GLOBALIZATION, EMPLOYMENT AND POVERTY IN GHANA

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1. INTRODUCTION

One of the most significant influences on the performance of the economy of Ghana in the last two decades has been derived from the greater interaction between it and other economies. Thus, following economic reforms that focused considerably on opening the economy to greater and freer external trade, globalization has been a major aspect of the economy and society. But this influence has been observed not only in the area of external trade; it is seen also in terms of capital flows, aid, technology transfer, international migration, etc. All of these have seen significant expansion in the period of reforms, even if this has been on a scale far smaller than in South East Asia and the other faster growing developing economies.

Globalization has definitely created opportunities for various parts of the economy to gain access to larger pools of resources as well as markets. While this may generally be perceived to have impacted positively on the beneficiaries, there are also indications that globalization has introduced new risks to environments that were hitherto closed to those risks. The increased risk may, in some cases, have accentuated poverty and worsened income distribution in parts of the country.

While poverty has always been generally closely associated with the condition of African states, its link with globalization is a more recent development, and is much less understood. The relationship between globalization and poverty is obscured by the fact that for long poverty was more generally associated with rural economies and societies than urban ones, while globalization was expected to reflect the transactions of the more urban sections of African societies. But there are indications that urban poverty is growing and the links between rural and urban economies are being re-defined in ways that establish or permit more direct links between globalization and entire economies and the participants in those economies.

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It is easy to understand why globalization and rural poverty may not initially be considered together. In the developing world, most of the growth in goods exports has been of manufactured items, even though there has been growth in primary product exports also. But the interesting thing about this growth is its links to the development of technology that makes internationally decentralised production processes much easier and hence the growing effectiveness of multinational companies. The increasing significance of information technology to this process cannot be discounted.

But it is also for reasons associated with these same trends that significant poverty may become an important by-product of the process. While the processes that might lead to rural impoverishment as a result of globalization are not by any means clear, there is considerable discussion of the possibilities in this area. Killick (2000) has suggested that, difficult as this may be, "it is nonetheless possible, in principle, to identify a range of channels through which the various aspects of globalization are liable to change the welfare of the rural poor…" (p.4). These might be observed through static efficiency effects, dynamic growth effects, distributional effects, through its impact on technologies, on the security of livelihoods, on policies and the provision of public goods.

As the processes of global interaction among economic agents gather pace, there is increasing interaction among institutions that either facilitate the growing production interdependence and capital flows or seek to mitigate the consequences of such activity in various communities. Thus, for example, while there has been significant growth in the presence of multinational firms in developing countries, there have also developed a significant number of NGOs, decentralised public institutions as well as indigenous structures for social capital formation in rural communities, largely intended to make life more bearable for groups that may have been adversely affected by growth in international and domestic economies. It is here also not quite clear what effects the changing global scene have had on institutional development and whether changes in the institutions influence their efficacy for dealing with changing socio-economic conditions.

It is the above rationalizations that make it important to determine the extent to which globalization introduces new risks to the local environment and the capacity of local institutions to counter such risks. In Ghana the issue of economic reform and its ability to generate growth has been a major issue for a long time. How that growth is shared, and the relationship between that growth and productivity linked to foreign direct investment, foreign technologies, aid, debt, international migration, remittances, etc., are issues that are currently being debated. This papertherefore sheds light on those issues.

The paper shows that as Ghana became more deeply involved in the changing and fast expanding global economy, there were some benefits that accrued to pockets of the economy, but these were not necessarily those that could spread the benefits to a larger population very quickly. Thus, for example while new jobs were created in sectors linked to the export economy, their links to the rest of the economy were limited. In section 2 we provide an overview of the economy of Ghana. Section 3 of the paperbegins the deeper inspection of how Ghana became involved with the global economy in the course of economic reform by discussing trade, foreign direct investment and employment. In section 4 we look further at how the external sector impacted on poverty and income inequality by looking mainly at technological transfer and local absorptive capacity. We illustrate in section 5 the point about relatively little interaction between the external sector and the livelihoods of people with a case study from the mining sector that attracted the largest share of foreign capital inflows. Section 6 concludes.

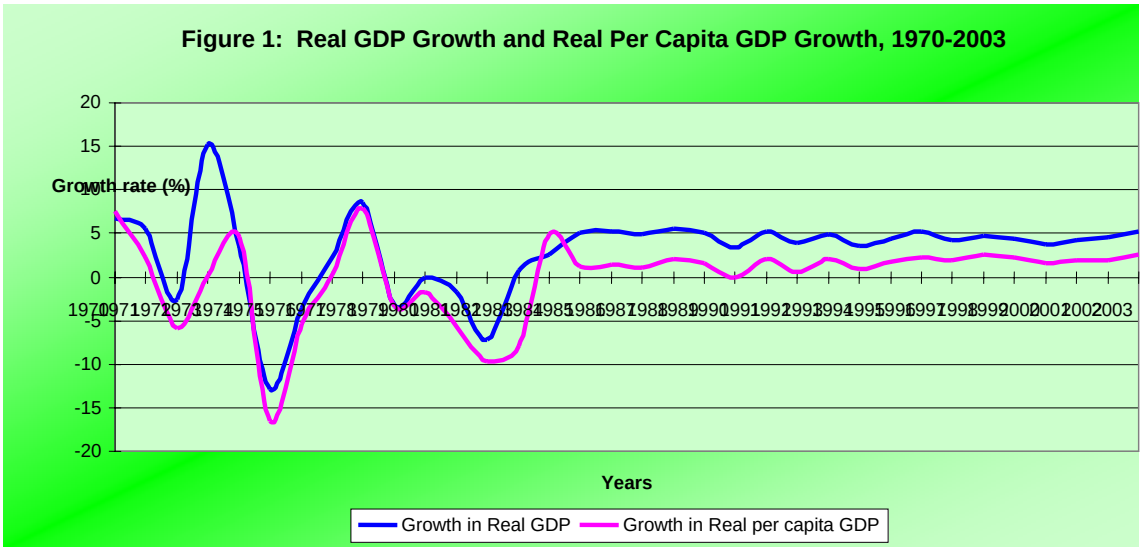
2. AN OVERVIEW OF THE ECONOMY

There was significant and steady growth of the economy following reforms that began in 1983. This has averaged 4.5% in the last two decades. Aryeetey and Tarp (2000) have argued that the growth of the 1980s came about as a result of the expansion of public investment, largely as a consequence of increased aid flows. This expansion has been compared to the expansion that occurred in the 1960s financed largely by running down reserves. In both cases the increased use of capital was not complemented with significant improvements in total factor productivity. Again, in both instances, the injection of capital came after long periods of relatively high capital depreciation. Aryeetey and Tarp (2000) have argued that the initial high

growth rates could not be sustained into the medium-term because the macroeconomic policies were not anchored in comprehensive and credible medium-long term development frameworks. The first attempt sought to deny the market its place while the second attempt was with weakened state structures that could not draw out the needed private investment and facilitate the efficient functioning of the market.

In more recent times growth has been even steadier and slowly rising. But this is still considered too modest for the attainment of the Millennium Development Goals (ISSER 2004). We may note that while growth averaged 4.3% per annum during the period 1998-2002, it has indeed exceeded 5% since 2001. The less than expected growth rates of 1998-2000 were attributable to internal economic mismanagement and external shocks.

Figure 1: Real GDP Growth and Real Per Capita GDP Growth, 1970-2003



Among the factors contributing to the upsurge in economic growth since 2001 are the recovery in agricultural production and general improvement in economic management, especially in the areas of fiscal and monetary policies (AfDB/OECD, 2003).

Sectoral Overview

The economy of Ghana depends largely on agriculture accounting for nearly 40% of GDP and 50% of all employment. Until 2003, agriculture's growth rate lagged behind the other sectors largely due to inefficient farming practices, dependence on rain-fed agriculture and poor transport and distribution channels. Aside from major agricultural exports (especially cocoa), other major exports are minerals (notably

gold, diamonds, bauxite and manganese). The tourism industry is gradually becoming an important foreign exchange earner.

Table 1: Sectoral Distribution of Real GDP (Period Averages (%))

Sector	1970-75	1976-82	1983-86	1987-90	1991-95	1995-00*	2000-04*
Agriculture	52	51	52	46	42	40	42
Industry	19	17	12	14	14	27	26
Services	29	32	36	40	44	33	34

Source: Calculated from Ghana Statistical Services data in *Quarterly Digest of Statistics,* various issues, ISSER (1996).
*The drastic change in the figures after 1995 for industry and services are a consequence of a major data rebasing exercise in 1994 which reclassified a number of service activities as industrial activities.

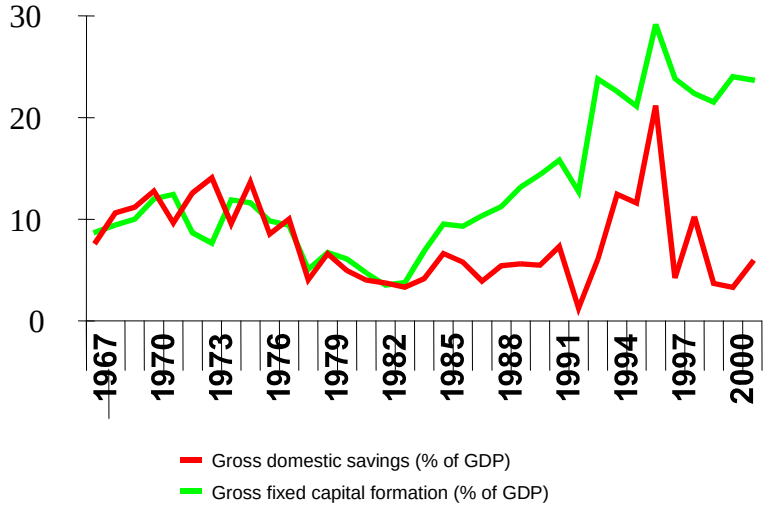
Despite the positive growth rates of the last two decades, there is hardly any evidence of significant structural change in the economy. This is the situation in spite of the fact that data on sectoral GDP shares (Table 1) suggest an earlier declining share of industry and agriculture in total output and a growing share of services in GDP. After a period of services dominating GDP and its growth, the agricultural sector is beginning to re-assert itself as the dominant sector of the economy. It is also important to underscore the fact that much of the earlier growth of services was derived from the relatively lower-order service sectors, notably wholesale and retail trade, and also restaurants and hotels[2]. The shares of mining and construction in GDP have also increased over the last decade, but that of manufacturing has not. These changes are not suggestive of structural transformation.

Savings and Investment

The absence of structural change may be linked to the pattern of savings and investment experienced. Growth in savings and investment remains slow (See Figure 2). So far the level of domestic savings as a percentage of GDP has generally been below 8%. Although there is a definite upward trend since the dismal levels of the early 1990s, much higher levels are required for any sustained growth in investment and GDP.

[2] Aryeetey and Fosu (2003)

Figure 2: Savings and Investment



External Trade

The external trade sector has also experienced only marginal changes in the last forty years, with the composition of exports hardly altered, until very recently. The share of exports in GDP declined significantly from the late 1960s until the early 1980s, and this can be associated with a sharp decline and disinvestment in the cocoa sector and a strong anti-export bias in policies (Oduro 2000). In the reform era, trade as a share of GDP has increased sharply due to more liberal trade and exchange rate policies, the rehabilitation of cocoa and gold production, and an increase in the share of non-traditional exports in the total. These non-traditional exports are mostly agricultural or processed agricultural products, including pineapples, yams, wood products, cocoa products, canned tuna and oil palm products. From 1989 to 1996 earnings from non-traditional exports increased from US$23.8 million to US$276.2 million. This new trend has continued and in 2003 the sub-sector brought in $588.9 million.

Factor and Goods Markets

Alongside the general trends of slow movement and change, the labour, credit, and goods markets are also only changing slowly. The retreat of the public sector from economic enterprises was emphasized in the reform programme. The improvements recorded in the labour market have been rather limited, with unemployment

continuing to be a major problem. The credit markets continue to be problematic, with credit still dominated by the public sector after initial improvements. Financial deepening has been slow in coming. The production of goods and services has improved in some areas but the improvements have not been sustained. Thus agriculture and manufacturing both continue to face significant problems.

Explaining the Current Trends

The current problems are attributed to the continuing presence of institutional constraints in the mobilization of resources and their allocation. The state and its institutions have been weakened by the many years of neglect, and on-going reforms do not deal adequately with those problems. While political instability may have been contained, this has been achieved at some economic cost. Weak governments are more likely to experience slippages in macroeconomic programs, as has been seen with vote-buying public expenditures in the last decade. Corruption and other institutional inadequacies increase the transaction cost for all economic endeavours, and this has been seen in Ghana at different times. The end result is that policy reform has slowed down and, growth has been slower than warranted, although at a higher level than in most countries. The question remains what it will take for growth to accelerate once again and to be sustained. It is obvious that self-sustaining growth must involve the mobilization of all available resources, both domestic and foreign, and these must lead to the employment of the available human resources in the most productive manner possible.

3. TRADE, FDI AND EMPLOYMENT

One of the most interesting issues that have come out from Ghana's reform effort of the last two decades has been the rather slow growth of formal employment. This has often been linked to the slow growth in investment and the absence of employment-generating investment. In particular, there have been questions about the areas in which the opening up of trade has occurred, and about the magnitude and type of FDI that has supported production in the period. This section first considers the developments in trade and FDI and then considers the employment that has been generated with them.

Developments in Trade Policy, Institutions and Outcomes

The broad approach to the external sector of the economy has been to maintain a flexible exchange rate while building up reserves. Liberal trade policies have also been pursued to ensure that imported inputs could come in easily to facilitate industrial production. Having an exchange rate that was almost freely determined by market forces has been considered to be consistent with an outward oriented policy. The exchange rate has been expected to provide correct signals to economic agents and ensure competitiveness. The focus on competitiveness has implied a focus on the real exchange rate rather than the nominal. Considering that maintaining stability in the real exchange rate might not necessarily mean a stable nominal rate, there have been several major nominal depreciations in the last decade.

Ghana's participation in trade has been conditioned by its being well endowed in low cost labour skills and thus having comparative advantage in products requiring this type of labour (See Table 2). Efforts to break out of the primary sectors result increasingly in agro-processing, light manufacturing and provision of services like data processing.

Table 2: Merchandise Export in Millions of Dollars

YEAR	Gold	% Cont.	Cocoa	% Cont.	Mineral	% Cont.	Timber	% Cont.	Non-Trad.	% Cont.
1990	201.7	20.5	360.6	36.6	242.4	24.6	118	11.9	62.9	6.4
1991	304.4	25.5	348.7	29.3	351.9	29.5	124.2	10.4	62.6	5.3
1992	343.4	28.2	302.5	24.9	388.6	31.9	113.9	9.4	68.4	5.6
1993	433.9	30.7	284.4	20.1	473.5	33.6	147.4	10.4	71.7	5.2
1994	548.7	31.5	320.2	18.4	588.2	33.8	165.4	9.5	119.3	6.8
1995	647.3	31.4	389.5	18.8	678.8	32.8	190.6	9.3	159.7	7.7
1996	612.4	27.5	551.8	24.7	641.3	28.8	146.9	6.6	276.2	12.4
1997	579.2	26.8	470	21.7	613	28.3	172	7.9	329.1	15.3
1998	687.8	26.5	620.4	23.9	717.9	27.6	171	6.6	401.7	15.4
1999	710.8	27.4	552.3	21.3	749.1	28.9	174	6.8	404.4	15.6
2000	702.0	28.4	437.1	17.7	755.9	30.6	175.2	7.1	400.7	16.2
2001	617.8	26.6	381.1	16.4	691.4	29.8	169.3	7.4	459.6	19.8
2002	689.1	26.5	463.4	17.8	756.5	29.2	182.7	7	504.3	19.5
2003*	710.8	22.4	802.2	25.3	893.6	28.2	174.7	5.5	588.9	18.6

Source: Ghana Statistical Service

% Cont. is the share of the sub-sector in total merchandise exports.

However comparative advantage in the primary sub-sectors is only potential. An appropriate environment is needed to facilitate economic activities and transformation. These include –

- a well functioning trade infrastructure consisting of roads, warehousing, port facilities and other transport related infrastructure
- reliable supply of utilities such as electricity, water and telecommunications
- a hardworking and disciplined labour force operating in a flexible labour market which ensures fairness to both employers and employees
- transparency and honesty on the part of public officials
- an environment in which information flows freely to enable economic agents to make appropriate decisions

A World Bank study on international competitiveness in Ghana showed that transport costs were generally higher than international standards and even some regional rates (World Bank, 2001). Indeed several other structural, as well as, institutional problems have been identified as hindering the growth of trade.

In dealing with the structural and institutional problems in the trade sector, considerable effort was made in the 1990s to expand the production of non-traditional exports. Prominent in the effort was the Trade and Investment Programme (TIP) sponsored by the United States Agency for International Development (USAID). This programme lasted from 1993 to 1997 and focussed on the creation of an enabling environment and the provision of institutional support for exporters. The TIP put in place the Trade and Investment Management Unit which comprised all Ministries and other organisations whose activities relate to export development. Some achievements made included the removal of foreign exchange control measures that required non-traditional exporters to surrender most of their foreign exchange earnings to the monetary authorities and the removal of restrictions on what could be exported.

Other initiatives have included the creation of the Private Enterprise and Export Development Programme (PEED) which was designed to provide export financing in foreign exchange or in Cedis to Ghanaian non-traditional exporters, and the waiving of duty for exporters who used imported inputs. The Ghana Export Promotion

Council (GEPC) was reformed to become more of a promotional agency rather than a regulatory one. This involved the setting up of a Product Development Division to help identify new products and producers, organize exporters into production associations and provide information to entrepreneurs in the field.

An illustration of special schemes is the use of Presidential Special Initiatives. In 2001 a President's Special Initiative on Accelerated Export Development was launched. The aim of the Initiative was to target areas which were deemed to have significant potential. In pursuit of this, support was given for the setting up of a private company, The Ayensu Starch Factory, to process the output of out-grower cassava farms into high grade industrial starch for export. Similar support is being given to the textiles and garments sector to take advantage of AGOA. Other areas designated for support include palm oil and salt.

Other initiatives include the Export Development and Investment Fund (EDIF) which was launched in 1998, and the passing of a Restrictive Business Practices (RBP) Law in 1993 to check unethical business practices. The Private Enterprise Foundation (PEF) was also established to consolidate and strengthen private sector associations in the country.

While the primary efforts of policy have been to promote the export of non-traditional items with positive results being achieved, much focus has remained on the traditional sectors. For cocoa the main objectives of policy have been to raise cocoa production from 400,000 tonnes to 500,000 tonnes by 2004/2005 and to 700,000 by 2009. Other objectives included the maintenance of Ghana's distinctive position as the supplier of the finest and most consistent quality cocoa and in addition retain the traditional premium obtained by Ghana's cocoa on world markets. Measures taken include the privatisation of distribution of inputs to farmers, and the provision of credit to purchase inputs following the removal of subsidies on inputs. Since 2001 government has intensified its mass spraying of cocoa farms.

A major problem in the cocoa sub-sector has been the share of the proceeds paid to farmers. One of the policy objectives of the structural adjustment programme was to raise this percentage. From levels of around 20% in the early 1980s there was a gradual increase to 46% in 1992. This proportion however fell in the mid-1990s as

world market price increases were not transferred to farmers. Over the past two years the aim of policy has been to raise this percentage to 70%. Currently it is 68%. The operations of Ghana Cocoa Board (COCOBOD) were also streamlined in order to reduce overheads and to intensify research on diseases and pest control.

Gold production has increased since the ERP began because of the more favourable investment climate created, which allowed investment in the sector to expand. The broad policy objectives for the mining sector have been

- to generate incentives to increase and sustain investment in the sector,
- to avoid degradation of the environment, and
- to ensure that people in the sector benefited from exploitation of the mineral resources.

On the import side the policy of trade liberalisation has continued and restrictions on imports have been further eased lately. The dilemma facing the government in dealing with local manufacturing concerns can be summed up in this statement by the Minister of Finance in the 1994 budget: “Many domestic industries have high import and capital intensities and relatively low domestic value added. As a result anything short of the outright banning of competing imports will continue to be seen by them as providing inadequate protection”. One might argue though that one of the factors making domestic industry uncompetitive is the poor nature of the domestic infrastructure and the general business environment which increase transaction and other costs.

FDI Policy and Regulations

Reform brought about a radical change in the attitude toward foreign investment, beginning with the changes to the Investment Code of 1985. This Investment Code which was revised in 1991 covered all areas of investment with the exception of petroleum and mineral investment, which are regulated by the Ghana National Petroleum Corporation and the Minerals Commission respectively. The Investment Code consolidated all relevant legislation affecting investment and was the first manifestation of the new thinking on investment.

A new and more comprehensive investment code was enacted in 1994. Under this code investment by foreign concerns which had earlier been liberalized was further liberalized. At the time of its enactment, it was hailed as the best in Africa (UNCTAD, 2003). Under this new code the Ghana Investment Promotion Centre was established with the express aim of encouraging and promoting investment in the Ghanaian economy. It eliminated the need for prior approval, eased the establishment of companies and provided incentives and guarantees to investors.

Incentives provided included:

- the depreciation of the capital allowance of 75% of capital expenditure incurred in the year of investment and in subsequent years,
- the free transferability of profits and dividends,
- foreign exchange retention accounts through which all foreign payments including dividends can be made,
- exemption from payment of customs duties on machinery and plant for the establishment of mines and further relief for selected items for on-going mining companies, and
- the establishment of well-defined rules for dispute settlement.

Under the Act only the following types of businesses were reserved exclusively for Ghanaians - the sale of anything whatsoever in a market, petty trading, hawking or selling from a kiosk at any place, operation of taxi and car hire services operating less than ten vehicles, pool betting business, beauty saloons and barber shops. With the exception of these, foreigners could operate any enterprise in the country.

The investment code also provided that in the case of a joint enterprise with a Ghanaian partner, the non-Ghanaian shall invest no less that $10,000 of the capital. Where it was wholly owned by a non-Ghanaian the investment of foreign capital shall be not less than $50,000. In the case of enterprises engaged in only the purchasing and selling of goods the investment of foreign capital shall be at least $300,000. Although these figures were low compared to some other developing countries, it must be noted here that most developing countries have actually abolished such requirements. In fishing, non-Ghanaians could hold no more than 50% of the stake while this figure was 40% in the insurance industry. Also foreign ownership of a publicly listed company on the stock exchange could be no more than 75%.

Under the 1994 investment code, the minimum capital requirements did not apply to portfolio investment or an enterprise set up solely for export trading. Generous repatriation of investment income was also provided for in this act. Thus no restrictions whatsoever were placed on the repatriation of this income provided obligations such as taxes have been met. Guarantees were also provided against expropriation by government, and where the government deems it in the national interest to expropriate any concern, a fair and adequate compensation and a right of access to the High Court were provided for. Any dispute not amicably settled may be submitted to international arbitration.

For mining, a code was enacted in 1983. Under the code government retained a 10% free share in any mining venture with the option of acquiring an additional 20%, which conferred on it a managerial share.

To further encourage investment into the country the Ghana Free Zones Board was set up in August 1995 under the Free Zone Act of 1995. Companies that operate under this act enjoy the following privileges:

- total exemption from payment of direct, indirect duties and levies on all inputs for production and sale of export products manufactured in the free zone, including VAT. This applies to plant and equipment, raw materials and intermediate goods;

- total exemption of income tax on profits for the first 10 years. Upon expiration of the10-year holiday, the enterprise is only liable to a tax not exceeding 8% as long as it operates in the free zone. In return the enterprise must export at least 70% of its products while the rest can be sold on the Ghanaian market.
- a hundred percent foreign ownership was allowed.
- there is relief from double taxation for foreign investors and employees.

By 2000, 78 firms had registered to operate in the zone of which 52 were operational employing some 6000 people.

There have been a number of other initiatives to attract investment into the country, including the Ghana Trade and Investment Gateway project which was launched in 1999 to help modernise equipment and raise the human resource base of the Customs, Excise and Preventive Service (CEPS), Ghana Ports and Harbour Authority, Ghana Investment Promotion Centre, Ghana Immigration Service and the Ghana Free Zones Board for the prompt handling and the provision of offsite infrastructure for the export processing zone enclave.

Table 3: FDI Inflows through the GIPC (million US $)

Year	1995	1996	1997	1998	1999	2000	2001	2002
Foreign Equity	49.07	94.88	137.29	44.27	45.53	38.77	32.58	19.49
Foreign Loan	101.2	100.02	337.29	112.38	181.18	76.14	56.73	39.44
Total	150.27	194.9	474.58	156.65	226.71	114.91	89.32	58.93

Source: Ghana Investment Promotion Centre Investment Report (various issues).

A survey carried out by UNCTAD (2003) confirmed the attractiveness of Ghana's Free Zone arrangement as providing a one-stop regulatory authority which reduces the time consuming process of dealing with multiple agencies. But investors also identified a number of shortcomings in the same survey, including the poor provision of technology, education, access to credit and fiscal incentives. Fiscal incentives include delays in paying duty drawback and VAT refunds on imported inputs. Access to land was also a serious problem identified in the survey.

Even though the new mining law is a vast improvement over what existed before it has been criticised for having low investor after-tax return. A recent financial modelling of Ghana's fiscal regime in comparison with that of five leading mining countries shows its fiscal take to be the highest and most onerous on the investor. The fiscal take is the net present value of state take from taxes, royalty and concessionary state equity.[3] One significant weakness of the investment climate in the country is that firms that do not operate in the Free Zone lack "a one-stop shop" for registering their business.

Does Increasing Openness Generate Employment?

The policies for increased openness include those on trade, foreign exchange transfers, tourism promotion, investment promotion, export promotion, tax incentives, and promotion of private business through privatisation of state-owned enterprises. It is not clear how they have influenced employment trends in Ghana in view of the paucity of data. Table 4 shows formal sector employment between 1980 and 1991. Employment increased from 208,000 in 1981 to 464,000 in 1985 after which it decreased up to 1991. Performance of the sub-sectors reflected the overall trend.

Table 4: Formal Sector Employment by Industry and Activity ('000)

Sector	**1980**	**1985**	**1991**
Agriculture, Hunting, Forestry and Fishing	54.9	56.4	14.7
%	16.3	12.1	7.9
Industrial	87.9	108.1	47.2
%	26.1	23.3	25.3
Manufacturing	35.1	51.7	20.6
%	10.4	11.1	11.1
Mining and Quarrying	23.8	25.2	17.1
%	7.1	5.4	9.2
Construction	22.4	23.2	7.8
%	6.6	5.0	4.2
Electricity, Water and Gas	6.6	8	1.7
%	1.9	1.7	0.9
Services	194.4	299.8	124.4
%	57.7	64.6	66.8
Total	337.2	464.3	186.3

Source: Quarterly Digest of Statistics, Various Issues

[3]The modelling was carried out by Transborder Advisory Service, a private consulting firm with special expertise on mining policy issues. Countries studied were Chile, Indonesia, Peru, Papua-New Guinea, and Tanzania.

The 1991 figure for employment in the mining and quarrying sector of 17,100 is 6,700 persons less than the 1980 figure. The mining sub-sector performed better in terms of growth in employment compared to overall employment and employment in the industrial sector[4]. While overall employment and employment in the industrial sector decreased by 0.3 and 0.2 percent respectively on average per annum, the mining and quarrying sub-sector decreased by 0.1 percent per annum. Thus, overall, the early reform years did not yield any positive impact on formal employment.

Further evidence of the later employment impact of trade may be found through examination of the data from the third and fourth rounds of the Ghana Living Standards Survey (GLSS). Deepening economic reforms and trade liberalisation are expected to shift incentives towards the production of tradable goods. Thus, participation in the export sector should become attractive and lead to a rise in labour for that sector. Indeed the proportion of export farmers in the population should rise, and this is confirmed by GLSS data for 1991/92 and 1998/99, where the population share of export farmers rose slightly from 6.3% to 7.0%. The general distribution of the employed persons in the two surveys is provided in Table 5 below.

Table 5: Employment of Active Population Aged 15 and Above by Type of Industry (Thousands)

Sector	**1991/1992**		**1998/1999**	
	Percent	**Absolute**	**Percent**	**Absolute**
Agriculture	62.2	3744.4	55	5566.0
Mining/quarrying	0.5	30.1	0.7	70.8
Manufacturing	8.2	493.6	11.7	1184.0
Utilities	0.1	6.0	0.1	10.1
Construction	1.2	72.2	1.4	141.7
Trading	15.8	951.2	18.3	1852.0
Transportation/Communication	2.2	132.4	2.2	222.6
Financial Service	0.5	30.1	0.8	81.0
Community/Social Services	9.3	559.9	9.8	991.8
Total	100	6020.0	100	10120.0

Source: Ghana Statistical Service

While Table 6 suggests that employment within the EPZs increased over the period 1996-2002, it is important to establish the robustness of this observation. A cumulative total of 37,145 jobs were created through the Export Processing Zones for 1995-2003, while 1,692 jobs were created through export-oriented companies registered through the GIPC by 2002.

[4] In Ghana the industrial sector is made up of 4 sub sectors- Mining and quarrying, Manufacturing, Electricity and water and construction.

Table 6: Employment in the Export Processing Zones

	1996/97	1998	1999	2000	2001	2002	2003*
Production (million$)	800	158.5	167.2	134.4	103.6	222.5	42.3
Exports (million$)	550	145.4	184.1	165.1	291	174.3	36.5
Employment	3500	4000	5500	6900	7745	9500	4300

Source: Data from Ghana Free Zones Board (2003) Note: * - 2003 data is for only the first two quarters.

Table 7: Employment Creation by Foreign and Joint Ghanaian-Foreign Enterprises involved in Export Trade

Type	1994	1995	1996	1997	1998	1999	2000	2001	2002
Ghanaian	86	285	297	130	120	121	250	140	66
Foreign	6	30	39	23	16	18	14	52	3
Annual Total	88	315	336	153	136	139	264	192	69
Cumula-tive Total	88	403	739	892	1028	1167	1431	1623	1692

Source: Ghana Investment Promotion Centre (various reports)

To provide some analytical insight into the broad picture emerging Aryeetey et.al (2005) estimated a labour demand equation as follows:

$$L_t = a_1 + a_2W_t + a_3Y_t + a_4X_t \qquad (1)$$

Where L is total employment; W is the real minimum wage; Y is the real GDP; and X represents degree of openness to other countries. The coefficients had the expected signs and were statistically significant at 10%. A one percent increase in real output led to a 0.33 percent increase in total employment. A one percent increase in the degree of openness led to a 0.14 percent increase in employment while a one percent increase in the real annual minimum wage led to a 0.1 percent fall in the employment level. This supported the results of Jones (1997) that the minimum wage had significant negative effects on formal sector employment.[5]

We use the results of the living standards surveys (GLSS rounds 3 and 4) together with the 2000 population census to make some observations in the era of liberalization. Public sector employment declined from 30.3 percent in 1991/92 to

[5] "The Impact of Minimum Wage Legislation in Developing Countries where Coverage is Incomplete", Centre for the Study of African Economies, Working Paper No. 66, 1997

15.3 percent in 1998/99, according to the GLSS data, and to 9.1 percent with the 2000 census data. Comparable results for private sector employment are 11 percent, 11.9 percent and 8.7 percent respectively. For the same period the trade intensity index increased from 53.4 percent in 1992 to 84.9 percent in 1998/99 and then to 94.5 percent in 2000. The correlation coefficient between total formal employment and openness is -0.98, showing that as the economy became more open, total formal employment was declining. Similar results were obtained between openness and private formal employment which was -0.48; and public formal employment which was -0.998. Thus all categories of formal employment declined with more openness of the Ghanaian economy. In sum, the impact of trade was positive on formal employment in Ghana prior to 1991. Since then it has been negative despite the success in job creation from specific programmes, such as the EPZs.

The Employment Impact of FDI

It may be expected that in general an increase in FDI will lead to an increase in labour demand. Depending on the way multinational corporations with FDI operate, the outcomes on employment may vary. First, they may locate in a country to pursue import-substituting production to take advantage of trade protection. In this case they produce import-competing goods, which are more capital and/or skilled labour-intensive than those of domestic export-oriented enterprises. As such their activities in an LDC may not have a significant effect on the labour market since they would employ fewer workers per unit of investment than similar domestic firms (Grieco, 1985).[6]

The second type of MNC activity may be to produce goods almost solely for export, possibly in an EPZ. In this case, competitive pressures force them to employ the lowest-cost techniques, which invariably mean labour-intensive production. The inflow of FDI in this case leads to increased demand for labour, particularly unskilled workers.

The Ghana Investment Promotion Centre suggests that FDI has had some positive

[6]Grieco, J.M., "Foreign Investment and Development: Theory and Evidence," in *Investing in Development*, Moran et al., pp 47-48.

effect on total formal employment, as well as the quality and skill levels of Ghanaian workers. The centre reports that about 74 % of enterprises registered since 1994 are in operation, and that FDI inflows registered for 1995-2002 cumulatively amounted to $150 million. The peak for FDI inflows registered at GIPC was almost $475 million in 1997 (refer to Table 3). These FDI inflows have created a cumulative total of 76,350 jobs for the period 1995-2002 out of which 71,635 were for Ghanaians. The cumulative figure up to year 2000 was 60,276 Ghanaian jobs representing 0.7 percent of the economically active population from the 2000 census.[7]

The correlation coefficient for 1980-1990, between total FDI stock and total employment was -0.2, suggesting very little linear association between the two variables. Data for 1991-2000 is based on the GLSS and the 2000 census, as was done in the previous section. The share of FDI in national output and the proportion of the working population in private and formal employment are shown in Table 9. The table indicates that with an increase in the proportion of FDI in GDP, there appears to be a decline in both private and formal employment. The correlation coefficient between total formal employment and the FDI share of output was -0.92, while that between private sector formal employment and the FDI share was -0.89. These results mean that after 1990 the FDI has been associated with a decline in formal sector employment.

Table 8: FDI and Employment

Period	FDI/GDP %	Private Employment*	Formal Employment*
1991/92	0.101	11.1	41.4
1998/99	0.215	11.9	27.2
2000	0.575	8.7	17.8

Source: GLSS 3 and 4; National Accounts from data base. Note: * = share of economically active population.

Trade, FDI and Labour Saving/Skill-Biased Technologies

For a developing country, international trade may bring about the upgrading of skills through the importation or adoption of better production technology. Exporters learn or adopt better production technology, either because, they are exposed to intensive competition in foreign markets or are sub-contractors to foreign enterprises. Producers

[7]The economically active population 15 years and above was 8,292,114.

of import-competing goods, in the environment of an open economy need to compete with competitive imports. Since their products, within the context of a developing country, are usually capital-intensive, they need to adopt better or more capital-intensive production facilities to survive (Robbins, 1995). These two processes may lead to a greater demand for skilled workers and the evidence from Ghana supports this view, a proposition that may or may not lead to greater inequality.

For Ghana, Görg and Strobl (2002) studied the issue of trade-induced technological change and labour market outcomes using the RPED[8] panel data for 1991-1997. They found that there was a general increase in the amount of foreign machinery imported for technological reasons relative to the years prior to the commencement of the ERP in 1983. Moreover the average firm's percentage of output exported rose from 2.7% to 11.2%. They regressed the share of skilled workers in the wage bill on foreign capital inflows, firm output, a proxy for imported technology, and other variables.[9] They found that skilled labour and capital were substitutes in production, while firm output had no impact on the demand for skilled labour. For the same period the imported machinery proxy caused the demand for skilled labour to increase. Hence, the evidence supported the argument that through openness there was a technologically induced bias for skilled workers, because the inflow of foreign machinery acts to increase the relative demand for skilled workers. The share of output exported, however, was not significant in explaining the demand for skilled labour. It may be noted that Berman and Machin (2004) also observe that technology transfers had been significant in influencing trends in labour demand in developing countries.

The issue of foreign ownership and firm performance was studied by Ramachandran and Shah (1998) for Ghana, also using RPED data. They found that the value added per worker increases consistently with the increasing share of foreign ownership. Ultimately wholly foreign owned firms have the highest value added per worker. However, between firms with foreign ownership at 55%- 65% and the next category there is a sharp drop of 47.4 percent in the total number of workers per firm. This

[8] Regional Programme on Enterprise Development (World Bank).

[9]The variables used to proxy technology were foreign machinery imports and the percentage of the average firm's output exported.

suggests that some labour saving occurs (refer to Table 9).

As foreign ownership increases the firm size displays an inverted U-shape. The last column shows that firms in which foreign ownership exceeds 55% are more likely to upgrade the skills of their workers. The number of firms with training programmes increases with the degree of foreign ownership.

Biggs and others (1995) calculated factor intensities and productivities for Ghana. They note that generally the capital intensity rises with firm size, but the jump between firms with 5 - 9 workers and those with 10-19 workers is in the magnitude of about 500% which suggests a structural break in capital intensity.

Table 9: Openness and Labour Outcomes Using RPED Data for Ghana (US$)

Foreign Ownership X	Value Added per worker	% of Graduate General Managers	Total Workers per firm	% of Firms with Training Programs for Workers
X = 0%	1417.1	41.6	34	2.6
1% < X # 55%	3011.2	70	94.9	2.6
55% < X # 65%	9433.1	100	228.2	16.7
65% < X #99%	16306.6	100	120.0	33.3
X = 100%	21573.4	100	146.0	50

Source: Adapted from Ramachandran and Shah (1998).
Note: Column totals may exceed 100 because of rounding errors. The RPED survey was conducted in 1991.

Firms of size 50-99 workers are the most labour intensive (or least capital intensive). When compared with Kenya and Zimbabwe, Ghanaian firms with 100-199 workers have the highest labour intensities for that category.

Table 10: Factor Intensity and Productivity for Ghana

Firm Size	K/L	Y/K	Y/L
5-9	430	1.28	507
10- 19	2442	1.11	683
20-49	5189	0.89	1807
50-99	2691	0.93	1575
100-199	3197	1.03	1735
200+	9868	0.28	1918

Source: Biggs and others (1995)

Table 11 Factor Intensity and Wages for Firms Registered with the GFZB

	1996/97	1998	1999	2000	2001	2002	2003
Annual Wage Rate($)	n.a.	2757.5	1381.8	1087	n.a.	1526.3	1395.4
K/L($)	57,143	29,300	14,655	6348	21,110	4368	31,070

Source: Using data from Ghana Free Zones Board (2003)
Note: * - 2003 data is for only the first two quarters.

For the export processing zones (Table 12) no discernable trend can be stated for capital intensity. The foregoing shows that FDI and trade had some positive influences on the demand for skilled workers, and productivity in terms of worker output. Nevertheless, this cannot be generalized for all labour intensity. Several explanations can be given for these results. Foreign ownership may bring with it experience of other production practices unknown to the typical locally owned firm. In addition to this, there may be access to lower cost foreign sources of finance, and a better appreciation of technological obsolescence. "Most firms especially the Ghanaian-owned ones, lack the capabilities and managerial skills to upgrade their manufacturing standards to the international standards" (Baah-Nuakoh et.al, 1996, p 88). Another issue relates to the training of labour, which is more prevalent in firms whose workers become more proficient in their tasks (Table 10). On the issue of openness, wages and skill-bias with increased openness has resulted in relatively better returns to workers such as those in the EPZs. There is also increased demand for skilled workers is a result of the increased purchase of foreign machinery given the more open Ghanaian economy after the trade reforms (Görg and Strobl, 2002).

4. TRADE, FDI, POVERTY AND INCOME DISTRIBUTION

The story of income distribution and poverty in Ghana over the last twenty years has been quite interesting. Available evidence suggests substantial levels of poverty in Ghana despite recent progress. Indeed there is now considerable evidence on the extent and depth of poverty since 1987, both qualitative and quantitative though especially the latter.

Trends in Poverty and Inequality

There have been several analyses of GLSS data for poverty trends, and Table 13 shows the trends in indicators of poverty in Ghana and some main geographic locations between 1991/92 and 1998/99. The results show that estimated income poverty fell from 51.7% of the population in 1991/92 to 39.5% in 1998/99[10]. But there are strong geographic patterns to this, with almost all the poverty reduction having occurred in Accra or in the urban and rural areas of the forest zone. Elsewhere poverty has fallen little, or even increased, especially when more attention is placed on the depth of poverty (the severity index) or when a lower extreme poverty line is used. Unfortunately data is not yet available to be able to project the trend since 1999.

Table 12: Indices of Poverty in Ghana by locality, 1991/92 and 1998/99
Poverty Line = 900,000 Cedis

	1991/92			1998/99		
	Population share	Incidence of poverty (P_0)	Severity of poverty (P_2)	Population share	Incidence of poverty (P_0)	Severity of poverty (P_2)
Accra	8.2	0.231	0.017	8.8	0.038	0.002
Urban Coastal	8.7	0.283	0.024	7.8	0.242	0.028
Urban Forest	11.0	0.258	0.022	11.8	0.182	0.020
Urban Savannah	5.3	0.378	0.069	4.8	0.430	0.042
Rural Coastal	14.2	0.525	0.067	14.6	0.452	0.061
Rural Forest	29.6	0.616	0.106	31.6	0.380	0.044
Rural Savannah	23.1	0.730	0.161	20.6	0.700	0.178
All	100.0	0.517	0.088	100.0	0.395	0.066

Source: Coulombe and McKay (2004)
Notes: Sample share is expressed in percent. The incidence of poverty P_0 is defined as the proportion of individuals in the population living below the poverty line. The squared poverty gap index P_2 is a weighted sum of poverty gaps (as a proportion of the poverty line), where the weights are the proportionate poverty gaps themselves.

The CWIQ 2003 results also confirm the overall trends reported between GLSS3 and GLSS4. Most non-monetary indicators of poverty that are available from the survey also show improvements over the period, except for the use of health care facilities that has deteriorated over the period.

[10] These results are taken from GSS (1999) and Coulombe and McKay (2004). The analysis of Coulombe and McKay (2004) is based on consumption per adult equivalent standard of living measure, adjusted for variations in prices between localities and over time. A poverty line is estimated to take account of minimum calorie requirements and make an allowance for non-food needs using the Costs of Basic Needs method (Ravallion and Bidani, 1994).

Table 13: Changes in Income Poverty and Inequality, National Level

	1991/92	1998/99	Changes, 1991/92 to 1998/99
Average value of income standard of living measure (from survey; millions of Cedis per person per year, constant prices)	1.44	1.78	3.1% p.a.
Change in real consumption per capita (national accounts)			2.9% p.a.
Gini coefficient	0.373	0.388	
Poverty headcount index (per cent)	51.7	39.5	-12.2
Growth elasticity of poverty headcount index			0.98

Source: Aryeetey and McKay (2004)

Table 13 which focuses on changes in income, shows a large increase in the average value of the consumption measure over period 1992-1998. When this is annualised it is slightly higher but broadly consistent with estimates of the growth of private consumption expenditure in the national accounts. The national accounts show that much of the increase in income occurred towards the end of the 1992-98 period. Over the same period, the estimated headcount income poverty fell from 51.7% of the population in 1992 to 39.5% in 1998, despite the strong geographic and other patterns.[11] Inequality as measured by the Gini coefficient increased slightly over this period. Aryeetey and McKay (2004) indicate that overall, the rate of poverty reduction over this period implied a growth elasticity of poverty incidence of 0.98, a figure which is comparable to other African countries (Christiansen et al, 2003). The extent of poverty reduction is also less when a lower poverty line is used, or when more emphasis is placed on the depth of poverty. The general conclusion drawn by Aryeetey and McKay (2004) is that "there is a strong suggestion that the poorest of the poor have participated much less in the growth and poverty reduction over this period, a fact which could be consistent with the health indicators … and the geographic and occupational pattern of poverty reduction".

Does Openness Influence Poverty and Inequality?

In the last several years, the issue of trade and developing country poverty has become the focus of much research because of the growing concern about the impact

[11] This is an impressive achievement, although it is important to remember that with population growth the absolute numbers of poor people fell proportionately less.

that openness to trade has on income distribution and poverty. This has been so largely because of the obvious disconnect between empirical evidence and trade theory. International trade theory suggests that increased openness to trade and foreign direct investment (FDI), through their effect on economic growth, should make income distribution more equal and thereby reduce poverty in developing countries. This is based on the Heckscher-Ohlin-Stolper-Samuelson (HOSS) model, which in its simple form postulates that, for comparative advantage reasons, less developed countries will tend to export low-skill intensive products (because there is intensive utilisation of abundant low-skill labour) and import skill intensive products from developed countries. Thus free trade will increase the real return of the abundant low-skill labour factor and at the same time reduce the return to the relatively scarce high-skill labour thereby reducing the income inequality within developing countries.

However, there is strong empirical evidence suggesting that trade openness has adversely affected the poor and in fact led to deterioration in income distribution in developing countries. For instance there was an increase in income inequality in Asian countries in the 1980s although these countries rapidly expanded labour intensive manufactured exports during the 1980s. Studies by Dollar and Kraay (2001) and Bourguignon et al (2002) on openness to trade and income distribution have concluded that there is no strong evidence that openness to trade observed over the last two decades in developing countries has had any significant impact on within-country income inequality. In fact openness to trade did not explain the surge in income inequality in many developing and transitional economies in which manufactured exports and imports hardly changed.

In Ghana, the link between openness to trade[12], income distribution and poverty shows that trade openness deteriorated sharply between the 1960s and 1980s as a result of the very restrictive trade and exchange rate regime pursued during that period, except for a short period (1969-1972) when the Busia administration pursued some trade liberalisation. As a result the per capita income of Ghanaians (used here as a proxy for poverty) also fell drastically from about US$500 in 1960 to US$340 in 1983.

[12] Measured as the ratio of exports plus imports to Gross Domestic Product (GDP)

In the wake of reform, openness to trade has risen steeply from an index of 0.11 in 1984 to 0.34 in 1987, 0.33 in 1989, 0.36 in 1992, 0.57 in 1998 and further to 0.78 in 2001. We saw earlier how poverty also increased and then fell between 1992 and 1998. It may be noted that this period also saw improvements as well as a worsening of inequality.

Table 14 and Figure 2 show significant correlation between trade openness and income distribution since reforms began. In fact between the periods 1987 and 1998/1999 income distribution has become relatively egalitarian (despite the marginal increase) in the midst of a tremendous improvement in trade openness[13]. This is confirmed by the simple correlation coefficient of -0.84 between trade openness and the Gini coefficient.

Table 14: Correlation Indices[14] between Trade Openness, FDI, Income Distribution and Poverty.

	Trade Openness	FDI(US$m)	Gini	Poverty Index
Trade Openness	1.0	0.96	-0.84	-0.2
FDI(US$m)	0.96	1.0	-0.87	0.05
Gini	-0.84	-0.87	1.0	-0.25
Poverty Index	-0.2	0.05	-0.25	1.0

Source: Calculated from data sourced from GLSS I, II, III, and IV and IFS Yearbooks.

This could possibly be explained by the fact that between 1991/1992 and 1998/1999 export farmers (not necessarily the poorest) experienced the largest reductions in poverty (i.e. from about 64% to 39%) whilst food crop farmers experienced the least reduction in poverty (i.e. 68% to 59%). This was so because changes in relative prices through exchange rate devaluations, the opening of domestic markets, and changes in the structure of production were certain to lead to shifts in income distribution, with producers of tradable goods (mostly exportables) benefiting from the economic policy reforms. Two-fifths of the population are food-producing farmers, of whom about

[13] This is not to imply that trade openness has been the only reason for the improvements in income distribution in Ghana. It should however be noted that, the fact that export crop farmers experienced significant reductions in poverty through higher producers prices indicates a seemingly significant impact on income distribution.

[14] The use of simple correlation indexes in favour of the more preferred multivariate regression analysis is due to lack of adequate time series data especially on the Gini Coefficient and poverty index.

two-thirds were poor in the early 1990s. In 1998, poverty fell among food producers, but the decline was not as great as that experienced by export crop producers. Most of the rural poor benefited somewhat from growth, but those producing export crops benefited the most. Ghana experienced significant reductions in poverty incidence among cash (export) crop producers during the 1990s from 64 percent to 38.7 percent[15] as a result of more favourable producer prices of cocoa and an increase in cocoa production and Non Traditional Exports.

With respect to the impact of trade openness on poverty in Ghana, Figure 2 shows that between 1987 and 1998, whilst there was a steep improvement in trade openness, the incidence of poverty fluctuated. For instance between 1987 and 1992 poverty incidence increased, whereas between the periods 1992 – 1998 poverty incidence reduced significantly. This seems to suggest that trade openness had a negative impact on poverty reduction in Ghana from the late 1980s to early 1990s and a positive impact in the later part of the 1990s. This explains the low correlation coefficient of -0.2 between trade openness and poverty (see Table 14), indicating a low association between trade openness and poverty reduction[16].

According to Christiaensen, Demery and Paternostro (2002) the potential pathways through which trade openness impacts on poverty reduction include rural labour markets, where higher export crop prices stimulate export crop production leading to increased demand for agricultural wage labour, and ultimately higher agricultural real wages.

The importance of labour markets in transmitting the effects of economic reforms on poverty reduction through increased liquidity in rural economies in Ghana was underscored in a study by Abdulai (2000). The study found out that in Ghana a percentage change in the domestic terms of trade between agriculture and non-agriculture led to a 0.83 percent change in the real agricultural wage rate in the long run. Also, increased liquidity in rural economies from agricultural exports was found to have important spin-off effects, through an expansion of both investment in export

[15] Based on the Upper Poverty Line ¢900,000 per capita per annum.
[16] Poverty in Ghana is often explained mainly as a rural phenomenon where there is low production and incomes, especially in the agricultural and informal sectors as a result of low levels of education.

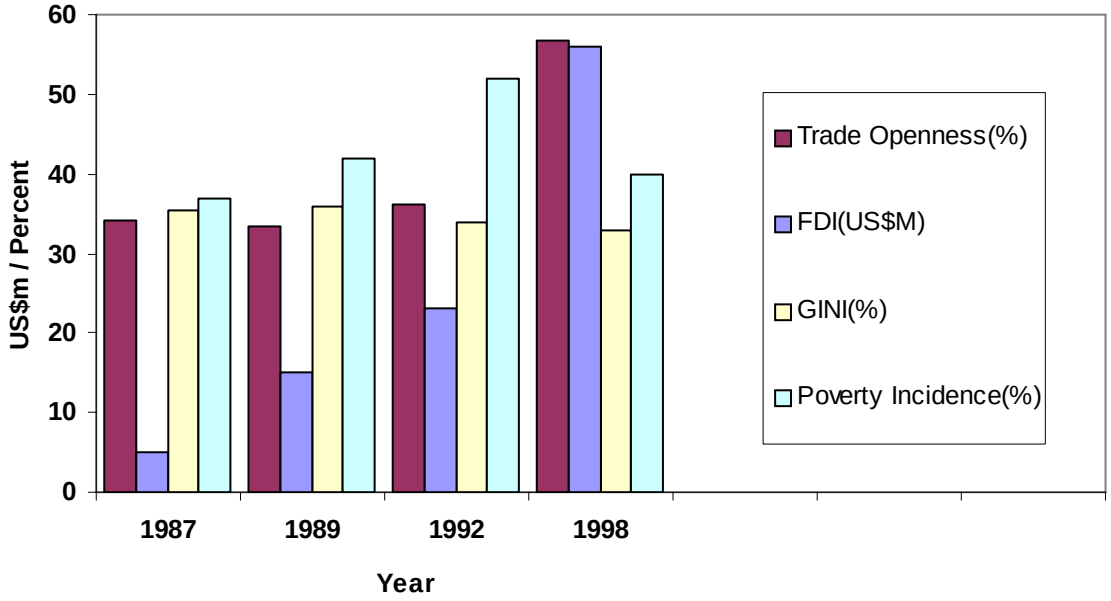
and food crop production, and increased consumption of goods and services produced with previously underutilized local labour, land or capital. As a rule of thumb Delgado et al. (1998) posit that any policy enhancing producers' income from agricultural exports increases local rural income by twice the amount of the increased exports[17].

The evolution of poverty among food and cash crop producers could be explained by the fact that food crop producers tend to be much more heterogeneous than cash crop producers. In export-crop growing zones, the effects of favourable export crop prices were transmitted to the food-crop growing households either through the labour market and product markets, or both. Transmission of such benefits to areas unsuitable for export crop production, especially when they are also remote, is much harder. This explains why in Ghana food producers in more remote and less integrated regions in the north of Ghana did not experience a similar reduction in their poverty as food growers in cash-crop in better integrated areas.

As seen earlier, the Ghana Living Standards Surveys (GLSS III and IV) suggest that, in terms of the incidence of poverty, between 1991/92 and 1998/99 there was a general reduction in the incidence of poverty although the decline was not uniform across the country. Although export farmers were the winners in terms of the greatest reduction in poverty incidence from 64 percent to 38.7 percent, the fact that their contribution to poverty was only 6.9 percent in 1998/99 as against 58.1 percent by food crop farmers[18] seems to suggest that trade openness had an insignificant impact on poverty reduction in Ghana especially in the 1990s. The concentration of the poor in the food crop sector as well as the marginal decline in poverty incidence among people in that sector compared with the export farming sector is due to the fact that while the export farmers have been benefiting from governmental support in terms of technical training and other export promotion packages, the self-employed in both food and non-farm sectors are the least beneficiaries of public investment and subsidies. Indeed the food sector was one of the hardest hit sectors when agricultural subsidies were removed as part of the reforms.

[17] Quoted from Christiaensen L., L. Demery and S. Paternostro (2002)
[18] Poverty incidence among food crop farmers reduced marginally from 68.1 percent in 1991/92 to 59.4 percent in 1998/99.

Figure 3: Trends in Trade Openness, FDI, Income Distribution and Poverty Incidence in Ghana (1987, 1989, 1992 and 1998).



Technology Transfer and Local Absorptive Capacity

A major element of globalization is the presumed increased access to technologies developed elsewhere for developing countries. Attempts to increase and maintain international competitiveness exert constant pressure on exporters to search for new technologies as well as on governments to facilitate the process of introducing those technologies. The World Bank's *East Asian Miracle* report (1994) stressed that "an important factor in East Asia's successful productivity-based catching up was openness to foreign ideas and technology" (p.301). Governments were supposed to have encouraged improvements in technological performance by keeping a number of channels of international technology transfer open. In some countries this was achieved through FDI, as in Malaysia at certain times in the 1970s and 80s, for example, while Japan and Korea had selective approaches to FDI but pursued aggressively the transfer of most advanced technology through purchasing technology licenses and importing equipment often in the form of patent rights, detailed drawings, operating instructions etc. (Kim and Ma 1996) "This selectively permissive attitude toward the acquisition of knowledge of international best practice was a reflection of the view that the world market for goods and services provided an opportunity not a threat" (World Bank 1994, p.302).

Technologies that would be most relevant for Ghanaian development, in the face of widespread poverty, are those that facilitate food and other crop production and also that assist in storage and processing. Technology transfer is expected to influence rural production through an alteration of production techniques and as a consequence, a change in production relations. It is expected to affect the application of labour in production, the use of land and the extent and depth of capital utilisation. In the absence of technology transfer, technology must be developed domestically, but the capacity for doing that is severely constrained by the poor human capital and physical capital endowments of the country.

What risks and opportunities are inherent in the introduction of foreign technology for poor rural communities? In general terms foreign technologies are expected to facilitate production and consumption in ways that were previously inconceivable. Farmers' productivity is expected to rise enormously as a result of major improvements to the resilience of various seed varieties and their capacity to multiply, even under marginal conditions. In terms of consumption, poor rural households are expected to raise their consumption as a result of their ability to grow food over longer cycles and store these with improved methods. But there is always the risk of new varieties, for example, leading to the destruction of old varieties as the technology is not adapted to produce items with the same attributes as the older varieties in terms of taste and looks. The possible 'wiping out' of traditional foods as a result of new technologies is quite well known in many countries. There are also instances where applied technologies imported from outside are not the most suitable in terms of achieving what they are supposed to achieve.

The state expects its research institutions to adapt foreign technologies for general application. They are expected to link up with various organizations in the provision of support for producers. It would appear, however, that the institutions for attracting and adapting foreign technologies are quite weak, hence difficulty in making FDI impact strongly on poverty reduction. A study of the research and technology environment is Ghana suggested that there was inadequate policy direction, as well as limited incentives for studying, upgrading and adapting local and foreign technologies in order to reduce over-dependence on imported finished products, thus stifling

endogenous scientific and technological creativity, as well as entrepreneurship (Aryeetey 2000).

A number of international non-governmental organisations have taken a keen interest in developing technologies, including the development of farm tools and other equipment, irrigation systems, mechanisation, storage, small-scale processing, etc. Quite a number of the donor-supported arrangements have the advantage of utilising facilities made available through information technology. This facility implies in most cases a greater selection or more options but less precision with regard to adaptability and acceptance by local communities. In essence, the technology that is coming to poor people arrives largely through NGOs and not necessarily through FDI.

Killick (2000) suggests that aside from the difficulties of gaining access to technologies and market information, the fact that farmers know a certain technology exists does not necessarily imply that they will apply it. “They often do not have the knowledge and modern skills necessary to take advantage of emerging possibilities. They rarely have access to the credit and other financial services necessary to compete in the modern world” (p.5). He suggests further that a number of other factors may make it difficult to make use of new technologies, including extremely high transport and input costs, as well as socio-cultural conditions that make it more desirable for communities to attach greater importance to traditional ways of life as opposed to material success in a competitive world. It is certainly important to investigate which rural institutions are more effective at bringing about changes in attitudes towards modern technologies as well as facilitate access to such technologies.

But does the increased use of foreign technologies necessarily lead to significant welfare benefits? Lall (2004) has suggested that “Doubts can be raised at both the theoretical and empirical levels regarding the employment benefits of globalization for the ‘typical’ (developing country)” (p.96). He argues that the theoretical foundations (HOSS) hinge on strong simplifying assumptions and these ignore the realities of competitive advantage. Each economy therefore faces the rest of the world with different levels of preparedness that will shape how benefits may be spread.

It is important to note that most of the FDI to Ghana has been directed at the mining sector. Its impact on poor persons engaged in mining has not been properly studied, however. We present case study evidence of what changes and impacts may be observed at the micro level in the next section.

5. CASE STUDY OF FDI AND POVERTY IN THE MINING SECTOR

It is worth noting that the investment in mining is one that has seen some debate in terms of its impact on livelihoods in Ghana. We therefore use this section to focus on how investment in mining has affected livelihoods and hence poverty and inequality.

Openness, Employment and Incomes in Mining

Noting our earlier observation that employment generation has been weak even under a more open regime, this observation is further confirmed by the employment statistics from the mining sector. We may note however that estimates from the third and fourth rounds of the GLSS survey show that employment in mining and quarrying increased from 30,100 in 1991/92 to 70,800 in 1998/99. Over the same period mining increased its share in total employment by 0.2 percentage points. But there is considerable speculation that most of that employment is in the quarrying sub-sector.

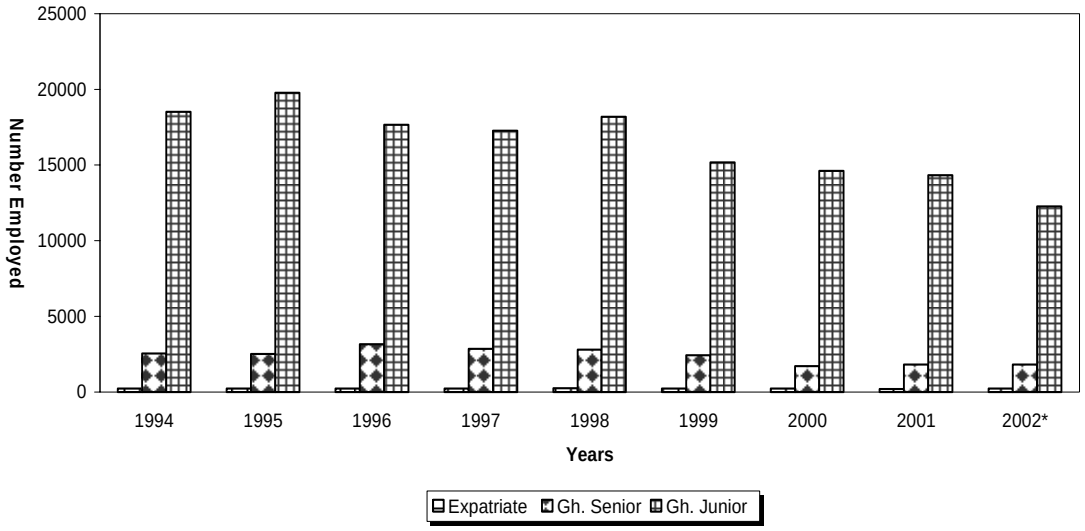
Figures on direct employment in all the gold, diamond, manganese and bauxite mines as presented in Table 16 show that employment in the mining sector decreased considerably, despite the substantial FDI flows and the increase in minerals production. Total direct employment in the gold, diamond, manganese and bauxite mines decreased from 22,500 in 1995 to 14,300 in 2002 after increasing from 21,300 in 1994 to 22,500 in 1995. While the average annual growth in employment of Ghanaian senior and junior staff has decreased by 2.95 and 4.67 percent respectively that for expatriates indicated an increase of 1.33 percent. Growth in employment in expatriate staff could more be seen in the gold and manganese sub sector than the diamond and bauxite sub sectors.

Table 15: Mining Employment Statistics by Staff Categories

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total	21,268	22,515	21,017	20,336	21,252	17,848	16,524	16,344	14,299
Growth (%)		5.86	-6.65	-3.24	4.50	-16.02	-7.42	-1.09	-12.51
Expatriate	220	230	216	214	252	232	220	193	230
Growth (%)		4.55	-6.09	-0.93	17.76	-7.94	-5.17	-12.27	19.17
Ghanaian Senior	2,542	2,511	3,143	2,862	2,804	2,442	1,697	1,823	1,812
Growth (%)		-1.22	25.17	-8.94	-2.03	-12.91	-30.51	7.42	-0.60
Ghanaian Junior	18,506	19,774	17,658	17,260	18,196	15,174	14,607	14,328	12,257
Growth (%)		6.85	-10.70	-2.25	5.42	-16.61	-3.74	-1.91	-14.45

Source: Minerals Commission

Figure 4: Employment Statistics by category of Staff



Indirect employment has also been generated in the form of support services such as assay laboratories, equipment leasing and sales activities, security, contract mining, road construction, transportation, catering services etc. Table 17 shows the labour statistics of mine support services, indicating that that the total number of people employed in the support service increased from 1431 in 1996 to 3110 in 1999 but decreased thereafter. The percentage of Ghanaians in the total mine support service employees also increased steadily from 90 to 96 percent, while that for expatriates decreased from 10 to 4 percent over the same period. It is also estimated by the Minerals Commission that the small scale (informal) mining sector has also generated about 80,000 jobs and have the capacity to generate more jobs if the sector is given the needed help.

Table 16: Labour Statistics: Mine Support Services

Description	1996	1,997	1998	1999	2000	2001
Expatriates	150	204	246	208	162	115
Ghanaian Staff	1,281	1,872	2,352	2,902	2,931	2,598
Total	1,431	2,076	2,598	3,110	3,093	2,713

Source: Minerals Commission

The relationship between growth in a sector and employment depends on other factors such as the relative cost of labour and other factors of production, the labour intensity of industries, skills requirements as well as the competition for labour among different markets. Mining is a global industry and therefore in order to improve efficiency and remain competitive in the global market place almost all the companies, which were divested, resorted to labour restructuring and cost cutting measures through the use of capital intensive and the more efficient surface mining methods which is capable of mining low grade ores at cheaper cost. Compared with underground mining, surface mining requires more skilled and less unskilled labour. With the exception of two companies all the several other mining companies used surface mining methods. The decrease in employment in the mining sector is largely attributable to the use of capital-intensive surface mining techniques of production, particularly among the new entrants, privatization and personnel rationalization among the old mining companies (Boateng, 2000). Also the persistent decline in commodity prices especially gold in the 1990s resulted in layoffs.

The inability of the mining sector to add value to its products, which is adequately reflected in the marginal increase in its contribution to GDP to some extent, explains the limited capacity to generate additional local employment. Starting from 1981, the annual growth rate of the mining and quarrying sub-sector has averaged about 3.17%. Over the same period the sector's contribution to GDP has increased by only about 0.3 percentage points while employment has decreased by about 0.1 percent per annum. Between 1992 and 1999, the mining and quarrying sector on the average grew by about 5.85 percent per annum. However its contribution to GDP increased marginally by 0.3 percentage points whiles its share in total employment grew by only 0.2 percentage points. Overall, given the capital intensity of mining and quarrying activities and the 6.7 percent annual average growth recorded since 1984, the sector

had only 1.9 percent share of employment in 2000 with its contribution to GDP staggering at 5.6 percent (GSS, 2000)

There has been a significant transfer of technology in the mining sector and in some cases the best-known technologies have been transferred. The Carbon in Pulp (CIP) and the Carbon in Leach (CIL) processes and the overall open pit/open cut method of mining were all previously not used in Ghana. Tailings and low-grade ores, which were also previously not mined, are all mined today. The transfer of technology may go with the transfer of skills. Studies by Berman et al. (1998), Machin and Van Reenen (1998) show that technological changes in developed countries are skill-biased. Though there are no statistics on skills transfer, the establishment of engineering training departments in some of the mining companies to train employees in various new jobs and the relative increase in growth of expatriate staff suggests that technologies transferred are skill–intensive. Also, the reduction in employment, which can be seen more in Ghanaian junior staff than senior staff, could be attributed to the upgrading of skills among the senior staff to enable them apply the new technologies. The introduction of these skill-intensive technologies as a result of openness and privatization could lead to an increase in the demand for skilled labour, wage dispersion and income inequality.

Table 18 shows that average nominal monthly earnings in all industries increased consistently in the 1980s. In real terms however, there was an increase in the average monthly earnings from ¢280 in 1982 to ¢1073 in 1989. It began to decline after that, but generally, real income in the mining sector was above the average for all industries except for 1988-1989 and 1991. Average annual growth of real monthly earnings in the mining and quarrying sector was 0.17 percent only, lower than the average for all industries by 0.02 percentage points. Real earnings in the mining sector indeed showed considerable fluctuation, especially after 1986.

Estimated earnings in the mining and quarrying sector in the 1990s, as presented in Table 18, show a significant improvement in earnings. In 1992 average basic hourly earnings in the mining and quarrying sector was the fourth highest compared to the other sectors but it moved to the first position in 1999. Real earning in mining and quarrying increased 4.8 percent annually on the average. This was lower than the

sector with the highest annual growth in average basic hourly earnings (utilities) by about 1 percentage point but far higher than the overall growth in average basic hourly earning of 1 percent.

Table 17: Average Monthly Earnings by Sector (December Data)

		1980	1981	1982	1984	1985	1986	1987	1988	1989	1990	1991
All industries	Nom.	461	-	645	2287	3633	7433	10524	13805	24257	30056	35212
	Real	512	-	280	322	478	758	768	767	1073	973	965
Agric Hunting, Forestry and fishing	Nom.	329	503	559	2298	2753	5740	7955	10594	19608	20948	38231
	Real	366	265	243	324	362	586	581	589	868	678	1047
Mining and Quarrying	Nom.	613	859	870	3370	10471	11920	11523	11523	17177	38028	27417
	Real	681	452	378	475	1378	1216	841	640	760	1231	751
Manufacturing	Nom.	552	689	787	3441	5059	8787	15215	21411	36793	45045	34226
	Real	613	363	342	485	666	897	1111	1190	1628	1458	938
Electricity and gas	Nom.	526	703	744	1980	3291	7711	10947	13465	25654	26392	27286
	Real	584	370	323	279	433	787	799	748	1135	854	748
Construction	Nom.	356	-	521	1573	2602	5076	6882	8742	13873	19183	25958
	Real	396	-	227	222	342	518	502	486	614	621	711
Service	Nom.	2080	2538	2922	8756	14370	31780	37448	63243	111846	113772	155217
	Real	2311	1336	1270	1233	1891	3243	2733	3514	4949	3682	4253

Table 18: Average Basic Hourly Earnings by Industry of Active Population Aged 15+

Sectors	1992		1999	
	Nominal	Real	Nominal	Real
Agriculture	102	2.54	512	2.12
Mining/Quarrying	185	4.60	1484	6.14
Manufacturing	169	4.20	1156	4.79
Utilities	131	3.26	1105	4.58
Construction	187	4.65	1019	4.22
Trading	182	4.53	1411	5.84
Transportation/Communications	146	3.63	1187	4.92
Financial Service	293	7.29	1454	6.02
Community/Social Services	475	11.82	1035	4.29

Source: Quarterly Digest of Statistics, GSS

Information from the Ghana Chamber of Mines indicates that on the average wages in the mining sector are indexed to the US dollar and adjusted by between 5-6 percent annually for inflation. In 2003, the minimum wage in the mining sector was around US$200 per month. This was about 600 percent higher than the national minimum wage.

In general, it is noted that the argument that globalization affects the poor adversely is based on the fact that the poor are usually not equipped to take advantage of whatever opportunities may be created by growing trade and capital flows. Considering that globalization creates both opportunities and risks, it is evident that while the risks may permeate rural societies more readily in view of the sparseness of infrastructure and mechanisms for coping with such risk, their ability to capture the benefits from trade openness could again be compromised by non-preparedness.

It is worth noting that growth in earnings in the mining and quarrying sector does not necessarily mean an improvement in livelihoods of rural mining communities, in that, surface mining requires highly specialized skills which many rural communities are deprived of. Many of these skills are recruited outside the mining communities with the community benefiting from only unskilled jobs with relatively low returns. Coupled with this, are the negative externalities from mining activities such as the environmental and social effects that affect the rural communities. This renders them more susceptible and

vulnerable to poverty. In effect it will not be unreasonable that mining has led to income inequalities especially in mining communities

In general, studies on the impact of trade liberalization on employment and incomes shows a neutral net effect depending on the internal mechanisms adopted to counteract increased external competition resulting from the reduction of trade barriers (Boughzala, 1997; ILO, 1998; Lee, 1996). In Ghana, liberalization of the mining sector has generally led to a decrease in employment partly as a result of the new technologies and the labour rationalization introduced into the sector and partly because of the weak linkages of mining with other sectors of the economy. Decreases in employment have been more among junior staff than senior staff. Though there is no data on skills transfer, evidence of the establishment of training departments and the influx of expatriates suggests that there has been skills transfer which has benefited senior staff more than junior staff in the mining sector. Also, incomes of employees in the mining sector have increased compared to other sectors of the economy. However, the increase in incomes could be seen more in skilled labour, which many rural mining communities are deprived of, thus resulting in the deepening of inequality in mining areas. This is quite contrary to the HOSS theorem by which increasing openness should lead to an increase in demand and wages for unskilled labour relative to skilled labour and consequently result in reducing inequality in recipient countries.

The Social Impact of Mining and Livelihoods

Surface mining does not only affect the biophysical environment of rural communities, but also the socio-economic and socio-cultural environment as well. While Environmental Impact Assessments (EIA) are supposed to address the social problems arising from mining, many of them do not adequately address the issues arising from mining activities and little has been done to study these impacts. The social problems are often irreversible in their effects and present serious problems, not only for the mining companies, but also for the government. With the exception of a couple of goldmines where a Social Impact Assessment Study was conducted, most of the EIAs address the social impact of mining activities only through the payment of royalties and

compensation and the provision of infrastructure, such as schools, clinics etc, neglecting other vital social issues that may be more important to rural communities.

To illustrate the situation we consider the poverty status of a major mining area. Table 20 shows the level of poverty and the Gini coefficient for the Western Region and Wassa West District[19] extracted from the fourth round of the GLSS using the headcount ratio (P_0), the poverty gap index (P_1) and squared poverty gap (P_2) measures of poverty. This is compared to the rest of Ghana.

Table 19: Poverty Levels in Wassa District. 1998

	Poverty Measure	**Upper Poverty Line**	**Lower Poverty Line**	**Gini**
National	P_0	0.268	0.395	0.327
	P_1	0.083	0.139	
	P_2	0.036	0.66	
Western Region	P_0	0.136	0.273	0.412
	P_1	0.027	0.07	
	P_2	0.009	0.025	
Wassa West District	P_0	0.167	0.278	0.408
	P_1	0.033	0.078	
	P_2	0.013	0.03	

Source: GLSS IV, Ghana Statistical Service, Accra

Notes: The Upper Poverty Line was fixed at ¢900,000 and the Lower Poverty Line was fixed at ¢700,000. The definitions of P_0 and P_2 are as defined earlier in Table 2 and P_1 is a measure of the poverty gap.

Table 19 indeed shows that poverty is higher at the national level than in the Western Region using all the different measures of poverty. It must be noted that the higher national figures are the result of higher poverty levels in the three northern regions (Northern, Upper West and Upper East Region) as well as in the Central Region. Taking into consideration the fact that most of the gold export is from Wassa West District, one would have expected that the poverty levels and income distribution will be lower compared with other districts in the region. Unfortunately that is not the case. Poverty levels in Wassa West District using any of the poverty measures are higher than that of

[19] The Wassa West District is found in the Western Region

the Western Region but lower than the national poverty level. Inequality measured by the Gini coefficient for Wassa West District is around 0.408. This is higher compared to the national figure of 0.327 but lower than what pertains in the region of 0.412. Among the 11 districts in the Western Region, the Wassa West District ranks ninth on a scale of descending income inequality. The comparable higher poverty levels and inequality in Wassa West District could partially be attributed to the effects of privatization and globalization.

Resettlement of communities and the loss of farmlands as a result of mining seriously disrupt the socio-economic activities and the socio-cultural values of communities and causes unemployment since surface mining is capital intensive and requires skilled labour, which many rural folk do not have. The influx of men, both Ghanaian and expatriate, into mining areas especially, in the Tarkwa enclave is perceived to have increased prostitution in such areas. Unemployed women who cannot find jobs in what may be a booming economy may be more easily tempted into prostitution. As a result STDs and HIV are common in mining areas. Statistics from the district medical office of Wassa West district indicate that reported HIV/AIDS cases increased from 6 in 1992 to 100 in 1996.

Migration into mining communities and the reduction in agricultural activities, largely attributable to surface mining has resulted in high food price and rent for local inhabitants. Traders have also taken advantage of the high-income disparity[20] in mining towns to price their wares highly. These tendencies, among others, have reduced the standard of living for rural households not engaged at the mines and have rendered them more susceptible and vulnerable.

Drug use among workers, especially those in informal small-scale mining, is perceived by persons living in the mining areas to be on the increase. Many miners have been observed to believe that such drugs as cocaine and marijuana stimulate and help them to

[20] There exist a high-income disparity between mine worker and those working in the government and informal sector because the wages of most mine workers are indexed to the dollar and relatively higher than wages in the government and informal sector..

carry out their challenging and difficult jobs. They often overuse drugs and cause problems in the community and in their families. Long hours of shift work in the mines have also led to family dislocation and disintegration as well as musculo-skeletal disorders and alcoholism (Forson, 2002). While medical tests are conducted before employment is offered in the mining sector, many companies do not conduct periodic or exit medical examination to ascertain the health of their workers. These as well as other socio cultural issues have brought about cultural tensions and distortions in community socio-cultural values and have made the livelihoods of mining communities more difficult.

Box 1: Case Study of Mining and Health in the Tarkwa Mining Enclave

The Tarkwa mining enclave in the Wassa West District has the highest concentration of mines in a single area. The district has about 8 out of the 14 medium/large scale gold mines in the country and a sizable number of registered and non-registered small-scale and artisanal mining activities. It also has the only manganese mine in the country. Statistics from the district medical office show that the major mining related diseases observed in the area over the years are malaria, diarrhoea, skin and respiratory disease and acute conjunctivitis.

	Wassa West	*National*
IMR	85/1000	80/1000
MMR	3.6/1000	2.7/1000
Incidence of malaria	185/1000	40/1000
Incidence of tuberculosis	0.5/1000	0.003/1000

The average Infant Mortality Rate (IMR) and Maternal Mortality Rates (MMR) as well as the malaria and tuberculosis incidence are all above the national levels. A study in 1989 of one mine recorded 1.2/1000 and 1.9/1000 incidence of silico-tuberculosis and tuberculosis respectively. Incidence of conjunctivitis in the year 1995 was about 2.4/100 and environmentally related diarrhoea cases are very high with an average monthly incidence of about 3.4/1000. Though there has not been any serious scientific research on the effects of mining on health in the area, it is believed that the widespread health problems in the area are largely attributable to the mining activities.
Source: Akabzaa T. (2000)

Conflicts and Livelihoods

One of the results of openness in the mining sector is the rampant social conflict that exists in mining communities. There is widespread social and economic discontent in many mining communities and this is the result of total or partial alienation of mining communities from actively taking part in decisions affecting them on the general false notion that planners or policy makers know best. Many mining communities feel cheated by not taking part in decisions affecting their livelihood and usually resort to legal action and demonstrations in their struggle for self-determination and the control of their own resources. These conflicts have resulted in the destruction of property and death and have seriously affected livelihoods in some mining communities. Conflicts in mining communities arise from four main issues - royalties' distribution, land use, resettlement and the survival of small-scale mines.

Conflicts on Royalties: The development of mineral resources in any country is regarded as an "enclave" activity, in that, the activities and their impacts are restricted to the immediate area of operation whilst the benefits, primarily tax revenues of various types, accrue to the national government. In Ghana the government in 1992 established the Minerals Development Fund (MDF) out of mineral royalties. The aim was to recycle 20 percent of all mineral royalties to support mining communities and the mining sector institutions, and to address specific issues caused by mining. Of this amount 50 percent goes to support mining sector institutions and to address specific problems caused by mining activities. 10 percent of the remaining 50 percent goes to cover administrative expenses of the Office of the Administrator of Stool Lands (OASL), while the remaining is shared among Stool Lands, Traditional Authorities and the District Assembly in the ratio of 25, 20 and 55 percent respectively as dictated by Article 267 (6) of the 1992 constitution and section 8 of Act 481 (Fiadzigbey, 2002).

The general observation is that District Assemblies, which received a substantial part of this amount, treat it as part of their traditional sources of revenue and therefore use it on the entire district instead of the affected communities. It is also alleged that chiefs who are custodians of the land usually treat these funds as their personal assets and fail to use

it in the interest of the communities. This has resulted in serious confrontations and conflicts between the communities and the District Assemblies on one hand and the communities and their chiefs on the other.

Land Use Conflicts: Surface-mining technologies have made the mining of low-grade ores possible. Large tracts of land, which hitherto were used as farmlands, have now been leased to mining companies as a result of the new technology. Mining concessions are usually very large though less than 50 percent are used for actual mining. The remaining land is usually used as dumps, workshops, warehouse etc. this deprives the affected communities from having access to land for agriculture and other economic activities on which their livelihoods depend. In some cases, local inhabitants need permission to farm on their lands under concession and crops grown are mostly restricted to seasonal crops, thus limiting the ability of the communities to grow perennial crops, which has high economic returns. This has resulted in land use conflicts between mining companies and the communities. Non-availability of land in mining communities coupled with the under developed property right has also resulted in serious conflicts among inhabitants of the communities.

Resettlement: Large-scale open pit mining by some companies sometimes requires the relocation and resettlement of communities to be affected. For example in the Tarkwa area, a total of 14 communities involving 30 thousand inhabitants were either relocated or resettled between 1990 and 1998 (Akabzaa, 2000). Obviously, the movement of a whole settlement from one place to the other will affect their socio economic structure if adequate measures are not taken to ensure the proper settlement of affected families. The issue of change is not an easy exercise, more so when it is dramatics and involuntary. There are many criticisms associated with resettlement and relocation programmes in mining communities. Indeed one major problem associated with resettlement and compensation payment is the valuation of property for compensation, especially buildings to be affected by mining activity. While some of the companies prefer using the market value of houses which are low because they are made of sandcrete or wattle and daub with raffia leaves, rural communities prefer the user values of their property which

amounts to the provision of bedroom-for bedroom in the case of resettlements. Also, the problem of providing alternative farmlands for farming which is the main economic activity of mining communities makes livelihood difficult. There are instances where farmers have received significant compensations to settle themselves but fail to do so and resort to legal and civil agitation for more compensation, sometimes characterized by violent confrontation with mining firms (Tsekpo, 2002).

The resettlement schemes of the Damang and Kyekyewere village in the Western Region by two companies provide good examples of sustainable resettlement schemes. In recent times serious suspicions between government officials and communities and between the chiefs and their people have rendered the negotiation and implementation of resettlement and relocation schemes very costly to both companies and communities.

Some mining companies have made significant effort to properly resettle persons affected by mining activity, the inherent social, behavioural and cultural problems which has been largely neglected in the design and planning of resettlement schemes in many cases has made life very difficult for some resettled persons.

Survival of Small Scale Mining: There is evidence that small scale mining though illegal till 1989 existed peacefully with the state own mines. For example, the State Gold Mining Corporation's mine in Tarkwa had a special arrangement with small-scale miners under which portions of their concession were given to small-scale operators. In return, the small-scale operators sold their products to the mines at a special price.

Restructuring and cost cutting measures adopted by the privatized mining companies after the ERP resulted in large scale retrenchment especially in the Tarkwa mining area. Since these people have no other source of livelihood apart from mining many of them resorted to small-scale mining. With the passage of the small-scale mining law in 1989, many of the *galamsey*[21] operators have registered but have no permanent sites for

[21] Local name for informal mining operations.

operation. This is due to the fact that almost all the prospective land for gold has been given to the large-scale mining companies

The small-scale miners claim that they were working in such areas before the concession was given to the large-scale mining companies without making provision for their co-existence. This has resulted in several conflicts in mining areas and has caused a considerable damage to lives and property. Between 1993 and 1996 about 127 informal/small scale miners were arrested by the security officers of one company alone (Lewis, 1998).

Aside from these social issues, there are widespread environmental degradation issues in mining communities notably among which is the emission of airborne particulate matters like sulphur dioxide, Nitrogen dioxide, carbon monoxide; pollution of surface and ground water; land and forest degradation; noise pollution as well as chemical pollution.

In general, for countries that export largely primary products like minerals, the biggest threat is how the probably expanded demand for primary commodities affects the environment and livelihoods in the absence of appropriate safeguards. It is unlikely that national governments have had adequate opportunity to prepare for this. Thus, as more and more land and resources is committed to mining, only marginal resources become available for other uses, and this only at the expense of environmental considerations. There may be threats to commodity prices following glut situations in the short term. In the effort to meet the challenges of the new expansion in world demand for the export items, the likelihood of little policy attention being paid to other aspects of rural community development increases rapidly. This in effect can lead to poverty and widen inequality in the long-run.

6. SUMMARY AND CONCLUSIONS

Following economic reforms that began in 1983 the economy picked up once again after several years of bad performance. While overall performance has been relatively good, the performance of the various sectors of the economy has been unstable. The external sector has been important to Ghana's overall economic performance in the last two decades. The inception of the reforms meant an outward orientation in the approach to trade policy.

Ghana's exports composition has continually revealed its comparative advantage in agricultural products as a result of geography, minerals and low cost labour skills. The presence of low cost labour also confers on the country a comparative advantage in agro processing, light manufacturing and the provision of services like data processing. This advantage is however yet to be fully exploited since a number of institutional and structural constraints remain. These include poor infrastructure, corruption, and a slow moving bureaucracy.

Notwithstanding the problems, the country has attracted quite substantial inflows of aid and investment. FDI flows which had remained particularly low in the 1980s began to pick up from the early 1990s. The significant inflows of investment were channelled to the mining, telecommunications, foods, drinks and brewery and banking sectors. While the improvements in inflows have been remarkable, they are low compared to some other African countries.

A number of projects have been initiated to help overcome the problems. There have been initiatives to expand the production of non traditional exports, and in this direction numerous programmes have been directed at facilitating easy access to export markets and to credit. These include the Trade Investment Programme, the Private Enterprise and Export Development programme, Export Development and Investment Fund, and more recently the AGOA.

A clear situation in Ghana after several years is that greater openness and reform have not led to significant growth in employment. Agriculture remains the largest source of employment growth, but a slow down in agricultural performance in the 1990s meant a slow down in employment growth. Also, while the incidence of poverty has declined, this has not been uniform across the country. Faster economic growth has been followed by a greater inequality for at least parts of the reform period. This is obviously contrary to what received theory would expect. Indeed, while there is no clear consensus on the effect of trade openness and increased capital flows on poverty reduction and income distribution, evidence from Ghana suggests that those engaged in export farming, for example, have witnessed the greatest fall in poverty incidence, compared to those engaged in other sectors, especially food crop farmers. This has not reflected broadly on all households. One of the sectors attracting the most FDI, mining, does not generate directly significant employment.

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LIST OF ACRONYMS

AfDB	African Development Bank
AGOA	African Growth and Opportunities Act
AIDS	Acquired Immune Deficiency Syndrome
CEPS	Customs Excise and Preventive Service
CIL	Carbon in Leach
CIP	Carbon in Pulp
CWIQ	Core Welfare Indicator Questionnaire
EDIF	Export Development and Investment Fund
EIA	Environment Impact Assessment
EPZ	Export Processing Zones
ERP	Economic Recovery Programme
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEPC	The Ghana Export Promotion Council
GIPC	Ghana Investment Promotion council
GLSS	Ghana Living Standards Survey
HIV	Human Immune Virus
IMR	Infant Mortality Rate
LDC	Least Developed Countries
MDF	Minerals Development Fund
MMR	Maternal Mortality Rate
MNC	Multinational Corporations
NGOs	Non Governmental Organizations
OASL	Office of the Administrator of Stool Lands
OECD	Organization for Economic Co-operation and Development
PEED	Private Enterprise and Export Development Programme
PEF	Private Enterprise Foundation
QDS	Quarterly Digest of Statistics
RBP	Restrictive Business Practices
RPED	Regional Programme on Enterprise Development
SAP	Structural Adjustment Programme
STD	Sexually Transmitted Diseases
TIP	Trade and Investment Programme
USAID	United States Agency for International Development
UNCTAD	United Nations Conference on Trade and Development
VAT	Value Added Tax