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Export Processsing Zones : A threatened instrument for global economy insertion ?

Jean-Pierre CLING
Gaëlle LETILLY

EXPORT PROCESSSING ZONES :
A THREATENED INSTRUMENT FOR GLOBAL ECONOMY INSERTION ?

Jean-Pierre Cling
(DIAL)
cling@dial.prd.fr

Gaëlle Letilly
(DIAL et Université de Paris I-La Sorbonne)
letilly@dial.prd.fr

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RESUME

L'adoption de politiques de promotion des exportations par l'ensemble des pays en développement est directement à l'origine de la prolifération des zones franches au cours de ces dernières années. Pour les pays, la mise en place de ces zones est habituellement considérée comme un instrument clé dans le cadre d'une politique d'attraction des investissements étrangers, en vue de favoriser la création d'emplois, de stimuler les exportations et d'accélérer la croissance économique, et enfin d'améliorer les transferts de technologie et l'acquisition de qualifications par la main-d'œuvre nationale.

Cette étude considère, à la lumière de quelques expériences, le type d'impact que les zones franches peuvent avoir sur le développement des pays d'accueil. Les faits montrent que les espoirs mis en elles par les pays en développement sont souvent excessifs. De plus, elle met en évidence les défis posés aux zones franches par les accords de l'OMC, ainsi que par les nouveaux aspects de la mondialisation, qui semblent pousser tous deux vers une restructuration géographique de la répartition des zones franches au niveau mondial.

ABSTRACT

The adoption of export-led growth strategies by developing countries is directly responsible for the considerable expansion of export processing zones (EPZs) in recent years. Such zones are frequently considered key instruments in the array of policies adopted by countries to attract foreign direct investment, boost employment, stimulate exports and economic growth, and finally to improve the transfer of technology and the acquisition of skills by the national work force.

This paper examines, in the light of the experiences of several countries, the impact that an EPZ may have on the development of the host country. The facts show that the hopes pinned on such zones by developing countries are frequently excessive. Moreover, it demonstrates the challenges facing EPZs due to the new WTO regulations, as well as from new aspects of globalisation; both seem to be pushing towards reform on the geographical distribution of EPZs.

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INTRODUCTION

The adoption of export-led growth strategies by developing countries is directly responsible for the considerable expansion of export processing zones in recent years. The general principle of these free zones is to grant exporting enterprises a certain number of advantages (concessions to the general regulatory environment), primarily regarding taxation, but also frequently covering other matters such as employment laws, investment incentives, and so on. This paper retains a wide definition for these zones, which are not necessarily restricted geographically, but nevertheless exclude the Special Economic Zones of the Peoples' Republic of China.

Such zones are frequently considered key instruments in the array of policies adopted by countries to attract foreign direct investment, boost employment in labour-intensive industries, stimulate exports and economic growth, and finally to improve the transfer of technology and the acquisition of skills by the national work-force.

This paper examines the efficacy of free zones in meeting these various objectives. In other words, can they represent a durable focal element of development policy? In replying to this question, the **first part** of this paper describes recent trends in the development of free zones, trends that are characterised not only by a rapid growth in the numbers employed, but also by a strong concentration geographically and by sector. The **second part** analyses the employment creating and economic growth potential of such zones, both from a theoretical point of view and from the empirical study of a number of examples. The **third part** assesses the compatibility between regulations establishing free zones and various multilateral agreements, all the while proposing some ideas as to the future development of such zones.

This study, based on a review of the available economic literature and a series of discussions with specialists on the subject (researchers, civil servants, entrepreneurs, and so on[1]), reaches three primary conclusions:

1. **The expansion of export processing zones has been mainly of benefit to a few emerging countries, located principally in Asia (Indonesia, Malaysia, etc.) and Latin America (Mexico). Only two LDCs (less developed countries) have launched successful EPZs – Madagascar and Bangladesh.** Madagascar is the only African country that managed to diversify its exports during the 1990s, and created some 100,000 industrial jobs in EPZs in the process. In those countries where EPZs have performed best (Mexico, Dominican Republic, Mauritius, etc.), they contribute a major share of exports.

2. **The historical example of emerging Asian countries shows that the creation of free zones can in no way be considered the central thrust of an industrialisation policy, but at best as a component of such a policy whose success depends on a number of objective conditions.** In effect, the guiding principle behind the creation of EPZs (to attract enterprises wishing to minimise their tax burden and labour costs, all the while benefiting from customs duty exonerations on imports), encourages the development of assembly plants requiring low-skilled labour and producing goods with low added value.

3. **New forms of globalisation will have a significant impact on the geographical distribution of EPZs. Such developments, together with the implementation of several agreements**

[1] We are indebted to F. Bost (University Paris X, Nanterre), T. Lorne (DREE – MINEFI, France), D. Madani (World Bank) and D. James (DIAL) for the valuable advice they provided during the preparation of this study. The opinions expressed, and errors that may remain are, nonetheless, the responsibility of the authors.

signed within the WTO, present both opportunities and risks for the future of EPZs. As from 2003, the measures contained in the WTO agreement on subsidies (ASCM) will outlaw EPZs in countries with a GDP per capita in excess of $1,000. At the other extreme, least developed countries will suffer after 2005 from the disappearance of the Multifibre Agreement (MFA), which favours investment in their EPZs as a means of bypassing quotas imposed by industrialised countries. Last of all, the logics of regional agreements and of EPZs are inconsistent.

1. THE RECENT PROLIFERATION OF FREE ZONES

The concept of Export Processing Zones (EPZs), initially defined as zones where a more favourable fiscal regime is applied to exporting enterprises, has progressively broadened to designate a range of concessions to the regulatory environment (above all with regard to taxes), which are granted to exporting enterprises which may be located anywhere within a country.

EPZs have experienced rapid expansion in developing countries during the past three decades and at a rising rhythm since the 1980s. This acceleration is a result of the convergence of two phenomena: the conversion of all developing countries to export-led growth policies, considered the optimal strategy to stimulate employment and favour insertion in the global economy; simultaneously, with the accentuation of international competition, there has been a growing trend to transfer the production of labour-intensive goods towards developing countries. Enterprises in such sectors direct investment to countries with surplus, low-cost labour, and which adopt concessionary regimes such as those applied to EPZs.

1.1. Export Processing Zones: a variable concept

The concept of Export Processing Zones covers a broad range of realities, corresponding to very different goals and structures according to the host country. These various approaches are reviewed below.

1.1.1. Definition

The standard definition applied by international organisations, states that an Export Processing Zone is an industrial area that constitutes an enclave with regard to customs' tariffs and the commercial code in vigour in the host country. The country receiving investment, mainly of foreign origin, grants enterprises establishing in such zones certain concessionary advantages with regard to the national regulatory environment, principally with regard to taxation. Exemptions and fiscal advantages are offered to investors. Enterprises are nonetheless required to produce goods essentially, if not wholly for export[2].

This traditional definition is nonetheless restrictive. Limiting free zones to distinct geographical areas (for reasons of data availability and from the desire for greater specificity) leads to the exclusion of several of their number. In effect, the free zone concept has evolved in recent years. The notion of a free trade zone operating in a defined geographic area is gradually disappearing to the profit of "free enterprises" or "free points" scattered throughout a territory. Furthermore, in most

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[2] According to the World Bank [1992]: "an export processing zone is an industrial estate, usually a fenced-area of 10 to 300 hectares, that specializes in manufacturing for export. It offers firms conditions and a liberal regulatory environment." A study by the ILO [1988] defines an EPZ as "a clearly delimited industrial estate which constitutes a free trade enclave in the customs and trade regime of a country, and where foreign manufacturing firms producing mainly for export benefit from a certain number of fiscal and financial incentives." [Madani (1999)].

cases enterprises adopting the status of an EPZ are hitherto allowed to sell part of their output to the domestic market (20 % in the Dominican Republic, between 20 % and 40 % in Mexico, etc.).

The Export Processing Zone concept now covers a variety of arrangements. Some of the more common terms applied to these are as follows: *industrial free zones, industrial export zones, free trade zones* (often presented as bonded platforms within countries heavily involved in transit trade), *special economic zones* (principally in China), *bonded warehouses*, *technological and scientific parks*, *financial services zones*, *free ports*, *duty-free zones* (destined for the retailing of duty-free consumer goods to tourists), and so on.

The term EPZ (export processing zone) is used generically in the following discussion to cover all such arrangements, independent of their concentration or geographical distribution. As such we adopt a broader definition than that normally retained by international institutions (as does Madani [1999]), with the hope of avoiding excessive restriction to our field of analysis. China's Special Economic Zones are nonetheless excluded from our definition, as their objectives and organisation appear very different from those of other EPZs[3].

1.1.2. Objectives of a free zone

The implantation of EPZs in developing countries is part of a policy framework aimed at promoting growth through the expansion of labour-intensive export goods. More precisely, four interlocking goals can be distinguished, and described as follows (Madani [1999]).

- First, the decision by a country to install an EPZ may be considered as part of a wider economic reform strategy. From the moment when macroeconomic improvement starts to be felt (increasing trade, exchange rate stability), the EPZ sees its role reducing (its share of exports and employment declines). In this optic, the EPZ is seen as a simple tool permitting an economy to develop a competitive industrial base and to diversify. The EPZs of Taiwan and South Korea follow this pattern. As remarked by Madani (q.v.), two cases may be considered: certain countries, such as the two mentioned above, established EPZs when they had already relatively developed industrial bases, and had already started the process of economic diversification[4]. On the contrary, other countries, such as Mauritius (with success), sought to make EPZs a motor of development from the start.

- Second, some countries (such as Tunisia) chose to adopt EPZ regimes for the purpose of amassing foreign exchange and creating jobs to relieve their unemployment difficulties. In this schema, EPZs are conceived as pressure relief valves. As a consequence, the rest of the host country economy does not diversify and the EPZ remains an enclave activity without linkages with domestic activities. Mexico's "maquiladoras" (established in 1966) operated according to this model until the adoption of economic liberalisation policies in the 1980s.

- Third, EPZs may be considered as experimental laboratories for the application of free market policies. China's Special Economic Zones clearly fit into this category. New production methods, labour relations, financial conditions and so on are introduced and tested before being applied to the rest of the economy.

[3] China's Special Economic Zones were created in 1979. Not only do they aim to promote direct foreign investment and exports, but also they act as a laboratory to test free market principals in a controlled manner, with a view to later extending such practices to the rest of the country. They share some of the characteristics of EPZs found in other countries, as they consist of zones granting particular advantages designed to favour investment, but they are more than simple industrial parks. They are, in effect, towns or regions where all installed companies benefit from this status. Even though several companies produce for the domestic market, those that export more than 70 % of their output benefit from a reduced rate of tax on profits (10 % instead of 15 %)

[4] According to Madani [1999], citing Rhee, "by 1962, four years before the first FTZ existed, Taiwan's share of manufactured products in total exports has reached 50 %, from less than 10 percent in the early 1950s."

- Finally, the desire to attract foreign direct investment explains why a number of countries have created EPZs. Developing countries compete to attract foreign capital by offering fiscal exemptions, in a sort of "beauty contest". Nevertheless, the fact of establishing EPZs to bolster what may be unsatisfactory competitiveness in the eyes of investors, is at best illusory as demonstrated by the failure of the majority of EPZ projects in Africa.

Other than these specific goals, countries establishing EPZs also seek to promote the transfer of technology and to improve the efficiency of their productive tissue, thanks to better manpower training offered by enterprises in the zones and through trickle-down effects.

1.1.3. Special conditions applied to EPZs

Several types of regime applicable to EPZs coexist. The choice between one or another system is determined by the objectives (employment creation, regional development, export expansion, etc.) and the characteristics of the regions or countries involved. However, in every case the main elements of a regime applied to industrial export zones are as follows (ILO [1998a]):

- a simplification of administrative procedures both for investment and for enterprise creation, and for production;
- duty free imports of machinery and equipment, raw materials and intermediate goods necessary for the production of goods to be exported;
- considerable tax advantages for the enterprise (company taxation) as well as for the expatriate workforce employed;
- in certain cases, waivers to the application of national employment laws;
- specific centralised infrastructure: industrial zones equipped with water, electricity, communications, and sometimes industrial buildings and good transport links;
- special foreign exchange arrangements, frequently granting total liberty regarding the transfer of funds;
- and the non-obligation to repatriate a part of their proceeds in hard currencies.

The table 1 on the following page presents the main advantages offered to investors in some of the main EPZ.

Table n° 1-1: The main advantages offered to companies in some EPZs

Country	Taxation	Customs' duties	Labour laws	Other incentives
Bangladesh	Tax exemption during 10 years. Complete exemption from taxes on dividends during 10 years.	Exemption from customs' duties on machinery, equipment and raw materials entering the production process. Exemption from export duties on goods produced in the zone.	EPZs are specifically excluded from national employment legislation. Trade Unions are prohibited (they will be authorised as from 2004).	Exemption from taxes on borrowed capital. Free repatriation of profits and capital.
Dominican Republic	Total exoneration of taxes and excise duties during 10 years.	Exemption from customs' duties on imported means of production intrants and machinery (imports must nonetheless appear on an approved list).	Trade union freedom restricted despite the fact that EPZs are required to respect national employment regulations.	Free repatriation of profits.
Mauritius	Initially: no company taxation during the first 10 years of activity, exemption from taxes on profits and dividends paid to shareholders during the first 5 years. The new law provides for: company taxation of 15 % throughout the whole period of activity of the company, exemption from taxes on profits and dividends paid to shareholders during the first 10 years.	Exoneration of indirect taxes and customs' duties for imported equipment and primary materials destined for production.	Waivers with regard to termination of employment and overtime.	Free repatriation of capital, profits and dividends Preferential interest rates.
Mexico	No specific advantages.	Exemption from customs' duties on imported intrants and equipment used in the production process. Exemption from export duties.	Trade Unions are discouraged within the EPZ.	
Philippines	Income tax exoneration for between 4 and 8 years, depending on circumstances. After which a special tax of 5% of gross revenue replaces all domestic taxes.	Exemption from customs' duties on imported capital goods and primary materials. Exemption from export duties on exported goods.	A specific authority manages Labour relations. Trade Union freedom restricted.	
Tunisia	Companies exporting at least 80 % of their production benefit from total exoneration of company tax during 10 years, and a rate reduced by 50 % thereafter. Companies exporting less than 80 % of their production benefit from a partial exoneration.	No taxes on equipment or imported intrants. Suspension of taxes. Exemption from taxes on exported products.		Reinvested profits wholly tax-free.

Source: Cook [2000] for Tunisia, Madani [1999] for Mauritius and the Dominican Republic, The Philippine Economic Zone Authority the Philippines, Bangladesh Export Processing Zone Authority for Bangladesh, Warden [2000] for Mexico.

1.2. Economic expansion through the adoption of export-led growth policies by the LDCs

The first "modern" EPZ is generally considered to be that established in Ireland in 1959 (the "Shannon Free Zone"). At the end of the 1960s, there were a dozen or so such zones, mostly in Asia (Taiwan, Singapore, Hong Kong and India) and in Latin America (Mexico, Colombia and the Dominican Republic). Subsequently the EPZ concept spread and such zones multiplied both in the developing and in the developed countries.

While the absence or partial availability of data prevents a precise survey of the weight and importance of EPZs in the global economy, a significant expansion of investment in such zones can be noted. This is geographically concentrated in a small number of emerging countries and predominantly targeted on a few labour-intensive industries (notably textiles, clothing and electronics).

1.2.1. Concentration in a few emerging countries

The expansion of EPZs really started in the 1970s and continues today. According to information from the ILO, there are some 850 EPZs worldwide which employ some 27 million people (1997). These figures include some 20 million people employed in foreign-owned enterprises established in the 100 or so EPZs in China (to which should be added several million employees in Chinese enterprises located in such zones). Excluding China, EPZs established in developing countries accounted for some 4.5 million employees in 1997 (Kusago and Tzannatos [1998]), which represents from our point of view the most precise estimate of the significance of EPZs in the world.

EPZs are today principally concentrated in Latin America and Asia. According to Kusago and Tzannatos [1998], Latin America groups 48 % of the labour force in the world's free zones (outside China) and Asia 42 %. Africa represents barely 5.5 % of the total (250,000 employees in 1997). It is significant that only two Less Developed Countries (LDCs) out of 49 have succeeded in their policies of developing EPZs (Madagascar and, to a lesser extent, Bangladesh). Apart from Madagascar and Mauritius, all African countries have largely failed in such ventures. The development of EPZs in Central and Eastern Europe is a recent phenomenon, dating from the 1990s[5].

Free zones have flourished since the 1970s, with an exponential expansion over at least three decades. In 1975 roughly 25 countries hosted EPZs, employing some 800,000 people. By 1986 the number employed had more than doubled to reach 1.9 million in 47 countries. Between 1986 and 1997 employment more than doubled again (to 4.5 million) and 93 out of 173 countries surveyed hosted EPZs. If we limit our analysis to the 14 principal countries with established EPZs (Bangladesh, South Korea, India, Indonesia, Malaysia, Mauritius, Mexico, Pakistan, Philippines, the Dominican Republic, Sri Lanka, Taiwan, Thailand and Togo), the number of jobs multiplied by a factor of five in just 15 years - from 210,000 in 1975 to 567,000 in 1986 and 986,000 in 1990 (Kusago and Tzannatos [1998]).

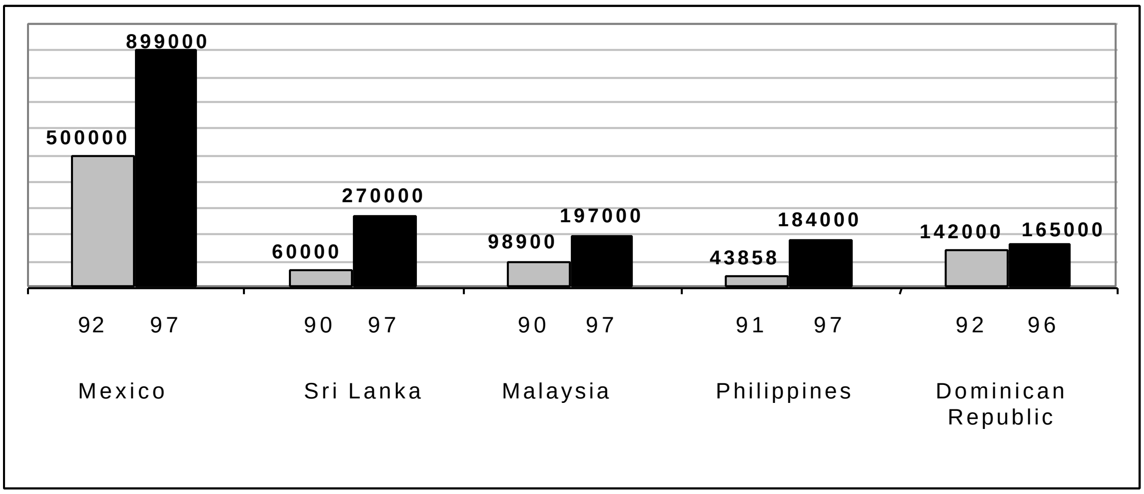
Job creation in the principal EPZs, all located in Latin America and Asia, is remarkable during the 1990s (see Figure 1-1). The workforce doubled in five years in Mexico, by far the world's largest EPZ employer, as well as in Malaysia (1990-97). The number multiplied by more than four in Sri Lanka and the Philippines in less than 10 years, and so on.

[5] Free zones have already been created in Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Lithuania, Macedonia, Poland, Slovenia, Ukraine and Yugoslavia.

The five leading EPZ hosts (Mexico, Sri Lanka, Malaysia, Philippines, and the Dominican Republic) together employ some 2 million people in such zones, a total which represents just less than half the total so employed world-wide. Excluding these countries and Indonesia (with roughly 170,000 workers in EPZs, almost the same as the Dominican Republic), EPZs in all other free zones are considerably smaller. The next four countries (Guatemala, Madagascar, Mauritius and Tunisia) employ roughly 100,000 people each.

Figure n° 1-1 : The five leading EPZ hosts world-wide (excluding China)

(Classified accord to numbers employed)



Source: Madani [1999] for 1992 data and OECD [2000] for 1996 and 1997 data

Those countries where EPZs have experienced the greatest success, in these terms, have also witnessed a significant growth of exports from such zones (see Figure 1-2):

- in the Dominican Republic, EPZs contribute more than 80 % of merchandise exports; they are, after tourism, the second largest provider of foreign exchange;

- Mauritius remains the inescapable text-book example: in 1999 the 500 or so enterprises in the EPZ accounted for 75 % of the country's exports (of which 65 % derived from textiles and clothing);

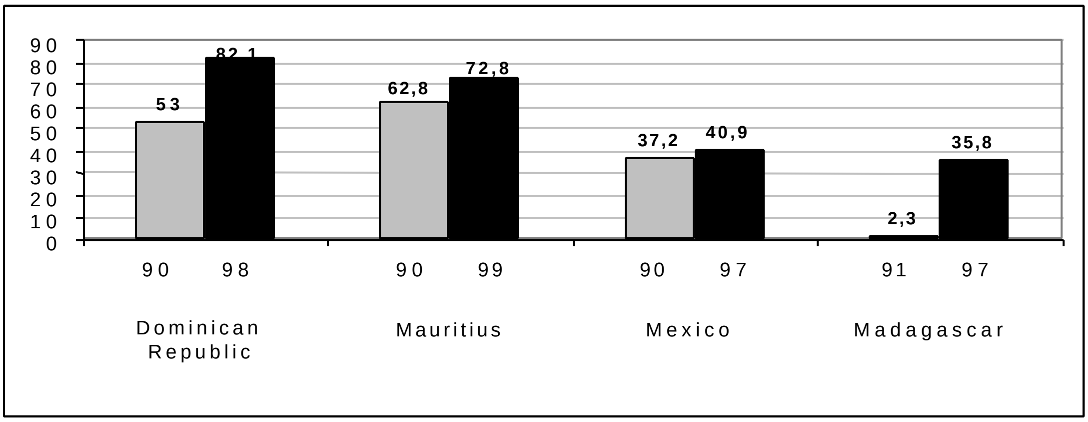
- in Mexico some 4000 maquiladoras today represent 41 % of exports and constitute the second largest source of foreign exchange (after oil and before tourism);

- in Madagascar, EPZs provided 36 % of exports in 1997, a remarkable performance considering they were established only in 1990.

In all these countries the share of EPZs in exports of manufactured goods is predominant, exports of this type of good frequently appear with the establishment of such zones (as in the case of Madagascar, to take the most recent example). They make an equally significant contribution to the diversification of exports. Thanks to the expansion of EPZs, the share of manufactured goods in exports from Tunisia has more than doubled since 1980, rising from 23 % of the total to 53 % in 1996 (Warden [1998]). The story is the same in Central America and the Caribbean (Dominican Republic, Costa Rica, Guatemala, and so on), regions which, before the establishment of EPZs, exported only tropical goods (coffee, bananas, etc.).

Figure n° 1-2 : Share of EPZ exports in total gross exports of certain countries

(In order of importance, %)



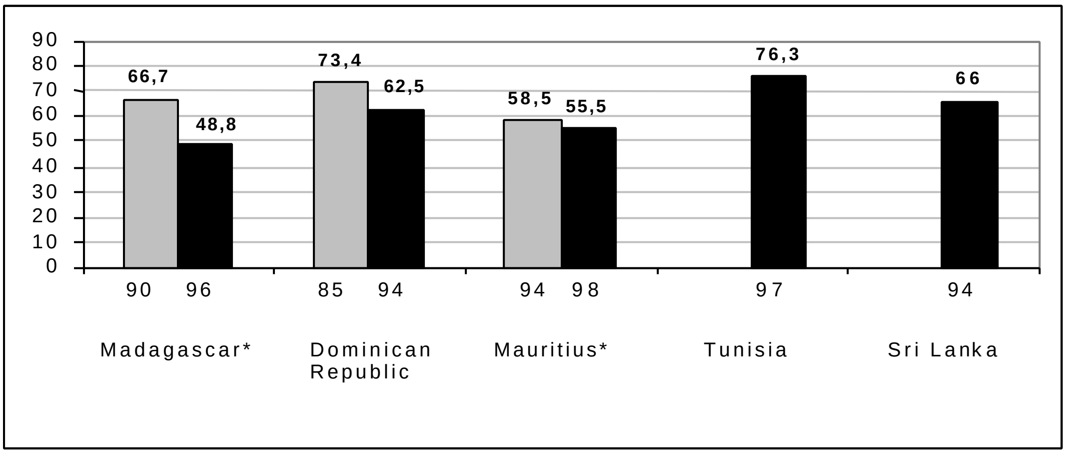
Source: Central Statistical Office Mauritius, Jenkins and alii [1998] for the Dominican Republic, Razafindrakoto and Roubaud [1997] for Madagascar, Warden [1998] for Mexico

1.2.2. Strong concentration by sector

Enterprises established in EPZs are heavily concentrated in labour-intensive activities, centred primarily on the production of textiles, clothing, electrical and electronic goods. Adding various diverse industries (food processing, metalworking, production of sports goods and games), such types of activity represent more than 90 % of all EPZ output (Burns [1995]). All such enterprises correspond to "mature" goods for which, according to the product cycle theory (Vernon [1966]), there is a progressive delocalisation of production from industrialised regions to less developed countries with lower labour costs.

Product specialisation by EPZs generally depends on the level of development of the country concerned. The manufacture of textiles and clothing predominates in the poorest countries. This is the case, in particular, of EPZs in Madagascar, the Dominican Republic and Sri Lanka (Figure 1-3).

Figure n°1-3: Share of textiles and clothing in EPZ employment (%)



Source: Bost [2001] for Mauritius, Bureau de la Statistique de Madagascar, Cook [2000] for Tunisia, Madani [1999] for Sri Lanka and the Dominican Republic

* : industrial concentration is calculated on reported number of firms active in textiles and clothing

The sizeable share of textiles and clothing in Tunisia, and to a lesser extent in Mauritius, may appear surprising when compared with per capita revenues in these two countries (both are classed as middle-income countries). In the Tunisian case, the free trade agreement signed with the European Union is particularly favourable to such industries. Bilateral trade is subject to a specific set of measures (referred to as "outward processing", covering goods imported for intermediate processing before re-exporting) which grant Tunisian exporters duty-free access to European markets through a simplified procedure. Mauritius benefits from a duty-free arrangement with Europe, within the framework of the Cotonou Convention (EU-ACP), but even though the contribution of textiles and clothing has fallen slightly in recent years, the country is experiencing real difficulties in diversifying production (see Box 1-1).

Electronic goods dominate in EPZs in more developed countries, such as Malaysia (65 % of the workforce), Mexico (35 % of employees), Korea and Taiwan. Malaysia has become the leading global exporter of electronic components thanks to the expansion of EPZ enterprises in this sector.

Specialisation by sector in EPZs is generally subject to strong inertia. Diversification remains very limited, for reasons that are essentially linked to the fact that companies from developed countries adopt delocalisation policies for a limited number of manufactured goods. The ILO [1996] stresses this fact: "a striking feature of EPZs has been their development into "monocultural" industrial estates rather than into well-balanced industrial parks as originally planned".

Mexican maquiladoras provide one of the rare examples of EPZs that have succeeded to a certain extent in diversifying activities. While electronics remains dominant (48 % of output in 1995), its share is dwindling (it contributed 63 % in 1973) to the profit of automobile components (22 % of output) and diverse industries which, together, account for output slightly greater than the automotive sector (Warden [2000]).

1.2.3. Embryonic diversification into services

The growth of services in international exchanges and international investment flows (representing one quarter of global commerce and two-thirds of investment), coupled with the development of new telecommunications and computing technology, is starting to affect investments made in EPZs.

The broadening of EPZ activities to encompass the services sector presents a considerable potential, so much so that some observers evoke the arrival of a second generation of free zones[6]. New service activities in EPZs are diverse in nature, including software and Internet tool design, creation of electronic platforms for secure on-line transactions, call-centres, on-line data entry, and so on. In parallel, there is a significant expansion of trade-oriented EPZs, providing services essentially for goods in transit.

The absence of precise data regarding this subject prevents evaluation of the size of this phenomenon. We all know of examples of countries that have launched investment promotion policies of this type in their EPZs (Dubai, Jamaica, Mauritius, etc.), with as yet modest results. It is thus too early to know whether we are witnessing the start of a flourishing of such activities, or if this represents isolated cases such that manufacturing will remain the dominant activity in EPZs. In any event, it is likely that any such trend will bypass the poorest countries, which almost certainly will not be able to provide the infrastructure or the qualified labour force necessary for the development of such activities.

[6] Speech by K. Thompston, Chief executive of the Shannon Free Airport Development, World Conference on Free Trade Zones, London, June 2001.

Box n° 1-1: The Mauritius Free Zone, a model for other developing countries?

Created in 1970, the Mauritius Export Processing Zone has rapidly become a mainstay of the economy. Insofar as Mauritius is considered a success story, with regard to development, its example has inspired several promoters of export-led growth through EPZ development. As noted by Rodrik [1999], the key to Mauritius's success lies in the reinvestment of profits by the sugar industry in the domestic economy, through the EPZ.

After a relatively slow start, the EPZ witnessed remarkable expansion from the 1980s, before experiencing a slight pause in the 1990s. Employment diminished before resuming a growth path from 1997, even though the maximum reached at the start of the 1990s has yet to be regained (Figure 1-4).

The EPZ dominates the real economy, in terms of GDP (12 % of the total and 50 % of industrial added value), employment (20 % of the active population) and above all exports. EPZ enterprises provided 73 % of exports in 1999, a contribution that has steadily grown over recent years (Figure 1-5) far ahead of the sugar industry, the second provider of exports.

Several factors nonetheless indicate the emergence of a number of obstacles since the start of the 1990s:

- contrary to the trend observed in emerging Asian countries, the strong growth of per capita revenues (today in excess of $3,000) has not been accompanied by a change to the structure of activities in the EPZ; this remains strongly concentrated, with textiles and clothing representing 87 % of employment and 81 % of EPZ exports;
- having expanded strongly throughout the 1980s (Figure 1-6), net exports compared to total exports from the EPZ stagnated from the beginning of the 1990s (albeit at a relatively high level of 40-45 % of the total). This stagnation reflects difficulties encountered in the search for more intensive integration of local production and for higher quality within the chosen fields of specialisation.

Figure n°1-4: Employment in the Free Zone

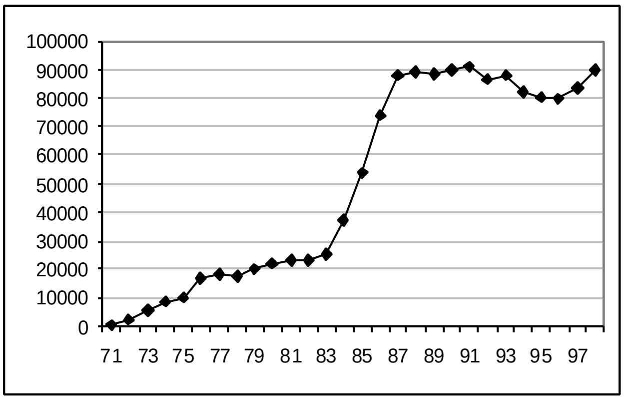
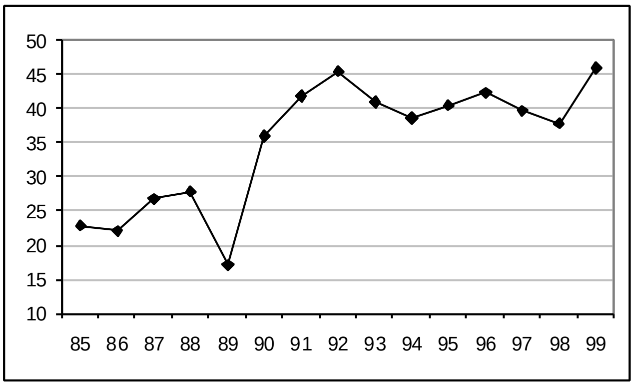


Figure n°1-5: EPZ share of total manufactured goods exports (in %)



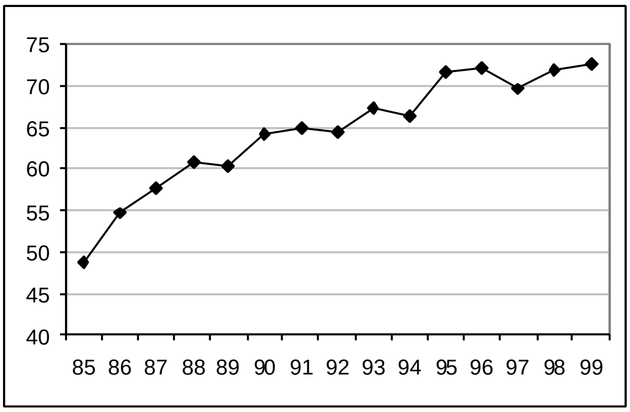


Figure n°1-6: Share of net exports in total EPZ exports (in %)

Source: Mauritius Central Statistical Office and World Tables (exports of goods 1985-94), World Bank

2. FREE ZONES: A TOOL FOR DEVELOPMENT?

Countries establishing free zones expect them to stimulate economic development through accelerating industrial growth and by providing employment. Nevertheless, this part of our report demonstrates that the results of this strategy, as a vector for development, do not always correspond to expectations. Other than the direct creation of employment in the EPZs, the amplitude of effects induced in the rest of the economy depends on numerous factors such as the inward investment strategy adopted by the country concerned and its initial level of development.

2.1. Free zones in economic theory

Neo-classical theoretical economists were the first to study the specific measures applied to EPZs[7], measures traditionally considered as being sub-optimal and sources of distortion. New growth theories have brought fresh arguments for EPZ promoters, stressing the dynamic gains they are susceptible of producing (technology transfers, imitation effects, and so on).

2.1.1. EPZs, "second best" in neo-classical theory

In neo-classical theory the establishment of an export processing zone in a country represents a second best policy choice, consisting of compensating for one distortion (import duties) by introducing another (a subsidy). According to this theory the total suppression of competitive distortions, through the introduction of total trade liberalisation, is the only policy to bring an economy to its optimal state. In this case the impact of EPZ policies on the well-being of the host nation is, a priori, indeterminate. It may be positive or negative according to the parameters adopted for the model and the hypotheses retained.

In his seminal study based on a Hecksher-Ohlin model with two factors of production and two goods, Hamada [1974] demonstrated that the establishment of a free zone creates distortions in the initial factors of production and leads to a specialisation that runs contrary to the real comparative advantages of the host country. In this model the establishment of an EPZ in a small open economy where import duties are applied tends to reduce national well being. Such a conclusion is nevertheless contradicted by empirical observations. These show that the establishment of EPZs generally favours economic growth and employment creation (see below).

Other neo-classical economists consider, to the contrary, that the creation of EPZs improves a country's well being (Miyagiwa [1986]). This opinion is formed from the construction of a model with three production factors and three goods, with nonetheless restrictive hypotheses (such as subsidies for exports lower than the cost of import duties). This positive impact is accentuated if one makes the hypotheses more realistic, notably by taking into account the existence of unemployment (Young and Miyagiwa [1987]).

2.1.2. New growth theories

New growth theories add to neo-classical approaches and stress the possible external effects of an EPZ on the host economy, such as learning effects, human capital development, demonstration effects and so on. Taking these externalities into account leads to a correction of the neo-classical

[7] One of the oldest debates in development economics concerns the relative efficiency of balanced and unbalanced growth, based on the creation of industrial poles (Hirschman [1958]). The latter theory, a priori more favourable for development based on the establishment of free zones, nevertheless makes no specific reference to EPZs and, as such, is not described here.

vision and demonstrates the potential gains to be gleaned from EPZs (Johansson and Nilsson [1997]).

The catalyst effect of EPZs on the rest of the economy may transit different channels. For example, workers trained within EPZs may transmit their knowledge and experience to subsequent employers; domestic enterprises may copy production and organisational methods applied by foreign firms in the EPZ, as well as benefit from distribution networks established to serve these foreign enterprises; local entrepreneurs may be encouraged to seek their own export markets, and so on (Romer [1997]).

2.2. EPZs, growth and employment

The creation of induced employment constitutes the main indicator used to judge the success of an EPZ. Other than this quantitative criterion, it is nevertheless necessary to question the quality of jobs created. Experience shows that even if salaries in EPZs are generally higher than those paid by companies outwith the zones, these are generally for jobs requiring no or low skills and are reserved, in the main, for a female workforce.

2.2.1. EPZs as employment creators

Insofar as they comprise labour-intensive activities, enterprises in EPZs constitute, a priori, a significant source of new employment. The impact of such zones on jobs may be assessed at three levels.

- Direct job creation within EPZs constitutes the most simple measure. The weight of EPZs in total employment depends, to large degree, on the size of the country concerned:

  - governments of small countries frequently use the creation of EPZs as a means of reducing their employment difficulties. In Mauritius, 18 % of the active population is currently engaged in the EPZ (compared to 2 % in 1980) and in the Dominican Republic and Costa Rica EPZs constitute the leading employers;

  - employment creation in free zones in larger countries is generally marginal. The share in manufacturing jobs created is modest (notably Korea and Malaysia). Since their establishment, and until 1988, Indonesian EPZs contributed less than 1 % of total manufacturing employment. Maquiladoras were introduced in Mexico as an emergency employment creation measure in 1965. Despite their importance in the economy and exports of Mexico, their employment share remains marginal; at the end of 2000 only 3 % of the active population was thus employed[8] (according to Warden [2000], they accounted for 23 % of manufacturing employment in 1996 compared to 5 % in 1980).

- The global impact of free zones on employment should also take account of indirect employment generated by their activities, such as from the supply of inputs and services to the zone and the transformation of investment funds into fixed assets. Such calculations frequently use an input-output matrix to measure intermediate consumption and investment for each branch of activity, as well as the associated employment generated. The number of such indirect jobs is evidently highly variable and depends on the degree of integration of the EPZ into the local economy. Empirical studies show the ratio of indirect/direct jobs created varies from 0.25 in the case of Mauritius (ILO [1998a]), to 1.4 in Madagascar (Razafindrakoto and

[8] INEGI, Instituto Nacional de Estadistica Geografia E Informatica, Mexico

Roubaud [1997]) and more than 2 in Honduras (ILO [1998a]). In the latter examples it appears that links between textile-oriented EPZs and local suppliers is particularly strong.

- As is the case throughout the world, the link between job creation (direct and indirect) by EPZs and the impact on unemployment is complex. To be sure, several LDCs have managed to employ some of their jobless in such zones and at the same time to avoid an explosion of unemployment. This effect is particularly clear in the case of Mauritius, where a committee presided by a future Nobel Prize winner drew particularly pessimistic conclusions regarding the future of the island at the start of the 1960s. It predicted a veritable catastrophe if nothing was done to absorb rapidly expansion of the active population (Rodrik [1999]). Thanks to expansion of the free zone, in part, the unemployment rate declined from almost 20 % in 1980 to 2 % in 1993 (before climbing in recent years to reach 8 % in 2000).

The requirement by most EPZs for an essentially female workforce (see below) has limited the decline of unemployment in an unforeseen way. This is largely a statistical phenomenon, familiar to analysts (and equally observed in industrialised countries), reflecting an inflexion of the labour market that corresponds to the fact that women recruited by companies in EPZs are generally new entrants to the job market. As activities in EPZs evolve to sectors requiring a better trained labour force (electrical and electronic goods, automotive sector and so on), so the share of male employment progresses and the impact on unemployment becomes more important (ILO [1998a]).

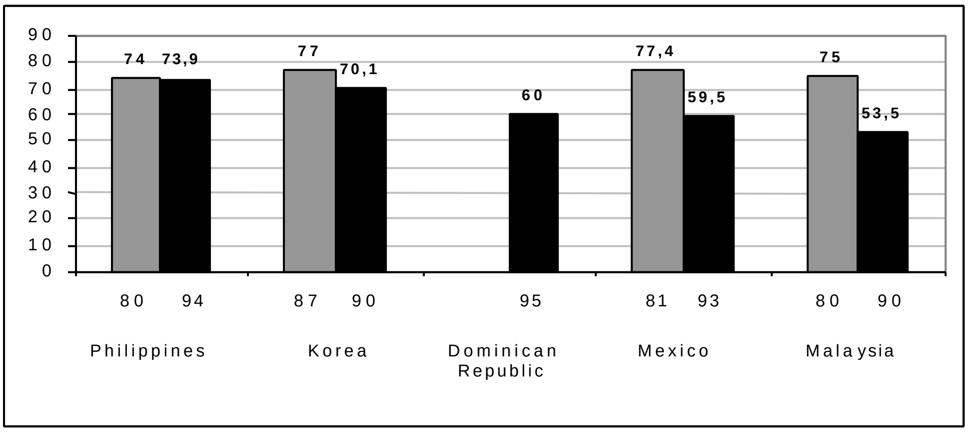
2.2.2. A largely female workforce, low skilled but better paid than elsewhere

Labour-intensive industries such as clothing, footwear and electronic component assembly (which represent the majority of EPZ activities) use simple low-cost technology and require a low-skilled workforce. In the maquiladoras of Mexico (a middle income country where the level of education is nevertheless higher than in many other developing countries), more than 80 % of jobs require no specific qualification (Kusago and Tzannatos [1998]).

These low or no-skill jobs are generally occupied by women (Figure 2-1), often very young. With the exception of Malaysia, where women represent just slightly more than 50 % of employees in EPZs, the percentage varies between 60 % and 80 % in all other countries for which we have been able to obtain data: Philippines (74 %), Korea (70 %), Mexico and the Dominican Republic (60 % in each case). In effect, women present the advantage of being less demanding with regard to wages (rightly or wrongly, companies consider their salary to be a supplement to a family's income), and are appreciated for their dexterity.

The segmentation of the labour market thus constitutes a marked characteristic of EPZs. Such zones may delve into a vast untapped reservoir of female labour, frequently forced onto the labour market by an employment crisis, in a way that such recruitment does not provoke tension with regard to salaries.

Figure n° 2-1: Percentage of women in the labour force of some EPZs



Source: ILO [1998a] for the Dominican Republic, Kusago and Tzannatos [1998] for the Philippines, Warden [2000] for Mexico

This in no way contradicts the results of several recent studies. Linard [2000], ILO [1998a], Razafindrakoto and Roubaud [1997], and Romero [1995] found that wages offered by companies established in EPZs were higher than those offered outside such zones. Several factors may contribute to explaining this situation. The exploitation and greater productivity of the labour force in these zones has a natural counterpart in higher salaries. EPZs frequently suffer from a negative image (arising from the rapid turnover of personnel and the high degree of absenteeism) and incentives may be necessary to attract and to retain workers. Salary policies practised by foreign companies are frequently more favourable than those imposed by local firms, whether from a wish to attract better qualified workers or due to instructions from head office (public opinion in industrialised countries is becoming more and more sensitive to wage and employment conditions affecting workers in the developing world involved in the production of consumer goods.)

Within free zones established in Korea, Mexico and Malaysia, the proportion of women in total EPZ employment is on a declining trendline (Figure 6 above). This evolution must be put alongside the progressive diversification of the structure of these zones. The educational level of the women in host countries is a key determinant of the balance between men and women employees : whereas in Malaysia and in Taiwan, many of the technicians are women, the situation is very different in poorer countries ; rather than retrain the largely female labour force already employed when the technological content of the production is increased, EPZs in these countries prefer to hire better-qualified men.

2.2.3. The degree of local integration: a key factor

The impact of EPZs on the economy and on employment depends, essentially, on the activity (direct and indirect) generated by their establishment. Low value-added "screwdriver" factories that import all their intermediate goods for simple assembly and repackaging for export represent an extreme case. At the other end of the scale are EPZs with high added value. These are generally better integrated into the domestic economy and thus provide sources of far more significant gains for the host country.

The concept of net exports (exports of finished goods less imports of intermediate goods and materials) provides an indicator of the locally generated value added by an EPZ, and of the importance of the backward linkages to the domestic economy. Unfortunately, the data on this subject are very patchy and often not updated.

Net exports from some Asian free zones are significantly higher than the average for most other EPZs. According to Amirahmadi and Wu [1995], net exports from Indonesian EPZs represented 62.4 % of total exports in 1982; the share was 53.2 % in South Korea (1982) and 48.7 % in Taiwan (1986). In these countries, free zones sourced more and more of their requirements from local suppliers over time. In the Masan EPZ in Korea, subcontracting to local enterprises has grown considerably: there were only 76 subcontractors in 1976, representing 15 % of the jobs in the free zone, working directly for the EPZ established in Masan. At the end of the 80's, there were 525 domestic subcontractors; the total number of employees in these companies was roughly half the one in the EPZ.

Such is not the case in less developed Asian countries: in the Philippines, this ratio reached 42 % (1994), and only 20 % in Bangladesh (1995) (Madani [1999]); in the latter country, the quasi-totality of inputs used by EPZs are imported (ILO [1998a]). In other parts of the world, only Mauritius performs well with a ratio of 46 % in 1999 (cf. box 1 here above), whereas the Mexican ratio is as low of the Bangladeshi one (22 % according to our calculations, based on INEGI data).

2.3. The conditions for success

Assessment of the economic impact of a free zone is a difficult task. First, the data necessary for a precise cost-benefit analysis is frequently unavailable; furthermore a complete analysis of the impact from the establishment of an EPZ requires a dynamic approach. Nevertheless, the following paragraphs comment on some studies devoted to this type of exercise and allow us to draw some lessons regarding the necessary measures to be introduced for an EPZ to trigger a chain reaction favourable to the social and economic development of the host country.

2.3.1. Empirical cost-benefit analyses of EPZs

The following approach compares the economic performance of a country both with and without the establishment of EPZs. Warr [1989] considers free zones as enclaves within the host country and presumes a transfer of wealth and resources between the enclave and the rest of the domestic economy. However, this static analysis takes no account of potential distribution effects due to revenue transfers. Net estimated benefits include the net gain of the host country with regard to employment, foreign exchange gains, a more intensive use of local primary goods and equipment, as well as, in some cases, fiscal revenues. The costs are largely of an administrative and technical nature (expenses linked to the maintenance and the operation of EPZ infrastructure).

Table n° 2-1: Cost-benefit analyses of three Asian EPZs

	Bataan (Philippines)	Masan (Korea)	Penang (Malaysia)
Net overall benefit	Negative	Positive	Positive
Infrastructure cost	High	Moderate	Weak
Foreign exchange gains	Rising	Substantial	Substantial
Tax revenues	Weak	Weak	Limited
Domestic suppliers	Very limited	Rising	Very limited
Job creation	Substantial	Moderate	Substantial

Source: Kusago and Tzannatos [1998]

A study of three Southeast Asian EPZs (Bataan/Philippines; Masan/Korea; Penang/Malaysia) estimates the net benefits from EPZs are positive in the cases of Masan and Penang, but negative for the Bataan EPZ (Table 2, above). A comparison of the specific attributes of these free zones leads to the following three comments :

- infrastructure cost is a determinant criterion for the overall economic impact that may be derived from the creation of an EPZ within an economy. The Filipino government's decision to create the Bataan EPZ in an isolated area, and hence promote regional development, also increased the cost of infrastructure;

- in all three cases EPZs contributed to job creation (there is no information as to the types of jobs) and to foreign exchange gains if one supposes that investments would not have arrived in the absence of incentives. Nevertheless, the net gain in foreign exchange is significantly reduced by outflows of profits and dividends repatriated by subsidiaries to their parent company.

- the use of locally sourced primary materials remains limited in EPZs. Here again, the principal behind the free zone concept, which consists of import duty exemptions on intermediate goods, constitutes a disincentive to purchases from local suppliers.

This static analysis allows some preliminary conclusions regarding the factors of success in establishing an EPZ. These are of two types:

- structural elements concern the level of development of the host country (favourable to a better local integration of enterprises), the geographical location of the EPZ (which a priori determines the required investment in infrastructure and the cost of delivery of goods to markets), and so on;

- elements linked to economic policies adopted by the host country, and in particular the mechanisms governing fiscal and other advantages offered to investors in the EPZs.

The exemplary failure of the Dakar EPZ (Box 2-1, below) shows, on the other hand, how a combination of unfavourable factors can lead to a downfall. The following analysis is nevertheless partial, insofar as it does not include the dynamic gains supposed to be generated by an EPZ.

Box n° 2-1: Failure of the Dakar EPZ, a text-book example

Senegal, like Mauritius, was a pioneer in the creation of free zones establishing its EPZ in 1974. The project generated significant hopes at its origin, as Senegal expected to profit from the delocalisation of enterprises from industrialised countries, in the same manner as countries of the Maghreb, the Caribbean or Southeast Asia before. The scheme's promoters sought to exploit Senegal's geographical position as well as the port and airport facilities offered by Dakar. Due to its pioneer character (with regard to continental Africa) all development experts followed the experiment with much interest from its beginning.

In 1999, twenty years after its creation, Senegal's authorities admitted the total failure of their project, which now represents a classic model of how not to proceed, and ended the experiment (to replace it with a system of free points scattered throughout the country). At the time of its demise, the Dakar EPZ hosted just 14 active enterprises providing a total of just 940 jobs.

The principal reproaches directed at the EPZ, and considered as the main reasons for its failure, are as follows:

- excessive bureaucracy involving different institutions in the country (especially the customs' service);
- mistrust, if not incomprehension by the authorities with regard to dispensations granted to the national regulatory environment;
- its distance from the port of Dakar (12 km) requiring the handling of inputs at a cost greater than the maritime delivery of finished products;
- inadequate competitiveness by Dakar port, in comparison with similar facilities in Morocco or Tunisia, for example;
- the poor reputation of the local workforce, judged to be unproductive and too expensive;
- the elevated cost of other factors of production (energy, water, communications); electricity rates were three times those applied in France;
- the obligatory concentration of investments in a precisely defined area;
- unnecessarily long delays in obtaining the necessary permits (often more than one year) whereas speed ought to have been of the essence;
- unrealistic goals imposed on potential investors, both with regard to jobs to be created (each company was required to employ at least 150 people) and to the initial investment;
- rigid and constraining labour regulations; employment contracts were permanent and employers did not have complete freedom to recruit the people they wanted;
- isolation from established international trade routes;
- the "unusual" character of the country when compared to the "star" destinations for industrial delocalisation;
- etc.

Source: Centre Français du Commerce Extérieur [2001]

2.3.2. Dynamic effects hard to obtain

Countries hosting EPZs expect foreign enterprises to transfer part of their knowledge and technology to local companies. Such transfers should encourage the industrial development of the economy in general and allow efficiency gains in the production of non-traditional, as well as of traditional goods.

In general, trickle-down effects from EPZs to the host economy present a mixed balance sheet. In several countries the influence of EPZ activities on the rest of the domestic economy, whether upstream or downstream, remains limited. The primary reason for this is the overly strong distinction between the two sectors (EPZ/domestic economy).

In most developing countries a modern, high volume, productive sector, producing essentially for export, is superimposed on a small-scale, non-specialised sector, with low productivity, producing for the domestic market. As such there is no point of contact between the two, whether through commercial relationships (see below) or through investment by local entrepreneurs. The potential for technology transfer is limited where foreign companies finance the establishment of local subsidiary installations in EPZs.

The type and the forms of operation within EPZs seem to constitute an obstacle to the existence of significant technological transfers. Activities largely correspond to stages of component assembly and sub-assemblies that are part of a global production process, the most technically advanced elements of which remain unavailable to local subcontractors. Nonetheless, the experience of a few "success stories" (such as emerging Asian countries and Mauritius) shows that such obstacles are not insurmountable. Empirical observations suggest that three factors determine the degree to which relations between EPZs and local companies may be developed, and hence dynamic advantages accrue.

- In the first instance, the behaviour of local enterprises and/or the existence of measures to encourage or oblige the creation of joint ventures has allowed the association of local and foreign capital in establishing enterprises within EPZs (Basile and Germidis [1984]). The share of domestic capital in EPZs is significant in a few countries, such as Mauritius (roughly 50 %), Korea (25 %) and Mexico (14 %). Furthermore, in some cases (Korea and Mauritius, for example), national authorities encourage domestic producers to offer goods to companies in the free zones in exchange for some advantage in the cost of their inputs (Brannon et alii [1994], Willmore [1995]).

Equally important is the sector of activity and the technology employed in the EPZ. Transfers may arise where companies established in such zones use basic production techniques and where they seek supplies from local enterprises. Other than the interpenetrating of capital, the degree of partnership between domestic and EPZ companies depends on the resources available in the country and on the type of activity undertaken (Jenkins et alii [1995], Madani [1999]). As such, the ILO [1998a] notes that subcontracting to local producers is more pronounced in the food production sector. Industries best placed to transfer technology are those producing intermediate and consumer goods (Amirahmadi and Wu [1995]).

The scale of dynamic effects depends to a large extent on the level of development of the host country. In the poorest countries, the technological divide between the local economy and the EPZ frequently limits the scope for technology transfer (Madani [1999]). Domestic enterprises simply do not have the capacity to absorb the innovations. Links may be created more easily in more advanced countries (Korea, Taiwan, etc.) where a solid industrial base is already established. In such cases, local companies may provide competitive inputs to EPZs.

Despite the foregoing, transfers of technology face at least two obstacles. On the one hand, employees acquire only the basic skills necessary for them to perform specific production tasks and, in consequence, have limited value to other sectors of activity. On the other hand, training is provided to a select number of employees (local supervisors and managers) and the mobility of such qualified personnel towards domestic industry is limited. More often than not, mobility of such workers takes place within EPZs (ILO [1998b]).

2.3.3. EPZs, the "icing" on the development cake

During the recent past developing countries establishing EPZs often considered such zones as a central instrument of development policy. While the objectives concerning employment have sometimes been attained, it is nonetheless difficult to believe that EPZ activities that are reduced to the production of technologically simple goods can provide a basis for sustainable industrial development.

The historical experience of emerging Asian countries leads to a nuance of the potential capacity of EPZs to act as a motor for development. Excluding the city-states of Hong Kong and Singapore, EPZs played a marginal role in the development of other emerging Asian countries. The establishment of EPZs in Korea and Taiwan took place only after the economic take-off of these territories. Furthermore, such activities have never represented more than 3-4 % of manufactured exports, in the case of Korea, or 8-9 % for Taiwan (Basile and Germidis [1984]). In these two examples, the creation of EPZs was considered merely as one element among many adopted in an export-led growth strategy.

EPZs are now declining, if not disappeared in the four East Asian "Tigers" (Korea, Hong Kong, Singapore and Taiwan) where levels of per capita income are close to the industrialised countries (Korea is now a member of the OECD). In Singapore almost all customs duties have been suppressed since 1994, and other fiscal advantages offered to companies adopting an EPZ status have also disappeared. Employment in the free zone of Masan (Korea) has fallen by 60 % sine the end of the 1980s (14,000 in 2000) while exports continue to expand thanks to policies of favouring higher productivity and the specialisation in high-technology goods ($3 billion of exports in 1999).

The impact of EPZs appears to have been more significant in the second-generation countries of Asia. It is too early to form a definite judgement of these countries, which remain at a development stage well below that of the four Tigers. It is nevertheless noteworthy that the reduction to the share of exports from Malaysia's EPZs may indicate the transition of the Malaysian economy to a higher level of development.

It would be tempting to generalise these experiences and to imagine an EPZ development cycle characterised by a phase of take-off, followed by maturity, and finally decline when the increase in salary costs induced by development erodes the comparative advantage of the host country. From a sector point of view, such a cycle would be associated with a progressive increase in the quality of goods produced within EPZs, evolving from textiles and clothing to electronics and high technology goods (in a manner comparable to the evolution of specialisation in Malaysian EPZs).

Most developing countries appear to find difficulties in growing out of the take-off phase. Such countries have managed neither to modify the sectoral structure of their EPZs, nor to reduce their contribution to exports. Even Mauritius, generally considered the most shining "success story" of EPZ development, demonstrates this syndrome (see Box 1, above). The Philippines may be another good example in this case. Other countries which have reached a relatively high level of development, such as Tunisia, also find difficulties in modifying concessions granted to EPZs and continue to award full tax relief on profits earned by companies in these zones for fear that invested foreign capital will seek alternative locations.

In sum it appears that two alternative strategies may be outlined with regard to the use of EPZs as a tool of national development (Hayter [2001]):

- the first strategy, referred to as the "high road", is above all available to countries having a certain level of development, such as Costa Rica, Korea or Malaysia. It consists of the search for and hosting of investors whose goal goes beyond the simple desire to employ cheap low-skilled labour, but who are equally sensitive to the quality of the workforce and to the local environment. This demanding strategy which privileges the quality over the quantity of jobs created is probably the most beneficial in the long term, with regard to economic development and poverty reduction.

- a second strategy, termed the "low road", is largely the opposite. It considers EPZs as a significant source of employment generation within an economy, regardless of the quality. Countries adopting this strategy are thus able to attract investors by granting them massive benefits including, in some cases, introducing waivers to employment laws within the zones (in many poor countries, these numerous advantages are not even sufficient to attract enough investment for a take off of their EPZ).

Investors in such countries are nonetheless highly mobile and liable to uproot production activities should their competitive advantages dwindle. This latter strategy eventually runs the risk of tying the host nation into a vicious spiral of industrial and social underdevelopment, with no opportunity of escape from an initial specialisation based on the production of low value-added goods. Bangladesh and the Dominican Republic are good examples of this “low road” strategy.

3. THE IMPACT OF INTERNATIONAL AGREEMENTS AND NEW FORMS OF GLOBALISATION

The analysis presented in this section stresses the impact of international rules and regulations established within the WTO and the ILO with regard to the future of EPZs. For middle-income countries, the incompatibility of fiscal advantages granted to EPZs with WTO regulations threatens their existence in their current form. At the other extreme, least developed countries will suffer from the disappearance of the Multifibre Agreement, which favours investment in their EPZs as a means of bypassing quotas imposed by industrialised countries.

New forms of globalisation and regionalism will, in any case, impose some change on these zones, all the while modifying the relative attractiveness of different developing countries. It is likely that the geographical location of EPZs, in the future, will be more and more influenced by the strategies of individual companies. These are evolving towards greater outsourcing of production and a search for a more qualified workforce. EPZs will also respond to the progressive concentration of world trade around three major poles (represented by the United States, Europe and Japan) and their neighbours.

3.1. The impact of recent international agreements on the future of EPZs

The principal behind the creation of EPZs is to grant enterprises concessions to the regulatory framework, primarily with regard to fiscal and social codes. The expansion of international law in these two areas is leading to the harmonisation of practices imposed on companies, and on states, which makes the granting of such advantages more and more difficult to maintain.

3.1.1. The agreement on subsidies and countervailing measures

The agreement on subsidies and countervailing measures (ASCM), signed in 1994 as part of the WTO agreements, imposes new constraints on countries with per capita revenues in excess of $1,000 (it does not apply to countries with lower GDP per capita).

This agreement makes no specific mention of EPZs, however the subsidies and advantages commonly offered to attract investors to EPZs will be among various fiscal measures prohibited as from 2004. This will place host countries in conflict with their obligations under the WTO agreement after this date. This ban applies to manufactured goods only. The ASCM does not concern agricultural goods or services.

Subsidies granted to companies exporting a stipulated percentage of their production will thus be prohibited in countries that have signed the agreement. This directly concerns EPZs. Definitions attached to the agreement consider tax exemptions granted to EPZs to be subsidies. However, customs' duty exemptions granted to most EPZ companies are not considered subsidies (as these are indirect taxes they are excluded from the scope of the definition).

Furthermore, members of the WTO are obliged to notify the WTO of all specific subsidies that they grant. A subsidy is considered specific when access is limited to companies, or to a specific group of industries. For example, a subsidy that is granted to a company making semiconductors is a specific subsidy. If, however, such subsidy is granted to all those companies employing one technician for every ten employees, it is no longer specific as it is not destined for a specific enterprise. Special incentives offered to every company located in a defined zone, such as an EPZ, are also specific in character unless local authorities authorised to determine or to vary the rates for all enterprises within their jurisdiction grant such incentives[9].

In reality, several developing countries (and some developed countries) do not declare their established support programmes (subsidies, tax breaks, customs' duty dispensations, etc.). The United States have already sent disclosure requests to WTO members hosting EPZs that have yet to be notify the incentives they offer (cf. in particular the disclosure request sent to Thailand). Complainant countries must prove the tort, non-validity or financial prejudice suffered as a result of incentives offered by another country. In consequence, if anti-subsidy investigations prove that the country engages in unfair commercial practices (notably by offering export incentives), the incriminated government is obliged to eliminate such advantages. Should they refuse, the country suffering from such "unfair" commercial practices may be authorised by the WTO to introduce compensatory measures with regard to the former.

Three scenarios may be envisaged with regard to implementation of the ASCM by developing countries with EPZs:

- the first possibility is for developing countries with free zone regimes to modify their regulations to bring them into line with the ASCM. In this case subsidies must be progressively eliminated and fiscal waivers on profits must disappear, although the exoneration of import duties may be retained (as is the case with Mexico's maquiladoras). Mauritius, with a per capita GDP of more than $3000, falls into this category which is why the government has anticipated activation of the new rules on subsidies and is debating new laws governing the EPZ, laws that would extend the tax regime on profits currently applied to companies in the EPZ to all enterprises in the country;

- in practice, developing countries whose EPZ incentives flout the ASCM rules will not be constrained to change their legislation unless and until another WTO member makes a complaint. It is difficult to imagine, at present, a developed country taking such action against a developing nation. Less improbable is the risk of one developing country, unaffected by the ASCM (with GDP per capita below $1,000), attacking another (supposed to remove subsidies according to the new rules) within the WTO. In either event, the affected countries may very well retain their current arrangements pending eventual pressure; this is particularly more likely as most EPZs have a positive image at the WTO, insofar as they are seen as a means of favouring the insertion of developing countries in international commerce;

- finally, a modification of the agreement may be obtained by developing countries during the next round of multilateral trade negotiations. The current ceiling of $1,000 for per capita GDP was set in a wholly arbitrary manner and it may be possible to vary the level so as to include all developing countries. For example, a ceiling of $3,200 (the floor of the upper-middle-income category of countries) would allow most developing countries (with the notable exception of Mauritius) to retain fiscal incentives based on the percentage of exports from their EPZs[10].

[9] This exception allows towns or states to apply varying tax and labour regimes (for example the difference between the tax rates in Colorado and New York State is not considered as a subsidy).
[10] Mexico also falls into the upper middle-income group of countries. However, it is not affected by the ban on subsidies offered to EPZs insofar as the advantages offered to maquiladoras are limited to customs' duty exemptions.

3.1.2. EPZs and social norms

Poor working conditions experienced in free zones constitute the principal reproach generally made of them, to the extent that the description "oppression zones" is sometimes applied to EPZs. Even if the following analysis demonstrates that such accusations are frequently poorly grounded, with regard to wages paid in the EPZs, many surveys undertaken confirm fears expressed with regard to working conditions (in particular the respect of international employment conventions, as defined by the International Labour Office – ILO).

- The ILO closely follows working conditions within the world's EPZs. According to this organisation (Hayter, [2001]), most countries apply the same labour laws to their EPZs as to the rest of their territories. However, a few nations adopt specific legislation, thereby hoping to reinforce their attractiveness to foreign investors, in particular with regard to the rights of association and collective bargaining (anti-trade union measures). Furthermore, even in the first category of country where regulations are the same throughout the territory, problems of a failure to apply such laws within EPZs are frequently cited. According to Hayter (ibid.), "there exists an unwritten principal whereby different standards apply". In some cases EPZs have their own systems to administer working conditions, often employing former civil servants from the Labour Ministry who are directly paid by the management of the zone (ILO [1998a]). Being both judge and jury, their objective application of the labour laws may be questioned, in the sense that they may tend to favour employers.

Even in the absence of stipulated government policies with regard to the non-respect of national labour laws within EPZs, several factors permit enterprises to bend the rules. In several countries the number of inspectors and, more generally, the availability of administrative resources in the Labour Ministry are insufficient to cope with the rapid expansion of EPZs. The high rate of manpower turnover, and a workforce largely composed of young women (as seen above), reduces the ability of employees to fight for their rights.

All these reasons explain why ILO reports reveal numerous violations of fundamental labour standards in many EPZs, and particularly the rights of association. In Pakistan and Bangladesh[11], trade unions are forbidden within EPZs. In Panama a specific labour code is applied to EPZs, substituting for the national code and, in particular, imposing limits to the right to strike. In some countries where trade unions are nominally authorised in EPZs, as elsewhere in the country, the low rate of union membership suggests the presence of hidden illegal barriers to their operation. This is particularly the case in India and in Sri Lanka, where less than 2 % of the workforce in EPZs belong to trade unions, a percentage vastly inferior to that recorded in other national enterprises (ILO [1998b]).

The ILO Declaration on Fundamental Principles and Rights at work adds to pressure on countries violating some of the underlying standards. The Declaration lists such fundamentals as the freedom of association and the effective recognition of the right to collective bargaining, the elimination of all form of forced or obligatory labour, the effective abolition of child labour, the elimination of discrimination according to employment or profession, and so on.

The OECD [2000] notes that: "Whether a member country retains the sovereign right to adhere, or not, to the ILO, and to ratify, or not, a given convention, membership of the ILO imposes certain obligations with regard to the fundamental principles and rights reflected in the basic Declaration."

[11] Mexico also falls into the upper middle-income group of countries. However, it is not affected by the ban on subsidies offered to EPZs insofar as the advantages offered to maquiladoras are limited to customs' duty exemptions.

The ILO places particular emphasis on trade union freedoms and on the right to collective bargaining, the application of which is controlled through a special mechanism. Apart from the fact that the ILO Declaration pushes all countries to respect such rights, it is significant that the majority of member countries of the organisation (146 out of 175) have ratified Convention N°98 concerning the right of association and collective bargaining, and an equally important number (130) have ratified the code concerning trade union liberty.

The effectiveness of the ILO to act in this regard is confirmed by the case of the Dominican Republic, where until 1990 the authorities refused to register trade unions in EPZs (despite their being authorised by the law). Whereas only 7 unions were registered between 1970 and 1990, 31 were admitted in 1991 and 75 since 1992 (ILO [1998a]). The recent reinforcement of the ILO's powers, as demonstrated by the application of sanctions against Myanmar in 2000, augurs well for the future - even while pressure from international public opinion is exercised through alternative channels (pressure that is not specifically targeted at EPZs, such as codes of conduct for enterprises, "social" labelling, and so on).

- Debates about the inclusion of a "social clause" in WTO texts have encouraged reflection regarding the link between export competitiveness and the decline of social standards. Such a clause would authorise a member country to ban imports of goods produced under degrading working conditions (in violation of ILO rules). In fact, EPZs probably constitute the only large-scale example of a voluntary undercutting of working conditions, with the objective of increasing the competitiveness of exporting companies and increasing the attraction of the host country in the eyes of foreign investors. A number of developing countries are opposed to the introduction of such a clause by the WTO, for fear that it may be used as a means of protection; this effectively condemns the project in the short term. As a consequence, the European Union and the United States no longer promote this idea, but only propose a collaboration between WTO and ILO on this subject.

Nevertheless, it is notable that trade-unions in the developed countries, as well as many in the developing world (the Indian trade unions being opposed to this idea) broadly support efforts for the WTO to incorporate a social clause (which remains to be defined). The general secretary of the Malaysian trade union federation adopted such a stance, against the wishes of his government (Rajasekaran [2001]):

> *"If world trade through the WTO is to achieve an improvement in the living standards of working people around the world, particularly in developing countries (rather than an increase in exploitation of workers by authoritarian governments, especially in export processing zones), it is more urgent than ever for the respect of core labour standards to be incorporated in the international trading system".*

3.1.3. An end to the Multifibre agreement, a menace for many developing countries

Dismantling of the Multifibre Agreement (MFA) between now and 2005 risks to have significant impact on the global distribution of textile and clothing production, with a direct effect on EPZs specialised in such activities.

Since its introduction in 1973, the MFA has been thrice renewed. It imposes bilateral quotas on the quantities exported by developing countries, essentially those in Asia. During negotiations leading to the Uruguay Round, member countries agreed progressively to integrate such activities into the rules of GATT. The Agreement on Textile and Clothing (ATC) fixes the conditions for this integration between now and 2005, which imply the disappearance of all current quotas by the deadline.

Important changes have affected output and trade by the textile sector since the introduction of the MFA. Countries which reached the limits of their quotas (mainly in Asia) invested elsewhere, notably in EPZs in southern Asia (Bangladesh), Latin America and Africa (Mauritius). The displacement of such production units has allowed several free zones to develop.

The elimination of these discriminatory measures will upset the rules of the game according to which the manufacturers of textiles and clothing have adapted their strategies. A recent study by CEPII (Avisse and Fouquin [2001]) demonstrates that the suppression of quantitative barriers to trade and the decline of customs duties could encourage an increase in international trade, to the large benefit of Asian exporters. To the contrary, producers in peripheral regions (notably Latin America, the Mediterranean Basin, East and Central Europe) will lose the benefits they enjoy from the set of trade measures applied to their own exports and to those of their competitors.

African and Caribbean EPZs, highly specialised in the production of textiles and clothing, will witness the arrival of new dynamic competitors on their traditional export markets. In effect, this discriminatory system (in addition to duty-free access to the EU by ACP countries, according to the conventions of Lomé and Cotonou) has allowed countries of the Africa-Caribbean-Pacific region to develop their free zones. It is likely that Asian countries, leaders in the sector, will displace their overseas investments to better performing locations, profiting from the occasion to concentrate their activities so as to benefit from economies of scale and to improve productivity. In consequence, the chances of success for a number of EPZs may be compromised. The future of such zones operating in these countries (and in new EPZs that may be created) will depend on their capacity to provide comparative advantages in terms of costs, quality and delivery times. Should they fail, there are significant reasons to fear for their continued competitiveness in international markets.

Box n° 3-1: Maquiladoras and the environment

Pollution, environmental degradation and the wastage of natural resources require the adoption of legislation ensuring protection and management of the environment within free zones. Indeed, the more companies are concentrated in a single zone, so the potentially negative environmental consequences increase (declining water and soil quality, for example).

Maquiladora industries are thus contributing directly and indirectly to the degradation of the environment along the Mexico-United States frontier.

Indirectly, the development of free zones and the search for employment is attracting numerable migrants from the Centre and South of Mexico. Assembly plants thereby contribute indirectly to regional environmental difficulties. They encourage a significant number of people to concentrate in an environmentally fragile zone of a developing country, which has neither the financial means nor the human resources to build or to maintain the necessary infrastructure, or to provide sufficient services.

Directly, maquiladoras damage the environment in the border region through the illegal and undisciplined disposal of their waste. As the number of companies and workers multiplies in the neighbourhood, and in the context of a depressed national economy, the menace of further environmental damage substantially increases. The greater the number of companies in a zone, the greater is the volume of waste produced. In 1990 the Mexican secretary for Urban Development and Ecology estimated the number of maquiladoras producing toxic waste at more than 1,000 (55 % of the total).

Waste produced by these companies, and the irregular disposal of such (in particular the disposal of waste water and toxic liquids) is disfiguring the region and constitutes one of the most visible violations. A study undertaken in 1990-91 by an environmental action group in several frontier towns indicated that samples taken from sources of water close by companies located in the towns of Tijuana, Nogales and Matamoros contained traces of gasoline, xylene, naphthalene, chromium, copper, and so on.

The most serious problems concerning deposits of toxic and dangerous materials are nevertheless relatively recent. These arose primarily from a change to the type of activity practised by companies in the free zones. Until the mid 1970s, production was concentrated in the textiles and clothing sectors. While the dying and washing of denim caused the pollution of surface water in the towns of El Paso and Ciudad Juarez in the late 1970s, textiles manufacturing never constituted a serious menace to the frontier zone environment. Electronics, chemical, and furnishing companies arrived in the early 1980s, creating a real danger.

The number of electronics companies increased rapidly at the start of the decade, to the detriment of textiles. Most companies established close to the frontier by the early 1990s were involved in this sector. The components and elements used in such production constituted new forms of environmental damage. A large quantity of solvent is used in production processes, presenting a threat to surface water and the water tables on both sides of the border. Chemicals companies pose similar problems. Where only 3 such factories were present in 1985, the number grew to 51 in 1989 and more than doubled again by 1992 (when some 110 were registered).

From the foregoing, it is clear that the activities of EPZs have directly contributed to environmental damage close to the frontier, leading some observers to speak of the region as a "sanitary catastrophe" that damage ecosystems and above all human and wild life health (Madani [1999]). A report published in 1990 by the Council on Scientific Affairs of the American Medical Association declared: "*the border area is a virtual cesspool and breeding ground for infectious diseases*."

Maquiladoras are nonetheless guaranteed a measure of protection, as they have become a "priority sector" for the Mexican economy. This explains the somewhat ambivalent and ambiguous attitude of Mexican authorities with regard to protection of the environment. The programme designed to control the environmental impact of production is inadequate, the means are insufficient, and the number of inspectors is too small.

The United States and Mexico have nonetheless adopted some measures to protect the environment in their common frontier region. At the same time, environmental protection associations on both sides of the border (national and bilateral) have become more active since the mid 1990s. Finally, and perhaps of greatest significance, maquiladora companies themselves have started to recognise the impact of their activities on the regional environment.

Source: Williams [1995]

3.2. What future for EPZs?

Several factors will influence the future development of EPZs worldwide, in addition to those mentioned above. In future the two main reasons for attracting interest – low labour costs and fiscal advantages – will not be the only factors to take into account. The quality of human resources and the access to markets constitute two additional and determinant criteria for investment decisions.

3.2.1. New forms of globalisation[12]

A new schema for the global organisation of work appears to be emerging at the start of the 21st century. The example of Alcatel, which announced the sale of a hundred or so of its electronics factories worldwide with the goal of becoming a production-free company ("entreprise sans usines"), constitutes the most flagrant example of this new world order. In the realm of consumer durable goods, which constitutes the majority of output from EPZs, such type of organisation has been applied for several years. The American sports footwear company, Nike, subcontracts the totality of its production to companies (many of them being EPZ) scattered around the globe, employing a total of around 500,000 workers.

The new division of work separates the activities of R&D, design, finance, marketing and co-ordination, which are retained by the parent company, from production and assembly activities that are performed by decentralised units spread throughout the world. According to the ILO [1998a]: "more and more often, these units do not form part of the same enterprise and do not belong to the same group, but represent a new organisational structure whereby a few front-line companies run global production chains."

Such production chains evolve in function of different factors:

- a change in the structure of trade, linked to the signature of international agreements such as the MFA (see above), or regional agreements (such as the impact of NAFTA, see below);
- changes in the organisation of production (growth of the "just in time" production concept);
- modification of market dynamics, which imposes a more rapid response and which favours production platforms close to final markets;
- "vertical disintegration" strategies by companies, which increases the trend to subcontracting;
- direct foreign investment promotion strategies adopted by countries hosting EPZs;
- technological progress is logically more rapid in high technology companies (electronic components, for example) than in industries such as textiles and clothing which represent the bulk of activity in many EPZs.

The impact of this last factor is both significant and multiform. In general, it tends to demand a more qualified workforce, capable of using and maintaining more sophisticated equipment and adaptable to rapid evolutions. It favours the location of production units in EPZs offering not only financial incentives (fiscal advantages), but also appropriate infrastructure, services and human resources. In some cases it may cause the substitution of capital for labour, thereby reducing the employment content of EPZ-based activities. Finally, it reduces the importance of the availability of low-cost labour when compared to the proximity of consumer markets.

The following analysis centres on two of the most important factors mentioned above, the quality of the labour force and proximity to end-users.

3.2.2. The growing importance of labour quality

Several companies operating in EPZs continue to make price competitiveness their sole objective, and in consequence consider labour as a "cost to be controlled rather than an asset to be cultivated" (ILO [1998a]). For such enterprises, the low level of salaries (linked to the absence of organised

[12] This part of our report resumes extracts of the argument produced in a recent ILO report [1998a] devoted to working and social conditions in export producing zones.

labour) and sizeable fiscal and customs' advantages remain the principal criteria for the geographical location of their activities.

Such strategies, common in the textile and clothing sectors, has a counterpart in high manpower turnover, absenteeism and social agitation. For a host country this strategy leads to dwindling gains over time (in terms of qualifications and trickle-down effects on the rest of the economy, and so on).

Despite the absence of statistics permitting more precise measurement of the phenomenon, it appears that EPZs specialising in higher-technology activities (leading-edge electronics, for example) operate in a very different manner and adopt production methods aimed at increasing competitiveness through quality and innovation (ILO [1998a]).

Such enterprises, while benefiting from the advantages offered through establishment in an EPZ, nevertheless require a relatively better-educated workforce capable of being trained to use new technologies, and to continuously adapt to the evolutions that characterise this type of activity. Taking the example cited by the ILO: "workers employed in such EPZs must master English and not only their mother tongue. Wider use of computers, for example, requires a mastery of English as most software handbooks and user manuals are invariably written in that language" (ILO [1998a]).

These companies unfailingly establish standards much higher than the national norms, with respect to salaries, working conditions, job security and training, and so on.

3.2.3. Access to markets: the impact of regionalism

World trade in goods is increasingly organised around three major poles which, above all, trade between themselves (America, EurAfrica and Asia). Each of these poles associates one of the countries or regions of the triad (the United States, the European Union and Japan) to a "hinterland" comprising essentially developing countries.

In this context EPZs are encouraged to direct their exports primarily to the leading regional market of the pole to which they belong. Proximity to a market constitutes a particular advantage for the production of textiles and clothing. For EPZs in general, the role of this proximity factor has been strengthened by the signature of regional free trade agreements between members of the three major blocs.

This phenomenon is set to expand and to accentuate the polarisation of EPZs in those developing countries closest to the markets of North America and Europe. The evolution of Asian EPZs is possibly subject to slightly different influences.

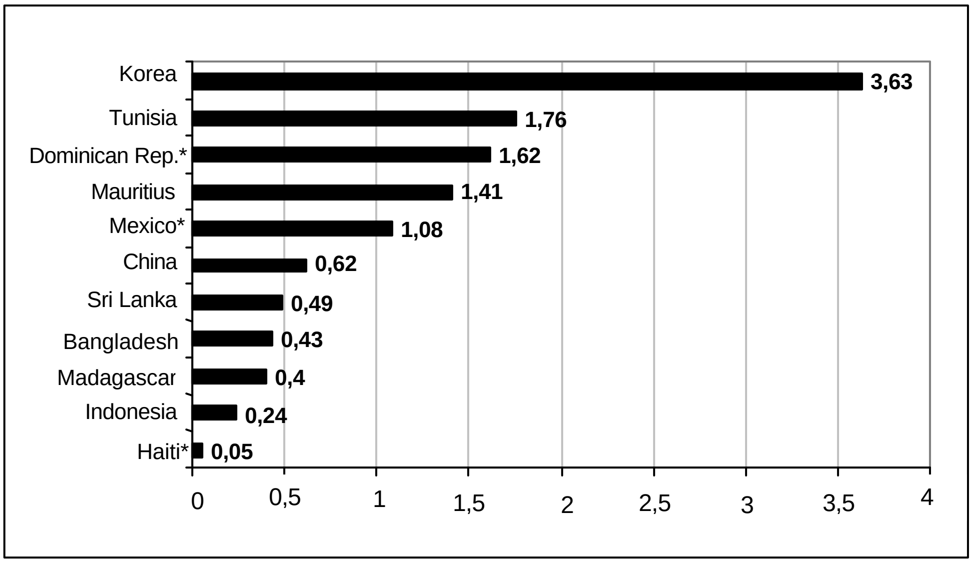
An example of the manner by which regional trade agreements influence the siting of free zones is provided by NAFTA (the North American Free Trade Agreement, signed by Canada, the United States and Mexico). The coming into force of this agreement effectively discriminates against Caribbean countries to the advantage of Mexico, which benefits from lower customs' duties in the highly competitive sectors of textiles and clothing[13].

Statistics underscore this impact. Mexico's exports of clothing to the United States grew from \$709 million in 1990 to \$3.8 billion in 1996 (a five-fold increase), whereas those from the Dominican Republic grew from \$723 million to \$1.7 billion over the same period. Asian clothing exporters also fell victim to the introduction of NAFTA.

[13] This part of our report resumes extracts of the argument produced in a recent ILO report [1998a] devoted to working and social conditions in export producing zones.

Despite the fact that wages are three times higher in Mexico than in Sri Lanka (in the clothing sector – figure 3-1), it is nevertheless more profitable to produce in Mexico for export to North America, due to the savings in time, in transport charges and in customs' duties.

Figure n° 3-1 : Hourly wage rates in the clothing sector (1998 in current dollars)



Source: Werner International, *1996

More generally, the introduction of NAFTA spurred the rapid growth of a number of maquiladoras in Mexico. The numbers employed in such free zones more than doubled during the decade of the 1990s: 1.3 million workers were employed in maquiladoras at the beginning of 2001, against 547,000 at the end of 1993 (Nafta came into force on 1st January 1994).

It is quite a paradox as the economic logic of a free trade area is supposed to be against EPZs: on the one hand, as intra-regional imports become duty free, the EPZ benefits on these imports are extended to all companies; on the other hand, duty free importation benefits for EPZ firms on non regional imports have to be abolished, as the logic of the FTA is to grant preferential treatment to regional trade. For these reasons, most economists used to believe that with NAFTA the elimination of the maquila system was inevitable. According to Sargent et Matthews [2001], "these authors were not arguing that the maquila plants themselves would disappear, but that the regulatory structure supporting the industry would cease to exist".

Maquiladoras were granted a seven-year phase-in period during which they enjoyed duty-free importation benefits. Since the beginning of 2001, NAFTA Article 303 requires that nonregional inputs used by maquiladoras be subjected to Mexico's external tariff (Sargent et Matthews, *ibidem*).

Given the relatively high levels of Mexican external tariffs, the end of these benefits may encourage multinational companies to relocate their investment in maquiladoras to other countries. In order to prevent this from happening, the Mexican government has put in place the following dispositive: "if a maquila can demonstrate that they cannot easily replace non-NAFTA with NAFTA inputs, the Mexican government has stated that they will lower external duties on those products to the zero to 5 % range" (Sargent et Matthews, *ibidem*).

In conclusion, in spite of the disappearance of several specific benefits, the economic logic of EPZs has prevaled. Furthermore, the Mexican government has been under pressure to speed up trade liberalization on their inputs, further than what was imposed by NAFTA or by the WTO commitments. As Sargent and Matthews put it: “policy makers in other parts of the developing world should perhaps think twice about attempting to combine EPZs within their regional integration initiatives”.

In the case of Europe, the superimposition of regional agreements to some degree "neutralises" the advantages of each agreement with regard to duty-free access, and increases the importance of geographical proximity. EPZs in North Africa have an evident advantage, in this case, reinforced by the existence of bilateral free-trade arrangements within the framework of the Euro-Med Agreements

Proximity effects appear to work in a different way in Asia, but the study of this specificity is not the object of this report. Until recently, the Asian countries were not part to regional trade agreements ; also, the size of the Japanese market is much smaller than the European or the American one; the Asian EPZs’ exports are therefore more diversified geographically than the ones of their counterparts in Mexico or North Africa.

For several decades the process of chain displacement has witnessed the transfer of production first from Japan to the Four Tigers, then from the latter to second-generation emerging countries (Malaysia, Indonesia, Philippines, etc.) in function of the development level of these countries. The EPZs with highest potential thus appear to be those located in "third-generation" countries such as Vietnam, which established an EPZ in 1996.

CONCLUSION

This study permits a better appreciation of some of the factors underlying the recent evolution of Export Processing Zones throughout the developing world. This is characterised by rapid expansion, but also by a concentration geographically and by sector of activity. Also reviewed, in the light of the experiences of several countries, are the types of impact that an EPZ may have on the development of the host country, showing that the hopes pinned on such zones by developing countries are frequently excessive. Finally, it demonstrates the challenges facing EPZs due to the new WTO regulations, as well as from new aspects of globalisation which both seem to be pushing towards reform of the geographical distribution of EPZs.

The following conclusions with regard to these different approaches are nevertheless preliminary, for at least three reasons:

- somewhat paradoxically, the flourishing of EPZs has not been accompanied by international efforts to better assess their significance in the global economy. The quality of statistical information regarding their size, structure of activities by sector, or the fiscal regimes applied is at present extremely variable. The only data available at a global level (established by the World Export Processing Zone Association - WEPZA) is not published;

- beyond a few theoretical studies and research covering a limited number of countries or geographical regions, practically no recent studies exist, to our knowledge, which adopt a global approach to the phenomenon in all its respects (notably dynamic analyses). This may well be due to the fact that studies of multinational enterprises, much in vogue during the 1970s and 1980s, have largely fallen "out of fashion";

- finally, reviews of the probable impact of WTO agreements on the future for EPZs are purely forward-looking in character. The disappearance of the MFA will not occur until 2005 (if the industrialised countries respect the agreement). The ban on granting subsidies by countries affected by the agreement on subsidies and counterpart measures will not come into effect until 2003.

The above comments allow the identification of future research projects that would increase our knowledge of EPZs and of their likely fortunes in coming years. They imply an investment in data collection, which can only succeed through a co-ordinated global effort, followed by retrospective analyses of the factors determining the success or failure of different EPZs and the economic mechanisms involved and, finally, the deepening of prospective analyses regarding the impact of new WTO regulations as well as of the new international division of labour.

For developing countries that have established EPZs in the recent past, and for those that seek to so do, an improvement in the knowledge about the subject is essential for the formulation of economic policies and, in the event of failure, to redirect their strategies.

The Bretton Woods institutions, traditionally sceptical of EPZs, could also make an effort to expand awareness of the phenomenon, as could other donor institutions. Their role as advisors and providers of technical assistance to developing nations is indispensable in this sensitive matter that is at the frontier of trade and development policies.

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