jamaica's scarcest commodity - foreign exchange.

- it gears its organisation and technology to adaptability rather than to what the American business historian Alfred Chandler calls, 'potential' economies of scale.

- its emphasis on product variety and innovation suggests that Jamaican industry is following the right path in building on its own distinct products and cultural history rather than adopting the standardised commodities implicit in foreign machinery and software packages. This is true not only for commodities like furniture and food, but for services like music, design and tourism. Leading Western food companies are currently targeting Caribbean cuisine as a source of recipes for the North.

- for small scale industry, flexible specialisation seeks to build on the informal networks which characterise such sectors, encouraging specialisation, the joint provision of services, and joint marketing. Whereas FS aims to make larger producers more

flexible, its goals for the small producers is greater volume through co-operation.

Above all it appeared to us indisputable that Jamaican industry, and public policy towards it, should be planned to be adaptable in the face of the external uncertainties that the country is likely to continue to face. For Jamaica, economies of flexibility are likely to outweigh economies of mass production in many of its industrial sectors.

The firm visits

We did not have time to discuss in detail with the small producers. But we did visit six plants, five of them medium sized (over 50 workers) and all among the leaders of their respective sub sectors. Their characteristics are summarised in Table 1.

In relation to our discussion, it is clear first that most are volume producers of a narrow range of standard products. In the case of the three food companies there is limited scope for high quality geared to export markets, though one of them was trying to break into the Florida based provisioning of ships. Firm C was a case where mass production of a basic commodity was clearly the correct strategy; the stability of the market allowed it to operate at 95% capacity on a three shift basis, and it was one of the two firms in the sample which recorded a profit.

Firm D was an exemplary case of a mass production strategy which had gone wrong because of external fluctuations. The machinery had been installed in the early 70's and operated profitably for two years. The oil price rise and the world recession, coupled with protective barriers in export markets, led to it running at only 5% capacity for much of the next 15 years. Long changeover times ensured that it could only produce a narrow range of designs, and as a result it had high levels of intermediate and finished goods. Significantly, however, it has now recapitalised, invested in flexible machinery

which will allow many thousands of different designs, and it has also diversified into labour intensive by-products.

The furniture firm also started out to mass produce, aiming to sell upmarket products at mid market prices. But this firm, too, has shifted to smaller batches, allowing higher mark ups. Only Firm E produced a wide product range, distinguished by design, produced partly for stock and partly to order, with a main production line divided into a volume line and a more flexible, higher unit cost line for the short runs.

In all the firms we visited we noticed potential scope for productivity improvements through the application of total quality improvement/just in time techniques. None of them placed responsibility for quality in the hands of all the operators, most having specialist quality controllers, or relying on key workers or the managers. Two had substantial rates of rejects or sub standard output, involving mark downs, reworks, or write offs.

All of them carried substantial stocks of inputs, and three had large stocks of finished goods as well. As a result stock turns were low. Many of the reasons given by the six firms for the high input stocks was uncertainty on the import market. Not only were overseas suppliers unpredictable, but imports were subject to hold ups at Customs, and through foreign exchange shortages. It should be noted that all six relied predominantly on imported inputs - and in one case production had been sharply cut back on the day we visited because of shortage of imported sugar. So in the Jamaican case, a Just in Time strategy may too often result in inputs arriving just too late. But this should not obscure the fact that the low stock turn implies a high cost of working capital, particularly serious with the current cost of overdrafts, and is clearly an area where private and public action could significantly improve capital productivity.

What we found both in the firms we visited and the other industrialists we talked to was an interest in the Japanese production techniques, in the need to expand design, and to integrate

innovation (as pursued in the Science Research Council) with production. A number of firms in the chemical industry were already implementing total quality control and preventive maintenance, as were plants which we did not have time to visit in the food industry. At the inter-firm level, those we talked to were particularly interested in the conditions which had permitted the success of consortia in Italy, given the limited progress of inter-firm co-operation in Jamaica. It would clearly be useful to analyse the reasons for the lack of progress, if the proposals in the STAS sector reports are to be advanced.

One final point emerged from the discussions - namely the importance of the link between domestic and export markets. They are often set off against each other as alternatives rather than complements but it was clear that the domestic markets for some producers had been an important basis for product refinement before taking the step to exporting. This was particularly the case for the tourist market, which represents a quasi export market, composed of visitors looking for distinctly Jamaican products. In Cyprus we found that the tourist demand was an important component of the domestic market (accounting for 42% of the growth of home demand during the 1980's), and a springboard for exports as returning visitors sought products they had first tried while on holiday. One of the textile producers who sold 80% of his products within Jamaica, estimated that the large majority went to tourists, who formed a test bed for potential exports to the USA and Europe. With his emphasis on design he was able to avoid the low margins which the majority of Jamaican clothing producers had been forced to accept on 807 and CMT contracts.

Section III

The Question of Policy

We are of the view that industrial policy is most effectively pursued through a series of sector strategies. The sector perspective runs with the grain along which industry itself is organised; it locates domestic producers in the context of the international sector, and the forces that are shaping it; and it provides the basis for agreement to be reached amongst the main parties - the industrialists, the trade unions and the government - on detailed policies for particular industries. The Japanese have put a strong emphasis on long term sector strategy, and achieving a consensus around it, as have the regions of the Third Italy.

From this point of view, we found that Jamaica has already a considerably more developed set of sector strategies than many comparable countries in the developing world. There are a substantial number of sector reports, most recently the six formulated under the STAS programme, which together with the UNIDO furniture study of 1986 form the basis for the Modernisation of Industry Programme, begun in 1987. There are significant sector institutions - including sectoral sub committees - in JAMPRO, and the Jamaican Manufacturers Associations is not only organised on a sectoral basis, but has issued a series of sector strategies of its own. The MIP has led to a programme of certification by JAMPRO which involves advice on upgrading in exchange for reductions in the tax rate on imported machinery. The scheme now involves more than 130 companies. In addition consultants have visited particular firms to provide advice on restructuring.

It is also striking that Jamaica has already advanced along a number of paths that would be favoured by a flexible specialisation strategy. A Design Centre is shortly to open, there have been projects to provide key intermediate industries for particular sectors (like the restructured textile factory under Chinese management) and there have been a number of attempts to promote co-

operation between firms, notably the Furniture Guild and the currently proposed Apparel Resource Centre.

Nevertheless, even in the short time we spent in Jamaica a number of things seemed clear:

a) Much of the substance of sector strategy remained in the mass production tradition, with an emphasis on volume fixed investment and low labour costs, and too little attention given to innovation, design, and Japanese production methods.

b) The incentive schemes also reflect this approach with an emphasis on investment in hardware rather than software. The reduction of the capital goods import tax as part of the JAMPRO certification scheme, is one example.

c) There remains a problem of continuity and implementation of sectoral recommendations, stemming in part from lack of agreement between the various public and quasi public institutions concerned. We suspect this is the result of recommendations proceeding before the achieving of consensus, and the absence of a single point of authority within the government to push through generally agreed recommendations.

d) The National Development Bank is, for historical reasons, a wholesaler of funds, operating through commercial banks rather than dealing directly with firms. This removes a key instrument for active support for restructuring from the public sector.

e) There are strong forces which work against long term industrial restructuring of domestic Jamaican industry along flexible specialisation lines. These include the dominance of mass retailers in some sectors, the growing attraction of trade and tourism relative to manufacturing, and the prevalence of low cost volume production in the 807 and CMT sectors.

f) There is as yet no adequate means for co-ordinating the individual 'chains' of production across public and private sectors.

g) The sector proposals of the Jamaican Manufacturers Associations are largely directed to the Government, and say little about what the firms can do for themselves, individually and collectively. Given the severe constraints on the Government as a result of the programme of structural adjustment and the consequence of the hurricane, industrialists may have to place greater emphasis on what they can do for themselves - whatever the merits of their public policy proposals.

h) International Agencies, particularly the World Bank, need to place much greater weight on providing for the upgrading of manufacturing if Jamaican industry is to survive, let alone significantly expand its exports. Some 30 clothing firms have now closed, and many others are operating at a loss. The cost and availability of working capital, and foreign exchange are having the opposite effect to that which is necessary, leading to input shortages, machine breakdowns through lack of maintenance and spare parts, stock-piling of imported intermediates where working capital permits, and the use of readily available but low quality domestic materials. Seeds cannot germinate in a frost.

Section IV

The Next Steps

Three points summarise the main findings of our mission. First, both manufacturers in Jamaica and the Government's industrial policy apparatus are confronting problems where the new approaches promise significant benefits. Second, a start has already been made by some firms to shift their approach to the management of production and marketing in the direction of flexible specialisation. Finally, many of the government officials with whom we met have seen considerable possibilities for Jamaica in the alternative industrial path opened up by flexible specialisation.

These findings point to the value of exploring further the relevance of flexible specialisation as a starting point for the renewal of indigenous manufacturing in Jamaica. In considering how best to do this, we have been guided by the principles underlying the success of the new model in Italy, Japan, Germany and Scandinavia.

Implementation Strategy: Consensus, Incremental and Strategic

This means giving precedence to attaining a collective understanding between government, industrialists and labour as to what flexible specialisation means for production, policy and inter-firm relations. Full public discussion over the relevance of these ideas to Jamaica must be part of this; as well as efforts to achieve a consensus as to the direction and content of an industrial development strategy based on flexible specialisation.

Creating this "common culture" of understanding and consensus is no easy matter. Yet its cultivation among the different social groupings with an interest in industrial development in Jamaica is critical to long term success. There will be little forward progress unless all the actors agree on the need for change, on the direction in which to proceed and on the precise steps to take along the way. The result of investment in developing a shared perspective is less

tangible than investments in machines. Yet it is now coming to be seen as if anything more important.

A further principle is the need to move forward on an incremental basis. This means eschewing large, complex, one-off interventions that are akin to the expensive plants typically erected under the mass production model. Instead the initiatives taken should be small and sustained over time. Taking this step and step approach allows for flexibility and feedback between stages. The project can then be adapted to deal with problems and meet specific demands as they emerge.

Complementary to this incremental approach is the need to tackle problems that are both specific and allow all groups affected by the problems to learn from being involved in its analysis and solution. This means selecting a specific issue, perhaps the difficulties faced by one firm in getting goods through the ports. We would then convene a project task force composed of people who deal specifically with that issue within the firm, as well as from customs, from the ports, etc. and follow it through until the root cause is identified and solved.

The Proposed Plan of Action

In light of these principles, we propose a two stage plan of action organized in the following manner. Stage One will involve a series of relatively short, targeted activities spaced out over six months designed to create a momentum and climate for change. A wide range of meeting, seminars and discussions will be conducted to build up political backing at the highest levels, as well as raise consciousness among industrialists, trade unionists and relevant government bodies and parastatals. Small case studies will be undertaken and task-forces convened to generate Jamaican evidence that can be used to illuminate problems and test the approaches to problem solving (implied by the model) that will ultimately be used on a much wider scale. We also suggest taking a pilot sector as a link in to the MIP.

Stage Two is a larger, more sustained effort that builds on the findings and experience of Stage One. Two additional sets of output are envisaged. The first will be the design and implementation of long term sectoral strategies. The second will be a set of strategy papers that tackle cross-cutting issues of particular relevance to the success of industrial strategies based on flexible specialization in areas such as education and training, the incentive system and science and technology. In both cases, all relevant groups will be directly involved and responsible for analysis, decision-making and implementation. The analysis and design phase will be accomplished through a workshop mechanism while implementation will be pursued through task specific working parties.

It is proposed that I.D.S. convene a team of consultants who will assist in the activities and in the manner specified below. The team will consist of sector and functional specialists. Each sector specialist should be experienced both in the new patterns of marketing, competition and production emerging in the advanced industrial countries, in the industrial development problems faced by developing countries and where relevant in the specific techniques of production used in the sector. The functional specialists will have expertise in cross-cutting fields such as design, information technology and in the new methods of organizing production within the firm, including Total Quality Control, and Total Preventive Maintenance.

Section V

Terms of Reference

STAGE ONE; BUILDING A COMMON CULTURE IN SUPPORT OF INDUSTRIAL REGENERATION AND FLEXIBLE SPECIALIZATION IN JAMAICA.

Seminars and awareness

i) A series of one day seminars involving the most senior policy makers from the government at which arguments for flexible specialization in Jamaica and the implications for policy and action are explained and discussed. Participants in the seminars should ideally include the Prime Minister, the Ministers and PSs from the key ministries including Development Planning and Production, Commerce and Industry, Finance, Agriculture, Transport and Education as well as the leadership of relevant parastatals such as the Central Bank, the Development Banks and the Port Authority.

ii) A four week seminar at IDS in the early New Year for 6-10 people who will be involved in taking forward the project in Jamaica. They may come from the Government, the industrial associations, the financial sector, the trade unions, the university or from industry itself. The aim would be to have a core of people who are acquainted with the international literature in flexible specialisation, who have visited firms where the new principles are in operation, and have discussed the issues with practioners. The period would also be used to prepare material and course outlines for use in Jamaica during the first phase.

iii) A series of one week seminars in Jamaica - using the material developed in (ii) - focussing on middle level officials, on industrialists, financial officers and trade unionists who will be directly concerned with the implementation of the programme.

iv) A series of one day meetings for groups of industrialists concentrating on Japanese production techniques presented by visiting management specialists.

v) Provision should also be made to fund development time in Jamaica to enable such bodies as the JMA and SBA, as well as the Management Institute at the University, to run their own training courses in aspects of flexible specialisation.

vi) A programme of public meetings and seminars, press features, and television programmes. It would be valuable to develop-in conjunction with Jamaican broadcasters - a series of videos which could be used in the meetings and seminars outlined above.

Case studies

vii) An IDS consultant working with one or more local counterparts will carry out case studies that compare firms that have successfully adopted the new management and production practices with firms who continue to pursue conventional approaches. These studies will be an invaluable device for alerting people, particularly industrialists and trade unionists, to the possibilities for change in Jamaica.

viii) Two pilot projects to be set up to actually introduce new management and production practices to local manufacturers. The idea would be to bring a visiting specialist to work with the pilot firms on a day to day basis, documenting (through video and written material) the before and after situation. The results would then be used as part of the ongoing educational activities in Stage 1 and 2. This method of practical exemplars of new methods has been widely used in agricultural development.

ix) The joint development with industrialists of a flexible specialisation strategy for a pilot sector, preferably the agro

industrial sector. We would propose bringing a team on a short term visit to work with industrialists, the team to consist of practising specialists from key parts of the modern food industry - food retailing, quality food production, the health food sector, and the food consumer movement.

Study visits

x) As a follow up to this joint work, it would be valuable to arrange a one week trip for members of the Jamaican food industry to the Third Italy, to visit factories and look at the collective service institutions there, particularly those concerned with food technology. Since our visit to Jamaica we have talked to the regional government in Emilia Romagna - one of the centres of the Italian food industry - who said they would be ready to arrange such a visit.

STAGE TWO: FORMULATING LONG TERM SECTORAL STRATEGY

The overall objective of Stage One is to lay the groundwork for moving into other sectoral and issue specific activities in Stage Two. By the end of Stage One we hope that there will be a critical number of people in the public and private sector to provide a momentum for the project, as well as a stock of material and a core team of Jamaicans to carry forward the awareness and case study work in stage two. The aim is to establish an indigenous commitment and a competence. This alone can give continuity in what is necessarily a long term programme for re-orientation and restructuring. One of the continuing lessons of industrial strategy in both developed and developing countries is that it takes a long time to take effect. This recognition must be built in at the very start of the project, and it is why we have structured the first phase in this way.

The second stage we envisage lasting one year, and should consist of three things:

a) a continuation of the programmes of Stage 1, largely undertaken by the core group of Jamaicans

b) In addition to the agro industrial project, four further sector strategies. These could be launched in the second half of 1990, in series of four week projects, with the following components..

- Week one - firm visits by consultant and counterpart.
- Week two - workshop involving industrialists, government officials, labour, etc. Sessions on international situation; sector situation; discussion of consultant proposals to tackle sectoral problems open to co-operative action; JIT/TQC sessions a possibility if not being covered by other activities.

- Week three - consultant and small working party draw up sectoral strategy and priorities for action based on workshop discussions.

- Week four - Dissemination and public discussion with all relevant parties. Setting up of working groups, objectives and timetable to pursue specific problems.

c) The preparation of strategy reports on cross cutting themes relevant to the implementation of flexible specialisation in Jamaica. Among the areas to be considered would be:

- Tax incentives
- local capital markets, and the role of the development bank.
- education and technical training.
- design
- science and technology
- the transportation and communications sectors.

- industrial parks
- government support for consortia
- the structure of retailing
- labour market policy, and job design.

At the completion of Stage Two we would envisage producing a Jamaican Industrial Strategy, registering the progress already made, and providing a detailed way forward for the medium and long term.

Appendix I

List of those with whom discussions were held:

Government.

Ministry of Development, Planning and Production

H. S. Lawrence M.P.	Parliamentary Secretary.
Dr. A. Ventura	National Adviser, Science and Technology.
M. Stephenson-Vernon	Director, Economic Development.
Dr. O. Davies	Director,Planning Institute of Jamaica.
Dr W. Hughes	Planning Institute of Jamaica.

Ministry of Tourism

T. Scarlett

V. A. Wyatt

Ministry of Commerce and Industry

C. Clarke M.P.	Minister of Commerce and Industry.
B. Rose	Industry Division.
J. Hastings	Industry Division.

Mines and Quarries Division

C. G. Roache	Commissioner of Mines.

Scientific Research Council

Dr. G. V. Taylor	Executive Director.
Dr. A. Lynch	Director, Food Technology Unit.

Jamaica's Economic Development Agency

W. Gooden	Director
V. P. Veira	Director, Modernisation Secretariat and Technical Assistance Division
V. Pottinger	Director, Planning and Economic Policy.
M. Galloway	Director, Service Industries Division.
D. Palmer	Manager Technical Assistance Unit.
A. McIntosh	Senior Investment Promotion Officer, General Manufacturing Unit.
J. Scott	Senior Promotion Officer, Minerals, Chemicals and Heavy Industries Division.
D. Tomlin	Feasibility Studies Unit.
S. Lewis	Public Relations and Advertising Division.
M. Casserly	Technical Assistance Unit.

Statistical Institute of Jamaica

R. R. Booth	Director, Research and Development.

Kingston Free Zone

A. Philips	Clients Service Manager.

Finance

S. Tulloch	Director, Research and Planning, Agricultural Credit Bank of Jamaica.
N. L. Bennett	Managing Director, National Export-Import Bank of Jamaica.
G. Dreyer	Workers Bank.

Industry

A. Morrison	Jamaica Manufacturers Association.
J. Cassell-Deer	Jamaica Manufacturers Association.
J. Isaacs	Small Business Association.
A. Mossop	Jamaica Exporters Association.
U. P. Alexander	Grace, Kennedy.
S. L. Campbell	Cee Foods Ltd.
B. Davidson	Challenge.
C. Lawrence	Colegate-Palmolive.
J. Fletcher	Salada Foods.
C. R. Cooke	Shamrock.
R. Adams	Shell.
W. A. Reid	Caribbean Publishing Co.
T. Smith	Kingston Heirlooms.
L. A. Chin	Soft Sheen/Lasco.
W. B. Van Riel	MRA.
N. Young - Chin	Jamaica Carpets Mills Ltd.
C. Chambers	Altech.
V. Matross-McIntosh	Montrose Laboratories.
E. J. Dreyer	Fashionwhirl Boutique.
G. Martin	Jamaica Crafts and Prints

Members of the Chemical Manufacturers Association of the Jamaican Manufacturers Association.

United Nations

H. N. Cholmondeley	Resident Representation, UNDP.
P. Gebert	Programme Officer, UNIDO.

University of the West Indies

Professor N. Girvan	Head of the Consortium of Graduate Studies.
Dr. R. Williams	Head, Department of Management Studies.

APPENDIX 2

The case of Cyprus

In January 1987, a team from the Institute of Development Studies at the University of Sussex, was invited to Cyprus to produce an Industrial Strategy for the Greek section of the island. Manufacturing had developed rapidly after the Turkish occupation in the North in 1974. It was centred on light industry - food processing, clothing, footwear and furniture - geared partly to the home market, and partly to the post-oil boom Middle East. Growth in both was faltering by the mid 80's in part because of competition from South East Asia, and from quality goods from Europe. Cyprus had decided to seek Associate membership of the EEC, (which was agreed in late 1987) which meant dismantling high tariff walls, and promised the destruction of much of her manufacturing industry. The Industrial Strategy was to explore what possibilities if any existed, particularly with respect of a shift in export orientation from the Middle East to Europe.

In spite of the islands size (600,000 people plus one million tourists p.a.) and in spite of the predominance of small family firms in all sectors, most Cypriot producers had followed a mass production strategy. Emphasis was on volume rather than quality, with designs copied mainly from Italy. With the decline of the Middle East, some producers had become sub-contractors for the EEC (in furniture and clothing), while others pressed for imported Arab labour to keep wage costs down. The low margins from sub contracting, and the growing disparity between Cypriot and North African (and Asian) wages, suggested that neither of these policies offered long term prospects for growth.

To defend the Cypriot market against European imports as the tariffs came down, and to expand exports to Europe itself, it became clear through a long series of discussions with industrialists, that a flexible specialisation strategy offered some hope of advance. For the firms this meant a new emphasis on quality, on design, and on inter firm co-operation in a variety of fields. For the Government

it meant a shift in the system from hardware to software; a policy of indirect support to consortia, and to sectoral resource centres run by the industry; a shift in the direction of training towards multi-skilling as well as managerial competence; the stimulation of a design culture, in part through the setting up of a design centre, college, and a museum of contemporary design. The Cyprus Development Bank was to be expanded as the key interface between public policy and the long term development objectives. Finally, there was to be a new emphasis on a series of rolling sectoral strategies, involving the Government, industry, trade unions and consumer organisations, the last of whom being seen as an important generator of quality and innovation in the industrial sector.

The first stage of strategy formulation has recently been completed, and a second phase is shortly to begin. The process has been centred on regular visits by team members, whose task has been to advise industrialists on the formulation of strategy, and to secure a consensus between industry and government. One consortia in the furniture sector has already been operating successfully for the past 18 months. Details of its operations are given in Appendix 3. Clothing industrialists have completed plans for a clothing resource centre, and have been successfully introducing Japanese production techniques. A new incentive scheme has been passed through Parliament, the Development Bank has had its funds increased, feasibility studies have been undertaken on the design project, and on a Good Food Guide to act as a pressure to improve quality in the food processing and tourist industries. Earlier this year two groups of industrialists visited the clothing and furniture industries in Italy, and a programme of seminars and advice on new production methods has been started for industrialists, initiated by their Industry Associations, and jointly financed with UNDP and the Cyprus Training Authority.

Appendix 3: Consortia Development in Cyprus: The Case of A-Z

The most important development within the Cypriot Furniture industry between the first and second visit of the UNDP/UNIDO industrial strategy mission has been the formation of A to Z Ltd. by twelve independent Limassol furniture manufacturers. Before the formation of A to Z Ltd. each of the twelve manufacturers either retailed directly from the factory or from their exclusive retail shops for which each manufacturer produced the whole range of furniture required for a retailing outlet. The resulting lack of productions specialisation increased costs as production runs were short and the variety of products was large.

1. The Concept

The purpose of forming A to Z Ltd. was to transcend the barrier to production specialisation caused by the vertical integration of manufacturing and retailing. It began with an approach by several Limassol manufacturers to the Cyprus Development Bank (CDB) in August of 1986 to consider a merger. After discussion, the original manufacturers increased to twelve who agreed to hire the CDB to carry out a feasibility study to consider alternative forms of cooperation. In early 1987, the twelve formed A to Z Ltd. as a private showroom for the twelve manufacturers for which each manufacturer specialises on a single product line. Manufacturers can continue to maintain private showrooms but may not sell the same product offered in the A to Z showrooms.

The first common showroom was opened in an excellent location in Nicosia in May 1987. Since then two other shops have been opened, one in Limassol and the other in Paphos and a fourth will be opened soon in Larnaca, Sales have already exceeded projections.

A to Z Ltd. is pursuing a strategy of providing a quality product with short delivery times. Customers wait no more than 17 days for delivery. Any late delivery results in a fine according to an escalating fine structure starting with C£ 25 for the first, C£ 50 for the second, C£ 100 for the third and C£ 200 for the fourth. After four fines in one year, the same product line can be offered to another shareholding manufacturer.

Every delivery must be made to a common warehouse two days before it is due to the customer to be checked for quality. If an item of furniture fails to meet the quality standard it is returned to the manufacturers with a fine schedule identical to the one for lateness.

2. Organisational structure

All firms have equal shareholdings. A five member executive committee meets once a week after work to set policy and oversee the activities of the 20 employees of A to Z Ltd. as well as three subcommittees. Each of the sub-committees has three members of the company plus the A to Z manager.

A retail sub-committee does market research, oversee advertising and advises manufacturers about how to improve the attractiveness of their products to consumers. On the basis of a comparative study of retail costs A to Z recently raised prices by five percent, both at the manufacturing and retail level.

A design sub-committee coordinates designs, styles and colours as well as approving any alterations. It also oversees the design of the retails shops and seeks to enhance the interior design capacity of A to Z Ltd.

A costing sub-committee reviews the costs and prices of each member. Firms set a price that covers direct costs plus a fixed percentage for overhead. Each member of the sub-committee visits every manufacturer to examine methods and provide advice on how to reduce costs it they are out of line. Any disagreements are settled by the executive committee which is composed of men with many years experience in furniture manufacturing.

3. Common Services

A to Z offers a range of common services to its members including the following:

a) retailing. For the first time the Limassol furniture manufacturers can offer their products in other Cyprus cities and can do so within attractive retailing outlets that are collectively owned and managed.

b) purchasing. Members have enjoyed discounts of as much as 25 percent on materials for joint purchases.

c) transportation. A to Z vans are shared by all members.

d) advertising. A to Z Ltd. engages in advertising in each of the cities in which it has shops, an activity that was not engaged in by most of the manufacturers before the formation of A to Z Ltd.

e) marketing. The A to Z staff includes two marketing staff members that engage in research and propose product developments.

f) interior design. A to Z has employed an interior designer both to do showroom layouts and to encourage common themes amongst the manufacturers.

g) consultancy. A to Z was formed on the basis of the first cooperative act in which the members engaged, paying a fee for the Cyprus Development Bank to carry out a feasibility study.

h) financial services. Eight of the member companies have borrowed from the Cyprus Development Bank on the basis of coordinated business plans.

4. Production and Cost Results

Manufacturers estimate that per unit costs on the specialised furniture is 20 to 25 percent less than before the formation of A to Z Ltd as a consequence of longer production runs. At least one of the manufacturers has moved into larger facilities and several have invested in new, more specialised machinery. The Union of Woodworking Firms in Limassol, which preceded the creation of A to Z Ltd., has organised seminars by a furniture expert at the Cyprus Productivity Centre which have been financed by the Industrial Training Authority. The same furniture expert has assisted several companies in reorganising production facilities to speed up the flow of materials.

Increased specialisation has meant that the member firms can increase the variety of ranges offered. Firms can increasingly pursue variations on a theme rather than the production of different products.

5. Employment and output effects

A to Z employs 20 people including drivers. Most of the member firms have increased employment, some substantially. One of the three firms we visited, a highly successful member, has more that doubled its employees from 7 to 15. A second, which started a new line with participation in A to Z LTd., also increased employment by 8.

Most of the firms are confronted with a shortage of skilled workers even though wages and benefits per worker amount to between C£ 100 and C£ 120 in the firms that we interviewed. This figure exceed pay in clothing and footwear by a substantial amount.

6. Interfirm cooperation and enterprise development. A community and industrial district

A to Z Ltd. has illustrated the positive benefits that can come from interfirm cooperation. Each of the participating firms has maintained its independent identity while enjoying opportunities that were not possible with individual action.

The twelve firms are all located within the Limassol region, several on the same industrial estate established by the Ministry of Commerce and Industry. Geographical proximity and interfirm cooperation ensure continuous consultation, both horizontally across the firms and vertically between the manufacturers and A to Z.

Cooperation and consultation stimulate enterprise learning and facilitate the adaptation to change that sustains development.

New ideas in any member firms are not only quickly disseminated, but problem solving capabilities are enhanced. Solutions to problems are developed through dialogue and institution building as problems emerge. For example, the costing sub-committee identifies high cost activities and suggests means of reducing costs, and the 17 day delivery limit forces less streamlined firms to upgrade their operation or face mutually agreed upon penalties. Similarly, attention to quality at the A to Z warehouse puts pressure on each member company to meet the agreed upon standards or risk censure by colleagues. Each of these institutional developments represent group solutions to enterprise problems brought about by the increased problem solving capability of several firms working together. In so doing interfirm cooperation enhances the capabilities of every firm.

In fact, the member firms share a social life as well. For example, at Christmas, buses were chartered to transport the members and their families to a party in Nicosia. Such community provides the social cohesion that reduces the need for supervision. The success of A to Z depends upon member firms not cheating by offering A to Z furniture in individual showrooms at discount prices. Social disapproval provides a powerful disincentive to any member that engage in such an activity. A purely market relation has no such built in disincentives.

7. Assessment

A to Z Ltd. has introduced a new dynamic into the Cypriot furniture industry. Other firms must respond or risk losing market share. Two of the largest Cypriot furniture manufacturers are in the process of opening new much expanded retailing outlets. Many smaller manufacturers are discussing joint retailing activities for the first time.

Nevertheless, A to Z Ltd. has a number of problems to tackle if it is to survive and grow as the international competition increases.

a) production costs. A to Z Ltd. imports small amounts of Italian furniture to complement its range. From the prices charged, A to Z Ltd. staff estimate that members costs are roughly 40 percent above those of the Italian firms.

Sustained success depends upon the advance of product specialisation turing into activity specialisation in the long run. Activity specialisation demands the introduction of new machines and the further refinement in production methods if member firms are to enjoy the same networking advantages as their Italian competitors. An Italian furniture firm has access to a range of specialists in activities such as turning, carving, veneering as well as services.

Many advances have been made in modularising components of furniture, particularly in Germany. These development need not and should not be developed in all activities, but for certain products, such as kitchen cabinets, the modularised methods offer substantial cost economies.

b) quality. Progress is being made, but further steps are necessary. Today A to Z firms use medium density fibre board where the international competition uses the cheaper veneered particle board. Transition to the more costs efficient methods introduces a series of more difficult woodworking processes which will have to be mastered if quality is to be sustained.

A to Z is on the right track to seek a competitive advantage on the basis of quality, but quality control in woodworking is a most difficult achievement which will require the development of new management systems based upon self-inspection processes and the upgrading of existing worker skills on more specialised machines.

c) design. A to Z member firms rely upon imitations of Italian designs as opposed to developing an indigenous design culture. The successful integration of design and production is another prerequisite to effective resistance to the Italian imports in Cypriot furniture retailing outlets.

Increasingly the European furniture industry is turning into an interior design and furnishing industry. This demands that furniture retailing includes a substantial design component not only in furniture but in accessories made of fabrics, metals and plastics.