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MINING, DEPENDENCE, AND POST-INDEPENDENCE URBANISATION IN BOTSWANA: SUSTAINABLE DEVELOPMENT?

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All men are ready to invest their money
But most expect dividends.
I say to you: *make perfect your will*
I say: take no thought of the harvest,
But only of proper sowing.

T.S. Elliot,
The Rock

To my parents,

John and Rita Haynes

and

to the inhabitants

of an ailing town on the edge of the Kalahari

ABSTRACT

Botswana has been considered as one of the few post-independence development successes in Africa. The country's recent status is attributable to the growth of the minerals sector, with diamonds and copper/nickel matte forming the basis of exports and government development revenues. Mining has not only been responsible for boosting export earnings, but has also stimulated most recent urbanisation, resulting in the some of the highest urban growth rates in sub-Saharan Africa. The problem of urban in-migration has been compounded by a bias in development expenditure, with the towns receiving a disproportionately large share of scarce resources.

All new towns since independence have been established as service centres for the mines, with limited wider development occurring. Resultant vulnerability and instability in the urban sphere has been reflected in the case of Selebi-Phikwe, where a decline in the copper/nickel industry has threatened the future integrity of the town. That mining has not contributed towards development which is sustainable over the long terms calls into question, the resilience of Botswana's progress.

A political-economic analysis of the development history of Botswana indicates a continuity between colonial neglect and the migrant labour system, and the current problems of dependence on the mining sector and external employment opportunities. The reasons for the dearth in diversified productive activity in mining towns in Botswana are related to an externally orientated development policy, with dependence on the world mineral markets. As the mining industry is based on the extraction of finite, non-renewable resources and is susceptible to fluctuations in mineral pricing, towns exclusively based on mining are latently unstable and have similarly finite lives. The problem is compounded by the lack of a local entrepreneurial class capable of stimulating the `modern' sector which is related to the historical lack of an urban elite in the country.

Given that there has been minimal associated development of productive opportunities outside of the primary sector in Selebi-Phikwe, the Government has

instituted a crisis management strategy to deal with the situation. Proposals to diversify the economic base of Selebi-Phikwe are focused on attracting foreign investment, as a means of stimulating local, export-orientated industrialisation. As the incentives for locating in the town are primarily based on cheap, malleable, labour supplies, transnational investment is likely to be of a highly mobile nature and is unlikely to sustain employment and development in Selebi-Phikwe

Certain conclusions are drawn from the experience of Selebi-Phikwe: Firstly, the problem of continuity in Selebi-Phikwe has historical roots indicating that short term panaceas are unlikely and that structural solutions are needed. Secondly, the town's fate holds important implications for the maintenance and support of the wider urban system in Botswana. Thirdly, expectations of indefinite economic prosperity have been generated in part, by continual Government emphasis on urban infrastructural development, something which is potentially problematic given the potential for urban discontinuity.

A more rational evaluation of the urban sector in Botswana is required. With the precarious foundations of urbanisation in Botswana borne in mind, surplus revenues generated by mining should be channelled into rural employment creation rather than urban areas. An approach which treats the urban question in its entirety is required. There is thus a real need for a national development programme which integrates population and environmental policy with rural and urban sector planning, and which bases future development on the criteria of equity and sustainability.

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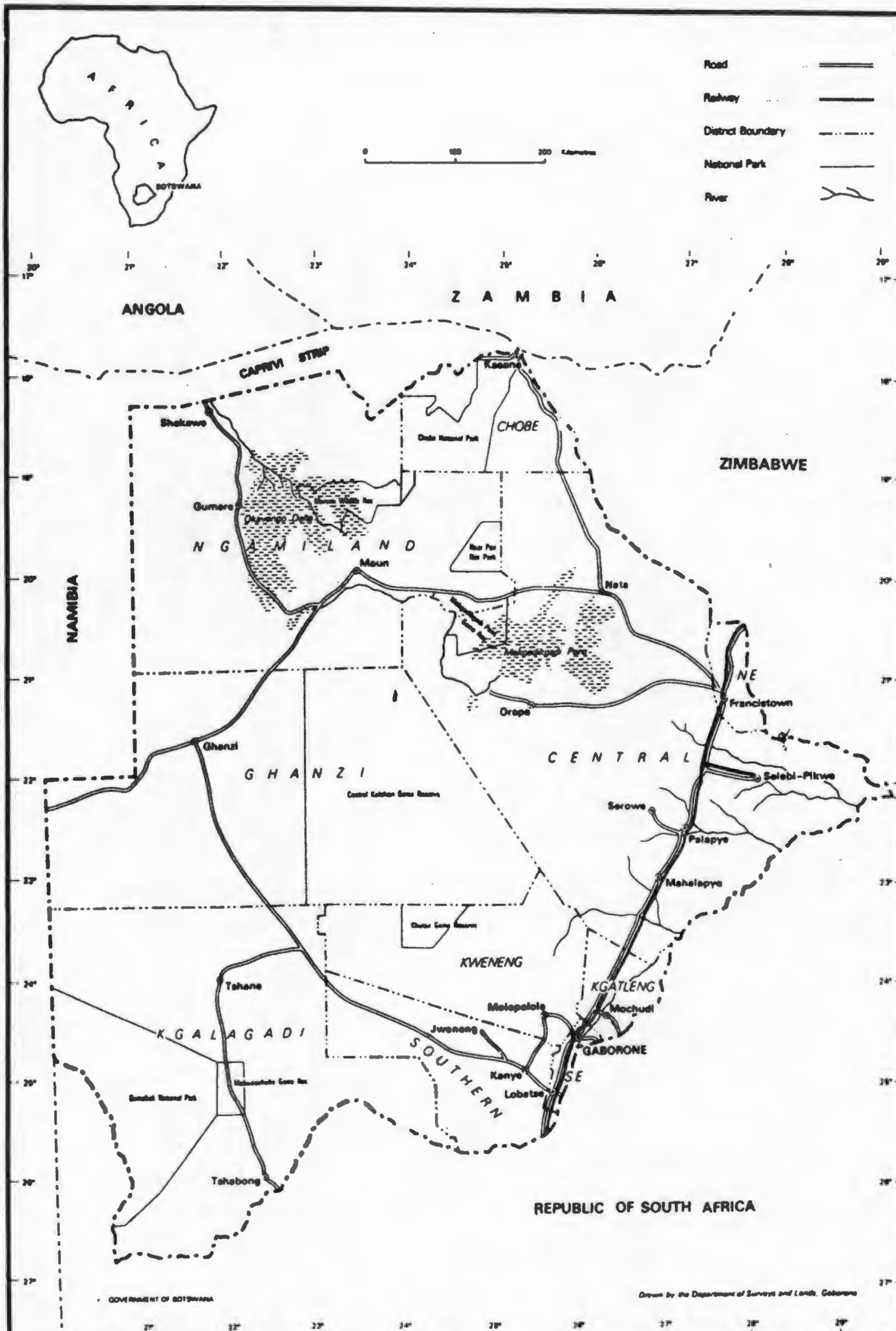

FIG 1: MAP OF BOTSWANA INDICATING MAJOR SETTLEMENTS AND ROADS

CHAPTER 1

INTRODUCTION

> Oil creates the illusion of a completely changed life.....Oil is a resource that anesthetizes thought, blurs vision. People from poor countries go around thinking: God, if only we had oil! The concept of oil expresses perfectly the eternal human dream of wealth achieved through sheer accident, through a kiss of fortune and not by sweat, anguish, hard work. In this sense oil is a fairy tale, and, like every fairy tail, a bit of a lie.......Oil, though powerful, has its defects. It does not replace thinking or wisdom (Kapuscinski, 1985, p. 35).

1.1 THE PREAMBLE

This study has been directed towards an examination of trends and problems associated with rapid urbanisation in post-independence Botswana. Economic development shapes and is inextricably related to the organisation of spatial phenomena. Any consideration of organic growth and change in urban structures must logically take into account the base assumptions of the style of development in which such structures are rooted. Research has consequently been directed towards an understanding of development in Botswana in a historical sense, as a means of elucidating current and future trends, and problems associated with urbanisation.

In a continent plagued by escalating debt, poverty, and environmental decline, Botswana stands out as an African success story in the economic and political arenas. Its multiparty, democratic system of government has been instrumental in fostering a healthy surplus of payments position, something rare in the turbulent southern African context. Averaging an annual growth rate of 8.8 percent since independence and with a GNP per capita of US $840, Botswana does not appear to suffer from the constraints that have caused stagnation or retrogression in several African countries (African Interpreter, October 1989). This is a relatively recent phenomenon, however, as at the time of its independence from Britain in 1966, the country was widely considered to be one of the poorest and least developed in Africa and its economic difficulties were labelled chronic by one observer (Halpern, 1965). Heavily dependent on aid from Britain and lacking virtually all physical and social infrastructure, it constituted a remarkably small economic unit with a population of 600 000 people and a per capita GNP of approximately US $80

(Harvey, 1981). These statistics placed Botswana in the list of the twenty poorest and least developed countries in the world.

With a population density of one person per square kilometre, Botswana is the most sparsely populated country in sub-Saharan Africa. Hence the per capita cost of administration, communications network and other essential services is high in comparison to more compact and densely populated territories. The deficiency of both material and human resources is largely explained by the aridity of its climate and is aggravated by dependence on neighbouring countries for access to the sea. Remarkable economic success was, however, achieved in a very short time and by 1980, Botswana had been included as one of the World Bank's group of success stories. World Bank statistics pointed to Botswana as the best economic performer in Africa during the decade of the 1970s, with a 16.1 percent growth rate for the period. It's per capita income was higher than the African and Asian averages, Japan excluded (IBRD, 1977). Strong balance of payments surpluses were maintained and the debt service ratio which stood at 2 percent was one of the lowest in Africa (Picard, 1987). Botswana is also characterised by a relatively low inflation rate of 10.4 percent, has a total external debt of only US$518 million and has one of the strongest national currencies (the *Pula*) in Africa (African Interpreter, October 1989). Overall growth since independence has been around 11 to 12 percent in ***real*** terms (Lewis, 1985).

Such apparent economic success has emerged primarily from a post-independence commitment to mining development. Traditionally, beef has formed the mainstay of the Botswana economy, this has, however been superseded by the production of diamonds (providing two thirds of foreign exchange and 40 percent of government revenues) and copper/nickel matte as primary exports. Burgeoning wealth has been accompanied by concomitant urbanisation associated with the mineral extraction infrastructure. Development included the opening up of the diamond mines of Orapa (1971) and Letlhakane (1977) with Jwaneng, the largest mine, being opened in 1982. A further development, and the focus of this research, was the discovery of what Lewis (1985, p. 2) describes as the "star-crossed" copper nickel mine at Selebi-Phikwe which required an initial capital investment in 1972, 50 percent greater than Botswana's national income at that time.

Selebi-Phikwe, the first and largest post-independence mining town in Botswana, is a characteristic example of urban development patterns in the new Botswana. Currently, however, doubt has been cast on the future viability of mining operations in Selebi-Phikwe. The implications of any possible mine closure will almost certainly be of a serious and far-reaching nature. This raises pertinent questions regarding the future of Selebi-Phikwe and of other mineral based towns in Botswana as self reliant urban entities. At a more fundamental level it also raises the question of whether Botswana's chosen course of development has the staying power necessary to sustain urbanisation.

In a country lacking a history of urbanisation, few towns of any size exist, and most current and future urban growth will be based on expansion of the mining industry. This poses the problem of continuity in Botswana's urban settlement system as activity centred around the production of a non-renewable resource is inherently unstable. This is due mainly to Botswana's position as a producer in the international minerals market. In the context of the world economy into which minerals producers are tied, prices are determined by consumers drawn from the western, industrialised nations. Consequently countries such as Botswana which are heavily dependent on revenues from the export of minerals, are at the mercy of external market forces. In addition Botswana is dependent upon South Africa for many of its basic needs. Eighty four percent of its imports originate there, though South Africa receives only 17 percent of Botswana's exports (African Interpreter, October 1989).

Botswana is currently the third largest diamond producer in the world and production levels exceed those of South Africa. While the country has been able to negotiate a comparatively advantageous agreement which ensures high production levels of diamonds to maximise revenue, the South African multinational, De Beers Consolidated, effectively controls the industry (Pallister, *et al*, 1988). Furthermore, South African companies also own, control or manage the Breweries and most non-agricultural manufacturing interests, most of the retailing and distribution outlets and all freight forwarding business (African Interpreter, October 1989). Of importance is the fact that primary production, if it is not accompanied by the development and diversification of an alternative economic base, is incapable of sustaining the high urbanisation rates presently experienced in Botswana.

It is in terms of a more general development framework and with reference to the recently emerging concept of ***sustainable development*** that the issue of continuity and stability in the mining town of Selebi-Phikwe will be explored. Findings show that this particular case study is characteristic of urbanisation trends in Botswana and is of broader relevance to the southern African context.

1.2 POPULATION AND ENVIRONMENT

1.2.1 Physical Characteristics

Botswana is bounded by Zimbabwe and Zambia in the north. The west and north-western borders of Botswana are shared with Namibia and its Caprivi Strip, while the long southern boundary with South Africa completes the circle of countries surrounding landlocked Botswana (see fig.1). Most of the borders of the country are defined by rivers: the Limpopo and Marico Rivers in the east and southeast; the Molopo in the south; the Chobe in the northwest, and the Nossop in the southwest.

Botswana is located in the Kalahari basin of the great southern African plateau and is approximately 582 000 square kilometres in area. Most of the country is flat with a mean altitude of about 1000 metres above sea level with the vastness of the desert, broken only by gentle shifts in elevation. The Kalahari sediments of the west are covered in parts with grass, thornbush, and scrub, with true desert conditions existing in the southwest where open dunes are in evidence. The eastern section in which the study area is located, is somewhat more rugged than the rest of the country and is characterised by inselbergs and dry riverbeds, interspersed with extensive tracts of Mopane woodland and grasslands.

Subtropical and desert-like conditions are characteristic of Botswana's climate, with the northern part of the country lying within the tropics. Rainfall is unreliable, highly erratic and seasonal. Summer months are hot with rain generally occurring between November and April. Winters are dry with the possibility of frost conditions at night.

Arid conditions exist over most of the country, and the shortage of water, sometimes severe, is a major impediment to development in almost all areas of economic activity. Rivers are mostly ephemeral and subterranean with the exception of the North-West District, where the major rivers are perennial. The Kalahari Desert, a vast thirstland covering about 87 percent of Botswana, constitutes a strong ecological influence on the country.

Relatively fertile conditions exist in the eastern part of the country where the majority of agricultural activities occur. There is sufficient rainfall in the area for the cultivation of some subsistence crops and its vast grasslands provide grazing for Botswana's ample herds.

The western half of Botswana, covered by the arid Kalahari Desert, has been over utilized for the grazing of cattle. Development of infrastructure in the desert has been limited to the construction of boreholes. These ensure a supply of water all year round but indirectly exert deleterious effects on the fragile desert ecosystem. Much of the water flowing seasonally from the Okavango River into Lake Ngami and Lake Xau and into the Makgadikgadi salt pans disappears or evaporates.

The vast but ephemeral Okavango delta in northern Ngamiland, forming a landscape of rich and varied vegetation and animal and bird life, constitutes the only permanent open water source in Botswana, and is host to a thriving tourist industry. The Chobe-Zambesi drainage system to the extreme north of the country is associated with another extensive swamp zone. Tourism is the third highest earner of foreign exchange after minerals and cattle. Over ten percent of land in Botswana is devoted to the conservation of wildlife and it can be said that tourism is one of the few economic activities which is of a truly sustainable nature.

1.2.2 Urban Infrastructure and the Distribution of Economic Activities

With reference to Figure 1, it is apparent that post-independence infrastructural investment in communications has been limited to the construction of a tarred road linking Gaborone in the south-west of the country with Kazangula in the north. This line of communication services Selebi-Phikwe and Francistown in the east, with a branch road linking the mining towns of Orapa and Jwaneng. The development of an urban infrastructure has been almost entirely devoted to the support of the minerals industry, with limited ancillary development in the form of manufacturing occurring.

Botswana is reliant on neighbouring South Africa not only for imported goods and for its transport infrastructure (regarding exports), but is also heavily dependent on remittances from migrant labourers working there. Although substantial numbers of Batswana continue to be employed in South African industry, the number decreased from a peak of 50 000 in the early 1970s to just under 20 000 in 1981 (Picard, 1987). The impacts of this South African cutback in migrant labour on Botswana will be substantial. Projections suggest a decline of 3 000 to 4 000 jobs per year in South Africa through 1990.

It was pointed out earlier that, apart from the traditional export of beef, diamond and copper/nickel production command the economy within Botswana. Mining has, however, created relatively few jobs. The total of 8 900 workers represented 8 percent of the work force in the formal sector in the 1981 census. The formal sector itself, which included 18 000 migrants in the South African mines, was only 20 percent of the total labour force.

The implications of such a narrow economic base, almost wholly tied to South African interests are evident regarding the chances of any sustained industrial growth. The history of Selebi-Phikwe is a useful illustration of the extreme fragility of the Botswana economy.

1.2.3 Post-Independence Urbanisation

The physical characteristics of Botswana have had a formative influence on the pattern of human settlement in the country. Environmental constraints in the form of low and intermittent rainfall over much of the country have determined the possibilities for agriculture, livestock production, and other forms of economic activity. This is reflected in the distribution of population, with a concentration of people in the wetter eastern sector of the country.

Although Botswana is still largely a rural society, urban migration is becoming increasingly prevalent. With a current population of 1.3 million of which 75 percent live in rural areas, Botswana has few major settlements. Gaborone, the capital, has mushroomed in size (seven fold between 1971 and 1989) since independence, and presently exhibits one of the highest rates of urbanisation in Africa. Population numbers for Gaborone are currently estimated to be in the region of 135 000. The foundation of Francistown (population: 60 000), the oldest urban centre in Botswana, was originally based on gold mining. The town now relies on commercial and retail activities and a degree of industrialisation for its existence. Both towns are relatively well integrated into their respective regional economies and both exhibit an internal dynamism of their own. Lobatse, a town centred on the cattle industry, has a population of 30 000.

As noted in the introduction, post independence economic development initiatives have placed emphasis upon the opening of new mines. These have provided the impetus for the high rates of urbanisation currently being experienced in Botswana. The diamond towns of Jwaneng and Orapa have populations of 16 000 and 10 000 people, respectively (based on projected population statistics from the 1989 statistical bulletin). Selebi-Phikwe, with a population of 55 000 is the third largest and one of the most recently developed urban centres and represents a useful case study of how the present system of urban development might be, in fact, flawed. Certain lessons are to be learned from the experience of Selebi-Phikwe which, it is argued, hold for the new mining towns of Jwaneng, Orapa, Moropule (established for the production of coal for power generation in Selebi-Phikwe), and Sua Pan (a recently commissioned open cast soda ash mine).

1.2.4 The Case of Selebi-Phikwe

It is in the context of this national emphasis on the exploitation of non-renewable resources that the future continuity of this particular urban settlement is questioned. Selebi-Phikwe, selected as a case study, is a relatively large, well established mining town situated in Botswana's most populous eastern sector. The town is not only important in terms of itself but as a barometer of future socio-economic trends within the broader Botswana setting. As a resource frontier settlement, Selebi-Phikwe owes its existence to the development of localised copper and nickel deposits.

Anglo American Corporation (AMC) was responsible for developing these mineral deposits through an extraordinarily complex deal put together in the late 1960s. The mine is heavily dependent on trans-national finance and expertise and is linked to South African industrial and mining interests.

As stated earlier, Selebi-Phikwe's importance within the national context lies in the fact that it is the first major post-independence town in Botswana. Furthermore, the copper/nickel mine is the largest private employer in the country, with a payroll of 4 500 (National Census Statistics, 1981)). Current estimates for the life of the mine, based on ore reserves and on the working life of the smelter, have been extended to the year 2000 (pers. comm. mine officials). Should prices on the international market decrease substantially or if their are any major technical difficulties or accidents, this estimate might well be revised, thus reducing the life of the mine.

The mine and smelter were commissioned in the early 1970's, during a formative period beset by technical problems. These, combined with price fluctuations on the international metals market, have turned the mine into a financial disaster, showing substantial loss in most years since it came on stream in 1973. This has curtailed the future prospects of the town.

The chances of Selebi-Phikwe enduring are determined by the above circumstances, as the fortunes of the supporting urban structure are closely aligned with those of the mineral industry. Given that a major proportion of those employed in Selebi-Phikwe are engaged in mine related activities, their futures are intimately tied to those of the copper/nickel project. The resulting dependency relations have created a climate of uncertainty and instability for the future of the town. Recent government policies to diversify the local economy (see 1985-1990 development plan) reflect a national concern for the fate of Selebi-Phikwe.

This study is an assessment of the implications of a high degree of dependence on copper/nickel production in the town. Based on an analysis of the forces that have conditioned the character of Selebi-Phikwe, an attempt is made to predict its future viability as an urban entity.

Research has been conducted in the context of development in its qualitative sense; that is, as an enduring element in Botswana's social, political and economic progress. Research findings are particularly pertinent in planning future urbanization in Botswana, in view of the dependency in the national economy upon mineral production. This has been noted by Colclough and McCarthy (1980, p.4):

> **"many of the problems in this area are encapsulated in the notion of 'dependence'. As with the issue of distribution, this concept is of considerable significance. It refers to the degree to which a country's incorporation into the international economy; particularly in terms of exports, imports and investment; conditions and constrains internal economic and political developments".**

Alternatives to investment and urban dependence upon non-renewable resources are considered. Specifically, these include a national commitment to manufacturing and industrialisation. Given the degree of dependence of such ventures on transnational investment, the notion of an enduring, urban, social structure in Botswana is again questioned. In a wider sense the question of development as a sustainable means of satisfying long term social needs versus `growth' reflected in volumetric increase, is addressed.

It will be demonstrated that Selebi-Phikwe is a microcosm of the wider Botswana reality, regarding rapid urbanisation, dependence upon non-renewable resources, and vulnerability to the uncertainty of international demand. These issues will form the focus of subsequent chapters and reinforce the relevance of Selebi-Phikwe as a case study.

1.3 AIMS AND OBJECTIVES

To make sense of the question of continuity in Botswana's urban fabric, a macro level analysis embracing its history, economy, politics and society, is necessary. Selebi-Phikwe may be considered to be a representative example of Botswanan urban society. An analysis of conditions in Selebi-Phikwe points to the fact that the general development history of Botswana has shaped the form that urbanisation has taken. A certain continuity of underdevelopment initiated in colonial times is discernible in urbanisation trends in Botswana. Diversification of economic activity in Selebi-Phikwe has been restricted by the colonial legacy which has contributed to an atmosphere of general impermanence and instability in the town.

The objectives of this study are to gauge the potential for instability in Selebi-Phikwe, to analyse the reasons for this, and to assess the potential success of measures designed to mitigate the effects of possible mine closure. Having undertaken to meet these goals, the value of the Selebi-Phikwe experience for predicting future urbanisation trends in Botswana will be considered. These objectives will be met through an examination of the level of dependence on mining activities in the town and a critical appraisal of industrial diversification policies aimed at bolstering the ailing economic base of Selebi-Phikwe. Analysis of the question of uncertainty and impermanence in Selebi-Phikwe is considered on the basis of underlying forces and structures which have largely determined current spatial and economic patterns in Botswana. The research is conducted in terms of a recognition of the root causes of potentially limited life span for newly emergent towns in Botswana, and is integral to the theme of sustainable development in this hitherto, highly successful, African country.

The case of Selebi-Phikwe is illustrative of what has been identified as a contradiction of sustainable development. Mining of a limited and non-renewable resource leads to the inevitable exhaustion of that resource which in the case of Botswana, raises questions not only about the sustainability of her development path, but also of urbanisation. In essence, the contradiction inherent in such `development' is based on the idea that non-renewable resources are finite and are consequently of a short to medium term nature. Urbanisation as a process, is not.

1.4 STRUCTURE AND FORMAT

Chapter Two

The concept of sustainable development and the implications of this newly emerging body of theory for the minerals industry in developing countries is explored. Such concepts are reviewed in the context of relationships between the establishment of new mines and supportive urban structures in both the First ("North") and Third Worlds ("South"). The pattern of resource exploitation in the world economy is discussed with reference to the asymmetrical relationships which exist between Third World producers of minerals and First World consumers. Underlying problems that retard development initiatives in Third World nations reliant on mineral export earnings, are located in the complexities of the broader development process.

Part of the chapter has been devoted to the construction of a conceptual and theoretical framework necessary to the assessment of the development history of Botswana in general, and Selebi-Phikwe in particular. A recognition of the role of predetermined and underlying structures and forces in the shaping of Botswana's present and future, requires the use of a structuralist approach. Political-economic theory meets the above objectives of contextualising urbanisation problems in Botswana. The theoretical formulation is defined and discussed with reference to an interpretation of past, present, and future trends in development and, by extension, urbanisation in this newly developing country.

From a brief analysis of conditions in countries which rely on the export of primary commodities (The South, generally), it is shown that the potential for instability, impermanence and ultimately unsustainability is characteristic of Southern mining towns. This sets a theme against which post-independence urbanisation in Botswana, is viewed.

Chapter Three

Utilising the political-economy approach, the pre-colonial era is examined in chapter three. This period was characterised by the self-reliance of a small, rurally based population, practising an ecologically sustainable economy. Prior to contact with European traders and predating urbanisation, the society although of a shifting nature, was characterised by economic stability. In a land poorly endowed with water and other natural resources, hunting, small scale agriculture and pastoral activities met the moderate needs of Tswana Society. This era of sustainability was to be irrevocably changed by processes initiated in later decades.

Chapter Four

This chapter includes a consideration of early external influences on Tswana society which preceded the colonial era in Botswana. Interpreted, again, in the light of the political-economy approach, it will be demonstrated that urban instability in Selebi-Phikwe is conditioned by forces set in motion during the time of the Protectorate. Central to the discussion is Botswana's evolution as a labour reserve serving the mining and industrial economy of neighbouring South Africa. The roots of underdevelopment and dependency are to be found in the export of labour process. The purposeful neglect of development during the era of the Bechuanaland Protectorate effectively compromised the future of an independent Botswana and was simultaneously to the direct advantage of mining capital on the Witwatersrand. This forms the historical background to Botswana's own entry into mineral production in the post-independence period. In both cases mining was facilitated by the ruling authorities of the time. First under indirect rule: the British colonial administration; and latterly, the government of independent Botswana.

Chapter Five

Structural social, economic and political change associated with the period following independence is examined in the fifth chapter. The development of the previously destitute British possession was to be founded upon mineral discoveries. This preceded a concomitant rise in the construction of supporting urban centres, with centres such as Selebi-Phikwe springing up in areas lacking a history of urbanization. Due to the enormous costs and risks associated with the extraction of mineral resources, investment was necessarily of a transnational nature and production was export oriented.

Botswana's recreation as a peripheral capitalist economy in the post-colonial period is reflected in the dependency relations of the broader economy and in the structure of mining operations in Selebi-Phikwe itself. While the first fifteen years following independence in 1966 were witness to unprecedented economic growth and investment in infrastructure as a result of revenues generated from mining, the last decade has been characterised by what has been identified as an emerging crisis of unsustainable development. Pertinent questions have been raised concerning the creation of new sources of wealth. These and other questions centred around the issue of development are explored with reference to their political underpinnings. The case of Selebi-Phikwe is particularly illustrative of the tensions and contradictions imbedded in the socio-political structures of post-colonial Botswana.

Chapter Six

This chapter considers the case of Selebi-Phikwe. The growth and development of Selebi-Phikwe in the early 1970s is outlined and analysed with reference to the base conditions for an unstable future.

The discussion is directed towards an appreciation and assessment of the degree of dependence on mining activities in Selebi-Phikwe. This permits an informed consideration of the potential for instability in the town associated as it is, with a transient form of development based upon a non-renewable resource. An analysis of the extent to which the town is integrated into its regional economy and its links with alternative economic activities, provides a base from which predictions regarding the future of the town, may be made. The question of urban continuity is also considered through an examination of the corporate structure of the copper/nickel industry. An externally based company is less likely to be concerned with the effects of decommissioning than one with strong local affiliations.

It is stressed that settlement instability is an inevitable outcome of development of an enclave nature, predicated upon dependence on and integration into the southern African and world economies. Present development initiatives are, however, logical and rational choices given the history of underdevelopment in Botswana.

Chapter Seven

The issue of diversification and the promotion of alternative development in Selebi-Phikwe is dealt with in the penultimate chapter. That national planning attention is being directed towards this issue is recognised as being a response to an impending crisis in the town associated with the closing of the mine. Current responses by government agencies to the perceived problem of impermanence in Selebi-Phikwe are critically analysed in terms of the theoretical tenets of current paradigms on development. Recent changes in the world economy with reference to the industrialisation of the Third World and the internationalisation of capital, are shown to have a bearing on the possible future development path of Selebi-Phikwe.

The notion of "footloose" capital associated with the operation of transnational corporations is intimately related to planned future projects for Selebi-Phikwe. Questions of whether proposals to diversify the town's economic base actually reduce dependency and vulnerability to external influences, are posed. The crux of the issue is again traced to the problem of sustainable `development' in a capitalist, Third World context. It is demonstrated that the key to the problem of vulnerability and unsustainability in Selebi-Phikwe and other resource based towns lies in the geographical separation of production and consumption in the context of an export based economy.

SECTION 1

THEORETICAL FOUNDATIONS:

PARADIGMS OF DEVELOPMENT, POLITICAL-ECONOMIC ANALYSIS, MINING TOWNS, AND THE CONTRADICTION OF MINERAL EXPLOITATION

CHAPTER TWO

OF FOCI AND THEORETICAL FRAMEWORKS

> **"The experience of many Third World minerals producers has not been a happy one. For most, being a mineral exporter has not led to a wider and sustainable process of economic development, and there is a strong line of argument that the overall impact has been negative, rather than positive..." (Soussan, 1988, p. 33).**

2.1 INTRODUCTION

To place the issue of post independence urbanisation in context, a brief synthesis of the theory and literature relating to mining and development is required. This chapter follows on from the basic premise that urban continuity in a mining settlement is conditioned by its underlying economic base.

Section 2 considers the issue of development in a general sense. A critique of conventional approaches to the problem is developed, taking the perspective of the recent concept of "sustainable development" in the third section. This is extended to the theory of political economy which is suggested as a logical means of analysing the development history of Botswana. The penultimate section examines the links between mining and urbanisation with reference to specific examples drawn from a number of countries. Problems of unsustainable development are dealt with, focusing on the question of continuity in resource frontier settlements. It is argued that there is an latent bias towards instability in mining towns if alternative industry is not established.

The final section is directed towards an understanding of the nature of the international minerals industry. Discussion hinges on the concept of sustainable development with reference to Third World mining. This lays down the contextual foundations for an examination of the interrelationship between mining ventures and urbanisation in developing countries such as Botswana. The niche that mining operations in developing countries occupy within the world economy is explored in terms of the issue of dependency. The conclusion reached, that primary production based on a non-renewable resource is unsustainable and therefore contradictory, forms a theme against which the problem of sustainable urbanisation in Selebi-Phikwe is analysed in later chapters.

2.2 THE RISE OF DEVELOPMENT THEORY

> **"Developmental Science, then, is the large glass through which one can see history converted to evolution and evolution to politics, and most of all the politics of intelligence, learning, and continuous material improvement as well as what Habermas calls the steering capacity of the state" (Apter, 1987, p. 8).**

Due the constraints of space the following summary of the most salient aspects of development theory is necessarily brief and simplistic. The debate is ongoing and no single view point encompasses the `state of the art' on the science and philosophy of development. As a broad based melding of the various theories of development, this synthesis is aimed at an introduction to the issue of development and its influence on urbanisation trends in Botswana. The concept of sustainable development is briefly considered prior to a more detailed discussion of its origins and significance for the genesis of mining towns, in the following section.

2.2.1 Terminology and Definitions

Since the Second World War, volumes of literature concerning the empirical facts of development have been published and several theories have been advanced as means of understanding and explaining processes and patterns of development. (see Rostow, 1953, 1960; Furtado, 1964; Frank, 1966, 1967; Amin, 1973, 1976, 1990; Leys, 1975; Mabogunje, 1973, 1980; Chisholm, 1982; Corbridge, 1986; Apter, 1987; Trainer, 1989, among others).

Processes have been analysed in terms of the First and Third World dichotomy, distinguishing between "developed" and "underdeveloped" countries or the less derogatory and more optimistic terms of "developed" and "developing" nations (see for example, Rostow, 1960; Frank, 1966; Amin, 1973; Mabogunje, 1980; Taylor and Thrift, 1982). More recently, however, the expression "underdeveloped countries" has come into vogue again, particularly in these countries themselves; while the term "the South" has to some extent superseded "the Third World", thereby suggesting that differences between North and South are more important than those between East and West (see for example, Brandt, Report, 1980; Apter, 1987; Redclift, 1987; Trainer, 1989). Currently, those writers who have linked global environmental decline with the process of `development' have used the terms "overdeveloped" and "never to be developed", in a critique of current attempts to boost economic growth in disadvantaged nations (see Trainer, 1989, for instance).

Jenkin's (1987) notes that caution should be practised with the use of terms such as the "Third World" as they suggest an unified entity which has many common features. The Third World is, however, extremely heterogeneous and is in the process of becoming more so. Thus in discussing approaches to problems of `development' there is a real danger of losing sight of this heterogeneity and presenting it as though they are generally applicable irrespective of levels of development, local class structures, or state forms. Although these terms have been used fairly loosely and interchangeably in this thesis and the choice of terminology is a matter of personal preference or current `fashion', the introduction or reintroduction of terms does reflect significant changes in thinking about development and underdevelopment.

Concepts of development and underdevelopment have changed significantly over time and, even today, there are a number of different schools of thought. Conyers and Hills (1984, p. 22) have pointed out that dictionary definitions of the verb "to develop" suggest that it means to change gradually, "progressing towards some state of expansion, improvement or completeness or a state in which the subject's true identity is revealed". They note that the verb "to develop" can be transitive or intransitive. In simple terms, when one uses the term with reference to countries, it is possible for a country either to develop itself or be developed by some outside agency. This is particularly significant with regard to the causes of development.

Apter believes that the term "development" is loaded with ideological assumptions and is so imprecise and vulgar that, "it should be stricken from any proper lexicon of official terms" (1987, p. 7). He concedes, however, that despite its shortcomings, it and its assorted intellectual repertoire will remain key concepts of social analysis. For him as for most development theorists, "development is a continuous intellectual project as well as an ongoing material process" (ibid.).

Terms such as "underdeveloped" and "underdevelopment" were introduced to describe a lack of development. The verb, "to underdevelop", when used in its transitive form, refers to a nation or group of people being underdeveloped by some outside force. This introduces the notion of process with regard to either "development" or "underdevelopment" (Conyers and Hills, 1984).

2.2.2 Economic Growth and Modernisation

Solutions to the problem of extreme poverty faced by over half the world's population have been viewed until recently, mainly in terms of methods through which the national incomes of developing countries might be increased. Planning in those countries which gained their independence in the two decades following the Second World War was thus conceived almost entirely in terms of enhancing aggregate national income.

`Development' initiatives were conceived as a diffusion of technology and capital from First World countries into the Third World in the belief that the poor would eventually prosper and follow the path of development experienced in North America and Europe. Investment in the Third World minerals industry was, and is, an important component of that development policy. Inextricably associated with such `development' has been the rise of the `super company' `international firm' or `multinational/transnational corporation' (MNC/TNC). In this thesis, use has been made of the term `transnational corporation' which was adopted by the UN in preference to `multinational' at the insistence of certain Latin American and Caribbean states who wished to distinguish between foreign-owned TNCs and joint-ventures of two or more participating countries established as part of regional integration schemes (UNCTC, 1978, p. 159). Among other things transnational corporations have been accused of contributing to "uneven development" (see Jenkins, 1987).

As significant features of the world economy, TNCs have been cursed and praised alike by practitioners of development, particularly in the context of their impact on the Third World. Neoclassical proponents of TNCs argue that they are forces for `development' and growth, capable of eliminating international economic inequality and are thus net contributors of wealth. By contrast, critics suggest that these "diffusionist" or "modernisation" policy approaches to the problem of redressing structural imbalances within, and between, countries have been less than successful. TNCs have been portrayed as a major obstacle to development and as a major cause of underdevelopment through a massive drain of surplus wealth to the advanced capitalist countries. Net results may in some instances, have included healthy economic growth. Benefits, however, have frequently been unequally distributed not only between different countries, but also within developing countries themselves.

2.2.3 From Colonial to Neocolonial

Development theorists have noted a continuity between the `development' of the colonial period and problems of a retardation of development or `underdevelopment' in the post-independence era. Structural theorists argue that colonial powers were openly involved in a process of exploitation and domination in the Third World. In the contemporary period, political independence has not resulted in economic independence and "neocolonial" agents such as TNCs are viewed as being equally exploitative.

Many Latin American writers assert that, over time, the flow of capital derived from investments from the metropolis (eg. USA) to the satellite (eg. the Latin American sub-continent) is dwarfed in magnitude by the reverse flow, ie. by the flow of profits from the satellite to the metropolis. The satellite is thus a net loser of foreign exchange. Consequently, the TNC, as the prime mover of capital between nations is viewed as "exploitative" and an "agent of neo-imperialism"[1]. Cooper (1984, p. 271), for instance, goes so far as to describe the mining operations in Selebi-Phikwe as a "paradigmatic case of neocolonial parasitism". The truth of the matter is that while Selebi-Phikwe tends to follow the classical mould of transnational domination, it has rarely shown any profits which could be remitted to the advantage of the company engaged in mining operations.

"Unsustainability" and "underdevelopment" are closely related. The term "underdevelopment" was redefined by Frank in 1966 in a critique of conventional development approaches. The process of underdevelopment which has its roots in colonial capitalism has, it is maintained, been perpetuated into the present in terms of the neocolonial operations of transnational corporations. Critics of modernisation approaches to development have cited dependence on the North as the main cause of underdevelopment in the South. Such "dependency" theorists cite factors such as the integration of the South into the world economy and the spread of trade links with industrialised nations as being responsible for the unequal relationships which exist between the First and Third Worlds. TNCs are an important feature in this process of integration and economic domination and are viewed as being appendages of Northern economies. Such corporations have been responsible for the development of most Third World mining sectors.

[1] See particularly Frank (1966), "The development of Underdevelopment".

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[1] See particularly Frank (1966), "The development of Underdevelopment".

In essence, it is argued that the colonial legacy of labour exploitation and underdevelopment in the South has undermined the capacity of Third World nations to "develop" in the post colonial period. Furthermore, it is suggested that such structural underdevelopment has been exacerbated in the contemporary situation, by dependence on Northern industrialised nations. This has been reflected in the geography of global production, with the North constituting a concentration of wealth in the form of a "pole", and the South constituting an impoverished "periphery". The cumulative results of this dichotomy are felt in terms of increased Third World vulnerability to vicissitudes in the world economy. The exploration of this general theme in the context of transnational development of Botswana's mining sector, and its influence on urban growth, is the principal concern of chapters 5, 6 and 7.

2.3 THE CONCEPT OF SUSTAINABLE DEVELOPMENT

2.3.1 The Inadequacies of Growth Based Indices

Section 2.2 briefly summarised the rise of development theory and it was noted that development is usually defined principally in terms of economic growth: "as countries experience increased growth their productive capacity expands and they `develop'.....it is difficult to imagine development without economic growth" (Redclift, 1987, p. 15).

In the two decades following the Second World War it was assumed that the state of development to which developed nations should aspire was more or less synonymous with the type of society which existed in developed nations. Western economists have thus advocated economic growth as a panacea for chronic poverty and underdevelopment in the Third World. Such `development' frequently proved to be of a quantitative rather than a qualitative nature. The approach, while highly successful in parts of Asia[2], however, has failed to a large degree in Africa and Latin America. Furthermore, realities unfortunately dictate that, in some parts of the world, the growth of aggregate income appears to have been accompanied by a further impoverishment of the poorest population groups.

[2] Most notably this includes the "Four Tigers" of Taiwan South Korea, Singapore and Hong Kong. Large scale injections of first world capital and technology into these countries have produced export orientated industrialised economies which have achieved sustained rates of growth. Proponents of neoclassical theory cite these rapidly growing NICs (newly industrialising countries) as examples of the benefits of the opening up of economies, of reduced interventionism, and of the free market.

Rostow (1960), an economist who formulated some of the earliest theories of development, described a `developed' society as a "high consumption society". As implied by this description, it was assumed that development means a high national income, accompanied by a market economy ie. development was viewed in terms of the structure and growth of the economy and degrees of development (or underdevelopment) were usually measured in terms of national income.

The most widely used measures of economic well-being are those of per capita income (national income divided by the size of population) and the average rate of growth of income. Gross National Product (GNP) and Gross Domestic Product (GDP) are two other common indicators of development. The limitations of GNP as a measure of development are easily identified. An obvious flaw is that it is only a measure of `formal' sector activity, whether in the primary sector (eg. mining or agriculture), or in manufacturing and services. The `informal sector', in which markets exist but are not fully reported statistically, and in which people produce for their own consumption (subsistence agriculture, for example), is not represented in GNP figures. As a means of sustaining livelihoods for the majority of Third World dwellers, and in Botswana particularly, the informal sector is arguably as important, if not more important than the formal sector.

Per capita figures for economic growth render very little information on the relationship between income, wealth, and patterns of income distribution even among people of the same class. Average indices of GDP and GNP give no indication of who receives the benefits of economic `progress'. Consequently, it may be argued that such broadly based measures of national well-being are remarkably ineffective indices of economic and social welfare as they neglect information on equity of distribution. Furthermore, a key omission in growth indices concerns the sustainability of the development such growth is based upon. This has not only resulted in short lived economic `successes', but has led to the human and physical environment becoming a neglected element in development planning. The result has been industrial excesses (including agribusiness) which have seriously undermined the natural bases upon which the material means of human existence rely (Redclift, 1984, 1987; Soussan, 1988; Trainer, 1989; and the World Commission on Environment and Development, 1987). Finally, and possibly the most serious criticism of GNP statistics is the fact that they record the productive utilization of resources without specifying if these resources are renewable or not (Pearce, 1986). As Redclift succinctly states:

> **"From an environmental standpoint, then, GNP is a particularly inadequate guide to development since it treats sustainable and unsustainable production alike and compounds the error by including the costs of unsustainable economic activity on the credit side..."(1987, p. 16).**

Rostow's (1960) idea of development as an ongoing, inevitable, and essentially technical process persisted more or less unquestioned in both developed and underdeveloped nations, until the mid 1960s. By that time, however, questions were raised on whether the concept of a "high mass consumption society" was really the goal to which developing countries should aspire and this became an important element in the rise of alternative theories of development which considered the environmental implications of such development. Although the concept of `sustainable development' arose out of a concern for the consequences of development for the `physical' environment, its applications take into account the human components of the environment. As an holistic consideration of development and its consequences, with sustainability as a key concept, the theory treats the human and natural aspects of the environment as one. It is thus applicable to an understanding of the failures of conventional development policy whether its effects be purely physical or whether they impinge on society in such a way as to negate long term stability and sustainability.

2.3.2 Sustainability Defined

Section 2.6 outlines the important role that non-renewable resources play in the transformation of economic activity in the South. GNP figures for Botswana are almost wholly reflective of mining activities which, it will be established, are intrinsically unsustainable in the long term. Redclift (1987), Trainer (1989) and the Brundland Commission (1987) have all argued that while the notion of `sustainability' has several dimensions, it is important to recognise the ***primary ecological meaning*** of the concept and to acknowledge its implications in ***economic*** and ***social*** terms. While the satisfaction of human needs and aspirations is the major objective of development, the essential needs of vast numbers of people in developing countries have not been met because countries where poverty and inequity are endemic will always be prone to ecological and other crises.

The term `sustainable development' gained vogue from the time of the Cocoyov declaration on environment and development in the early nineteen seventies. The declaration arose from a seminar organised by the United Nations Council on Trade and Development (UNCTAD) and the United Nations Environment Programme (UNEP) held in Mexico:

> **"Our first concern is to redefine the whole purpose of development. This should not be to develop things but to develop man. Human beings have basic needs: food, shelter, clothing, health, education. Any process of growth that does not lead to their fulfillment - or, even worse, disrupts them - is a travesty of the idea of development" (Cocoyoc Declaration, quoted in Conyers and Hills, 1984, p. 28).**

Since then the term has been adopted by international organisations dedicated to achieving environmentally benign or beneficial development. It is associated with increasing concern about the non-economic aspects of development. Development is now increasingly conceived and measured not only in economic terms but also in terms of political structures, social well-being, and the quality of the physical environment.

As alluded to earlier, the term `sustainable development' suggests that the lessons of ecology are applicable and should be used to define economic progress. The World Conservation Strategy reflects the principles and ideas of the concept, by providing an economic rationale through which the claims of development to improve the quality of (all) life can be challenged and tested. Although the primary objective of this thesis is to question the ***sustainability*** of Botswana's ***urban settlement system*** (using Selebi-Phikwe as a case study), it is clear that the development this urban growth is founded upon lends itself to an assessment based on the principles of ***ecological sustainablity***.

The World Commission on Environment and Development (1987, p. 43) has defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Two salient concepts are contained within this definition:

* **the concept of `needs', particularly the essential needs of the poorest population groups, to which overriding priority should be given**

- **the notion of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs (Brundland Commission, 1987).**

Current rates of mineral depletion in Southern mining countries effectively compromise future mineral production and its possible contribution to `development'. The Brundland Commission has suggested that true development involves a progressive transformation of economy and society and a development path that is sustainable in the long term. Attention should be paid to ongoing access to resources and the distribution of costs and benefits. Implicit in the concept of sustainability furthermore, is a concern for social equity not only ***between*** generations, but one which is logically extended to equity ***within*** each generation.

2.3.3 The Quality of Growth

The Brundland Commission argues that sustainable development involves more than growth; it requires a change in the content of growth, to make it less material and energy intensive and more equitable in its impact. In essence the process of economic development must be more soundly based upon the realities of the stock of capital that sustains it.

The Brundland Commission has pointed out that non-fuel mineral resources pose relatively few supply problems as world consumption of minerals has remained nearly constant. The exhaustion of these resources on a world scale is thus relatively distant. As discussed in the following sections, this does not necessarily suggest sustainability in an economic sense as the viability of mineral production is subject to the vagaries of pricing on the world markets. Furthermore, mineral exhaustion is a distinct possibility for individual producing countries, though it might not be true of the global situation. An immediate need identified by the Brundland Commission includes modifying the pattern of world trade in minerals to allow exporters a higher share in the value added from mineral use. They do not suggest a practicable means of reaching this goal. At the heart of the World Commission of Environment and Development's proposal for a "common future" is the implicit acceptance of economic growth, albeit qualitatively redirected growth, as a means of addressing root developmental and environmental issues.

In a carefully argued and penetrating treatise on the subject of `sustainable development' Michael Redclift (1987) suggests that if `development' is taken to mean economic ***growth***, sustainability is necessarily precluded. He argues that the market should not be regarded as the ultimate barometer of peoples' needs, and that more knowledge is required on the extent to which economic growth makes an increasingly marginal contribution to the satisfaction of peoples' needs and simultaneously creates scarcity where it did not exist before. Redclift suggests that sustainable development requires a broader view of both economics and ecology than most practitioners in either discipline are prepared to admit, and that this should be backed with a political commitment to ensure that development is `sustainable'. A central theme in his work is that of the problem of economic growth and the environment in the South. The discussion addresses the negative consequences of development which although it might meet economic criteria, seriously underestimates ecological and social factors.

In a global sense, the Club of Rome Report (1972) highlighted these problems and recommended a conscious move away from exponential growth to equilibrium. The idea of placing brakes on growth as a progressive move towards truly sustainable development is not reflected in contemporary characteristics of the international economy. World trade, aid policy, the debt crisis and the behaviour of multinational corporations, are all components of the global economy which carry negative implications for the long term stability of the development process (Redclift, 1987).

Institutions such as the International Monetary Fund (IMF) and the World Bank have concentrated on `growth' which has served to obscure the fact that resource depletion and unsustainable development are a direct consequence of growth itself. Loans have consequently been made to promote high-growth sectors, often with disastrous social and environmental consequences. The role of these agencies in suggesting alternative development strategies for the future of Selebi-Phikwe is considered in greater detail in chapter eight.

In exploring the `contradictions' of sustainable development, Redclift has regarded `development' as an historical process which links the exploitation of resources in the more industrialised countries with those of the South. He has adopted a political economy perspective in his analysis, "in which the outcome of economic forces is clearly related to the behaviour of social classes and the role of the state in accumulation" (1987, p. 3). He argues for the redefinition of `development' noting that accumulation in the dominant global economic system necessarily incurs unacceptable social and environmental costs. A break with the linear model of growth and accumulation is necessary if sustainable development is to be an alternative to unsustainable development.

The insights of the "political-economy" paradigm, provide a foundation for a theoretical formulation specifically related to the development history of Selebi-Phikwe and its place within the wider Botswanan setting.

2.4 POLITICAL ECONOMY: ITS ESSENCE

> **An adequate theory of resource-based town development depends upon an understanding of both the process and the context of capital accumulation and uneven development in the phase of historical capitalism being examined" (Bradbury, 1979, p. 147).**

The key to understanding the question of enduring urbanisation in Selebi-Phikwe lies in an analysis of the town's historical roots, its national and international linkages, and more particularly its relationship with the broader Southern African region. In essence the problem is one of inappropriate development and inadequate planning. Development has been restricted by the problem of limited choice which is integral to the fabric of Botswana's social, economic and political structures.

A recognition of the links between urbanisation and development in Botswana entails a systematic analysis of processes both past and present in southern Africa. In meeting these objectives, and as a necessary precondition for the construction of viable development alternatives in Selebi-Phikwe, a suitable, structuralist framework of analysis is required. Such a framework must be capable of explanation at varying time scales and should be broad enough to encompass the social, political and economic dynamics of contemporary Botswana.

A political-economy framework has been identified as the most promising for analysing the history, contemporary existence, and trajectory of the Botswanan social system. This section, therefore, lays down the theoretical foundations for an analysis in later chapters, of the development history of Botswana. The political-economy approach which has been applied to Botswana by Parson (1982), provides an explanatory framework for the evolution of Selebi-Phikwe as a resource based, urban settlement. The theory incorporates some modification by Parson and lends itself to a structured interpretation of processes and structures peculiar to Botswana. The theory is directly relevant to a consideration of the precarious nature of urbanisation in Selebi-Phikwe and the potential for this condition to emerge in other mining towns in Botswana.

2.4.1 The Role of History

Bradbury (1979) has pointed out that the phase of *historical capitalism* being examined, is important in the construction of theories on the development of mining towns. Implicit in his work is the notion of process; in a dynamic, historical sense. Past processes and developments, as is the case in Botswana, have been instrumental in modelling and conditioning present patterns of politics, economy and society. An analysis of resource based towns in Botswana would not be complete without an understanding of the constraints that the colonial past imposes on the present. Thus future predictions and recommendations for mining settlements must take due cognizance not only of present conditions but of antecedent processes and controls as well. A knowledge of the history of such settlements enables the construction of a continuum of current and future change which will be alluded to frequently in the following chapters.

2.4.2 Political Economy and Development Theory

Parson (1982) has proposed an effective theory of development based on an empirical analysis of the political-economy of Botswana. His work arises from a recognition of a widening disparity between the industrialised and developing countries despite (or because of) growth of the world economy. As discussed earlier, a dichotomy between "haves" and "have nots" is to be found also within Third World countries where national, economic growth may be substantial, but uneven in its location. Parsons attempts to account for this phenomenon through a new theoretical formulation.

In his study on the Botswanan economy, Parson found extant theoretical bases of explanation for both growth and change, and their consequences, unsatisfactory. The schools of thought based in the "dependency" and "modernisation" paradigms in particular, were taken to task. Both approaches were found to be inadequate as tools of explanation though both were seen to offer something of value. They made sense of some aspects of growth, change, social and political control, and the effects of an internal and international division of labour. In Parson's view, however, both schools exhibit major shortcomings in that neither reaches to the intellectual roots of its respective paradigm, nor do they take each other seriously. An apparent impasse is the result.

In their place he proposed a theory of development based on a political-economy approach. The approach, in the tradition of Marx, is rooted in a coherent set of theoretical constructs and a distinct methodology.

2.4.3 Fundamentals of Society

Parson (1982) notes that, in essence, "human society is characterised by the history of relationships defining the production of goods and services" (p.2). This is the foundation of the idea of a political-economy. Such a theory seeks to understand relationships which have characterised production and distribution in a historical framework. Concepts of mode of production, class, state, and the dialectical character of human society are used as bases of analysis. These facets of human material existence are interrelated and all define the whole (ibid.).

2.4.4 The Mode of Production

Fundamental to the theory of political-economy is the concept of a mode of production (MOP) which is composed of two primary elements; the means and the relations of production. The basic notion of a mode of production incorporates the idea of the interaction of the means of production, which include resources and technology, with the social and political relations of production. A mode of production is distinguished by its social relations of production expressed through a pattern of ownership and control of the means of production and through political and ideological relations of production. Thus, "Political relations of production define the ideological, administrative and coercive patterns of social control necessary for production to take place" (Parson, 1982, p.3).

In the study of the majority of post-colonial societies in Africa, a penetrating understanding of the Capitalist Mode of Production (CMP) is of particular relevance. In that mode the primary motivation, "is the production of surplus value" (Marx, Capital vol. 3, p. 880). Surplus value, "arises from the expenditure of labour beyond that necessary for social reproduction" (Parson, 1982, p. 2). Surplus value is further realized in the circulation of commodities in the market. The social and political relations of production condition and control the production of surplus value and actively work to dispossess direct producers. Social and political mechanisms regulate and reproduce the process over time.

2.4.5 The Notion of Class

Collective relationships between Class and State actualize, socially and politically, the abstraction which is the mode of production (Parson, 1982). In essence the concept of class is a social one. Classes are relative to one another and are linked through shared relationships. Power in society is actualized through the State, in the context of class relationships. The "great divide" between those who have possession and economic ownership and those who do not is basic to the function of the CMP (ibid.). This implies an unequal distribution of ownership and control and the idea of conflict. As a central contradiction of capitalism, conflict in Samoff's (1982, p. 4) words, "will be organized around the efforts of competing groups to control wealth (value) and, therefore, production (the creation of value) and the organization of production (the distribution and appropriation of value)". This occurs in the context of a separation or distinction between those groups which control wealth or value (the bourgeoisie) and those which produce and create value (the proletariat).

Embodied in the State relations of power in the CMP, is the domination of propertied over property-less classes. It is the task of the former to ensure a perpetuation of a process of capital accumulation (realization of surplus value through extended reproduction).

2.4.6 Social Change

A political-economy approach recognises that modes of production are social entities and that society is dynamic. This dynamic, dialectical conception is an important element of historical perspectives which seek to identify continuity in the social and political relations defining broad types of modes of production (Parson, 1982). As alluded to earlier, Bradbury (1979) has suggested that the dynamism of mining towns is rooted in their specific contexts which is conditioned by their particular histories. It follows, therefore, that the political-economy perspective, with its emphasis on historical change, has the potential to make sense of resource based settlements of the kind which occur in Botswana.

2.4.7 Multicausality

Parson's theoretical formulation as applied to the political-economy of Botswana makes sense of and places in context current problems of `development'. Through an analysis of past conditions from pre-colonial times to the present it seeks a multi-causal explanation for potential future instability in the economy and by extension, is applicable to the urban system in Botswana. As Lonsdale has correctly suggested in the study of Africa:

> **"It seems... Profitable to work with a set of what might be called axiomatic uncertainties, each dependent upon the initial premise that for any reasonably significant historical development, mono-causal explanation is *ipso facto* wrong" (1981, p. 140).**

2.5 PRIMARY RESOURCES, DEVELOPMENT, AND URBANISATION

The foregoing discussion has dealt with the issue of development in the Third World and its failings in a general sense. It has been suggested that the idea of development which is sustainable over long time horizons is applicable to the problem of continuity in mining towns. Political economic theory was suggested as a useful conceptual framework for understanding the problem of unsustainable development in mining and other contexts. The next section considers development of a particular type and its links with resource frontier settlements. Theories which have arisen out of studies on the exploitation of non-renewable resources are discussed with regard to the effects of economic dependence on mining towns. A number of case studies from First World countries are presented prior to a discussion of mining in the Third World.

The issue of non-renewable resource exploitation has attracted considerable interest from development theorists (see, Ginsberg, 1957; Perloff and Wingo, 1964; Seers, 1970; Mikesell, 1971, 1980; Govett, 1976; Bosson and Benson, 1977; Bradbury, 1979; Sideri and Johns, 1980; Sousson, 1988, among others). Natural resources are widely recognised in the literature as the starting point of development. Terms of reference reflect this. Geographers and regional scientists for example, refer to the "export base", which is paralleled by the economic historian's use of the "staple theory" of development in the description of similar processes (Chisholm, 1982). In essence, both terms allude to a situation in which exports of primary resources from a region or nation initiate growth (synonymous with `development' here). The staple theory is particularly associated with the Canadian economic historian

Innis (1930, 1936) and this framework was adopted by Caves and Holton (1959) for their own study of Canadian development.

2.5.1 Export Base Theory

North (1955) considered the more general concept of export base theory by focussing on intranational development rather than on growth in national or international terms. He identified external demand for one or more locally produced goods as the impulse for development at a regional level. Although North was thinking of agricultural goods in particular, such products might also be of a forestry or mineral nature. North envisaged a cumulative process by means of which reciprocal rise in demand for locally produced goods and services would be generated by surplus income arising from an export industry. Local accumulation could lead to a more thorough processing of export staples (greater value added) resulting in infrastructural improvements. Further opportunities for development would be created and external scale economies could be realized. As a variant of the more general stages approach, which visualizes a progression from primary production to manufacturing and services (Rostow, 1960), export base theory implied that the production of primary resources initiated a ***sustainable*** path of development on a regional scale at least. This view was held by List as early as 1885 and in later years by Clark (1940) and Seers (1970).

2.5.2 Economic Adaptation

Such an optimistic linearly based progression of development appears to hold for the industrial regions of Britain, Western Europe, the USA and USSR, which originated on coal fields in the nineteenth and early twentieth centuries. Linear development supposes that exploitation of a primary good will in time lead to a more sophisticated activity based on its exploitation. Chisholm (1982) recognises, however, that it was a particular combination of factors which conspired to stimulate development. The process has been well documented by Wrigley (1962) for the major European industrial zone or what he terms the "Austrasian belt" of coalfields running from Northern France (Pas-de-Calais) to the Ruhr in Germany. Wrigley noted that the region had experienced a long history of settlement and industry which only came to be based on coal in the middle of the last century. Significantly, these were areas intrinsically favourable to human habitation due to climate, terrain and varied resource availability. Exports here were of manufactured goods rather than of primary raw materials. Consequently, with the decline and exhaustion of coal within their vicinities and the replacement of other resources by imports, major centres were able to adapt their economies and survive the cessation of the original enterprise.

Chisholm (1982) points out that much the same process was true of Britain. The reason why Britain was in the vanguard of industrialisation, was related in large part to the availability of most necessary materials in close proximity to long-settled areas. That factor, reinforced by the existence of populations accustomed to trade and manufacturing, engendered long term developmental and settlement stability. More specifically, the on-going viability of the economic system was instrumental in fostering the relative stability of urban centres. Diversity of human enterprise and a flexibility of response to changing social and economic conditions ensured that urbanisation progressed at sustainable rates.

2.5.3 Mining Towns and Instability

In contrast to the foregoing examples it is useful to consider a thesis developed by Bradbury (1979). He drew attention to the problems of "resource based" settlements in Canada; settlements created for the sole purpose of extracting a particular mineral or suite of minerals. He sites the example of Shefferville, an iron ore mining community, which, as a single resource, single company town, is highly dependent upon external conditions and company decisions taken at distant headquarters. Its vulnerability to outside influences means that the township can be abandoned as has happened with Sudbury in Ontario and Buchans, Newfoundland (Bradbury, 1979). For Bradbury, these circumstances provide evidence of "dependency" and "unequal development" in a capitalist economy dominated by multinational companies.

Innis was aware of the transitory nature of mining towns as early as 1936: the population of Yukon fell by 80 percent between 1901 and 1921 in response to the exhaustion of gold deposits and the lack of other opportunities in the area. Chisholm (1982) draws attention to the fragile and restricted economic base of communities living in the Canadian north. Problems of a similar nature are experienced in the Soviet Union, a major `non - capitalist' economy (Chisholm 1982). Weaknesses associated with resource frontier settlements have been widely documented in the first world by other writers (see for instance, Holland, 1976 and Rohe, 1982, among others).

Rohe (1982, p. 99) noted that mining towns produced a `distinctive' landscape and that, "unlike previous frontiers, the mining frontier achieved a widespread and almost universal degree of urbanisation...... ***urbanisation***, in fact, ***characterised*** the ***mining frontier***" (emphasis added). He also considered the notion of mining as a factor in enduring settlement. Based upon an examination of conditions in the American mid-west, Rohe deduced that mining settlements did not follow a steady and uniform growth pattern but directly reflected vicissitudes in the mining industry. In his view, fluctuations rather than progressive growth has characterised the development pattern of such towns. Typically, population growth was identified as gradually levelling off if more stable forms of mining followed or if other industries within mining towns became important. Only in rarer cases where other more enduring activities had developed from an initial mining base, did population numbers tend to stabilise in the longer term. In the absence of favourable conditions and a corresponding decline in mining activities, populations declined leading to the eventual abandonment of towns.

Rohe concluded that in the Canadian experience the majority of settlements brought into existence by mining, failed to survive and few have contributed to the development of stable regional economies and the permanence of settlements. Agriculture, lumbering, trade, and manufacturing may have developed around some mining towns and in certain instances, mining had fostered the growth of settlements within and beyond the goldfields. Whether such a stimulus for widespread and long term development is *generally* applicable to the genesis of mining towns, however, is questionable. While mining is an essential activity necessary to production that meets material needs, and clearly does, in the broader sense, generate economic advantages for a producer country, its wider implications for the stability and longer term viability of mining settlements is not sufficiently appreciated. Where mining settlements comprise a significant proportion of a national settlement system, as is the case in some southern African countries, the problem is often compounded by economic dependence, and should be a matter of the highest concern. The problem raises the issue of sustainable urbanisation.

Evidence from southern African contexts also suggests that frontier mining activity is likely to generate few multiplier effects. Urban places established and allowed to expand purely on the basis of mining may be subject to extinction. Historical evidence exists, for example, of the abandonment of nineteenth century towns established around diamond production on the Atlantic coast of German South West Africa. More recently, there have been cases of mining centres established in

Lesotho and in the northern Cape province of South Africa which have declined totally.

A recent conference hosted by the Geological Society of Namibia on "Environmental Implications of Prospecting and Mining in the Namib" (August, 1990), drew attention to the problems experienced with mining settlements in this southern African country. "Uis", a tin mine situated near Brandberg, faces imminent closure which has been prompted in part by the collapse of the International Tin Council (1985- see footnote no. 3). As a sizeable town has grown up around the project, the problem of dependence upon a single extractive industry is particularly acute. Namibia is reliant to a large degree on the mining sector which is problematic as there has been a downward trend in mining activity. This issue was highlighted at the conference; in 15 years time with few new mines envisaged in Namibia, mining activity will have been reduced to a mere 50 percent of current production levels. The life of Consolidated Diamond Mines (CDM), a De Beers subsidiary, and the backbone of the Namibian mining sector, has an estimated life of not more than ten or fifteen years at most, due mainly to the exhaustion of mineral reserves.

Urban sustainability, as the situation in Namibia demonstrates, reflects the conditions of the economic bases of mining towns. The problem once again raises the question of the sustainability of development.

As suggested in the introductory chapter, the problem of sustainable urbanisation in Selebi-Phikwe is rooted in a wider context of sustainable development and its contradictions in Botswana. It has been argued that the production of primary commodities is inherently unsustainable as a basis for development. This is particularly true with regard to the minerals industry in the South. The reasons for this are varied and complex and are related to the organisation of the world economy and the structure of the international minerals industry.

2.6 SUSTAINABLE DEVELOPMENT: THE CONTRADICTION OF MINERAL EXPLOITATION

Resource exploitation is one of the cornerstones of Third World development. Minerals perform a linking function in trade flows integrating the Third World into the world economy. In many developing countries this has given rise to a situation of critical dependence on mineral export earnings which are used to fuel the development process. Problems arise as a result, because mineral producing countries have little influence over their own fate. The industry is dominated by transnational companies (TNCs) which frequently, with the assistance of First World governments, represent the interests of First World consumers. Producer countries have very limited control over the markets of their mineral products and are in effect at the economic mercy of the developed world. Third World attempts to improve their position have been thwarted as a result. The contemporary downward trend in world mineral prices has exacerbated the situation.

The solutions to these problems lie in the complexities of the wider development process. Debates over the impact of mineral production on Third World countries cannot be separated from the wider context of the general development debate. Basic problems facing the South include underdevelopment and poverty which have given rise to gross inequalities, economic stagnation, and environmental destruction.

Some Third World countries have, however, achieved significant increases in the living standards of most of their populations. As noted in the introductory chapter, Botswana is an exceptional example in Africa of such contemporary `development successes'. A comparable success in southern Africa was that of Zambia in the decades of the nineteen fifties and sixties. The World Bank economist Andrew Kamarck (1967) suggested mining as the only possible propellent of rapid African advancement:

> **"The exploitation of mineral resources has been and will probably continue to be, for at least the next decade, the only rapid way open to some African countries to bypass the slow and laborious process of economic growth through agricultural development" (p. 133).**

In countries such as Zambia, however, a false dawn of rapid economic growth based on copper exports has been followed by the darkness of economic stagnation and decline. It is suggested that Botswana has the potential for a similarly short lived economic success. In essence, dependence on a limited number of non-renewable resources unsupported by a wider development process raises important questions about the future resilience of this apparently stable country. Broadly stated, should mining production in Botswana and in the South generally, be regarded as a developmental end in its self or should it perhaps be seen as the means towards ***real*** development?

In order to place the mineral industry in Botswana and Selebi-Phikwe in particular, in a world setting, the following discussion focuses on the minerals industry and is mainly focused at an international level. This entails an exploration of the ways in which mining activities integrate mineral producers into the world economy and an examination of who benefits from this industry and why.

2.6.1 The Nature of Resources

In an economic context, resources may be defined as anything that contributes to the production process:....

> **"Resources take many forms, but all reflect a relationship between human wants, abilities and appraisal of the physical universe. In other words, a resource is a resource only within the confines of the needs and objectives of a given economic system, and more specifically of the social, technological, economic and institutional characteristics of that system. In an economic sense, resources do not exist; they are created" (Soussan, 1988, p. 2).**

Resources have been classified in a number of ways (see Blunden, 1985; Fernie and Pitkethly, 1985). Soussan (1988) has simplified the issue by making a useful and basic distinction between ***flow resources*** (soils and forests, for example, whose availability can be depleted, sustained, or increased by human actions), ***stock resources*** (effectively non-renewable except over geological time eg. minerals) and ***continuous resources*** (available on a continuous basis and independent of human action; resources such as tidal and solar power). This categorization has been based on the physical properties of resources rather than on their basic economic characteristics. In the latter sense it is important to distinguish between resources which are commodities (ie. subject to private property rights or possessing "exchange value") and those which are ***free goods*** (lacking exchange value and therefore non-commercial).

Soussan notes that there is a degree of overlap between these two ways of classifying resources. Continuous resources tend to be free goods, whilst most stock resources and many flow resources are commodities in the modern world. This varies between places and over time. Whereas in the past, many more resources were free goods; the extension of the global capitalist economy has led to the commodification of many previously free resources. Stated simply, resources previously lacking an exchange value have become commercialised as the global economic system has developed and changed. What was free, and in a (specific, anthropocentric) sense was valueless, now has value. Soussan views this change in the nature of control of resources as a reflection of a, "transition in modes of production" occurring throughout the contemporary Third World (Soussan, 1988, p.3).

2.6.2 Minerals and Scarcity

As stock resources, mineral resources have a finite supply. In principle, the global stock of a mineral diminishes as it is used. Furthermore these stocks are location specific which has a number of implications regarding sustainability:

> **1 Mineral deposits exploited at present will not be available to future generations. This introduces the concept of scarcity associated with resource depletion.**
>
> **2 The recovery, processing and transportation of minerals incurs unavoidable costs. These vary with the labour costs and technology available for mineral exploitation and with the quality and location of the deposit.**
>
> **3 Mineral prices on the world market reflect both the purpose for which they are needed (their use value) and perceptions of the quantity available both now and in the future (their scarcity or exchange value) (Soussan, 1988).**

The reality of minerals and their future is not as simple as these statements would suggest. While in principle mineral resources exist in finite quantities, in practise the extent of that quantity is a matter of conjecture. This is so, for a number of reasons; firstly geological exploration is incomplete, secondly minerals in nature tend to be found in heterogeneous packages, and thirdly economic and technical constraints limit the proportion of a mineral which can be exploited (the recovery rate). The last factor has played a particularly important role in mining operations in Selebi-Phikwe. These `unknowns' lead to uncertainty regarding the quantity of mineral resources likely to be available in the future and questions the degree to which they are in fact finite.

Three standard definitions have been used to assess the quantity of a mineral:

Proven reserves refer to known deposits which are both recoverable with current technology and are economically viable at current prices. These constitute a small fraction of the material in the earth's crust. As far as most mining operations are concerned, this is the most relevant and realistic definition of resource availability as it incorporates the concept of economic viability.

Resource base is a highly theoretical concept which considers an estimate of the total quantity of a given material contained in the earth's crust. It provides no indication of the quantity of a mineral ever likely to be available to society. The notion of the resource base does give some indication of the abundance of many supposedly scarce minerals but says nothing about the feasibility of extraction.

Ultimately recoverable resource is the most useful of the three concepts as an indicator of the quantity of minerals which will be available for human usage. The U.S. Geological Survey, developed it originally and defined it as 0.01 percent of the material in the resource base. In essence the concept refers to an estimate of the quantity of a mineral which will be recovered given certain assumptions regarding future extraction and processing technologies and future costs and prices. The fact that the estimate is based on future variables makes such a concept highly elastic and variable. In considering the future viability of a mining industry such as that in Selebi-Phikwe, however, it makes little sense to consider the notion of an ultimately recoverable resource as there is a high degree of uncertainty and prevarication surrounding such measures. Certainly, the original estimates of ore availability have been revised more than once in this particular example, but for reasons which will be considered in greater detail in chapter seven, the life expectancy of mining operations in Selebi-Phikwe is of a particularly finite nature.

For copper and nickel, as for most minerals, the size of the proven reserves changes constantly according to discovery and depletion rates. High prices and demand stimulate exploration leading to the growth of reserves. Odell (1986) has shown in the case of oil for example, that despite an increase in oil consumption in the 1970-85 period, exploration efforts led to a significant increase in the proven reserves of oil. The converse is that when prices are low (or uncertain), proven reserves of a mineral may well diminish in size. This is dictated by the breakeven point for production of the particular mineral, which determines the viability of a particular mining operation. Thus "proven reserves" are subject to fluctuations in the prices of minerals and to the cost of extraction.

It appears then, that the scarcity of minerals is true in a real sense, but this scarcity is often a reflection of interrelated economic and technical constraints rather than of the absolute constraint of the exhaustion of finite resources. The notion of scarcity is crucial as control of the world's mineral markets is governed by perceptions of imminent resource depletion and information about resource availability.

2.6.3 The Geography of Mining

Mineral production in `Southern' countries, as is the case in Botswana, does not take place in isolation from the world economy. The nature of the political and economic linkages that may be shown to exist between the North and South is crucial to an understanding of international development processes. These linkages not only facilitate trade in mineral resources but are also necessary for the production of such commodities. The relationships involved are generally asymmetrical and are instrumental in integrating the South into the global economic system.

In general, the Second World (the Eastern bloc), in comparison to the First World, has in the past been a less active participant in the international minerals market. This is not as true in the present but even today, the Second World is not a major participant (Soussan, 1988).

Demand

The bulk of demand for most minerals comes from a few advanced capitalist industrial nations. Six countries (United States, Japan, West Germany, France, Italy and Britain) accounted for between 49 and 57 per cent of total global consumption of the five leading non-ferrous metals (aluminium, copper, tin, nickel, and lead) in 1983. The USSR represented 20 per cent of the remainder (World Resources Institute, 1986). The pattern is true for most minerals, with some being characterised by even higher levels of consumption. Iron is a major exception as consumption is spread more evenly (Soussan, 1988). This pattern of the concentration of demand for minerals reflects the structure of the world economy. Consumer demand and industrial production is similarly concentrated in the First World. The implications of this are manifest in the investment strategies of the major mineral companies, which have tended to concentrate refining processes in the First World (see Pallister et.al.,1988).

Supply

The production of minerals is by contrast, mainly but not exclusively concentrated in the South. Two groups of producer countries may be identified. First there are those producers which are either part of the First World or are closely allied with it

(United States, Canada, Australia and South Africa) and which produce a wide range of minerals. Second is a number of Southern producers which mostly, including Botswana (diamonds and copper/nickel matte), depend on one or two main minerals. In many cases mineral production forms the basis of their export earnings (over 80% in the case of Botswana) and is the main source of income for the development strategies of these developing countries. Zambia for example, is totally dependent on a single product with over 90 per cent of its export earnings based on copper. As suggested earlier, this country represents a particularly extreme example of dependence which has placed it at the mercy of the international market, exaggerating the impact of price fluctuations. The vulnerability of the Zambian economy is paralleled in the structure of the economies of Botswana, Chile and Zaire where prosperity is similarly tied to the world minerals industry.

2.6.4 External Dependence and Mineral Pricing

The paragraphs above have noted that many major Southern mineral producers are dependent upon these products for their export earnings and by implication that their economic health is determined to a major degree by pricing on the international markets. Two trends have emerged in recent decades regarding the international price of most minerals and have had an adverse impact on the economies of the main mineral producers.

Firstly, there has been a long term deterioration of the terms of trade of commodity producers (for both minerals and agricultural products). In essence, the value of commodity exports has declined relative to the value of manufactured products. As the latter are mainly exported from the industrial countries this has contributed to a widening disparity between North and South. The highly influential UN Economic Commission for Latin America (ECLA) argued that Latin America and other Third World countries, as exporters of primary products and importers of manufactured goods, were disadvantaged by the long term tendency of the terms of trade which have turned against them (Black, 1989). The situation is a direct result of a far slower rise in the price of minerals relative to other products. Value, as noted earlier, is flexible in response to market forces. The *Financial Times* (14 January, 1987) pointed out that non-fuel commodity prices had declined by 25 per cent between mid-1984 and the end of 1986. In real terms they reached their lowest level since the Depression of 1929 (Soussan, 1988).

A second trend which may be identified regards the volatility of mineral prices in the short term. The trend naturally varies from mineral to mineral, but all have been characterised by episodic rises and falls in prices over periods of short duration. A further factor influencing the future of mining activities in the South and mineral producers overall, is that while such violent fluctuations in mineral prices have tended to obscure the picture, there has been a general ***downward movement*** over time.

The reasons for short to medium term mineral price fluctuations are complex. In essence, however, they reflect cyclical fluctuations of growth and recession in the world economy in general and in the Northern, industrial nations in particular. The following case is illustrative of the causes and effects of a temporary decline in consumer demand for a particular mineral.

Tanzer (1980) cites an example of the exaggerated impact of fluctuations on the economies of First World countries on demand for mineral resources. In 1970, a minor recession in the United States led to a 0.3 per cent drop in GNP. This was reflected in a 3.3 percent decline in sales of consumer durables (eg. refrigerators), demand for which is highly susceptible to economic fluctuations. The ripple effect was magnified, leading to a 12 percent decline in demand for copper (mainly used in consumer durables), which in turn led to a 34 per cent decline in the copper industry's overall profitability. In copper export dependent countries such as Zambia the drop in price had particularly serious consequences.

Regarding long term trends, price volatility has been influenced by changes in the nature of industrial production processes and the effects of concern over and the failure of mineral-producer cartels[3]. The stability of producer cartels is of critical importance to Botswana with reference to the Central Selling Organisation (CSO) which controls the marketing of global diamond production. De Beers Consolidated, a South African TNC linked to Anglo American, is responsible for

[3] That mineral producer cartels do not necessarily operate successfully, however, is demonstrated by the experience of the tin mining industry. Three South-east Asian and two South American countries were responsible for over three-quarters of non-communist tin production in the 1970s and early 1980s. A successful commodity agreement, the International Tin Agreement (ITA,) as an alternative to conventional producer cartels, was struck between producers and consumers in 1956 in order to protect both against short term price fluctuations. The International Tin Council was established in order to administer the agreement. An increase in non-member production of tin followed by a general decline in demand led to a costly accumulation of buffer stocks by the Tin Council. The upshot of this was a spectacular crash in the tin price in 1985 with the collapse of the ITA. The Bolivian economy nearly collapsed and in Malaysia, over 350 mines were closed and over 30 000 people were thrown out of work (Soussan, 1988)

most diamond mining in the world and operates in tandem with the London based CSO. As the largest diamond mining organisation in the world, De Beers and the CSO handle 80 to 90 percent of the world diamond production which reaches the open market. Botswana is an important diamond province in the De Beers cartel with current production levels exceeding those of South Africa (see Pallister *et al*, 1988).

The diamond monopoly is strictly controlled with reference to marketing arrangements. Diamond prices are maintained by restricting supply. De Beers not only stabilises diamond prices, which have not fallen over several decades, but by limiting production and stockpiling, manages to maintain prices at a monopoly level (Colclough and McCarthy, 1980). This issue and the way in which it relates to urban settlements centred around diamond production in Botswana and to the development future of the territory, will be considered in greater detail at a later stage.

2.6.5 Transnational Corporations and the International Minerals Industry

What emerges from the foregoing discussion is an appreciation of the profound implications which trends in mineral prices have for Southern countries dependent upon mineral exports. The effects have been evident in their inability to develop alternative sectors of their economies. Furthermore, long term trends in mineral prices in recent decades have favoured Northern consumers to the disadvantage of Southern producing countries. Development potentials in those countries have been severely affected. This, as Soussan (1988) shows, is a reflection of the way in which the world's mineral industries are organised and the role of TNCs in the process is of particular importance. In questioning the concept of sustainable urbanisation in mining countries it is important to recognise the niche they occupy within the world economy.

The forthcoming discussion hinges on the operations of the production agents involved in the mining, transportation, processing and sale of minerals. World production has become increasingly dominated by a few transnational corporations (TNCs). These huge conglomerates are mostly, but not exclusively based in the North. The pattern of transnational domination of the mining sectors of developing countries is a reflection of the operation of the world's mineral industry.

Within the highly competitive and unstable mineral markets in which TNCs deal, their main concern is to maximize long term profits. This objective is met by policies and strategies designed to guarantee the security of investments and to minimize the risks inherent in the volatile industry. The operational characteristics of these companies and of their strategies are thus of central importance in understanding the impact which mining might have on Southern producers. Transnational production agents and their operation will be examined in broader world terms in the following paragraphs. Discussion around this topic will lay the foundations for an analysis of the corporate structure of the mining transnational engaged in production in Selebi-Phikwe in chapter seven.

2.6.5.1 Funding of Mining Ventures: Risk

Uncertainties inherent in the production process contribute to risk in the mining industry. Many uncertainties stem from technical problems inherent in mineral production, others as discussed earlier, reflect the structure of mineral markets and the political context within which production occurs. In the case of Selebi-Phikwe it was noted in the introductory chapter that certain technical problems had compounded the problem of uncertainty surrounding the continued operation of the mine. The above problems are by no means limited to the experience of Selebi-Phikwe. Uncertainties of this type in the minerals industry explains why, in part, mining ventures are generally undertaken by TNCs. Discussion of this is expanded in the following sections.

2.6.5.2 Exploration

The first stage in production is exploration for new deposits. Here the first area of uncertainty is encountered. The exploration process itself is costly and highly technical. Furthermore, companies are normally required to pay the host government for concessions (carrying with them the right to develop any deposits discovered). The risk is obvious as only a small percentage of exploration efforts lead to the discovery of economically exploitable deposits.

2.6.5.3 Lag Effect on Returns

A second major area of uncertainty relates to the long-term rate of return on mining investments. Initial investments today are usually of the order of billions of dollars, and are rarely less than $100 million. Risks associated with such huge investments are compounded by the long development times involved. As Soussan (1988) has noted, at least ten years generally passes between the discovery of a major mineral deposit and the first production. The time from discovery to full production rates may also be extended due to unforeseen technical problems, which contributes to budget overruns and in some instances, escalating debts.

The risk of committing such large sums of capital for long periods is compounded by the volatility of mineral prices in the short term. Long term decline in prices, entails an obvious further danger for a TNC. The lag between investment and return can contribute to the destruction of the profitability of an investment before mining even commences. Consequently, TNCs expect and try to ensure very high rates of return before committing themselves to such investments.

2.6.5.4 Minimisation of Risk

The close relationship between upturns and downturns in the economies of the North, and in particular of the United States, and demand for minerals has been illustrated earlier. Soussan (1988) has suggested that the uncertainties outlined above have been further compounded by the competitive nature of modern capitalism, competition from other producers, the risk of nationalization of foreign-owned mining operations and by co-operation between Third World producers of particular minerals. In the context of uncertainty, mining companies thus tend to be more concerned with risk minimisation than with profit maximization. The outcome has been the construction of distinctive corporate strategies which have important implications for the relationships which exist between TNCs and the South.

2.6.5.5 Economies of Scale: Mining TNCs

Soussan (1988) has compiled a table which ranks selected countries and mining corporations by GDP and annual sales, from World Bank (1986) and *Fortune Magazine* (1984) figures. The study gives an idea of the scale of operations of the major mining TNCs which rank as economic giants. Exxon, the world's largest oil producer, for instance has a level of economic activity which exceeds that of the economies of all but a handful of the largest Third World countries. AMAX (USA), one of the major shareholders in the Selebi-Phikwe venture, is included in the list of the top 35 mining corporations in the world. While it is true that the non-oil companies are not in the same league as the oil giants, they are still extremely large. The size and economic power of mining TNCs is of paramount importance as it may permit such companies to dictate the economic policies of producer countries in which they operate.

The TNC phenomenon has been a feature of the development of the world's economy since World War 2. The process of capital concentration has been partly due to the growth in the international economy and partly to the process of mergers and takeovers which currently dominate business life (Corbridge, 1986a). As a consequence, TNCs have become increasingly complex, diverse, and sophisticated organisations. Pallister *et al* (1988) in their study of the Anglo American Corporation, for example, likened it to a "South Africa Inc." in terms of the scale, penetration and complexity of it's organisational structures. Scale is particularly important for the mining TNCs, as it permits them to absorb the large element of risk associated with the mining industry. As outlined earlier, the investments in mining ventures are vast and the uncertainties involved are correspondingly great. Large scales of operation have tended to become an increasing necessity for these TNCs in order to survive in such a risky and competitive business.

2.6.5.6 Reactions to Dependence on TNCs: Nationalisation

The question of whether countries involved in mining and other industries dependent on transnational investment and expertise should seek to have a majority of the equity in a particular company, has been the concern of much of the literature on investment in developing countries. The economic might of the TNCs has placed them in a powerful position regarding the negotiation of exploration and mining concessions with Third World producer countries. Their resources and sophisticated organisation frequently places them in a dominant position in these negotiations. In the past, this enabled TNCs to virtually dictate terms and conditions which brought few benefits to the countries whose mineral deposits they were exploiting (Caldwell, 1977). Producer countries have reacted to the situation by developing aggressive stances which have in some instances led to wholesale nationalisation of mining production[4], the development of state-owned mining

[4] Zambia followed such a policy from 1970 with the state takeover of the Zambian copper industry (51% shareholding). Many of the profits from Zambia were reinvested by AMAX, (the U.S. based holding company) in mining ventures in other Third World countries. The mine in Selebi-Phikwe was funded partly from this source (Pallister *et al*, 1988). Nationalisation has, unfortunately, been less than successful due to a decline in the price of copper, general inefficiency and a lack of control over marketing and refining related to the structure of the international minerals industry.

companies and moves towards producer cartels[5]. Such `defensive' measures have largely failed for a number of reasons, not the least of which is the position Southern producers occupy in the world economy.

Nationalisation in Botswana has never been a political issue. There was no history of exploitation by transnationals in the territory and in any event the country, at the onset of independence had neither the financial resources nor any of the expertise to contemplate a nationalised sector. Colclough and McCarthy (1980) argue that there has been a tendency to exaggerate the value of both 51 percent participation by a government or complete nationalisation. Furthermore as Penrose (1976) points out, unless a country has the necessary managers and engineers, and has access to marketing and technical information, it is doubtful if nationalisation brings much actual control. This appears to have been borne out by the Zambian experience.

Taking a longer term view, however, Colclough and McCarthy (1980) have observed that a mining company, which has the necessary detailed knowledge and access to finance and technology has, at least in theory, an element of choice with regard to potential projects in various countries. It is thus likely to hold a commanding position. Over the passage of time, however, as investment increases in the project undertaken, this position is steadily eroded, while that of the government in producer countries is enhanced. This is reflected in the now classic pattern experienced in many less developed countries, where generous initial mining concessions have been followed by their renegotiation on terms more favourable to the host government. Events in Botswana have conformed to this pattern.

2.7 THE SEVEN HEADED TRANSNATIONAL

In order to reduce risk, TNCs have developed a number of corporate strategies. As discussed above, expansion has been a core technique adopted by TNCs in order to retain a competitive edge in the capitalist world. Another strategy is ***diversification*** designed to combat ***dependence*** on a limited range of activities. This is part of a broader process whereby few TNCs are now single product businesses (see Stopford and Dunning, 1983). While the dangers inherent in dependence are generally recognised by Third World governments, they are rarely in a position to follow the example of TNCs due to their lack of bargaining power in the global economy.

[5] OPEC is probably the best known example of this and contributed briefly to the `energy crisis' of the mid-seventies. It's hold on the international oil market has, however, not stood the test of time.

This is perhaps, the crux of the problem of attaining stability and sustainability in development and urbanisation in countries such as Botswana.

The Canadian experience of the average base metal mine indicates that the benefits which are subsidiary to the physical mining process are considerable. For instance; each dollar from mining, accruing to GDP is partly derived from inputs from suppliers to the value of 50 cents. In addition, there are two jobs generated in the supply sector for each job in mining. For each dollar of refined product, 1,7 dollars accrue to industry. The result is that over 60 million dollars of new wealth are earned by each average base metal mine (pers. comm. Dr. R. Miller, Geological Society of Namibia, 1990).

The above statistics indicate that in the Third World mining context, with limited associated processing and refining of base metals, there is a net outflow of wealth from the South to the Northern industrialised nations. Furthermore, given that many of the employment opportunities associated with the mining process are generated by value added industries located in the First World, the potential for more widely spread development in Third World countries with a strong mining sector is limited. The form this dichotomy between the primary resource (located in the South) and secondary industrial sectors (located in the North) takes, is related to the nature of mining TNC organisation and is discussed below.

2.7.1 Horizontal Diversification

The process of horizontal diversification is particularly well illustrated in the structure and activities of the Anglo-American Corporation (AAC) and its subsidiaries (Pallister *et al*, 1988). AAC, initially a large mining TNC, has become increasingly involved in a range of economic activities, many of which lie outside the mining sector. Lateral expansion of this nature has frequently involved the movement of companies into industrial processes related to the minerals they produce. Anglo, initially involved in gold production on the Witwatersrand has spread its investments widely, through its links with de Beers (diamonds). These include a range of industrial activities, resulting in Anglo attaining a stake in most industrial production in South Africa. This includes the manufacture of beer by the Anglo subsidiary, South African Breweries (SAB), and involvement in food and machinery production of a varied nature. In more recent years the company has become involved in diverse activities which extend beyond the borders of South Africa

2.7.2 Vertical Integration

Mineral production is only the first stage in the production of commodities. Others will include initial processing of the ore, transportation of the concentrates, secondary refining, initial manufacturing and finally the manufacture of finished products.

Each of the production stages may be located in a different place which in itself holds advantages for the TNC and corresponding disadvantages for the raw material, producer country involved. Most Third World mining sectors are characterised by this international division of production and manufacturing. In effectively `selling' to themselves, TNCs are guaranteed an outlet for the minerals produced (and a supply to their refineries) which grants them far greater control over the industry. There are corresponding disadvantages for the producer countries involved as multipliers are negligible and development around mining is consequently narrowly based. This is true of the Botswanan minerals industry.

Vertical integration occurs through the expansion of a mining company to include two or more of the stages of production within its own sphere of operation. Each stage is associated with costs, risks and profit opportunities. The process has become characteristically associated with mergers or take-overs, rather than with new ventures.

2.7.3 Transfer Pricing

A second important advantage of vertical integration for TNCs relates to the profits which might be made at each stage of production. Where different stages are located in different countries, transnationals can also take advantage of different tax regimes by loading costs and minimizing profits where taxes are high and inflating profits where taxes are low (Soussan, 1988).

The process is commonly referred to as transfer pricing where tax differentials are exploited by separating production and processing geographically and is a routine device used by mining companies in developing countries to export revenue. Transfer pricing, while it may be used by multi-plant national firms when transactions between different factories are valued, acquires a particular significance in the context of TNCs because of the international nature of their operations which involve a number of currencies. The danger lies in the possibility that TNCs may manipulate such prices in order to disguise profits or shift funds internationally (Jenkins, 1987). This is made possible by the use of non-market-based prices which are extensively used by TNCs in their intra-corporate trade (for studies of this see Benviganti, 1985; Lecraw, 1985). A common method is for a mineral to be sold to a company in a foreign country at lower than the market price, with the difference being deposited in one of the producer's foreign bank accounts. This can result in a substantial loss of government tax revenue. A refinement on the above approach has been used to handle the metal produced from the Selebi-Phikwe mine. This is dealt with in more detail in chapter seven.

2.7.4 The South and Consumer Demand

The paragraphs above show that much of the processing of minerals mined in the South takes place in the North in plants owned by TNCs. The situation furthers the interests of Northern based TNCs who, as suggested earlier are in a position to take advantage of the declining price of primary resources relative to manufactured (processed) goods. Furthermore, vertical integration along with the various mechanisms for transfer pricing, is able to circumvent some of the loss of profits experienced by TNCs in countries where the mining operation has been nationalised (as in Zambia, for instance). Though there has been a degree of growth of state-owned processing and refining plants in the South (in Zimbabwe, for example), most minerals are still exported unprocessed or subject only to the initial stages of concentration (as in Selebi-Phikwe). While there are internal factors limiting the scope of Third World processing and mineral-based manufacturing as in Botswana's case (see AMAX's influence in chapter six), import barriers placed upon processed goods by First World countries (which are the main market) have had as constraining an influence. No such barriers exist for primary commodities. In the South generally and in Botswana's case particularly, small populations and lack of local demand also restricts the scope for the development of processing capacity. The economy of scale issue is of particular importance to the situation in Selebi-Phikwe and the implications of the resultant separation of consumption and production is considered in detail in the penultimate chapters.

The cumulative result of mining development for most Third World Mineral producers has been an increasing and unhealthy dependence on First World capital and expertise. There has been little or no associated `development' and a broadening of the industrial base. The copper/nickel industry considered in this research will be shown to be a classical example of enclave type development which has not contributed to wider more sustainable development.

2.8 CONCLUDING REMARKS

The current chapter has been directed towards understanding the broader developmental context within which Selebi-Phikwe specifically, and Botswana generally, are located. An examination of linkages between the North and South in terms of the operation of transnational companies suggests that the problems experienced in this particular mining town cannot be analysed in isolation from the operation of the regional and world economies.

Mining inevitably leads to the rise of towns which service the industry. The exploitation of primary, non-renewable resources as a stimulus and economic base for an urban settlement system, however, is a short sighted policy which takes no cognizance of the finite nature of such an activity. Problems arise when suitable arrangements for the future decommissioning of the mine are not incorporated into the initial planning for the mine, and associated settlements become the focus of further urbanisation. That thinking on development in Third World countries frequently emphasises the mining sector poses a serious problem for it imposes a state of vulnerability and inherent unsustainability upon urban places established in association with mining activity. Few studies, however, have examined this issue.

In the South particularly, attempts by mineral producing countries to improve their position in the world market, to enable their vital resources to be used in broadening the base of development have proved to be largely unsuccessful. Mining as a developmental ***end*** thus incorporates a fundamental contradiction regarding sustainability. Urbanisation and modernization which are exclusively based on this economic activity are subject to failure sooner or later.

It is apparent that the experience of Selebi-Phikwe as an urban place existing in precarious dependence on external forces, is by no means unique. The degree to which the potential for economic and developmental diversity have been constrained in this particular case study, furthermore, is indicative of a broader malaise in Botswana's developmental history. While the current chapter has been directed towards a more general understanding of the world minerals economy and the niche that mining towns such as Selebi-Phikwe occupy within it, evidence suggests that this particular town has been shaped by more than international structures. In order to ascertain how and why Selebi-Phikwe was created and developed, or why mining itself came to constitute the central focus of `development' expenditure in Botswana, requires a structured analysis of the historical forces and processes which have conditioned the present.

SECTION 2

POLITICAL ECONOMY APPLIED:

THE DEVELOPMENT HISTORY OF BOTSWANA AND

ITS INFLUENCE ON CURRENT TRENDS

CHAPTER 3

PRECOLONIAL BECHUANALAND: SUSTAINABLE ECONOMY AND SOCIETY

"The pre-modern history of every industrial country provides evidence that traditional political and social relationships, including serfdom and slavery, indenture and tenancy, affect the evolution of social and political relationships in the course of industrialisation" (Stadler, 1987, p. 35).

3.1 INTRODUCTION

An examination of Botswana's pre-modern history is the concern of this chapter. It lays the foundations for an analysis of conditions of underdevelopment which have characterised more recent periods in the country's history. Knowledge of processes in both the pre-colonial and colonial eras sheds light on the conditions which underlie instability in the contemporary Botswanan urban system including Selebi-Phikwe. Furthermore, such knowledge aids in the prediction of the settlement's future as an urban entity.

The period considered here spans the years from 1800 to 1885 when the Protectorate was declared. The pre-colonial era was characterised by a pre-capitalist, economy and settlement system. An urban class in the contemporary sense was lacking. As a transitory period of structural change in Botswana, the latter half of the nineteenth century was witness to a progressive decline in Tswana autonomy and was a pre-cursor to a process of dependence and underdevelopment which has extended into the post-colonial era.

Details of processes which emerged during the pre-colonial era have been gleaned from a number of secondary sources and have been interpreted in the light of a political-economy framework of analysis. It enables the continuum of change in the territory to be clearly identified. Such analysis (Parson, 1982; Stadler, 1987)[1] contextualises the current position of urban and economic instability in Botswana as a whole and in Selebi-Phikwe in particular.

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[1] **Stadler (1987) has considered the political economy of South Africa in terms of the incorporation of the region into the world economy. He traces the effects of a process of industrialisation under the dominance of mining on the other sectors of the economy. The parallels with Botswana are obvious in terms of the evolution of a migrant labour system and associated class structures.**

3.2 PRE-CAPITALIST SETTLEMENT: SUSTAINABILITY AND EQUILIBRIUM

Archaeological evidence indicates that a considerable population and settled life existed in Botswana in the early and microlithic Stone Ages and in the Iron Age (see Hitchcock and Smith, 1982). In understanding the more recent history of the country, however, it is useful to analyse the society in the period immediately prior to contact with European enterprise.

As one of the three major divisions of the Sotho group of Bantu speaking peoples, the Tswana are thought to have entered southern Africa from the north at the time of the Bantu migrations. The population groups who inhabited Botswana in the pre-colonial period were derived from this common stock, although migration of other groups into the territory from the Transvaal, occurred at different times in the eighteenth and early nineteenth centuries. Of the eight principal groups, seven, including the Ngwato, Kwena, Ngwaketse, Tawana, Kgatla, Tlokwa, and Rolong are directly descended from the original Sotho migrants. The eighth tribe, the Lete, are an N'debele group which have completely assimilated Tswana custom and language. Human society was concentrated in the eastern portions of the country where permanent water supplies and land which could be cultivated were available (Colclough and McCarthy, 1980).

In a later period, refugees from colonial wars in German South West Africa and Angola contributed to the common stock as small groups drawn from the Herero, Kalanga, Koba and Mbukush migrated into the territory. Subordinate, non-Tswana, peoples were often incorporated into the dominant Tswana society, occupying particular niches in the social structure (Parson, 1982).

The hunter/gatherer Sarwa or Bushmen were the poorest and most oppressed elements of the population and were forced into the inhospitable Kgalagadi (Kalahari) desert by the early Tswana immigrants. Lacking any fixed property and with no recognised legal rights, they occupied a feudal position as serfs under their Ngwato and Kgalagadi conquerors. Some subsisted as hunter gatherers outside the tribal areas. The Sarwa (Bushmen) society where it continued to exist as a distinct formation, was based upon a system of reciprocity; a mode of production cast in the form of primitive communism (see Godelier, 1978).

A continually reoccurring feature of Tswana history was, "for part of a tribe to secede under a discontented member of the ruling family and move away to a new locality" (Schapera, 1952 p. 15). Thus, as Tswana society evolved and absorbed the existing inhabitants of earlier societies, the new groups divided and subdivided. Legassick (1969, p.102) describes this as, "a process of intermingling and presumably acculturation between the members of the newly arrived lineage-cluster and the earlier inhabitants" of the region. Tswana society was further characterised by, "the fragmentation of a number of lineage-clusters which dispersed themselves widely" throughout southern Africa (ibid, p. 106).

3.2.1 Self-Sufficiency and Sustainability

Pre-colonial Tswana society was characterised by self sufficiency, and relationships arising from kinship and reciprocity which ensured redistribution. The land satisfied most wants and provided a balanced diet of sorghum porridge, milk, meat, beer and vegetable dishes. A combination of hunting and craft manufacture of household goods, together with production of cattle (including milk) and crops (including gathering), satisfied subsistence requirements and left a small surplus for festive occasions and trade in limited volume (Parson, 1982). Tools and household implements were home made from raw materials which included iron, clay, wood, animal skins and grasses (Tlou and Cambell, 1984). Such products fulfilled certain cohesive social functions. "All these goods were required in the first instance for maintaining the household itself. But every man owed certain forms of gifts and tribute to his kinsmen, neighbours and chief, so that he worked not only to satisfy his own domestic needs, but also his obligations to others" (Schapera, 1971, p. 105).

3.2.2 Social Organisation

Administration of the tribal territory was undertaken by the headmen of villages and wards. The mode of production characterising Tswana society at this time was pre-capitalist as there was no separation or distinction of direct producers from the means of production. Under a system of common rights to land, the chief's responsibilities included the allocation of land, free of charge to members of the tribe for purposes of cultivation, cattle grazing, and home construction. While personal accumulation of cattle and other resources was unrestricted, no-one had private or exclusive rights to game or other natural resources and hunting and gathering was a right accorded to all. This meant that all had access to subsistence in a system where commodity production was not the dominant objective (Parson, 1982).

Tswana society was not communal and lacked absolute or even relative equality. The basis of stratification was not class, as in capitalist, industrial society, but status as determined by social and political relations defined by age, sex, inheritance and ethnicity or what Amin (1976) describes as a "tributary social formation", a distinct mode of production. Durkheim (1964) describes such societies as being characterised by "mechanical solidarity" in which commodity production was restricted to the limited needs of external trade, monetisation of exchanges was limited and most, if not all, production was for use. The organisation of Tswana society was hierarchical and was legitimated by an ideology of tradition. Later colonial advocates of "indirect rule " attempted to adopt the political framework of this pre-capitalist society in the administration of the territory without acknowledging that the society though legitimated by tradition, was flexible to a large degree (see Comaroff, 1978).

The chief spearheaded the national political hierarchy. His powers were wide and included decisions concerning land allocation, the making of new laws, and adjudicating disputes. Wards (groups of related households) constituted the basic unit in a hierarchy of subordinates through which political power was organised. Social surpluses in the form of tribute were collected by the political elite. These were largely in kind and included both perishables and labour, much of which was redistributed (Parson, 1982).

Ecological contrasts found in Botswana strongly influenced human settlement. Featureless expanses of sandy terrain and limited rainfall supporting no more than a bush savannah type of vegetation, cover much of the country. Two-thirds of the land area falls in the semi-arid Kgalagadi (Kalahari) Desert which lacks permanent sources of fresh water (Picard, 1987). The conditions contributed to the concentration of people in large villages which differs from the tradition of most Bantu tribes. Although village concentration took place for reasons of defence, it was due mainly to a paucity of dependable sources of water. The tribal capital functioned as the home of the chief and was the centre of the political and social life of the tribe. All important meetings and gatherings were held at the site (Sillery, 1965).

'Towns' in the form of nucleated settlements constituted the base for ordinary Tswana for not more than five months of the year. A Tswana `town', as Burchell (1822) noted over a century ago, is really a collection of villages, each village being the habitat of a ward. Wards consist of family groups, "forming a distinct social and political unit under the leadership and authority of an hereditary headman .... who has well defined administrative and judicial powers and functions" (Schapera, 1938, p. 19). It should be stressed that such `towns' were essentially agglomerations of villages and were effectively rural features with none of the characteristic class based features of the urban centres of the contemporary period. There was no centralised and structured urban settlement system and limited possibility of generating the necessary surpluses for the support of an urban or `town' based elite. The following paragraphs consider the function and layout of the pre-colonial Tswana settlement system.

3.2.3 The Characteristics of a Rural Settlement System

Internal migration or oscillation of people between village and country was a feature of Tswana society even prior to the arrival of colonialism. A high degree of mobility and of economic interdependence remain features of rural life in Botswana even today. Arable lands (*Masimo*) lay outside the village at distances of up to sixteen kilometres or more (Schapera, 1933). Most families had a small homestead alongside their gardens in which their members resided during the agricultural season. Land was readily available and gardens were generally scattered due to the uneven distribution of rainfall over the country. By locating gardens in more than one locality, people had a reasonable means of securing a crop despite the vagaries of climate. From November, with the commencement of the ploughing season, village life came to a standstill with all activity being concentrated in the gardens (ibid.).

Beyond the gardens lay the cattleposts (*meraka*), often a day's journey or more from the village. Cattle were kept here all year round although the cattleposts themselves were temporary shifting affairs. According to the season, their location generally alternated between the vicinity of river beds in the dry season and inland areas of rangeland where fresh pastures existed during the summer rainy season. Young men and boys tended the cattleposts. The owners often visited the posts and occasionally made lengthy stays (ibid.). Those men poor in cattle or lacking cattle entirely, acted as herdsmen for their more fortunate fellow-tribesmen.

Within the household itself, a division of labor structuring productive and socially reproductive tasks, occurred. Men tended the livestock, cleared and ploughed new ground for crops, built houses and were, "the primary political authorities in households and in the nation" (Parson, 1982, p. 6). Women occupied a subordinate position, rearing children and undertook most agricultural burdens as well as household tasks.

Although cattle played an important role in the life of pre-colonial Tswana, they were not regarded as a means of subsistence in the way that agriculture was. Cattle functioned as the medium in which bridewealth (*bogadi*) was paid, in which fines were levied at the tribal court (*kgotla*), and in which other economic transactions, including the payment of tribute, were carried out (Schapera, 1938). A man's wealth was estimated by the size of his herds, with quality a secondary consideration to quantity.

In addition to providing it's own food supply, each family was responsible for producing articles for domestic use. An exception to self-sufficiency was the production of iron goods such as hoes, spears and axes, which were produced by iron smiths in return for cattle and grain. On the whole, however, little internal trade of any importance took place, apart from the exchange of food commodities. As Parson (1982, p. 7) points out, "Production was responsive to the opportunities offered by the environment and political and social relations. It's limits were the limits of technology, nature, and the limits of its social and political relations". With the introduction of a cash economy and of taxation, this pre-capitalist form of self-sufficiency, autonomy and sound ecological practise which characterised `traditional' Tswana society, declined in importance.

3.3 EARLY EXTERNAL INFLUENCES ON TSWANA SOCIETY

Technological innovation and trade in the first three quarters of the nineteenth century brought about significant change through the stimulation of economic growth and development. Economic change was stimulated by contact with European merchant capital which penetrated traditional Botswana society through the agency of the existing form of state. The changes were complex, and differed in certain important respects from those which were occurring elsewhere in Africa. Parson (1982) points out that autonomous selection of innovations was possible within the framework of pre-capitalist society, through discretionary participation in the market. This allowed for the possibilities of growth and change within the pre-capitalist economy and state.

3.3.1 Strategic Considerations

Colclough and McCarthy (1980) note that foreign interest and involvement in the area which is now Botswana, stemmed not so much from its attraction in terms of resources, but rather from its proximity to South Africa. Afrikaner expansionism was to threaten Tswana autonomy for most of this period. Boers who had trekked into the western Transvaal looked north to Bechuanaland as an outlet for their acquisitive aspirations.[2] The country beyond, was viewed as their natural sphere of expansion and they immediately began to exert pressure on the tribes living to the west and north of them. Pushing north and west out of the Cape, they had by 1880, made serious inroads into southern Bechuanaland as it was becoming known in Europe. Parson (1982) views the action as essentially a conflict between two similar types of economies. Land and cattle were required by both in order to undertake pastoral and crop farming. Armed conflict resulted; the outcome depending upon the available arms and alliances.

In the face of Afrikaner territorial incursions, the Tswana sought contact with others who could at least aid in maintaining Tswana independence. Their only allies were the agents of the London Missionary Society, who commanded support in humanitarian circles in Britain. Hence an interest grew in missionaries and European merchants who could provide firearms and ammunition. Robert Moffat had established his mission station at Kuruman in 1820, in an area just south of the present Botswanan border. The activities of the London Missionary Society were extended further north, with the arrival of David Livingstone in South Africa in 1841. Livingstone attached himself to the Kwena led by Chief Setschele in 1847 and built a mission on the Kolobeng river, just west of the present capital of Gabarone (Colclough and McCarthy, 1980). Such alliances were to have a formative influence on Botswana's history and became important in the Tswana struggle to remain independent.

The presence of merchants and missionaries was important from an economic perspective as well. The efficiency of Tswana production was enhanced through the

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[2] The territory under consideration was not formally claimed or named by Britain at this time. In 1885 it was divided up into British Bechuanaland and the Bechuanaland Protectorate. See pg. 73.

introduction of improved agricultural techniques by missionaries. Furthermore an ability to deal with the outside world was fostered by the missionary contact (see Crowder, 1988). It was to become an invaluable skill in seeking British support against Boer aggression in later years. Commercial interests in the Cape Colony were alive to the possibility of trade with the interior. Merchants trading in ivory and ostrich feathers, introduced guns in exchange. The efficiency of hunting was increased in the process. Cheap household utensils were also provided along with ploughs for crop production. By the 1880s, the development of the wagon trade from the Cape to the interior and the servicing of that trade in Bechuanaland, had reached a zenith (Sillery, 1965). The foundations for a cash economy were laid down during this period (Palmer and Parsons, 1977).

The chiefs allocated residence and trading rights to missionaries and merchants. Parson (1982) makes the point that this development was one, more or less controlled and directed through the mechanisms of the Tswana political structure. European technology and commodities were selectively and beneficially incorporated through an adaptation of political institutions to the widening market context. This was possible because there was no need to fundamentally change the existing social relations of production. Traditional methods were merely improved, thereby increasing the surplus which was extracted as it always had been. In essence, the tributary class (Tswana nobility) received a greater surplus without resorting to the necessity of drastically intensifying exploitation.

3.3.2 Indigenous Control

The adaptation of existing social and political relations to the new situation was facilitated by the lack of immediate European interest in organising production itself. Merchants were happy to realize profits from trade without resorting to control of the market. With historical hindsight, Parson (1982) shows that this was a transitory phenomenon and that the long-term effect was the subordination of Tswana autonomy. Of significance is the point that Tswana society had alternatives and autonomous direction at this time which is relevant for subsequent developments.

3.4 AFRIKANER INFLUENCE AND BRITISH REACTION

British policy was opposed to the expansion of white settlement in southern Africa during the early years of the nineteenth century. Whilst the missionaries' initiatives in the north were welcomed, support for British involvement did not extend as far as providing any organised military assistance to Tswana groups threatened by Boer, territorial intrusions. The point is well illustrated by the British response to a Boer raid against Setshele in 1852 for example. The raid resulted in the capture of a large number of women and children prisoners and the associated sacking of Livingstone's mission (see Sillery, 1974) but it was met by no more than mild remonstrances on the behalf of the British Authorities. On the contrary, the independence of the Boer Republics of the Transvaal and the Orange Free State was recognised soon after.

Instances of Boer intrusions did not end there. Persistent attempts to extend westwards and to annex land occupied by the Tswana tribes followed in later years. Colclough and McCarthy (1980) suggest three main motives behind these initiatives. Firstly, the Boers believed that increasing British influence in the area would permit the control and regulation of the main route to the north. This ran from Kuruman to Shoshong, and British control of the route served as a barrier to Boer expansion. Secondly, the demand for more land by Transvaal farmers appeared to be limitless. Land acquisitions were supported by the Transvaal Government which recognised the ownership rights of all farmers who staked their claim, irrespective in many cases, of whether the land in question was already settled and worked by an African population. Finally, the territorial ambitions of the Boers were increased by the discovery of gold in the Tati area in 1867, and subsequently of diamonds on the Vaal river.

Although the Tswana had frequently requested the protection of the British Government, it had little interest in intervening in such remote conflicts. In its response the British Government was broadly supported by public opinion. By the middle of the nineteenth century, Britain had secured a vast informal empire of trade and commerce, supported by a world-wide network of maritime communications. A sense of complacency was engendered in British thinking and the conclusion was, that the Empire was large enough, if not already too large. In the assumption that the informal empire would remain open indefinitely to British trade there was no perceived need at the time to appropriate the great spaces of the world. Colonists were encouraged to take responsibility for their own expenditure and this included the costs of any conflict with native races. Territorial ownership was usually of a temporary nature and there was little desire to annex and govern backward tropical territories, with the notable exception of India, a vast empire of formal dominion (Sillery, 1965). South Africa and the complexities it represented posed a dilemma for the British government.

In 1867 Chief Matsheng of the Ngwato acting on the advice of the British missionary John Mackenzie, requested British protection of the Tati area. The Transvaal government issued a proclamation annexing much of northern Bechuanaland, shortly afterwards. British protest at the claim caused it to be dropped but at the time the prospect of more formal protection was not pursued. With the defeat of the British in the First Anglo Boer War in 1880 and the drawing up of the Pretoria Convention the following year, the boundaries of the Transvaal were formally delineated. They excluded the trade route north through Botswana. The London Convention of 1884 reiterated the agreement. It soon proved to be worthless, however, as renewed incursions by the Boers into Ngwaketse territory took place and resulted in the annexation of Goshen, a few months later. A strong force of troops under the command of Sir Charles Warren was dispatched from London in 1885 and order was reasserted in the area without recourse to fighting. British protection was subsequently established over Bechuanaland south of the Molopo, the southern border of present day Botswana (Colclough and McCarthy, 1980).

Subsequent developments indicate that the British were, perhaps, less concerned with the fate of resident Tswana groups in the area than with securing access to colonial territories further north. The British government had become increasingly concerned about the threat that the Germans in South West Africa and the Portuguese on the east coast, represented to the unclaimed territory in the central part of Southern Africa. More specifically, their presence posed a serious threat to the route used by the British between the Cape Colony and Central Africa. Accordingly, Warren's mission was enlarged to include the extension of British protection to the territory south of the 22nd parallel. The proposal was welcomed by the three principal chiefs; Khama of the Ngwato, Setshele of the Kwena, and Bathoen of the Ngwaketse. The territory which is now Botswana south of latitude 22 degrees south was declared a protectorate on 30 September 1885. The territory south of the Molopo and north of the Cape Colony was, however, proclaimed to be a British colony under the name of British Bechuanaland (ibid.).

3.5 CONCLUDING REMARKS

As suggested by Parson (1982), early European influences on Tswana society were initially beneficial in terms of trade, and introduced a process of economic growth and development. Although, self-sufficiency was reduced as a result of the later introduction of a cash economy, the system could incorporate this change and Tswana autonomy was preserved in the short term at least. In the long term, however, the circumstances initiated a process of subordination of Tswana autonomy leading to dependence in later years.

As Redclift (1987) has argued, the transformation of the environment in developing countries is linked to the development of market economies and commodity production, which has served to undermine traditional resource uses and the ecological systems on which they depended. This is true of the Botswanan experience.

The discussion of Botswana's early history lays a foundation upon which an analysis of the process of how and why Botswana came to be structurally underdeveloped in later years may be constructed. Botswana's early, pre-colonial economy and society, although relatively undeveloped and utilising low levels of technology was nevertheless in equilibrium with the constraints imposed by an inhospitable climate and environment. No significant forms of urbanisation existed and the system of nucleated village settlements did not encourage major growth and expansion. The theme of stability is particularly relevant to the question of the continuity of urban settlements in contemporary Botswana. It suggests that social and economic organisation in Botswana has undergone a fundamental change from a state of balance and equilibrium to one of imbalance and instability. This has been in essence, due to a shift in modes of production from the pre-colonial, pre-capitalist mode to the capitalist mode in recent times.

Events in the latter half of the nineteenth century demanded of the Tswana that they choose between Afrikaner domination or `British' protection. The lesser of the two evils was chosen and the unclaimed territory became a British protectorate. Of particular importance to an understanding of future neglect in the colony is the fact that Bechuanaland was appropriated by Britain for strategic rather than economic motives. The cumulative result for the Tswana was economic neglect and more seriously; structural underdevelopment. Development where it did occur was of an incidental nature.[3] It is during these early years of colonial contact with indigenous society that the seeds of future instability were sown. Knowledge of this pre-capitalist period is essential for an informed understanding of the dynamics of contemporary urbanisation in Botswana.

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[3] The British South Africa Company's construction of a railway stretching from Mafekeng through the eastern side of the Protectorate to Rhodesia is a prime example of this.

CHAPTER 4

COLONIAL CAPITALISM AND THE FOUNDATIONS OF DEPENDENCE

> **(The British), "instead of spending money and thought on developing their resources and, still more important, raising the general standard of their peoples (had been content) "to protect them from outside interference, leaving them to carry on under a very unprogressive form of indirect tribal rule as museum pieces, human Whipsnades in an Africa that was being transformed at a breathless pace" (Amery, 1953, p. 415).**

4.1 INTRODUCTION

The issues raised in the last chapter with regard to sustainable development and by implication, sustainable urbanisation in Botswana generally, and in Selebi-Phikwe in particular, have been noted by Rodney (1972) in a wider African sense. He suggests that colonialism provided Africa with no real growth points. In his view the colonial town in Africa was essentially a centre of administration rather than industry. Although the towns did attract large numbers of Africans, they offered them little more than a very unstable life based on unskilled and irregular employment. Towns indeed, played a secondary role in expanding the base of production. At a more fundamental level, primary colonial activities such as mining and cash crop farming instead of increasing economic growth, speeded up the decay of "traditional" African life. Rodney (1972, p. 254) notes furthermore that, "The capitalist forces behind colonialism were interested in little more than exploitation of labour. Even areas that were not directly involved in the money economy exploited labour".

The predicament facing development and urban planners in Selebi-Phikwe in particular, is more than a simple manifestation of contemporary processes and events. The problems are structurally rooted in Botswana's colonial era and in identifying these historical influences the position facing Selebi-Phikwe in the 1990s is more clearly understood.

This chapter thus focuses on events and processes initiated in colonial times, which have influenced social, political, and economic structures in contemporary

Botswana, and which have effectively restricted development alternatives. As the previous chapter shows, the implementation of Protectorate status in Bechuanaland was a reluctant move on the part of Britain and was motivated by strategic necessity rather than by economic or purely humanitarian reasons. The effects were manifest in what is usually referred to as benign neglect but which were to result ultimately in structural underdevelopment.

In the second chapter, Parson's (1982) political-economy approach was outlined as an aid to a structured, more formalised, approach to understanding historical processes in Botswana. This approach was used in the previous chapter in analysing the pre-colonial period. It is equally useful as a means of analysing the colonial and post-colonial periods.

Particular attention will be paid to the processes which set in place the pre-conditions for underdevelopment. The creation of labour export structures which channelled migrant workers into industry and mining on the neighbouring Witwatersrand in neighbouring South Africa, is of particular significance. For the sake of clarity the period spanning the years between the declaration of protectorate in 1885 and independence in 1966 will be organised chronologically on the basis of discernable sub-periods.

4.2 1885-1966: STRUCTURAL, SOCIAL AND ECONOMIC CHANGE

The eighty year period which extended from the declaration of the Protectorate in 1885 to 1966, the year in which Botswana attained political independence as a state, may be divided into three sub-periods (Parson, 1982). The proclamation of the Protectorate saw the beginnings of a transitional period lasting a decade, in which the nature of the wider capitalist interest in southern Africa underwent significant change. The colonial state matured in the period between 1895 and 1945 with the evolution of Bechuanaland as a labor reserve colony. This period more than any other, exerted a structural and formative influence on Botswana's course of development in the post-independence period. It represented a significant change in relations in the spheres of production and political organisation. As a feature of colonial capitalism, the "peasantariat", a migratory working class, emerged and matured as the characteristic class of the labor reserve. In political terms the real autonomy of Tswana political institutions was destroyed and the role of indigenous institutions such as that of the chiefs was bureaucratised. The late colonial period from 1945 to 1966 saw a transition to a post-colonial formation and the maturation of some of the contradictions which had emerged in colonial capitalism.

4.2.1 1885-1895: From Pre-colonial to Colonial

Significant change occurred in the 1880s as the demand by European countries for exclusive colonial territories abroad, grew. Maturation of capital in the European economies involved a growing shift away from merchant capital to industrialisation, which required increasing quantities of mineral and agricultural materials, and expanding markets. This necessitated closer control and influence over not only trade, but colonial production itself (Parson, 1982)).

These macro-economic tendencies, combined with mineral discoveries of gold and diamonds, and the threat represented by Afrikaner aspirations, created an environment for more direct European intervention in southern Africa. In that context, British strategic interests in the broader southern African sphere were to exert a major influence over the later development history of Bechuanaland. A combination of factors was to usher in the turn of events.

British concern for the territory arose from the threat of territorial expansion exerted by Afrikaners in the Transvaal on the one hand, and of German expansion from its new colony in South West Africa, on the other. It was also stimulated by Rhodes's vision of a British sphere of influence stretching from the Cape to Cairo, which included the establishment of a new British colony to the north of the Transvaal. Control over Bechuanaland would enable a road leading through Bechuanaland to the north to be secured. Moreover the potential wealth of southern Africa within the growing British empire had been highlighted by important mineral discoveries in the region (Sillery, 1965).

The indigenous Tswana population of Bechuanaland were assailed by forces over which they had little or no control. Their concern was primarily centred on the preservation of their independence and autonomy. In meeting the challenge of these largely external forces they chose what was perceived to be the least of two evil choices and aligned themselves with the British. As a result a British protectorate was proclaimed over Bechuanaland in 1885.

British motives for intervention in Bechuanaland had less to do with a humanitarian desire to `protect' the Tswana peoples, than with a justifiable means of safeguarding her own interests by forestalling Afrikaner and German expansion. The requirement for an inexpensive administration was met by entrusting Rhodes's British South Africa Company with the responsibility of ensuring the `protection' of the indigenous inhabitants of Bechuanaland. In return for his trouble, Rhodes was allowed to develop a railway line to Rhodesia and the company was given land on which to establish settlers. Economic development of the territory was of secondary importance to strategic considerations and even the construction of the railway, as a means of opening up Bechuanaland, was only incidental to the establishment of communications between South Africa and the Rhodesias. This was to result in the observation that, by the late 1920s, "the Bechuanaland Protectorate was one of the most backward territories in Britain's colonial empire" (Crowder, 1988, p. 3).

By 1895, Company rule had failed as a cheap solution to the problem of administration in this "backwater" of the empire. Furthermore, the economic and political base of the Tswana had weakened. A deputation of chiefs, escorted by missionaries was dispatched to London requesting direct British Government administration. Imperial and native interests coincided in this instance as the B.S.A. Company had engaged in activities detrimental to British government interests.[1] The chiefs' requests were granted and a British colonial administration took over the task of governing the territory. Indirect rule which co-opted and adapted indigenous structures of authority was implemented to administer the territory at a local level. The upshot of the exercise was that the Chiefs were, in theory, left to rule as they had previously done (Sillery, 1965). The reality, however, seldom corresponded with the ideal as Comaroff's (1978) work in British Central Africa shows. This will be expanded upon at a later stage.

4.2.2 Urban Development

Bechuanaland, for most of its history, was a rural society to all intents and purposes. The oldest and essentially only urban centre in Bechuanaland was that of Francistown which is situated near the Tati River and was based on the discovery of gold in 1866. This attracted a number of individual miners and companies to the area but by 1871 only a few prospectors and the London and Limpopo Company

[1] Most notably, this included the Jameson Raid which was launched on Johannesburg from neighbouring Bechuanaland on 29th December, 1895 and was to soil the reputation of both Rhodes and the Company with which he had hoped to achieve his visionary aims.

remained at the settlement (Hailey, 1953). Most fortune seekers had expected to find rich alluvial gold occurrences and were poorly equipped to deal with the gold bearing quartz. The Tati area was considered a "no man's land" at this time as it was claimed by both the Ngwato and the Matabele. By 1918, the Francistown District was held by the Tati Company and was partly occupied by the Tati Native reserve. Although gold mining had ceased to be a matter of any importance by the time of independence, Francistown had grown to become the largest town in Bechuanaland.

Lobatse situated southwest of present day Gaborone, was the only other urban settlement established prior to independence. Based primarily on the processing of beef products from the cattle industry, Lobatse, like Francistown, contained less than 10 000 people at independence. In both of these `modern' towns, production was essentially centred around primary products for export purposes, with limited associated manufacturing occurring.

Labour coercion (by indirect means) played a particularly important role in the evolution of economic and state structures in Botswana. In Bechuanaland, the establishment of a colonial administrative apparatus did not, however, foster the growth of towns (apart from Francistown and Lobatse) within the country. The administrative capital at Mafeking indeed, lay outside the territory in neighbouring South Africa. Under the system of Native Administration it was assumed that the greater part of the population would continue to exhibit the characteristics of a pastoral or stock raising people. As Hailey (1953, p. 164) pointed out, "though they (the Tswana) may tend to congregate as before at tribal headquarters or in villages of some considerable size, this does not mean that they will become urbanised".

The "agrostads" or capital villages of Tswana chiefdoms or kingdoms, although representing relatively large conglomerations of people, were based on an essentially non-capitalist mode of production. By the late colonial period, economic activity in these rural settlements could not be described as being pre-capitalist as the existence of the migrant labour system had transformed the existing mode of production; it was not, however, capitalist as wage labour as such was lacking within the Protectorate (Cooper, 1982).

Tswana settlement was thus still essentially based on the pattern of internal migration between village and agricultural and cattle lands considered in the last chapter. The growth of an urbanised Tswana class in the Protectorate was not within colonial interests as an examination of emergent labour export structures shows.

4.2.3 1895-1945 Colonial Capitalism and the Rise of a Labour Reserve

The period prior to the second World War was once aptly described as "the locust years":

> **"Having reluctantly assumed responsibility for the High Commission Territories, Britain proceeded to neglect them totally for fifty years. Such development as has taken place, whether political, economic or social is, in all three, effectively a post Second World War phenomenon" (Halpern, 1965, p.108).**

Parson (1982) has identified the period between 1895 and 1945 as a time of European imperialism and underdevelopment in Bechuanaland. Forces of colonial economic expansion in southern Africa, set in motion by the industrial revolution in Britain and Europe, were to transform the early Bechuana landscape. In particular, rural self-sufficiency was undermined in the British Protectorate. The previously autonomous and self sufficient societies of the Tswana were imposed upon by capital in its search for resources and labour (ibid.). Similar processes have been identified in the development of the South African landscape, though there they included the wholesale expropriation of black owned land.[2]

Bechuanaland, in the fifty years following the demise of company rule in 1895, became a labor reserve colony, supplying cheap labour to South African mines. By the turn of the last century, roughly 40 percent of the land area of Botswana comprised the `reserves' of the colonial administration, each historically populated by a separate tribe (Colclough and McCarthy, 1980). The remainder of the land was mostly unoccupied and undeveloped, bar for a small area (3 percent of the total) set aside for European farmers. Economic conditions in the colonial reserves were such that self-sufficiency was impossible and employment had to be sought beyond their boundaries and beyond the boundaries of the Protectorate itself.

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[2] For an account of this, see Colin Bundy's, Rise and Fall of a South African Peasantry, (1980). The most obvious parallel with what occurred in Bechuanaland, was the requirement by European mining capital for a proletarianised reserve army of labour. In south Africa this was created by separating people from the means of production; land in this case. In Botswana less coercive means were employed to the same end of producing a reliable, stable, work force.

The process of migrant labour became an integral part of the socio-political system of Bechuanaland. This was noted by Schapera in 1947 when he opened his analysis of migrant labor with the observation that, "one of the outstanding features today in the life of the Native Peoples inhabiting southern Africa is the continuous flow of men and women to and from European centres of employment, especially in the Witwatersrand and other areas of the Union" (1947, p. 1). In Botswana the process was attained without resort to the more open forms of coercion experienced in South Africa (see the 1913 Land Act, for instance).

4.2.4 Administrative Self-Sufficiency

Two major factors were instrumental in determining Bechuanaland's labor reserve status. Firstly, British economic interests in Southern Africa required a reserve pool of unskilled labour to satisfy mining requirements. Secondly, while the Protectorate lacked opportunities for generating employment, revenues had to be found to cover the cost of administration, albeit an inexpensive system. The solution was to articulate the traditional redistributive MOP of the Tswana with the evolving capitalist MOP, founded on mining in South Africa.

The British government required that the Bechuanaland administration should become self-sufficient and self-reproducing in as short a time as possible. Taxation and adequate administration could achieve these goals. In meeting these goals, the formerly autonomous, tributary, social form of pre-capitalist society was replaced by coercive capitalist structures. Agricultural produce and wage labour was extracted as a means of raising the necessary funds. That this ultimately served the combined interests of the British colonial administration and of mining capital in neighbouring South Africa was not coincidental. The cumulative result for the people of Bechuanaland was an ***induced dependence*** on ***external employment opportunities***.

4.2.5 Indirect Rule and its Influence on Labour Migrancy

Indirect rule became the inexpensive answer to Britain's problem of administering this particular territory. The `traditional' system of tribal rule was adapted and the chiefs became in effect, agents of the ruling colonial power. The chiefs, however, walked a "tightrope", in their role as go-betweens for the District Commissioner, on the one hand, and as mentors of the tribe on the other. A division of loyalties was an inevitable result.

The beauty of the system for the British, lay with its relative ease of implementation and low cost. Indirect rule required few structural adaptations of Tswana society and "traditional" administrative structures. Local chiefs and headmen were destined to play a key role in colonial administration. The position of the Tswana chief was one of authority and prestige,: "He is the symbol of tribal unity, the central figure round whom the tribal life revolves. He is at once ruler, judge, maker and guardian of the law, repository of wealth, dispenser of gifts, leader in war, priest and magician of the people." (Schapera, 1938, p. 62). The chief was a privileged member of the tribe and was treated with great honour and respect. In return, the chief owed his people many duties and obligations. The task of administering their affairs, watching over their interests, deciding their disputes, maintaining law and order, and hearing disputes and grievances fell on his shoulders (Sillery, 1965).

In indigenous society, checks against royal despotism were provided by various councils which assisted the chief in governing. These included a group of advisors drawn from his own senior relatives, who were called together to discuss informally and confidentially all matters relating to the administration of the tribe. The next level in the hierarchy was composed of a formal council of headmen which met to discuss matters of general importance including disputes between the chief and his relatives. Finally there were assemblies of the whole tribe, summoned by the chief as the need arose and attended by all the men of the tribe (Sillery, 1965). Clearly then, the practicalities of everyday rule and the administration of tribal affairs were conducted in a climate of general concensus. An unpopular chief who chose to ignore traditional processes could be ousted with relative ease. This could occur if, by general concensus, it was decided that the chief's hereditary claims to the throne were flawed. This crucial aspect of flexibility was not taken into consideration in the system of indirect rule.

Where the British erred was in the adoption of Tswana successionary practises as fixed entities. In misinterpreting indigenous structures of authority, the roles of the headmen in local society were substantially changed[3]. The selection of chiefs, it is

[3] A discussion of such matters is found in articles by Gluckman, M., (1949) and Burke, F., (1958) with reference to colonial change in British central Africa. With regard to southern Africa, Comaroff, J. (1974) has examined the position of chieftainship in the homelands and Schapera I. (1947) has considered the problem and its influence on labour migrancy in the colonial reserves of Botswana.

true, was based on an established practise of tracing lineage in the male line. The chieftainship was hereditary and normally passed from father to son. Those aristocrats who could trace their bloodline directly back to the apical ancestor were in theory, unquestionably entitled to the position of chief. In practice, however, oral histories were flexible enough to include a measure of concensus as far as the issue of succession was concerned. In reality, effective limitations were placed on the chief's power, which provided guarantees against abuses. This is reflected in the oft-quoted Tswana saying; *kgosi ke kgosi ka morafe*, "a chief is a chief by grace of the tribe" (Sillery, 1965, p. 27).

The chief effectively controlled the economic life of the tribe, regulating the use of the land, and the sowing and harvesting of crops. This, together with the fact that he acted as intermediary between his people and the British Government, allowed him to play a crucial role in subsequent colonial developments. By implementing chiefs as agents of colonial rule, the British effectively legitimated their position and granted them a degree of permanence, regardless of their future popularity with their people. As a consequence the role of chieftainship was distorted to became an active component in the labour coercion process. A degeneration of tribal organisation was an inevitable result, as the possibilities offered by wage labour outside of rural areas provided an outlet for discontented elements in Tswana society. Rural production was also adversely affected as those who sought work on the Witwatersrand were the young and able bodied and hence those most valuable to agriculture and the rearing of cattle.

4.2.6 Capitalist Mining Production and the Demand for Labour

Colonial needs for a self-sufficient administration necessitated resources which required of Bechuanaland that it occupy a, "complementary niche in the developing British Empire" (Parson, 1982, p. 10). Production in Bechuanaland was severely limited. The territory appeared to lack significant mineral resources and a potential for marketable agricultural production. Chronic drought played an important role here and beef production itself was limited by the small size of cattle and by distances from convenient markets.[4]

[4] The Customs Union Agreement with South Africa (1910) was to the disadvantage of Bechuanaland as there was a weight restriction on cattle exported south. This prevented Tswana livestock owners from gaining a competitive edge over local South African farmers.

The colonial authorities did, however, recognise the protectorate's labour potential. Awareness of the labour resource was heightened by the proximity of British economic interests centred on mining on the Witwatersrand. The mining of diamonds and gold, particularly in South Africa in the late nineteenth and early twentieth centuries, required large quantities of unskilled labour. Supply of labour from local South African sources was complicated by conflicting demands that arose from South African Afrikaner agriculture and later manufacturing, on the one hand, and mining needs on the other. In avoiding the creation of a high cost urban proletariat and concomitant political problems[5], alternative sources of labour were sought by the mining magnates.

4.2.7 Potential Sources of Labour: The High Commission Territories

Mining capital looked to the relatively unexploited High Commission territories; Bechuanaland, Swaziland, Nyasaland (Malawi), Basutoland (Lesotho) and the colony of Southern Rhodesia as potential sources of labour. Furthermore, by developing a migratory labour system, the direct cost of that labour was lowered to a level below that of social reproduction.

Social reproduction costs ie. the cost of feeding, housing and educating children to a working age, were borne by the families in these territories and in native reserves within the Union. The migrant workers themselves were paid a wage sufficient to support a single person only; thus capital did not undertake to cover the costs of the reproduction of labour. Families in the homelands maintained a measure of access to local indigenous means of production and also provided the social security for the worker which capital neglected to provide. Thus, the initial function of the native reserves and of territories bordering South Africa was to provide capital with a reserve army of labour which was cheap.[6]

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[5] The creation of an urban black pool of labour would have entailed higher costs and could have led to demands for political rights in terms of property rights, higher wages etc. Such circumstances were not in the interests of mining capital.

[6] For the theoretical underpinnings of this interpretation see Marx, K., *Capital*, vol. 1, ch.25. With reference to the situation in South Africa, Wolpe, H. and Legassick, M. (1976) have studied the function of homelands and migrancy in the context of a demand for labour by mining capital. In a more general sense, van Onselen (1980) and Leys, C., (1975) discuss this issue with regard to underdevelopment in the wider African context. The points raised are of direct relevance to the situation of migrancy in Botswana.

4.3 THE COLONIAL STATE: DEPENDENCE AND UNDERDEVELOPMENT

4.3.1 Benign Neglect?

Picard (1987) questions the extent to which British economic policy was one of "benign neglect". The economic effects of colonial rule may be interpreted in two ways. Firstly, there is the view that British colonial policy, if it did little to develop the territory, was at least neutral in an economic sense and succeeded in protecting the Tswana inhabitants from South African domination, while leaving their social and economic systems intact. Furthermore, through the agency of a Protectorate, the independence of the territory was preserved. The process ostensibly left an independent Botswana in a position where it could cross "the development threshold" after independence (Knight,.1975, p.9).

An alternative view suggests that British colonial rule had a profound influence on Botswana and its economic status within the region. Parsons (1974) proposes that the result of British colonial rule was the subordination of what had been a previously viable pre-colonial African economy to a minor role at the periphery of the southern African space economy. Far from having a neutral economic influence, British rule resulted in the "structural underdevelopment" of the Botswanan economy.[7]

Picard (1987) has examined Britain's impact upon the Bechuanaland economy in terms of fiscal allocations, and has identified a pattern which clearly reflects a pattern of neglect. Budgets were kept to a bare minimum or below, and were parsimonious even by comparison with other colonial territories. In analysing Britain's regulatory policy, which suggests a wedding of Bechuanaland's economy with that of South Africa, he also concludes that British colonial decision making more closely approximated structural underdevelopment than of the neutral "benign" neglect.

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[7] Samir Amin (1976) has developed this thesis in terms of the causes and nature of underdevelopment and dependency in west Africa.

4.3.2 The Creation of Labour

The major economic impact of colonialism on Bechuanaland was pinpointed by Sir Alan Pim, as early as 1933:

> **"....The main factor in destroying the old subsistence economy has....been the introduction of a money economy, and more especially of taxation levied in money.....To pay taxes the Native has to raise money and he could do this only by selling his possessions to European traders or by going outside his reserve to earn money in European service" (cited in Picard, 1987, p. 106).**

The foregoing discussion has established that the British in Bechuanaland sought a cheap administration based on indirect rule, that economic opportunities were lacking in the protectorate, and that simultaneously, the mining industry in neighbouring South Africa demanded a large supply of unskilled labour.

This emerging demand for labour seemed to solve the problem of finding an appropriate niche for Bechuanaland in the emerging relations of southern Africa. Parson (1982) points out that a political and economic structure which would cause migration to happen was lacking. The previous chapter shows that heretofore, the Batswana[8] had voluntarily participated in market transactions because it was within their interests to do so. A life of migrant labour on the Witwatersrand mines with its associated low wages appealed to few. Clearly then, discretionary participation in the market had to be converted into non-discretionary participation.

4.3.3 Taxation and Non-Discretionary Participation

The Colonial administration in collaboration with the existing Tswana political structures (indirect rule) converted discretionary into non-discretionary participation through political or extra-economic means. The chiefs were beneficiaries of the system as they received a cut of the taxation they were entrusted with

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[8] **The term "Batswana" refers to the plural for the inhabitants of Botswana. "Motswana" describes the singular.**

collecting. This pattern came to define the nature of the Colonial State over a period of years:

> **"District Officers themselves have at times actively encouraged recruitment. This has usually taken the form of instituting a special drive against tax defaulters, the men being warned they will be prosecuted unless they pay their arrears immediately, if necessary by taking an advance from a labour agent" (Schapera, 1947, p. 151).**

In Bechuanaland, a hut tax imposed in 1899, followed by the Native Tax in 1919, required direct producers to participate in a market economy outside the closed circuit of self sufficient agriculture and craft production of pre-capitalist society (see Duggan, 1977 and Massey, 1980). The transformation of subsistence producers into a malleable peasantariat (peasants engaged in migrant labour) was fostered by a restriction of access to land, the formation of free-hold farms, and further limitations on access to land by the drawing up of territorial boundaries in 1899. The Customs Union Agreement with South Africa (1910) utilised discriminatory measures in the regulation of trade and marketing in cattle, Bechuanaland's major export commodity.

Schapera noted that such factors, "forced upon the people the necessity of finding a regular sum of money each year" and hence participation in the labour market of an external economy (1947, p. 1). Calamities such as the Rinderpest epidemic of 1896 decimated cattle herds and further eroded the economic independence of Tswana producers. Ettinger (1974) notes that cattle marketing was in any case restricted by the imposition of discriminatory regulations by South Africa in 1924. Other forms of participation by Africans, such as trade, were also restricted by the colonial authorities. Parsons (1975) observed that there were only ten African as against 155 European stores in Bechuanaland in as late as 1949. Opportunities for wage employment within the Protectorate itself, were consequently limited.

As a result of its dearth of employment opportunities, Bechuanaland was tied into the broader southern African economy as a subordinate participant. The Protectorate was dominated by South Africa not only in economic terms, but on a political level as well. Leading elements of the latter included the aforementioned Customs Union of 1910, close administrative liaison with South African government departments, and the financial integration of the territory.

4.3.4 Labour Migration

The previous discussion has established that a demand for labour existed on the Witwatersrand, and that simultaneously, adequate wage employment was lacking in Bechuanaland. The conditions for the conversion of Bechuanaland into a labour reserve were ripe. All that was required was a means of easing the migration process. This was ensured by the colonial government, through various government policies and regulations. Labour migration was controlled in a deliberate and consistent way by linking the overall administrative and economic policy for Bechuanaland with those of the other two High Commission Territories (Basutoland and Swaziland):

> **Sufficient monies were spent to ensure the simple reproduction of the minimum infrastructure necessary for the system of migrant labour to continue and other expenditures were kept as low as possible to ensure that there would not be opportunities within the Protectorate which would attract labour away from migration" (Parson, 1985, p. 62).**

The result was that labour migration steadily increased until, by 1943, nearly half of the men aged 15-44 were away from Bechuanaland at any given time (Schapera, 1947). As Parson observes, "That the wages were little and it required periodic migration for single workers, mattered little to the State or prospective worker. It was necessary" (1982, p. 12).

An appropriate internal set of political relations necessary to sustain the system was attained through the cooperation of the Chiefs. Thus the pre-capitalist society could be maintained in terms of its political context, while certain underlying social relations of production were changed. The continued real autonomy and independence of Tswana society was compromised as a result. "Parallel" and "indirect" rule were created as a collaborative set of relationships between the Chiefs, on one hand; and the colonial administration, on the other (Parson, 1982). The resultant, contradictory requirements, as alluded to earlier, were felt in terms of tensions between the tribal leaders and the colonial authorities, on the one hand; and the people, on the other.

The Chiefs were active collaborators in the labour export process as they were largely responsible for labour recruitment, including sending tax defaulters to work on mine contracts. Potential benefits for the chiefs included security of office, regardless of popularity, and a stake in administrative revenues as pointed out earlier. Such a system had the advantage of, "legitimating the non-discretionary migratory wage labour nexus through `traditional' means" (Parson, 1982, p. 12).

4.4 DEPENDENCE AND ECONOMIC STAGNATION: A SUMMARY

The importance of Britain's regulation and manipulation of the Bechuanaland economy and society cannot be underestimated. By 1966, the cumulative effect of nearly a century of British taxation, fiscal parsimony, economic regulation, and regional integration, was to leave the post-colonial economy in a dependency relationship with South Africa, in a regional sense, and with the international economic system as a whole.

4.4.1 Labour Migration

In terms of the theme of dependence and unsustainable development, the issue of Bechuanaland's labour reserve status was without doubt, of paramount importance. Contract work in the mines of South Africa became a way of life for Bechuanaland males and its economy became increasingly dependent upon migrant labour remittances. The fact that migrant labour was viewed as being necessary to ensure survival of the Protectorate government, led officials in both Bechuanaland and South Africa to establish administrative support for the migration process.

Permanent arrangements for the control of the migrant labour process instituted by the Native Recruiting Corporation (NRC) and the Witwatersrand Native Labour Organisation (WNLA) were established by the Bechuanaland administration. By independence Bechuanaland's labour migrants to South Africa numbered 45 000 annually (Picard, 1987). Only a small fraction of the money earned by the migrant workers was returned to the High Commission Territories. Lord Hailey (1956) pointed out for the case of Basutoland that over 80 percent of the money earned by Basuto laborers stayed or flowed back into the South African economy. The far reaching effects of Bechuanaland's function as a labour reserve, on the contemporary period, cannot be underestimated. Picard recognises that situation, in noting that, "The pattern of labour migration to South Africa would force the new Botswana government into a series of dilemmas *vis a vis* its economic development strategy in the years after independence" (1987, p. 112).

4.4.2 Mining

As with most other forms of development in the territory, mineral development was also largely neglected during the colonial period. The chiefs were suspicious of the possible benefits of developing the minerals industry within the Protectorate, for a number of reasons (see Crowder, 1988). Firstly, they were aware of many of the demoralising effects of mining in South Africa and feared the increased European presence that would result from extensive mineral exploitation. Secondly, the Tati Company in Francistown, which was run on Rhodesian lines[9], had set an unsavoury example which had resulted in tense racial relationships. A repetition of such circumstances was to be avoided at all costs. Finally they feared that the discovery of minerals might lead to the political integration of the Protectorate into South Africa.

Thus it was only in the late 1950s that the first basic agreements on exploration and on the eventual distribution of profits from the mines to be established in the Bamangwato tribal area, were finally settled.

When the British Economic Survey Mission made its pre-independence report on future prospects for economic development in Botswana, it was pessimistic of future mining possibilities. This was no doubt due to the fact that there was no mining at all in the territory, nor had the existence of any further payable deposits been proven. As events have proved, this assumption was mistaken and mineral production, especially copper-nickel from Selebi-Phikwe, and diamonds from Orapa was, in a short space of time, to become the leading sector in the economy.

[9] see van Onselen, 1980: Chibaro: African Mine Labour in Southern Rhodesia 1900-1933, for an account of the economic history of gold mining in this central African colony. The labour policies which were adopted were as oppressive as those adopted in the Portuguese and Belgian colonies. Parallels with what happened in Bechuanaland and South Africa included the decline of a local peasant economy and the indirect systems of social control over Africans which emerged as a result of the alliance between the state and mining capital.

4.4.3 Regional Trade

The characteristic form that British colonialism took, was to bind regional trading patterns firmly to those of South Africa. The economic integration of southern Africa was achieved at various levels:

> * The customs union and common market established in 1910 linked Bechuanaland and the two other High Commission Territories (Basutoland and Swaziland) to South Africa.
>
> * With the completion of the Mafekeng/Bulawayo railway line, Bechuanaland's communication and transportation systems were tied to those of South Africa.
>
> * A common currency system was shared by South Africa and the High Commission Territories which linked banking and other financial arrangements.
>
> * The High Commission functioned in such a way that the high commissioner performed a dual role as the official in charge of the High Commission Territories and the British government's representative in South Africa.

As a result of the above factors, South Africa had a strong influence on the territory's export and import markets. It marketed Bechuanaland's agricultural products, controlled its communications and transportation systems, and employed most of its labour force.

The impact of the discriminatory customs union was evident, particularly in manufacturing within the broader region. Protective tariffs and quantitative import restrictions aided the growth of secondary industries in the Union of South Africa. The resultant protection afforded to South African products within the three High Commission Territories allowed them to assume a dominant position in the markets of those territories. This has been maintained right up to the present day (see Selwyn, 1975). The corollary of polarisation of industrial development, was the neglect of secondary industrial development in the peripheral territories. This is due to the fact that industry is naturally attracted to the most developed sector of a regional economy. The consequences of industrial polarisation were, furthermore, exacerbated by South African trade restrictions on the High Commission Territories. Goods moving into South Africa from the territories only had limited access to South Africa's markets (Picard, 1987). The effects of polarisation will be examined in more detail in the final chapter where its constraining influence on development opportunities in Selebi-Phikwe in particular, is traced.

Ettinger (1972) argued that the restrictions on cattle exports to South Africa were as a result of collusionary practises between high commission officials and the South African government. Restrictions on cattle imports reached major proportions during the inter-war period as a consequence of the informal understandings and agreements between the two parties. The territory's internal economy was undermined as a result.

4.4.4 Domestic Trade

Not only were regional trade patterns shaped by British colonial administrators, but domestic patterns as well. Overt restrictions were placed on African participation in the system of domestic trade. In the Bamangwato reserve, particularly (where present-day Selebi-Phikwe is situated), much evidence exists to suggest that district colonial authorities and the colonial government in Mafekeng, actively intervened to discourage Batswana participation in the trading sector (see Parsons, 1975). Such patterns are reflected in the experience of Selebi-Phikwe, with most traders being non-Batswana at the current time.

Firms sponsored by Africans were viewed by the British colonial authorities as a threat to European trade interests, with the result that the Batswana faced considerable European opposition throughout Bechuanaland, to any bid to enter the trading arena. Applications from Africans for trading licenses were frequently rejected on the grounds that the territory was sufficiently served by existing European shops and that Africans lacked the necessary capital to open a store (Picard, 1987). It was only in the late 1950s that Africans made any significant gains in trading activity. Even by independence, however, the bulk of retail trade remained in the hands of foreigners (Europeans and Indians mainly).

4.4.5 Rural Development

Picard (1987) points out that it was in the area of rural development that British colonial policy was closest to total neglect. This was not accidental, as the colonial administration's limited interest in agriculture was linked to the vested interests of the European traders' role as agents for food imports. At a broader regional level Parson (1982) argues that Britain's priorities in Bechuanaland were to stimulate the cattle industry (at a later stage) and encourage labour migration at the expense of an expanded role for Batswana in the trading sector or agriculture. In political economic terms, inadequate development of indigenous agriculture was necessary for the formation of a peasantariat as it facilitated a process of partial proletarianisation which `freed' labour for use on the South African mines.

Parson (1985) noted that the destructive impact of British policy on rural development was felt particularly through the systematic encouragement of healthy young men to leave rural areas for the South African mines. This, "left the tasks of agriculture and animal husbandry .... to the very old and very young, and to women, in other words to those least physically equipped to perform them" (1985, p. 57). At independence, "the agricultural system was so underdeveloped that even in good years, maize, which is the country's staple food, had to be imported" (Halpern, 1965, p. 303). This was to result in Picard's (1987) observation that the vacuum in the area of agricultural development would be very difficult to fill after independence.

4.4.6 Urban Development

In colonial Bechuanaland, the general lack of economic opportunities, aside from agriculture or cattle production, militated against the growth of urban places. This may be accounted for firstly, by the general lack of development associated with the labor export economy of the Protectorate, where a relatively large proportion of migrant earnings was spent in South Africa. Secondly, the potential demand for commodities by migrant workers, who represented a large wage earning sector of the population, was lost to Bechuanaland. Thirdly, colonial restrictions on indigenous trading was a contributory factor to the dearth in local enterprise. Finally, and perhaps most seriously, the existence of the Customs Union which favoured South African producers, prevented a competitive indigenous manufacturing industry from developing. These factors meant that an economy capable of giving rise to and sustaining an urban economic base was absent. Thus by independence, the population of Bechuanaland was almost totally rurally based, with urban development restricted to the two "modern" towns of Francistown and Lobatse which contained less than 10 000 people each. An historical impetus and basis for future urbanisation was consequently lacking.

4.5 CONCLUDING REMARKS

An analysis of the political-economy of colonial Bechuanaland reveals that Britain's economic policy towards the territory cannot be characterised as one of benign neglect. Rather as Parson (1982, 1985) Colclough and McCarthy (1980) and Picard (1987) have shown, Britain's regulatory policy was the decisive factor in the Protectorate's underdevelopment and ultimately determined the nature of the political-economy of post-colonial Botswana.

Relationships between the wider interests of mining capital in the southern African region and the colonial state ensured that Bechuanaland was locked into a dependency relationship with South Africa. Neglect of real development in the territory, far from being viewed as a negative characteristic by the British colonial officials, was welcomed by Britain with its vested interests in South African mining capital as it `released' labour.

At a domestic level, British policy committed Bechuanaland to cattle production at the expense of developing arable agriculture or trade activities. Stated simply, unsustainable development was substituted for sustainable development because the motives for regulating the territory were based on external South African interests rather than local interests. African participation was excluded from the commercial and manufacturing sectors with far-reaching consequences for the expansion of productive opportunities in Botswana. Urbanisation was absent from colonial Bechuanaland as there was nothing to sustain it in terms of local economic development. Finally, South African interests were given *carte blanche* to exploit the territory's mineral deposits, reinforcing the pattern of dependence on external capital and expertise.

Thus, Botswana entered the post-independence period with a badly neglected and underdeveloped economy in which economic relationships and trade links were to be those which had been forged prior to 1966. The unsustainable characteristics of development in this period were reflected in the areas of regional and domestic trade, labour migration, and agricultural and mineral development. These were typical of a type of dependent capitalist society called the labour reserve.

The labour reserve resulted from the dissolution of the previously *self reliant peasantry* into a *proletariat*, with the attributes of a *peasantariat*. As an historically specific society, it emerged as a part of the combined and uneven development of capitalism directed from its foundations in Europe. Both labour reserve and peasantariat were integral to capitalism (Parson, 1982). At a primary level, the existence of both militated against a sustainable future.

The effects of a labour reserve were reflected in a dearth of urban growth within Bechuanaland. An emerging contradiction in the form of the peasantariat hinted at a new class of Tswana, which would become increasingly reliant on wage labour. As a nascent ***urban*** class, the peasantariat would find an outlet in the creation of new towns after independence. The realities of a history lacking sustainable and diverse economic activity within Bechuanaland and hence the preconditions for a strong urban base, would do little to quell the expectations associated with mining development in independent Botswana.

SECTION 3

INDEPENDENCE, DEPENDENCE,

AND UNSUSTAINABILITY:

SELEBI-PHIKWE AS A MICROCOSM

OF URBANISING BOTSWANA

CHAPTER FIVE

POST-COLONIAL STRUCTURAL CHANGE: MINING AND GROWTH AND THE RECREATION OF A PERIPHERAL CAPITALIST SOCIETY

> **"There has lately been some revival of interest shown by mining companies in the prospects offered by the territory .... It is not impossible therefore that mining developments may have a considerable influence on the economic future of the Protectorate (Hailey, 1953, p. 154).**

5.1 INTRODUCTION

Chapters three and four outlined the development history of Botswana from the perspective of political-economy. The discussion revolved around the ongoing process of underdevelopment which, it was argued, had structurally constrained choices with reference to possible post-independence development paths. "Structural dependency" continues to limit Botswana's options in its relationships with both the regional and the international economic systems.

With the maturation of the migrant labour process in the late colonial period, Botswana was effectively dependent upon neighbouring South Africa for the funding of administrative services, and the provision of a cash income for the local Tswana population. This was fostered by a policy of fiscal neglect, combined with a regulatory policy, which locked Botswana into the South African labour reserve, and a dependency relationship with the Republic. The 19th century internationalisation of capital was thus responsible for creating a marginal colonial capitalist society in Bechunaland. The resultant situation of dependence and structural underdevelopment did not auger well for an economically prosperous future for the newly independent state.

This chapter is concerned with the post-colonial period in Botswana. More specifically, the policy of mining development is critically examined with reference to towns such as Selebi-Phikwe, which were created around the mineral extraction industry. An important theme is that of economic dependence. Such dependence in the contemporary period follows on from that which characterised the colonial era. The Government has promoted mining, and to a far lesser extent, manufacturing industry partly to reduce the nation's reliance on foreign aid, dependence on a single export commodity, and income from migrant labour remittances. The result is increased, rather than reduced, dependence, with heavy reliance on transport routes through South Africa, expatriate manpower, and one or two transnational corporations. The implications of this increased reliance on external agents are felt in terms of the increased vulnerability of the Botswanan economy and indirectly, the social system, to vicissitudes in the world economy. The case of Selebi-Phikwe is illustrative of this.

The genesis of Selebi-Phikwe has been largely predetermined by the broader development context within which the town is located. Chapter two noted that the exploitation of non-renewable resources is effectively a contradiction of development in the South if it constitutes a core economic activity, as it is ultimately unsustainable, leads to dependence, and heightens vulnerability to cyclical recession in the world economy. This has been exacerbated by the fact that mineral production, while it boosts national wealth through exports, has not led to a wider process of development. A knowledge of Botswana's development history logically leads one to assume that successful, sustainable styles of development would be unlikely in the post colonial situation, as the structures which have given rise to vulnerability, have become intrinsic to the country's political, economic and social organisation.

The absolute growth of Botswana's GDP in the period following independence was unusually rapid, and involved a progressive change from agricultural to mineral production. The current era is examined through an analysis of the development path that Botswana has embarked upon. The interplay of politics with the form this development has taken, illuminates the role of foreign capital and technology in the modern sector of the economy. Selebi-Phikwe is a characteristic example of the "modernisation" style of development which Botswana has adopted and the weaknesses of this approach are evident not only in the predicament of this particular town but within the broader Botswanan economy.

5.2 CURRENT TRENDS ASSOCIATED WITH STRUCTURAL CHANGE IN THE POST-COLONIAL PERIOD

Rapid economic growth in absolute terms has been the single most important change which has characterised independent Botswana. As established in the introductory chapter, this has been reflected particularly in increased rates of urbanisation. The most significant structural change has been felt in terms of a decrease in the share of agriculture and manufacture in GDP, and a concomitant increase in mining. The manufacturing sector is dominated by the Botswana Meat Commission which is responsible for the processing of most beef products in the country. The minerals sector has led the economy since the late 1960s. As a highly capital intensive industry, incorporating six to eight percent of the active labour force at most, mining also has weak links with the manufacturing sector (Colclough and McCarthy, 1980). The impact of mining on the value of exports has, however been significant.

Economic success at the national scale notwithstanding, most post-modernisation theorists would agree that economic growth (volume) cannot in itself be necessarily equated with meaningful development (see chapter 2 for the discussion on growth based indices). Concern expressed by the World Employment Program of the International Labour Organization (lLO), that development initiatives in much of the Third World were not bringing sufficient benefits to the mass of the population, reflects such a view. The Geneva based, ILO furthermore concluded that population was a neglected element in development strategies (Rogerson, 1984).

Picard (1987) notes that in African states, policies which provide for both economic growth and more equitable access to economic resources have been difficult to formulate and implement. Colonial fiscal parsimony in Bechuanaland gave rise to particular problems which could be resolved relatively easily with the expansion of Botswana's mineral-based economy after independence. The structural problems caused by the labour reserve and agricultural underdevelopment were, however, more difficult to tackle. Policy makers tended to concentrate on economic measures, primarily on cattle and mining, and on an expansion of the infrastructure that had been badly neglected during the colonial period. Correspondingly few efforts were made to create new sources of wealth or to increase the level of rural production (excluding the beef industry).

The previous two chapters outlined the economic history of Botswana where it was noted that the former British Protectorate relied on an agriculture-based economy with animal products, (mainly beef) constituting the primary export commodity. Aridity and highly variable rainfall meant that its population depended on an agricultural system that could only produce a crop every third year, and subsistence on the consumption of beef from poor quality cattle. Rural/urban population disparities were consequently great and urban infrastructure was almost non-existent. With a mere 5 percent of land under cultivation in 1965 and overgrazing an endemic problem, few revenues were generated for the purposes of education and health services (Picard, 1987). Notwithstanding low levels of investment in such services, "Bechuanaland (could) not balance its budget and was heavily dependent on financial aid from Britain and co-operation from South Africa" (Halpern, 1965, p. 297).

Botswana's singularly bleak economic prospects changed with the discovery of valuable minerals after independence. Associated with the opening of new mines was the construction of towns as part of the mineral extraction infrastructure. Prior to independence only two `modern' towns (Lobatse and Francistown) were in existence. In the post-independence period, spatial dislocation of people from the rural areas into the towns has taken place and structural economic change has been concomitant with a rise in urbanization. These processes have resulted from what may be identified as an ***urban bias*** in Government thinking.

5.2.1 Balanced Economic Growth?

Botswana is cited as a model challenging a number of basic stereotypes about economic and institutional decline in post-independence Africa. Lewis (1985 p. 1) is of the opinion that it has experienced, "extraordinary and reasonably balanced economic growth". Certainly it has managed to avert famine despite four years of devastating drought, and it's multiparty democratic system of government has been of an unusually enduring nature by African standards. Whether economic growth has been balanced, however, is questionable. The experience of Selebi-Phikwe, for example raises the question of the validity of this interpretation. An emphasis on urban development is of questionable wisdom as mining is the only activity which is presently capable of sustaining such `development'.

5.2.2 Mining Development: Urbanisation and Employment Creation

Overall economic growth since 1965, has been around 11 to 12 percent per annum in real terms (Lewis, 1985). Economic performance has been led largely by a succession of mining projects, initiated in the late 1960s and running through the late 1980s. Development included the opening of the diamond mines of Orapa (1971) and Letlhakane (1977) and the discovery of the gem rich Jwaneng site (1978). A particularly important development was that of the copper nickel mine at Selebi-Phikwe which was the single most expensive project which had yet been undertaken in Botswana.

Though some economists are of the opinion that Botswana has managed to spread the benefits of mining development relatively broadly (see Lewis, 1985), there has been a definite bias towards urban development. Investment in services and infrastructure for rural areas took place in the immediate post independence period. Thereafter, through 1974, much of the development budget was linked to the copper-nickel project and was urban in nature. It should be noted, however, that the input of resources for the development of an infrastructure, which included road construction, educational development, water reticulation and increased health care services, whilè important in the context of hitherto undeveloped and underdeveloped services, was essentially non-productive and not self-sustaining.

Potential flaws in the social and economic fabric of Botswana are evident from a brief examination of employment and demographic indices. Although the country has a relatively small population of 1.3 million people, growth rates are high at three to four percent per year. As a result, over 50 percent of the population is under 15 years of age. If current growth projections (extrapolated from the 1981 census) are accurate, the population will double by 1995 and will triple just after the turn of the century. Figures for new entrants into the economy, have on the basis of the 1981 census, been estimated to be in the region of 20 000 per year.[1] This has important implications for government; although formal sector employment is growing, it is unable to absorb the increasing numbers entering the labour market.

Multinational investment has largely tended towards capital intensive projects which has aggravated the problem of employment creation. Due to the high capital

[1] Republic of Botswana, *Population and Housing Census Analytical Report 1981*, Central Statistics Office, Gabarone.

intensity of the mining sector, it employs less than ten percent of the labour force in the formal sector. This implies that additional jobs to meet the growing labour force need to be created outside the mining sector (Majelantle and Mhozya, 1988). Botswana is also faced with one of the highest urbanisation rates in Africa; a response, in part, to investment in a mining future. Although Botswanan society is still essentially rurally based, population migration into newly developing mining towns poses some problematic questions for settlement stability. Increasingly, this has become a factor of concern for the Government.

In 1971, a mere 11 per cent of Botswana's population lived in urban areas. The current position is that over 25 percent of the population has been urbanised (1989 Statistical Bulletin). Cooper (1982) notes that despite the lack of a clear definition of `urban' as opposed to `large village' in current Government publications, what fundamentally distinguishes the two is not simply population size, nor even simply production activities. Rather, it is the dominance of capitalist social relations of production and the associated forces of production (eg. mining in the case of post independence towns). Thus a different mode of production predominates in urban centres.

Striking growth rates have been experienced in the major urban centres of Gaborone, Francistown and Selebi-Phikwe. Furthermore, due in part to the colonial developments discussed in the last chapter, and to environmental determinants, the distribution of Botswana's population is uneven and 80 percent of the people are concentrated in the narrow eastern strip, containing the best-endowed land with access to transport services, and to recently developed poles of economic growth.

5.2.3 In-Migration and the Growth of Towns

Rural-urban migration has become an issue of international concern over the past decade, and more particularly so in developing countries. The form which rural-urban migration has tended to take has been cited as a major cause of unbalanced urban growth (Rogerson, 1984). Patterns of population distribution reflect conditions and degrees of development in the Third World. Concomitant problems associated with a demographic imbalance include an increase of urban underdevelopment and poverty, overcrowded public services and a depletion of the younger more vital sections of the population in rural areas (Shaw, 1980). A United Nations survey on Government policies has concluded that present population distributions in Third World countries are generally considered to be unacceptable by those in power. The outcome has been the implementation of policies designed to reduce, stop, or reverse patterns of internal migration (Peek and Standing, 1983).

The issue of urbanisation and of internal migration is particularly pertinent to Botswana with its rurally based population. The greatest interchange of migrants has occurred between the eastern regions of the country with the south eastern region receiving the largest net inflow. Overall, the general direction of migratory flow appears to be south-eastwards.[2] Selebi-Phikwe is a central destination for migrants in this area.

Natural disasters in the form of an ongoing drought have been an important rural-push factor in migration to urban areas. Developments in the South African mining industry have also influenced employment opportunities. South African mines have cut back on migrant workers drawn from peripheral countries including Botswana.

Part of the reason for the fall off in migration to the South African mines relates to rising unemployment levels among Blacks in South Africa which has resulted in the adoption of a localisation policy whereby local South African Blacks are given first preference for employment (see Anon., 1987 and Majelantle and Mhozya, 1988). The resultant decline in employment opportunities has been of considerable importance to Botswana.

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[2] **Republic of Botswana, *Population and Housing Census Analytical Report 1981*, Central Statistics Office, Gaborone.**

Numbers of migrants entering South Africa from Botswana, decreased from a peak of 50 000 per year in the early 1970's, to just under 20 000 in 1981 (Picard, 1987). By 1989, this figure had dropped to 17 431.[3] The decline has been progressive over the last decade and a half:

TABLE 1 : EMPLOYMENT IN SOUTH AFRICAN MINES

YEAR	NUMBER OF RECRUITS	NUMBER OF EMPLOYEES
1976	25 456	40 390
1977	25 297	38 564
1978	20 804	23 360
1979	20 307	19 523
1980	21 343	20 497
1981	20 321	17 959
1982	18 437	21 456
1983	18 691	17 852
1984	18 916	19 075
1985	20 128	19 648
1986	20 994	19 223
1987	20 112	17 848
1988	19 320	16 470
Source	A:1989 National Census Statistics. B:1987 National Census Statistics.	

These structural links with the industrialised economy of neighbouring South Africa have had an important bearing on the evolution of modern Botswana, particularly on the creation of mining centres such as Selebi-Phikwe. This is the situation against which local mining ventures have emerged in a country lacking in formal employment opportunities. Mining in Botswana offers competitive wages in comparison with other economic sectors. As an ***urban-pull*** factor, it reinforces migration into urban centres. Drought conditions and concomitant overgrazing in the rural areas have been important ***push*** factors for rural dwellers who have entered Selebi-Phikwe and other towns in search of work, in recent years. Mining activities, thus constitute a major stimulus for urban development in the region.

[3] Republic of Botswana, *Statistical Bulletin*, vol. 14, no. 1, March 1989, Table 6.2, p. 33, Central Statistics Office, Gaborone.

Development of non-renewable resources may be viewed as being necessary for the initiation and growth of new towns in contemporary Botswana. This occurs in the context of a dearth of economic opportunities in the country. Given the enclave nature of mining projects in Botswana, an impasse may be reached if insufficient ancillary development is generated to sustain the impetus of urbanisation. The mining of finite, non-renewable resources is by nature, of a short to medium term duration. Urbanisation as an ongoing process is, however, a concrete phenomenon which is characterised by a certain permanency and irreversibility. The urban bias in approaches to development in Botswana has diverted scarce resources away from rural areas and has reinforced the movement of people into towns.

As noted in the introduction, Selebi-Phikwe is a feature of the modernisation path of development that Botswana has followed in the independence period. The nature of Government and of political organisations have had decisive influences on the form of development that has characterised Botswana over the past twenty five years. A knowledge of such structures and processes is necessary for an understanding of the predicament facing Selebi-Phikwe.

5.3 POLITICAL INFLUENCES AND ECONOMIC GROWTH

Independence based on the Westminster model of Government was granted to Botswana on 30 September 1966. The Bechuanaland Democratic Party (BDP) was the political coalition which led the nationalist movement to victory in the elections. Its support was derived from the peasantariat which was rooted in the labor reserve political economy. The BDP was headed by Seretse Khama, a Chief and large cattle owner who was highly educated and possessed the necessary organisational skills. The party was composed of a coalition of persons of traditional economic and political status as well as those whose aspirations were based upon education and entrepreneurship (Edwards, 1967). More importantly their appeal to the peasantariat rested on the ideology of tradition which was integral to the material relations of production in rural areas (Parson, 1982). The opposition Bechuanaland People's Party (BPP), a more radical group, commanded a limited but significant following in the urban areas. In 1966, 80 per cent of the vote was won by the BDP, which secured 28 out of 31 elected seats in a 75 per cent poll of the electorate (Macartney, 1969).

Although the BDP, with its base in the peasantariat, won the elections, its appeal was not complete or universal. Twenty per cent of the electorate voted for the opposition which reflected a measure of minority ethnic opposition as well as urban proletarian dissatisfaction. A new opposition party, the Botswana National Front, was formed just before the 1966 general election and opposed the BDP leadership on the grounds that it represented a petty-bourgeois force which had formed an alliance with British capital against the interests of the peasantariat (Koma, 1966). In 1966, the strength of the BDP was such that these arguments did little to affect the outcome of the elections. With current urban instability in Selebi-Phikwe, the appeal of the BNF may well have strengthened in response to what might be viewed as mismanagement on behalf of the present Government. This will be considered in greater detail in the following chapter.

One may conclude that the history of nationalism was conditioned by the history and structure of colonialism in Bechuanaland in a world, regional and national context. Parson (1982) notes that the victory of the BDP did not represent a break with the past. On the contrary it represented a new political form for ***existing*** political and social relations in the above contexts. Parson qualifies this by pointing out that the new order was not simply a reformulation of existing political relations. The BDP coalition had a vision of ***autonomous national development*** rather than a vision of autonomous or independent tribes. As such it incorporated a variety of elements and was based on the notion of a single Botswanan state (ibid.).

5.4 BOTSWANA'S DEVELOPMENT PROGRAM 1966-1980

The BDP adopted a modest program which called for economic growth based on mineral production and the commercialization of agriculture, particularly cattle production. The program was organised through strong central Government intervention. The foundations of development, thus laid, would be directed towards the creation of infrastructure which would provide services and opportunities to the benefit of all sections of society (Picard, 1987).

Looking to long term development prospects, Botswana, with its on-going labour reserve economy, was confronted with two alternatives. It could either attempt to become economically autonomous (implying domestic socialism) or become further integrated into a transformed regional, economic system.

Action in the direction of international transformation, or domestic socialism, was never considered. The governing class as a petty bourgeois (intermediary) class formed in the interstices of colonialism, naturally assumed that the path to progressive, autonomous capitalist development, was open and desirable. The cumulative mistakes of colonialism which included dependence on South Africa and the effects of British neglect were identified as being at fault rather than capitalism itself. Consequently, if the foundations for development were laid, and appropriate social controls installed with the interests of the nation at heart, then development would follow as a matter of course (Parson, 1982)). As Parson points out, "the process was viewed as being largely technical, and therefore indisputable, in nature" (1982, p. 17). The experience of mining in Botswana has not borne out these assumptions.

With the above in mind, the obstacles and blockages to national development were tackled rather than the underlying nature of production and consumption.

It was noted in the introduction that Botswana was numbered among the twenty poorest countries in the world at the time of independence. Paucity of development reflected that status. Tarred roads were virtually nonexistent, Government secondary schools were completely lacking, power generation was limited and there was only a single main railway line. In addition there was a lack of knowledge of the mineral or agricultural potential of the country, miniscule Government machinery, and no national control over monetary matters. Mafeking, the capital of the Protectorate, was located outside of the national borders in South African territory. Furthermore South African currency was the money in circulation, and the national recurrent budget was subsidised from Britain. As pointed out in the last chapter, the customs union agreement with South Africa meant that Botswana had no control over the level of customs tariffs or policies guiding tariff levels.

This research has tended to view `development' and urban growth in Botswana in a critical light. That many development initiatives have been based on short time horizons is apparent with regard to the situation of Selebi-Phikwe. It should, however, be stressed that:

> **"It was thus with seriousness and sincerity, and without hypocrisy that the governing class, encouraged by the range of donor countries, proposed to go down the road of national development on a capitalist model. The principles of the BDP, democracy, development, self-reliance, and unity, appeared to reflect reality, and promised uniform benefits to all classes in society" (Parson, 1982, p. 18).**

In practise, this program displayed evidence of success and undeniable benefits were evident in the first fifteen years of independence. While the unevenness of the distribution of benefits was recognised by Government, such inequity was viewed as an unfortunate short term consequence of the process. It was believed that these problems were temporary and could be overcome in the long run and be ameliorated in the short run, through Government policies.

5.4.1 Economic Growth and Infrastructural Improvement

Change and growth in the newly independent Botswana was as dramatic as it was unexpected. In 1965, Gross Domestic Product was P 32.9 million[4]; by 1973/74 it had increased to P 185 million.[5] A figure of P 709,5 million was achieved in 1979/80 and by 1987/88, GDP had reached P 3265.5 million.[6] The economy also became relatively more diversified during the decade of the 1970s. Nearly half of GDP was accounted for by agriculture in 1968/69. Mining and quarrying, manufacturing, electricity and water, and construction combined, accounted for 10 percent.[7] By 1987/88, the share of agriculture had been reduced to less than 3 percent of GDP, while mining accounted for nearly half, manufacturing for a mere 5 percent, and electricity, water, and construction accounted for a further 6 percent (see footnote no. 5). Trends would indicate that diversification is currently

[4] The Pula is the strongest currency in southern Africa and is equivalent to 1.3 Rands at the time of writing.

[5] Republic of Botswana, *National Development Plan 1976-81*, Table 1.3, p. 7, Gaborone: The Government Printer.

[6] Republic of Botswana, *Statistical Bulletin*, vol. 14, no. 1, March 1989, Table 2.1a, p. 5, Central Statistics Office, Gaborone.

[7] Republic of Botswana, *Statistical Bulletin*, vol.6, No. 3, September 1981, Table 25, p.37, Central Statistics Office, Gaborone.

decreasing, rather than increasing, as dependence has merely been translated from reliance on the agricultural sector and on migrant worker remittances, into the mining sector.

Similar dramatic change occurred in education and in the critical areas of health care, roads, communications, administrative infrastructure and so on. These sectors are of paramount importance in any developing country and lie at the base of true development. In 1975, the South African currency system was dropped and a national currency (the Pula) and banking system was introduced. Gaborone, situated in the south western sector of Botswana replaced Mafekeng as the new administrative capital. The customs union agreement was renegotiated in 1969, producing increased revenue and some ability to determine protective tariffs. Although growth was initially largely dependent on donor support, this was gradually supplanted by development revenue generated domestically from diamond mining. By 1972 budgetary self-sufficiency had been unexpectedly attained and the Domestic Development Fund grew rapidly. In response to such economic stimuli, total formal sector employment grew rapidly to 41 300 in 1972, more than doubled to 97 400 in 1981 and reached 150 200 in 1987.[8]

5.4.2 Mining Development and the Urban Bias

An important outcome of Botswana's choice of economic development was the growth of urban areas from a total population of 63 540 persons in 1971 to a projected figure of 341 149 persons in 1991, representing 25 percent of the total population (see Tables 3 and 4). Mining towns will account for more than a quarter of this total in 1991 (comprising, Selebi-Phikwe, Orapa and Jwaneng).[9] This represents a seventeen fold increase in urban dwellers since independence.[10] Recent urbanisation must be conceived of as intimately tied up with the expansion of capitalist relations of production centred on urban areas (Cooper, 1982).

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[8] Republic of Botswana, *Statistical Bulletin*, vol. 14, no. 1, March 1989, Table 6.1, p. 32, Central Statistics Office, Gaborone.

[9] ibid., Table 1.1, p. 1.

[10] Similar trends have been experienced in Algeria, with rapid urbanisation following independence. This was prompted by the launch of industrial policy which precipitated a drift from rural areas. Industrial sector activities were given priority over agriculture with concentration on producer rather than consumer goods. The counterpart of a disproportionate investment in industry was a reduction in investment in agricultural and water projects. The cumulative result of an emphasis on industrialisation was increased economic dependence and accelerated urbanisation (Abdoun, ,1990).

TABLE 2 (CENSUS) POPULATION IN URBAN AREAS

PLACE	1964	Annual Growth Rate (%)	1971	Annual Growth Rate (%)	1981
Gaborone	3 812	23	17 718	3	59 657
Francistown	9 534	9	18 613	3	31 065
Lobatse	7 499	7	11 936	2	19 034
Selebi-Phikwe	-	-	4 940	20	29 469
Orapa	-	-	1 209	16	5 229
Jwaneng	-	-	-	-	5 567
Urban Total	20 845	14	54 416	16	144 454
Rural Total	494 031	1	530 228	4	796 573

Adapted from: 1981 Population and Housing Census, CSO, Gaborone. Statistical Bulletin, March, 1989 CSO, Gaborone.

TABLE 3 PROJECTED POPULATION FOR URBAN AREAS

(BASED ON 1981 CENSUS)

PLACE	1989	1991
Gaborone	120 239	138 471
Francistown	52 725	59 120
Lobatse	26 841	28 871
Selebi-Phikwe	49 542	55 384
Orapa	8 894	9 983
Jwaneng	13 895	16 609
Urban Areas	300 855	341 149
Rural Areas	954 984	1 006 419

adapted from : Statistical Bulletin, March, 1989, CSO, Gaborone.

Urban areas have received a disproportionate share of development resources, although rural areas have been identified for certain projects related to roads, health clinics, and education (see Chambers, 1977). Botswana has had an impressive record of job-creation after independence. Although formal-sector jobs have doubled between 1964 and 1975, representing annual growth rates of ten percent, the active domestic force has been increasing at a far higher rate (Colclough and McCarthy, 1980). In Botswana as in most poor countries the formal sector cannot hope to even absorb the annual increment to the domestic labour force. This has resulted in an inevitable increase in numbers of people entering the subsistence sector.

The geographical distribution of new job opportunities has also been heavily weighted towards the urban areas. This reflects an urban bias of the pattern of investment. During the decade of the 1970s half of all new formal jobs occurred in the five urban centres which included only between 10 and 15 percent of the population. One of the consequences of this type of investment has been considerable increase in the urban population of the country. Such urban growth was exceptional by any standards and has led to Botswana experiencing a faster rate of urbanisation than any other country in sub-Saharan Africa (Todaro, 1973). Gaborone and Selebi-Phikwe represent the major growth centres, where annual rates of population growth of 17 and 20 percent respectively were sustained until 1975. The diamond town of Orapa, on the other hand was built as a closed township, surrounded by a high security fence, and migration there was initially restricted to those employed in the mine together with their immediate families (Colclough and McCarthy, 1980). Urban investment has been more limited in the older trading and manufacturing centres of Lobatse and Francistown, which is reflected in growth rates of approximately 4 and 6 percent over the period (ibid.).

Rural-urban migration in Botswana has been clearly associated with the pattern of urban investment and job creation since independence. This is largely as a result of the growth of the mining industry. Aside from the inherent instability of such an externally orientated industry, it is significant that the rate of population growth of the towns has exceeded that of employment creation in the urban formal sector. Those without formal employment have been absorbed by the growing urban informal sector. In towns such as Selebi-Phikwe, the informal sector is largely dependent on formal sector activities and is equally at risk should the mine cease to operate.

Thus the residents of urban areas have been the main direct beneficiaries of economic growth in terms of new job opportunities. This accounts for the significant rate of migration from villages to urban areas since independence, resulting in potential problems of rapid urbanisation.

5.4.3 Mining for Rural Development

> **"Botswana's rural development program (was) minimally funded, relatively unconcerned with the mass of the population, controlled by national rather than local officials, heavily foreign funded and controlled, and yielded few results which benefit the living conditions of the average voter" (Holm, 1981, cited in Picard, 1987, p. 237).**

The inequality in resource allocation between the urban and rural populations has implications for sustainable development in the future. Both Picard (1987) and Konczacki (1975) have criticised Botswana's development path on the basis that too little attention has been paid to the consistency and continuity of long-term economic policies. In particular, they identified rural development as a relatively neglected element in Botswana's development path.

Picard (1987) notes that a conscious decision had been made at independence to postpone rural development activities in order to obtain an internal source of Government income by developing the country's mining industry. In the immediate post-colonial period, "there was a very powerful motivation for unity and simplemindedness in providing facilities and services and in building and maintaining a political infrastructure to do so" (Parson, 1982, p. 19). "Mining for rural development" became a popular phrase in the late 1960s with politicians promising that revenues from copper/nickel and diamond exploitation would then be invested in the rural sector. Within this plan for rural development the emphasis was on self-help, and rural dwellers were expected to take the initiative in improving their condition.

In terms of Government strategy, its contribution would be limited to the funding of community development extension staff, who would be "catalysts" for self-help projects. A general rural development program was envisaged once finances from the mining sector became available (ibid).

Botswana's strategy was viewed by cynics as rural development on the "cheap". Holm's (1981) observation was prompted by the severe neglect of rural development which was particularly striking in a country where over 80 percent of the population lived in the rural areas. There was a cogent need for job creation but, in practice, rural development activity came to be defined as infrastructure projects, health posts, schools, roads and water reticulation. Such development did not necessarily ensure an increase in productive opportunities. Wage labour in the rural areas is lacking, even in the large villages (Lucas, 1979) and non-capitalist (kinship) social relations of production in cattle and crop farming still form the dominant economic base underpinning even the agrostads.

Majelantle and Mhozya (1988) note that *structural* unemployment in Botswana is illustrated by the absolute decline of the agricultural sector and a growth of mining and public sectors. In particular, investment in crop farming is considered inadequate. This is particularly serious given that four-fifths of the total population is rural, indicating that agricultural production remains the core of the rural economy.

In March 1972, two Kenya planners, Robert Chambers and David Feldman were consulted by Government on the problem of rural development. The Chambers and Feldman, *Report on Rural Development*, included sector by sector analysis of Government policy, and general comments and recommendations on development strategy. This led to the establishment of guidelines for rural development through the end of the decade which were contained in a Government white paper.[11]

Significantly, Chambers and Feldman warned of the inherent contradiction between unconstrained economic growth and social justice. A balance between the two was required to prevent a deepening of patterns of a rift between owners of capital and wage earners. Picard (1987) notes that the Government's desire to maximise revenue was at variance with the reallocation of that revenue from mining to the rural sector.

A greater degree of economic self-sufficiency through a firm policy of import substitution was recommended by the two consultants. They highlighted the dangers of an unconstrained movement away from the subsistence economy to a cash economy. Restraints on economic growth were recommended as a means of maximising the spread of development to rural areas (Picard, 1987).

[11] see Government of Botswana, 1973: *National Policy for Rural Development, Government Paper No. 2 of 1973*, Government Printer, Gaborone.

On the other hand, the Government's intentions as expressed in the white paper, committed Botswana to a rapid return on mineral exploitation. Other viable modern industries were to be based on the "spin-off" principle or "multiplier", by which revenues from the mining sector would be used to develop physical infrastructure at a district level.

Policy makers have placed high priority on one aspect of rural development; the cattle industry, which has reinforced Colonial policy in committing the country to cattle production (in late years) partially at the expense of agricultural productivity (Picard, 1987). In terms of sustainability, cattle ranching in Botswana has led to overgrazing and environmental decline and is less likely to contribute to meaningful development in the future, than even mining.

Although there has been an urban bias in the distribution of job opportunities, the wage benefits are not necessarily entirely confined to the urban areas as rural-urban links in Botswana are still relatively strong, and urban-rural transfers may be relatively substantial (see Colclough and McCarthy, 1982; Cooper, 1982). It is, however, difficult to gauge the impact of urban investment on the overall distribution of family incomes in Botswana.

Within urban areas themselves, it was planned that revenue generated from mining, would be used to promote new industry and properly planned urban development. This would lead to the creation of employment for the rural unemployed and an increased demand for agricultural products. Thus, rural development policy was based on the assumption that the inequalities between urban and rural areas would continue and even increase. With the promotion of projects like the copper/nickel industry, the differential benefits and uses of these resources surfaced. The success of efforts to broaden development in Selebi-Phikwe are evaluated in the following two chapters.

Roads, health clinics, schools, water, appeared where none had existed before. With these developments and the creation of new jobs it was evident that, on balance, things had changed for the better for the peasantariat. More importantly, with future money readily available, the promise of continued improvement was unlimited. Expectations had been raised which would not be easily quelled and it appeared quite likely that they would be met in due time. The idea of ***raised expectations*** is crucial to the thesis of sustainable development because it implies that the ***perception*** of development in Botswana is that it is of an ongoing nature and will last indefinitely. The experience of Selebi-Phikwe highlights the fact, however, that `development' which is almost exclusively based on the exploitation of finite resources has a similarly finite lifespan.

5.4.3 Political Power Bases

Parson (1982) notes that there was an unusual degree of unity, stability, and agreement within the BDP elite, at both local and national levels, and that the alliance between this coalition and the peasantariat was maintained, and perhaps strengthened. This was related to the fact that existing political relations based on rural relations of production, were largely untouched. Political stability was correspondingly reflected in growth with stability in contrast to the decay of political order more commonly observed in such conditions. Elections were held regularly every five years and the BDP was returned with undiminished majorities.

There was, however, the potential for conflict, involving particularly the most fundamental building blocks of post-colonial reserve society. This was expressed in the political and material connections between the BDP as governing class and the peasantariat. Such contradictions matured in the political patterns which came to typify the 1980s. The intractable process of a growing urban working class called for particular management strategies Cooper (1982) notes that this has the characteristics of an internal peasantariat, ie. a class of workers with direct links with rural households, but nonetheless representing a permanent urban class with demands concerning wages and conditions of work. The classical contradictions reflected in the Selebi-Phikwe case are considered in greater detail in the following chapter.

At the rural level, contradictions in sustainable development were felt mainly in environmental terms, with overgrazing an issue of increasing concern. The Tribal Grazing Lands Policy or TGLP, focused on the environmental issue in an attempt to resolve conflicting pressures and struggles. In an effort to please all sections of the population, the principle of leasehold land in commercial areas was created in order to provide exclusive property rights for capitalist ventures while retaining communal grazing for small farmers. This has not met with total support due to peasantariat and petty-bourgeoisie resistance, and is considered in more detail at a later stage (see Cliff and Moorson, 1980). Despite such efforts on the part of Government, environmental decline through overgrazing continues and threatens to become an irreversible problem.

In Botswana as in the colonial era, political action is legitimised through traditional structures. Rural economic and political relations are symbolised and actualised through the chiefs and the traditional hierarchy of the peasantariat. The governing class agenda, however, required a strong national and central Government. Tensions and contradictions arose from the need to maintain traditional structures while centralised policy was being instituted (Wiseman, 1977).

The 1966-1980 period is illustrative of several features of this type of post-colonial state and society in a world of advanced capitalism (Parson, 1982). In partnership with the Anglo American Corporation, Botswana developed its mineral resources, which released funds which could be reinvested in developing an infrastructure. Dependence on South Africa was diversified mainly through the creation of new linkages with the centres of capitalism in North America and Europe. Problems arose, however, when it came to reinvesting surplus revenue from the mining sector, in the form of the labour reserve structure and the limits imposed by being peripheral to the wider system. In a sense then, sustainable development was difficult to attain given the structures of colonial and neocolonial development which have determined the possibilities for economic development in Botswana. The ensuing period has been witness to the fruition and maturation of the contradictions and tensions associated with the above. These have been identified in this thesis as being symptomatic of a wider crisis of unsustainable development.

5.5 STRUCTURAL STRESSES AS A FEATURE OF PERIPHERAL CAPITALISM: 1980-1990

By the beginning of the 1980s, most of the development objectives of the early post-colonial strategy had been met. Investment into the extraction of deposits of diamonds and copper/nickel had yielded generous dividends which had been used to fund infrastructure. With such developments underway, a new agenda emerged. Pertinent questions concerned the sectorial composition of the economy in furthering the process of development. As suggested earlier, infrastructure alone does not guarantee the investment and development of productive activity. The crux of the problem lay in determining the allocation of surplus revenue generated by mining into avenues of investment and consumption.

As highlighted in chapter two, the close integration of mining and infrastructural development with the regional and world economy, became an increasingly significant factor to be reckoned with. It was noted that the pricing of primary export commodities (diamonds, beef and copper/nickel) on the international markets was of critical concern. Long term trends of an emerging world recession set the limits on development possibilities in the national context. Additionally, the permanent contraction of the number of migrants from Botswana permitted to work in South Africa had reduced employment opportunities.

Latent inter- and intra-class divisions were highlighted by the death of Sir Seretse Khama in 1980. As the prime symbol of the connection between the new urban governing class and the peasantariat he was a cohesive force in the unity of the social formation (Parson, 1982).

Lipton (1978) in a thorough and meticulous analysis of employment and labour use, highlighted the deteriorating international and regional situations and was critical of further infrastructural investment. Lipton argued that new production opportunities were required to combat the growing un- and under-employment problem.

A fracturing of the governing class, implicit in the early post-independence period, now emerged and was evident in a growing dichotomy within the bureaucracy. Those officials whose future lay within the administrative apparatus favoured Government regulation of productive investment, in creating a more secure economic base. As Parson states, "the ideology of using national revenue for public as against private gain provided a convenient ideology" (1982, p. 23). On the other hand, there were bureaucrats who preferred a *laissez faire* approach with greater private sector involvement. This would enable them to establish themselves in business or as employees of multinational capital. Public subsidies for private business based on the ideology of free enterprise and competition reflected such interests (ibid.).

Conflicting and expanding demands of this nature occurred at a time of a deterioration in the international market for diamonds and uncertainties in Botswana's overseas (EEC) beef market. By 1982, the Government found it necessary to impose a series of stringent economic measures, including restrictions on Government spending and a freeze in wages in order to maintain the situation.

and emergency meetings were held between the mining company and Government to negotiate the terms of the loan covering the debt.

Criticism was voiced on the disproportionate share of resources that had been allocated to large cattle owners, and infrastructural development, on the one hand, and on restrictions placed on entrepreneurship by Government regulation, on the other. Bureaucrats were also accused of securing relatively high salaries, rapid promotion, favourable housing benefits and guaranteed car loans for themselves (see Parson, 1980). In response to such criticism, Government funds were set aside for the facilitation of Batswana enterprise. Associated with the above was the expansion of the commercial sector with the rapid increase in bars and bottle stores, urban land and housing speculation, the growth of small general dealerships, and the widespread practise of `fronting' for non-citizen businessmen by citizens (Parson, 1982).

5.5.1 Political Implications of Economic Stresses

The pressure to promote commercial cattle production involved the allocation of `commercial' ie. exclusive land, for cattle ranching. It was rumoured that the private economic activities of some members of the Cabinet played a part here and talk of a possible split in the BDP was rife. The situation is characteristic of petty-bourgeois politics in peripheral capitalist countries (ibid.). Molokomme (1989) questions the staying power of Botswana's economic success, and suggests that recession could effect the stability of its democracy. He notes that:

> **"The litmus test for Botswana's liberal economic system may in fact only come when there is an adverse change in the country's economic fortunes" (Molokomme, 1989, p. 10).**

5.5.2 Regional and International Influences

In chapters four and five, the historical association between the Protectorate and South Africa was discussed. These ties are as important in the post-colonial phase, as they were then . Chapter two stressed the close economic links between Botswana and South Africa. Some 85 percent of Botswana's imports originate from or enter through South Africa and most exports transit South Africa en route to Europe or other markets (Lewis, 1985). The current migrant labour situation was noted earlier. A relatively large proportion of actively employed Batswana continue to work in South Africa. Public threats made by the Government of South Africa of such punitive actions as sending back all nationals employed in South Africa to neighbouring states, has particularly important ramifications. Selebi-Phikwe and other urban centres would be logical destinations for such unemployed and urbanised Batswana. In addition, all mining and most of the wholesaling houses in Botswana are subsidiaries of South African companies. A substantial share of Government revenues also comes from the customs union.

Relations with neighbouring South Africa have become increasingly complex. The racial policies of South Africa and the drive of its Government for effective political, economic, and military ascendency in the southern region of the continent, have presented Botswana with its most fundamental challenge (see Adam and Uys, 1985). Recently, however, the reform policies of South African premier, F.W. de Klerk and the resolution of the Namibian conflict have instilled a measure of hope of a peaceful future. Time will tell whether the policies of Apartheid will indeed be dismantled without resort to civil strife. As Carter and O'Meara note with regard to the significance of Botswana's location in southern Africa:

> **"the Southern Central Africa quadrant....holds possibilities of great power confrontations and because more than any place else in the world it is torn by that most explosive of issues: black and white conflict for power" (1982, p. 4).**

Picard suggests:

> **"A general military conflict, if and when it does occur in southern Africa, almost certainly will be fought across the fields and grasslands of Botswana" (1987, p.3).**

As a means towards reducing Botswana's dependence on its neighbour, Sir Seretse Khama took the lead in forming the Southern African Development Coordination Conference (SADCC), a regional grouping whose aims are economic cooperation and a gradual reduction of dependence on South Africa (Silbermann, 1983). Botswana invested heavily in leading SADCC by taking on the main coordinating function with an independent secretariat being established in Gaborone. With its good relationship with a broad range of donor countries, Botswana is uniquely suited to playing such a key role. SADCC's success has been compromised in the past by prolonged internal wars in a number of these countries, Zimbabwe and

Mozambique notably, which resulted in transport and logistical problems. Trade and transport connections with Botswana's black ruled neighbours have thus been impeded over the past few years although the situation is set to change in the future as only Mozambique is presently experiencing civil strife..

On a broader front, Botswana's key international relationship with the United Kingdom has been diversified and additional diplomatic ties and economic links have been sought, principally involving aid programs. The cumulative result of these efforts has been the largest per capita flow of official development assistance of any African country (Lewis, 1985)). In terms of sustainable development, many of the programs of `modernisation' have led to greater dependence on external investment. The case of industrial diversification in Selebi-Phikwe provides evidence of this.

5.6 SUMMARY

An empirical analysis of the mode of production, class and state, and their dynamic tendencies promotes understanding of basic structures underlying current development policy in a way that modernisation and dependency theory cannot. The history and structure of the Botswana political economy has actively determined its current peripheral and subordinate status in the international environment. The transformation of an autonomous pre-capitalist society into a colonial capitalist one, laid down the foundations for its recreation as a peripheral capitalist society in the post-colonial period.

The most salient features arising from economic transformation in independent Botswana are as follows:

> (1) Rapid urbanisation associated with mining. Urban growth of the type that has been experienced is particularly vulnerable considering Botswana's status as a capitalist society, peripheral to the needs of the world economy.
>
> (2) The potential effects of dependence have been exacerbated by the urban bias in the Government's approach to development.
>
> (3) A corollary of such emphasis is that the rural sector which supports the majority of the Botswanan population has been relatively neglected.

> (4) Expectations of future well-being based on the wealth released from the minerals industry, have been raised. These are not based on reality as production possibilities have not been extended or diversified suggesting that limited employment opportunities will be created in the future.

Mining ventures and other externally dependent forms of `development' arose within the historically specific creation of capitalist classes in the colonial and post-colonial periods. Selebi-Phikwe is a classical feature in Botswana of a peripheral capitalist structure which exhibits many of the contradictions and latent tendencies of unsustainability which characterise `development' in the contemporary period. Its fate is likely to colour development trends in the 1990s. The experience of this particular mining town hints at a likely deceleration of economic growth and with it the prospect of growing unemployment among school-leavers who drift to the urban areas in search of work. Increasing in-migration into towns is only currently possible with an expansion of the mining industry and the dangers inherent in reliance on such an economic base are evident in the case of the copper/nickel project.

CHAPTER SIX

THE RISE AND DECLINE OF SELEBI-PHIKWE: A CASE OF STRUCTURAL DEPENDENCE AND UNSUSTAINABILITY

> **"I wish merely to suggest that if, by industrialisation, Botswana is to escape from the impasse in which so many LDCs find themselves, the obvious industry to concentrate on is the copper industry " (Lewis, 1974, p. 153).**

6.1 INTRODUCTION

In 1974, Lewis estimated that the copper/nickel industry would probably be of considerably greater significance to the Botswana economy than would the diamond industry. He conceded that although diamonds were likely to be an extremely important contributor to government revenue and foreign exchange, the extent of their impact on employment creation and the generation of secondary industry would be limited.

Lewis further noted that the capital sum required for the copper/nickel project was enormous in relation to total capital formation in Botswana and most other enterprises, and that it would provide employment for a greater number of workers than any other enterprise. The copper/nickel industry also necessitated considerable expenditure on infrastructural facilities. It was hoped that such a policy of investment would encourage, via the investment multiplier, further development of the industrial sector.

The intention in this chapter is to evaluate whether these hoped for benefits of modernisation have materialised in the contemporary situation in Botswana. The analysis will be undertaken through an examination of Selebi-Phikwe in terms of its development as a large, resource based, urban settlement. Consideration is also given to the extent to which mining development has led to greater economic dependence on the technology and resources of transnational companies and on transport arrangements within southern Africa.

The degree of dependence and vulnerability to external forces will be clarified through an examination of the town's linkages with the broader Botswanan economy. The issue hinges primarily around the question of the contribution that mining has made to a wider development process, in terms of the growth of secondary linkage industries in the town, its surrounding region, and in Botswana as a whole. Thus the ability of Selebi-Phikwe to survive the inevitable cessation of the mining enterprise will be assessed. Cumulative factors which have led to a phase of dissolution in Selebi-Phikwe are interpreted as being a response to a short sighted policy of development and are viewed as being symptomatic of a broader situation of a crisis of ***sustainable development***.

6.2 BACKGROUND

Selebi-Phikwe lies within the Bobirwa Sub-District of Central District and is 80 km due east of the Gabarone/Francistown Road at Serule. The Selebi-Phikwe region (see fig. 2) is effectively co-terminus with the sub-district which is bounded on its north-eastern margins by the international frontiers of Zimbabwe and South Africa respectively.

Apart from the mining at Selebi-Phikwe, the region relies entirely on agriculture which is mostly of a subsistence nature, with exception to the Tuli Block commercial farms in the east. As a primarily cattle rearing area, the region's farming system is similar to that over much of eastern Botswana; mixed fields and pasture, with the cultivated `lands' areas tending to be in proximity to the settlements (eg. Bobonong, Mmadinare/Phikwe, Sefophe) and along rivers (Motloutse and Thune mainly), and grazing areas further afield.

Selebi-Phikwe was originally developed as a town to support and service the copper/nickel mine. Unlike Orapa which is closed for security reasons, it is an open town which permits it to interact freely with surrounding communities. Inter-relationships that result have been influenced by the particular characteristics of the region and of the town, and differ markedly from those of Francistown, a community of comparable size.

Francistown, one of the earliest commercial settlements in Botswana, is relatively well integrated into its surrounding agricultural region. As an important service centre it holds a relatively more important position in its respective region than does Selebi-Phikwe. Two factors which could account for the stronger regional position of Francistown include firstly, its position on the national road linking Gaborone with Kazangula on the Zambian, Namibian and Zimbabwean frontiers and secondly, its maturity.

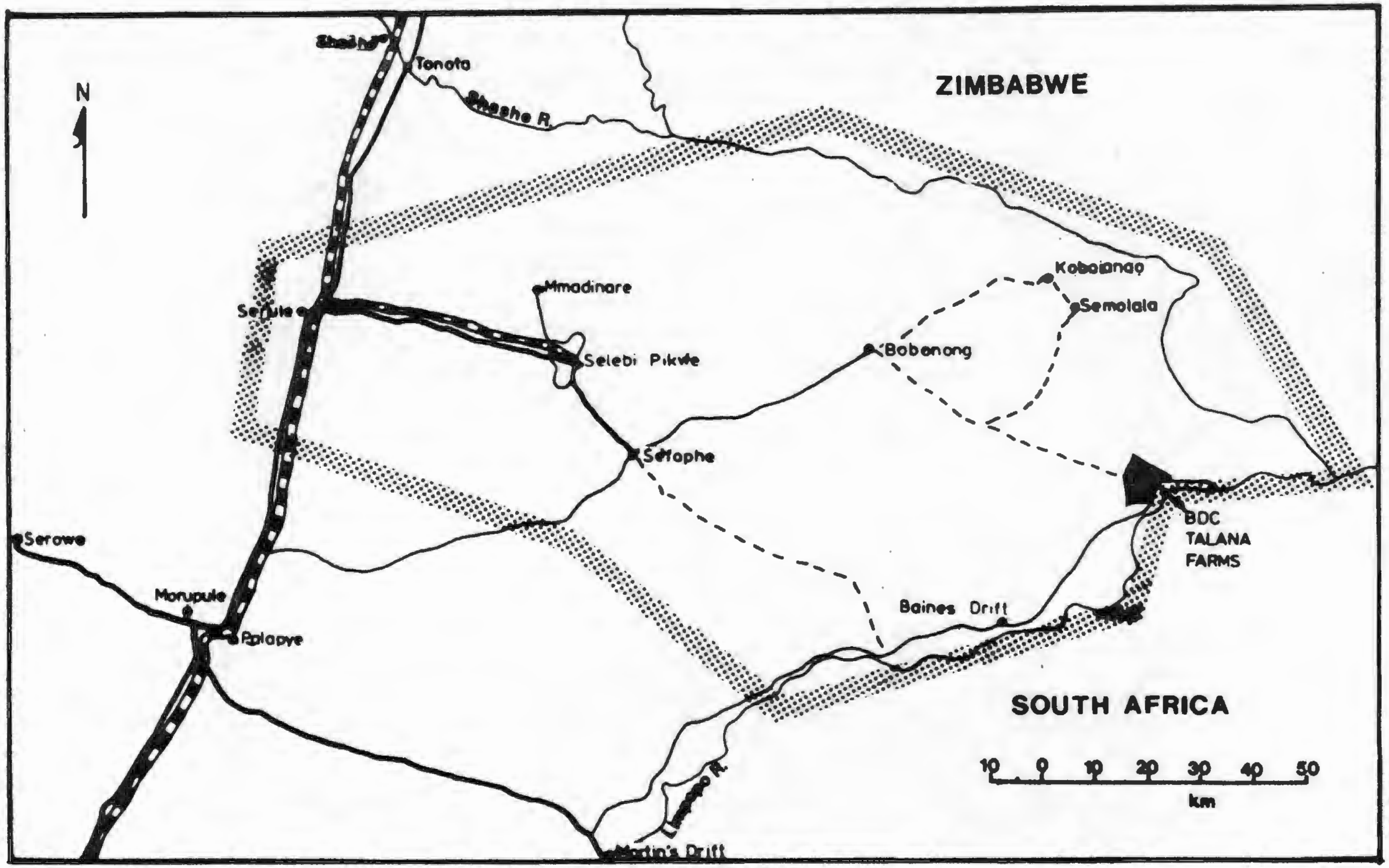

FIG 2 SELEBI-PHIKWE REGION

modified after, Selebi-Phikwe Town Council, 1985: *Selebi-Phikwe Development Plan, Final Report*, Department of Town and Country Planning, Botswana.

6.2.1 Local Authorities

The land occupied by the Township is wholly State land and the full range of government functions is exercised by the Selebi-Phikwe Town Council. Furthermore, the control of development in the Selebi-Phikwe Planning Area, declared under the Town and Country Planning Order of 1980, falls under the responsibility of the Town Council. The Area consists of land granted to the mining company in the mining lease and occupies some 260 km^2, of which approximately one-sixth consists of Selebi-Phikwe Township with the remainder being located within Central District (SPTC, 1985).

Land falling outside the boundaries of the Township is Tribal land (Bamangwato Tribal Territory) which is subject to the provisions of the Tribal Land Act of 1968. The land authority in the tribal area is the Ngwato Land Board with its subordinate Board in Mmadinare. Other local government functions are exercised by the Central District Council, based in Serowe.

6.2.2 The Township

Selebi-Phikwe supports a population of 50 000 people and the associated infrastructure consists of the mine and smelter complex, a residential area of high-cost housing reserved for the expatriate mine staff, a low-cost housing area, the peri-urban settlement of Botshabelo, and an industrial site (see fig 3). Transportation infrastructure is limited to a tarred road leading from Serule to the Township, a network of internal roads, and a road linking the Township with the airstrip. The road connecting Selebi-Phikwe with the Zanzibar border post on the South African frontier, is gravelled. A branch railway line from Serule hauls coal to the Township and transports copper/nickel matte for export. Railway tracks have been laid between the Phikwe shaft, and the Selebi shaft and smelter infrastructure for the haulage of ore.

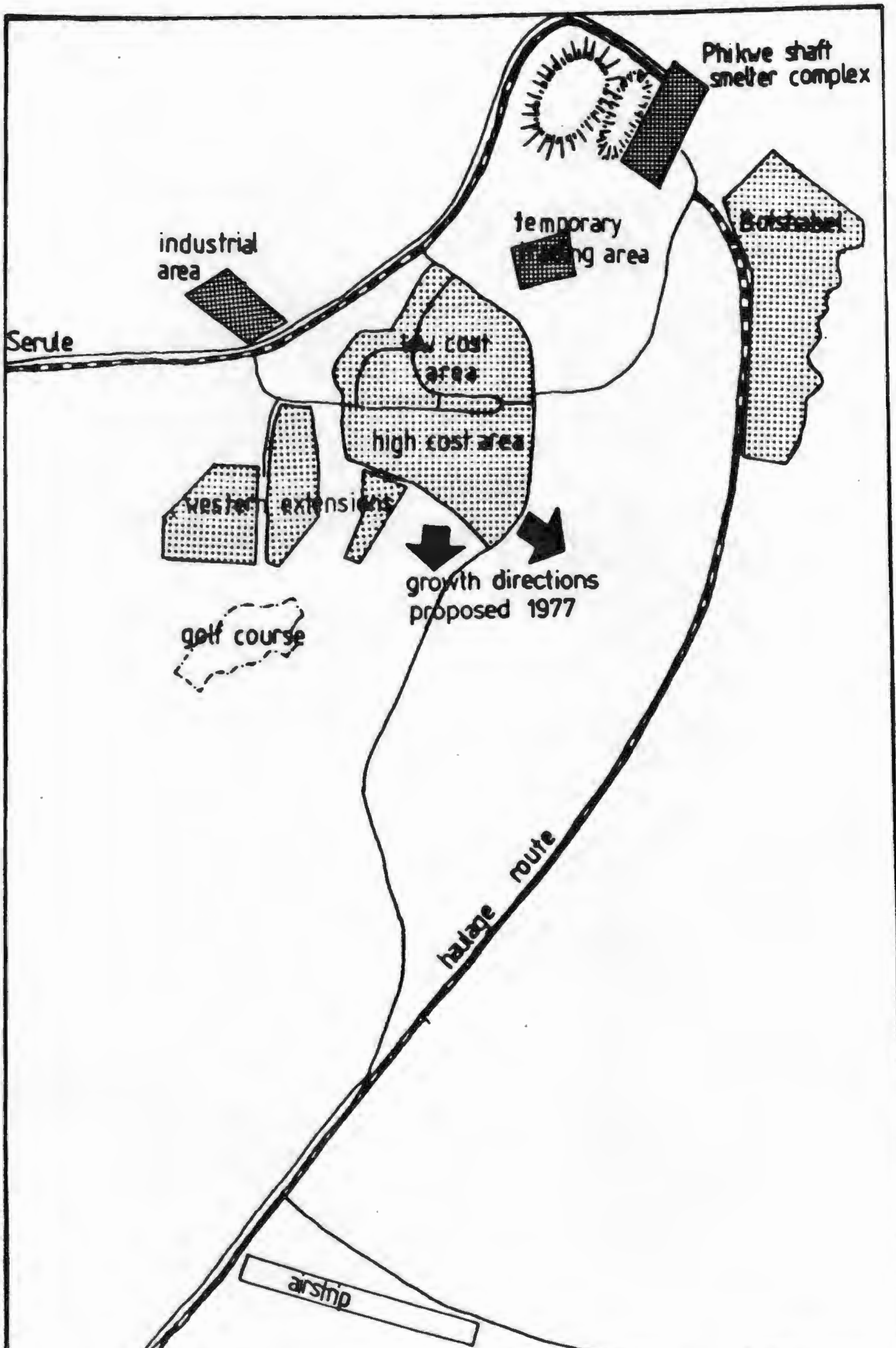

FIG 3: SELEBI-PHIKWE: ORIGINAL TOWN STRUCTURE

after, Selebi-Phikwe Town Council, 1987: *Selebi-Phikwe in the Eighties: A guide for Decision Makers*, Department of Town and Country Planning, Botswana.

6.3 CORPORATE STRUCTURE OF THE COPPER/NICKEL INDUSTRY

6.3.1 Background

Mining activity in Botswana, in common with that of many Less Developed Countries (LDCs), is financed and managed by several large transnational corporations (TNCs). This issue was considered in the second chapter. A more detailed examination of the corporate structure of Bamangwato Concessions Limited (BCL), reveals the international nature of the company involved in mining in Selebi-Phikwe. This is relevant to the discussion on economic dependence.

BCL, a subsidiary of Botswana Roan Selection Trust (BRST), commenced prospecting activity in the Bamangwato tribal territory in 1959. Copper deposits were discovered west of Francistown in the early 1960s, and in 1964 substantial nickel and copper ore bodies were located at Selebi and Phikwe, approximately 90 km south-east of Francistown. In 1967, proven reserves of ore were firmly established as totalling 32,1 million tons at Selebi and Phikwe (BCL, 1967, p. 8). By 1971, probable reserves were estimated at a further 11.6 million tons (Lewis, 1974).

Based on a mining rate of approximately two million tons per annum, the life of the reserves both proven and probable in the Selebi-Phikwe area was originally calculated to extend over some ***twenty three years***. In late 1973, the mining operations at Phikwe commenced, and smelting operations in early 1974, when the first shipment of matte was delivered to the US refining plant at Louisiana. Mining of the Selebi deposits commenced in 1979 (Colclough, and McCarthy, 1980).

In 1963/64, BCL also discovered copper deposits in the Matsitama area, 80 km west-northwest of Francistown. These were estimated to total 4,7 million tons (proven) and 1,72 million tons (probable) in 1968. A further 7,6 million tons of ore have been located at Selkirk and Phoenix in the Tati area. Deposits in the vicinity of Francistown are currently being exploited and processed in the Selebi-Phikwe smelter, which has extended the operations of BCL. The major focus of mining, however, continues to be on the deposits in the Selebi-Phikwe area (ibid.)

6.3.2 Financial Structure of the Copper/Nickel Project

Lewis (1974) has observed that the process of direct foreign investment in less developed countries is dominated by large TNCs operating within oligopolistic markets. These firms utilize sophisticated, capital intensive techniques of production in the host country. This pattern is mirrored in the corporate and technological structure of Botswana's copper-nickel industry.

The ensuing section briefly summarises the extremely complex financial arrangements which have governed the Selebi-Phikwe project. A number of secondary sources have been consulted for the details of the above in addition to primary material (Lewis, 1974; Hartland-Thunberg, 1978; Colclough and McCarthy, 1980; Cooper, 1984; Picard, 1987; and Pallister *et al*, 1988).

The complex nature of the mining agreements in Selebi-Phikwe was alluded to in chapter two. Sir Ronald Prain, then chairman of the companies involved in mining the Selebi-Phikwe copper and nickel resources, stressed this at the ceremony marking the successful negotiation of the major mining contracts:

> **"By any reckoning this is an historic occasion. It marks the culmination of sixteen years of discussion, scientific endeavor, negotiation, and the *creation of an international financial structure which can have few, if any, parallels in complexity and scope*" (cited in Lewis, 1974, p. 155).**

The financial structure of the mining project involved several giant TNCs; American Metal Climax (AMAX); the Anglo American/Charter Consolidated Group (AAC) and their subsidiaries, Metallgesellschaft, and Mineral Separations Ltd, and N.M. Rothschild and Sons, Ltd; banking and other financial institutions in West Germany, the United Kingdom and South Africa; and, not least, several multilateral aid bodies (Pallister *et al* 1988). The following paragraphs sketch a basic outline of the complicated arrangements between the companies, the government, and the other authorities.

The Selebi-Phikwe investment is jointly controlled by the South African, AAC, in which there are considerable British interests, and the American company, AMAX.

BRST and its subsidiary; BCL, are the two companies directly involved in the exploitation of the Selebi-Phikwe resources. In 1959, negotiations were initiated concerning the granting of prospecting rights in the Bamangwato tribal territory.

The two parties involved in negotiating mineral rights were the Bamangwato Tribal Authority and Rhodesian Selection Trust (renamed Roan Selection Trust), a company controlling an important share of the Zambian (then Northern Rhodesian) Copperbelt. The US transnational AMAX held a 43,3 percent share in RST (Cooper, 1982). BCL was formed as the controlling company formed to undertake exploratory work in the territory and ultimately, mining production.

The Botswana Government was responsible for providing the mining infrastructure. This was to be funded through a World Bank loan. In 1969 the World Bank insisted that the BRST shareholders guarantee the loan. AAC, originally a minor share-holder in BCL, took the opportunity of enlarging its holding in BRST by easing out some of the smaller shareholders who were unwilling to offer such a guarantee. The required guarantees were provided by both AAC and AMAX on their own behalf and on the behalf of other shareholders, who, in the meantime put up short-term finance for the project (BRST, 1972). Their holdings in BRST were eventually equalised with both holding a 29,82 percent equity (Lewis, 1974, p. 158). The remaining 40 percent of the shares in BRST are held by the general public in small lots. The final result is that the equity of BCL is as follows:

TABLE 4 BREAKDOWN OF SHAREHOLDING IN BCL

BRST:		85%
: AAC	30%	
: Amax	30%	
: Private Investors	40%	
Botswana Government		15%
		100%

6.4 DEBT AND THE FOUNDATIONS FOR INSTABILITY

6.4.1 Technical Problems and Risk

The Selebi-Phikwe mine was commissioned at the end of 1973. After running for a few days the plant was closed down (BCL, 1974). Due to a variety of technical problems, related primarily to the operation of the ore crushing machinery and smelter, the plant simply did not work.[1] Modifications were agreed on, after two teams representing the two principal investors, visited the site in March 1974. As a result of these delays the plant only began to operate even close to its original specification two years later, and the mine became a loss-making enterprise.

Colclough and McCarthy (1980) attribute the technical failure of the plant to a combination of factors, against the background of an unclearly defined division of responsibility. In the early years of the mine it was not clear as to which of the two major shareholders (AMAX and AAC) should take operational and technical responsibility for BRST and BCL. This resulted in frequent changes in local management, while in the meantime, much of the plant design was being undertaken by what remained of the original mine team in London.

Thus by the end of 1976, total production of matte since the plant had been opened was only 56 000 tons, which was little more than the planned output for a single year. This largely accounts for the atmosphere of pessimism and uncertainty which surrounds the mine's and therefore the town's future.

During the intervening period all fixed costs including a full staff and labour complement, in addition to the costs of the modifications themselves, had to be financed. This was covered by P131 million of short-term loans put up by the two major shareholders between the end of 1973 and the end of 1976 (Colclough and McCarthy, 1980). At this stage the investment exceeded P200 million and a loss of P60 million had been incurred. A total shut down for several weeks related to a strike in July 1975, exacerbated the situation. This will be considered in greater detail in a later section.

The rate of corporation tax on the mine was increased from 30 percent to 40 percent at the request of Anglo's managing company (BCL). The company was then able to

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[1] see BCL, 1975, p. 12-14.

take advantage of the benefits of the double taxation agreement between Botswana, Britain, and the United States. To ease the debt burden to BCL, no taxes were to be paid, however, until all the capital expenditure had been paid back (Pallister, *et al*, 1988).

6.4.2 Declining Nickel Prices and Unprofitability

The world price of nickel is most important in determining the future profitability of the mine, as although equal amounts of copper and nickel are produced, the unit price of nickel has historically been about three times that of copper. The sales contract was based on prevailing prices on the London Metal Exchange. Problems of unprofitability experienced by the mine reflect a world-wide recession in the industry. A declining trend in the price of copper and nickel between the early nineteen seventies and mid nineteen eighties was largely responsible for placing the future of mining in Selebi-Phikwe, in further jeopardy. Thus, although production improved during 1977 and 1978, losses were still being incurred because of the depressed prices for copper and nickel.

Copper prices between 1964 and 1984 for example, were particularly volatile. The decision to open a mine at the Selebi-Phikwe site was strongly influenced by one such episodic rise in mineral pricing. Nickel prices at the time (1971) had climbed steeply, making the proposition particularly lucrative. Subsequent declines in the price of nickel have called the viability of future mining operations into question. Though the nickel price has risen recently, and the mine is showing a profit, the servicing of the escalating debt is a major problem. In 1976, operating costs were covered due to rising output and rising metal prices, but revenues were not sufficient to contribute to overhead. As Hartland-Thunberg (1978, p. 48)) notes; "It seems likely that the mining operation will remain marginal; it will be able to meet its costs only when world prices are close to cyclical highs".

6.4.3 Maintenance Costs

In Selebi-Phikwe, as in most large-scale mining, much of the cost is in the initial capital investment. The marginal production (operating) costs for each ton of ore are normally, relatively low. With BCL this is not necessarily the case as production of ore is linked to the costly smelting process. Furthermore, the smelter which consumed a major portion of the initial capital outlay for the mine in Selebi-Phikwe, has only a limited life. The mine will cease to operate once the smelter reaches the end of its targeted life (year 2000).[2] The cost of maintenance increases each year, and has contributed toward the mine running at a loss (during most years) when the nickel price has been low. It is, however, worthwhile for the company to carry on producing at the moment, despite the low price of nickel, as a large proportion of its costs are fixed.

The costs of maintaining a technologically complex and capital intensive component such as the smelter, in the loss-making situation that BCL has found itself in for much of its history, are significant. Any major accident or malfunction of the equipment could spell the untimely demise of the entire copper/nickel project, regardless of remaining ore reserves (these are sufficient to enable the Company to operate past the year 2000). Although BCL is currently showing a profit due to a rise in the price of nickel, its accumulated debt is such that it is unlikely it will show a net gain in the future.

Given the cumulative factors which have contributed towards making mining in Selebi-Phikwe, such an unprofitable proposition, a pertinent question which arises, concerns the rationale for continued production. The primary purpose of BCL as a capitalist enterprise, is to show a profit for its shareholders, and given the losses sustained by the project there would seem to be little economic justification for maintaining the mine and smelter. The answer to the puzzle lies in the integrated nature of the international minerals industry.

6.4.4 Vested Interests and Diamond Production

Pallister *et al* (1988) have analysed the operations and corporate structure of the Anglo-American Corporation (AAC) and have shown that De Beers and AAC are interrelated companies, both under the control of the South African magnate, Mr Harry Oppenheimer. The two companies are strongly represented in the Botswanan mining sector, with AAC holding a substantial portion of the BCL equity, and De Beers controlling total diamond production. Thus Botswana's mining investment to date is dominated not only by South African capital, but also by one corporate group.

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[2] Recent plans to develop copper deposits discovered in Ngamiland have included the possibility of using the Selebi-Phikwe smelter for the initial processing of the mineral. This project is, however, at least ten years away from completion and would require a total overhaul of the smelter equipment. The motivation for using the Phikwe smelter appears to be based on a need to extend the life of the town (per. comm. Dr. J. Raimondo, 1990, Environmental Evaluation Unit, University of Cape Town).

While the Selebi-Phikwe operation was proving so disastrous, that at Orapa was an unqualified success. In technical terms, and in almost every other respect, the project was much simpler than that envisaged at Selebi-Phikwe. Production started in 1971, only four years after the deposit was discovered.

Open-cast mining is employed to work the deposits associated with the Orapa diamond pipe, which is the second most extensive in the world, covering an area of over a hundred hectares. Production increased with the opening of the Letlhakane (1977) and Jwaneng (1982) mines. Within seven years of production at Orapa, the price of diamonds had tripled, and the gems were firmly established as the core of the Botswanan economy. In contrast with the Selebi-Phikwe operation, the mine, which is little more than a quarry operation, has operated smoothly from the beginning, and apart from a fear of water shortage in 1973, there have been few problems. Mining has thus continued without interruption.

The unique marketing arrangements for the sale of diamonds were briefly discussed in chapter 2, with reference to the operation of the Central Selling Organisation (CSO), which is based in London. The CSO works in tandem with De Beers and keeps a tight reign on the world diamond monopoly by restricting supply in order to maintain prices. This artificial scarcity is of paramount importance to the diamond industry, without which the mineral would have minimal intrinsic value. Thus producers such as Botswana are allocated quotas by the CSO for the quantities of diamonds which may be marketed. Gluts in the market are prevented by reducing the production and sales of diamonds.

Given the fact that Botswana, as the third largest diamond producer in the world, is an important diamond province in the De Beers cartel, it is of paramount importance that control remains in the hands of De Beers. If Botswana was to find other partners for its diamond mining, this would impose a potential threat to the monopoly. On the other hand, De Beers is also in a strong negotiating position as it has unrivalled expertise in diamond prospecting and mining, and its monopoly position stabilises and maintains diamond prices. Given the corporate links with the copper/nickel project, where AMC hold a substantial proportion of the equity, there would appear to be oligopolistic situation with both De Beers and AMC conscious of the mutual dependence of their actions. Thus while BCL might be running at a loss, it is not likely to jeopardise the favoured position that De Beers holds with the Botswana Government, by closing down mining.

Critics suggest that Botswana is held hostage to unproductive copper/nickel mines because of the substantial infrastructural investment and the 4 500 jobs that the Selebi-Phikwe mines generate (Picard, 1987). It is consequently within the interests of Government to maintain the economic base of the town at all costs.

6.5 THE MINING INFRASTRUCTURE: A COMMITMENT TO URBAN DEVELOPMENT

With the discovery of diamonds in the Orapa area in 1967, the as yet untried mineral sector appeared to be the most promising focus of development efforts. Since independence, Botswana has thus maintained a consistently high investment ratio and this has generally been greater than twenty percent of domestic production. The fixed investment ratio peaked in 1972/3 when the construction of the copper/nickel mining complex was at its height. This proportion fell off in the following years, although the value of fixed investment continued to increase in absolute terms until 1974, as a result of urban construction at Selebi-Phikwe, together with large investments in power and water supplies.

It was agreed that the Botswana Government would cover the costs of the copper-nickel infrastructure while the actual costs of developing the mine itself would be undertaken by BCL. This ensured a greater degree of autonomy for the Government with regard to the nature of services and urban development.

Having undertaken to encourage and promote mineral development, the Botswana Government was faced with a number of distinct issues. In agreeing to finance the provision of the infrastructure necessary for the copper-nickel project, the Government had to try and ensure that this would, as far as possible, not just serve the mines themselves, but would also confer benefits to the country as a whole. An equally important consideration was that the fiscal arrangements for the mines would maximise the financial flows to the Government itself. Lastly, it was hoped that the mineral development would not lead to regional imbalance within the country. Connected with the latter issue was the concern expressed in the introduction, that mining development would lead to greater economic dependence.

6.5.1 Power Requirements

The United Nations Development Programme was approached for technical assistance in preparing feasibility studies, in 1967. Two alternative schemes were proposed, in which electric power would either be generated locally, or imported from South Africa. The first scheme, which was 75 percent more expensive than the second, was adopted by the Government as the multiplier effects of choosing the latter scheme were negligible. The Government's decision was, however, principally influenced by the general issue of economic independence and the perceived danger of sabotage to which a transmission line from South Africa would be susceptible (Colclough and McCarthy, 1980,).

The locally based scheme incorporated a 60 MW thermal power station which was to be located at Selebi-Phikwe, using coal from a mine to be developed at Moropule, which is situated 150 kilometres away. Rail transport was to be used to carry the coal, and for this purpose, a branch line from the main railway line; 65 kilometres between Serule and Selebi-Phikwe, and 14 kilometres between Palapye and Moropule, was required. A gravel road to serve the town was also envisaged, which was to be built parallel to the branch line of the railway. The scheme was estimated to cost P42 million (Gibb, 1968b). At present, the power station also serves Francistown, Shashe, Mmadinare, Tonota and Orapa.

The World Bank had agreed to arrange a consortium of donor agencies to finance the infrastructure. Initially, however, it was less concerned with the issue of economic dependence and favoured the cheaper alternative. Such a response was undoubtedly more related to the desire for a secure investment than to any concern for real `development'. Through discussion with the President of the World Bank in 1969, Seretse Khama managed to eliminate opposition from that quarter, and the Moropule colliery and associated rail infrastructure were developed (Colclough and McCarthy, 1980).

Reserves of low quality coal deposits are estimated at 4 billion tonnes and the operation at Moropule is designed to produce only 200 000 tonnes a year, from an open pit operation (Hartland-Thunberg, 1978). The full output of the colliery is consumed at Selebi-Phikwe and Gaborone. One of the unfortunate negative externalities of using fuel coal of a high sulphur content, has been the generation of relatively high atmospheric pollution levels in Selebi-Phikwe.

6.5.2 Development of Water Resources: The Shashe Project

A multi-faceted regional project based around the water resources of the Shashe River was envisaged in 1966, before the mineral potential was fully known. The development of copper mining at Selebi, and future industrial development at Francistown and Shashi Siding, required ample power and water supplies. There were also plans to irrigate large areas of arid land and future plans to develop the salt and soda-ash deposits at Sua Pan. For these reasons, a large proportion of development expenditure in the Transitional Plan conceived at the time of independence in 1966 was to be devoted to it.[3]

By 1968, the Shashe Project had grown to include not only copper-nickel mining at Selebi-Phikwe, copper mining at Matsitama, and the extraction of soda-ash from the brines in Sua Pan, but also diamond mining at Orapa and a coal mine at Moropule, together with the necessary water, power, and transport arrangements (Colclough and McCarthy, 1980).

From the outset, the Government was anxious that the power and water facilities, and transport arrangements for Selebi-Phikwe should be designed with the region as a whole in mind. Such an ambitious and multi-faceted project was, unfortunately, impossible to sustain. Firstly, the Matsitama copper project was abandoned by BCL in favour of the prospects offered by Selebi-Phikwe. Secondly, the Sua Pan brine project was postponed and has only been developed on any scale since 1989. Finally, the Orapa prospect proved to be rather isolated and physically independent of the other proposals and was therefore developed separately. Thus by 1970 the Shashe Project was almost wholly associated with the opening of Selebi-Phikwe mine, a small colliery at Moropule to supply coal to the copper-nickel mine, and the associated power, water, transport, and town.

The abundant water requirements of the mine were met by building a dam across the large but ephemeral Shashe river. The dam site is located some 60 km to the west of the mine at Tonota where it impounds approximately 85 million cubic meters of water which is sufficient, if necessary, for several years consumption (Gibb, 1968a).

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[3] See Republic of Botswana, 1966: *Transitional Plan for Social and Economic Development.*

6.5.3 Selebi-Phikwe: Urban Infrastructure

In making itself, rather than the mining company responsible for the necessary infrastructure, the Government was in a position to ensure that the new town became an integrated community. This was to avoid the South African and Zambian Copperbelt tradition of barrack-like mining company towns, with spacious houses for the inevitably white management on the one side, and rows of single men's quarters on the other.

The town to be established at Selebi-Phikwe was originally established to accommodate about eight thousand people, comprising the mine workers and their families and others working in the town (Gibb, 1968b). In contrast to the closed Orapa township which was entirely financed, constructed, and managed by De Beers (for security reasons and to prevent illegal buying and selling of diamonds), Selebi-Phikwe is an "open town". The principal difficulty arising from the establishment of an open town has been the control of population growth in the town. By 1971, two years before the town was complete, it was estimated that the population was already ten thousand people. This had reached 21 000 people by 1975 (MFDP, 1977). Projected population statistics based on historical growth rates have estimated that by 1991, 55 384 people will be living in Selebi-Phikwe (Statistical Bulletin, March, 1989).

Plans for Selebi-Phikwe were prepared in 1968, following the commencement of copper mining at Selebi in 1965, and the discovery of copper-nickel at Phikwe (15 km to the north) in 1967. The 1968 Plan was prepared by Sir Alexander Gibb and Partners and it was envisaged that an initial mining settlement of 7 500 people would grow into a fully fledged town of 25 000 people by 1980 (SPTC, 1985).

The 1968 Report recommended that site-and-service housing areas be provided for the lowest income groups and that an extensive peri-urban area around the township be established, in order to forestall unauthorised development. This was never implemented, leading to the growth of the squatter settlement Botshabelo, which incorporated 40 percent of the town's population of 20 600 by 1975. The Government and Town Council reacted to the demand for low-cost housing by establishing site and service schemes on the western side of the Selebi-Phikwe township. Thus by 1976, the town, with a population of 22 420 people had grown to be the third largest town in the country (ibid.).

The Government was faced with a 9 percent population growth rate for the town annually and in 1977, commissioned consultants to prepare a ten year growth strategy for the town. The initial phase of the plan (1977-1982) formed part of the World Bank funded Urban 2 Project and provided for the upgrading of 2 825 site and service plots, and the servicing of an additional 1 335 site and service plots and 465 high, medium and low-cost housing plots. The project also provided for three schools, two health posts, a clinic, two local shopping centres, two community centres and the Botshabelo District Centre. In addition the industrial area was extended to give a total of 30 hectares (ibid.).

At the time of implementation of the Urban 2 project, BCL developed the Selebi shaft and associated transport infrastructure. The 1977-1982 period of urban upgrading and expansion was also characterised by growing uncertainty over the future viability of copper-nickel mining in the town. This was caused mainly by depressed world prices for the minerals and the financial agreements between BCL and Government were restructured to allow for the continued operation of the mine. Increasing concern was also expressed by Government at the possible decline of Selebi-Phikwe following mine closure. A "Selebi-Phikwe Continuation Steering Committee" was consequently established to examine the matter and this forms the focus of the next chapter.

6.6 IN-MIGRATION AND INFORMAL COPING MECHANISMS

The stimulus provided by employment in the construction sector, while the town and mine were being built, resulted in a rapid influx of people into the nearby unplanned settlement known as Botshabelo. Urbanisation is, however, rarely a temporary phenomenon; increasing mining employment replaced declining construction employment, and the population remained.

Selebi-Phikwe has been shown to be the primary urban destination of migrants from the region, with 70 percent of migrants coming from within 150 km of the town. The main purpose of migration is the search for employment, with urban residents tending to maintain close ties with, and involvement in, their rural households (SPTC, 1985).

6.6.1 Rural Linkages

Cooper (1982) has analysed emergent urban class structures in Botswana on the basis of a case-study on miners in Selebi-Phikwe. His objective was to identify the class structure generated by rapid post-independence urbanisation in Botswana. He argues that although Selebi-Phikwe has arisen out of the investment of TNC mining capital, which is the dominant element shaping the relations of reproduction in the town, rural links are nevertheless of particular importance. Most urban, unskilled and semiskilled miners were found to be involved in arable and cattle farming, usually as poor peasants. Thus urban wage earners may be viewed within class situations in both capitalist and rural non-capitalist modes simultaneously, ie. in a compound `peasantariat' class situation affecting class consciousness in important ways.

The poor and middle peasantry (lands and cattle combined) households in the rural areas, making up about sixty percent of all rural households, were found to be usually crucially dependent for their reproduction on these urban, or South African mine, unskilled and semi-skilled wage earners. The majority of workers in Selebi-Phikwe keep their lands and cattle linkages out of necessity, with the urban "very poor" category, characterised by even stronger rural linkages (Cooper, 1980a). Thus there is a form of interdependence with regard to economic activities between workers earning a wage in urban areas like Selebi-Phikwe, and the rural areas.

Government planners have tended to conceive of a "rural/urban dichotomy, ie. a dual economy of `rich' urbanites and `poor' rural dwellers. This is not representative of the reality of production in Botswana as Cooper (1980b) shows:

> **"Even if a rural household does not actually have such a migrant wage earner, the circular flow of `urban' wage income into every nook and cranny of the rural social structure points to the extreme fallacy of the idea of an `isolated' farming sector." (p. 5)**

Cooper (1980b) arrived at two central hypotheses based on his research in Selebi-Phikwe. Firstly, he postulated that wage levels for the peasantariat are the crucial independent variable, with cattle and `lands' activities being dependent on remittances from this wage income. Secondly, he noted a breakpoint of around P100 (1976) which coincided roughly with the unskilled/semiskilled urban wage division. Those below this wage level never earn enough to enable anything beyond `subsistence' in cattle and lands farming, while those above the breakpoint are increasingly able to use their `surplus' wage for significant cattle accumulation and some commercialisation of their arable holdings.

Studies indicate that most male farmers committed to rural farming and cattle raising are usually members of the traditional elite *or* else are ex-urban migrants and are usually middle-aged by the time they take up farming for themselves (Kerven, 1977; Cooper, 1980c). Thus for many Batswana at present, part of their lifecycle is by structural necessity, spent in wage labour in the towns as a means of developing their rural holdings.

In an earlier study of unskilled woman and female self-employed in Selebi-Phikwe, Cooper (1979, p. 19) suggested an important hypothesis which is of particular relevance to the issue of unsustainable urbanisation in Botswana:

> **"...that it is amongst these lowest urban strata, who are earning so little that they are unable to purchase cattle or acquire even a minimum of arable means of production, that one will begin to find a possible significant breaking of rural links and hence a `commitment' to town."**

The trend towards urbanisation in Botswana has been accelerated by the Tribal Grazing Lands Policy (TGLP), which has contributed to the limited expulsion of peasantry from the land. This could undermine the present rural base on which rich and peasantry rest, if it impinges on the more heavily populated western sandveld areas, resulting in the dissolution of previously conserved aspects of the earlier mode on which the peasantry depended. The cumulative result of a move towards rural proletarianisation, would be an increasing number of entire peasant households which would stream to join the lower level skilled and lumpenproletariat in the towns, and who would perhaps of necessity, begin to sever their rural links (Cooper, 1979). This suggests that if the mode of production characterising rural areas begins to change with regard to land tenure, social (kinship) productive networks, and the level of technology, that these rather than any `urban consciousness' will be the factors that will really make a difference (Cooper, 1980 c).

Cooper's work has a number of implications for the central hypothesis of unsustainable urbanisation in this thesis. Firstly, it suggests that the future integrity of towns such as Selebi-Phikwe is not only important to those directly engaged in wage labour, but is also of crucial importance to the maintenance of rural networks. The collapse of Selebi-Phikwe could thus contribute to rural impoverishment.

Secondly, Government policy in the area of rural development has the potential to create a rapidly increasing urban proletariat, who will have severed their rural ties out of necessity, and will be particularly vulnerable to the effects of any future unemployment. Finally, changing class structures suggest that there is a move towards an entrenchment of the urban form in Botswana.

6.6.2 Urban Informal Sector

Colclough and McCarthy observe that for each of the two thousand primary jobs in the mining sector there were roughly ten people living in the town and being supported by the urban economy. For them this is evidence that, "at least the benefits of the open town have been wider than those of the closed town of Orapa" (1980, p. 145). This, however, says very little about the sustainability of such development in meeting future needs and expectations in Selebi-Phikwe.

The issues surrounding growth-based indices such as GDP and the fact that they only record formal sector activity were discussed in section 2.3. Informal sector activities which are difficult to quantify, have not been considered as a viable means of generating future employment in Selebi-Phikwe. On the contrary, they have been actively discouraged as the example of temporary trading areas which were established on the periphery of the planned town indicates. These arose in response to demand from temporary camps to house construction workers, which were sited to the east of the town centre. In the eyes of the Government, "Inevitably these areas, unfettered by statutory controls or the imposition of rates, flourished as trading areas and seriously impeded the natural growth of the designated commercial centre of Selebi-Phikwe, the Mall" (SPTC, 1985 p.4).

The activities in the Central Business District (CBD) of Selebi-Phikwe are dominated by expatriate owners catering for the First World tastes of expatriate consumers to a significant degree. Once again, a relevant question which arises here is whether such `development' is appropriate and sustainable. The history of Botswana has been characterised by a suppression of indigenous trading and retail activities. It would make sense to promote such activity in the post-colonial era regardless of whether it falls into the category of formal sector activities, or not.

6.7 INDUSTRY: A LACK OF INTERNAL AND REGIONAL DEVELOPMENT

6.7.1 Reliance on Mining for Employment

Selebi-Phikwe was established as a mining town and not surprisingly, 41 percent of its formal sector employment is centred in mining, compared to the national average of 5 percent. BCL, the largest private employer in Botswana, currently employs approximately 4 500 people and this figure is not expected to rise substantially in the future. The town thus provides over 60 percent of all mining employment in Botswana (based on 1987 statistics).

6.7.2 Industrial Diversification

The emphasis on mining has led to the creation of an extreme example of a one-industry town, leaving most of the other sectors relatively under-developed. As a result, the manufacturing, education and finance sectors are relatively weak, which is significant in a town of this size (see table 5).

Industry employs 647 people, of which a large fraction are engaged in engineering work related to mining activities. Bar for construction, the manufacturing sector employs only 1.3 percent of the Selebi-Phikwe workforce (SPTC, 1985).

Seventy-eight serviced industrial plots are available with a combined area of just under 30 hectares, and 18 of the plots are serviced by rail. Currently, a number of plots are unallocated, indicating that a shortage of serviced land is not a block to industrial development in Selebi-Phikwe. Half of the industrial area is occupied by engineering and construction firms, and two bakeries make up the rest of the manufacturing sector. Firms involved in wholesale and distribution are the other main private users on the site (ibid.).

The town's service sector employs over 800 workers, mainly in the retail and commercial sectors. In addition, a substantial part of the business conducted by the commercial sector is dependent on BCL employees. Thus it may be said that almost the entire Selebi-Phikwe workforce is directly or indirectly dependent on BCL for employment (see table 5).

TABLE 5

EMPLOYMENT BY MAJOR INDUSTRY: FORMAL SECTOR SELEBI-PHIKWE 1981

	MALE	%	FEMALE	%	TOTAL	%
AGRICULTURE	71	0,9	33	0,8	94	0,9
MINES	4 156	52,8	148	5,5	4 304	41
MANUFACTURE	118	1,5	21	0,8	139	1,3
ELECT./WATER	342	4,3	17	0,6	359	3,4
CONSTRUCTION	820	10,4	48	1,8	868	8,2
SALES	393	5,0	428	15,8	821	7,8
TRANSPORT	134	1,7	10	0,4	144	1,4
FINANCE	27	0.3	20	0.7	47	0.4
OTHER SERVICE	717	9.1	1 553	57.2	2 270	21
EDUCATION	68	0,9	168	6,2	236	2,2
GOVERNMENT	1 022	13,0	276	10,1	1 298	12
TOTAL	7 868	100	2 712	100	10 580	100

Source: Adapted from Selebi-Phikwe Town Council, 1985: *Selebi-Phikwe Development Plan, Final Report*, fig. 17, p.53, Dept. of Town and Regional Planning, Botswana.

The present situation reflects two significant employment trends. Firstly, the expansion of the mining company has given the overall employment trend a consistently positive direction. Secondly, from the early 1970s onwards, employment in urban infrastructure has expanded rapidly, so that whereas in 1974 mining accounted for 80 percent of formal sector employment, in 1980 it accounted for just over half (SPTC, 1985). This figure does not, however, include those people who are indirectly reliant on the continued operation of the mine.

An important trend over the past decade has been an absolute decrease in employment in the commercial, other manufacturing, services, and commercial sectors in Selebi-Phikwe, from a total of 1 005 jobs in 1980 to 610 in 1983 (ibid.). This appears to correspond with the period of uncertainty over the continued running of the mine.

In 1983, the Selebi-Phikwe Town Council carried out a survey in Selebi-Phikwe to determine, among other things, the affect of BCL on businesses engaged in manufacturing, services and commerce. Respondents were asked how a BCL closure in the next five years would effect them. The results indicated that total employment in the firms surveyed could decrease by a further 285 jobs or 47 percent, bringing the total since 1980 to 68 percent (a loss of 680 jobs). Approximately 90 percent of this loss is in the manufacturing and related service industries. Correspondingly few of the companies that would close down, saw opportunities for diversification (SPTC, 1985).

Four periods of growth in Selebi-Phikwe may be identified:

(1) Between 1968 and 1973 all employment was in the construction industry, related mainly to the building of Phikwe mine and smelter and the development of the original town.

(2) The following two years were witness to a dramatic increase in public sector utilities as local government, health, education and other public services were established.

(3) The years 1976 to 1978 were characterised by a lull in the town's development.-

(4) The period between 1978 and 1981 was associated with renewed growth, during which the Selebi mine and Number Three shaft were developed. The Urban 2 World Bank/Government of Botswana development programme also came into being. More importantly, although the commercial sector in the town grew, the manufacturing sector never made more than a small contribution towards development, and even then was largely devoted to the servicing of the mine itself.

Thus it is evident that although mining investment and public utilities have increased in Selebi-Phikwe, along with population numbers, there has been limited associated development of ***alternative productive opportunities***.

6.7.3 Regional Integration

Paradoxically, although Selebi-Phikwe is by far the largest commercial and industrial centre in the region, its regional role in these sectors is fairly limited in comparison with Lobatse and Gaborone in their respective regions. The Selebi-Phikwe Development Plan (1985) ventures the following reasons for this:

(1) Transportation and communication links within the region are relatively poor, and do not focus on Selebi-Phikwe. Selebi-Phikwe's primary links are with centres outside its immediate region - Francistown, Gaborone and South Africa.

(2) There are few activities in the region that would look to Selebi-Phikwe-based firms for industrial services or construction, apart from Government projects.

(3) Due to the relatively small regional market of Selebi-Phikwe in terms of population and income, wholesale and retail services are not numerous with only 5 wholesale outlets to Francistown's 14. Furthermore, its role as a consumer of regional resources is as restricted as its function as a service centre. Thus Selebi-Phikwe has not stimulated the agricultural sector in the surrounding region to supply the consumer market in the town.

Summary

Due primarily to a poorly developed communication network that does not focus on the town, under-developed agricultural resources, and a relatively small and scattered population, Selebi-Phikwe is only very tenuously linked to its immediate surrounding region. Means of combatting this lack of alternative development and of ensuring Selebi-Phikwe's future are discussed in the next chapter.

6.8 THE PROBLEM OF GENERATING WIDER DEVELOPMENT

6.8.1 Dependence on Foreign Transportation Arrangements

Botswana's single railroad, originally built by the British to join the British Cape Colony with Rhodesia, has played an important role in generating economic growth. It accounts for a major percentage of freight originating or terminating in Botswana. In addition to bringing in the bulk of Botswana's essential imports, it carries out beef and mineral export products. With the exception of the two branch lines (75 km) connecting the coal and copper mine to the main road, the railroad is owned and controlled by foreigners. It relies on South Africa and Zimbabwe for railroad operating expertise, railroad maintenance and other services.

Botswana's road transportation facilities are limited to the "Botzam road", which links Gaborone and Lobatse with Selebi-Phikwe (via a branch road), Francistown, Kasane, and ultimately Zambia, where a ferry service provides a connection between the two countries. Such a rudimentary road network reflects the sparsity of the population. Suggested measures of integrating regional development more effectively, include the construction of a tarred road linking Selebi-Phikwe with the northern Transvaal and are considered in the next chapter.

Botswana is also reliant on South Africa for a route to the sea and all associated port and harbour facilities. Thus, the minerals and beef industries which form the economic core of the country, are particularly vulnerable to a disruption of any of these vital transportation links. The difficulties of generating wider and more self-sufficient development are obvious given the dependence on a limited and foreign owned transportation infrastructure.

6.8.2 Trickle Down and the Multiplier Effect

Mining is by its nature capital intensive, generating relatively few local jobs, is frequently located in remote regions, and may have few links with other local sectors of the economy. In Selebi-Phikwe this has led to few ancillary activities being generated, as most equipment is imported and no local inputs are required. Furthermore, the mine was located in an area lacking any history of urbanisation or links with the broader economy. The cumulative result for Selebi-Phikwe has been the formation of a foreign-oriented "enclave" which is located in, but is not really integrated with, the national economy and which generates few "multiplier effects" (economic growth in other economic sectors). The following discussion focuses on the historical and international factors which have contributed towards enclave development in this particular case.

6.8.3 Domestic Returns: The issue of Refining

The concept of sustainable development incorporates not only the temporal aspects of development but also the broadness of such development. It was noted in an earlier chapter that the numbers of workers employed in the minerals industry in Botswana is low in relation to the total investment expenditure. Helleiner (1979) argues that in addition to creating few backward linkages through government revenue, TNCs in the primary sector often export the raw materials which they produce in a relatively unprocessed form. Thus processing activities which tend to be carried out in the home countries of TNCs and which tend to be characterised by high value added, do not benefit Third World countries and fail to create forward linkages. This is true of the multiplier effect of the copper-nickel project at Selebi-Phikwe, which is limited as only the first stages of processing of the ore are undertaken. The ore is crushed, concentrated by separating it from unwanted material and is finally dried. Resulting concentrates are then smelted using a technically sophisticated "flash smelter furnace" and two electric furnaces. The final product is a matte which contains approximately 80 percent copper and nickel and a small quantity of cobalt. This is railed for export via South Africa and was originally shipped for refining to Port Nickel in Louisiana, where one of the project shareholders, Amax, had spare refining capacity

A major concern of the Botswana Government was to maximise returns to the country. Value added industries such as a refinery and associated manufacturing industries were obvious possibilities for spreading the benefits of mining development in terms of the generation of employment and retaining a greater share of the profits from mining. BCL was, however, unwilling to accede to the demands of the Government that the ore be fully refined within Botswana in order to maximise domestic benefits.

There are links between the company involved in mining operations (BCL) and the TNC involved in refining. The integrated nature of the international minerals industry is evident in the refusal of a government request for the construction of a refinery in Botswana by the mining companies involved there (Pallister et al., 1988). AMAX, one of the major shareholders in BCL and an old partner of AAC insisted that the smelted ore should be sent to its new refining plant in Louisiana to bring it to full capacity.

This led to delays in negotiations over the project and the Government eventually gave way rather than place the project in jeopardy. The reasons for the company's stance are complex, and are related to the structure of the international minerals industry.

6.8.4 Transfer Pricing and Selebi-Phikwe

Transfer pricing, a mechanism used to maximise the returns for mining TNCs, was briefly discussed in chapter two. BCL employs an interesting refinement on this approach, as regards the copper-nickel project, which helps to explain its reluctance to grant Botswana the right to a domestic refinery (Pallister *et al*, 1988). In 1985, AAC and Rio Tinto Zinc (RTZ) entered into what are referred to as "toll refining contracts", with two separate companies in Switzerland, to refine nickel and copper matte from the mine. The mine had experienced large losses in the previous three years. In this arrangement the mining companies appeared to be unusually generous in their contracts with what are relatively small and unknown metal agencies in Switzerland. The dramatic fall in the real value of copper (54 percent) and nickel (64 percent) between 1970 and 1983 formed a background to the arrangement.

AMAX abandoned Port Nickel, the refinery in Louisiana which it had foisted on the government of Botswana. RTZ had also closed its loss-making Empress nickel mine in Zimbabwe in 1982, leaving its refinery at Eiffel Flats redundant, while AMC refinery at Bindura was plagued by excess capacity. Contracts were struck between AAC's Bindura Nickel Corporation and a company called Incontra AG in Zurich, RTZ's Empress Nickel Mining Corporation, and a company called Centametall AG in the Swiss canton of Zug. This part of Switzerland is favoured as a base for brass-plate commodity traders who are protected by impenetrable company secrecy laws. More importantly, both fall outside the Zimbabwean laws controlling transfer pricing, since the metal was bought direct from Botswana by the Swiss agencies (Pallister *et al*, 1988).

Empress promised the delivery of 105 000 tons of metal over ten years and Bindura agreed to refine 14 800 tons over five years; the combined amount representing about half of the two companies' refining capacity. Strangely enough the price each company charged for the refining was unusually low; Empress's tolling fee was half of the usual rate charged by other large refiners and Bindura's fee was less than two thirds that of Empress. It was also agreed that Bindura ship the metal to Rotterdam at its own expense and the delivery dates of the contracts, granted the Swiss at least thirty days' credit, in effect. An unlikely clause in the contract stipulated that if Empress failed to fulfil the contract, the company agreed to place US$7.2 million at the disposal of Centrametall in New York (ibid.).

The combined effect of these agreements is to the advantage of the Swiss companies as they are getting their metal at extremely favourable prices, well below the world market price. Additionally, the low prices disfavour both Botswana and Zimbabwe. The latter country will find it difficult to compete with its own metals, especially in view of the fact that the refining capacity is being taken up with these toll contracts. Finally, as mentioned earlier, both contracts lie outside of the control of the Mineral Marketing Corporation, which was set up to discourage this form of activity (ibid.). The explanation, according to informed metal traders is simple. AAC and RTZ ultimately control Incontra and Centrametall.

6.8.5 Primary Sector Production and Forward Linkages

Although it is widely accepted that TNCs involved in the primary sector in Third World countries have failed to create forward linkages leading to more broadly based development, interpretations of this matter differ. Neoclassical writers, on the one hand, propose that the location of production is determined primarily by comparative advantage and limited local linkages are viewed as a reflection of the disadvantages of producing capital machinery and undertaking processing in the less developed countries. Their argument is based on the idea of an international division of labour in which less developed countries specialise in the production of raw materials, while the advanced capitalist countries undertake processing and supply capital goods or inputs in the form of equipment and machinery.

TNC critics such as Girvan (1976), on the other hand, emphasise the way in which the particular institutional form of the TNC militates against the creation of domestic linkages. He cites the following reasons to explain why mineral producing subsidiaries have tended to import inputs rather than purchasing them locally: Firstly, inputs are often produced by the parent company itself. Secondly, the use of well-established metropolitan suppliers ensures that the purchase of materials and capital equipment for all subsidiaries will be centralised to obtain economies thereby reducing costs and standardising the processes used. Thirdly, foreign exchange, while it may be lacking in the host economy, is not scarce for the TNC.

With reference to the marketing and refining arrangements of BCL, it would appear that these arguments are not mutually exclusive and that both carry some weight in accounting for the paucity of wider development in Selebi-Phikwe. Clearly, the level of technology employed in mining copper/nickel is such that it makes sense to import much of the capital infrastructure rather than produce it locally. In addition, the scale of investment required for the establishment of a refinery would have imposed severe demands on the availability of foreign exchange in Botswana.

Another approach to the problem relates to the centripetal tendencies of capital accumulation. In the absence of counteracting tendencies, capital accumulation tends to be geographically self-reinforcing. Murray (1972) has termed these ***agglomeration tendencies***, which result in the tendency for capital to be attracted to existing poles of capital accumulation. This interpretation implies that the lack of a local infrastructure, or inadequate supplies of skilled manpower (necessitating the employment of high-cost expatriate labour) are important material bases for the lack of local processing or backward linkages. In Selebi-Phikwe, although the government undertook to fund the infrastructure for the mine, its source of finance was conditional, with the stipulation that the donor countries involved supply most of the material inputs. Regarding manpower, in Botswana there was, and is still clearly a lack of skilled manpower, which necessitates the substantial use of expatriate labour. The cumulative result has been a lack of wider development.

Jenkin's (1987) notes, however, that there has been a trend towards increasing local processing in LDCs in recent years which is related to the material basis of TNC locational decisions rather than the nature of TNC organisation. Important factors leading to relocation have been increasing environmental costs in the advanced capitalist countries, the availability of low-cost energy supplies, more developed local infrastructure and the growth of a more skilled local labour force. The cost of labour is another important factor in locational decision making which is explored in terms of the ***new international division*** of labour in the next chapter.

The decision to locate the smelting operation in Selebi-Phikwe itself represents an element of forward linking. It was mainly based on the costs of transporting ore as opposed to the more concentrated copper/nickel matte, was influenced by the availability of cheap coal from Moropule, and possibly by the relatively poorly developed environmental legislation within Botswana. Certainly, location of the smelting operation in one of the more advanced capitalist countries would have incurred unacceptably high environmental costs in the form of atmospheric pollution.

The two theoretical approaches to the issue of local processing differ in their implications. TNC critics (such as Girvan) who lay emphasis on the institutional form of the TNC imply that if mines were controlled by national capital, greater use would be made of local sources of material and labour leading to a higher degree of processing locally. Those (Murray, 1972 for instance) who base their analysis on the underlying material conditions governing the production decisions of the TNC, imply that local capital would not behave very differently from the TNCs controlling the industry. Similar fundamental factors would lead the firms to import machinery and inputs and export raw materials for processing abroad.

In the case of Selebi-Phikwe, a desire by Government to locate more value added industry in the form of a refinery within Botswana was certainly expressed. This desire, had it been satisfied, would have been of questionable benefit to Botswana given the losses made on the copper/nickel industry, and could well have plunged the country, as opposed to the TNC involved, into debt. Furthermore there is the question of whether production levels in Selebi-Phikwe are enough to justify the investment in local processing facilities. Thus an awareness of risk (see the discussion in chapter 2) is an important factor in decisions to maximise the returns from the minerals industry in Botswana.

6.9 IMPACTS OF MINING ON BOTSWANA: A SUMMARY

The discussion in chapter two was centred around the structure of the international minerals industry and on the articulation of the economies of the North with those of the South, in terms of the operation of mining transnational companies. Structural links which tie the Third World into the world economy, were considered through an examination of the corporate structure of TNCs. While the mining process was dealt with in general terms at that stage, the present discussion has related these issues to the case of Selebi-Phikwe and its position in Botswana. This section flows from that discussion and focuses specifically on the effects which mining activities have had on the Selebi-Phikwe region. It takes cognizance of the structural dimensions of problems which arise. Once again, the theme of unsustainable development will be alluded to.

Soussan (1988) argues that the overall impact of mining has been negative rather than positive because, in effect, mining operations in Third World countries are enclaves which have few links with the rest of the economy[4]. This is true of the linkages between mining in Selebi-Phikwe and the broader economy of Botswana. Whilst evidence from the Selebi-Phikwe example indicates that mining has not generated a wider development process, it nevertheless does have substantial direct benefits for Botswana as a whole. In particular it provides employment (although as stated earlier this is limited), infrastructure (especially in terms of transport and communications), and vital foreign exchange, which has contributed to the relative stability and economic resilience of the Botswanan economy in the African context.

Clearly there is some debate concerning the impacts of mining on Botswana and other Third World countries, one which is paralleled in many other spheres of development. Regardless of the positive attributes of the minerals industry for producers, and there are many, it appears to be an inescapable conclusion that many Third World mineral producers (and this includes Botswana) are in effect caught in a trap. Soussan might as well be referring to Selebi- Phikwe when he notes that:

> **They (the mineral producers) are locked into an economic structure which depends upon exporting minerals, but this economic structure does not generate a wider and sustained pattern of economic development which permits them to break out of the cycle of poverty which is their lot (1988, p. 34).**

"Poverty" is not a word which could be used to describe the Botswana of the 1990s, though it might well be associated with an ailing urban settlement system in the future. It has led to a concentration of wealth rather than the more equitable situation associated with a broadening of development and productive opportunities in the country as a whole. The reasons for this may be summarised as follows:

Control

Mining activities in Selebi-Phikwe and in Botswana as a whole are largely owned and controlled by foreign based companies (Anglo American Corporation

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[4] **Exceptions to the general rule here, are the capital-surplus oil exporters. The Middle Eastern states particularly, have been fairly successful in integrating the revenue from oil into their wider economies. The Witwatersrand (South Africa) with its roots in gold mining is another possible example of an economy which has diversified out of its original resource base.**

effectively). While Botswana has benefited greatly from mineral production, a reasonable percentage of the profits are taken out of the country and many economic benefits go to the TNC, not the host country. Under present circumstances, however, this is less true of diamonds[5] than copper/nickel production, though the latter has experienced large financial losses in the past. Due to the control which TNCs exert over exploration, production, and marketing particularly, it is difficult for host countries to change this relationship. In the case of Botswana there are other structurally constraining influences in the form of the colonial legacy which were examined in chapters four and five.

Location and Geographical Separation

Most stages in the full production process are located outside the countries in which minerals are mined. This international division or separation of production and consumption between the North and South has drawn employment, profits and other benefits associated with refining, and the production of finished goods etc. away from the host country. Selebi-Phikwe is a classic example of such enclave `development', in which limited ancillary economic activity is generated. This is true of the diamond mining industry to an even greater extent, raising the question once again of sustainable urbanisation in the context of sustainable development.

Pricing and External Markets

The long term deterioration of the price of most minerals has forced Third World producers to expand production and exports in order to maintain the real level of their main source of foreign exchange earnings. This is difficult to do in the case of Selebi-Phikwe, as ore quality has decreased over time, and the volume of production is limited by the capacity of the smelter. Furthermore, it is the fall of metal prices on the international mineral markets more than any other factor, which has cast doubt on the future of the town. As regards diamond production, the unique mechanism of the Central Selling Organisation which curtails supply in order to maintain the `value' of diamonds, operates in such a way that expansion of production in Botswana is limited by what the market can absorb[6]. Development

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[5] The Orapa venture has been profitable for the company and the government from the beginning. A renegotiation of the contract between De Beers and the government in 1975 gave the latter an increased share in the ownership of the company from 65-70 percent. Furthermore, a new tax structure allocated 65-70 percent of the profits from Orapa and Jwaneng in the form of taxes, royalties and dividends (Hartland-Thunberg, 1978).

based on a quota system determined in London, is hardly conducive to sustained urban and economic growth.

The violent short term price fluctuations in minerals have heightened the above impacts and have been particularly felt in terms of urban stability. Long term planning and commitment to urban growth is consequently flawed as committed patterns of investment and expenditure cannot be sustained. In Selebi-Phikwe, government investment in services and infrastructure should not be divorced from the context of a finite resource base.

Vested Interests and Dependence

Mining activities by their nature are highly concentrated, with the income and economic benefits they do generate in the host countries, typically going to only a small sector of the population (Sideri and Johns, 1980). The urban elite in the South is usually favoured here through .wages and through the development of an urban infrastructure. Income from mining in Botswana has led to widening disparities between rich and poor, urban and rural, and funds the system which creates and maintains these inequalities (see sections 5.4.2/3, 5.5, Parson 1982, and Picard, 1987).

The ruling elites in producer countries operate in collusion with the mining TNCs as their power and income is based upon such `development'. Botswana is no exception here. The environment and the interests of local workers in the mining industries are often not catered for as a result. An important example of the latter is provided by the 1975 miner's strike in Selebi-Phikwe (see Cooper, 1978). This is considered in more detail at a later stage. Gupta (1987) points out that as a result of this merging of interests, TNCs are able to reduce production costs by paying low wages, forcing workers to work and live in unsatisfactory conditions, and by neglecting to address problems of pollution and environmental destruction. This is only partly true of conditions in Botswana where mine wages, although not comparable with those in South Africa, are high in comparison to other sectors of the economy. The reasons for the apparent inability of the government to limit or control the operations of mining TNCs in Botswana and other Third World

[6] In the De Beers cartel, Botswana is of paramount importance as, by value, the country produces about as much as South Africa; over 50 per cent of De Beers overall production. De Beers buys up the entire production and sells it, mixed with stones from other countries in London. During the diamond slump of the early 1970s, Botswana was obliged to stockpile 10-15 per cent of the 12 million carat production (Pallister, *et al*, 1988).

countries relates once again to their dependence on foreign investment and the imperative need to remain competitive within the broader international minerals industry.

Unsustainable Development

Finally and most importantly for the question of ongoing urban structures in Botswana is the question of sustainable development which is the central theme in this research. It follows that because mining is by definition extracting finite, non-renewable resources, the exploitation of mineral deposits by export orientated enclave production now, precludes their future use as contributors to a fuller development process. This inevitably results in the loss of the benefits of mineral production to the local economy and the possibilities of using mining to generate growth and employment in other sectors of the economy. One may conclude then, particularly in view of the circumstances of Selebi-Phikwe, that mining without lateral development at present means the loss of development potential in the future.

6.10 WHO HAS GAINED?

6.10.1 National Versus Local Advantages

In Botswana, mining has been successful in boosting national export earnings and creating a surplus in the balance of payments. This has been reflected in a rapid increase in GDP since independence. Mining has, however, paid little attention to negative social impacts as evidenced by the example of Selebi-Phikwe. This is important in relation to the situation of Botswana and raises the question of who has gained from the wealth that has been released from the minerals industry and whether this would necessarily include even the urban `elite' of Selebi-Phikwe. GNP is an inadequate measure of how production is deployed. For example, the category "construction activities" in Botswana has, in certain years, almost entirely reflected investment in mining infrastructure, rather than other forms of infrastructure geared towards more sustainable development.

It has been suggested that non-economic variables such as education and health enjoyed for their own sake, clean air and water, and the protection of natural beauty be included within the concept of sustainability (Brundland Commission, 1987). Approaches to development need to take account of all of these factors.

The negative implications of pursuing economic growth in the South particularly with regard to environmental decline have frequently called into question `development' itself. In a similar sense the experience of Selebi- Phikwe calls into question the wisdom of a mineral based policy of development, particularly as a means of creating and fostering an urban class. Furthermore, unsustainable and vulnerable reliance on a limited number of primary commodities, raises the question of whether such `development' will even meet national `economic criteria' in the long term. The economic growth of Botswana over the last two decades has been phenomenal but resources are finite and consequently define the limits to growth.

6.10.2 Labour Aristocracy?: The Strike

On July 29, 1975, the fault plagued mine in Selebi-Phikwe was closed down due to a major strike. The issue involved discontent over annual wage increments expected at the end of the month. As a result, 622 out of 2 800 workers lost their jobs although over half were later reinstated (Cooper, 1978).

Cooper (1978) places the strike in the context of the structural transformations and distortions which have characterised Botswana since independence. The problem is rooted in the colonial labour reserve examined in chapter 4 and relates specifically to the central theme of rapid urbanisation. Although the problem was ostensibly sparked off by wage conditions, it's significance in the Botswana context is as a barometer of the underlying distortions and tensions produced by dependent development based on the monopoly capital of the metropoles, and South African capital (for a more in depth discussion of these structural tensions see ch. 5.

Parson (1982) has noted that Botswana's peripheral location in world capital is not the result of a simple process of external domination; the overlaying of capitalist on non-capitalist structures. The conversion of the peasantry into a peasantariat and the ruling into a dependent petty-bourgeois governing class was instrumental in turning peripheral capitalism into the dominant ***internal*** structure. In his words,:

> **"Therefore, Bechuanaland/Botswana is a peripheral capitalist mode of production not only because it is externally dominated by a world system of capitalism but also because capitalist (although peripheral) social and political relations of production dominate internally" (Parson, 1982, p. 26)**

Such internal and external parity explains both the relative success of the liberal democratic system and the potential for fission in that system. Latent friction of this type found an outlet in the Selebi-Phikwe strike. The reaction of Government to the strike is revealing of its contradictory position as employment and development generator on the one hand, and its need to remain competitive as a receiver of foreign investment, on the other.

Parson's observations are supported by the rationale behind the Government's support of BCL during the trouble. President Quett Masire in the Botswana Daily News (1975), for example stated that:

> **"....3 million Pula a month loss.....It is essential for Botswana's development that we should *retain foreign capital*. This can only be done if the companies who invest here obtain a *reasonable return* on their investments and if skilled expatriates feel that their lives and property are safe.....illegal and unnecessary strikes have continued to such an extent that Botswana will *lose its reputation* as a stable and safe country in which to *invest money*. The number of Batswana employed in mining and industry constitutes a very small part of our own total labour force. For every Motswana who is employed in these sectors, there are at least five others who would like to be similarly employed but are forced to eke out a living in the rural areas or seek employment outside Botswana" (emphasis added).**

In order to avoid the occurrence of incidents such as that experienced in Selebi-Phikwe, the government provided what it considered to be adequate machinery for the settlement of disputes by enacting trade union laws. Without going into detail here, these measures effectively muzzled workers and as an attempt to suppress spontaneous labour action rendered most strikes `illegal'.

Masire, in his speech, also referred to the workers at the mine as being "privileged" and noted that his government was committed to sharing out the revenue derived from mining and industry among "all Batswana". For Cooper (1978), this is evidence that the mine is a classical neocolonial structure which has the effect of polarising the rural and urban populations, particularly with regard to income differentials.

Germane to the present discussion of "privileged workers" is the labour aristocracy thesis which was first advanced by Arrighi (1970) in the context of foreign investment in tropical Africa in the 1960s . The capitalist development of the region was scant and TNC investment was particularly heavily concentrated in the extractive sector. In essence it was argued by critics that since TNCs tend to pay higher wages than local firms, this leads to the creation of a "labour aristocracy". Arrighi emphasised that TNCs paid high wages in order to obtain a stable work force, at a time when proletarianisation of labour (ie, the severance of ties within the rural areas) was limited.[7] Thus in effect, the creation of a "labour aristocracy" was a specific managerial strategy which corresponded to a specific stage of capitalist development in the region (Jenkins, 1987).

In Botswana there has certainly been a relative paucity of capitalist development and the investment of transnational capital has been largely in the extractive industries of mining. Wages paid in the mining sector are generally higher than those paid in local industries although comparisons are difficult to make as alternative employment opportunities are limited. In addition, the population of Botswana is only partially proletarianised, and urban populations retain strong links with extended families in the rural areas (see Cooper, 1982). There is evidence also of considerable labour turnover in the case of Selebi-Phikwe (40-45 percent annually) which undermines the view that TNC workers constitute a distinct section of the working class. Finally class divisions amongst miners and other wage earners tend to suggest that a homogenous privileged urban class is lacking in Selebi-Phikwe (see Cooper, 1980a,b, and c; 1982). Thus it may be argued that workers in BCL are not a permanent group of privileged persons (for a more detailed discussion of this see Cooper, 1978, 1982).

Jenkins (1987) notes that the concept of "labour aristocracy" involves more than simply a situation of economic privilege enjoyed by a group of workers. It also implies a different political practise and ideological orientation on the part of such a group ie. reactionary perhaps, as it is gaining from its position. The occurrence of the strike would tend to refute such a view in Selebi-Phikwe as the workers involved were essentially questioning their position within the context of capitalist wage employment. Finally, given the unstable and transient nature of employment in towns such as Selebi-Phikwe in particular, it is doubtful whether it is a `privilege' to be a wage earning urban Botswanan. If such workers are indeed privileged, then this is more a reflection of a neglect of rural development priorities than of the absolute material well-being of living in a town.

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[7] see section 4.2.7 for a discussion of this in the southern African context.

6.11 COULD THE CRISIS HAVE BEEN AVERTED?

The Brundland Commission has pointed out that economic development is unsustainable if it increases vulnerability to crises. Mining `development' in Botswana as the example of Selebi-Phikwe shows, clearly fails to meet this criterion of `sustainability'. Furthermore, mining as it is practised in Botswana, is both capital intensive and inequitable in impact as relatively few people are employed by an industry of its magnitude. Clearly then, in Botswana as a whole and in Selebi-Phikwe in particular, development which is based purely on primary production confined to one or two products is vulnerable not only in terms of the exhaustion of primary resources, but also in terms of pricing in the international minerals market. Crises will be an inevitable outcome.

Given the history of underdevelopment in Botswana, it would appear that the problem of continuity in Selebi-Phikwe has a structural basis. The lack of an indigenous industrial, bourgeois class, and the stunting effects of the labour reserve economy and colonial administration, meant that a natural evolution of urban structures was impossible in the post-independence period. This suggests that the instability currently being experienced in Selebi-Phikwe has a deep seated cause, the implication being that it would have been difficult to avert the problems associated with rapid urbanisation in Botswana. The problem of unsustainable development is, however, not only ***latent*** in many mining settlements in the Third World but also has an historical basis in the case of Botswana; it would seem then that it might have been foreseen by Government and accordingly planned for.

6.11.1 Integrated Environmental Management and Preplanning

In Botswana, mining should not just be seen as a means of increasing government revenues; its effects upon the local environment and the livelihood of the local community must be included in any development balance sheets. In this respect, the recently developed concept of Integrated Environmental Management (IEM) which incorporates Social Impact Assessment (SIA), as well as assessment of impacts on the physical aspects of the environment into the ***pre-planning*** stage of development projects is an improvement on the past and current situation of short sighted planning in South Africa (see Fuggle 1988, Council for the Environment, 1989). Fuggle (1988, p. 19) points out that development in Third World countries requires particular management strategies which are not necessarily the same as those applied in First World nations. People in the former countries are primarily concerned with basic human needs of shelter, food, and security. Thus:

> **"In (developing) countries the need is for environmental evaluations to be seen to be promoting *sustainable* development..... The need is for impact assessment procedures which encourage *early* evaluation of *socially responsible* and *realistic alternatives*, for focussed effort which is directed at solving the problems associated with development. Instead of attempting to stop development" (emphasis added).**

It has been stressed in this thesis that the concept of sustainable development incorporates both human and natural components and that development which ensures a healthy environment and which is sustainable in the long term necessarily considers human welfare. Although the primary purpose of IEM is to circumvent the negative ***environmental*** effects associated with development, given that the environment is also an arena of human ecology, the strategy is equally applicable in assessing and suggesting alternatives for development which affects ***society*** adversely.

Briefly, there are four basic stages in the application of IEM to the development process with reference to the evolution of all proposed actions, whether they are concerned with policies, programmes or projects (Council for the Environment, 1989):

(1) **Proposal Generation** involves the formulation of a proposed action, as well as viable alternatives to the action, for meeting some purpose or need.

(2) **Assessment** is concerned with investigating and evaluating the proposed action and one or more leading alternative actions.

(3) **Decision** incorporates the identification and formal approval of the action which is in the best overall interests of society.

(4) **Implementation** is concerned with ensuring that the approved action is successfully implemented.

Thus IEM is concerned with preliminary design and is both iterative and forward looking. In addition to the incorporation of environmental evaluation in the initial stages of the planning process, it is concerned with implementing impact control plans during construction, with operational guidelines that recognise the need for feedback from an environmental monitoring programme, and ultimately; plans for project decommissioning (Fuggle, 1988). With regard to the example of Selebi-Phikwe, given the fact that the mine has a finite life as an extractive industry based on a non renewable resource, decommissioning should have been planned for from the outset. The primary concern should have been with the question of ongoing development in the form of industrial diversification. If, on reflection and evaluation of the alternatives for generating future employment, it was found that the town had a limited future it should perhaps have been planned as a closed town with a minimum of infrastructural investment.

Had the insights from IEM been applied to the mining project at Selebi-Phikwe the current situation of instability would arguably, have been averted. This should, however, be qualified by pointing out that many of the problems experienced in Selebi-Phikwe were difficult to foresee and were indirectly a product of colonial neglect and underdevelopment.

6.12 POLITICAL IMPLICATIONS OF URBAN DISCONTINUITY

The demise of Selebi-Phikwe might well be the nemesis for Botswana's liberal economic future. Even, Lewis (1985), a Neoclassical economist, has cautioned his optimistic praise of Botswana's political and economic path by noting that economic problems have political implications. He too, has noted that high expectations have been generated by two decades of phenomenal growth and that this has implications in the political arena:

> **An opposition party can promise the stars without having to face reality. Moreover, the policy of general wage restraint (undertaken to insure that revenues from mining are used to benefit the majority through development programmes rather than the minority in wage employment) has never been accepted by the BNF, and has received only grudging acceptance from the principal trade unions and staff associations (Lewis, 1985, p 6).**

The Botswana National Front, which derives most of its support from the towns, and which has gained in support and influence in the intervening period since independence, could well make political capital of future problems of unemployment in Selebi-Phikwe. The government of Botswana is in the difficult position of having to sustain economic growth which in many respects has been abnormally high, although it has proceeded from admittedly low base levels. The political future of the BDP will thus be decided on whether or not it will be able to satisfy the expectations raised by development based on the mining sector. To a degree this will be determined in the near future on Government success in diversifying the Selebi-Phikwe economy away from the primary sector.

6.13 CONCLUDING REMARKS

Urbanisation in mining towns such as Selebi-Phikwe in particular, has not been accompanied by a corresponding expansion and diversification of the resource base. Although Selebi-Phikwe, being of recent age, is a product of neocolonial rather than colonial developments, the latter has had formative, structural influences on the form that this urbanisation has taken.

Certain factors have imposed a certain inevitability on the potential demise of Selebi-Phikwe. Firstly, the town is based on mining which, as an extractive industry, depends on the exploitation of a non-renewable resource. Under existing circumstances a cessation of production will inevitably occur with the exhaustion of the resource. Although estimated copper/nickel reserves would permit production beyond the year 2 000, variables in terms of mineral pricing are as important in determining the future of the enterprise. Secondly, the accumulated debt on the mine has compromised its present and future profitability. Thirdly, the industry has not led to broader development. Most employment in the town is directly or indirectly dependent on the continued operation of the mine. Thus Selebi-Phikwe is effectively an enclave which is particularly significant given its position in the Botswana settlement hierarchy as the third largest urban centre.

Government has reluctantly accepted that the life of the mine will in all probability, not extend beyond the year 2 000. It is well aware of the major investment which has gone into the mine and its associated infrastructure and of expectations which have been raised in consequence. The rate of urban in-migration is of particular concern here and the possibility of mass urban unemployment entails a measure of political danger in terms of BNF resistance to Government policy. Thus, the priorities of Government are to ensure the future continuity of Selebi-Phikwe through the creation of adequate employment in the future. Such development might be facilitated by incentives for foreign investment and through added infrastructural investment in the town and its surrounding region. A pertinent question which arises, however, is whether such investment would be sufficient to encourage ***real*** development and this is explored on the criteria of equity and sustainability in the next chapter.

CHAPTER SEVEN

INDUSTRIALISATION: A WAY OUT OF THE IMPASSE?

"The Sun never sets on the multinational corporation! The profit motive has propelled it on a fantastic journey in search of new work opportunities" (advertisement for a multinational banking organisation).

7.1 INTRODUCTION

At the time of writing, only twenty years after Selebi-Phikwe's initial inception, and a period characterised by rapid economic development and substantial investment in services and infrastructure, the town faces some of the most serious challenges in its brief history. Depressed copper and nickel prices over much of the period of the mine's operation, together with an accumulated debt, have cast uncertainty over the future viability of the enterprise. These circumstances, in turn, have raised doubts about the continuation of the town itself. Dependence on the mine has been exacerbated by a comparatively low level of manufacturing activity and the fact that many of the industries that do exist are mine-related. An overriding issue is on-going employment and new employment creation. Thus, there is a cogent need for the diversification and strengthening of the town's economy.

A "Selebi-Phikwe Continuation Project" was established by the government in 1983 to ensure that the town would remain a viable entity with, or without the mine. The objective was to develop appropriate policies, measures, strategies, and plans to reduce dependence on mining, encourage the creation of new economic activities and the promotion of existing economic activities.

The intention in this chapter is to assess the potential for Selebi-Phikwe's continuity in the long term, taking cognisance of the inevitable cessation of mining operations in the town. The proposals for diversifying the industrial base of Selebi-Phikwe are critically analysed on the basis of current development theory.

Various incentive schemes have been considered by the government as a means of promoting Botswana as a manufacturer for the world market. Such policies are reviewed in terms of the central theme of sustainable development. The criteria used in the interpretation are similar to those adopted in the evaluation of the mining sector in Selebi-Phikwe and include a consideration of the following; degree of dependence, contribution to the broader development process, and resilience in relation to external influences.

7.2 PLANNING FOR A FUTURE: THE PROPOSED REGIONAL DEVELOPMENT PROGRAMME

7.2.1 Funding

A scare of mine closure in 1983 led to the establishment of the Selebi-Phikwe Continuation Committee. This is a Government body which, as its name suggests, was confronted with the issue of the imminent collapse of the town itself. As events turned out, the loan covering the debt on the mine was renegotiated in consultation with the Government, and the future of the enterprise was assured for at least a few more years. With the threat of future crises hovering over the mining sector of Selebi-Phikwe, however, a strategy for weaning the town away from total reliance on primary production was not viewed as a contingency plan, to be executed only with the cessation of BCL's activities. The process would take time to be implemented. Thus in 1985 recommendations for a regional development program_ involving irrigation agricultural development in the surrounding region, industrial development, improved road access, and the necessary administrative and institutional arrangements were accepted by Government.

The World Bank was approached for funding for the proposed scheme and a loan of US $7.6 million was approved to cover the entire development project. Subsequently the Selebi-Phikwe Regional Development Promotion Unit (hereafter referred to as the Unit) was established.

The following details regarding future developments in Selebi-Phikwe have been gleaned mainly from primary sources, including material compiled by the Selebi-Phikwe Town Council, the Government of Botswana, promotional pamphlets and advertisements, and unstructured interviews with the three World Bank experts involved in the project.

7.2.2 The Unit and its Functions

Two industrial experts and an irrigation agronomist were recruited by the World Bank as the core of the Unit to implement the proposed Selebi-Phikwe Continuation Project. The Unit was established in 1988 with a planned five year time horizon; its task to initiate, co-ordinate and monitor the overall development of the region. It is responsible to the Selebi-Phikwe Continuation Committee for policy guidance and will liaise with the Town Council, Central District Authorities, Government Ministries, and other agencies where relevant. Separate provision is made in the project for the staffing of the Unit to be supplemented with short-term specialist consultants to conduct tasks such as specific feasibility studies, soil surveys and market studies.

The amount of money allocated for the Unit is US $2.18 million for the full team over the five year period. The program comprises four primary elements as follows:

(a) The establishment of the Selebi-Phikwe based Promotion Unit for Regional Development.

(b) Development of a road network system with the objective of improving accessibility to the Selebi-Phikwe hinterland.

(c) The design and implementation of an irrigation agricultural plan for the region.

(d) The planning and execution of an industrial /business program for Selebi-Phikwe.

7.3 THE IMPROVED ROADS PROGRAMME

7.3.1 Purpose and Function

An extended regional road system is to be implemented directly by the Government and is expected to establish direct links to markets in South Africa for both inputs for business in Selebi-Phikwe, and exports from the town. The twofold purpose of upgrading road transport facilities is to firstly, integrate Selebi-Phikwe more thoroughly into its region. It is hoped that the town's role as a central service centre providing administrative, commercial and other services to its region will be facilitated and strengthened. Secondly, it is expected that improved access to South Africa will make Selebi-Phikwe less isolated and will integrate the town more fully into Botswana's own national road network.

The extension of the tarred road beyond Sefophe to Martin's Drift or Zanzibar (on the South African border) is planned to be completed within the Development Plan period. In addition, minor improvements to the town's internal road system are anticipated (SPTC, 1985). Thus, by investing in further transport infrastructure, the main objective of the Government is to facilitate the traffic of trade through Selebi-Phikwe from the northern Transvaal. This is considered to be an added incentive for business to relocate in the town.

7.3.2 Discussion

The envisaged extensions to the road system servicing the region are a logical means of stimulating further development in the town. The lack of a suitable transport network was cited in the Selebi-Phikwe Development Plan of 1985 as one of the main causes of the weak linkages with the town's broader region.

Planners envisage that some of the traffic which normally takes the national road, via Gaborone, from South Africa will be diverted along the new road which represents a more direct route north, to Francistown and Zambia. It is a matter for conjecture, however, whether the new facilities will be used enough to make any significant impact on the region. Most goods transported into Botswana are destined for Gaborone and the old route would thus probably be considered shorter and quicker by users. Furthermore, a sizeable proportion of non-mineral exports are derived from the beef industry which is centred in Lobatse. Beef products are likely to be transported directly south into South Africa. Thus only goods destined for Francistown, Selebi-Phikwe itself, and Zambia or Zimbabwe, and originating from the northern Transvaal are likely to be moved along the new route. The same situation applies to exports from these areas although these are likely to be smaller in volume. The existence of a transport infrastructure thus, does not necessarily guarantee its use.

A further issue relates to the problem of a strengthening of the Government bias towards investment in urban areas, as the new road system has been envisaged primarily as a means of stimulating industrial growth within Selebi-Phikwe itself, with the benefits for the rural community in the area, a secondary consideration. Thus, should Government policy fail to stimulate regional development, leading to the possibility of a failed Selebi-Phikwe in the future, the problem could be compounded through additional investment of scarce resources into infrastructure.

7.4 AGRICULTURAL DEVELOPMENT PROMOTION

7.4.1 Aims, Objectives, and Means

The irrigation agriculture development program has two specific objectives. Firstly a pilot irrigation project of five sites already identified around the Selebi-Phikwe Township is to be undertaken. Two of these sites will utilize waste water from the mine effluent and from sewage ponds. The other three involve the exploitation of the Motloutse River in areas around the villages of Mmadinare, Bobonong, and Tobane. Concurrent with the development of the pilot sites, the second part of the programme involves the investigation of the irrigation potential of the wider Selebi-Phikwe region including the Limpopo River resource. The ultimate objective here is the preparation of development plans and establishment of a large-scale irrigation programme in the region. Specific tasks of note include:

(1) Technical and economic evaluation of irrigation farming in the area.

(2) Identifying and formulating appropriate strategies to overcome constraints to the development of irrigation agriculture in and around Selebi-Phikwe.

(3) Mounting in-service and farmer training courses in collaboration with the Ministry of Agriculture, in irrigation techniques.

(4) Formulating plans for effective agricultural extension in the area.

(5) Determining possible market outlets for surplus produce arising from the project, and exploring the possibility of processing the produce in Selebi-Phikwe.

The basic rationale behind the agricultural development scheme is employment creation. The scheme envisaged is essentially an agribusiness development utilising capital intensive technology. It is planned to follow the design of the present

"Talana Farms" project in the southern Tuli farming block, and will focus on the cultivation of commercial crops such as cotton for export to Louis Trichard in South Africa. A dam on the Motloutse River is planned to supply irrigated farmland in the vicinity of the town with water. The eventual aim is to develop Selebi-Phikwe as an agricultural service town.

7.4.2 Discussion

Pertinent questions concern who is likely to be in a position to take advantage of the proposed agricultural development scheme. Irrigation schemes are costly, usually rely on imported inputs such as piping, capital equipment (tractors for example), chemical fertilisers and pesticides, and are reliant on advanced technologies. Thus, traditional cultivators will probably not have the means to participate in terms of ownership and control. This raises the possibility of expatriate involvement utilising relatively cheap local supplies of labour.

An issue of some importance concerns the possibility of indigenous farmers being forced out of the market by the more competitive `modern' agricultural projects. The importance of rural/urban economic linkages for Selebi-Phikwe dwellers was noted in the last chapter. Cooper (1982) suggests that as capitalist agriculture spreads, the lowest urban strata will increasingly find rural production unviable, resulting in a fully fledged proletariat emerging. His research indicates that the lower level unskilled workers will be the first to break their links, rather than the semi-skilled, or skilled workers. The dangers of a dissolution of these linkages for urban residents in Selebi-Phikwe were considered in more detail in chapter six.

Redclift (1987) has conclusively demonstrated that intensive agriculture of the type proposed for the Selebi-Phikwe region, while producing increased outputs, is not necessarily more efficient than indigenous peasant agriculture. At first glance this might appear to be a contradiction in terms. It is apparent that `advanced' agricultural techniques require relatively larger inputs (fertilisers etc.) for a given output. Peasant agriculture, on the other hand, is characterised by lower returns in absolute terms but by more favourable ratios of investment and return and is therefore more efficient. The potential for a peasantry to produce for an open market has also been proved possible in the South African case (see Bundy, 1980).

The major advantage of irrigation agriculture is its dependability in times of drought. There are, however, potential associated environmental problems eg.

salinisation of soils, which have been extensively documented in other developing countries. More germane to the issue of urban continuity in Selebi-Phikwe is the problem of dependence on foreign technology and farming inputs. The irrigation agricultural development project is reliant on external sources of chemicals, equipment etc., and is not necessarily appropriate to Botswanan conditions. Furthermore, it does not necessarily guarantee sustained agricultural development as it is dependent on foreign technology, and is characterised by large infrastructural investments and relatively high running costs. Perhaps in the circumstances, a stimulation of peasant agriculture in the region with a different, less capital intensive form of agricultural development might have been more appropriate to the objective of generating further employment.

7.5 INDUSTRIAL DEVELOPMENT PROMOTION

Smit (1970) attributes the lack of industry in Botswana to the following:

(a) Poor infrastructure services;

(b) A dearth of natural resources;

(c) A local shortage of skills and entrepreneurship;

(d) A small and scattered domestic market;

(e) Dependence on foreign investment which is not attracted because of the availability of more attractive opportunities elsewhere in the region (eg. South Africa primarily);

(f) The existence of the Customs Union which before 1969 did not permit Botswana to protect local industry from South African industry.

Thus, the absence of industrialisation in Selebi-Phikwe is related to the lack of relevant productive factors and infrastructure services resulting from Botswana's position in the international periphery. The country's isolation is reinforced by competition represented by industry in core areas such as the South African Witwatersrand. The following measures are essentially attempts to redress such deficiencies, particularly the first four factors, as a means towards promoting industrialisation in centres such as Selebi-Phikwe.

7.5.1 Goals, Objectives, and Strategy

The economy of the Selebi-Phikwe region is characteristic of the country as a whole, with an underdeveloped, open economy, in which primary products are exported and manufactured products are imported. The function of the Industrial/Business Development Program is in essence, designed to reverse that situation. Its major objective is to promote new investments opportunities in Selebi-Phikwe, the expansion of existing employment opportunities, and the organisation of training and extension programs for local industrialists and businessmen. Thus, manufacturing in particular, is to be stimulated to reduce dependence on the extraction of non-renewable resources. An important objective is to promote Selebi-Phikwe for ***foreign investment***. With this in mind, specific tasks include:

(1) Identifying obstacles to industrial and commercial development in Selebi-Phikwe.

(2) Identifying and appraising feasibility studies of potential industrial projects in the Selebi-Phikwe area.

(3) Assisting potential foreign and local investors with all the necessary information regarding the initiation of businesses.

(4) Participation in overseas promotional efforts in collaboration with the Ministry of Commerce and Industry, the Botswana Development Corporation, and other relevant local agencies.

(5) Reviewing existing incentives with a view to improving their effectiveness and formulating new incentive packages wherever necessary.

There has been a strong emphasis in the Selebi-Phikwe Development Plan (1985), on creating a physical framework conducive to the creation of job opportunities. One of the first priorities identified has been to establish the availability of serviced industrial land to create an attractive business climate in Selebi-Phikwe which will encourage the expansion of local industries and the introduction of new ones. It is further recognised that new industries on the scale required to minimise the impact of any mine closure will only come from ***outside*** Selebi-Phikwe or ***Botswana*** itself.

A 30 hectare extension to the existing industrial estate is envisaged. This involves a virtual doubling in size of the existing estate, based on the assumption of a doubling of the existing labour force of 647 workers (SPTC, 1985). Associated upgrading of requisite water, sewage and refuse disposal facilities is also planned.

7.5.2 The Nature of Incentives Offered

Foreign industrial investment in Selebi-Phikwe has been identified by the World Bank Development Team (1988) as the most likely means of providing extensive employment in the town. The key to the attraction of foreign industry, it has been maintained, lies in the availability of large supplies of unskilled labour. Types of transnational enterprises envisaged include the clothing and electronics industries which require ***cheap, unskilled labour.*** Manufacturing in these industries will probably entail the assembly and final processing of products which will be imported in partially complete form. These businesses are effectively ***non-location specific*** and will operate in any area given the right financial and labour conditions. They will produce primarily for the ***export*** market.

Cheap labour is not the only incentive offered foreign investors. Botswana is trying to build up its ***credibility*** as an export base, and a stable labour force is as important a consideration. The Government's attitude to the striking miners in Selebi-Phikwe (1975) highlights this issue. In this context the Government might be viewed as acting in collusion with, and in the interests, of foreign capital.

Government aid in the form of financial assistance packages, tax relief, buildings, and machinery subsidies has also been negotiated. In this respect, the following incentives based on case by case assistance have been offered (SPTC, 1987):

(1) Tax holidays: 100 percent reimbursement in the first 2 years, 75 percent in the 3rd year, 50 percent in the 4th, and 25 percent in the 5th year.

(2) A training grant which includes 50 percent of the job training costs during the first 5 years.

(3) Capital grants of P1 000 per job and not greater than 40 percent of the total investment.

(4) Sales augmentation grants to a maximum of 8 percent of sales revenue in the first 2 years, 6 percent in the 3rd, 4 percent in the 4th and 2 percent in the 5th year.

(5) Employment grants of 80 percent in the first 2 years, 60 percent in the 3rd year, 40 percent in the 4th, and 20 percent in the 5th year.

7.5.2.1 Competition from South Africa

Potential investors from South Africa and Zimbabwe are sought by Botswana. The problem of attracting investors from South Africa particularly, is related to competition offered by the extremely generous subsidies and incentives granted to industrialists for locating in the South African homelands, as a means of promoting industrial decentralisation. Cheap labour, permissive environmental and labour legislation, and reduced taxes are a few of the potential benefits offered the South African businessman. The South African Government rationale has been to promote Apartheid as an economically viable concept and to reduce the influx of Black migrants into White towns and cities. Selwyn (1975) notes, however, that this policy has met with only limited success.

The main advantage Botswana holds over South Africa as a potential destination for foreign investors lies in its current political stability and the fact that export products emanating from South Africa at present are likely to be politically `tainted'. Products from Botswana destined for the overseas market would have the advantage of being `neutral'. The rapidity of political change in South Africa in 1990, however, might mean that Botswana's advantage of stability and neutrality could be eroded by the possibility of a peaceful resolution of South Africa's problems.

7.5.2.2 Overseas Investors

The potential for attracting foreign investment from the Far East has been considered by the World Bank team in Selebi-Phikwe. As noted earlier, the major possibilities are capital intensive industries such as textiles and electronics assembly. Tax incentives, stability and cheapness of labour, and the availability of an adequate infrastructure are the main advantages of locating in Selebi-Phikwe. Further advantages for Far Eastern investors include the possibilities of relatively easy access to EEC markets opened up by the Lome Convention. In essence, the signing of the Lome Convention permits free access to European markets by former colonied territories in Africa.

Locating in Selebi-Phikwe also offers investors from newly industrialising countries (NICs) in the Far East the possibility of entry into the US markets. Increasing protection for local US industry in the form of a quota on imports from Japan particularly, has reduced foreign penetration of the vast North American markets. By exporting from Botswana, Japanese producers could make use of Botswana's quota and sell products `made in Africa' to US consumers.

7.5.3 National Industrial Development Policy

The industrial incentive scheme for Selebi-Phikwe should be seen in terms of the broader context of national policy. In the Report of the Presidents Commission on Economic Opportunities (1982), it was noted that the development of commerce and industry had lagged behind the general growth of the economy and that the `modern' sector was dominated by foreign companies and entrepreneurs. Mining was associated with the creation of relatively few jobs given the size of investment in the minerals sector. It was thus recommended that mineral development policy should place increasing emphasis upon the secondary and employment effects of mining investments.

By 1987 the Government of Botswana had realised that to secure a continuation of rapid economic growth, the country would still however, have to rely on major mining projects. It continued to emphasise the need for ***manufacturing*** and other productive activity. Diversification of the economy and the production, locally of more of the goods and services consumed in Botswana, were viewed as ways of achieving a greater measure of economic ***independence***, while still maintaining growth momentum. Thus, diversification of the productive sectors of the economy was identified as the key to ***sustained development*** (Ministry of Finance and Development, 1987). To achieve these ends, the following areas were stressed:

(a) Job creation as a priority of economic development.

(b) A better spatial distribution of income earning opportunities.

(c) An increasing participation of Batswana in business.

Industrial development is seen as the means through which such benificial results might be obtained. It would contribute to:

(1) The creation of productive jobs for citizens.

(2) Industrial training of citizens for occupations with higher productivity.

(3) Raise the value added, or GDP, accruing in Botswana and to Batswana.

(4) The diversification of the productive sectors of the economy and consequent reduction in vulnerability to economic factors beyond Botswana's control.

(5) A more equitable distribution of industrial activities in rural areas.

"Footloose" industries ie. industries for which the main inputs are generally abundant or cheap to transport have been identified as being potentially important contributors. Transport costs are deemed to be relatively unimportant considerations, while cheap and reliable labour, and liberal trade and exchange regimes are important factors in the location decisions of such industries. The extent of government incentives also plays a decisive role in their choice of location. Consequently Botswana has concentrated on trade and investment promotion activities to attract such investments (ibid.). With respect to transnational investment of this nature the Botswana Government has offered further advantages:

(a) Full remittance abroad, subject only to withholding of income tax at 15 percent of interest and divided incomes earned by non-citizens.

(b) No exchange controls or delays in payments for imports of goods and services.

(c) Full repatriation rights in the event of sale or liquidation of a company.

(d) Generous remittances of expatriate salary earnings (MFD, 1987).

7.6 CRITIQUE OF POLICY IN SELEBI-PHIKWE: SUSTAINABILITY AND DEPENDENCE

The Government of Botswana is faced with two possible alternatives regarding industrial development. Firstly, an export based manufacturing sector supplying products to countries in the southern African region and to overseas countries such as the United States and European Economic Community (EEC), is envisaged. Secondly, import substituting industries have been considered as potential contributors to the national economy. The most likely situation will be a mix of the two, though the proportion is likely to be biased in favour of export based industry. This reflects the neoclassical nature of government thinking in Botswana, which parallels Rimmer's (1989) view that, "exports (whether of mineral, crops or anything else) have been, and will continue to be, the only important medium of economic growth in Africa" (p. 179).

7.6.1 Import Substitution

The primary purpose of import substitution in Less Developed Countries (LDCs) is to locally process products which would normally be imported, thereby saving on valuable foreign exchange expenditure. In terms of the diversification of exports and the promotion of production for import markets, certain areas have been identified as being of importance. These include the further processing of domestic products such as agricultural, mineral products, and wildlife products (MFDP, 1987). Such resources are considered to involve a "natural" advantage for Botswana due to the presence of raw materials which are relatively scarce internationally.

The Government is aware of the problems associated with import substitution. In larger countries with sizeable domestic markets, there is usually an emphasis on production for local consumption. In Botswana, this is a less attractive alternative for a variety of reasons. The primary reason is the limited size of the market which is also widely dispersed geographically. An economy which is very open to foreign trade, a liberal foreign exchange regime, and the strongly established brand preferences of consumers in Botswana, compound the problem (MFDP, 1987). Thus, the difficulty in achieving economies of scale related to a small population and hence market, together with competition from imported goods, militates against the viability of industry catering for local consumption in Botswana.

The establishment of protective domestic tariffs would entail the extreme option of opting out of the Customs Union altogether, in order to encourage the growth of import replacement industry. A central issue here, "would be whether the probable increase in the cost of living, the possible loss of the South African export market, and the certainty of reduced government revenues from customs and excise duties would be outweighed by the value-added flowing from the new industries which would be established as a result" (Colclough and McCarthy, 1980). Mosley (1978) estimates that under any conceivable set of policies or system of trading relations, the potential for modern manufacturing in Botswana will remain small. In short, the economic case for leaving the Custom Union as a means of fostering domestic industry in Botswana, is by no means established.

Thus, given the problems of establishing a significant import-substitution industry in Botswana, the option of encouraging the growth of export based industry based mainly on foreign investment will probably form a core strategy for industrial diversification in Selebi-Phikwe.

7.6.2 Export Industry, Dependence, and Transnational Investment

Botswana, in common with the other former High Commission Territories (Lesotho and Swaziland), is characterised by what Selwyn (1975) describes as the "small country problem". In essence Botswana, is an example of the "core-periphery model", which is characterised by a cumulative process of domination by institutions and decision-makers in central areas over the development of the periphery. The resulting relationship reinforces the backwardness of the peripheral areas. Cooper (1982) argues that in the post Second World War phase of MNCs, for a Third World periphery, like Botswana, the only capitalist route is a subordinate, dependent form of capitalist industrialisation. This interpretation would appear to hold for Selebi-Phikwe in the nineteen nineties.

The `privileged classes' in peripheral Third World countries have a real interest in pursuing capitalist expansion in its present form, despite the inferior position assigned to them in the system. Unavoidable interdependence which results can, however, frustrate the national ambitions of these governments (Amin, 1990b).

By offering extensive concessions and incentives to foreign investors in an attempt to entice them to locate production in Selebi-Phikwe, the Botswana Government is essentially trying to circumvent the inherent problems associated with the small country effect. Selwyn (1975) points out that this in itself can lead to further problems as governments in peripheral countries may consider that they have little choice in the area of investment policy. The risk is that they may feel constrained to offer more than is necessary to attract investment. A potential result is that the concessions may be offered on such a scale as to outweigh any possible local benefits derived from the industry. Furthermore, with the main emphasis on the promotion of the foreign investor, indigenous commercial and industrial investors might be neglected.

The most fundamental problem with foreign investment is that the local benefit accruing from this type of activity is often small in terms of the generation of employment and local incomes. This is because it may not be in the interests of the external investor to develop local linkages or appropriate labour intensive techniques. The issue might be compounded by the Government's feeling of urgency concerning industrial development which would place it in a weak negotiating position (ibid.).

7.6.3 Export Processing Zones and the New International Division of Labour

In Selebi-Phikwe there is a considerable feeling of urgency to generate further employment before the mine ceases production, and the concessions offered border on those offered in ***export processing zones*** (EPZ) in terms of generosity. These are geographically separate areas where transnational corporations can establish and operate manufacturing industries without being bound by many of the legal and financial regulations that apply in the rest of the country. The payment of minimum wages and the fulfilment of health, environmental, and safety regulations are often unnecessary. Cheap labour is an important attraction for EPZs and the companies participating are in a position to relocate in another country whenever their high profit levels are threatened by rising wages of labour organisation.

The main architect of EPZs is the World Bank which argues that they are forces for development in the Third World (Jenkins, 1987; Jazdowska, 1989). There is substantial evidence to suggest, however, that they have given rise to limited associated development for the South, as generators of backward and forward linkages. This is partly because of transnational preference for avoiding the development of long term commercial relationships with local suppliers in the host countries. Such dependence would seriously reduce their mobility in seeking more profitable areas (Jazdowska, 1989). Additionally, technology transfer which is a potential advantage of foreign investment, has been limited in practise. Two of the classic industries associated with EPZs are the textiles, clothing, and electronics sectors which have been earmarked for future `development' in Selebi-Phikwe. As many of the inputs for these types of industries are imported, the multiplier effect is likely to be very limited indeed.

EPZs are the ***institutional*** form of a process of the ***internationalisation*** of capital which has been manifest in a "new international division of labour". In essence, manufacturing industry, previously concentrated in a few Northern countries, is undergoing rapid locational change (Peet, 1987). Motives are varied and complex but are primarily related to the organisation of labour in the First World which has contributed towards stagnating production and wages. By locating in the Third World, capital is taking advantage of areas where labour is poorly organised and wages are low. TNC export production in the `world market factories' is, therefore, based on super-exploitation of labour in the Third World (Jenkins, 1987).

Debt crises have been precipitated in the newly industrialising countries (NICs) of the periphery which have followed export-oriented growth policies. Mounting Third World debts result because modern manufacturing is predicated on sophisticated machinery and infrastructure which necessitates large scale borrowing (Peet, 1987). Foreign investment also generates foreign choice in a country's economic development efforts as First World `aid' and loan schemes are often conditional *vis a vis* the type of development projects funded (Syedzzaman, 1989).

Countries in Southern Africa have been characterised by a history of underdevelopment in terms of their colonial experiences. Seidman (1989) argues that institutions such as the World Bank, reinforced by the International Monetary Fund (IMF), have reproduced the poverty and vulnerability of the southern African region:

> **"Transnational corporations typically ignore local and regional development needs by investing in the export of cheap raw materials or the assembly of a limited array of capital-intensive manufactures, thus aggravating external dependence and undermining employment of local resources" (p. 1).**

Third World countries to `delink' or disengage from the logic of the global system. A substitute for external economic relations would be an emphasis on domestic development priorities. This in turn would require a state ruled by a broad coalition of popular forces ie. a socialist system in effect. While the switch to domestic development approaches is possible and necessary in the case of Botswana this alternative could be pursued without necessarily resorting to a move away from a predominantly free enterprise system. This possibility is explored in greater depth at a later stage. Amin thus suggests disengagement from world trade:

> **"More precisely, delinking consists of refusing to submit to the demands of the globalized law of value, that is, to the alleged `rationality' of the system that gives concrete form to the requirements of the reproduction of globalized capital. It thus assumes that society has the capacity to define for itself a different range of criteria of rationality of internal economic choices, in short a `law of value that is national in scope'" (Mahjoub (ed), 1990, preface p. xii).**

Selwyn (1975) points out that in countries which lack industry, the local linkage effects of a new industry may be very weak as such industries are more likely to have foreign than local linkages. The reason for this is that the basis for linkages in the form of alternative productive sectors and their associated infrastructures is lacking. The potential for limited local linkages is likely to be the case in Selebi-Phikwe as its peripheral position, not only in international terms but nationally as well, militates against the likelihood of the establishment of internal regional multipliers. The technology that such firms would employ is also not necessarily applicable as a means of stimulating further development under African conditions.

On balance this discussion has tended toward criticism of the TNC as a force for broader, more sustained development in Selebi-Phikwe. While this might be true for this particular example it is not necessarily true for all conditions in all Third World countries. As Jenkins (1987) suggests:

> **"The picture we get of TNCs in the Third World is complex and contradictory. There is no doubt that the pictures of the TNC as a knight on a white charger coming to the rescue of Third World countries (neoclassical view), or as the evil genius behind all their problems (neo-imperialist interpretation) are more appealing. But since capitalist development is itself both uneven and contradictory, it is hardly surprising that the impact of the TNC is also uneven and contradictory" (p. 194).**

7.6.5 Summary

The foregoing discussion has highlighted the deficiencies of an employment strategy which relies on cheap, stable labour supplies, and generous Government incentives to attract foreign investment. While it is true that some employment will be created through these means, the fact that it is likely to be predicated on "footloose" industry raises the question of whether development in Selebi-Phikwe can be sustained under future conditions. The very mobility which would enable TNCs to locate in Selebi-Phikwe would permit them to move on with relative ease if more competitive opportunities were offered elsewhere. Thus, the hypermobility of capital militates against development which is stable, sustainable, and equitable in the long term.

The role of transnational investment in the South has been discussed at length in development literature and it is recognised that in addition to the above problems, a precedent is often set with regard to styles of development which reinforces dependence on external influences.

Rather than serving as a panacea for the problem of securing a future for Selebi-Phikwe, foreign investment could well reinforce the tendency of migration from rural areas into the town. In that respect, one of the World Bank officials working on the problem, wryly pointed out that, "the industrial diversification policy was planned primarily as a means of creating alternative employment for those who will lose their jobs when the mine closes. Given the flow of job-seekers from unemployed areas, the positions created will, however, probably be taken up by new entrants into urban areas" (pers. comm. Mr. Bierne, 1989). Thus, the cessation of mining operations might still result in over 4 000 people becoming unemployed.

An examination of regional development policy for Selebi-Phikwe indicates that the critical state of dependence on foreign investment, which has sown the seeds for the town's imminent demise, could be exacerbated by diversification into export orientated industry. Rather than leading to a situation of sustained development, reliance on foreign investment has the potential to lead to a more inequitable distribution of employment opportunities, a decreasing role for Batswana in business, and increased rather than decreased vulnerability to economic factors beyond Botswana's control. Substantial job creation and the training of citizens for occupations with higher productivity is also unlikely given the capital intensive nature of such industry.

7.7 DUALIST STRUCTURES AND UNSUSTAINABLE URBAN DEVELOPMENT IN SELEBI-PHIKWE

Prebisch (1976) has noted that producers in the North need to incorporate their own workers as consumers of their manufactured goods to ensure that the benefits of development reach throughout the economy. Such an internal market is the means of creating and maintaining steady or ***sustainable*** industrial development. As outlined above, the situation in peripheral countries such as Botswana is different as they mainly produce raw materials and primary industrial goods and their populations do not provide a consumer demand for these goods.

In a similar vein, De Janvry (1981) has looked at the depressed condition of the `peasantry' in Latin America in terms of what he describes as a "functional dualism". In essence this refers to a system which makes use of the cheap labour provided by peasant families whose consumption needs are partly met within the household economy. In a strictly economic sense such families do not `need' to earn more than the minimum or to participate as full members of industrial consumer society. The dualist structures within which these households function require their labour power but not their consumer power. De Janvry realised that the development of these structures was primarily influenced by the pattern of industrial capital ownership and demand located in the central economies.

Black (1988) has identified similar structures in South Africa where low wage labour located in peripheral `homeland' areas, does not generate high demand levels. Thus the majority black population is viewed as a reserve labour pool rather than as a potential market for locally produced goods. This has contributed to a recessionary phase which he has identified as being, "symptomatic of the failure of South Africa's post-war growth model in which manufacturing development was directed to the local market, but rested on the fragile foundations of narrowly-based white consumer demand" (Black, 1989, p. 2).

The implications of De Janvry's (1981), Prebisch's (1976), and Blacks's (1989) work for the situation of urban vulnerability in Selebi-Phikwe are obvious. In a dualist sense, the urban structure in the town caters exclusively for a demand for primary resources and (future) manufactured luxury goods which is located in South Africa and the industrialised North. The consumer potential of the people living and working in Selebi-Phikwe and other peripheral towns in Botswana and the Third World generally, is secondary to the profits accrued from the production, (utilising cheap labour) of primary resources. These ***only*** contribute to the broader development process in First World countries. In a sense then there can be no impetus for sustained urbanisation in the context of a system where ***production*** is largely ***divorced*** from ***consumption***. This is the key to understanding the crisis of dependency in Selebi-Phikwe and provides insights into why `development' initiatives in the South have been generally unsuccessful in sustaining the process.

7.8 ALTERNATIVE STRATEGIES: INTEGRATED DEVELOPMENT PLANNING

Criticism is only constructive if it leads to the suggestion of viable alternatives. The dilemma faced by the Botswana Government is real and immediate. Employment opportunities must be explored with the view to providing future work for those currently employed by BCL. Given that locally generated production is lacking, the Government has looked towards a World Bank solution to the problem. An assessment of these proposals indicates that the `urban' problem could be reinforced rather than ameliorated by the transnational nature of investment. Criticism of foreign investment, however, needs to be tempered by the realities of the situation. The extreme state of vulnerability in Selebi-Phikwe suggests that "any employment is good employment". The problem of employment creation in peripheral Third World countries was highlighted by the response which critics of export processing zones in Sri Lanka met with when they tried to warn potential workers of the disadvantages of such zones (see Jenkins, 1987, p. 142). The first question they were asked was how to go about getting a job there....

It has been argued that one of the most fundamental restraints to secure urbanisation in post-independence Botswana has been the lack of an indigenous industrial sector. Although a basic flaw in development proposals in Selebi-Phikwe has been the neglect of any serious consideration of locally based industry, it is doubtful if this could be stimulated to any extent. Whilst investment by multinationals may be inevitable and desirable for large projects such as the mine at Selebi-Phikwe, it is also possible to pursue a strategy of diversification which would limit or neutralise the degree of dependence on foreign investors. Amin's (1990) suggestion of a total delinking from the world economy, while it has some merit for certain Third World countries, is largely impractical in Botswana which is heavily reliant on mineral exports. Although Amin's ideas might represent an impractical extreme in the ongoing dependency paradigm of development theory, they nevertheless indicate that emphasis in Africa should be shifted away from an external orientation, towards domestic self-reliance, with a view to meeting basic needs rather than promoting a First World mould of modernisation and dependence.

The trend towards increasing reliance on foreign development initiatives, requires re-examination in Botswana. A mix of foreign and local investment with an emphasis on the availability of finance for local entrepreneurs would perhaps be the most workable solution for the problem of employment generation in Selebi-Phikwe, if one at all exists.

On balance, however, given the inherited structures of underdevelopment and other constraints to sustainability in the urban place in Botswana, the probability of ensuring a viable long term future for Selebi-Phikwe, with or without foreign investment, is low. A "worst scenario" situation for Selebi-Phikwe should, therefore, be envisaged and planned for. Foreign investment must be viewed as a contingency rather than as a panacea for employment creation in the town. Government should consider the very real possibility of a winding down of economic activity in Selebi-Phikwe and the associated problems of a dislocated urban population.

Although total abandonment of the town is unlikely in the future, at best its role might be little more than as a service centre for the surrounding region. Given the potential for mass unemployment with the inevitable closure of the mine, concrete plans for the relocation of people to other areas, possibly rural, needs to be considered urgently.

Industrialisation is unlikely to be achieved on any scale in the future in Botswana. The structural nature of the problem indicates that an integrated development policy (along the lines of that suggested by Seidman, 1989) which tackles the urban problem at its roots, is required in Botswana. In this respect, more emphasis should be placed on the creation of employment opportunities in the rural areas. Cooper's work in Botswana conclusively shows that urban-rural linkages are important survival mechanisms, particularly among the poorer urban dwellers. Paradoxically, work is sought in the towns as a means of developing rural holdings for many Batswana. Future unemployment in Selebi-Phikwe thus has implications not only for those residing in the town but also for rural dependents.

It is not the place of this thesis to suggest concrete and detailed ways of stemming the urbanward flow in Botswana with reference to rural development policy, but rather to simply point out that further rural and urban proletarianisation should be avoided at all costs. By the same token, an emphasis on rural development will not, however, cope with the immediate problem of promoting employment for fully urbanised dwellers in Selebi-Phikwe suggesting again, the need for ***integrated*** rural, environmental, and urban development. This would include a consideration of the possibility of large-scale tourist development as a means of not only promoting employment outside of the towns but of also ensuring conservation of Botswana's unique wildlife heritage. The value of tourism as a force for development in Botswana has been highlighted by recent studies (see S. and J. Fowkes, 1983).

With a relatively large percentage of land in Botswana set aside for national parks, containing some of the last great herds of wildlife in Africa, the country is naturally suited to an expanded tourism industry. Once again, planning in this direction must be based on the criteria of equity and sustainability in order to ensure wider employment over long time horizons. Due to the constraints of space and foci it is not possible to go into further detail here, suffice it to say that research into the possibilities of tourism as a locally reliant diversification of economy, away from mining, should be a serious development consideration.

An important component of national development planning in Botswana should be population policy. In addition to experiencing high rates of urbanisation, the country is face by equally rapid rates of population growth (3,5 percent according to the latest census statistics). Although this growth rate admittedly applies to a small base line population of 1.4 million, future problems of surplus population are possible given the intrinsic constraints to future development in the form of an arid environment. In this respect one of the most fundamental constraints to future development, be it industry or commercial agriculture, is the paucity of water resources. This factor, possibly more than any other, will lay down the future limits for population growth in terms of population carrying capacity.

7.9 IS URBANISATION APPROPRIATE IN BOTSWANA?

The experience of Selebi-Phikwe is indicative of the tendency in Botswana to place the debate about African development in the context of economic structures and processes located in the First World. In a sense there has been a tendency to ignore Botswana's pre-capitalist past in favour of its capitalist present. Hyden (1983) suggests that there has been an impression given that independence in Africa was a major historical watershed and that in a subjective sense it was genuinely experienced as such. In objective terms he questions whether it was such a dramatic event. Those on the left have argued that Africa is not really independent but is caught up in a neocolonial economic system. A willingness to assume continuity in relation to pre-capitalist formations and structures is lacking. Their significance, indeed, had all but disappeared with colonial penetration. As Geertz (1963) suggests:

> **Though it may be true that, as an economic process, development is a dramatic revolutionary change, as a broadly social process it fairly clearly is not. What looks like a quantum leap from a specifically economic point of view, is, from a generally social one, merely the final expression in economic terms of a process which has been building up gradually over an extended period of time (p.2).**

In Botswana too, there has been a tendency to base development on the system initiated by colonial capitalism; the lessons of its precolonial past with reference to economic independence and stability based on a rural settlement system, have all but been forgotten.

The denial of Africa's own past has been reinforced by the urban bias in Government thinking in Botswana, particularly with reference to foreign investment policy in Selebi-Phikwe. The circumstances of Selebi-Phikwe provide valuable insights concerning the relevance of the general assumptions underlying Botswana's development policy. A TNC based manufacturing sector is not the ultimate solution to providing employment in a society which is primarily based on indigenous rural production. The social realities of contemporary Botswana dictate that with its largely rurally based population, it is still essentially non-capitalist. One could thus venture that the problem of unsustainable urbanisation in Botswana stems primarily from the failure of attempts to change or modify such realities.

7.10 CONCLUSION

The problem of unsustainable development in Botswana cannot be explained purely in terms of local or national politics. It is a component of a global structural problem which can only be understood within an analysis of the international market system. Governments in underdeveloped societies such as Botswana are faced with enormous global structural imbalances of economic and political power. In order to achieve some measure of national development; employment creation for example; they are forced to pander to transnational corporations and try to balance a trade-off between precarious development and socioeconomic destitution.

Given the structural dimensions of employment creation in Selebi-Phikwe, it is evident that development policy that treats the urban component in isolation from the rest of the country is shortsighted and "buys time" rather than leading to concrete ***solutions***. Development and underdevelopment, investment and neglect, urban and rural, are two sides of the same coin, suggesting that a ***holistic***, integrated approach towards development that is appropriate for ***Third World conditions***, is required in Botswana.

CHAPTER EIGHT

CONCLUSION: FUTURE PROSPECTS

> **"The fact that a society is the captive of its own history and that history has its own phases determined by the material conditions prevailing at any given time ought not to be difficult to accept for many of those who think and write about Africa. Yet the virtually total absence of any recognition of this point is a testimony to how far our own time has become insensitive to the significance of history in development" (Hyden, 1983, p. 213).**

The central problem in this thesis is simple. The crisis of continuity which has surfaced in the post-independence era in Selebi-Phikwe, is a product of the nature and history of Botswana. As Hyden (1983) notes in relation to the question of development in Africa generally; the tendency in Botswana to take the predominance of the international environment and the validity of modernity and urbanism for granted has contributed to a latent crisis of unsustainability and instability.

One of the most distinctive features of the Third World has been the rapid rates of urbanisation experienced as a consequence of `development'. In Africa, Botswana is a relatively late starter in its urbanisation process. The growth of towns in this southern African country has effectively been a post-independence phenomenon linked to the burgeoning minerals industry. Selebi-Phikwe as the first of the new mining towns in Botswana, is already displaying the symptoms of a malaise which is linked to dependence on a single resource.

When originally conceived, this research was focused primarily on a consideration of the future prospects of Selebi-Phikwe itself. It became rapidly apparent, however, that in seeking reasons for the critical situation of economic, and by extrapolation, social instability in the town, it was necessary to go further. The answer lay in the history of Botswana's political, economic, and social milieu. The historical labour reserve economy exerted a particularly important influence on the evolution of contemporary Botswana and contributed to the recent structural dislocation of people from the rural areas into urban areas, through the creation of a peasantariat. Selebi-Phikwe's experience holds important lessons which might guide future urbanisation in Botswana and other countries with resource based economies in southern Africa. Indeed, the current development dilemma and its associated problems of unequal development within Botswana and between the First and Third Worlds generally, are mirrored in the case of Selebi-Phikwe.

8.1 THE ARGUMENT IN BRIEF

Chapter two placed the question of sustainable development in relation to mining and the growth of urban places into a theoretical context. Political-economy, which provides a rational framework for analysing the development history of Botswana, was identified as a means of interpreting the evolution of political, social, and economic structures in the country.

Two important points were made in the third chapter. Firstly that pre-colonial Bechuanaland was based exclusively on a rural economic and settlement system which, although unsophisticated, was in equilibrium with the constraints imposed by an inhospitable environment. Secondly, that Botswana was claimed by the British for strategic rather than for economic reasons, resulting in the future neglect of the development of the Protectorate.

Chapter four dealt with the colonial period which ushered in a state of economic dependence based on labour migration to South Africa. The colonial administration did not stimulate the growth of urban places within Bechunaland. Thus, by 1966, the economy was firmly based on the migratory labour system and was structurally underdeveloped. An important characteristic of the British system was the fact that the society was still essentially rurally based by the time of independence.

Chapter five was devoted to a consideration of the 'modern' era. Development policy in the period following independence, though outwardly extremely successful in economic terms, did not address the roots of Botswana's dependence on the international economy. The country, despite its newfound wealth, was to remain peripheral to the wider interests of capital. Rapid urbanisation emerged as a result of the channeling of scarce resources into urban areas. Given the marginal position of Botswana to the regional and world economies, the urban process had no organic basis, and was almost wholly dependent on mining for its existence.

The experience of Selebi-Phikwe was analysed in chapter six, and it was shown that mining has not lead to a wider process of development. The situation raises the question not only of sustainable development but also of continued urbanisation.

In chapter seven, the planned development program for Selebi-Phikwe was assessed on the criteria of sustainability, degree of self-reliance, and contribution to broader development. In terms of employment creation, and the generation of multipliers and linkages with the rest of Botswana, the proposals were found to be potentially problematic. The possibility of a reinforcement of urban in-migration as a result of the availability of new jobs was also explored. That Botswana will probably have to rely on foreign investment and export based industry, is an indication of the fact that urbanisation in Botswana is unlikely to overcome its inherent vulnerability to external conditions, or to become self-supporting.

8.2 SUMMARY OF SALIENT POINTS

The growth of new towns in Botswana and associated problems of rapid urbanisation are essentially post-independence features. Mining development has been an important stimulant behind the trend towards urbanisation.

Germane to the question of urban growth, is the idea that the health of a mining town, as of any other town, is linked to the health of its economic base. Resource based towns such as Selebi-Phikwe are particularly vulnerable to external factors and are hence subject to unsustainable development. This is true of Botswana's development generally, and is due mainly to economic dependence on the primary sector for both national revenues and the support of associated mining towns.

Urbanisation is thus, only currently possible with the development of the minerals industry, which is controlled by both Anglo American Corporation and De Beers Consolidated Mines. The influence of the latter company is not confined to the diamond industry as De Beers is also involved in the recently developed soda ash project at Sua Pan. As these two South African TNCs are closely linked, Botswana is effectively dependent on a single international company for the support of an expanding urban system.

Given that future urbanisation will probably be based on further development of the mining sector, the experience of Selebi-Phikwe with its problems of instability and continuity holds importantfor the maintenance and support of the Botswanan settlement system as a whole.

A political-economy analysis of Botswana's development history indicates that the preconditions for the evolution of stable, enduring urban structures, based on sustainable development, are lacking. Problems associated with the lack of an indigenous bourgeois, industrial class, are evident in the inability of Government to diversify the economy of Selebi-Phikwe on the basis of local investment, as opposed to further reliance on TNCs. Thus, the future of the manufacturing sector in resource based towns such as Selebi-Phikwe is likely to be of a `forced' nature, will generate limited further development, and being dependent on the vagaries of the world market, is not likely to be self-maintaining.

Though the potential for urban discontinuity exists, expectations have been raised with regard to the future growth of towns in Botswana. They have been generated in part by continued Government emphasis on urban infrastructural development. Given the proportion of rural dwellers (75 percent of the total population) to urban dwellers, Government policy appears to be shortsighted and has had the effect of widening the disparities between social groups within Botswana. More seriously, the urban bias and corresponding neglect of rural development, is partly responsible for urban growth rates which are the highest in Africa south of the Sahara.

8.3 RECOMMENDATIONS FOR FUTURE PLANNING

> **The economic and social impact of mining will therefore largely depend upon whether the government uses its share of the surplus generated by mining to create *self sustaining* livelihoods for large numbers of people. The potential benefits for the rural people are great, but they will not be realised if most of these resources are spent upon the enhanced provision of urban services and higher remuneration for the wage- and salary- earning elite (Colclough and McCarthy, 1980, p. 65).**

This research has been directed towards a critique of development policy in Botswana. In particular, the mining industry has been discussed with reference to the urbanisation trends which have characterised Botswana since independence. It has been argued, on the basis of the experience of Selebi-Phikwe, that mining investment alone, is incapable of stimulating enduring development and by implication, urbanisation, in Botswana. This is not to say that mining is undesirable *per se*. What is required is a recognition by the government of Botswana and international `aid' agencies such as the World Bank and International Monetary Fund, that the minerals industry does not necessarily lead to wider development. It cannot be maintained indefinitely and locks Third World nations into dependency relationships. Mining should rather be viewed as a vital and necessary element in the funding of development ventures which are sustainable in the ***long term***.

Economic dependence raises the question of the nationalisation of the mineral industry of Botswana. Given the integrated nature of the production and marketing of minerals in the world economy, which is dependent to a high degree on international capital, expertise, and technology, nationalisation would be of questionable value and would not necessarily lead to greater control or economic independence. Furthermore, it is preferable that the risk of failure associated with mining, which is considerable, should be borne by a TNC. Such institutions have greater access to funding than has the Botswana government. Consequently the argument for total delinking of the Botswana economy from the global economy has little to commend it. The argument in this thesis thus, does not hinge around the desirability of a mining sector controlled by a TNC versus one owned and controlled by Government. Rather, it is primarily concerned with the problem of an emphasis on mining in Botswana as constituting `development' itself.

The fundamental issue here relates to the question of whether or not the economy of Botswana is ***intrinsically capable of supporting an increasing urban sector***. In its present form, urbanisation is largely dependent on the mining sector, which is wholly dependent on external conditions. Indeed, the *raison de etre* of towns such as Selebi-Phikwe is mining. Attempts by Government to ensure their future continuity are symptomatic of the fact that mining has not led to a wider, more sustainable process of development. The key to more appropriate `development' forms does not necessarily lie with economic growth and global integration, but with social equity and the propagation of ecologically sound forms of production and consumption.

Given the critical approach to urban development policy taken in this thesis, it is necessary to make suggestions for a constructive alternative. Recommendations are drawn from a newly emerging body of development theory which incorporates many so-called `green' concepts based on ecological tenets. Suggestions follow on from the discussion on sustainable development, introduced in the second chapter. Although a concrete *modus operandi* for an alternative development path in Botswana is difficult to suggest, the new paradigm is a refinement on the old debate between the merits of ***either*** capitalism ***or*** socialism. "Green economics", which has developed as a reaction to environmental problems in both the First and Third Worlds and which is intimately concerned with notions of what constitutes ***real*** or ***sustainable*** development is relevant to the quest for lasting solutions.

The following tentative suggestions based on the experience of Selebi-Phikwe may thus be made:

> (1) A more rational evaluation of the urban sector in Botswana is required. New towns established to service mines such as the recently developed Sua Pan project should be planned on the basis of integrated environmental management. In essence, if social impact assessments indicate that mining activity is unlikely to generate linkages and hence contribute to development over long time horizons, urban ingress should be either limited to essential personnel, or efforts should be made from the outset to develop a locally based manufacturing and service industry.
>
> (2) Should pilot studies indicate that economic diversification is unlikely or impossible, and that a high degree of TNC investment in the manufacturing sector would be necessary to achieve these ends, such mining towns should perhaps be planned to ensure that they do not become ongoing urban places. Important variables here include the expected life of mineral reserves, the capital costs associated with extraction, and the degree to which value added industries associated with the mining enterprise are feasible. Alternative employment for those people involved in the mining process and those immediately necessary to service the industry should be planned for with eventual decommissioning in mind.
>
> (3) The real and latent crises experienced in towns such as Selebi-Phikwe calls into question the conventional wisdom associated with `modernisation' or `progress' based on rapid economic growth and the associated urbanisation of previously rural, indigenous societies in Botswana. Given the historical lack of urban elites within Botswana and the intrinsic problem of fostering an urban settlement system, `progress' in Botswana should perhaps be based on rural development.
>
> (4) Thus, given the precarious foundations of urbanisation in Botswana, it would make sense to divert more of the surplus revenues generated by mining into the rural sector rather than urban areas. The criteria for investment in development projects should be based on ***sustainability***, ***equity***, and a minimisation of ***dependence*** on foreign capital and technology, first and foremost, and only secondly on their absolute contribution to economic growth. An important consideration here is whether such development is "appropriate". Linked to the issue of social equity is the question of whether future development initiatives are likely to result in widening income disparities between social groups as has been the case in mining.
>
> (5) Agribusiness which is capital intensive and which might disadvantage peasant or subsistence farmers should be avoided wherever possible. Rural `development' based on First World technology is not necessarily appropriate to Third World societies and environments. In addition, as in the case of urban development,

reliance on foreign capital and aid should be minimised in the rural sector to avoid similar problems of economic dependence.

(6) A recognition of the problems of rural proletarianisation and unemployment in rural areas, as factors in the drift of people into towns in Botswana, points to the need for a national development approach which integrates population and environmental policy with rural and urban sector planning.

8.4 IMPLICATIONS FOR FUTURE PLANNING

In terms of the tenets of recent theory on `sustainable development', it has been demonstrated that the style of development upon which the future of Botswana is currently based, is subject to vulnerability and instability. The experience of Selebi-Phikwe reflects the contradictions of mining as a developmental objective. Movement of rural people into the urban areas is likely to continue unabated if the issue of viable alternatives with regard to income opportunities in rural areas is not addressed. Bryant and White (1982, p. 276) observe that, "sometimes administrators consider that the best recourse is to focus on urban areas where problems are at least more visible and political pressure more immediate. In this manner an "urban bias" may provide an escape from confronting the awesome gap between rhetoric and performance in rural development". It would appear that in Botswana's case that it would perhaps be more fruitful to confront the question of rural development as a means of addressing the problem of rapid urbanisation.

Manufacturing and the promotion of growth based `development' which is reliant on transnational involvement cannot be viewed as the panacea for problems associated with rapid urbanisation in Botswana. Such `development' is no more capable of reducing dependence and supporting urbanisation in perpetuity, than mining is. The lessons of Selebi-Phikwe indicate that the future of urban economic bases needs to be considered as an integral part of the pre-planning stage for new resource based towns in Botswana, and other African countries with strong mining sectors.

If diversification and more widespread development does not have a future in such towns then they must be seen as servicing centres for mines rather than as ongoing urban places. A sense of continuity and permanence lies at the heart of truly sustainable development. This raises the question of whether urbanisation and the growth of an associated `modern' sector in Botswana is viable in the long term and whether it is necessarily desirable.

Indeed, unless Botswana chooses to develop sustainable livelihoods for the bulk of its population, and to use mining not as an end but as the means of generating truly sustainable development, its future might well mirror that of Selebi-Phikwe's.

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