# Chapter VI

# Government policies for human resource development and transnational corporations

In an increasingly liberal policy environment, human resource development remains one area in which the role of government is more important than ever. Indeed, as competitiveness is increasingly determined by created assets, it is important that governments effectively coordinate their policies for human resource development with measures to attract foreign direct investment (FDI). In that context, this chapter seeks to answer three major questions arising from the discussion in Part Two and, especially, chapter V:

Since it is important to have available a skilled workforce *in situ* to attract FDI, what can governments do about creating such a workforce? In other words, how can governments achieve a competitive edge with respect to FDI through human resource development policies?

Since it is also important to attract transnational corporations (TNCs) *because* they do contribute to human resource development, what can governments do to attract TNCs that particularly do so?

- Since it is an important public goal to encourage TNCs to participate in human resource development, what can governments do to encourage TNCs to contribute to an extent beyond just their own minimum requirements?

In discussing these issues, this chapter suggests that governments should adopt policies that facilitate human resource development as a means to enhance a country's attractiveness to FDI without resorting to monetary incentives that are too costly for governments and without imposing unduly heavy burdens on TNCs in the form of mandatory requirements.

In that context, the Government of a host country needs to focus on the national long-term objectives for human resource development, but needs also to be aware of short-term realities. In particular, it is important for governments to keep in mind that the extent to which individual host countries can benefit from TNC contributions in this area depends to a large extent on how TNCs are able to balance their own competing requirements of global-scale efficiency of their operations with locally responsive strategies. Therefore, promoting human resource development requires policies that strike a right balance between ensuring that local goals are supported, while taking account of TNCs' needs to be competitive in a global market. Furthermore, in order to maximize the contribution of TNCs to human resource development, the formulation of FDI policies should also take account of three factors (see chapter V). First, greater attention should be focussed on TNCs that would provide training and skills development that would not be forthcoming in their absence. Second, labour turnover and forward and backward linkages are required for newly acquired skills to be passed on or otherwise diffused in the local economy. Third, human resource development costs should actually be a contribution by TNCs and not be borne by employees in the form of lower wages.

The discussion in this chapter is divided into three sections. Section A points out that all national policies that are directly or indirectly related to human resource development have some impact on how attractive a country is to foreign investors; it also points out that matching training programmes to the special needs of TNCs can provide a competitive edge for attracting increased flows of FDI. Section B explores ways and means of formulating special policies to channel FDI into areas that most enhance skills through training, both within foreign affiliates and through forward and backward linkages. Section C examines policies that encourage or mandate investments in human resource development by TNCs, including policies extending beyond their normal requirements. Its message is that the aim of policy makers should not only be to attract FDI that involves the highest possible levels of skills development, but also to induce TNCs to undertake the maximum possible amount of training.

## A. Achieving a competitive edge for foreign direct investment through human resource development policies

The effectiveness of FDI policies depends, among other factors, on the existing human resources pool of a country. Whenever necessary, TNCs contribute through training or other programmes to the development of specific skills that they require for their operations. But the extent to which a TNC would be able to impart such skills to a workforce in a host country largely depends on national absorptive capacity in terms of the basic quality of the human capital. Other things being equal, the more the focus of national education programmes is placed on creating a workforce that is generally literate and skilled, the higher the probability of attracting FDI. Ultimately, therefore, all general policies that are directly or indirectly related to human resource creation have some impact on the role that can be played by TNCs in the human resource development of a given country.

Providing an initial base for the development of a skilled workforce is often accomplished through policies that emphasize the quantitative expansion of vocational education in technical fields. The vocational training programmes could be either public training programmes or in-house programmes by industry. In many countries, major emphasis has also been put on changing attitudes to the technical professions. For example, the Korea Advanced Institute of Science was established to provide an example and stimulus to reorient graduate education and research at all universities throughout the country. Traditionally, the individuals skilled in fields of technology had not been highly regarded in the Republic of Korea. A technical qualification system was designed to change this tradition and to assign a qualification status and recognition equivalent to that of other professionals.

For countries trying to attract TNCs into more advanced manufacturing, the demand for university graduate-level technical manpower often increases considerably, both in quantitative and qualitative terms. As the strengthening of science and engineering college education becomes essential, many governments have therefore found it imperative to expand university and graduate education greatly, with special emphasis on science and technical fields such as engineering.

Achieving a competitive edge for participating in international production, however, goes beyond having a literate and skilled human resources pool. Matching national education programmes with the needs of the private sector, and particularly the special requirements of TNCs, is becoming an important goal of many policy makers. In today's globalized economy it is necessary that governments implement educational programmes leading to the development

### Box X.1. Investing in human resource development to strengthen locational advantages: South Carolina's training programme

South Carolina has been highly successful in obtaining new investment, attracting 45 foreign manufacturers between 1990 and 1992. One in four manufacturing workers in the State of Carolina is employed by a foreign affiliate. South Carolina has developed a distinctive brand of industrial policy directed at expanding high-technology industry in the State. Major infrastructure investment, such as Atlanta's Hartsfield International Airport and a state-of-the-art telephone network have been important contributory factors. However, South Carolina's competitive edge may well have derived from its commitment to training workers.

In 1961, the State started its Special Schools Programme. While the original intention was to stem the flow of young workers leaving the State, the Programme has now evolved into a state-financed custom-training scheme. The Programme's curriculum unit works with the employer to create appropriate training courses and work manuals. The training is provided within one of the State's 16 technical colleges or at the plant site, often utilizing instructors drawn from the company's own managerial and technical staff. Training is provided in the areas of mathematics, reading, conflict resolution, effective communication and statistical process management. In 1992, the Programme provided training for 6,500 workers from 120 companies at a cost to the State of $6.4 million.

An example of how this approach paid off was BMW's decision, in 1992, to locate a $400 million plant, with 2,000 jobs and a $66.5 million annual payroll in the State. BMW spent three years assessing 250 alternative locations in ten countries in its search for a lower-cost overseas site for production of its 3-series model of automobiles. One of the final two locations considered was a 1,000 acre area in South Carolina. Within a four-month period, the State and local governments spent $36.6 million to acquire all 140 properties of the families that lived in that area. For a company such as BMW, the Special Schools Programme undertakes everything from placing vacancy advertisements to screening potential employees on the basis of such factors as eye-hand coordination and compatibility with team-working. The programme has guaranteed BMW five qualified applicants for each job vacancy.

*Source*: "The boom belt", *Business Week*, 27 September 1993.

of a workforce that is flexible and well-adjusted to the constantly evolving world of international business. Yet, often one of the challenges faced by both developed and developing countries is the existence of inconsistencies between the education offered by the State and the skills required by the private sector in general and by TNCs in particular. As a result, policy makers in a number of countries have often striven to formulate policies that constantly evolve to be more entrepreneurial and responsive to the needs of business (and TNCs), while they relate to the specific development goals of each individual country. This can involve custom-made State training schemes tailored to the specific requirements of individual foreign investors (box X.1).

In pursuing such schemes, due attention needs to be given to sectoral changes. The pace at which jobs are growing in the services sector is outstripping that of employment in manufacturing in industrialized countries and in an increasing number of developing countries, and promising forecasts of further growth call for a special focus on services in formulating policies for achieving a competitive edge for increased FDI through human resources development. Although many countries have vocational training programmes to expand a skilled workforce attractive to TNCs, most programmes are still designed primarily to meet the needs of manufacturing and extractive industries. Policy makers need to catch up with the increasing importance, sophistication and skill intensity of TNCs in the services sector. What is necessary is the introduction of training programmes that are targeted to meet the basic requirements of a wide ranging variety of TNCs in this sector.

For countries trying to attract TNCs into service industries with a potential for human resource development, government-sponsored training schemes can, again, be critical. The enhancement of human capital through such schemes, when coupled with other factor endowments, often induces service TNCs to upgrade their existing operations and encourages new investors to locate in regions where there is an available supply of skilled labour. For instance, the raising of educational standards and skills in the south of the United States has been identified as being vital for attracting service enterprises to invest in this region.[1] Another example pertaining to Singapore, where the National Productivity Board (a governmental agency) and Singapore Airlines have set up the Service Quality Centre, a training institute for service workers. Between the end of 1990 and November 1991, the Centre is reported to have trained more than 6,000 persons of all occupational categories from foreign affiliates of such TNCs as Citibank, Kentucky Fried Chicken and Shangri-La Hotels.[2]

While the coordination between the needs of TNCs and programmes of vocational training institutions is becoming more common, the needs of international business have generally not been reflected in curricula for general education in secondary schools and universities. In fact, many school administrators continue to maintain a certain degree of defensiveness against what they see as their responsibility, arguing that TNCs and business in general have special expertise and interest in vocational training, and that is where their main concern should remain. In one country, the law actually prohibited TNC staff, national or expatriate, from taking part in local teaching or research activities.[3] Not surprisingly, corporations in countries with even the most developed education systems criticize public learning institutions for the "lack of connections of school curricula with the world of work, the schools' preoccupation with academic study and credentials, inadequacy of basic skills training, and the consequent unpreparedness of school-leavers for work" (Noah and Eckstein, 1988, p. 66).

The absence of serious attention to the skills needs of TNCs in general education has, however, been modified somewhat in recent years, as schools have recognized that they need to improve collaboration with the world of work. It is increasingly acknowledged that educators need to become better informed about various aspects of TNCs and their activities; that, as education becomes more costly, it can profit from the material and other support that TNCs can provide; and that schools need access to the workplace in order to bring a greater degree of realism

and sense of immediacy to their curricula. As the role of TNCs in the world economy has grown, steps have been taken to adapt national educational curricula to take account of a workplace now increasingly dominated by global considerations. In recognition of the importance of international business, the American Assembly of Collegiate Schools of Business (AACSB) has, since 1980, required evidence of an international dimension in the curricula of accredited schools. The more recently established Association of Collegiate Business Schools and Programs (ACBSP) has a similar requirement (Fleming et al., 1993). Although the majority of European business schools

### Box X.2. Curriculum on transnational corporations: a United Nations programme for institutions of higher learning

More than 40 universities and institutes in Africa, Asia and Latin America have worked with UNCTAD's Division on Transnational Corporations and Investment to develop interregional curricula on matters related to TNCs, and many are now including elements from them in their degree programmes. The Division also trains educators to develop and use such curricula. They are meant for three courses:

- **The first**, for students with a background in economics or business, explores the principles and strategies that govern TNCs and their contribution to the development process, mainly from the host country's perspective. Four of the institutions now offering this course are the African Institute of Development and Economic Planning in Senegal, the East and Southern African Management Institute in Tanzania, the University of Malaysia and the University of the South Pacific.
- **The second** course, for graduate students of business administration and commerce, focuses on thetheory of international business and TNCs. Using eleven case studies, it introduces students to specific subjects like cost/benefit analysis, technology-transfer agreements, country-risk management and the establishment of joint ventures. Some of the institutions offering this course include the East and Southern African Management Institute, the University of Sri Lanka, the University of Lagos and the University of Chihuahua in Mexico. The Universidad Catolica in Chile and the Universities of Botswana and Zimbabwe have also shown interest in this course.
- **The third** course covers the legal aspects of TNCs. It gives an overview of the nature and impact of these firms in the world economy and examines a variety of legal, contractual, financial and fiscal issues in detail. Selected institutions offering this course include the East and Southern African Management Institute in Arusha, United Republic of Tanzania, the University of Singapore, the University of the Philippines, and the University of Nigeria-Awolowo.

Teaching courses of this nature are, of course, predicated on the availability of teaching material. For this purpose, the Division on Transnational Corporations and Investment has published the *United Nations Library on Transnational Corporations (UNLTNC)* which, in twenty volumes, brings together writings on subjects that, together, cover the most important aspects of TNC activity. [a]

a The *UNLTNC* is published by Routledge for the United Nations. The volumes are: Dunning, 1993a; Jones, 1993; Lall, 1993b; Lecraw and Morrison, 1993; Stonehill and Moffet, 1993; Hedlund, 1993b; Moran, 1993; Gray, 1993; Robson, 1993; McKern, 1993; Chudnovsky, 1993; Sauvant and Mallampally, 1993; Buckley, 1994; Plasschaert, 1994; Frischtak and Newfarmer, 1994; Enderwick, 1994; Cantwell, 1994; Chen, 1994; Rubin and Wallace, 1994; and Fatouros, 1994.

has traditionally incorporated a significant international component in their programmes, these are becoming more widespread (Loustarinen and Pulkkinen, 1991). The internationalization of business education is occurring at both the undergraduate and graduate levels (Arpan et al., 1993). A number of universities in developing countries have also adapted their curricula to provide for more specific courses on TNCs (box X.2).

Reforms in general policies to make education and training more TNC-oriented must, however, take account of national interests for labour turnover and mobility. Attempts to take account of TNC needs may influence governments to make changes in educational policy and programmes that may not necessarily be consistent with educational needs for the broader development of the national economy. For example, the substitution of curricula normally associated with vocational education or in-house training by TNCs for the usual general secondary schooling may yield, in the short term, a larger pool of ready employees for TNCs, but excessive emphasis on such training could limit labour-market flexibility and the absorptive capacity of workers for more advanced knowledge.

## B. Channelling foreign direct investment into areas with potential for human resource development

The main impact by TNCs on human resource development occurs through two principal channels: the hiring of local staff and training of that staff in the skills required; and the transfer of technology and know-how to personnel in domestic enterprises linked to foreign affiliates through forward and backward linkages (chapter V). The nature of the contribution by a TNC to human resources development through these channels depends on the type of activity in which a particular TNC is engaged. Some activities require a higher skills base and therefore involve more training, while others may only require unskilled or minimally skilled labour.

### 1. Attracting transnational corporations with maximum potential for imparting skills

In order to derive the greatest human resource development benefits from the activities of TNCs, governments of host countries strive to encourage FDI in such form and in those industries that are not only likely to create the maximum employment, but are also most likely to transfer the greatest amount and/or highest levels of technology and skills. The essential role of the policies of the Government of a host country in this respect is thus one of encouraging activities of TNCs in areas that result in enhanced levels of human resource development.

This has particular implications for developing countries. Given the tendency of TNCs to invest in sophisticated industries only in countries perceived to have a prevailing stock of highly qualified human resources, countries with lower levels of skilled manpower are likely to be able to induce FDI primarily into low-technology activities with limited scope for the development of human resource capabilities. Thus, policies aimed at attracting TNCs into activities that most enhance human resource development must, in the first place, be intertwined with the broader policies mentioned in section A, that is, those aimed at raising the overall level of national absorptive capacity for skills and knowledge and those geared towards providing specialized training necessary to attract targeted TNCs.

Channelling FDI into activities that provide the maximum contribution to training can be accomplished through the FDI incentives schemes or promotion programmes operating in a country. In other words, special fiscal or other types of incentives can be provided to FDI in industries that the government considers most important in terms of contribution to potential skills development. Government policy may also concentrate on promoting FDI in those industries that a government believes impart the kind of skills that are considered important, by targeting investors through information and facilitating their entry.

Host countries aiming at maximizing training provided by TNCs need not necessarily aim at high-technology industries only. Many lower-technology industries involve a number of

corporate functions that are actually quite skill-intensive (table V.2). In fact, since, under complex corporate strategies, virtually all corporate functions are potentially subject to FDI, governments need to focus more and more not on industrial activities *per se*, but on specific corporate functions (e.g., accounting, research and development, billing, advertising) when trying to attract FDI. Furthermore, governments also need to recognize the benefits that can result from supporting the creation of a dynamic industry cluster. This is illustrated in the case of the Malaysian electronics industry (Henderson, 1993). In 1985, the thirteen United States semiconductor manufacturers in Malaysia spent more than $100 million on local training. This investment allowed an upgrading of their value-added activities with, for example, the addition of semiconductor testing to routine assembly. At the same time, the Government of Malaysia targeted complementary investments that led to the manufacture of megachips, disk drives and wafer fabrication. Malaysia now produces and exports a broad range of electrical and electronic products, including colour televisions, computer peripherals and air conditioners. This has created a considerable pool of appropriately skilled labour able to meet the needs of a rapidly developing industry cluster.

Another way of channelling FDI into activities that promote human resource development is by formulating policies that encourage the most beneficial forms of collaboration between TNCs and domestic firms. There are numerous forms of possible collaboration between TNCs and domestic firms. One major area involves subcontracting (backward linkages). Another area involves TNCs using the services of local agents in various capacities, e.g., distributing, dealing, retailing and servicing (forward linkages). Both types of linkages are typically associated with considerable training, in particular where foreign affiliates operate with certain quality requirements.

Government policies need not only to encourage such collaboration but also to focus on TNCs in those industries and activities that are likely to provide significant technical assistance through training and other forms of human resource development for enterprises linked through backward or forward linkages. For example, in Mexico quality control and technical assistance provided by foreign affiliates to their subcontractors was more frequent in the technologically advanced industries (automobiles, engines, computers and electric and electronic equipment). It was also high in food and beverages, which are characterized by high requirements for standardized products in the industry segments dominated by TNC affiliates (UNCTC, 1992c, pp. 44-45). If subcontracting forms an important part of the strategy of firms in some industries (as was the case in Mexico), policies to encourage FDI in those industries would indirectly foster the transfer of skills and human resource development.

Apart from the contributions that are made as a result of standard operating procedures, TNCs can also contribute to human resource development in a manner that goes beyond their normal minimum requirements (see chapter V). Transnational corporations make such investments for a number of reasons. In some cases, it is to enhance their public image in the country of operations. In others, it is to make an investment that will enhance operations in the future. But in many cases, it is the result of host-government policies aimed at encouraging foreign affiliates established in the country to maximize the human resource development contribution that they can make. Many countries have, in fact, established legal or administrative requirements for the

provision of training to employees by foreign affiliates in the framework of policies aiming at an overall skill improvement of the country's workforce. Often, these involve a mandatory financial contribution by TNCs. In other cases, the focus is on staff localization programmes. Governments of host countries also offer TNCs certain incentives, in return for increased investment in education and training, and they may also initiate collaborative schemes with TNCs to implement training programmes.

### 1. Financial contributions by transnational corporations

With regard to financial contributions, payroll levies are one of the most widely used methods of fund raising for training, particularly in developing countries. Through this taxation scheme, governments levy a charge on corporations which typically ranges between 1 per cent and 2.5 per cent of the corporation's total payroll (Middleton, Ziderman and Adams, 1993). These finances are then funnelled into a fund that the government uses for the training and education of the country's workforce. A payroll-levy programme can be a useful tool for providing governments, particularly of poorer countries, with a reliable source of financing for their training programmes. Since many of these programmes only apply to corporations with a certain minimum number of employees, TNCs are normally included because they are often the large employers -- especially in developing countries. They have, indeed, been quite successful in some countries in encouraging TNCs in particular to contribute to training (box X.3).

However, the payroll levy is a method of financing training that has received considerable criticism from both TNCs and employees. One of the greatest concerns voiced is that, in some cases, the funds were not used solely to finance training, as originally intended, but in part were diverted to service other unrelated projects. In other cases, the funds were underutilized and accumulated as unused revenue surplus (Middleton, Ziderman and Adams, 1993, p. 125). This lack of consistency in fund distribution has adverse effects on the credibility of the programme as a whole, which can lead to negative attitudes by TNCs towards payroll tax contributions. A second

**Box X.3. Payroll levies and training subsidies in Singapore**

With a low rate of population growth and rapid industrial expansion, Singapore developed a scheme to improve productivity by raising the level of technology in production, reducing the number of low-paid unskilled jobs and upgrading the skills of the workforce. Administered by the Economic Development Board, the scheme rests on improved public-private sector cooperation. A Government programme to reimburse company training expenses is a major component of the strategy.

A levy on the wages of unskilled workers goes into a Skills Development Fund, which is used to upgrade the workforce through training grants to enterprises. By most measures, these training grants have been successful. By 1985, the Fund had awarded grants to 23,000 enterprises. Training reached 240,000 workers, or 21 per cent of the labour force. Transnational corporations and other larger firms were the initial beneficiaries of the programme, but determined efforts to make small firms aware of external training courses and to provide support for industry associations increased the number of smaller firms participating in the programme.

The steady growth in the use of the Fund can in part be attributed to an incremental strategy of implementation. In the first two years, efforts were focused on creating awareness of the Fund among employers, with ad hoc reimbursements of approved courses. In the second stage, priority was given to in-plant training, and reimbursements increased to 90 per cent of costs as an additional incentive. The third stage encouraged the development of corporate training plans by paying grants in advance of expenses, thereby reducing interest costs to firms. In the fourth stage, the focus was on reaching smaller enterprises and improving training quality.

*Sources:* Pang and Salome (1986); Skills Development Fund (1989).

type of criticism emanates from those it is meant to benefit. It is that the tax burden often becomes the responsibility of individual workers. Although payroll taxes are intended to make employers contribute to training, payment of the tax is at times passed on to the worker indirectly, via reduced wages (Brittain, 1972).

In their application to TNCs, payroll levies are also often criticized on account of their uniform application across industries. Different TNC activities require different levels of training, which are, in turn, accompanied by varying levels of expenditure on the part of TNCs. Transnational corporations requiring a more technologically advanced workforce, for instance, require more intensive training and specialized expertise than do, for example, TNCs in most assembly operations. In response to this, a number of countries have attempted to relate training-levy payments to the benefits gained by individuals from the actual training experience. This concept of "benefit-related taxation" suggests that levies be adjusted across industries in accordance with the costs associated with each industry's training needs. By adopting an adjustable levy system, governments may be in a better position to encourage human resource development programmes by TNCs in industries that they particularly seek to promote.

### 2. Localization programmes

Experience suggests that, other things being equal, TNCs prefer to use as many local managers and skilled workers as possible (chapter V). The assignment of expatriates to overseas affiliates is often very expensive. In addition, foreign investors may need to employ national managers who have a better grasp of local conditions than expatriates. The employment of nationals of the host country in visible positions is also likely to improve a TNC's image in the host country. However, in many cases, the transfer of skills is incomplete in the critical high-level management and engineering functions, due either to the paucity of suitably qualified local personnel or to deliberate decisions by the parent firm to retain expatriates in key positions. The desire of TNCs to protect privileged infomation or technical knowledge may also be a factor. A consequence in such cases may be a high concentration of expatriates in top management, engineering and technical posts. Yet, the transfer of skills is most complete from the point of view of many developing countries when the dependence on foreign manpower is not only phased out, but full localization at all levels of staff has occurred. Thus, once qualified local staff are available, there can be a strong role for a programme of localization of staff in specific positions.

Localization policies can take many forms. For instance, a firm that employs a foreigner may be required in some countries to pay a certain percentage of the foreigner's payroll in tax as a training levy to support localization programmes (Eze, 1977). This is intended both to discourage the employment of foreigners and to provide funds for the training of local workers to replace them. Similarly, the control of work permits for foreign workers is often used to encourage the hiring of nationals. Localization requirements are also often incorporated into contractual arrangements with TNCs, especially in the natural resources sector and certain service industries. The petroleum industry offers some good examples.

The older generation of petroleum contracts first embodied localization concepts in general invocations, requiring TNCs to employ local citizens "where available", "if qualified" or "so far as reasonably practicable", leaving the matter ostensibly to the sole judgement of the TNCs themselves. This is the approach adopted, for example, in the EGP/Esso (Exxon) contract of 1974 in Egypt and in the Petroleum (Production) Regulations of 1969 in Malta. But since the availability of qualified and experienced nationals is often limited (if not, at times, non-existent), the more recent agreements have gone one step further by making it incumbent upon the foreign operators to offer training programmes, and even scholarships, to rectify that situation. To ensure faithful implementation and bar future evasion or delay, some petroleum contracts have included a timetable for training, often in conformity with the applicable legislation. For instance, the

Nigerian Petroleum Decree of 1969 provided that foreign petroleum operators must guarantee that, within ten years, they would employ Nigerians in 75 per cent of the management, professional and supervisory positions, and in 100 per cent of all other jobs. The Decree also required foreign operators to prepare and submit a detailed programme for the recruitment and training of Nigerians within the first year of operation. Subsequent petroleum exploration contracts in Nigeria, such as the Oil Prospecting License No. 90 granted to Occidental, gave effect to that requirement by stipulating that Occidental was to make an annual contribution of 15,000 pounds sterling per "block" of the contract area in support of educational programmes related to petroleum technology. The first of such payments was to be made within 30 days after the granting of the licence. Occidental was also obligated to sponsor certain additional training and academic activities for Nigerians both in Nigeria and abroad. Similarly, in Peru, the Decree Law No. 22774 "Guidelines for oil contracts" provided in Article 5.10 that a national personnel-training policy should be established at the expense of the petroleum contractor. In a contract concluded between Petroperu and Shell, the latter was obligated to conduct a training programme for Peruvian personnel during the term of the contract in order to enable it to replace foreign personnel. The first such programme was to be prepared and submitted to Petroperu for approval within six months following the signing of the contract. Shell alone would bear its cost, which was supposed to be no less than $100,000 each year, as long as the volume of production did not exceed 90,000 barrels a day. Should the volume increase, then the minimum obligation would increase concomitantly.

In a number of cases, localization programmes have been quite effective. For example, as a consequence of both company policy and government regulations, a number of Pfizer's plants in India and Pakistan were converted to 100 per cent local labour and management. However, at times, governments, keeping their economic goals in mind, seem to require such a quick pace of localization of management that other efforts of human resource development are actually frustrated. In particular, the prohibition against hiring foreign experts at the management level may hinder a TNC's own goal of training lower-level managers and workers on the site (ILO, 1980).

### 3. Provision of incentives by governments

Instead of imposing levies on TNCs to ensure their active participation in human resource development, governments can choose to facilitate TNC participation in training through financial incentives. For example, they can minimize TNCs' training costs through special deductions from taxes on profits. Such profit-tax deductions are often granted in addition to, not as a substitute for, the usual exemptions for which TNCs would in any case be entitled to offset some of their training costs. Argentina, Brazil, Chile, Fiji, Pakistan and the Philippines are examples of countries that apply tax-exemption schemes (Middleton, Ziderman and Adams, 1993).

In addition to tax exemptions, wage subsidies are another incentive that can be used to encourage TNCs to become more involved in employee training. Where wage-subsidy schemes apply, governments subsidize a percentage of total trainee salaries. The advantage of a wage-subsidy scheme is that it can be differentiated to favour TNC activities that most enhance human resource development. Examples of countries that have used the wage-subsidy mechanism include Australia, Fiji, India, Malawi, Nepal, New Zealand, Nigeria, Sri Lanka and Taiwan Province of China. The effectiveness of wage subsidies in those countries has differed. In Taiwan Province of China, for instance, a subsidy and technical assistance programme, implemented in the 1970s, boosted training volumes by 400 per cent within two years. After the termination of the subsidy, volumes dropped to double the original amount but continued to rise thereafter, reflecting long-term benefits derived from the plan (San and Chen, 1988). In contrast, results

pertaining to wage subsidies in Australia show that the effects were somewhat positive, but not significant (San and Chen, 1988).

Governments can also provide for long-term manpower development through collaborative schemes with TNCs. In particular, they can provide incentives to TNCs to set up joint training centres that cater to training needs beyond the immediate requirements of a particular foreign affiliate. For example, in 1972, Tata (India) assisted in establishing a training centre in Singapore in collaboration with the Government's Economic Development Board, in return for the Government's assistance in the securing of industrial land at reasonable rents, the sanctioning of tax-free remittances of technical fees, as well as an effective tax holiday. The Government of Singapore provided the land and building for the training centre and an estimated $1.5 million for the purchase of equipment required by it, as well as 70 per cent of its total operating costs. Tata provided the instructors for the centre. The centre was actually crucial to Tata's proposal to establish, through its Singapore affiliate, Tata Precision Industries Pte Ltd, a series of high precision engineering projects, because these required the skilled tool-makers produced by the training centre. However, insofar as long-term manpower development is concerned, the major innovation of the agreement was the requirement for Tata to train twice the number of skilled workers required for Tata's precision engineering complex. The excess workers trained by Tata could be released to industry through a Government institution (Soon, 1993).

A second agreement was made between Rollei (Germany) and the Government of Singapore to establish a Training Centre very similar to that set up in collaboration with Tata. The Government provided land and buildings for the centre and shared in the operating costs. The training centre trained skilled workers in excess of Rollei's needs who could be released to other firms and industries through a Government institution. To establish the joint training centre, substantial concessions were also made to Rollei, in particular, the right of first refusal for a 10-year period, from 1 January 1972, for the manufacture of optical lenses and photographic equipment in Singapore. During this 10-year period, the manufacture of a wide range of optical lenses and photographic equipment was placed under the Control of Manufacture Ordinance, which required all manufacturers intending to manufacture these products to obtain a licence. A licence would only be granted if Rollei and its associated companies declined the option to manufacture such products in Singapore on a comparable scale and at a comparable technological level and price range. Rollei argued that this concession was necessary to prevent its Japanese competitors from acquiring the know-how transferred by Rollei to Singapore. Rollei was also granted a five-year tax holiday to be followed by export concessions for a further period for 10 years, during which it would be liable to a concessionary rate of the corporate income tax (Soon, 1993).

Several other training projects have been established by the Economic Development Board of Singapore in collaboration with TNCs, with the intention of facilitating rapid response to changing industry trends. Apart from the incentives mentioned above, the partner TNCs in these collaborative training programmes implemented in Singapore were assured the secure supply of the skilled workers they required through a bonding scheme; it required all trainees to serve the partner TNCs for a period of three years after the completion of their training. To induce school-leavers to join the training centres, stipends were paid to trainees while they were undergoing training; these were eventually recovered from the partner TNCs or the firm to which they were released by the Government. A further inducement to trainees at the time was the deferment from full-time national service for a further six years after completion of their training and apprenticeships (Soon, 1993).

## Conclusions

Unprecedented levels of global competition have caused a fundamental re-examination of the sources of competitive advantages. Undoubtedly, the quality of human resources is at the centre of most competitive advantages, as created assets -- rather than natural assets -- increasingly play a key role in advancing economic development. The distinctive capabilities of TNCs derive, to a considerable extent, from investments in created assets, based on their ability to recruit, train and motivate creative individuals. Investment in, and the effective use and management of, human resources are, therefore, of critical -- perhaps of *the* most critical -- importance for both governments and TNCs in today's world.

It follows that the upgrading of human resources should occupy a central place in the policies of governments intent on promoting economic development. Any policies in this direction automatically make a country also more attractive, at least in principle, to foreign investors. In addition, education and training curricula need to be responsive to the needs of business and -- in today's global economy -- especially the needs of international business. There clearly is some room for paying more attention to market signals, particularly in the applied areas of technology, engineering and management education. Government policies need to encourage that focus. If a government wishes TNCs to bring with them sophisticated processes and technology, and train employees in-house and through forward and backward linkages in their use, it is essential that the local economy possesses labour not only in suitable quantities but also of appropriate skill -- in brief, has an adequate absorptive capacity.

Apart from general human resource development policies, governments have a range of instruments that can be implemented to attract FDI that is particularly knowledge and training intensive. Efforts in this direction need to focus increasingly on individual corporate functions (as opposed to investment projects in general), to take into account complex corporate strategies in the framework of which each part of the value-added chain -- and hence each corporate function -- has become subject to FDI.

Beyond that, governments may wish to make special efforts to ensure that the human resource development potential of foreign affiliates is, indeed, being realized. This involves a balancing of costs and benefits that may accrue from training. Thus, training taxes or levies should not be unrealistic or indiscriminate in their application to different types of TNC activities. Localization programmes should not be implemented at the expense of losing the opportunity to receive training from skilled expatriates. Incentives should not be too costly for governments. Perhaps the greatest potential for human resource development lies in closer cooperative relationships between TNCs, trade unions and governments in the identification of skill shortages, training priorities and appropriate policy initiatives. As liberalization is redefining the relationships of the principal actors in the market in a globalizing world economy, the scope -- and need -- for new and imaginative cooperative relationships is greater than ever.

## Notes

1 See "American South puts emphasis in new skills", *Financial Times*, 13 January 1993, p.4.
2 See "Singapore camp tries to polish service sector", *The Asian Wall Street Journal*, 8-9 November 1991, pp. 1 and 5.
3 Argentinian Law No. 20654/1974; see Dagnino Pastore, 1977.