Dissertation By

ISAHAKU

Ibrahim

INSTITUT OF AFRICAN STUDIS,

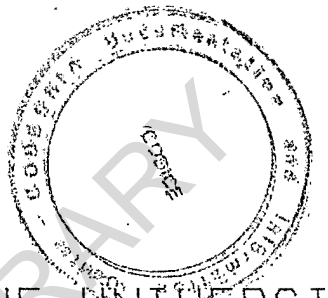
UNIVERSITY OF GHANA,

LEGON

THE SOCIAL CONDITIONS OF GOLD MINERS IN THE TARKWA GOLDFIELDS : 1957 1987

8 JUIN 1994

THE SOCIAL CONDITIONS OF GOLD MINERS IN THE TARKWA GOLDFIELDS : 1957 - 1987.



A THESIS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON, IN PARTIAL FULFILLMENT FOR THE AWARD OF THE DEGREE OF MASTER OF PHILOSOPHY (AFRICAN STUDIES).

BY
IBRAHIM ISAHAKU

INSTITUTE OF AFRICAN STUDIES,
UNIVERSITY OF GHANA,
L E G O N .

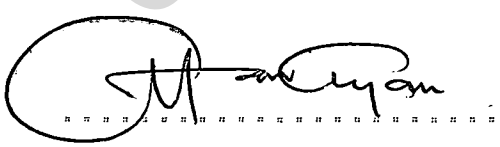
SEPTEMBER 1990.

D E C L A R A T I O N

I, IBRAHIM ISAHAKU, hereby declare that this work is my original work. Except where acknowledgements are made, the material herein presented is a record of my research. No part of this work has been presented in any form for any Degree in another Educational Institution.

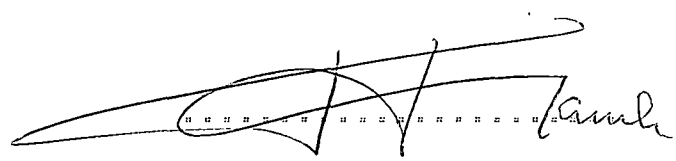
(IBRAHIM ISAHAKU)

CANDIDATE



(DR. K. AFARI-GYAN)

SUPERVISOR



(MS. TAKYIWAA MANUH)

SUPERVISOR

D E D I C A T I O N

Dedicated to the Mineworkers of Ghana and Africa.

A B S T R A C T

This is a study of the social conditions of gold miners (in terms of safety and health in the mines, and living conditions in the mine compounds) in Ghana's oldest modern gold mine, the Tarkwa Goldfields Limited (T.G.L.) from 1957 to 1987.

The study shows that little regard has been given in official circles since the attainment of formal political independence to the repercussions of the social conditions of the mine labour force on levels of production in the mines. Attention seems to have been focused more on the effects of other factors, particularly mine labour indiscipline.

A close study of archival records and other secondary sources reveal that the social conditions of the mine labour force in the colonial times were deplorable. Field data on post-independence trends indicate some improvement. However, over-concern for profit (as was the case in the colonial times) seems to have hindered the consistency with which matters relating to the social conditions of the mine labour force have been approached.

Mining work underground is still very hazardous in the absence of good ventilation and sufficient protective apparata for the labour force. The risk of accident and disease (silicosis and tuberculosis) is thus immanent. Housing conditions in the compounds are still poor, leading to the prevalence of crowd disease among mine workers of T.G.L. and their dependants.

Violations of the existing laws and regulations on mine safety and health by the mine managements/ owners were found to be rife. This is in spite of the fact that these regulations fail to meet

the standards set by the International Labour Organisation (I.L.O).

The study indicates the need for updating Ghana's laws on health and safety in the mines to keep pace with I.L.O's conventions on the matter. It also proposes steps to be taken to stem violations of the regulations.

ACKNOWLEDGEMENTS

It is impossible to list by name all those who have contributed to this study. Nonetheless I should thank the following persons and organisations for their assistance in various forms.

I am most grateful to the mine-workers of the Tarkwa Goldfields (especially the underground work force) for permitting the use of their working and living conditions as the laboratory for this study. They willingly shared their opinions with me and provided answers to the many questions I posed.

A great debt of gratitude is owed to Dr. K. Afari-Gyan and Ms. Takyiwaa Manuh, both research fellows of the Institute of African Studies, University of Ghana, Legon, who supervised the work. Their painstaking work in reading through the drafts of this study and making critical suggestions for its improvement has proved most beneficial.

I wish to express my profound appreciation to CODESRIA (Council for the Development of Economic & Social Research in Africa), Senegal, without whose financial assistance work on this study could not have been completed on schedule. Assistance from CODESRIA enabled the settlement of secretarial and field expenses of the study. This assistance has been most inspiring indeed.

Two state institutions in the Tarkwa area need special mention. These are the University of Science and Technology School of Mines, Tarkwa and the Tarkwa Goldfields Limited (T.G.L.). Mr M.T. Kofi, the Principal of the School of Mines, offered me a study leave to pursue this study, and allowed me free access of the school's library. The authorities of the T.G.L. permitted the

research in their institution. The following need to be specially mentioned in this regard. Drs. S.A.K. Forson and K. Tuffuor-Kwarteng (Chief and Senior Medical Officers respectively), Messrs. R.P. Baidoo and Arku (Senior Health Inspector and Training Officer respectively). Their audience and the material they provided have proved most invaluable for this study.

Special thanks for friendship and help are due to Messrs Fui S. Tsikata of the Faculty of Law, Legon, Yao Graham, a Ph.D. candidate at Warwick, England, K. Ampom-Darkwa of the Institute of African Studies, Legon and J.J.T. Mensah of the National Archives of Ghana, Accra. Thanks also go to my friends Mr. Ben Doku and Ms. Grace Warden both of the school of Performing Arts, University of Ghana, Legon, and Mr. Gustav Addai of the National Energy Board, Accra for their secretarial and computer services.

I should state finally, that this thesis is the result of an original research and I therefore bear full responsibility for any errors found in the report.

Legon, Ghana.

September, 1990.

Fig.A A MAP SHOWING THE STUDY AREA: TARKWA

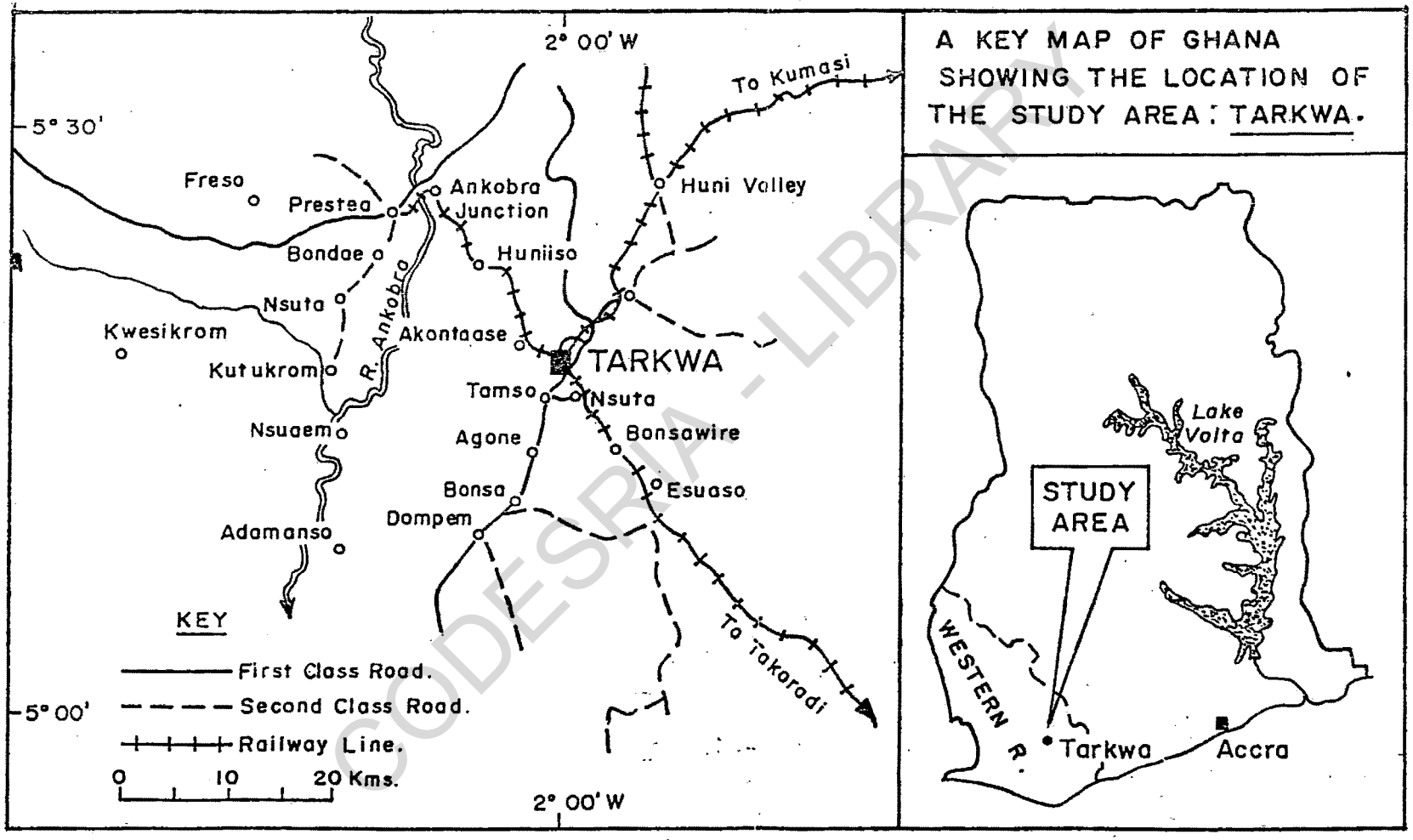


TABLE OF CONTENTS

CHAPTER ONE

1.0 I N T R O D U C T I O N

This thesis examines the socio-economic conditions of gold miners in one particular mining industry, the Tarkwa Goldfields Limited (T.G.L), located at Tarkwa in the Wassaw West district in the Western Region of Ghana.(1) Under the socio-economic conditions of the miners can be included labour issues such as the methods of labour recruitment, facilities for labour-management conflict resolution, as well as welfare issues such as safety and health, housing conditions in the compounds, salary and pension schemes.(2) While all these issues are important,this thesis focuses on the health and safety precautions and conditions in the mine compounds of one of the mining units of the State Gold Mining Corporation (S.G.M.C.), the Tarkwa Goldfields Limited (T.G.L.), during the period 1957 - 1987.

My interest in the occupational health and safety issues of the miners derives from three major factors. The first may be described as personal, because it relates to my historical roots with the industry. Since early this century, my close relatives have worked in gold and manganese mines in the Tarkwa area; and I was born within this mining vicinity as a result. As I grew up, I witnessed the support of the railway and mineworkers to the independence movement in the expectation that independence would better their lives and working conditions;(3) but, regrettably, I

have lived through the disappointment of these mineworkers as their hopes have been largely unfulfilled, and many have died in disappointment.

The second factor is that very little documentation, in terms of published works, exists on the lives and conditions of miners in Tarkwa or elsewhere in Ghana. Reading through the dissertations of final year students as a teacher at the University of Science and Technology School of Mines at Tarkwa, I realised that all were concerned with the technical business of mining. The conditions under which the mineworkers who carried out the enterprise in the womb of the earth lived and worked, if mentioned at all were done only in passing.

The third factor motivating this study stems from the recognition of the fact that Tarkwa is a centre for the mining of other minerals, manganese and diamonds, apart from gold. A socio-economic study of the gold mines will therefore have implications for the other mines. There is no doubt that an urgent need exists for such a study in respect of Tarkwa as a whole, for the physical layout and the slum conditions of the town resulting from the mine operations have, in our view, adverse effects on the health and well-being of the labour force.

In short, this study aims at filling the vacuum created by the absence of studies of the social history of the Ghanaian labour force, which is relevant and can be used by policy makers, planners, employers, and labour leaders.

In the current chapter we present a statement of the problem

to be researched, a review of the relevant literature, the hypothesis of the study, and the methodology, scope and limitations of the study, as well as the theoretical framework employed.

1.1 THE RESEARCH PROBLEM

Reading through official reports and articles on the gold mining industry in Ghana, one is struck by the emphasis on worker indiscipline as being responsible for low gold output.(4) This thesis sets out to investigate the contribution of the social conditions of miners in our mining areas to this state of affairs. The study therefore focuses on the changes that the aftermath of national political independence has brought to the mining industry that affect the socio-economic conditions of the mineworkers, with special reference to the areas of housing in the mine compounds, and safety and health on the mines generally.

The presumption of the study is that the social conditions of gold miners is a crucial factor in any considerations of :

a). increased gold output in Ghana's mines;

b). ensuring peaceful industrial relations; and

c). making our national independence more meaningful to mine workers.

1.2 REVIEW OF RELEVANT LITERATURE

Not many published works exist in the specific area of the social conditions of miners. This is especially so regarding gold mining in Ghana and its specific labour problems. The few existing studies deal with the subject matter more in breadth than in depth. Nonetheless, these, together with a large amount of unpublished

material, provide useful information for detailed work on the subject.

The existing material relevant for this study can be grouped into five main themes. These are the geographical, the economic and historical, the sociological, the political economy, and the purely mining geological themes. There are also some unpublished thesis and long essay dissertations as well as official reports that combine a number of these themes.

The geographically themed works, in emphasizing the need for a knowledge of the physical features of Ghana, deal with a number of issues that put the gold mining industry in a proper perspective.(5) Among the issues that are dealt with are the geographical zones in Ghana where gold can be found,(6) which include the Tarkwa area; the problems of mining industries, such as the absence of mine development over long periods of time;(7) the hazardous working conditions in the mines, past and present,(8) and the depletable character of minerals, which calls for judicious planning.(9)

Of those studies with economic and historical themes, Szereszerki's(10) and Kwame Arhin's(11) works appear to be representative. These studies cover the pioneering role that the gold mining industry has played in the Gold Coast (Ghana) economy,(12) the role of gold mining in acting as the lever of power for the hitherto "Akan Kingdoms in the era of state formation";(13) and the current post-independence importance of the industry in backing the Cocoa industry to sustain Ghana's economy.

Particularly, some of these historical accounts of important mining areas give prominence to the Wassaw area (Tarkwa area),(14) which is the site of our case study.

For a socio-economic study such as the current one to make a contribution to knowledge, it must make use of insights that seek to place the gold mining industry in the context of the early economic development of Ghana. These insights are undoubtedly gained from these works of historical and economic themes. It needs to be pointed that almost all the works being reviewed point to one or other sociological significance of the particular study. Each work reviewed therefore has its sociological connotation, though this may not be clearly stated. One work that however focuses very directly on sociological themes is by Charles Van Onselen.(15) Van Onselen deals with a number of issues in relation to this theme. The origins, development, and functions of the "Compound System" in the then Rhodesian mines are dealt with. Explanations are given regarding the reasons behind "the lasting attraction that the compound system has for the capitalists in Southern and Central Africa".(16) Van Onselen treats in clear language the indirect systems of social control of African mine labour force that existed in the compounds, and the alliance that exists between the state and the mining companies.

This is relevant for the current study because the 'compound system' in the Gold Coast mines is said to have been borrowed from experiences of Southern Africa.(17) In dealing with health and safety, however, Onselen merely tackles the rates of accidents and

death underground, without paying detailed attention to health and safety precautions regarding two very crucial universally acknowledged mine diseases resulting from mine dust - silicosis and tuberculosis - one of which (silicosis) experts assert cannot be cured. Despite this limitation this work provides useful directions which the present study seeks to utilize.

Further to the foregoing, this study has also been inspired by studies of the African mining enterprises that have themes derived from the subject matter of political economy. Guided by this theme, the authors have sought to probe into production relations that have existed in the mining enterprises of Africa with a view to arriving at conclusions that would help make the mining enterprises more beneficial to Africans. G. Lanning and M. Muller(18) in particular give an illuminating general account of the history of mining companies and their role in the under-development of Africa. They explain Africa's vast potential in mineral resources and the obstacles in her way in utilizing these rich resources for her internal development. They pose a number of questions such as "Why is Africa, so rich in mineral resources, so poor in economic growth? Why do its people benefit so little from the great wealth they help to create, and how do the powerful mining companies figure in this paradox?"(19) Undoubtedly, the answers the writers give to these questions have been found most useful in our understanding and analysis of the field data of the current study. Complementing this is the work done by Jeff Crisp (1984)(20) who uses the same theme in his discussion of the Ghanaian labour

history in the gold mines. Crisp "provides an account of the changing nature of life and work in the gold mines, (and) examines the distinctive forms of political consciousness, organisation and action, which the miners developed".(21) He explains the hazardous nature of mining and the goals that informed the construction of the kinds of compounds we have today at the mines of Obuasi, Dunkwa, Prestea and Tarkwa. Crisp's work, being more politically focused, recognises the role that the social conditions of the miners play in shaping their political consciousness. However, he is unable to detail out these conditions. The history of labour struggles in the Ghanaian gold mines which he treats in detail has updated my view about mine-worker consciousness and hence guided both my wording of questions for respondents, and the analysis of their responses. In sum, these studies with themes derived from political economy have proved to be most invaluable in the extent to which they aid in giving substance to the hypothesis of this study.

As indicated earlier on, themes of unpublished dissertations relevant for this study range from the purely geographical to the historical, from the purely medical to the mineral engineering. Those with geographical and historical themes as represented by the Ph.D. thesis of Paul Rosendlum(22) and Lilian Walker(23) do not present, in my opinion, any new information on the history and geography of gold mining in Ghana, except that they provide one with specific field data on the industry in various parts of the country. The medical and mining engineering studies deal with

problems of silicosis and tuberculosis among miners in Ghana,(24) the nature of mine hazards in relation to dust,(25) excessive dehydration,(26) poor ventilation and the effects of these on the labour force. Undoubtedly, these theses provide some factual information in relation to their specific themes. However, a number of vital issues associated with the labour aspect of the mineral production process have not received attention. For example, whereas some of these works, for reasons of being very technical, have not attended to issues related to the social conditions of labour,(27) others that made some mention of these conditions failed to go into the reasons behind the prevalence of such conditions.(28) This current thesis, will complement the efforts already made by the authors in providing information that helps to explain the reasons for the state of labour conditions and its effects on labour productivity at Tarkwa Goldfields.

The various official reports on the mining industry have also been most valuable to this work. Prominent among these is the Report of the Committee for Increased Gold Output in Ghana(29) which deals in some detail with the problems and prospects of gold mining in Ghana. Its recommendations aside, the report provides a wealth of historical and factual information about the industry which are relevant in enriching the factual basis of this thesis. There is also a wealth of information in reports and articles of some organisations which are useful for this study. Some of these are the annual reports of the Gold Coast / Ghana Chamber of mines (from 1927); annual reports of the Geological Survey Department

(from 1903). There are also archival records of reports on Sanitation and Tuberculosis in Mining areas;(30) "Silicosis and Tuberculosis among Mine Workers in the Gold Coast",(31) "Housing Conditions in Areas Adjacent to mines",(32) and "Death Rates and Accident Death Rates in Gold Coast mines".(33)

The more recent records of the Tarkwa Goldfields Limited have provided this work with some insightful information helpful in understanding the operations of the mine in the post-independence era. These include an article on "Health and safety of miners in English Speaking Africa - Family Health and the quality of life in an African mine".(34) This article sketches the ugly picture of underground and mine compound conditions in Ghana's mines with a case study of Tarkwa Goldfield Limited. The records of the mine also provided us with reports on rates of accidents and rates of incidents of silicosis and tuberculosis from 1973 to 1987; and memoranda on environmental hygiene and sanitation problems of the compounds of the Tarkwa Goldfields Limited.

Finally, a number of journals have been found useful to this work. Notable among these is the Journal of the Ghana Society for the Prevention of Tuberculosis,(35) which carries various articles on health hazards in working environments.

1.3 RESEARCH HYPOTHESIS

Drawing from the research problem, and giving cognisance to the relevant literature reviewed above, the hypothesis of the study is simply as follows :

The social conditions of gold miners, in terms of conditions of

safety and health underground, and living conditions in mine compounds, which have important bearing on productivity and stable industrial relations, have not changed significantly in the Tarkwa Goldfields Limited since the colonial times.

1.4 THEORETICAL FRAMEWORK

This study aims at contributing to understanding the material basis of the labour force of a key sector of Ghana's economy. To achieve this, the study utilizes insights from three theoretical frameworks. These frameworks have been chosen because they are dynamic in character and make it possible to lay stress upon interactions in the general social systems of which the mining industry is a part. The first framework is that of the institutional theory. Mining, like any human organisation takes place within an institution. According to Talcott Parsons,(36) institutional theory is considered as a form of "activist theory", for it involves all those cultural theories of human behaviour which study the many ways in which men manipulate their environment in order to achieve their purpose. The main feature of this theory is its stress that human aims are achieved through organisation. One of the assumptions of this theory is that the general content of cultural knowledge determines the form of both the purpose for which groups are organised and the activities by which they hope to attain the aims.

The theory has three main elements. The first is the concept of "purpose" for the achievement of which members co-operate. The second is the concept of "an institutional group", the group of

members co-operating to achieve the purpose. Finally, there is the concept of "the institution" per se, which relates to the complex cultural expectations which are shared by the men of the given institutional group. Heztzier stresses the role of institutions in satisfying the needs of man. According to him,

> Social institutions are purposive, regulatory and consequently primary cultural configurations, formed unconsciously and/or deliberately to satisfy individual wants and social needs bound up with efficient operation of any plurality of persons. They consist of codes, rules, and ideologies, unwritten and essential symbolic organisational and material implementations. They evidence themselves socially in standardized and uniform practices, and observances individually in attitudes and habitual behaviour of persons. They are sustained and enforced by public opinion acting both formally and informally through specifically devised agencies.(37)

The mining industry, being a human institution would seem to fit Hertzier's propositions.

The second framework is the political economy approach. According to this approach, society must be studied with a view to understanding the general laws regulating the production, exchange, and distribution of the material means of subsistence. This is because economic need is man's most important need; hence primacy is given to material conditions in the explanation of social phenomena. According to Barrington Moore (1958), the approach helps to explain the "Chains of historical causation".(38) Relating this approach to the study of the African situation, Claude Ake, P.C.W. Gutkind and Immanuel Wallerstein(39) hold that Africa, an underdeveloped continent in dire need of strategies for fast development, has a lot to benefit from a political economy analysis of society. For, its historical analytical approach coupled with

its inter-disciplinary character carries a dynamism which helps to explain realities in Africa - "realities of the introduction and spread of colonialism (or neo-colonial capitalism) in Africa".(40)

This approach, we believe, helps to comprehend the extent to which political independence in Africa has aided the departure or non-departure from colonial (and neo-colonial) exploitation and created conditions for a more democratic control of the state, as well as the achievement of equitable re-distribution of national resources. The approach is held to be relevant to this study in the extent to which it helps in understanding the nature of the problems of the mining sector of Ghana's economy, which also entails understanding the social conditions of the labour force of the industry.

Finally, this study has utilized insights from Gunnar Myrdal's approach in using socio-economic factors in analyzing the cost element in the development of health programmes in the developing nations.(41) One of Myrdal's central points is that health should not be considered in isolation from other elements of the developmental process of the economy. Health affects socio-economic factors, and is itself affected by socio-economic factors, notably income and levels of living. According to him, a person's ability to take full advantage of a health care programme is related to his/her socio-economic status. Myrdal calls for particular attention to be paid to this relationship in order to caution against oversimplifying the understanding of health by isolating it from other socio-economic and institutional factors of the

developmental process. The understanding that social conditions are not independent of other socio-economic factors will lead the health planners to attack the problem of health care on its broadest front, taking into account the standard of living of the people who are directly involved with the type of service designated. This implies that, rationally, the health problem becomes integrated in the general problem of planning for development. Thus under this framework Myrdal argues that socio-economic factors such as housing, sanitation, income distribution, and, probably above all, nutritional status are determining factors for the health standards in a particular population. (42) Thus the quality of the health care system, given that these socio-economic factors remain unchanged seems to have a possibility of influencing the health situation.

1.4.1. Conceptual Definitions

Associated with the theoretical framework are various concepts and terminologies that have aided one in painting the kind of picture relevant to this thesis. We wish now to define these briefly. By social conditions in this thesis is meant the status of the miner derived from the facilities available to him both at the work place and in the residential compounds aimed at advancing his well-being and that of his family. Abstracted from this definition are the working conditions by which is meant the specific conditions in the environment that facilitate or hamper the efficiency of the mine labour force. The "gold miner" has been central in this scheme. By this is meant all mine workers directly

involved in the ore extraction and processing. This includes all underground mine workers as well as mill crushers who handle the processing of the ore-body. More than 50% of the mine workers at the Tarkwa Goldfields live in the 'mine compounds' closer to the mines. These 'mine compounds' are the cluster of housing units put up by mine owners on mine property in the 1930's in what was then the Gold Coast, to house the mine labour force, more especially the immigrant labour component from the Northern Territories and other West African countries. In this thesis, the definition of the World Health Organisation (W.H.O) (43) of housing as "The physical structure that man uses for shelter and the environs of that shelter including all the necessary services, facilities, equipment and devices needed or desired for the physical and mental well-being of the family and the individual, (44) is inclusive in our use of 'mine compounds'.

It has been emphasized in this thesis that the continued viability of a mining enterprise partly depends on continued 'mine development' endeavours. 'Mine development' here is taken to mean the processes involved in prospecting to determine the amount and the quality of ore that may be expected, as well as the laying out of the infrastructure - shaft sinking, drainage and ventilation provisions, and machinery installation - required for the actual mining process. Undoubtedly, mine development must take into account conditions for safety and health. By safety and health is referred all the conditions - physical and psychological - provided the mine worker to enable him gain both in consciousness and in

physical environmental conditions a sense of absence of danger and presence of general well-being, in the performance of his assigned tasks. We have operationally defined health and safety this way taking cognisance of the provisions on safety and health in the Mining Regulations, 1970, (45)

One of the central concerns of this thesis associated with safety and health at the Tarkwa Goldfields Limited is the rate of mine-associated diseases on the mine. One of these is 'silicosis', for which no known cure has yet been found. Silicosis is a lung disease suffered by patients as a result of the inhalation of dust containing free silica. This dust destroys the lung alveoli, reducing the lung's capacity to function as expected. The commonest complication of this disease is 'silico-tuberculosis', which is a silicosis -induced tuberculosis, common among miners of many years standing.

Discussions of labour conditions are replete with concepts that suggest a certain absence of democracy in management-labour relations in the enterprises of the Third World. In this thesis, we have particularly used the term 'labour control'. We have used it persuaded by Crisp's (46) definition of the term, as all the activities devised by mine owners to develop subservience amongst the labour force. We have further made references to the 'tripartite' approach in labour relations. This reference is made especially in regard to discussions on occupational health services in mining enterprises. By the 'tripartite' system is meant any system of government at the enterprise level which involves

representatives of the labour force, mine owner/employers, and the government. Finally this thesis reports on compensations paid to injured mine workers resulting from accidents and diseases. By 'compensation' here is meant the remedies awarded the employee by the employer after the employee has sustained injuries in the cause of his/her assigned tasks. This definition gives due cognisance to the provisions of the Workmen's Compensation Law, 1987. (47)

The foregoing represent the main concepts employed in this thesis. As much as possible, other concepts not found among the above definitions have been defined in the course of the discussions in the relevant sections of the thesis.

1.5 METHODOLOGY, SCOPE AND LIMITATIONS OF THE STUDY

This study relies immensely on secondary sources, both published and unpublished, as can be seen from the literature review section. Essentially, the study deals with the human dimensions of mining. It has therefore made extensive use of health records as well as assess the impact of environmental sanitation in the compounds on the health status of the labour force in the mines. These have been supplemented with primary data consisting of interviews of various groups. By means of purposive sampling methods, experts were selected to give us information on occurrences of silicosis and siloco-tuberculosis on the mine. Households were selected from the six(6) main compounds for complementary information on mine compound conditions. Further, participant observation methods were employed in the investigations since the researcher is resident in the mining town of Tarkwa. Our

main interest in this study has been the social conditions of the labour force involved directly in the gold mining and processing processes at Tarkwa Goldfields. This involves all the underground labour force as well as the mill crushers who handle the processing of the ore-body. The social conditions of "galamsey" operators (small-scale gold panners) are however not discussed here.

As expected, this study is subject to some limitations. In terms of coverage, constraints of time and cost made it impossible for me to interview a very large number of households in the six(6) compounds of the Tarkwa Goldfields. For the same reason, it was not possible to consult as many experts on the subject as I would have wished. In terms of content, though the work has been periodized from 1957 to 1987, except for production figures, improper organisation of records at the mine has made it difficult to have data to cover the entire period of thirty (30) years. However, records exist from 1973 to 1987 regarding safety and health on the mine and general mine compound conditions. Further, the bureaucratic style with which some senior personnel of the mine handled the requests of this researcher, for some specific information makes it likely that vital information that would have further enhanced this work had been lost. The other limitation that may affect this study is the human biases of the researcher; for the researcher has lived within the conditions being researched and may have adopted attitudes on the matter. But being conscious of this, I shall, as much as possible, let the facts speak for themselves.

The thesis is organised into five (5) main chapters. This introductory chapter has dealt with the research tools employed in the study. This is followed by a second chapter which presents a brief history of gold mining in the Tarkwa area in the pre-independence and post-independence eras. The third chapter presents the findings of a survey on the health and safety conditions in the mine; the fourth chapter presents the findings of a survey on the conditions in the mine compounds. The last chapter, which is the concluding chapter, highlights the main issues and makes recommendations.

NOTES ON CHAPTER ONE

1. Tarkwa is the second most important town, politically and economically, in the Western Region of Ghana, next to Sekondi/Takoradi, the regional capital. It is also the only town in the region with a concentration of gold, diamond and manganese mines.

2. Details can be found in : State Gold Mining Corporation, Collective Agreement Between the Metal Mines of Ghana State Gold Mining Corporation and the Ghana Mineworkers Union (GMWU) - Conditions of Service for Junior salaried staff, Ghana Publishing Corporation, Accra, 1987.

3. The Secretary (Gold Coast Youth League), Memorandum on Living and other conditions of African Workers engaged in the Preatea (& Tarkwa) Mines, 14th January, 1937, (National Archives of Ghana, Accra). This gives a graphic account of pre-independence working and living conditions in the mines of the Gold Coast.

4. Ministry of Lands and Natural Resources, Report of Committee on Increased Gold Output in Ghana, Ghana Publishing Corporation, Accra, 1980. This exemplifies the emphasis.

5. See (i) E.A. Boateng, A Geography of Ghana, Cambridge University press, Cambridge, 1969.

6. Ibid.

7. Birmingham et al, A study of Contemporary Ghana, Northwestern

Univ. Press, Evanston, 1966.

8. D. Moore & F.G. Guggisberg, We Two in West Africa, Heinneman, London, 1909.

9. Ibid.

10. Szereszerski, Structural Changes in the Economy of Ghana, 1891 - 1911, Weidenfeld & Nicolson, 1965, London.

11. Kwame Arhin,"Gold Mining & Trading among the Ashante of Ghana", J. de Africanistes, vol.48, No.1, 1978, pp.89 - 100.

12. Szereszerski, Op Cit p 25.

13. Kwame Arhin, Op Cit p 90.

14. Ibid.

15. Charles van Oselen, CHIBARO - African Mine Labour in Southern Rhodesia : 1900 - 1933, Pluto Press , London, 1976.

16. Ibid.

17. Jeff Crisp, The story of an African Working Class : Ghanaian Miners Struggles : 1870 - 1980, Zed Books, London 1984, pp 38 - 39, p 67.

18. G. Lanning & M. Mueller, Africa Undermined : A History of the Mining Companies & The Underdevelopment of Africa, Penguin Books, England, 1979.

19. Ibid.

20. Jeff Crisp, The Story of an African Working Class : Ghanaian Miners Struggles : 1870 - 1980 : Zed Books, London, 1984.

21. Ibid.

22. Paul Rosenblum, Gold Mining in Ghana : 1984-1900, Ph.D.

Thesis, University of Columbia, 1970.

23. Lilian Walker, The Gold Mining Industry in Ghana., Ph.D. Thesis, University of Edinburgh, 1971.

24. Dr. Kwadwo Tuffour-Kwarteng Silicosis and Silico-Tuberculosis among Workers in a Gold Mine, M.Sc. Thesis, London School of Hygiene & Tropical Medicine, University of London, 1988.(He is the Senior Medical Officer at T.G.L.).

25. Ibid.

26. Dr. Newton Amegbey, Investigations into the Human Factors with Special Reference to Health & Environmental Conditions of the Ghanaian Underground Mines, Ph.D. Thesis, University of Berlin, 1987.

27. Paul Rosenblum (1972) and Lilian Walker (1971) Op Cit.

28. Dr. Newton Amegbey (1987) & Dr. K. Tuffour-Kwarteng (1988),Op Cit.

29. Mininstry of Lands & Natural Resources, Report of Committee for Increased Gold Output in Ghana, Ghana Publishing Corporation, Accra, 1980.

30. Dr. W.M. Howells, Report on Sanitation & Tuberculosis in Mining areas (1932 - 1933), National Archives of Ghana (File No. Mines 766/32).

31. Drs. A.J. Murray & J.A. Crocket,Silicosis & Tuberculosis Among Mine Workers in the Gold Coast, 1946, National Archives of Ghana, (File No. Mines 766/320)

32. Report on Housing By Mining Companies & Housing Conditions in

Areas Adjacent to Mines, National Archives of Ghana, (File No. Mines 15/C/768/36.

33. Report on Death Rates & Accident Death Rates in Gold Coast Mines, National Archives of Ghana, (File No. mines 766/32).

34. Dr. S.A.K.Forson (Chief Medical Officer, Tarkwa Goldfields Limited), Health & Safety of Miners in Enokish -Speaking Africa. Family Health & The Quality of Life in An African Mine. Pan-African Conference on Mine safety in Africa, Kitwe Zambia, 1976 (T.G.L. Hospital Files).

35. Dr. L.K.A. Derban, "Health Hazards in the Working Environment", Journal of The Ghana Society For the Prevention of Tuberculosis, Volume 1, No. 5, July 1973.

36. Talcott Parsons, Structure & Social Action, McGraw Hill, N.Y.1951.

37. J.O. Hertzler, Social Institutions, Lincoln University of Nebraska Press, 1964, p3.

38. P.C.W. Gutkind & I. Wallerstein (ed) Political Economy of Contemporary Africa, Beverly Hills, 1976, p5.

39. Ibid p2.

40. Claude Ake, A Political Economy of Africa, Longmans, N.Y.1981

41. Gunnar Myrdal, Asian Drama. An Inquiry into the Poverty of Nations, N.Y.,Pantheon, 1968, pp 1531 - 1619.

42. Ibid.

43. World Health Organisation (W.H.O). Technical Report No.255, Quoted in S.A.K. Forson, "Family Health & the quality of Life", Conference on Health & Safety of miners in English-

Speaking Africa, Kitwe, Zambia, 1976.

44. Ibid.

45. Ministry of Lands and Natural resources, Mining regulations, Ghana Publishing Corporation, Accra, 1970.

46. Jeff Crisp, The Story of an African Working Class : Ghana Miners 'Struggles : 1870 - 1980, Zed Books, London, 1984.

47. Provisional National Defence Council (Ghana), Workmen's Compensation Law, Ghana Publishing Corporation, Accra,1988.

CHAPTER TWO

2.0 BRIEF HISTORY OF GOLD MINING IN THE TARKWA AREA

2.1 INTRODUCTION

A clearer perspective of the social conditions of gold miners in the Tarkwa Goldfields in the period 1957 - 1987 will be gained against the background of the history of the industry in the Tarkwa area. This chapter therefore traces briefly the history of gold mining in the Tarkwa area, and indeed in Ghana, from the colonial era. The presentation will indicate the social conditions of the labour force resulting from the production relations in the mining areas. This, it is believed, will provide a basis for understanding the changes in the social conditions of mine labour force since independence.

2.2 PRE-INDEPENDENCE MINING CONDITIONS

That the people of Ghana mined gold long before the nineteenth century is a fact that is not in dispute. There is evidence that gold mining provided means of livelihood for a great number of people in modern day southern Ghana. (1) The nineteenth century, however, saw the first real attempts at modern mechanised mining in what was then the Gold Coast.(2)

Upon assumption of control of the local settlements of the Gold Coast in 1821, the British Government set up the Gold Coast Mining and Trading Company in 1825 to "introduce a better method of working the mines and pits in the Denkera, Wassaw, Ahantah and Fante territories".(3)

R. Clarke identified gold digging in those times as the main occupation of the people in Asante, Akim, Twifo, and Wassaw. (4) Glover (1874) corroborates this view by asserting that "the Wassaw country was one great digging".(5)

Modern mechanized gold mining in Wassaw particularly, and in Ghana as a whole, began with the advent of one Monsieur Pierre Bonnat, a French citizen, into the gold mining industry. Pierre Bonnat had information while a captive of the Ashantis about the richness of the Wassaw area in gold. Upon his release after the Anglo-Ashanti Wars of 1873 - 1874 he returned to France to found the Society of the Gold Mines of west Africa which came to the Gold Coast and worked mainly in acquiring concessions, and in dredging activities on the beds of the river Ankobra. This first attempt by Monsieur Bonnat and others, however, ended without any real mining activity taking place.(6)

In 1874, M. Bonnat returned to France. He founded another organisation with one Monsieur Verillon in 1877 called the African Gold Coast Company, whose main task was "to investigate further the gold deposits of the Ankobra basin." (7) When he arrived in the Gold Coast, Pierre Bonnat and his team proceeded to Tarkwa to acquire concessions in the rich indigenous workings of the area. The immediate assignments of the team found them not in direct gold mining but in concession mongering around Tarkwa, Aboso, Tamso and at Effuenta. This concession mongering found them in less than one year holding concessions scattered over 26 miles of the Tarkwa area. Many years later this same area was to become the major area

of activity of today's Tarkwa Goldfields Limited.(8) Monsieur Bonnat is respected by both engineers and academics of gold mining. He is popularly remembered as the " father of Modern Gold Mining in Ghana " for his introduction of company activities and modern machines in working the conglomerates at Tarkwa and Prestea.(9)

Writing about gold in the Tarkwa area, the Annual Report of the Gold Coast for 1898 said :

> In the Western Province of this colony, it is estimated that there are about twenty (20) miles of banket formation and if this land is treated in the same manner as similar land in Johannesburg, it is estimated it would contain 13,000,000 tons of banket reef from which about £40,000,000 worth of gold could be extracted by 10 years operations..... yielding an annual profit of one-and-a-quarter million sterling.(10)

Before statements like the above were made, the rush for concessions by various European companies was already in progress. By early 1879, it was clear that the European workings would eventually edge out the African miners from their workings. Pierre Bonnat's company had acquired concessions to the north, south and west of Tarkwa; while the indigenous people concentrated in areas called the Intaya mines in the neighbourhood of the A'koon Vertical Shaft (A.V.S.) of present day Tarkwa Goldfields Limited. After some years of working the indigens found themselves completely hemmed in by the French and other European holdings, being unable to expand their workings. The only area left was the eastward direction which was rocky and which the indigenous technology could not effectively mine.

The indigenous miners, finding themselves in this situation, turned to their old pits. These pits were more often than not

filled by water from the underground, as the water table was often surpassed in the diggings. Added to this was the fact that the Tarkwa area is a rainy forest zone with frequent rainfall patterns throughout the year. Besides, the Europeans had water pumps with which to drain their workings of water, which the Africans had not. This appeared to be advantageous to the Europeans as Pierre Bonnat gleefully commented in January 1879.

> There are at present 1,306 natives working at the Tarkwa mine ...but their galleries, were getting very deep; and when the wet season sets in, not being able to drain them, they will have to abandon them. This will be all the better for us; for a time will come when we shall reach those galleries from our tunnels and easily drain them; all will be in our possession.(11)

Be that as it may, the indigens of the Wassaw workings, in the face of this imminent dispossession of their workings, soon took up jobs with the European mining companies. From this point on, operations on the Wassaw Conglomerates came to be carried out on European capitalist principles.(12) For example, on a mine owned jointly by Nana Enimil Kuma, then a chief of Aboso (a surburb of Tarkwa), and a European company, the indigens who were employed did not enjoy a stable income per diem. Rather, each shaft was leased to a number of people who received one - third of the output as payment. Hence there were several days and weeks when the indigenous miner earned no income even though he had been working the conglomerates at great cost to his labour power.

The colonial government's development policies, in particular that in respect of the construction of a railway line from Sekondi to Tarkwa, intensified European company interests in gold mining,

attracting many more investors from Europe into Tarkwa and other gold bearing zones in the Gold Coast. The rush was such that one report has it that "The Gold Coast was overrun by prospectors, and during 1901 and 1902, 3,613 concessions were filed in the colony".(13) By the early 1900s, therefore, there was no doubt that Western mine capital had completely displaced the African gold miner in the Tarkwa area particularly, and in the Gold Coast in general with its superior technology and company approach to organising mine operations. This made one commentator to lament that "Thus, many years of toil and hard work were to be regarded as wasted years. Native miners in the Tarkwa area were henceforth to be counted for little in the industry they had assiduously established".(14)

No wonder, then, by the early 1930s there were frequent adverts in London, especially in LANDON & EVITT stock exchange calling on European investors to invest in mining in the Gold Coast, for, as the adverts held, health conditions were now better and "Government Geological and Topographical Survey Department was under up-to-date and expert control, and legislation of helpful and liberal character was furthering mining interests".(15) This call could not be responded to before the second world war (1939-45) set in, leading to the closure of a number of gold mines except the Tarkwa Goldfields Limited (then Amalgamated Banket Areas mines), the Prestea Goldfields (then Ariston Goldfields), and the Ashanti Goldfields Corporation (A.G.C.), in response to a general mobilization exercise of the British empire. Mineral development

was to wait until after the war. However, "the repercussions of the war, coupled with increased political awareness in the country during this period had adverse effects on the investment climate for foreign mining equity capital. Many mines closed during the war were never re-opened".(16)

2.2.1 Pre-Independence Social Conditions In the Mines

The mad rush for concessions by European companies referred to earlier on, coupled with the production relations that it brought up had socio-economic repercussions on the conditions of mine labour. It is intended to examine this aspect briefly, especially in regard to working and living conditions of the labour force that were drawn into the gold mining industry in the pre-independence times.

It has been recorded that the rush for gold prospecting and mining by European companies in the colonial times led to a situation where hitherto farmlands had to become mine lands from the 1900s onwards, especially in the Tarkwa area.(17) One report even has it that "In several cases the same land was leased to different companies and certain chiefs are said to have given concessions over lands belonging to neighbouring chiefs".(18) There was thus abundant labour released from farmlands into modern mining activity. The colonial mining companies worked assiduously to take advantage of this initial labour rush as well as the good price of gold at the time on the world market. The companies were so encouraged by the profit motive that the secretary for Mines, Mines Department, Tarkwa, wrote in 1932 that :

> Due to the high price of the metal, gold mining is at present in an abnormal state. In order to take advantage of the market, producing mines are working at full capacity, developing ones endeavouring to reach the productive stage within a shorter period than under normal conditions, and new prospecting companies continue to arrive in the colony.(19)(My emphasis).

This 'abnormal state' indicated by the mine secretary led to vigorous mining activities in and around Tarkwa, making the town a very busy and crowded one throughout the 1930s. This led a key official of the Gold Coast Colony to state his conviction that "Tarkwa has become a much large and more important industrial centre than has been realized".(20) Trade in Tarkwa boomed as did the growth in population, as shown by the following table :

A) RAILWAYS	1934/35	1935/36	1936/37
i) Passengers Booked ii) Goods Received (Tons) iii) Revenue (District Treasury)	60,086 12,186 £ 188,485	156,582 16,684 £ 265,280	158,503 22,638 £ 244,376
B) TRADE			
	28% increase over the previous year's	30% - 33% increase over previous year's	Slightly in advance of the previous year's
C) POPULATION	1931 Census		
	-684 Europeans (Western Province) -3,321 African in Tarkwa		-About 500 Europeans within 10 miles of Tarkwa -8,000 (estimated Africans in Tarkwa

Source : Report of Tour of Some of the Mines in the Western Province by the Colonial Secretary, April 1937.
(N.A.G. File : Mines 766/32)

This vigorous mining that went on in the Tarkwa area, and elsewhere in the Gold Coast, with mine capital's urge to maximise profitability, led to two important repercussions. The first was that rates of mine accidents increased with no compensations paid to injured persons, or to the relatives of those involved in fatal accidents; secondly, poor housing and crowdedness led to the easy spread of mine related ailments. Deaths through mining hazards were so rampant that one report has it that tuberculosis was "responsible in 1932 for about two times the number of deaths in

Tarkwa as in Koforidua, a town of almost twice the population of Tarkwa."(21) The report attributed the prevalence of this situation mainly to the fact that Tarkwa was a centre of a deep mining industry which exposed the labour force to the contraction of silicosis, a mining disease, which creates fertile bases for the contraction of tuberculosis.(22)

The 'abnormal state' of the colonial mining companies motivated by profit interests, led to the companies paying little or no attention at all to welfare issues of the African labour force. Thus there were vigorous complaints over poor social conditions of labour, which included poor wages and salaries of workmen, poor conditions of health facilities for the African labour force, absence of protective clothing and boots for underground labour, and many others.(23)

These conditions led to labour in the mines adopting various modes of resistance to its exploitation by mine capital, which has been aptly explained by Jeff Crisp.(24) According to Crisp, labour's mode of resistance "includes familiar forms of working class action such as strikes and go-slows, and less obvious forms of resistance...such as absenteeism, malingering and theft."(25) Such was the poverty of the social conditions that "labour gangs refused to present themselves for work on consecutive days,"(26) and "From statistics taken on several of the larger mines, it is shown that the average attendance of underground boys is less than 70% per month, and in one mine (A.B.A. - Tarkwa) it is as low as 55%..."(27) Another report a year later illustrated the extent to

which the migrant labour force (drawn mainly from the then Northern Territories, the then Upper Volta, Dahomey, Trans-Volta Togoland, Nigeria, etc.) adopted an ambivalent attitude towards work on the gold mines owing to the prevailing poor conditions on the mines. The report said, inter alia, that: "The labouring portion of the community is at present largely out of employment. Some of this potential labour has returned to its 'country'. The remainder sits down waiting for conditions to improve."(28)

2.2.2 The Compound System & Labour Control

It is instructive to note that owners of mine capital did not rest on their oars in the face of the prevailing demoralized state of labour, and the consequent disposition to resistance to further exploitation. It is intended to briefly look at one method of dealing with the prevailing situation by mine capital, the introduction of the compound system of housing in the mines.

The 'abnormal state' of the gold mining industry in the colonial times led to the mines being "opened up hurriedly, with little or no thought for anything but immediate needs...all with the object of mining and producing gold as quickly and as cheaply as possible"(29) As labour adopted modes of resistance to protect itself in the prevailing circumstances, mine capital also faced a number of problems which made it device means to control labour in order to minimize the cost of production and maximize profitability of mine operations. Problems such as the low-grade nature of the ore-body, rising cost of mine supplies, and the absence of a local labour force were constantly faced by mining companies in the Gold

Coast. The South African and Rhodesia mines had been known to have faced similar problems before.(30) A 'South African solution' to these problems were therefore sought. This was facilitated by the presence of Lord Harris (31) on the Chamber of Mines; for from 1909 onwards the South African Consolidated Goldfields (CGF) had presence in the Gold Coast as it had taken large financial interests in the mines of the Tarkwa Goldfields. The 'South African Solution' entailed the "enactment of pass laws, compounds, and a Native Labour Association to recruit and control these workers."(32) The colonial government appeared not to agree fully with the Chamber of Mines' proposal for a 'South African Solution.' This led the Transport Officer of the government to accuse the South Africans of "anti-negro prejudices", and "inability to see things from the native point of view." He stressed that "from what I have up to the present seen of mining men from South Africa, they are not as a rule to be trusted to deal fairly with employees... The ultimate aim of the mine managers is forced labour in fact, if not in name"(33)

Our immediate interest is not in the possible differences between the colonial government and the Chamber of Mines on the question of labour control. We are not in doubt that the chamber and the government did not differ significantly on the question; they may have differed on the question of the speed with which the Chamber hoped to carry out the labour control policies. The statement of the Chief Labour Officer of the colonial government in a letter to the Colonial Secretary would seem to support the point.

He said, inter alia, that "The labour exchange policy is merely designed to enable workers who desire employment to find masters and employers who need labour to find servants".(34) (Our emphasis). In any case, the compound system of labour control was one thing that was borrowed from the South African mine system. Between 1920 and 1940, mine compounds were built by mine companies to house mine labour on the Gold Coast in order to control labour turn out, and to monitor and diffuse collective modes of resistance by the mine labour force.(35) Hitherto the Chamber of Mines had maintained that it was not their responsibility to put up houses for their labour force. It was emphasized that the chamber was not bound by the Mines Areas Ordinance to provide housing for its workers; and where it was provided, it was done "to enable the village master to turn-out adequate shifts."(36)

Not strangely, therefore, the kind of houses provided on the mine compounds of Tarkwa Goldfields were built on models of those in Southern African mines; this might well indicate the influence of Lord Harris, President of the Consolidated Goldfields (CGF), who took extensive shares in the Tarkwa and Prestea Goldfields.(37) The main consideration was for the housing of workers from the Northern Territories and elsewhere who, it was supposed, would not be coming down with their families. As reported by H.G. Mountain, then Secretary for Mines in a report in 1936,

> ---In this connection, I submit that the question of introducing the compound system on the mines is worthy of consideration, at least with respect to labour coming from the Northern Territories, Ivory Coast and so on.(38)

Obviously then, the mine companies had a number of factors in mind

in their construction of the kind of houses one sees on the mine compounds of Tarkwa Goldfields. The first was mine capital's desire to minimise cost of production in order to maximise profitability.(39) The second consideration bordered on the uncertainty of mine labour settling down and making mining a full time occupation. In other words, the labour force came and went as it pleased, and the companies could not invest in a venture like this since its full capacity use was uncertain.(40) Finally, in the estimation of mine owners of the time, the labour force were "slaves desiring masters".(41) In view of the foregoing considerations, the houses were single chamber rooms (many with no verandas), having communal kitchen, bathhouses, and very scattered toilets. These are the kind of houses still prevalent at the 'Green', the A.V.S., the 'Dagarti (Zongo), the 'Tamso', the 'Amantraim' and the 'Fanti' compounds of the Tarkwa Goldfields Limited. The Gold Coast Chamber of Mines held a high opinion of these houses and considered them "to be the best".(42)

Another method of labour control in the mine compounds borrowed from the Southern African Labour Control system was the appointment of tribal headmen in the compounds. This is still prevalent on the compounds of the Tarkwa Goldfields. Jeff Crisp illustrates how this method carries the effect of breaking down labour-class solidarity on the altar of ethnic solidarity under tribal headmen.(43) The following quotations from two different reports within one month (4th and 13th January, 1939) by the Chief Labour Inspector, Kumasi, speak for themselves :

> ... I took up this matter of appointments of tribal headmen with the chamber of mines in May last... I should like to see all the appointments made before the proposed Trades union legislation comes into operation otherwise the results may be disastrous...(44)
> At the present time there is no satisfactory general method of collective bargaining and the submission of grievances. Proposals have been submitted that the machinery of native custom should be utilized, and that tribal headmen in mining areas should be recognised by government and by companies. When this has been done, labour will be able to put forward complaints in a manner which is understood, and the activities of the agitator will be obviated.(45) (Emphasis, ours)

These cases have been cited not so much to show their similarity with happenings in the Southern African mine compounds,(46) as to illustrate the subtle methods of labour control used by colonial mining companies, which subtle methods contributed to the worsening of the social conditions of labour in the mines. Excessive labour control constituted one of the main grievances of mine workers on the eve of independence, which both the nationalist press and political movements echoed loudly.(47) The Gold Coast Independent newspaper painted the following picture in one of its editorials in 1946 when the nationalist struggle for political independence was gathering storm :

> A lot of African labourers are employed in the mines and their jobs are dangerous. Not infrequently however, have reports been received of accidents involving fatalities. It is understood that the mines use various protective devices but their use would appear to be discretionary, and further aimed primarily at protecting plant and equipment...
> When fatal accidents have occurred in the mines reports have often come through after considerable delay and they often appear to be tinged with an air of secrecy and reluctance as if the mine concerned is anxious to conceal the full facts. The government however remains passive and we can recall no instance of an official enquiry being instituted into a mining disaster. This is not good enough... that is why we feel that legislation is essential since in addition to enforcing approved safety measure it would also provide for official enquiry into accidents.(48)

Another newspaper, the Gold Coast Guardian, summarised the main problems of mine labour in the colonial times as follows:

(a) no compensation is paid in respect of accidents;

(b) the housing of African labourers leaves much to be desired;

(c) although the mines are earning "decent" profits, advantage is being taken of depression in other industries to undervalue the labour of the African mine employees.(49)

These then represented in sum the grievances of mine labour against the colonial mining companies and the government on the eve of independence. Against this background, coupled with the fact that Tarkwa is a centre not only for gold, but also for diamond and manganese mining, as well as a central railway terminus, the nationalist struggle towards political independence received tremendous support from there.

As our theoretical framework has suggested, the benefits Africa derived from colonialism had been mainly negative. The deplorable social conditions described above clearly depict one face of colonialism, namely, capitalist exploitation and maximization of profits. While this inhuman face of colonialism was sometimes openly recognised, there was a tendency to rationalize it in the name of Europe's so-called civilizing mission. As Monsieur Felix Chantemps, one-time Minister for colonies in France said in 1913, "Africans will need some time to understand that we rob them and kill them to teach them to live an increasingly human life".(50)

2.3 POST-INDEPENDENCE MINING POLICIES & SOCIAL CONDITIONS OF MINERS : 1957 - 1987.

The social conditions of gold miners on the eve of independence in Ghana have been sketched. It remains to see what post-independent governments of Ghana have done about these conditions. Before then, it is important to qualify the kind of economy that post-independent governments inherited from British colonialism at independence. Like all African states, the Ghanaian economy was said to exhibit the character of an "inherently unstable and crisis - prone political economy".(51) The features of such an economy are, among others, a backward and exploited agrarian sector dominated by a single export raw material crop (in Ghana's case cocoa), a decisive presence of foreign capital especially monopoly capital in key areas of economic activity such as banking, mining, timber production, manufacturing and large scale commerce; and a disproportionately large commercial and service sector with hundreds of thousands of unstable, insecure petty traders and commodity producers.(52) The remainder of this chapter will carry a sketch of the varying attitudes of governments of Ghana, within the perspective of the neo-colonial state economy described above from 1957 to 1987 towards the mining industry. This, it is hoped, will help to explain in concrete terms the impacts - positive and negative - of various policies of governments on the social conditions of gold miners as can be found in the Tarkwa Goldfields Limited.

2.3.1 The Convention Peoples' Party (CPP) Government 1957 - 1966

As was stated in an earlier discussion, the onset of the Second World War adversely affected the investment climate for foreign mining equity capital. Many mines closed down during the war were never re-opened.(53) A number of the mines rolled up for "lack of exploration for ore reserves, rising cost of production, marginal ore grade, lack of working capital, and prevailing low gold price, which was fixed at $35.00 per ounce since 1934".(54) In the Tarkwa area, the Marlu mines at Bogoso had to close down for reasons of "rising costs and low grade ore",(55) whilst the Tarkwa and Aboso mines closed in 1956 because of flooding caused by a prolonged industrial action.(56)

After independence, the Convention Peoples' Party (CPP) government stepped in to stop this spate of closures of the mines "in order to forestall a sudden dislocation of the economy as a result of these developments".(57) This led to the nationalization of the A.B.A (now Tarkwa Goldfields), the Dunkwa Goldfields, and the Ariston (Prestea Goldfields) in 1961 under the Ghana State Mining Corporation (G.S.M.C.), and later the State Gold Mining Corporation (S.G.M.C.). Konongo Goldfields was also added to the list in 1965. This action by the government was described by the British Financial Times as a "rescue operation", the gold mines being regarded as exhausted.(58)

Against the background of poor industrial relations and worsening of labour conditions in the colonial times, many mineworkers welcomed the nationalization drive. However, the change in ownership of the gold mines still carried with it some of the

repercussions labour had sought to avoid after independence. This was hardly surprising, considering the dependent nature of the economy discussed above. First of all mine labour leaders had to modify their hard lines as representatives of workers, for any criticisms levelled at management was now considered as a criticism of the government, for the Chamber of Mines which remained the negotiator for "standard conditions of service "with the Mine Workers Union (M.W.U.) was now dominated by government representatives of the S.G.M.C.". No wonder then that the Ghana Chamber of Mines and the Mine workers Union strove "to introduce rules that would give effect to Osagyefo the President's national productivity drive".(59) For, by 1962, the first president of Ghana, Dr. Kwame Nkrumah, was already saying that the trade unions' former role of struggling against capitalists was now obsolete, ' they were now expected "to inculcate in our working people the love for labour and increased productivity. " (60)

This over-concern for increased production affected industrial relations in the mines in the Nkrumah era. Instead of encouraging democratic labour practices and good labour relations with the Mine Workers' Union (M.W.U.), the C.P.P. government intensified its surveillance and control of M.W.U. officers. Hence party officers infiltrated into the gold mining industry with the aim of extending "the area of political control. " (61) Joint Consultative Committees were set up in S.G.M.C. mines to "investigate the grievances and demands of the labour force. " (62) This constituted, in my opinion, a clear usurpation of the functions of

the M.W.U. by party functionaries of the C.P.P. As the Labour Commissioner reported in 1965, "recently, party officials have been actively engaged in handling disputes within A.B.A. (Tarkwa Gold Fields Limited.) at Tarkwa. The union's role is gradually fading out." (63) This, it was observed, limited the scope for negotiation for better conditions by labour leaders. (64) This situation led to many strikes and go-slows which adversely affected productivity at Tarkwa Goldfields. (65) At one meeting at tarkwa to resolve the labour unrest in the mines in the 1960's, Mr. A.K. Buachie, the then General Secretary of the M.W.U.and Regional Secretary of the T.U.C. for the Western region, argued strongly that "the current unrest in the mines was the inevitable result of allowing CPP representatives to intervene in the industrial relations of an industry they knew nothing about".(66)

One's interest is not necessarily in the strikes and other forms of resistance that the labour force in the mines employed to resist infiltration and domination by the C.P.P. - there were in fact many. What one wishes to stress here is that C.P.P. - labour relations in the mines were as bad as government - labour relations in the colonial situation. This did not augur well for focusing on the conditions of the mine labour which were not the best before Ghana's attainment of political independence.

Yet, in the preamble to the 7-year development plan (1963/64 - 1969/70) of the C.P.P. government, there was emphasis on making Ghanaians to "enjoy a modern standard of living",(67) in order to enable the individual citizen "measure" his well-being and his

ability to realise the potential of his personality. The document stressed that "the government regards the well-being of the individual Ghanaian however humble as supreme".(68) According to Greg Lanning and Marti Mueller,(69) however, African leaders like Sekou Toure, Julius Nyerere and Kwame Nkrumah merely made assertions about struggles for economic and political independence from the metropolitan powers, without evolving political institutions "that would be in conflict with the colonial state". They therefore explain that nationalizations of mineral industries in Africa had not led to industrial development. "On the contrary, the first demand to be made after state intervention was... for an increase in mineral production ; involving an increase in the country's dependence on material exports and of integration with the world capitalist economy".(70) Hence the strategy of these post-colonial governments had been to ensure the "control of ex-colonial state apparatus...."(71) which includes the labour-management relations that existed before independence.

Another factor that affected the CPP government's attitude to gold mining and the conditions of its labour was the absence of adequate information on Ghana's gold mine potential. The information the government had did not go beyond those provided by the colonial mining companies all of which held that the mines, especially those of the State Gold Mining Corporation (S.G.M.C.), which includes Tarkwa Goldfields, were non-viable. This lack of detailed information hindered confident decision - making on the mines of Ghana by the government. This uncertainty led to the

7-year development Plan calling for :

> Intensified prospecting.....-to establish once and for all which of these mines are really worked out and have to be closed down. An early decision on this subject would allow government and the State Mining Corporation to plan their phased closure in an orderly way so as to avoid the undesirable dislocation that would result from their unforeseen exhaustion. It would also help towards the planned reduction of the losses now sustained by the corporation.(72)

The Amalgamated Banket Areas Ltd. (Tarkwa Goldfields Ltd.) alone was reported to have been incurring annual losses of about £300,000. (73) Some old mine workers intimated that the declined production of those times were due partly to the poor state of their living conditions, which was made worse by the poor industrial relations of the time.(74) Yet the CPP government insisted that "the corporation will have to develop by 1964 advance plans to provide for the re-deployment of labour which has become surplus to requirements at the mines which have run out of exploitable ores".(75)

It can be said, then, that the poor industrial relations of the time coupled with the uncertainty of gold mineral potential of the existing units of the SMGC did not incline the CPP government to improve the conditions of health and safety and housing in mine compounds.

The picture in the CPP era would not be complete if we fail to acknowledge two important projects launched by the government which held the potential of bettering the social conditions of mineworkers. The first was the silicosis - prevention project under the OCCUPATIONAL HEALTH BOARD, set up in April 1963 at Tarkwa with the help of the ILO "to carry out the prevention and treatment of

silicosis (an incurable mine disease) in the mines".(76) Sadly enough, since the ILO team left in 1966 after the coup d'etat that overthrew the CPP government, its well-equipped laboratory for mine dust survey has been idle even though the "Corporation's hospitals ... provide mainly curative care, but no active programmes for the detection of silicosis exists".(77) The second project was the Gold Refinery project which is situated near the Tarkwa Goldfields designed to refine Ghana's gold here in Ghana. It was meant to advance the Nkrumah government's desire for "economic independence". This project again had to cease after the 1966 coup d'etat. It is said to be about 90% complete, but experts now claim it is too large for our overall gold output, and hence economically unviable. One other aspect of labour welfare promotional vehicle that received some attention was the Workmen Compensation Ordinance,1940 (No.52) which was limited mainly to compensations for injuries. This was amended into the Workmen's Compensation (Amendment) Ordinance 1954 to cover occupational diseases in addition to injuries. In 1961, this was further amended to make provisions for "disfigurement," and other "social injuries of a worker, such as the functional loss of genital organs." (78)

2.3.2 THE NATIONAL LIBERATION COUNCIL (N.L.C.) & THE PROGRESS PARTY (P.P) GOVERNMENTS; 1966-1972.

It is intended to discuss the attitudes of two governments - the National Liberation Council (N.L.C.) (1966-1969) and the Progress Party (P.P.) (1979-19) governments. These are treated together for a number of reasons. Both ruled consecutively

for short periods; secondly, a large number of the civilian officers in the former government later became the cabinet ministers of the latter government; and finally there were hardly any radical differences in the socio-economic policies of the two governments.

As our discussion of the Nkrumah era had sought to show, the mine workers of Ghana, and more so the group under the S.G.M.C. which includes the Tarkwa Goldfields Limited (T.G.L.)

> Suffered increasing material hardship in the latter phase of Nkrumah's time in power, and they like workers all over the country were elated by the new administration's pledges to check the decline of the national economy, to eliminate corrupt government, and return the country to civilian rule. (79)

True to its earlier pledges, the N.L.C. government in its first year took steps to improve industrial relations. For example, real incomes were raised; mine-labour-management disputes over qualifications for gratuities were amicably resolved to the mine workers' satisfaction; and the Mine Workers' Union (MWU) was purged of CPP officials. With improved industrial relations it was no wonder that productivity increased in the gold mines in the first year of NLC rule by over 20%. (80) The regime also improved the supply situation of mine protective clothing and boots for mine workers under ground. (81) Some limited achievement was therefore chalked in the area of health and safety conditions of underground workers.

This improved labour relations record of the NLC government could not be sustained for long. The NLC from the second year on entered into alliance with administrative, professional and

traditional elites who had long been excluded from power by the CPP. "These were to form the nucleus of the Progress Party government." (82) The government opted for International Monetary Fund directed policies, as a result of which the workers' lot become rigid wage restraint, mass dismissals and drastic retrenchment.(83) As one source stresses,

> The elitist policies of the NLC and Progress Party affected both the economic and social status of the mine workers: Between 1966 and 1969, the mine workers' real income fell by 5%; whereas the purchasing power of Senior Staff salaries rose by at least 15%. (84)

The generous benefits that the regimes (NLC and PP) showered on the Senior Staff emboldened mine management to deal with mine labour less respectfully. "At Tarkwa for example, the Mine Manager supported his claim about the appalling state of discipline on the mine by pointing to the fact that workers refused to doff their hats or stand up, even when the Managing Director passes by."(85) This worsened labour - management relations and one labour official had cause to remark that the managers adopted "frigid attitudes... sitting on an ivory tower removed from the practicalities of working conditions"(86) (My emphasis). The two governments further replaced C.P.P. officials with seemingly NLC/PP sympathizers to worsen the already poor labour relations. This period therefore witnessed a lot of industrial unrests, especially at Tarkwa and Prestea Goldfields (in 1967-68). After one such disturbance in 1968, the N.L.C. set up "A Committee of Enquiry into the Recent Disturbances at Prestea (and Tarkwa)." Among others, the committee found that "...cost of living in the mining areas is very high due

to the fact that road connection with other parts of the country is very poor, and consequently foodstuffs cannot be carried there in sufficient quantity."(87) Ironically, this was the situation in the colonial times, and one pressure group (88) in the Gold Coast had occasion to make references to these conditions in a dispatch to the colonial secretary of the time. The report stressed that there was no dispute about the fact that "there is an acute shortage of housing at the mines, especially at Prestea. It appears that the scheme to provide more compound houses and rooms for workers have not been implemented. The committee recommends that this housing scheme be implemented as soon as possible."(89)

The committee's report further lamented on the poor sanitation on the compounds, as well as the insufficiency of public places of convenience. It also upheld the claim by the workers about the dangerous conditions underground and the fraud of the mine Medical Doctors in declaring cases of Silico-tuberculosis, an occupational disease, as tuberculosis, which is non-occupational and does not attract compensation. (90) The District Labour Officer, Tarkwa, testified to the committee that "out of a 100 cases certified as ordinary tuberculosis by the mine doctor which were referred to the Government Medical Officer (Chest Specialist), 90% were certified as silico-tuberculosis."(91) It was therefore recommended that a panel of doctors be constituted to carry out the determination of silicosis infection in the mines in place of the sole medical officer. This had been implemented by 1971.

It is important to point out that the grievances of the mine

labour force above are not blameable on the NLC-PP period. These date back to the colonial period. The point is to show how so many years after political independence, and after the overthrow of the first Republican government, conditions had still not been improved. It is a credit, however, to the NLC government for adopting a sober attitude to mine worker grievances in appointing a committee to investigate conditions of mine labour.

The P.P. government continued most of the policies of the NLC, especially that regarding labour. For example, the 1971 budget introduced a wage freeze for workers, as well as a National Development Levy on workers to be deducted from the workers salaries directly. The government further abolished the TUC and abolished the check-off system, (92) hence undermining the financial base of the labour movement. It further sought to fragment the labour movement by promulgating the Industrial Relations (Amendment Act of 1971. The social conditions of mine labour in the Tarkwa Goldfields, especially as regards safety and health, therefore did not see much progress during this period.

2.3.3 The National Redemption Council (N.R.C.)/Supreme Military Council (SMC) Government : 1972-1979

The National Redemption Council (NRC), which later became the Supreme Military Council (SMC) replaced the Progress Party government in a coup d'etat in 1972. As a coup regime it at first faced a crisis of popularity and legitimacy.(93) One of its early tasks then was to resolve this crisis. With respect to the labour movement generally and mine labour, particularly, it sought to

redress the areas of tension between labour and the previous government. First of all, it repealed the Industrial Relations (Amendment) Act of 1971, introduced by the previous government to fragment the labour movement. Secondly, the government restored the check-off system to strengthen the financial basis of the labour movement, and re-established the TUC. Thirdly, debts the TUC owed to the Accra City Council were all written off, and TUC assets defrozen. Finally the government persuaded branch unions that had broken from their mother unions to rejoin them. The Ashanti Goldfields Employees' Union (A.G.E.U) in particular was persuaded to reunite with the Mine Workers Union (M.W.U).(94)

The NRC/SMC could not hold to this relation with labour for long, for it did not offer the working people of this country any radical alternative to the state system established by colonialism and pursued by previous governments since independence. Thus it was not long when it began to behave like its predecessors in matters of labour demands. Therefore, "Like the NLC and PP governments, the NRC/SMC retained the CPP restrictive labour legislations, and reinforced it with a Subversion Decree which made incitement to strike an offence punishable by 15 to 20 years imprisonment."(95) Like her predecessors, industrial relations in this period were again poor. This was made worse by two other factors. The first was the toll that the economic decline of the 1970s was having on the mineworkers' standard of living.(96) The second was the gross economic mismanagement of the times, which reflected in corruption in high places, food shortages and black

marketeering. Amidst all these, the government kept calling on workers to work hard as it aimed at "capturing the commanding heights of the economy"(97) This call was backed by the "Charter of Redemption"(98) which spelt out ten principles upon which Ghana was to be redeemed. A series of mine labour disturbances soon came up in this period. At the end of one of such strikes in November 1973, the MWU echoed the sentiments of the rank-and-file by demanding, among others "...new housing and better recreational facilities on the compounds."(99) The gold mine workers could not understand why nothing was being done about their social conditions when, gold was, since early 1972, enjoying a good price on the world market.(100) As our earlier discussions showed, ours is a dependent economy. Therefore this better price of gold notwithstanding, the government was wary of the fact that she did not control the gold market, and hence could not predict the next drop in the world price of the commodity and its attendant effects on the overall economy.(101)

Despite these lapses, it is noteworthy that the NRC/SMC period represented one during which programmes drawn for national development paid some specific attention to labour conditions in the gold mines. In the 5-year Development Plan (1975-76 - 1979/80) for example, the government expressed its goals in the mining sector as follows:

> Strengthening and expanding training facilities for the mining sector in order to complete the process of Ghanaianization of top level management of the mines. Providing improved ventilation in the underground mines as well as social facilities and amenities (such as housing, schools, health facilities) for mining workers and their families in order to

improve not only the safety and health standards of the mines, but also the working conditions, well-being and efficiency of labour. (102) (Emphasis mine)

Interestingly, this appears to be the first post independent government document that attempted addressing the social plight of the mineworker concretely. And it is worthy of note that the NRC/SMC did not leave most of the above stated goals at the level of intentions; there were efforts aimed at translating these into reality. Hence about eighty-five (85) 'low-cost' housing units were put up at the Tarkwa Goldfields to augment those available on the mine compounds.(103) Similar ones were put up at the other S.G.M.C. mines at Prestea and Dunkwa. A training school was also set up on the mine to train mine staff before they commenced work to reduce mine accident.(104) A well-equipped primary school was also established in 1973 to cater for children of mine staff at the Tarkwa Goldfields. Originally, however, the school appeared to be dominated by the senior staffs of the mines; but interestingly, the underground labour force have struggled and some of their wards now have access to the school. The junior staffs and the labourer core who constitute about eighty-five percent (85%) of the total work force of the mine, now enjoy a 30% quota of all admissions every year.(105) On the balance sheet therefore the NRC/SMC era appears to have been quite progressive in terms of attempts at redressing labour social conditions in the mineral sector of Ghana's economy.

2.3.4 The Peoples' National Party (PNP) & the Provisional National Defence Council (PNDC) Governments

(i) Peoples' National Party Government (1979-1981)

The Peoples' National Party government did not from the onset, like its predecessors, offer any different alternative to the state system which was inherited from colonialism after independence.(106) Therefore it inherited the very ravaged 'old state' system which had suffered from economic mismanagement throughout the 1970s. This same state was shaken by the political turmoil of the 1970s which culminated in the events of June 4, 1979 which for the first time brought the broad masses of Ghanaians to demand accountability from their leaders.(107) The Ghanaian economic situation of the 1970s exhibited the character of an "inherently unstable and crisis -prone neo-colonial political economy", (108) whose features we have outlined in our earlier discussion.

The PNP government, in keeping with its liberal political manifesto, issued "one of the most liberal investment codes since Ghana had political independence".(109) The IMF and other Western interests refused to be enticed to immediately rush aid into Ghana, "insisting that the government carried out the devaluation of the currency first",(110) a step a constitutionally elected government like the PNP was unwilling to take for fear of alienation from the electorate. However, the shortage of foreign exchange compelled the Limann administration to accept the piecemeal application of the IMF prescriptions.(111) But "Little did he know that time was no longer available for his government to carry through those piecemeal policies."(112)

This piecemeal approach found itself reflected in the mining sector by the setting up of a "Committee for Increased Gold Output in Ghana", whose report was published in 1981. Though this report could not be implemented because of the PNP's overthrow in 1981, it gives an indication of the regime's attitude towards the mining industry, and hence of the social conditions of the mineworker. In keeping with the liberal economic stance of the government, the report sought to gradually de-nationalize the S.G.M.C. It said, inter alia, that :

> In future , Government will restrict itself in the gold industry to the roles of :
>
> Equity holder;
>
> Promoter of the industry;
>
> Regulator of the industry;
>
> Purchaser of the gold output;
>
> Provider of technical inputs, especially infrastructure.(113)

The report said further that gold production was to be carried out by gold producers, "who shall be individuals or companies in which the government may participate."(114) The S.G.M.C. was to be liquidated to allow each company to operate on its own, or seek its own technical partner.(115) On workers' welfare, the report is not comprehensive. It merely asserts that "Gold mines in Ghana will be operated in such a way that the health, welfare, and safety of the workers are ensured, and that minimum damage is done to environment.(116) These policies appear to form a substantial part

of the mineral policies of the government of the PNDC

ii. Provisional National Defence Council Government (1981)

The Provisional National Defence Council (PNDC) government came into power in December 1981 after toppling the constitutionally elected PNP administration. Initially as with all coup d'etat regimes, it was faced with a crisis of legitimacy and popularity.(117) Members of this government, some of whom led the erstwhile AFRC of 1979, were mainly from the lower strata of the petty-bourgeoisie. Their solution to the crisis was therefore more radical than previous coup d'etat regimes in Ghana. First of all, they saw to the formation all over the country of Peoples'/Workers' Defence Committee and other organs of the 'Revolution' that brought the ordinary working people into the mainstream of Ghanaian politics.(118) These "mass political organs of the PNDC were intended to initiate social and economic revolution in the nation...".(119)

In the gold mines in Ghana generally, and Tarkwa Goldfields in particular, industrial relations in the first two years of PNDC rule were good, owing to a number of structures created to enhance "industrial democracy".(120) There was established an Interim Management Committee (IMC) for the S.G.M.C. as well as the component mining units, which had representatives of management staff, middle level Senior staffs, Junior staffs and the labourer core. In 1983, the Chairman of the PNDC promised the workers of Tarkwa Goldfields, during a visit to Tarkwa an improvement of their living conditions. He had observed the very deplorable conditions

in the living quarters of the mine workers in the mine compounds. But the living and working conditions of mine workers are, in 1989, yet to feature concretely in the mineral policy of the PNDC. In fact, the improved industrial relations which accompanied the radical political alliance of the government with the working people halted in mid-1983, when, faced with the enormity of the economic problems confronting the nation, the PNDC went in for World Bank/IMF economic assistance.(121) The 'participatory' structures - the IMC, WDC, etc - had to give way.
In their place came the Joint Consultative Committee with full powers to management, and workers' bodies - the CDR and the Union - playing only advisory roles. This affected industrial relations in T.G.L. greatly.

The general consequences of the economic policies that the PNDC has carried out since 1983 are not of immediate importance to us here. We are concerned with aspects of the policies that affect the social conditions of the mine labour. A very prominent U.S newspaper, the Washington Post has spoken of the PNDC's economic policies in the following terms : "Today, Ghana has an economic policy so staunchly capitalist that it could have been devised by Ronald Reagan"(122)

Essentially, these policies involve the following measures :

(a) reduction of public expenditure and shift of public investment towards the export sector ;

(b) divestiture of public enterprises ;

(c) liberalization of the economy i.e market determination

of exchange rate (devaluation) ;

(d) removal of import/export/price controls ;

(e) export promotion ;

(f) promotion of foreign private investment.(123)

It appears, contrary to what its earlier rhetoric tended to make one believe, that the PNDC government's policies are driving the post-colonial Ghanaian state deeper into the ambit of neo-colonialism. The mining companies, including the Tarkwa Goldfields, despite the good world price that is currently enjoyed, are still faced with a number of problems. They need resources for mineral development, as well as for importation of technology for mining.

The PNDc strategy has been, first of all, to go in for soft loans from multilateral agencies to rehabilitate the S.G.M.C. units, which include the Tarkwa Goldfields; and, secondly, to divest itself of these units. In 1983, an International Development Association (IDA) soft loan of $30 million was granted the SGMC for her rehabilitation programme. Of this sum, $13 million went into a management contract with CANADA-GHANA Mining, a consortium of Canadian companies. By 1987 when the first assignment with the Canada-Ghana Mining ended, many believed that the agreement had not been beneficial to the workers, and to Ghana as a whole.(124) The Financial Times of May 20, 1986 reported of the frustration in Ghanaian official circles about this programme in the following terms :

> The company has been evaluating the task for almost six months and there is barely disguised annoyance at SGMC's head office in Accra at the lack, so far, of any concrete proposals.(125)

By the middle of 1987, industrial relations in the mines had gone bad because by then both middle level staff and the underground labour force had began to feel threatened by a possible retrenchment exercise resulting from the divestiture programme of the government. No wonder then when the SGMC failed to honour salary increases for mine workers in line with government policy, the labour force at Tarkwa went on a two-day strike in June 1987. In July 1987 the SGMC/CANADA-GHANA Mining Group dismissed forty seven of the workers.

It can be said that at least up until 1987, there had not been any sign that issues of labour's social conditions would seriously be addressed by the PNDC. It appears that policies towards the mining industry have not helped in disentangling the sector from neo-colonialism. This would seem to have painful repercussions for the conditions of labour.

NOTES ON CHAPTER TWO

1. K. Arhin, Gold Mining & Trading Among the Asante of Ghana, J. de Africaniste, Vol.8, No.1, 1978.
2. N.R. Junner, Gold in the Gold Coast, Gold Coast Geological Survey Memoir 4, 1935
3. Ibid.
4. Junner, N.R. op cit p4
5. Ibid
6. (i) Ibid
   (ii) J.J.T. Mensah, The History of the Development of Gold Mining in West Wassa, Unpublished B.A. Long Essay, University of Ghana, Legon, 1977
7. Ibid
8. Tarkwa Goldfields has a consensional area of 225km2 from which it turns out its production. It operates 3 vertical shafts and 2 inclined shafts. The deepest of the shafts is 1,100m deep, and the shallowest is 336m deep.
9. N.R. Junner op cit p4.
10. N.R. Junner, Quoted from Annual Report of the Gold Coast, Government Printer, Accra, 1898 p5.
11. i) N.R. Junner op cit p4
    ii) Ibrahim Isahaku, "Honour Not Those Who Exploit Us," People's Daily Graphic, 7th September 1984.
12. J.J.T. Mensah, op cit.

13. Junner op cit p5.

14. J.J.T. Mensah, 1977 op cit.

15. F.A.Morseley & P.H.Waller,Gold in General & The Gold Coast in Particular, London, 1935 cited in Report for Increased Gold Output in Ghana,1980 Accra, p11.

16. Ibid

17. Opanyin Akpa-Yeboah, Ex-mineworker, T.G.L., (1923 to 1970) ; Chief Van Ess, Ex-mineworker, T.G.L., (1928 to 1974). Interviews granted on 6th May 1988.

18. Junner op cit p5.

19. Secretary for Mines, Tarkwa,Letter dated 7th May 1923 to the Colonial Secretary, Accra. National Archives of Ghana (N.A.G.) File No.15. c/768/36.

20. Governor of the Gold Coast, Report on Tour of some mines in the Western Province, April 1937, Accra, NAG (File : Mines 716/73).

21. Dr. W.M. Howell,Report on Sanitation & T.B. in Mines areas (1932 - 1933), dated 11/4/33; NAG (File Mines 766/32).

22. Ibid.

23. West African Youth League,Report on the Living & Other Conditions of African Workers Engaged in the Prestea & Other Mines, 1937; NAG (File No. 766/32).

24. Jeff Crisp,The Story of an African Working Class: Ghanaian Miners' struggles : 1870-1980, Zed Books, London, 194 p5

25. Ibid.

26. Secretary for Mines, Letter dated 7th May 1932 op cit.

27. Ibid.

28. Dr. H.M. Howell, Report on sanitation & T.B. dated 11/4/33 op cit

The report held that the poor conditions in the mines led to "regular discontinuity of service and the problem of replacement of European Staff.". So rampant were European deaths in the mines that there is in Tarkwa an "European Cemetery".

29. Secretary for Mines, Letter dated 7/532 : op cit

30. i) Jeff Crisp, (1984) op cit pp.35-39.

ii) Charles Van Onselen, Chibaro, The African Mine Labour in Southern Rhodesia : 1900-1933, Pluto Press, London, 1976, pp 125-158.

31. Lord Harris was the president of a South African Consortium of mines : the Consolidated Goldfields Limited.

32. Jeff Crisp (1984) op cit p38

33. Ibid

34. Chief Labour Inspector, Kumasi, Letter dated 14/1/39 addressed to the Colonial Secretary, Accra. NAG (File Mines : 716/133).

35. Dr. W.M. Howells op cit.

36. Ibid

37. Jeff Crisp (1984) op cit. pp 38-39

38. H.G. Mountain, The Mines Department & Mining Conditions in the Gold Coast, dated 7/5/36. NAG (File Mines 15/C/768/36).

39. Jeff Crisp (1984) op cit p39

40. Labour Inspector's letter dated 14/1/39. op cit.

41. Ibid

42. Chamber of Mines, Tarkwa, Letter to the Secretary for Mines, Accra, dated 25/5/37 on African Labour on the Mines; NAG (File : Mines 38/15/37).

43. Jeff Crisp (1984) op cit pp 58-59, 76,80.

44. Letter of Chief Inspector of Labour, Kumasi dated 4/1/39 to the colonial secretary, Accra, NAG (File 716/33/S.F.2)

45. Despatch from the Chief Inspector of Labour, Kumasi dated 13/1/39 to the Colonial Secretary, Accra, NAG (File 716/33/S.F2).

46. Charles Van Onselen op cit.

47. West African Youth League, Report on the Living and Other Conditions of African Workers Engaged in the Prestea (and other) Mines, 1937; N.A.G. (File 766/32).

48. Editorial comment on Gold Coast Independent newspaper entitled "Factory Legislation Wanted", 1946 NAG (File 766/32)

49. Gold Coast Guardian newspaper despatch to the Colonial Secretary on the Conditions of Labour in the Mines, dated 23/1/43.

50. Cited in Claude Ake, A political Economy of Africa, Longman, N.Y., 1981, pp83-85.

51. i) Frank Kwaw Cudjoe, Elites, Ideology & Development Problems of Ghana, University of Hamburgh, 1988 p.20.

ii) Lanning & Mueller, Africa Undermined; A History of Mining

Companies & the Underdevelopment of Africa, Penguin Books, England, 1979 pp 500-501.

52. Ibid

53. Ministry of Lands & Natural Resources, Report for Increased Gold Output in Ghana, Accra, Ghana, 1980, p11.

54. Ibid p12

55. Ibid

56. Ibid

57. Ibid p22

58. Ibid

59. Jeff Crisp (1984), op cit p 138

60. Ibid

61. Tony Killick,Development Economics in Action. A study of Economic policies in Ghana, London, Heinneman, 1978, cited in Jeff Crisp (1984) op cit. p 133.

62. Jeff Crisp (1984) op cit p133

63. Ibid p 138

64. Ibid

65. Ibid

66. Labour Department, Accra, Minutes of the 4th Mine Negotiating Standing Committee, 22nd March 1961. (File KL 4/7)

67. Convention Peoples' Party Government, 7-year Development Plan (1963/64 - 1969/70), Ghana Publishing Corporation, Accra, 1963, p3.

68. Ibid

69. G. Lanning & M.Mueller, Africa Undermined : A History of Mining Companies & the Under-development of Africa, Penguim Books, England, 1979, p 500-502.

70. Ibid

71. Ibid

72. 7-year Development Plan (1963/64-1969/70) op cit p 113

73. Ghana Economic Survey, 1964, submitted to the National Assembly, Accra, August 1965.

74. Views shared by

i) Mr. Attia Bugre, ex-worker of T.G.L. with 36 years of service

and

ii) Opanyin Akpa-Yeboah, ex-worker with 47 years service at T.G.L.

75. 7-year development Plan (1963/64-1969/70) op cit p 113.

76. Dr. I.K. Derban, "Health hazards in working Environment," Journal of Ghana Society for the Prevention of Tuberculosis, Vol. 2, No.5, July 1973.

77. Ibid.

78. Provisional National Defence Council, Workman's Compensation Law, G.P.C., Assembly Press, Accra, pp iv - viii.

79. Jeff Crisp (1984) op cit p151

80. Ibid

81. Ibid

82. Jeff Crisp (1984) op cit p 153

83. Ibid

84. Ibid

85. Labour Department, Tarkwa, Minutes of a meeting dated 12/1/67.

86. Cited in Jeff Crisp (1984) op. cit p 153

87. Report of Committee of Enquiry into Disturbances at Prestea (& Tarkwa) mines;Parts 1 & 2, Tarkwa, August 1964 pp 31-34.

88. West African Youth League, Report on The Living & other Conditions of African Workers Engaged in the Prestea and other mines, 1937; NAB (file Mines 766/32).

89. Report of committee of Enquiry into disturbances at Prestea and Tarkwa mines; op cit.

90. Ibid

91. Ibid

92. The check-off system refers to the process of direct deduction of a worker's labour-union dues from source before his monthly emoluments are paid him.

93. Mahmood Mamdani, Politics & Class Formation in Uganda, Heinneman Books, London,1976, pp 228-300.

94. Jeff Crisp (1984) op. cit p 169.

95. Ibid

96. Ibid

97. National Redemption Council,Charter of Redemption, G.P.C., Accra, 1974, preamble.

98. Ibid

99. Jeff Crisp (1984) op cit p. 170-1

100. Since 1934, the price of gold had been pegged at $35.00 an

ounce on the world market. From early 1972 however, this was lifted to make it flexible. An official report in 1975 had to say that "The 1972-74 significant increase in the price of gold turned the S.G.M.C., into a commercially viable concern...".

101. Ministry of Finance & Economic Planning, Ghana Economic Survey Accra, Ghana, 1974.

102. The Supreme Military Council, 5-year Development Plan, 1975/76 to 1979/80; pp 228-229.

103. Tarkwa Goldfields Limited, Records at the Welfare Department, Housing Units File.

104. T.G.L. Training School is headed by a Mining Engineer who took this researcher round to observe equipment facilities at the mine.

105. Personnel Department, T.G.L., file on Preparatory School.

106. Frank Kwaw Cudjoe,Elites, Ideology & The Development Problems of Ghana, University of Hamburg, 1988, pp 19.

107. Yaw Graham, Ghana, the Politics of Crisis ; Class Struggle & Organisation 1976 - 1983., Nsamanko Press, Accra, 1983, p.4.

108. Frank Kwaw Cudjoe (1988), op cit p20

109. Ibid

110. Ibid p 442

111. Ibid

112. Ibid

113. Ministry of Lands & Natural Resources, Report of committee

for Increased Gold Output in Ghana. G.P.C., Accra, 1981. p62.

114. Ibid

115. Ibid

116. Ibid

117. Mahmood Mamdani (1976) op cit pp 228-300

118. Frank K. Cudjoe, (1988) op cit p 446.

119. Ibid

120. This conclusion was arrived at after exacting discussions with various strata of labour force at the T.G.L.

121. Frank K. Cudjoe (1988) op. cit. p 447

122. Washington Post, Washington D.C., 23rd August 1986.

123. West Africa, 24th November, 1986 p 2473.

124. This was the view expressed by many senior staff of the T.G.L. spoken to.

125. Financial Times, london, May 20, 1986.

CHAPTER THREE

CONDITION OF SAFETY AND HEALTH AT THE TARKWA GOLDFIELDS LIMITED

3.1 INTRODUCTION

In chapter two, a sketch was given of the history of gold mining in the Tarkwa area in the colonial and post-colonial times. This was aimed at illuminating the general social conditions in the mines in the colonial times, and the policies that the post-colonial governments of Ghana pursued in the desire to improve the conditions. In this chapter, a field report is presented on the impacts of these post-colonial policies on one aspect of the social conditions of mineworkers of the Tarkwa Goldfields, namely, safety and health, during the period 1957 to 1987.

Before the field report is presented, attention need be drawn to the fact that in the colonial times working conditions in the gold mines were so deplorable that the matter was a major area of dispute between the mine owners and the workers.(1) The creation of a safe, secure working environment for the mineworker, therefore, became one of the main issues around which the independence movement was mobilized in the mining areas.(2) In modern times, the importance of creating healthy and safe working conditions seem to be generally accepted by all involved in the mining enterprise.(3) This has been exemplified by the statement issued by the Ghana Chamber of Mines on the occasion of the 'Safety Week' celebrations

for 1986. This statement is important for the analysis of this report. We therefore quote it in extenso :

> "Deep mining involves the extraction of minerals from deep under various layers of the earth and requires the sinking of shafts and the use of explosives, corrosive chemicals and heavy plant and machinery. Surface mining on the other hand requires extraction of mineral items from upper layers of the earth. Both surface and deep mining carry a lot of dangers and risks against which the miner must be protected. It is particularly necessary to highlight this aspect of mining in view of the important role the mines play in the economy. Being a burgeoning giant industry, the mines are currently earning 18% to 20% of the nation's foreign exchange, second to the cocoa industry...
>
> The need therefore to draw attention to the provisions of safety facilities for mine workers is imperative not only for economic considerations, but also for social, moral and political considerations. Legislation on mine safety is only a first step towards the solution.A more relevant measure is the provision of materials and equipment necessary for ensuring safety in the mines that increase production. Even more important...is the need to ensure that man, who is at the centre of the production process acquires adequate sense of safety in the working environment.Without this asset, all is to no avail. Precious lives will be lost, men will be maimed; in some cases permanent (sic). All this is costly to the economy and impairs productive capacity of the industry and the nation.(4) (My emphasis)

The statement above brings out a number of points. In sum, the Chamber points out that the conditions under which the mineworker works in a mining industry exposes him/her to many risks and dangers; and steps must be taken to protect the worker from these dangers and risks if steady increases in mineral production is to be ensured. Some of the measures proposed for dealing with the situation include the provision of adequate legislation on mine safety and health, the provision of "materials and equipment necessary for ensuring safety on the mines", and the aiding of the miner to acquire an adequate sense of safety in the working environment. These measures happily are in consonance with the

provisions of the International Labour Organisation's (ILO's) Conventions and Recommendations on occupational safety and health. They will therefore serve as part of the yardstick for the assessment of our field data.

With this background, we present our field report. The report is prefaced by a discussion of the legal framework for safety and health in Ghanaian mines. This is followed by reports on the general conditions of safety and health at the Tarkwa Goldfields Limited (T.G.L.); data on accident and disease (silicosis) rate on the mine; and compensation payments for accidents and silicosis infections.

3.2 LEGAL FRAMEWORK FOR SAFETY IN THE MINES

The legal safeguards to safety and health in Ghanaian mines can be found in a number of sources. These include the Labour Decree 1967 (NLCD 157), the Mining Regulations 1970 (L.I.665); the Constitution and Bye-laws of the Ghana Mine Workers' Union, 1983; the Workmen's Compensation Law, 1987; and the Collective Agreement Between the State Gold Mining Corporation (S.G.M.C.) & The Ghana Mine Workers' Union (G.M.W.U.), 1987.

3.2.1 The Labour Decree

The Labour Decree is the main law that provides the framework for the enactment of laws and bye-laws for the direction of labour policies in Ghana generally. It would be remembered from chapter two that one of the lapses making for poor working conditions in

the mines during the colonial period was the absence of a legal framework for the assessment of labour working conditions.(5) The enactment of the Labour Decree is therefore regarded as one of the major achievements since independence on the labour front.(6) The decree assigns the Labour Officer the task of inspecting labour working and living conditions to ensure the prevalence of safe and health conditions for the worker.(7) Particularly, the Labour Officer is empowered to inspect conditions of food supplies, medical facilities;(8) workers' housing to ensure that they are in clean and sanitary conditions;(9) and to order employees to carry out such alterations to buildings, installations and plant as he may deem necessary to avert any threat to the health or safety of the workers...".(10)

The above provisions notwithstanding, some shortfalls are discernible in the Labour decree when measured against the Conventions and Recommendations of the International Labour Organisation on safety and health, all of which Ghana has ratified.(11) Essentially, the I.L.O. calls on signatories to these Conventions and Recommendations to legislate for integrated occupational health services, whose crux would be mainly preventive, but with scopes for curative diagnosis of hazardous conditions in the workplace.(12) It proposes that, to be properly operative, such occupational health services must encourage the "tripartite system." By the "tripartite system" is meant a service which recognizes the active participation of government, employers and labour leaders. Labour experts stress workers' participation

in safety measures especially in the mines not only because "it is in accord with our independence aspiration to have all participate in affairs that affect their lives, but more so because of the centrality of the worker in any efforts aimed at creating hazard awareness, identifying unsafe acts, and correcting unsafe procedures.(13) A mining specialist on safety and health spoken to supports this position by saying that "it is the miner who is involved in accidents, and it is he who should be involved in steps to prevent accidents."(14) Viewed against the main thrusts of ILO concerns for safety and health, the Labour Decree's weakness lies in not providing a framework for the "tripartite" approach to ensuring safety and health at the work place. The monopoly of power enjoyed by the Labour Officer in carrying out the provisions of the decree regarding safety and health exacerbates this weakness further.

3.2.2 The Mining Regulations

The Mining Regulations appears to have spelt out in depth safety measures to be observed on the mines of Ghana.(15) It is divided into twenty-two parts dealing with subjects such as general duties of mine owners, management and control, protection of surface, surface workings, underground haulage, underground-general, ventilation and dust prevention, explosives, workmen, procedure in case of accident, first aid to the injured, inspection, rescue apparatus and rescue brigades, machinery, and so on.(16)

The Tarkwa Goldfields mine management is of the opinion that

the provisions in the Regulations have aided the arousal of safety consciousness among the workers of the mine. According to the General Mines Manager, the "Impact of training, education and information on safety and health of professional staff is excellent... and as such safety and health have prevailed in our mines."(17) The national leadership of the Ghana Mine Workers Union (G.M.W.U.) considers the Mining Regulations as an advance from the absence of such a framework for mine workers in the colonial times. However, they refer to parts two (2) and nineteen (19) of the regulations dealing with management, control and inspection which vest the powers of creating, controlling and monitoring of safe working conditions almost entirely in the Mine Manager and the Chief Inspector of Mines, and consider them to be unsatisfactory.(18) These officials argue that practice has shown that these mine officials are "far more interested in increased production and profit maximisation than in workers' safety and health."(19) Mine legislations for safety and health need therefore to give a pride of place to worker-leaders' involvement.

But then the Ghana Mine Workers Union leadership does not appear to have approached the issue with dedication. We feel that the Constitution of the Union could have at least set out more elaborately the roles that members ought to play in the struggles for worker participation in safety and health control in the mines. Instead, the constitution asserts the role that the Regulations gave to mine workers. It reiterates that "workers will observe health and safety regulations", and that leadership will ensure

that "the rules are rigidly enforced"(20) (My emphasis). Again, unlike their counterparts in some African countries, such as Zambia and Zimbabwe,(21) where the unions have safety officers both for training of mine workers in their skills and awareness of safety regulations, and working conditions, the G.M.W.U. currently has no safety officer. In fact, the union dispensed with the services of its safety officer in 1987 due to what they term as "frustration resulting from non-cooperation from unit mine managements in the work of the officer."(22) Labour experts of the Labour Department explained to me that any efforts aimed at role democratisation in safety and health that is not backed by the consciousness of the rank and file is not likely to achieve much success.(23) In their opinion, therefore, a union safety officer's role is important in moulding the consciousness of the rank and file about the lapses in the legislative safeguards for them to offer concrete support to the union leadership for the expected changes to be fought or bargained for.(24)

All said and done, the Mining Regulations, despite its detailed provisions for safety observation in the mines, suffers shortfalls similar to those suffered by the Labour Decree. It concentrates all the powers for the control and monitoring of safety conditions in the hands of the Mines Manager and the Chief Inspector of Mines. Workers' participation is therefore not recognised. This is a violation of the "tripartite " approach spelt out by the International Labour Organisation for the maintenance of health and safety in work places.(25)

3.2.3 The Workmen's Compensation Law

The Workmen's Compensation Law, 1987 is one legal safeguard to safety and health which many experts interviewed believed to be most progressive.(26) It has thirty-nine (39) sections dealing with subjects like employers' liability for Workmen's compensation, notices of accidents, report of death and medical examination, determination of claims, remedies against both employer and stranger, occupational diseases, medical expenses and medical aid and so on.(27) The promulgation of this law led to the repealing of the Workmen's Compensation Act, 1963 (Act 174) Amendment Decree, 1968 (N.L.C.D. 238).(28) This repealed law was considered to have become obsolete in the face of "changes in the economy and the structure of industry in the country."(29) The current law has introduced a number of measures considered to hold a promise for the advancement of labour conditions. The law, unlike past laws that limited compensation mainly to injuries from physically overt accidents, awards compensations to other "social ailments" resulting from the working environment. A specific "social injury" cited is "the functional loss of genital organs."(30) Secondly, under the previous law, no compensation was payable where the injury of a workman did not incapacitate him for at least five consecutive days.(31) This conditional "five consecutive days" has been waived, and replaced by a new clause which makes it possible for a workman to enjoy his earnings while he is undergoing treatment for injuries sustained in the course of his employment. Further, the old law entitled the employer not to pay compensation

in a situation where it is proved that a workman's injury is attributed to the "serious and wilful misconduct of the workman"(32). This has been deleted from the new law. An injury once sustained at the place of employment now attracts compensation under the law. Thirdly, the new law has also raised the rate of compensation due to dependants of workmen who die through accidents/diseases resulting from their work from 42 to 60 months earnings of the workmen.(33) In the case of "permanent total incapacity" (not resulting in death) the amount of compensation to be paid is equal to ninety-six (96) months' earnings according to the new law.(34) This is a considerable improvement on the provision of the former law which settled for fifty-four (54) months' earnings.

The above strengths of the Workmen's Compensation Law, 1987 notwithstanding, experts interviewed pointed out that the law was deficient in three main respects.(35) The first is the absence of compensations for ailments emanating from the crowdy nature of the mine compounds with their attendant unhygienic conditions. It is argued that since health and safety safeguards are not meant to ensure only the physical soundness of the workman, but also his mental and social well-being, crowd diseases such as tuberculosis, very common on the mine compounds, and which affects the social well-being of the workman, must also attract compensations. Secondly, it is pointed out that the law appears to be silent on compensations for gaseous injuries resulting from the working environment. Finally, the power to interpret and implement the law

rests with the employer and the labour officer, both of whom the bulk of mine workers interviewed seem to hold in suspicion.(36) The tripartite principles of government - employer - labour participation is again not adhered to. No wonder then our investigations showed that most rank and file mineworkers either knew nothing about any of the above laws, or else knew that there were such laws but knew nothing about their provisions on safety and health on the mine.

3.3. GENERAL CONDITIONS OF SAFETY & HEALTH AT TARKWA GOLDFIELDS LIMITED (T.G.L.)

In this section, a report on the concrete working conditions, as well as the state of facilities for ensuring safety and health on the mine is presented.

3.3.1 The Working Conditions

By working conditions' we refer to the specific conditions in the working environment that facilitate or hamper the efficiency of the mine labour force. Like any deep mine, the working conditions at Tarkwa Goldfields is determined by a number of factors. These include the climatic conditions both on the surface and underground, the extent of dust in the atmosphere from the blasting operations, the extent of harmful gases from the shafts, noise from heavy mining equipment, as well as the resulting vibrations and accidents, and the adequacy of equipment used in the mining operations.

Talking about the working conditions at T.G.L., a medical officer at the mine explained that heat was a disturbing hazard at

the mine both on the surface and underground. "On the surface, morning temperatures are between 25oC and 35oC...With increasing depth, the climate underground becomes less tolerable and more uncomfortable. The working temperatures can reach 38oC wet bulb and 39oC dry bulb with relative humidity reaching 90% or more".(37) A number of mine workers confirmed the observation by the medical doctor with narratives of their own experiences underground, braving themselves through the heat to work in the womb of the earth. One of the most articulate of them seemed to have spoken for the rest when he said that: "Conditions underground are hot and humid; air is artificial and uncomfortable; we sweat and lose water, and feel thirsty very much."(38) This situation, we learned, is made worse by the poor ventilation underground, which leads to a high rate of dehydration of the work force. A graphic explanation of the rate of dehydration has been supplied by an ardent student of conditions of ventilation at the Tarkwa Goldfields Limited (T.G.L.). He reports that at T.G.L., "The average weight of workers was 64kg. (before sinking underground), and after each shift, the mean dehydration rate was 3.7% of body weight. This means a loss of 2.4 litres of fluid."(39) On the basis of this the ventilation specialist emphasizes that ventilation at the underground of the T.G.L. is insufficient. "The cooling power of the ventilation air was found to be inadequate (in all the underground), often below the minimum acceptable level of 6 milical/cm.2"(40)

As explained at the beginning of this section, the level of

humidity in the underground of the T.G.L. is quite high. This is as a result of the use of water through the drill sticks underground to suppress the dust emanating from the blasting operations. A good ventilation system carries out brisk evaporation and lowers the level of humidity. Ventilation as explained is however poor at T.G.L. The medical experts say that the climatic condition resulting from this high humidity "has the consequence of increasing the thermal stress which automatically leads to reduction in physical activity, and hence low productivity among the work force".(41) It is further explained that the damp environment favours the development of ailments like "helminthiasis, common among underground workers here, since the damp-warm environment of the mine creates suitable conditions for the nurturing of the eggs of intestinal parasites, especially hookworms and roundworms.(42)

Another hazard affecting working conditions on the mine is the condition of general sanitation. By regulation, the mine management is required to provide sufficient sanitary conveniences as well as "wholesome drinking water within reasonable access of all workmen".(43) There were conflicting reports on the state of sanitary conditions underground. A mine management source held that "ventilation (at T.G.L.) is today one of the best. An example is the presence of well disinfected latrines for miners underground. The latrines for miners are disinfected twice a week".(44) But this assertion is challenged by a cross section of underground labour force. One of these workers, a senior miner, stressed that the

"toilets underground are infested by cockroaches, wall geckoes, and so on, making underground conditions highly intolerable".(45) This view was supported by the report of the Senior Health Inspector of the mine on the sanitary conditions underground. He wrote :

> All toilets underground were seriously invaded by countless cockroaches to the extent that workers were having inhibitions in using them resulting in indiscriminate defaecation. The nauseating odour of their body secretions, droppings, and the decomposing bodies (of the cockroaches) mixed with the stench of faeces leave the environment highly vitiated. The existing condition has provided the cockroaches with ample shelter in a reasonably undisturbed habitat.(46)

A year later in 1987, the Underground Manager for the Fanti shaft wrote to the General Mines Manager of T.G.L. to lament that "the Fanti underground toilets have once again been 'invaded' by cockroaches...."(47) From these reports, one may conclude that sanitation was a disturbing hazard to the underground labour force at T.G.L. during the period under study.

Other issues arising from working conditions at T.G.L. will be discussed in subsequent sections of this chapter in relation to accidents and disease patterns at the mine.

3.3.2 Infrastructure for Safety & Health

Under this section, the facilities that exist at T.G.L. for the purposes of carrying out safety and health measures are considered. This would provide a framework for the subsequent discussion of the adequacy of the infrastructure for health and safety at the mine, against the existing local and international standards on the subject.

Tarkwa Goldfields Limited has a sixty (60) bed hospital sited on the mine and managed by two medical doctors and about seventy-

nine (79) para-medical staff.(48) The functions of the medical department include "the provision of primary care for all workers and their dependants, pre-placement medical examinations for new employees, and periodic medical examinations for all mine workers".(49)

The mine also has first aid posts on top of the shafts, and the underground. People trained in first aid manage these posts, and provide first aid services to injured workers before they are sent to the hospital. Our information was that this facility ceased to exist for a long time owing to the weak financial position of the company. It has however picked up operation earnestly (since 1984), upon the arrival of a Canadian mining consortium now running the mine jointly with the State Gold Mining Corporation (S.G.M.C.).

The third facility we found at T.G.L. is a Training School manned by a Mining Engineer trained for the purpose of "organising training activities for workers and supervisory officials in safety and health...immediately after one's employment...in conformity with the requirements of the Mining Regulations on safety and health".(50) The training officer is helped in his assignments by three other members of staff who are all non-professionals.

Fourthly, there is an Environmental Health section under the Welfare Department of the mine. This is manned by a qualified Senior Health Inspector. Its main functions include inspecting and/or monitoring sanitary conditions on the mine generally, and in the mine compounds particularly. This section also monitors sanitary conditions in the nearby slum villages, within the mining

health areas.(51)

There is also at T.G.L. a team of Mine Rescue Brigadiers. These are trained to fight fires underground, and to rescue people and restore workings affected by noxious gases. At the surface, the fire servicemen are in charge of fires.

Workers are also provided other items to facilitate prevention from health hazards. Some of these are boots, helmets, belts, respirators, goggles, and so on. However, there are indications that they are not available in sufficient quantities to go round all the workers in the vulnerable areas.

3.3.3. Provision of Health & Safety Facilities - Scope & Adequacy

The strides that the T.G.L. has made in the provision of facilities for the health of its workers are noteworthy measured against the background of what the picture was in the colonial times.(52) Management sources at the mine hold that these achievements have been mainly due to a new orientation since independence, away from past mine owners' philosophy of "Production first, Safety Second - more tally".(53) The new philosophy, it is claimed, is "Safety first, Production second". Hence the achievement in providing amenities for the health of workers and their dependants at T.G.L. The Ghana Mine Workers' Union (G.M.W.U) national leadership accepts this explanation, adding that it is an achievement resulting from the consciousness engendered by the independence movement.(54)

It has been pointed out more than once that the hallmark of a good occupational health set up is its all-encompassing nature,

embodying both the preventive and curative sectors. A very important set up which could co-ordinate the work of all the agencies of safety and health, but which is absent, is a health and safety unit manned by a health and safety officer. A number of mining engineers spoken to intimate that such an outfit would normally be expected to coordinate all safety and health measures, carry out programmes for heightening safety awareness among the workers, and regularly monitor working conditions to reduce rates of accidents and diseases in the mine. One of these officers expressed the view that the absence of the outfit was unfortunate, lamenting that "up to now the company has no safety officer solely charged with the task, although the idea has been on the drawing board for some time now. The Training Officer still takes charge of this all important aspect of mining in addition to his own assignments".(55)

It will be recalled that in the statement of the Chamber of Mines cited at the beginning of this chapter, stress was laid on the need for training to equip the labour force with knowledge of new technology, and the achievement of safety consciousness generally. That the T.G.L. has a training school with a training officer is a credit to the mine. A T.G.L. mine management source says that the school "organises regular safety classes for all categories of mine workers to heighten safety consciousness".(56) The general opinion of mine workers supported by the local union was that workers received training on how to handle equipment whenever they were newly employed. Subsequently, however, the

courses were limited to senior mining personnel underground. As a local union official put it, "The Training School organises courses for mine captains, senior miners, shift bosses and other supervisory personnel, but not all underground workers".(57) The Training Officer of the mine does not deny this assertion of the local union official. He argues however that the State Gold Mining Corporation (S.G.M.C.), the mother organisation of the T.G.L., was doing a lot within its strength to enhance the work of the training school in advancing safety consciousness on the mine; and that the S.G.M.C. was "currently spending so much in designing leaflets to be posted at vantage points at the work place to enhance safety consciousness".(58) It is the observation of the researcher that the training school is working within serious constraints. With a staff of four, three of whom are non-professionals, and with the only one professional having to also operate as a health and safety officer, the school could hardly be stretched to do more than it is doing now.

The mine hospital, whose functions have already been outlined, also has an important place in any scheme for safety and health of workers. We comment on its role in the preventive service, especially in relation to pre-placement medical examinations, and periodic medical examinations (at least once every six months), for workers in dust and gaseous prone areas of the mining operations. This last exercise, especially, is to help detect any possible signs of silicosis in the workers before it assumes high proportions.(59) Our investigations have shown that owing to a

number of factors the six-month regular examination of labour force exposed to mine dust, which is an important preventive measure, is not usually carried out. The work load on the doctors at the mine is so much. The doctor-to-worker ratio (assuming a family of six people for each mineworker) is nearly 1 doctor to 10,000 people, which is too high. This means that a doctor can pay only 20 minutes of attention to each patient throughout the year if he works eight (8) hours a day. A mine ventilation engineer who studied ventilation facilities at the mine concluded that"such a population of mineworkers benefits only from an emergency medical care leaving out the much needed preventive care",(60) As subsequent sections will show, this is one of the reasons why silicosis infections in workers at T.G.L. could reach 80 to 100% infection levels before they are detected.

Some staff of the mine hospital gave yet other explanations. It was explained that as a result of the low level of formal education among the underground labour force, many of them ignored the periodic medical examinations, and reported only when in critical condition. Further, it was alleged that the workers would even not report regularly to the hospital for fear of being found to have contracted silicosis/tuberculosis, and repatriated from the mine in line with regulations. Our interviews collaborated the above explanations. The first reason clearly exposes the weakness in training and processes for imparting safety consciousness. The second reason given was also confirmed. When asked about the regularity of medical examinations for workers in hazard areas of

the T.G.L., a senior miner explained that :

> This is on paper. We are even careful not to go to the hospital regularly. Sometimes the doctor will declare you fit, when you are not fit for work. Some of our colleagues have died before as a result of this attitude. Another point is that we fear to go to hospital regularly because if your card shows regularity to hospital, you become a target for dismissal on a charge of laziness and malingering. Again, we have only two (2) doctors, and this assignment is so big, they cannot even do it well.(61)

Two issues are clear from the various opinions expressed on the subject. The first is that, for whatever reasons, workers do not actually report for periodic medical check-up; and, secondly, as a result of the work loads on the doctors, the issue of periodic medical examination is not receiving priority attention. No wonder, then, an ex-miner recommends that to ensure real workers' welfare at T.G.L., there is the need to engage the services of two (2) more specialist doctors in addition to the general practitioners currently in the service of the company.(62)

Further to all these is the importance of an environmental Health outfit to a good occupational health system. To the credit of the T.G.L., there is such an outfit. However, it appears to be concerned mainly with environmental conditions within the mine residential areas (senior staff quarters and junior staff compounds). The Senior Health Inspector of the mine considers this to be justified from the point of view of the provisions of the Mining Regulations, whose sections 18(3) and 290 give the power for sanitary supervision underground to mine captains and shift bosses.(63) These, unfortunately, are professional mining engineers with no expertise in environmental health management. Most senior

mining personnel working underground held the view that it was the responsibility of the Environmental Health section of the Welfare Department to carry out sanitation measures underground. The Fanti Underground Manager's letter to the General Mines Manager on the issue already cited typifies this confusion.(64)

3.4 ACCIDENTS & DISEASES AT T.G.L : 1957 - 1987

A field report on accidents and diseases (mainly silicosis) at Tarkwa Goldfields Limited is now presented. Though the period of study is from 1957 to 1987 (a 30-year period), we could only get statistical data to covering 1973 to 1987 (a 15-year period). It is hoped that this data will be complemented by the qualitative information we collected from our respondents.

3.4.1 Rates of Accidents

It must be noted that T.G.L. is quite a safe mine compared with other gold mines in Ghana, such as the Ashanti Goldfields Corporation (A.G.C.) and the Presrea Goldfields Limited (P.G.L.), when it comes to fatal accidents underground. One main feature of the mine responsible for this state of affairs is the nature of the rock from which the ore is extracted. The gold ore at T.G.L. is oxide formation, and therefore the rock is quite stable and strong. This is unlike the cases at the Preasea Goldfields Corporation whose ores are sulphide formation, soft, and relatively unstable.(65) Further, it has been explained that since independence in 1957, steps have been taken to provide adequate timber supports underground. This has helped to cut down on fatal accidents drastically on the mine. A source close to the mine

management asserts that "out of 242 'reportable' accidents from 1982 to 1986, there were only 5 fatalities, as compared with the case of a sister mine, Prestea Goldfields Limited (P.G.L.) which had 15 fatalities out of 420 'reportable' accidents in the same period".(66)

Management sources consider four main factors to be responsible for accidents on the mine. One is accidents due to material handling, when a worker is moving, lifting or loading ore or waste. This is said to account for about 15% of all accidents in the period. A second cause of accidents is slips and falls of persons due to slippery working surfaces, which is said to account for about 30% of all accidents on the mine. A third form of accidents are those due to haulage and transport of ore and waste materials, responsible for about 15% of all accidents.(67) These are presented in a table as follows :-

TABLE 1A : Factors Responsible For Accidents, T.G.L. 1981-1986

Causes of Accidents at T.G.L.	Percentage (%) over Total Accidents 1981 - 1986
1. Material Handling	15%
2. Slips & Fall/Slippery Surfaces	30%
3. Haulage & Transport of Ore or Waste	15%
4. Hazards from Explosives/Chemicals	5%
5. Others	35%
Total	100%

SOURCE : Dr. K. Tuffour-Kwarteng, Silicosis & Silico-Tuberculosis Among Workers in a Mine, University of London, 1988.

However, miners interviewed also recount other factors responsible for accidents, and a senior miner gave the following explanation :

> Inadequate tools. the worker is compelled to work with tools not meant for the task. This often results in accidents. For example instead of using a 'jack' to raise a truck that went off the rail underground, we were once made to use a plank, and the slip resulting from this led to a worker losing a finger. Also sometimes supervisors give task to workers not trained for the tasks; and sometimes exhaustion, and a tendency to doze off as work goes on. For example many accidents have occurred underground as the loco driver dozes off in a few seconds as the machine is in motion.(68)

A researcher in mine ventilation at the end of his studies at T.G.L. reported that the mine's underground workers found it difficult to meet the demands of underground tasks for a number of reasons.(69) These include the low nutritional status of the average underground worker, their excessive alcoholism, and the poor ventilation underground which leads to excessive dehydration of the worker, and therefore increasing strains and stresses on him. It is clearly a combination of these factors which explains the issue of exhaustion, and the subsequent spate of accidents illustrated by the mine worker above. Management sources accept the above explanation given by the senior miner, but blame the mine workers for some of the accidents as they misuse tools given them. A management representative stresses that "workers need to stop taking unnecessary risks in the belief that they are brave, in order to avoid avoidable accidents".(70) Interestingly, the representative adds : "It is my belief that if the training outfit is strengthened to train workers more often, this tendency will be reduced drastically".(71) This is a tacit acceptance of the

weaknesses of training as an important aspect affecting safety and health on the mine.

Table 1B below presents cases of accidents reported by the T.G.L. to the Labour Department, Tarkwa, from 1973 to 1987. This data is further presented pictorially in bar and line graphs (Figures 1a and 1b).

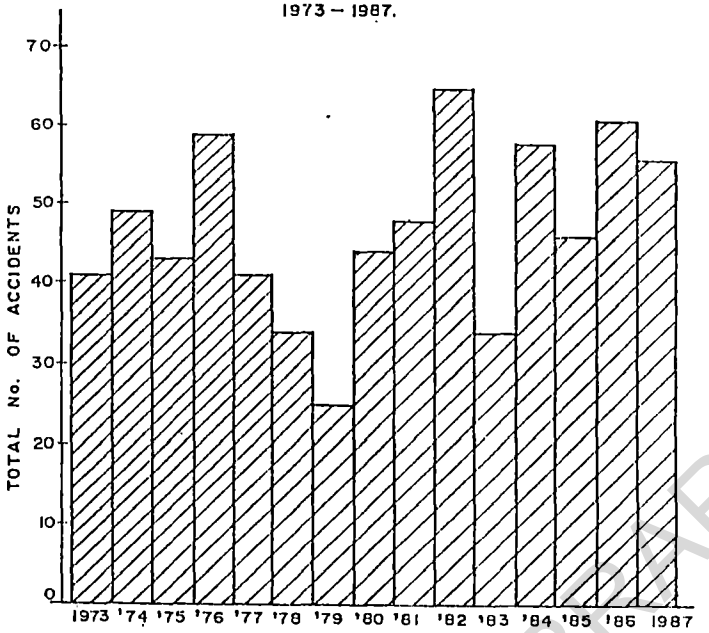
TABLE 1B : ACCIDENT STATISTICS AT T.G.L. ; 1973 - 1987

YEAR	TOTAL NO. OF CASES
1973	41
1974	49
1975	43
1976	59
1977	41
1978	34
1979	25
1980	43
1981	48
1982	65
1983	34
1984	58
1985	46
1986	61
1987	56
TOTAL	703

SOURCE : LABOUR DEPARTMENT, TARKWA.

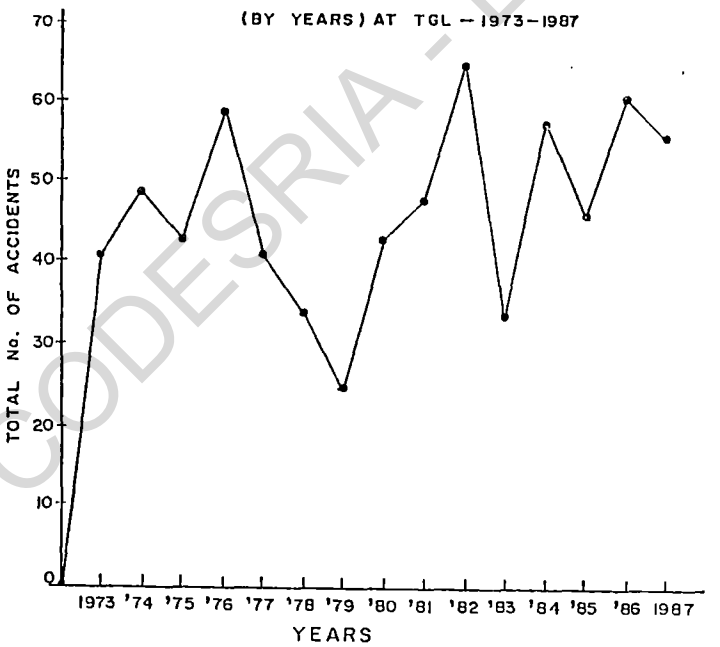
The trend of the yearly statistics as well as the bar and line graphs shows that efforts aimed at cutting down on accidents on the mine have not been consistently sustained. This explains the rises and falls in the figure from 1973 to 1987. For example, in 1973 the number of accidents recorded by the Labour Department for the T.G.L. was 41; this rose to 59 in 1976, fell to 48 in 1981, rose again to 61 in 1986 and fell finally to 56 in 1987. Despite the fluctuations in the figures, the trend shows that there were many

FIG. I (A) YEARLY ACCIDENT RATES AT G.T.L.
1973 – 1987.



(Source: Labour Dept., Tarkwa)

FIG. I (B) LINE GRAPH SHOWING ACCIDENT RATES
(BY YEARS) AT TGL – 1973–1987



(Source: Labour Dept., Tarkwa)

more accidents in 1987 than there were in 1973, fifteen years earlier. A sustained preventive endeavour would ensure that the reverse takes place. Improvement of working conditions by providing the right tools, coupled with a working environment devoid of slippery surfaces, and enhanced by improvement of training to raise safety awareness are undoubtedly very essential here.

3.4.2 Rates of Silicosis & Silico-Tuberculosis

In chapter two, the concerns of the mineworkers of the colonial times, and later in the post-independence period, about the increasing danger they faced in contracting diseases of the lungs without adequate protection provided them were expressed. This was in reference to silicosis.

Silicosis is a lung disease that a patient suffers as a result of the inhalation of dust which contains free silica (SiO2).(72) When free silica is inhaled, it produces the so-called silicotic nodes throughout the lungs. This destroys the "alveoli", reducing the lung's capacity to function as expected.(73)

> The affected human organism suffers from the shortage of oxygen. During the same period, the pulmonary circulation of blood is also affected by obstacles caused by the nodes of the developing pulmonary connective tissue. The insufficiency of the blood pulmonary circulation aggravates the existing shortage of oxygen and as a result an early death could be expected.(74)

The medical authorities explain further that the development of silicotic changes in the lungs is usually due to several years of exposure to dust containing silica; and the duration of the disease varies with the person, and the conditions to which he is exposed. It is believed that for about half of the duration of the disease,

"the affected man is totally disabled to work"; and during the last period of his life, he will need another person to look after him. "The disability increases progressively, and no medical treatment can heal or stop the progress of silicotic changes".(75) (My emphasis)

One other fact worth noting is the relationship that exist between silicosis and tuberculosis(T.B). Medical experts assert that tuberculosis is the commonest complication of silicosis, and among silicotics the risk of tuberculosis is always higher than in the surrounding populations. This, it is explained is easily exemplified by the higher incidence of T.B. in the mining areas of Ghana. At T.G.L., it has been found that the risk of developing T.B. is approximately 30 times greater in silicotics than in non-silicotics.(76)

This correlates quite correctly with the report in chapter two to the effect that as a result of the deep mining activity in Tarkwa, the town in 1937 experienced about twice as many deaths from T.B as Koforidua, a town then with four (4) times the population of the former.(77)

Given that silicosis is not curable, curative facilities are not of utmost importance to silicotics; preventive measures are the most feasible here. The medical authorities however explain that curative measures may be helpful to those patients with silico-tuberculosis, in curing the tuberculosis aspect of the disease. Without doubt, the best preventive measure is permanent dust control measures. This includes dust suppression , proper

underground ventilation, and the provision of adequate protective clothing and respiratory apparata. The Mining Regulations assigns the responsibility for creating these conditions to the Mine Manager, whose duty it is to provide

> An adequate supply of water which is clear and odourless...at a pressure of not more than thirty pounds per square inch at every point where it is required for dust prevention.(78)

It was found that deep mining companies, including the T.G.L. have often supplied devices like respirators, gloves, goggles and so on, to their underground labour force and those working at the crushing plants to protect them from the silica dust.

When asked to comment on the state of safety and health on the mine with respect to dust prevention and suppression, opinion among management appeared conflicting. One viewpoint was that workers have a tendency to refuse using respirators given them to protect them from inhaling dust. The other was that at various stages throughout the period (from 1957 to date) of the mine's nationalization, there had been several occasions when there were not sufficient quantities of protectors to go round workers in the vulnerable areas.(79) The second position was corroborated by the views of a cross-section of workers in these areas. One miner said that :

> For my 25 years' service, I have only seen a few respirators, masks, and gloves in use at the mill department. It is only recently, from 1984 onwards when the Canadians came, that we now have some, which are not still sufficient.(80)

What appears to be closely related to the state of affairs described above is the threat of silicosis that faces the mine workers at T.G.L. as a result of the unhygienic water they drank

from the underground. Section 14 (d) of the Mining Regulations tasks the Mine Manager to "Provide or cause to be provided an adequate supply of wholesome drinking water within reasonable access of all workmen".(81) Most workers interviewed said this provision was not adhered to. One miner with twenty-eight (28) years experience explained that :

> We face dust from the drilling of the rocks which gives sickness of the chest (silicosis); of late, dust is controlled by introducing water through the drill sticks. However, because we undergo dehydration underground, many of us drink running water from underground which contain the dust suppressed by water in the drill sticks. We therefore need safe water underground to save us from contracting the sickness of the chest.(82) (My emphasis)

A management source conceded that for a long time the water requirement was not met by the company.(83) However from January 1982 till sometime in 1984 water bottles were provided each underground worker to enable the worker take along some potable water when sinking underground. The source asserted that the workers did not take good care of the water bottles, and at the time of this research, underground workers at T.G.L. had no safe drinking water underground, in violation of Mining Regulations. A mine ventilation specialist who studied ventilation facilities at T.G.L. found that "14% of workers (mostly 30 years of age and above) directly involved in production were hypertensive or borderline hypertensive, and 10% were under-weight".(84) This situation was found to be mainly due to the intake of untreated water underground as well as to the poor nutritional status of the work-force, coupled with the stressful nature of underground tasks. (85)

Another preventive measure against silicosis contraction is the regular medical examination of workers in the dust hazardous areas. This, as was pointed out earlier, was not being done for various reasons, including problems associated with the workload of the two medical doctors on the mine. This worsens the safety situation. In a situation of scarcity of protectors against dust inhalation, the best preventive measure would be regular medical examination of the vulnerable groups to detect silicosis at a very early stage. Despite the general feeling among all sections interviewed that it was the obligation of the mine company to provide this regular medical service, there does not appear to be any provisions in the statutes on mines in Ghana that compels the mining companies to carry out this obligation. The Collective Agreement Between the G.G.M.C. & The G.M.W.U., however, has a section on regular medical examination which reads :

> An employee may request a medical examination by the company's Medical Officer once a year, and a further examination after six (6) months, if he so desires; similarly the employer may also require an employee to be examined if he considers it necessary.(86)(My emphasis)

As can be seen, this provision of the Collective Agreement does not impose any stringent responsibilities on management to carry out periodic medical examinations of the workforce in the vulnerable areas. The whole idea seems to depend on the discretion either of the worker or the employer. No wonder some workers accused the management of being interested mainly in "production, production and production for more profits for whom we don't know".(87) On the basis of issues of this nature, one found

chapter, especially in relation to I.L.O's safety standards, which emphasize a democratic tripartite approach to safety and health at the work place. No doubt the absence of this tripartite framework at T.G.L. despite the management's claim of huge expenditure on safety and health measures has contributed to the absence of a consistent fall in the incidence of silicosis and silico-tuberculosis over the years.(90)

With the background above, the statistical data collected from the T.G.L. mine hospital on silicosis and silico-tuberculosis from 1973 to 1987 is presented.

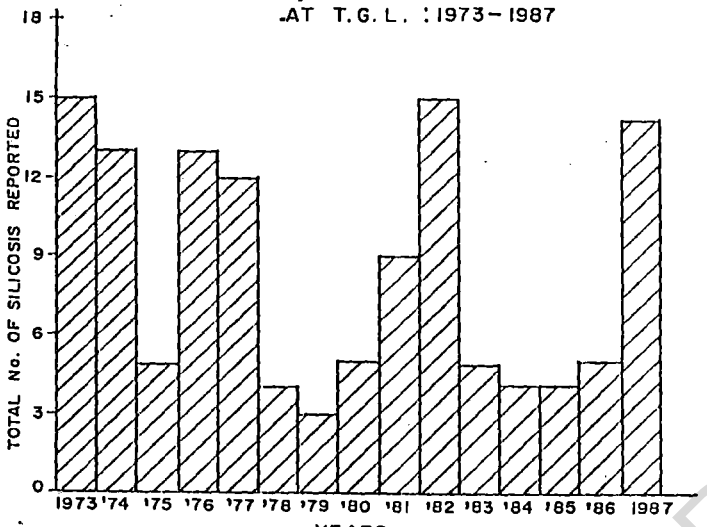
(Table 2 and Figures 2A and B).

YEAR	PURE SILICOSIS	SILICO-TUBERCULOSIS	TOTAL
1973	9	6	15
1974	8	5	13
1975	4	1	5
1976	9	4	13
1977	10	2	12
1978	4	-	4
1979	3	-	3
1980	3	2	5
1981	6	3	9
1982	12	3	15
1983	3	2	5
1984	2	2	4
1985	4	-	4
1986	3	2	5
1987	14	-	14
TOTAL	94	32	126

SOURCE : RECORDS AT MINE HOSPITAL, TARKWA GOLDFIELDS LIMITED.

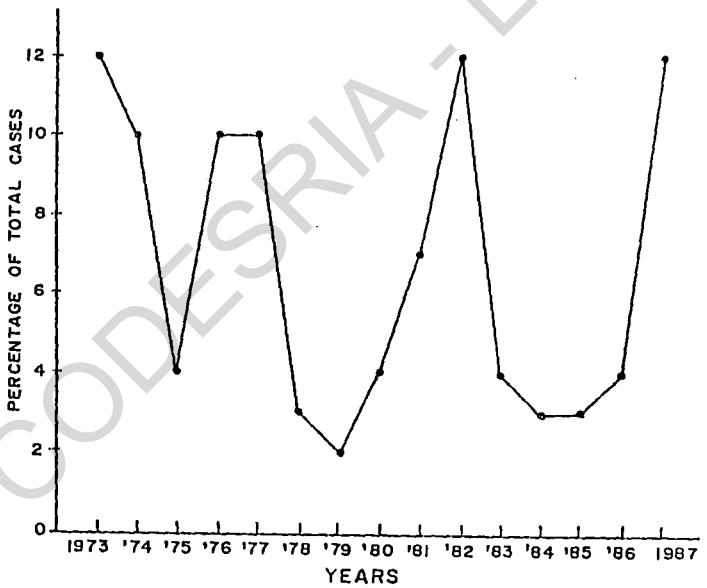
The statistics on silicosis and silico-tuberculosis at T.G.L. indicate various stages of rises and falls. This has been explained in various ways. One explanation holds that the trend indicates the

Fig. 2 (A) BAR GRAPH SHOWING DISTRIBUTION OF SILICOSIS (ACCORDING TO YEARS) AT T.G.L. : 1973 – 1987



(Source: T.G.L Hospital)

Fig. 2 (B) LINE GRAPH SHOWING YEARLY DISTRIBUTION OF ALL-SILICOSIS (IN PERCENTAGE) AT T.G.L. 1973 – 1987



(Source: T.G.L. Hospital)

strenuous efforts of management to deal with the hazardous conditions in the mine, and how the exigencies of the national political and economic situation have always made it difficult to sustain these efforts. A management representative explained that :

> The T.G.L. has not been insulated from the economic hardship that is hitting every sector of the economy today. It is not an understatement to say that the S.G.M.C., and indeed the T.G.L., has suffered from the political instability in the country, leading to different governments viewing the S.G.M.C. differently. For example, in the 1970s when the S.G.M.C. earned big profits, most of the foreign exchange earned by the mines were diverted to meet the incumbent government's most pressing needs to the detriment of mine development programmes.(91)

There was a contrary opinion to this. According to that explanation, the absence of a programme for the active determination of silicosis on the mine leaves the detection of patients with the disease to sheer chance. Some ex-mineworkers indicated that their cases were detected when they reported on many occasions to the hospital with other complaints (mostly malarial fever), and their regularity to hospital led to a suspicion for silicosis, and subsequent diagnosis by the doctors proved this positive.(92) It is held, therefore, that the fact that some years recorded lower figures may not mean any success of the preventive measures against silicosis; it may merely show that in those years people with silicosis did not develop complications to warrant silicosis tests. Unfortunately, it was not possible to obtain the comments of the mine medical officers' on these points for reasons of time. The point however is that the silicosis problem at T.G.L. is real and needs to be addressed.

3.4.2.1 Occupational Distribution of Silicosis at T.G.L.(1973-1987)

The table below (table 3) shows the distribution of silicosis and silico-tuberculosis among T.G.L. underground and surface workers.

TABLE 3 : DISEASE BY OCCUPATIONAL GROUPS : T.G.L-1973 TO 1987

OCCUPATIONAL GROUPS				
UNDERGROUND LABOUR	PURE SILICOSIS.	SILICO-TUBERCULOSIS.	TOTAL (ALL SILICOSIS)	PERCENTAGE OF TOTAL.
1. Machine Drivers and Co. - Spannermen - Shovelmen - Scalingmen	13	2	15	12%
2. Bossmen & Blastmen	3	2	5	4%
3. Shift Bosses & Co. - Miners - Senior Miners - Mine Captains	41	13	54	43%
4. Loco Drivers and Guardsmen.	4	-	4	3%
5. Binmen & Timbermen	8	1	9	7%
6. Underground Others	12	8	20	16%
B. SURFACE LABOUR				
7. Mill Crushers	6	4	10	8%
8. Mill Others	6	1	7	6%
9. Surface Others	1	1	2	1%
TOTAL	96	32	126	100%

SOURCE : T.G.L. HOSPITAL RECORDS

The table 3B below is a summary of table 3A showing the disease trend among underground and surface workers at T.G.L.

Fig. 3 (A) BAR GRAPH SHOWING ALL-SILICOSIS DISTRIBUTION AMONG OCCUPATIONAL GROUPS AT T.G.L. : 1973-1987

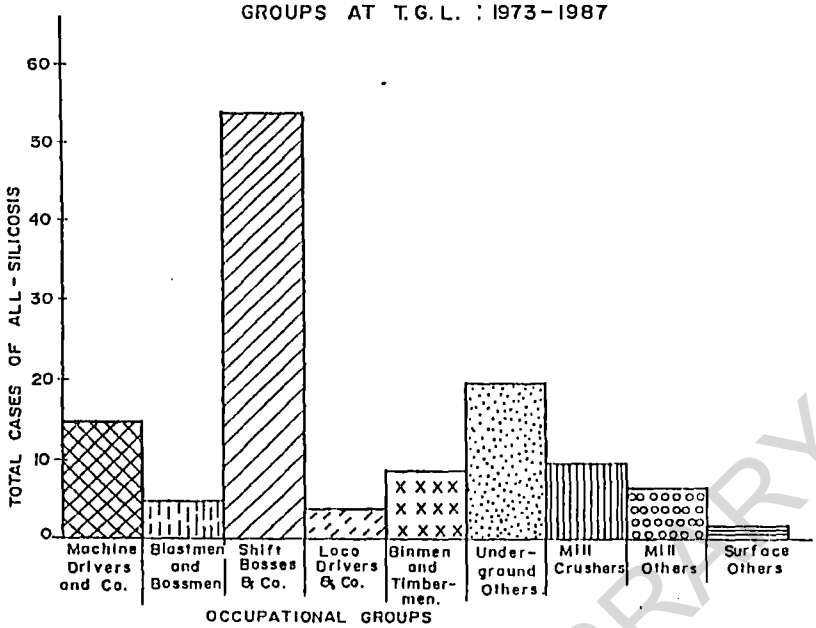
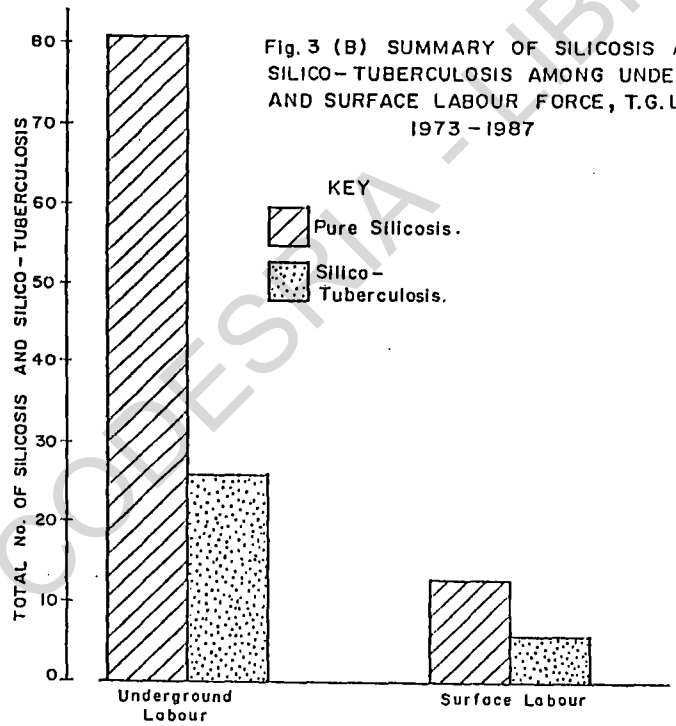


Fig. 3 (B) SUMMARY OF SILICOSIS AND SILICO-TUBERCULOSIS AMONG UNDERGROUND AND SURFACE LABOUR FORCE, T.G.L. 1973-1987



(Source : T.G.L. Hospital)

TABLE 3B SUMMARY OF ALL-SILICOSIS BY OCCUPATIONAL GROUPS ; TARKWA GOLDFIELDS LTD ; 1973 - 1987

OCCUPATIONAL GROUP	PURE SILICOSIS	SILICO-TUBERCUL-OSIS.	TOTAL (ALL - SILICOSIS)	PERCEN-TAGE OF TOTAL(%)
UNDERGROUND LABOUR	81	26	107	85%
SURFACE LABOUR	13	6	19	15%
TOTAL	94	32	126	100%

Table 3 and its summary, table 3B, backed by figures 3A and 3B, will help us discuss briefly the impact of silicosis on production at T.G.L. For convenience sake, we have brought our vulnerable workers together in groups according to the communality of their tasks on the mine.

It can be seen from Table 3A that the group designated "Shift Bosses & Co.", who comprise the shift bosses, miners, senior miners and mine captains (job descriptions can be found in Appendix 2) had the highest number of cases (54) within the period. This represented 43% of all the cases recorded for the fifteen year period. They were followed by the "Underground others" with 16%, "Machine Boys and Co." 12%, and so on.

It is worth noting that quite a number of mining tasks required expertise which is normally acquired through experience based on long service. These experienced workers normally train the newly employed workers on the job. Unfortunately for T.G.L., the "Shift Bosses & Co." are those with long service, and with

expertise needed for increased production, and for the training of newly engaged workers. This category of workers have served the company for between 15 to 29 years. Our analysis show the following trend at T.G.L. from 1973 to 1987: those with length of service between 15 and 19 years suffered 28% of all silicosis, those with 20 to 24 years service suffered 32% of the disease; whilst those with 25-29 years' service suffered 16% of the ailment for the 15-year period. (93) These were the most affected when it came to the silico-tuberculosis complications.

By the provisions of the Mining Regulations, mine workers found to have silicosis or tuberculosis on any Ghanaian mine are to be repatriated with compensation.(94) This means that from 1973 to 1987 the "Shift Bosses & Co." lost 54 of the experienced labour force due to illness. Such a situation obviously negatively affects production. In the case of Ghana generally, and T.G.L. particularly, it may also affect the safety situation because the Mining Regulations tasks this category of underground labour force with duties ranging from supervisory assignments to safety inspection. (95) If it is remembered that silicosis is incurable, and eventually kills the patient, the T.G.L., and indeed Ghana, have between 1973 and 1987 lost 126 workers who could have made contributions to the growth of our national economy.

3.5. COMPENSATION FOR ACCIDENTS & SILICOSIS AT T.G.L. : 1973-1987

We report briefly on the subject of compensations paid to workers injured through accidents and diseases (mainly silicosis) resulting from the nature of mine work. It needs to be pointed out

that compensation payments have for long represented one area of difference between workers on the one hand, and mine managers and governments of Ghana on the other. In 1965 a specialist in occupational diseases in a report to the government on occupational diseases in Ghana's mines lamented in the following words :

> These employers will be bound in the circumstances to consider prevention of silicosis (and accidents) as important subjects in order to avoid a rise in cost of money to be paid as compensations to silicosis (and accident) victims.(96)

The occupational health specialist's lamentation brings out two main points. The first is the non-professional approaches of the employers in the mines to questions of prevention of accidents and diseases which lead to high production costs through compensation payments. The second point raised is that the high compensation paid to injured persons will eventually compel the employers to improve on safety measures with a view to curtailing injuries and the consequent rises in cost of production. One cannot say yet that higher compensation payments have induced improvement of safety measures at the T.G.L. The point, however, is to note the link existing between compensation payments and the creation of safe working conditions discussed in the previous sections.

Labour Department sources held the view that the current law governing compensation to injured workmen is progressive; the issue however is the implementation.(97) Comments from mine worker respondents at T.G.L. indicate that most workers felt dissatisfied about the length of time it took the authorities to pay compensations to injured workmen. By regulation, compensation to injured workmen ~~are~~ is to be paid within three months from the date of

computation of the compensation by the District Labour Officer.(98) Yet, for a number of reasons, this was not adhered to. The first obstacle to the smooth implementation of the scheme relates to the complex procedure in injury determination and reportage to various agencies. By regulation, the mine manager reports an accident to the Chief Inspector of Mines; the Inspector is required, "if he deems it necessary,"(99) to proceed to the scene of the accident for enquiry; an "attending Medical Officer" on the basis of the reports and his own examination, gives an award in "percentage of incapacity terms."(100) The District Labour Officer is then required to compute the entitlements for the mine concerned to pay three months after this. In the case of silicosis and silico-tuberculosis it takes the same form, except that the Silicosis Board at Sekondi determines the "degree of infection" of the miner by the disease, in place of the Chief Inspector of Mines.

Our survey revealed that for earliest recipients, it took them six (6) to seven (7) months to receive their compensations. In one particular case, a Yaw K., a 43-year old Shovel Headman who got injured on the 7th of November 1979, got his injury reported to the District Labour Officer, Tarkwa, on the 6th of January 1989, almost ten (10) clear years after he was first injured. This represents a blatant violation of provisions of the Mining Regulations on the matter.(101) In a number of other cases, the compensations kept so long that the injured persons died before the arrival of their compensations.(102) Those who lived to collect their awards claimed the lengths of time for payment eroded the values of their

entitlements. T.G.L. mine management sources would not respond directly to these issues. Labour Department sources, however, held the view that delays in the payment of compensations today were due mainly to "the poor financial standing of the mining companies".(103) Perhaps one other cause of the delays has to do with the delay from the end of the Mine Inspectorate Division in going to the scene of accidents to inspect and report promptly. One could not get Mine Inspectorate sources to comment on this, but some researchers into mine accidents and safety measures in Ghanaian mines have given the explanation that the Mine Inspectorate Division faced problems with attracting qualified personnel into the Division. This is because as a Civil Service outfit with unattractive conditions of service, the Division competed with the mining companies who offered better conditions, for qualified personnel.(104)

Our field work also brought to the fore one other anomaly in the implementation of the Workmen's Compensation Law. Under section 2(2) of the repealed Workmen's Compensation Act, 1963 (Act 174), no compensation was payable to an injured person when the injury did not incapacitate him (or her) for at least five consecutive days.(105) Under the current law once a person sustains injury in the course of his work, he qualifies for compensation, except when it is proved that he got the injury through "wilful neglect".(106) At T.G.L., for a long time both the repealed Act and the current law have been grossly violated. Here, it was found that an injured person was entitled to be compensated

either when his injury led to seven (7) days' continuous hospitalisation, or when it attracted a recommendation for fourteen (14) days "excuse duty". It is claimed by the workers that it was difficult to make this mark, since in most cases injured persons were more often than not recalled and given "light duty" before the 7th or 14th day, hence depriving them of their right to compensation for injury while at work. Sources at the Labour Department, Tarkwa, as well as the local union executives at T.G.L. confirmed the prevalence of this practice. The local union executives claimed the practice had been in vogue since each of them was employed, and that they were working closely with management to normalize the situation.(107)

At this point the annual compensation statistics for T.G.L. from 1973 to 1987 is presented. The data need be qualified, however. The data was collected from the Labour Department, Tarkwa. It was learnt that, at the time of collecting the data, there were still cases from 1985, 1986 and early 1987 whose compensation were yet to be paid. These were not included in this data which include accident and silicosis injuries, mainly. The statistics have been illustrated graphically in Figures 4 (a) and 4 (b).

TABLE 4: ANNUAL COMPENSATION PAID TO ACCIDENT AND SILICOSIS VICTIMS, TARKWA GOLDFIELDS LIMITED ; 1973 - 1987.

YEAR	TOTAL COMPENSATIONS PAID (CEDIS)
1973	49,570.30
1974	22,856.82
1975	34,985.89
1976	55,437.31
1977	46,656.80
1978	85,441.03
1979	80,331.93
1980	134,884.06
1981	133,297.20
1982	444,390.66
1983	169,910.52
1984	401,472.97
1985	600,076.28
1986	1,610,846.58
1987	1,981,750.02
TOTAL	5,851,908.37

SOURCE : LABOUR DEPARTMENT, TARKWA. RECORDS ON COMPENSATIONS TARKWA GOLDFIELDS LIMITED.

The table above and the accompanying graphs (figures 4(a) and 4(b) indicate rises in compensation figures in cedis from 1973 up to 1987. The economic inflationary situation which has been a common feature of third world economies makes mince-meat of any differences that might result from these figures year after year. The fact stands however that compensation expenditure has been raising the cost of production, and therefore limiting the profit margin of the company. It has been explained that the astronomical rises in compensation figures in the 1980s as shown by the table reflects the sharp salary increases of those times coupled with the galloping inflationary trends.(108) It is explained further therefore, that these rises did not mean increases in the value of

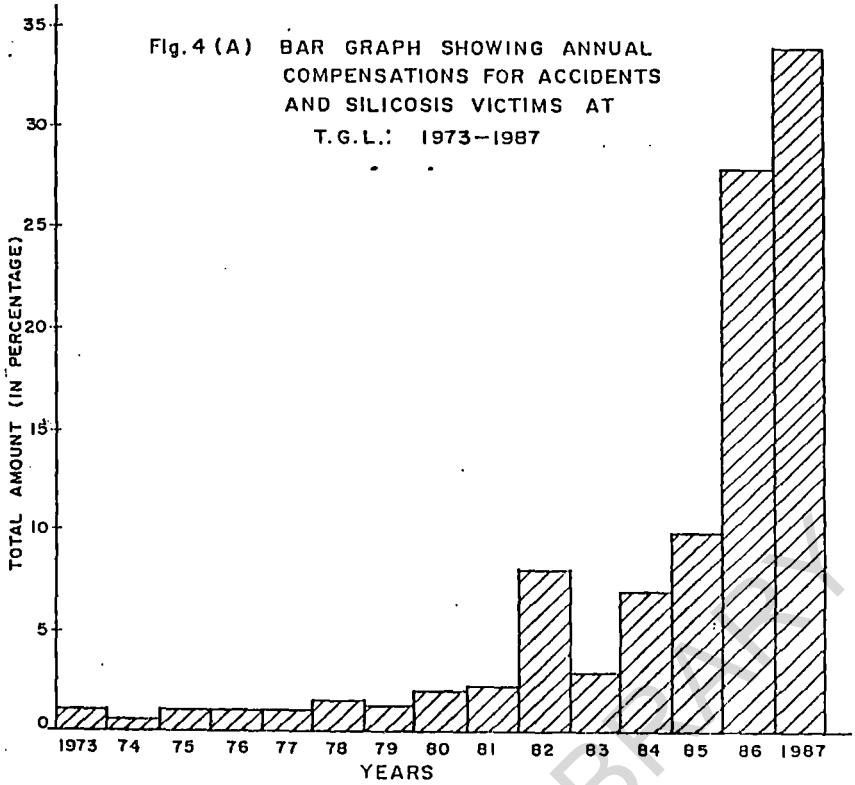


Fig. 4 (A) BAR GRAPH SHOWING ANNUAL COMPENSATIONS FOR ACCIDENTS AND SILICOSIS VICTIMS AT T.G.L.: 1973–1987

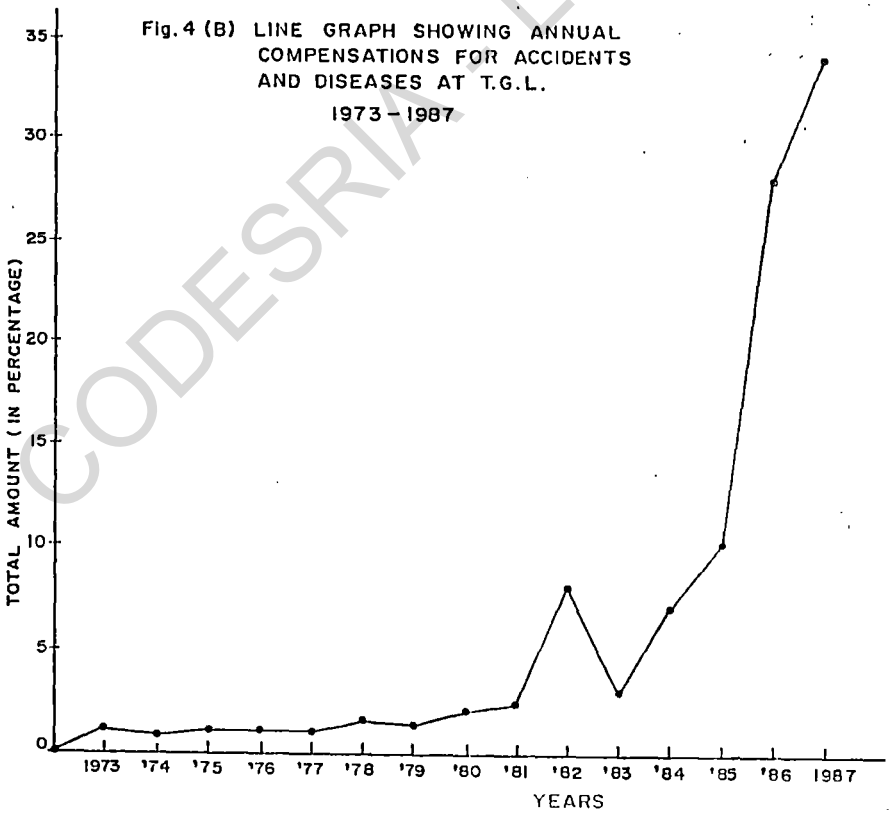


Fig. 4 (B) LINE GRAPH SHOWING ANNUAL COMPENSATIONS FOR ACCIDENTS AND DISEASES AT T.G.L. 1973 – 1987

(Source : Labour Dept., Taskwa)

money received during the period. Much as this is true, it is worth noting that these rises in the period correspond with similar rises in accident and silicosis rates on the mine (Refer to Tables 1 and 2 and the accompanying graphs). Payment of high compensations per se did not lead necessarily to an improvement in the working and living conditions at the T.G.L. A more lasting answer to accident and silicosis rates at T.G.L. has to be found.

NOTES ON CHAPTER THREE

1. (a) Wallace Johnson (Secretary, West African Youth League), The living & other Conditions of African Workers Engaged in the Prestea & Other Mines, Report to the Colonial Secretary, 1937 (N.A.G. Files No. Mines 76632).

   (b) Gold Coast Guardian Newspaper, despatch to Colonial Secretary on "Conditions in the Mines", dated 23/1/43. (N.A.G. Files : Mines 716/33/S.F.2).

   (c) Gold Coast Independent Newspaper, Editorial Comment on "Factory Legislation Wanted", 30th March 1946, (N.A.G. Files : Mines 716/33/S.F.2).

2. Ibid

3. International Labour Organisation (I.L.O.),

   (a) Convention on Occupational Health & Safety (Convention No.155), Geneva, 1981.

   (b) Recommendation on Occupational Health Services (Recommendation No.171), Geneva, 1985.

4. Ghana Chamber of Mines, "A look at Ghana's Mines" People's Daily Graphic, November 20, 1986, pp 6-11.

5. Gold Coast Independent, "Factory Legislation Wanted", 30th March 1946, Accra (NAG 716/33/SF.2).

6. Mr. Obeng-Fosu (Deputy Chief Labour Officer, Labour Department, Accra), Interview 15th August 1989.

7. National Liberation Council (N.L.C.) government, Labour Decree, Ghana Publishing Corporation, Accra, 1967, par vi

sections 485, 49 pp 25-28.

8. Ibid Section 48 (2c) p26.

9. Ibid Section 48 (1k) p26.

10. Ibid Section 48 (1k) p26.

11. International Labour Organisation (I.L.O.), Conventions & Recommendations on Safety & Health, op cit.

12. In addition to the I.L.O. Conventions & Recommendations already cited, further details of the subject(s) under discussion may be found in the following I.L.O. documents :

    (a) Protection of Workers Health Recommendations (No.97), 1953.

    (b) Working Environment (Air pollution, noise and vibrations) Convention (No.148) , Recommendation (No.156), 1977 etc.

13. This was the consensus of African mine labour experts at the end of a Pan-African Conference on the Occupational Health & Safety of African mine workers held in Kitwe, Zambia, 1976. Report in the Zambian Congress of Trade Unions & the African-American Labour Centre, Occupational Health & Safety of Mine Workers, Photo Courtesy of Nchanga, Kitwe, Zambia, 1976.

14. John Konnotey (Specialist in Safety & Health of Mineworkers), U.S.T School of Mines, Tarkwa, Interview, 10th August 1989.

15. Ministry for Lands & Mineral Resources, The Mining Regulations Ghana Publishing Corporation, Accra, 1970.

16. Ibid, Articles 1-300 pp 1-94.

17. General Mines Manager (Tarkwa Goldfields Limited), Answers to I.L.O. Questionnaire on Safety & Health, Tarkwa, 1982, (Ref Files of the Ghana Mine Workers' Union, Headquarters, Tarkwa).

18. (a) Robert Cole (General Secretary, Ghana Mine Workers' Union (G.M.W.U.), The Pre-occupation of Mine Workers & their Trade Union in Ghana, A document of the Quadrennial Delegates Conference of the G.M.W.U., Tarkwa, 1987.

(b) Robert Cole (General Secretary) & Isaac Mensah (Vice Chairman), G.M.W.U., Interview, Tarkwa, 4/9/89.

19. Ibid.

20. The Ghana Mine Workers' Union, Constitution & Bye-Laws, Ghana Publishing Corporation, Tarkoradi 1983, p3.

21. The Zambia Congress of Trade Unions & the African-American Labour centre, Occupational Health & Safety of Mine Workers in Africa, Photo Courtesy of Nchanga, Kitwe, Zambia, 1976; Documents of Pan-African Conference on Mine Safety & Health.

22. Robert Cole (General Secretary) & Isaac Mensah (Vice Chairman), G.M.W.U., Interview, Tarkwa, 4/9/89.
These officials explained that the non-co-operation of the mine authorities stemmed from the absence of any piece of legislation specifying the functions of a union safety officer in any of the mines in Ghana.

23. Mr. Abukari Sumani (Labour Officer), Mr.V.K.A. De Graft Wenchie & Simeon Abbequaye (Labour Inspectors), Labour Department, Tarkwa, Interview 10/7/89.

24. Ibid.

25. I.L.O.,

    (a) Convention on Occupational Health No. 155, Geneva, 1981;

    (b) Recommendation on Occupational Health Services, Recommendation No.171. Geneva, 1985.

26. This position was held strongly by all officers of the Labour Department, Tarkwa, more especially by Messrs V.K.A. De Graft-Wenchie and Simeon Abbequaye, both Labour Inspectors of the department.

27. Provisional National Defence Council (P.N.D.C.), Workmen's Compensation Law, Ghana Publishing Corporation, Accra, 1987.

28. National Liberation Council, Workmen's Compensation (Amendment Decree, NLCD 238). Ghana Publishing Corporation, Accra, 1968.

29. P.N.D.C., Workmen's Compensation Law, Ghana Publishing Corporation, Accra, 1987, p.vi.

30. Ibid p.v.

31. Ibid p.vii.

32. Ibid.

33. Ibid p.vii, p2 section 3(1).

34. Ibid.

35. (i) Mr. Obeng-Fosu, Deputy Chief Labour Officer, Labour Department Headquarters, Interview, 15/8/89.

    (ii) Mr. Abukari Sumani, District Labour Officer, Tarkwa, Interview 10/7/89.

36. There was a general feeling among the rank and file of mineworkers interviewed that management staff on the mine, as well as heads of the public services generally were "the big men", who did not represent their interests.

37. Dr. Kwabena Tuffour-Kwarteng (Senior Medical Officer, T.G.L.), Silicosis & Silico-tuberculosis Among Workers in a Mine., M.Sc Thesis, London School of Hygiene & Tropical Medicine, University of London, 1988.

38. Jacob K. Nabbale, 'Green Compound', T.G.L., Tarkwa, Interview 15/3/89.

39. Dr. Newton A. Amegbey & Dr. S.A.K. Forson, "Health as a limiting factor in underground gold mines, within the tropical rain forest zone of Ghana", in Proceedings of the 4th U.S. Mine Ventilation Symposium, Littleton, Colorado, 1989.

40. Ibid.

41. Drs. S.A.K. Forson (Chief Medical Officer, T.G.L.) & K. Tuffour-Kwarteng (Senior Medical Officer, T.G.L.), Tarkwa, Interview, 3rd July 1989.

42. Ibid.

43. Ministry of Lands & Natural Resources, Mining Regulations, Ghana Publishing Corporation, Accra, 1970, section 14 (a-f), pp 17-18.

44. Mr. Arku (Training Officer, T.G.L.), Interview, Tarkwa, 17/4/89.

45. T. Tawiah (Senior Miner, T.G.L. until 1988), Tamso compound, Tarkwa, Interview 23/3/89.

46. R.P. Baidoo (Senior Health Inspector, T.G.L.) Report on the Disinfestation of Underground Toilets, T.G.L. dated 4/2/86.

47. E.K.A. Atitsogbey, Report on the appalling state of Fanti Underground toilets, dated 21/12/89.

48. The Medical Officers consist of
- One Chief Medical Officer, and
- One Senior Medical Officer.

49. Dr. Kwabena Tuffour-Kwarteng, Silicosis & Silico-Tuberculosis Among Workers in a Mine, Msc. Thesis, London School of Hygiene & Tropical Medicine, University of London, 1988.

50. General Mine Manager (T.G.L.) Responses to I.L.O. Questionnaire on Safety & Health. Tarkwa, 1982 (Ref : Records of the Ghana Mine Workers' Union, Headquarters, Tarkwa).

51. These slum villages which included Abontiakoon, Tamso, Atuabo and Amantraim sprang up when the mines began in the colonial times. They were privately constructed by ex-miners working in present-day T.G.L. before the mine compounds were built. They are still being inhabited by new generations of mineworkers.

52. In the second chapter, we made references to some of these conditions :
- going underground without boots;
- going underground with candle lights;
- sleeping on benches in the "New African Hospital";
- absence of compensation for accidents and diseases, etc.

53. "Tally" in the language of the miners means tonnage of gold

ore.

54. Robert Cole (General Secretary, G.M.W.U.) & Isaac Mensah (Vice Chairman, G.M.W.U.), Interview, Tarkwa, 4/9/89.

55. Mr. Arku (Training Officer, T.G.L.), Interview, 17/4/89.

56. Lt-Colonel Asamoah (Retired), Chief of Personnel & Administration, T.G.L., Interview, 20/4/89.

57. A Sandowa, Branch Union Chairman, T.G.L., Interview, Tarkwa, 7/8/89.

58. Mr. Arku (Training Officer, T.G.L.) Interview, 17/4/89 op cit.

59. Silicosis will be reported on in the last but one section of this chapter.

60. Dr. Newton A. Amegbey & Dr. S.A.K. Forson, "Health as a Limited Factor in Underground Gold Mines within the Tropical Rain Forest Zone of Ghana", in Proceedings of the U.S. Mine Ventilation Symposium, Littleton, Colorado, 1989.

61. T. Tawiah (Ex-Senior Miner), T.G.L., Tamso Compound, Interview 23/3/89.

62. Ibid.

63. Ministry of lands & Mineral Resources, Mining Regulations (L.I. 665), Ghana Publishing Corporation, Accra, pp21 & 88.

64. E.K.A. Atitsogbey, Report on appalling state of Fanti Underground Toilets. dated 21/12/87, T.G.L.

65. Dr. K. Tuffour-Kwarteng, Silicosis & Silico-Tuberculosis Among Workers in a Mine, Msc. Thesis, London School of Hygiene & Tropical Medicine, University of London, 1988.

66. Ibid.

67. Ibid.

68. T. Tawiah (ex-Senior Miner), Tamso Compound, T.G.L., Interview 23/3/89.

69. Dr. Newton A. Amegbey, Investigation into the Human Factors with Special Reference to Health & Environmental Conditions in the Ghanaian Underground Gold Mines, Ph.D. Thesis, University of Berlin, 1987 pp. 87-91.

70. Mr. Arku (Training Officer, T.G.L.), Interview 17/4/89.

71. Ibid.

72. (a) Dr. J.C. Nowacki (I.L.O. Expert on Occupational Health), A report on Silicosis in Ghana, Accra, March 1965.

(b) In addition to the symptoms described, the patient experiences feverish feeling, chest concentrations, and impaired breathing.

73. "Alveoli" is a group of respiratory tracts found in the lung.

74. Dr. J.C. Nowacki, A report on Silicosis in Ghana. Accra, March 1965, op. cit.

75. Ibid.

76. (i) Dr. V.K. Agadzi et al, "Tuberculosis in Ghana", Ghana Medical Journal, December 1980.

(ii) Dr. K. Tuffour-Kwarteng, Silicosis & Silico-tuberculosis Among Workers in a Mine, London School of Hygiene & Tropical Medicine, University of London, Msc Thesis, 1988.

77. Refer to "Brief History of Gold Mining in the Tarkwa area",

chapter two of this report.

78. Ministry of Lands & Mineral Resources, Mining Regulations (L.I. 665), Ghana Publishing Corporation, Accra, 1970.

79. Mr. Arku (Training Officer), T.G.L., Tarkwa, Interview 17/4/89.

80. D. Kwaku (Shift Boss), T.G.L., Interview at Green Compound, T.G.L., Tarkwa, 28/3/89.

81. Ministry of Lands & Mineral Resources, Mining Regulations, op. cit. pp 17-18.

82. Ali-G, F. (Senior Miner, T.G.L.), A.V.S. Compound, Interview 25/2/89.

83. Mr. Arku (Training Officer, T.G.L.), Interview 17/4/89.

84. Dr. Newton Amegbey, Investigation into the Human Factors with Special Reference to the Health & Environmental Conditions in the Ghanaian underground mines, Ph.D. Thesis, University of berlin, 1987.

85. Ibid.

86. State Gold Mining Corporation (S.G.M.C), Collective Agreement Between the G.M.W.U & the S.G.M.C., Accra, April, 1987.

87. (i) T. Tawiah (Ex-Senior Miner) T.G.L.,
(ii) Frafra A. (Retired Miner with 36 years working experience) Interview at Tamso 23/3/89.

88. Opanyin Akpa Yeboah (old retired miner), Abontiakoon Village, Tarkwa, Interview 6/4/89.

89. Ibid.

90. Records on expenditures on health & safety as well as

inventory on boots, respirators and helmets could not be made available to this researcher. Further research in the future is likely to bring these out.

91. Mr. Arku (Training Officer, T.B.l.), interview 17/4/89.

92. These assertions were confirmed many times over by many ex-miners interviewed. These extracted a promise from the researcher to conceal their identities.

93. The table for this analysis can be found in Appendix 3.

94. (a) Provisional National Defence Council (PNDC), Workmen's Compensation Law, Ghana Publishing Corporation, Accra 1987; section 31(1), p17, and

(b) Ministry of Lands & mineral Resources, Mining Regulations (L.I. 665), Ghana Publishing Corporation, Accra, 1970, section (91, p67).

95. Ibid; sections 5 (f-h), and 18,19,20 and 290.

96. Dr. S.T. Asase, Letter dated 6th August 1965 to the Director of Health Services on Silicosis in Ghana, Occupational Health File, Labour department, Tarkwa.

97. The current law governing compensations referred to is the Workmen's Compensation Law, 1987 op. cit.

98. P.N.D.C., Workmen's Compensation Law, Ghana Publishing Corporation, Accra, 1987, section 35(2), p.19.

99. Ministry of Lands & Minerals Resources, Mining Regulations, Ghana Publishing Corporation, Accra, 1970, p 70.

100. "Percentage of incapacity" refers to the degree to which the

injury has affected the normal functioning capacity of the worker.

101. P.N.D.C., Workmen's Compensation Law, 1987 op. cit.

102. Cases in point are those of A. Frafra (Shaftman), 100% silico-tuberculosis; Yaw Kodjoe (Mill Operator), 100% silico-tuberculosis, etc.

103. Messrs V.K.A. De Graft-Wenchie and Simion Abbequaye, Labour Inspectors, Labour Department, Tarkwa, Interview, 10/7/89.

104. Mr. H. Benyah (Chief Inspector of Mines), "Country Report on Ghana", in Zambian Congress of Trade Unions, Occupational Health & Safety of Mine Workers in Africa, Photo Courtesy of Nchanga, Kitwe, Zambia, 1976 (Documents of Pan-African Conference on Mine Safety and Health, pp 26-28).

105. Convention Peoples' Party (CPP) Government, Workmen's Compensation Act (Act 174), Ghana Publishing Corporation, Accra, 1963.

106. P.N.D.C., Workmen's Compensation Law, 1987 op. cit.

107. A Sandowa (Local Union Chairman), T.G.L., Interview 7/8/89.

108. Compensation is a function of the range of salary. That is, the higher one's salary level, the more likely it is that one would be paid higher compensation depending on the "degree of infection" or "extent of incapacity".

CHAPTER FOUR

CONDITIONS OF MINE COMPOUNDS AT THE TARKWA GOLDFIELDS LIMITED (T.G.L.)

4.1. INTRODUCTION

The contribution of good housing to health and well-being of workers need not be over stressed.(1) This is even more so with respect to mineworkers whose work underground exposes them to heat and dehydration stresses. Underground mineworkers therefore require good housing facilities to enable them attain quick physical recovery after close of work. This report on mine compound conditions at T.G.L. should therefore be seen as a complementary part of the report on safety and health at T.G.L. presented in chapter three.

By "mine compound" we refer to the cluster of housing units put up by mine managements/owners on mine property in the 1930s in what was then the Gold coast, to house the mine labour force, especially immigrant labour from the Northern territories and other West African countries. As was appointed out in the second chapter, the idea of constructing these houses and bringing the workers to live together was borrowed from the experiences of mining companies in Southern africa.(2) It was felt then that the arrangement would make it possible, first of all, for mine owners to ensure high labour turn outs through curbing desertions which were rampant in those times; and, secondly, to exercise a great deal of social control over the labour force, thus making it almost impossible to organise mine labour solidarity against mine capital.(3) As was

explained however, right from its inception, various pressure groups condemned these houses in the compounds to be unsatisfactory. An example is the West African Youth League Report to the Colonial secretary on the subject, part of which read as follows :-

> Housing conditions was (SIC) found to be deplorable... The cement block houses provided for African employees is divided into four apartments each of a dimension of not more than 6 feet square. In one of these could be found a man and his wife and several children hoarded up; which situation renders living conditions very unhealthy ... The swish houses which were supposed to be for the use of mine labourers were found to be very unsightly. Most of them were in vermine-stricken conditions... To say the least, the whole area occupied by these houses is most insanitary and unhealthy and therefore unfit for human habitation.(4)

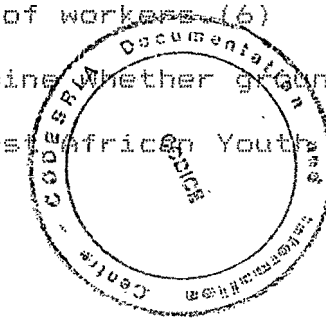
The above statement was made a few years after the mine compounds of today's Prestea and Tarkwa Goldfields were constructed. The mine owners of the times, perhaps blinded by profit considerations, put up housing units to accommodate workers from the north, who it was thought would not make mining their settled jobs. Critics at the time wondered whether much was to be expected from this project, especially as the idea was influenced more by the Consolidated Goldfields (C.G.F.) consortium, a South African mining group which took up large concessions in the Prestea and Tarkwa Goldfields in the latter 1920s and early 1930s.

Nonetheless, workers' accommodation and/or residence has become firmly established as one of the indicators for assessing the social conditions of labour in any industry. One source holds that "Indeed, next to insufficient food, poor housing is the most obvious component of the low levels of living".(5) This is even

more so in industries such as mining, where housing is normally provided by mine owners/managements within the mining vicinity, thus exposing not only the miner but also his dependants to the hazards associated with the enterprise. Justifiably, then, mineworkers worldwide have been concerned about poor housing for their members, and have kept on appealing to the appropriate authorities to give this subject urgent attention. At a recent congress of Miners' International Federation (M.I.F.) the appeal was made in the following terms :

> Housing is an essential welfare service that should be made available to miners and their families in accordance with the standards laid down by the International Labour Organisation's (I.L.O's) Recommendations on housing of workers.(6)

In the current chapter, we shall examine whether grounds for complaints similar to those made by the West African Youth League still exist today.



4.2. GENERAL FEATURES OF T.G.L. COMPOUNDS

By 'general features' is meant all the facilities available inside and around the immediate environs of the compounds. We are particularly interested in the mode of housing in the compounds, conditions created for ventilation in the rooms and the compounds generally, conditions created to protect the inhabitants from the vagaries of the weather (rain, wind, sunshine, heat), availability of adequate facilities for cooking, bathing and defaecating, and processes for ensuring good sanitary practices in order to eliminate possibilities for the spread of communicable diseases in the compounds. We draw these parameters bearing in mind the W.H.O's definition of housing accommodation for workers as :

> ...the physical structure that man used for shelter and the environs of that shelter including all the necessary services, facilities, equipment and devices needed or desired for the physical and mental well-being of the family and the individual.(7)

4.2.1 The Compounds

Tarkwa Goldfields Limited (T.G.L.) has six main compounds and one subsidiary one which together make up one thousand nine hundred and sixty-nine (1,969) rooms. There are conflicting reports on the exact dates on which these compounds were constructed. Records on this aspect of the compounds could not be traced. However, there is a general agreement among local sources that the compounds were constructed between 1935/36 and 1940.(8)

The compounds are the Green compound, the A'koon Vertical Shaft (A.V.S.) compound, the Zongo (or Dagarti) compound, and the Fanti compound, which are situated within the immediate vicinities of active mine shafts of the T.G.L.; and the Tamso and Mantraim compounds, which are situated a few miles away from the active mine shafts, but closer to hitherto active but currently redundant mine shafts.

Generally speaking, the houses in the compounds are constructed with cement, although in a few compounds swish houses can still be found. The housing units are organised in blocks, with each block having four single room units, six square feet (6 sq ft) in measurement. The rooms, though roofed with corrugated iron sheets, are not ceiled. A mechanism for shielding the occupants of the rooms from the high temperatures of the day and the low temperatures of the night is therefore absent. The housing blocks

in the compounds generally have no verandas. Where there are verandas, there are either no walls to them (as in Dagarti and A.V.S. compounds) or else there are no roofs to them (as in A.V.S. compound). Hence besides the single housing unit, the worker has no resting place after close of work in the afternoon. Further, the absence of walls and roofs around and over the verandas of the compounds exposes the doors and windows of the compound rooms to direct sunshine and rainfall. Some of the workers complained that their roofs had been leaking for a long time with little attention from the mine authorities though several reports had been made through the compound clerks. A number of door and window frames were also found to be worn out and needed urgent attention lest the property of the occupants would not only be exposed to the vagaries of the weather but would stand in danger of being stolen.

In all the compounds, there are facilities for bathing, cooking, and defaecation. However, these were inadequate compared with the population in each compound. For example at the A.V.S. compound, there are two bathing rooms each for males and females for a compound of three hundred and seventy-eight (378) rooms. Assuming that each room is occupied by a family of three (the minimum in the compounds of T.G.L.) we come up with a population of one thousand, one hundred and thirty four people (1,134) struggling to make use of the bathing facility in the rush hours of the morning and after work in the evening. The toilet facilities are also in a similar shape ; few and far-flung, thus encouraging free-range defaecation in the nearby bushes and the vicinity of the

toilet houses.

Facilities for cooking are also inadequate in all the compounds. In most of the compounds, one kitchen is allocated to occupants of sixteen (16) rooms, and a lot of conflicts on the compounds emanate from here. These kitchens were also found not to have been maintained for a long time, and one official of the mine remarked that "some of the kitchens...are in a state of despair, and may collapse during a heavy rainstorm".(9) No wonder the compounds are littered here and there with "unauthorized structures" constructed by the workers and used as kitchens. These structures, the health authorities explain, apart from obstructing ventilation on the compounds also pose dangers to life and property for the material used in constructing them (bamboo) has high susceptibility to fire hazards.

Facilities for wholesome/potable water for domestic use on the compounds were found to be available on all the compounds, except in the Huni Camp where there was no standpipe. However, the problem again has to do with the insufficiency of the facility in relation to the population on the compounds. At the Tamso compound, for example, there are only three (3) stand pipes to serve occupants of three hundred and twenty-two (322) rooms. Assuming again that each room is occupied by a worker, his wife and one child it means there are as many as 966 people using three standpipes.

One other striking feature visible to a visitor are the heaps of rubbish dotted here and there on the compounds. There are no incinerators or dust bins in the compounds. Household refuse is

disposed of by the residents indiscriminately. During the period of this survey, the compounds were generally found to be unkempt. In addition to the rubbish dumps, the environs were weedy, and the drains were chocked with silt and rubbish.

4.3. ANALYSIS OF SANITARY CONDITIONS & HEALTH HAZARDS IN THE COMPOUNDS

By 'sanitary conditions' we refer to all the factors in the compounds that make for the clean, healthy living of the worker and his dependants. From the point of view of health , one most serious hazardous condition on the compounds is the condition of housing. As we indicated above, most of the compound houses have no verandas; and where there are, they are either not roofed of else have no walls to protect workers' properties from rainfall and sunshine.(10) Information obtained from both workers and health authorities on the mine indicate that this condition exposes the miners' rooms to regular floods during the rainy seasons. This situation, coupled with the resulting stagnant pools of water around the compounds, provided fertile grounds for the breeding of mosquitoes, house flies and other water borne vectors. This seems to be exacerbated by the complaints of many occupants of the rooms that their roofs were leaking.

Obviously this worsens the sanitary situation of the occupants of these compounds. Further, the compound rooms have no ceiling, thus exposing the occupants to the vagaries of the weather. We found that several occupants had found their own solutions to this problem by using thatch or raffia material in making ceilings.

It will be recalled that in our discussion of underground conditions at T.G.L. in chapter 3, reference was made to heat and dehydration stresses which the underground worker was exposed to as a result of poor ventilation facilities underground. The expectation therefore was that compound room conditions would be such as would be safe, providing good ventilation for quick physical recovery by the underground miner after close of work. In this respect, some of the rooms were found to fall below expectation. The health authorities on the mine even considered some of them to be uninhabitable. Reporting on some of these houses in some parts of the Green compound, the Chief Medical Officer of the mine indicated that :

> The swish buildings are not fit for human dwellings and should be demolished...They are very dangerous, and an eyesore, and some of them look like cells without windows and corridors. How these inhuman structures have been allowed to stay beats my imagination. Many of the buildings are old, leak, and may come down in a violent storm.(11)

Besides, some of the buildings are being engulfed by slimes from the mill. This is particularly so in the A.V.S. compound, which is closer to operations of the mine than the rest of the compounds. The hazardous nature of the slime found around the houses in the compound would be understood if it is remembered that slime from the mill may contain some silica dust suppressed in the crushing operations. This may therefore be a fertile ground for silicosis contraction. In addition, the medical authorities on the mine explain that such slimy conditions provide fertile grounds for the breeding of mosquitoes and other pests injurious to human health.(12)

Further to all these, especially in relation to housing in the compounds, is overcrowding. In a survey conducted by the Senior Health Inspector of the mine, it was found that the average number of people in a single room unit in the compound was eight(8).(13) This, despite the fact that most of the rooms had no verandas. The health authorities on the mine assert that this over-crowding is largely responsible for the transmission of 'crowd diseases' like measles, rheumatism and tuberculosis. It must be borne in mind that underground mineworkers who contract silicosis are more susceptible to tuberculosis contraction than non-silicotics, and since tuberculosis is a communicable disease, the hazardous nature of compound living at T.G.L. is easily understood.(14)

A second major health hazard on the compounds is the condition of latrines and faecal disposal. In the first place, there are insufficient toilet houses on the compounds. As was indicated earlier, in most of the compounds of more than three hundred (300) room units there are usually two latrines each for males and females. It is therefore common in the compounds to see workers and their dependants queuing up every morning to have their turns at toilets. Some other residents, especially the younger ones, prefer to ease around the latrines or in the nearby bushes. Faecal matter around the latrines, which are situated quite close to the dwelling places, is therefore a common sight in the compounds of the T.G.L. This invites vectors which are a menace to the health of the occupants of the houses on the compounds.(15)

Nor is the refuse collection and disposal situation any

better. None of the compounds has any fixed incinerators. Refuse disposal by residents was found to be indiscriminately carried out. Several heaps of refuse were thus visible on the compounds. This, the health authorities on the mine explained, has provided breeding grounds for insect pest, vermin and rodents, such as cockroaches, rats, lizards and snakes.(16) The Chief Medical Officer of the mine reported in 1986 that :

> Refuse collection and disposal (in the compounds) is very poor indeed. A very offensive odour permeates to the rooms close to the unauthorised dumps...There are no incinerators, and refuse is disposed in some compounds by burning which to my mind creates an offensive and repugnant smell, and invites scavengers and disease-carrying pests to the area.(17)

This situation is made worse by the fact that the compounds are overgrown with weeds; and the medical authorities on the mine explain that this has been responsible for the high incidence of snake bites in some compounds. Talking about the situation in the Fanti compound, the Chief Medical Officer reported that "the overgrown weeds in this area and other compounds have contributed to the high incidence of snake bites in these areas".(18) In fact in 1986, during an inspection tour of the compounds, residents of Green compound complained to the Chief Medical Officer that as a result of the weeds, many of them experienced "black cobras entering their rooms".(19)

The general drainage situation is also problematic. The culverts and drains in the compounds were generally found to be blocked, providing suitable media for the nurturing of mosquitoes and other carriers of diseases. This makes the situation on the compounds worse during the rainy season, as the resultant floods

have no outlets.

The above discussion seems to indicate that perhaps the environmental health section of the Welfare Department of the mine has not been living up to its responsibilities. Contrary to this view, however, the section is headed by an acknowledged hardworking Senior Health Inspector who regularly draws programmes for improving sanitation on the compounds in particular and on the mine as a whole. This outfit however faces a number of constraints. The first problem relates to the inadequacy of the labour force needed to carry out such an important assignment. This is further linked to the absence of the necessary tools needed for carrying out sound sanitary assignments. As at 1984/85, the section had 47 workers responsible for refuse collection, street sweeping, drains cleansing, bathrooms, latrines, and standpipes cleansing in all the mine compounds as well as in the residential quarters of the senior staff corps of the mine. This is drastically below the 150 figure given by the Ministry of Health as the required labour force to man the general sanitation situation of the mine.(20) For example, at Mantraim compound of 192 rooms plus six senior staff quarters, three casual labourers were assigned to these tasks. The Senior Health Inspector, therefore, in a report, had to lament that :

> It must be admitted that the environmental sanitation of the mine has deteriorated over the past many years because the required labour force for effective execution of work is grossly inadequate considering the vast area of the communities and the dense population....Tools and equipment badly needed (for work) too are either in short supply or (are) non-existent.(21) (My emphasis)

No wonder then that after another inspection in 1986, the

Chief Medical Officer recommended to management to make available to the Environmental Health Section through the Welfare Department of the mine transport and basic tools and material to enable it offer better and "more efficient" services to the residents of the compounds.(22) Up to the time of this research, the status quo had not changed in any positive direction. Rather, it had changed negatively. For, by the end of 1987, all the bathroom cleaners of the compounds had been retrenched, and all the sanitary labourers for desilting the drains had also been retrenched. A small number of workers (about 25) were left to take care of refuse collection, conservancy work, and weeding around the compounds. All these, as a management source asserted, were in keeping with the demands of the Structural Adjustment Programme of the Provisional National Defence Council (PNDC) government. The popular opinion among management staff was that with proper mobilization, the workers, led by their Town Development Committees, Committees for the Defence of the Revolution (CDR's) and compound headmen, could carry out some of the sanitary tasks in their leisure hours. This, it was felt, would help the mine minimize cost in its operations. How this would be done to eradicate the hazards in the compounds is yet to be seen. But quite a number of workers spoken to argued that they had in the past been offering 'communal labour' in their communities to complement the work done by the scanty labour force of the Environmental Health Section. The point however is that this could not be on a continuous basis since these workers themselves had to contend with the burdens of their official assignments on

the mine, coupled with engaging in other economic activities to support their meagre incomes. Without doubt, community mobilization for environmental cleaning is positive in the sense in which it helps to arouse in the inhabitants of the compounds a consciousness for a clean healthy environment. However, it appears to smack of the usual tendency of mine capital to stretch the resources of labour to an extent detrimental to the energies of the labour force in order to maximize profit. This was a common feature of the colonial mining enterprise in the Gold Coast colony. Political economists of African development hold that this feature is still inherent in the mining enterprises of today's politically independent nations of Africa.(23)

Be that as it may, the environmental health of the workers of the T.G.L. has to be ensured. This, in our opinion, apart from having a positive effect on increased production emanating from a healthy work-force, would help management cut back on cost of production resulting from having to stock the medical department with drugs against diseases that could be prevented through good environmental hygiene. Whichever way the contradiction is resolved by the mine management, a caution from the Chief Medical Officer of the mine must not be glossed over. He stresses that :

> There is no doubt that we are sitting on an epidemic bomb which can explode any time. In spite of the financial constraints which affect manpower and purchase of materials, I strongly feel that we have to act now to save human lives, and increasingly medical costs and morbidity. In fact, costs involved in maintaining a healthy environment will go a long way to benefit the company and the workers and their dependants...<u>It is not gainsaying that if the total health care of the workers and for that matter their dependants is properly maintained, the benefits to be obtained include the</u>

increase in productivity and the boosting of moral in the enterprise.(24) (Emphasis, original)

4.4 ENVIRONMENTAL SANITATION, NUTRITIONAL STATUS OF MINERS & COMMUNICABLE DISEASE STATISTICS AT T.G.L.

An attempt was made to collect statistics from the mine hospital to aid comprehension of the effects of the poor environmental sanitation of the compounds on the health and well-being of the worker and his dependants. Attention was drawn to the fact that a deeper understanding could be achieved if the statistics were interpreted as the sum total effects of both the environmental health and nutritional factors. Hence the title of this section. This section therefore presents the communicable disease statistics for 1985, obtained from the T.G.L. hospital to illustrate the effects of poor environmental sanitation on the work force of the mine. By 'communicable disease' we mean any disease that could be communicated to the sufferer by the exigencies of the environment, and/or could further be communicated to others close by, by the sufferer.

Table 5 (and Figure 5) below present communicable disease statistics for 1985. This was the data on communicable diseases readily available at the time of the research.

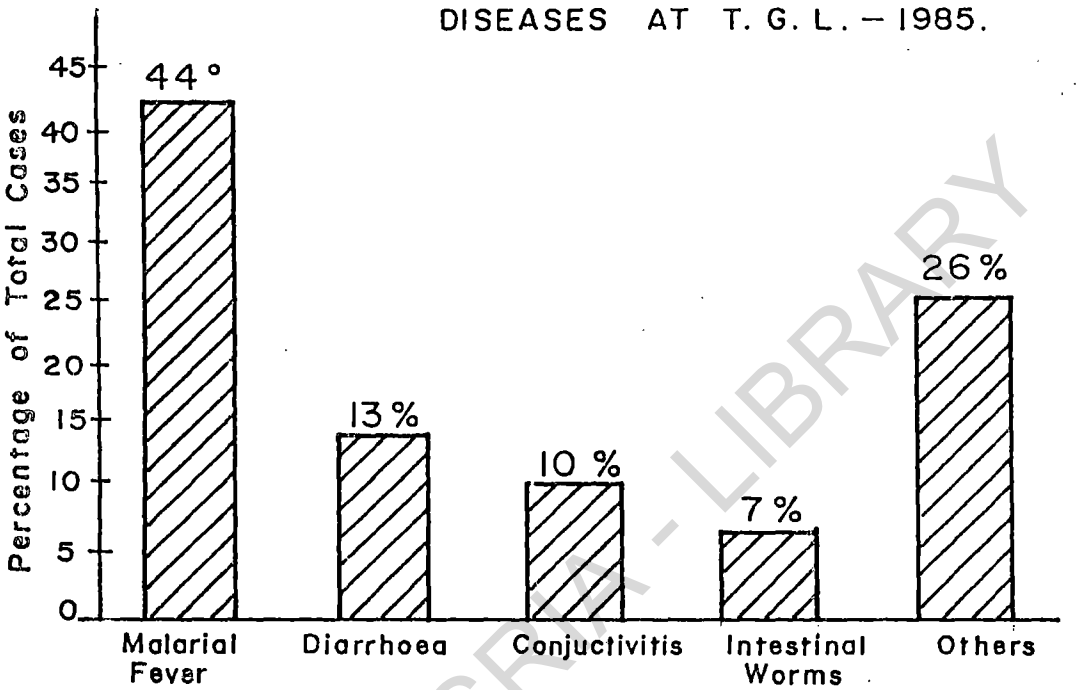
TABLE 5 : COMMUNICABLE DISEASE STATISTICS FOR 1985

TARKWA GOLDFIELDS LIMITED

MONTH	MALA-RIA.	DIAR-RHOEA	CONJU-NCTIV-ITIS.	INTEST-INAL WORMS	OTHERS	MONTHLY TOTAL
JANUARY	49	21	14	17	39	139
FEBRUARY	61	34	9	4	40	149
MARCH	109	81	43	23	32	288
APRIL	473	104	316	-	415	1308
MAY	262	101	80	69	132	644
JUNE	87	111	50	162	46	456
JULY	512	151	37	104	400	1204
AUGUST	385	132	85	71	100	773
SEPTEMBER	398	124	37	53	366	978
OCTOBER	474	108	59	82	230	953
NOVEMBER	471	65	80	44	176	827
DECEMBER	324	31	-	-	132	487
ANNUAL TOTAL	3605	1054	810	629	2108	8206
MEAN TOTAL	300	88	68	52	176	684
% OF TOTAL	44%	13%	10%	7%	26%	100%

SOURCE : T.G.L. MINE HOSPITAL RECORDS

FIG. 5 GRAPH SHOWING EXTENT OF COMMUNICABLE DISEASES AT T. G. L. – 1985.



(Source : T. G. L. Hospital)

The figures for 1985 show a high prevalence of malarial fever which is easily explainable by reference to the poor sanitary conditions in the compounds discussed earlier. The medical authorities at the mine in addition to their concern over the state of sanitation on the compounds appear bothered about the rate of communicable diseases in the mines, especially that of malarial fever. In a letter to the mine authorities in September 1987, the Chief Medical Officer said among others that ;

> I wish to inform you that there has been an increase of attacks in malarial fever amongst workers/dependants. In fact, we are getting an average of two hundred (200) cases a day since the beginning of last week. One of the major causes of this epidemic is due to the incessant down pour of rains and pools of water. We are therefore recommending that, the welfare department should spray with insecticide/larvicides all the compounds and their immediate surroundings. This will go a long way to control the multiplication of mosquitoes which are the carriers of the disease.(25)

The average figure of two hundred (200) cases a day for malarial fever reported by the doctor in September 1987 is extreme compared with the average figure of three hundred (300) per month for 1985 as shown in the table above. In one month (July) the figure was as high as five hundred and twelve (512) cases. This is in spite of the finding that many inhabitants in the compounds carried out self-medication whenever they had malarial fever. As the table and block graph above show, diarrhoea, intestinal worms, and conjunctivitis (eye disease) which are all disease due mainly to insanitary conditions are also prevalent on the mine. Among the communicable diseases designated 'others' on the table are cholera, small pox, yellow fever, food poisoning, leprosy, tuberculosis,

diphtheria, human rabies, guinea worm infection, tetanus and so on.(26) Incidentally these diseases have also been found to be common among mine, constructional and farm labourers of East Africa.(27) In fact these diseases are associated with poverty "which means malnutrition, overcrowding, and industrial stress".(28)

The inclusion of malnutrition among the catalogue of causes for communicable disease contraction is important in understanding fully the other main factors that aid insanitary conditions to effect the spread of the disease. According to the mine health authorities, most mine workers have low resistance to communicable diseases. This is because their diets are deficient in basic nutrition. It is argued, inter alia, that :

> Calorie shortages are in part responsible for low productivity we see in workers in the developing countries. The sluggishness of the tropical worker and his general inability to maintain prolonged sustained hard work have been blamed on inadequate nutrition and general poor health status.(29)

The mine medical authorities illustrate this by referring to the fact that the low nutritional statuses of mine workers and their dependants was responsible mainly for the high incidence of pulmonary tuberculosis, about 2.1% in the mine. It is further asserted that it is common in the mine to encounter miners reporting sick with conditions related to inadequate food intake prior to going to work.(30)

Going back to table 5 and the accompanying graph, it is seen that the mine hospital recorded monthly averages of 68 and 52 cases for conjunctivitis (eye disease) and intestinal worms respectively.

It is explained that apart from the possibility of conjunctivitis being caused by insanitary compound conditions, it may also be caused by poor working conditions, for it may be caused by the contact of the sufferer's eyes with rock particles and gases from chemicals in underground operations. Further, just as intestinal worm infestation may be attributable to drinking unhygienic water at the compounds, so is it explainable by the working conditions. It will be recalled that in our last chapter, references were made to the hazards resulting from the damp nature of the underground conditions. Apart from the general stress this imposed on the underground labour force, this condition also created a basis for the nurturing of the eggs of various worm species in the affected worker.(31) What the data on communicable diseases for the thirty (30) years of our study would look like for the mine, can just be imagined if the total figure for only 1985 is eight thousand, two hundred and six (8206). The cost to the mine in paying for the required drugs could also be imagined. The cost involved as well as the details of the nutritional status of the workers could form a subject for future study helping to fully understand the social conditions of labour in the gold mining industry.

It must be pointed out, finally, that communicable diseases are caused by environmental factors, and can hence be controlled. It does not appear to the researcher that the mine management include on a regular basis programmes for compound sanitary improvement in their overall mineral development programmes. It does appear to be tackled spontaneously, whenever there is a

problem and an issue is brought up and a report written about the situation. More serious attention therefore need be paid to this issue since it involves the life-wire of the productive endeavour of the enterprise - the mineworkers.

NOTES ON CHAPTER FOUR

(1) (i) Gunnar Myrdal, Asian Drama: An Inquiry Into the Poverty of Nations, Cox & Wyman, London, 1977.

(ii) Miners' International Federation (M.I.F.), Activity Report: 1984- p 188, 46th Congress Report, Zimbabwe, March 1989.

(2) Jeff Crisp, The Story of An African Working Classes: Ghanaian Miners' Struggles: 1870-1980, Zed Books, London, 1984, p4.

(3) Ibid.

(4) Wallance Johnson (General Secretary, West African Youth League),Report on Living & Other Conditions of African Workers Engaged in the Prestea (& Tarkwa) Mines, 14th January 1937, N.A.G. Records (File No. Mines C.S.O. 716/33 S.F.1).

(5) Gunnar Myrdal, Asian Drama : An Inquiry Into the Poverty of Nations, Cox & Wyman, London 1977.

(6) Miners' International Federation (M.I.F.) Activity Report, Zimbabwe, March 1989.

(7) World Health Organization (W.H.O.), Technical Report No. 255, Quoted in S.A.K. Forson, Family Health & The Quality of Life, Conference on Health & Safety of Miners in English-Speaking Africa, Kitwe, Zambia 1976.

(8) (i) Opanyin Akpa Yeboah (worked at T.G.L. from 1923 to 1961), Interviewed on 7th July 1989.

(ii) Chief Kobina Vans Ess (worked at T.G.L. from 1928 to 1961) Interviewed on 7th July 1989.

(iii) A number of retired miners who preferred not be disclosed.

(9) R.P. Baidoo (Senior Health Inspector, T.G.L.), Report on General Inspection of Mining Health Areas -T.G.L., March 20 1984.

(10) The A.V.S., the Zongo and the Green compounds have verandas; but whereas the verandas at the A.V.S. compound houses are not roofed, the verandas at the Zongo and Green Compounds lack protective walls.

(11) Dr. S.A.K. Forson (Chief Medical Officer, T.G.L.) Report on Environmental Hygiene & Sanitation problems of the compounds of the T.G.L. & their solutions, Tarkwa, 1973.

(12) Ibid.

(13) R.P. Baidoo, Report on General Inspection of Mining Health Areas - Tarkwa, 20/3/84 op. cit.

(14) Dr. K.Tuffour-Kwarteng (Senior Medical Officer), Silicosis & Silico-Tuberculosis in a Mine, M.S.c. Thesis, London School of Hygiene & Tropical Medicine, University of London, London 1988

The researcher in the above study found that at T.G.L. silicotics had 30% chance of tuberculosis contraction than non-silicotics.

(15) Dr. S.A.K. Forson (Chief Medical Officer, T.G.L.), has in several reports especially in 1973 and 1986 called attention to this situation, but the status quo is still prevailing.

(16) R.P. Baidoo, Report on General Inspection in Mining Health Areas - T.G.L. op. cit.

(17) Dr. S.A.K. Forson (Chief Medical Officer, T.G.L.), Report on Environmental Sanitation Problems of the Compounds of T.G.L. & their solutions, Tarkwa, 1973.

(18) Ibid.

(19) Dr. S.A.K. Forson (Chief Medical Officer, T.G.L.), Visit on Inspection to the Green & Old Compounds - Environmental, T.G.L. addressed to the General Mines Manager, T.G.L., dated 3/4/86).

(20) (i) R.P. Baidoo (Snr. Health inspector, T.G.L.) Labour Force, Tools & Equipment ; Sequel of Report on Inspection dated 20/3/84; addressed to the Snr. Personnel Officer (Welfare) & The Chief Medical Officer, T.G.L. Tarkwa, May 1984.

(ii) The Snr. Health Inspector advised mine management in this report that in conformity with health standards of the Ministry of Health, every 1,000 inhabitants in a community are entitled to 10 sanitary labourers. Therefore, since the population of the compounds amount to over 15,000 the environmental health outfit of the mine would require about 150 hands.

(21) R.P. Baidoo, Report on Inspection of Mining Health Areas - T.G.L., 20/3/84.

(22) Dr. S.A.K. Forson, Visit on Inspection to the Green & Old compounds - Environmental, T.G.L., Tarkwa, addressed to the General Mines Manager, T.G.L. dated 3/4/86.

(23) (i) Greg Lanning & Marti Mueller, Africa, Undermine : Mining Companies & The Underdevelopment of Africa, Penguim Books,

London, 1979 p.489

(ii) Claude Ake, A political Economy of Africa, Longman, New York, 1982.

(24) Dr. S.A.K. Forson, Visit on Inspection to Green & Old Compounds - Environmental op. cit.

(25) Dr. S.A.K.Forson, (Chief Medical Officer, T.G.L.) Memorandum on Spraying the Compounds, To the Chief Personnel & Administration, T.G.L., Tarkwa, 20/9/87.

(26) The rest of the diseases as shown in the mine hospital records are effective hepatitis, yaws, trypanosomiasis, onchocerciasis, relapsing fever, plague, etc.

(27) Issa G. Shivji, Law, State & The Working Class in Tanzania; 1920 - 1964, Tanzam Publishing House, Dar-es-Salaam, 1987.

(28) P. Manson, Manson's Tropical Diseases, English Language Book Society, London, 1972, p.762.

(29) Dr.S.A.K. Forson, Family Health & The Quality Of Life, Presented at Conference on Safety and Health of Miners in English-Speaking Africa, Kitwe, Zambia, 1976.

(30) Ibid.

(31) Dr. Kwabena Tuffour-Kwarteng, Silicosis & Silico-Tuberculosis Among Workers in a Mine, M.Sc. Thesis, London School Of Hygiene & Tropical Medicine, University of London, 1988.

CHAPTER FIVE

C O N C L U S I O N

The study sought to investigate the social conditions of goldminers at Tarkwa Goldfields Limited, situated in the Western Region of Ghana.(1) A study of the social conditions of the miners in the fullest sense, however, appeared to require more time and resources than was available for this study. A closer study was therefore carried out on two aspects of the social conditions of the miners - mine safety and health, and mine compound conditions - from 1957 to 1987.

The hypothesis put forward was simply that : the social conditions of Goldminers, in terms of safety and health and mine compound conditions, which have important bearing on productivity and stable industrial relations, have not changed significantly in the Tarkwa Goldfields Limited since the colonial times. The study relied immensely on secondary sources both published and unpublished . This was complemented by primary data collected from the field through interviews. As a study with the object of understanding the material conditions of the labour force of a key sector of Ghana's economy, the analysis of the field data was informed by three main theoretical foundations : the institutional theory, the political economy approach, and Gunnar Myrdal's socio-economic factor analysis of development of health programmes in

developing nations.(2)

On the basis of the above approaches and insights, the following findings and recommendations were arrived at.

5.1. SUMMARY OF FINDINGS

5.1.1 Safety & Health of Miners

Chapter 2 of this study painted a gloomy picture of safety conditions in the gold mines of colonial times. There were no protective boots, miners worked underground with candle-lights, accidents were rampant and injured workmen were not compensated. The facilities for medical care were poor, and there did not exist a legal framework for the observance of safety and health in the mines.(3)

The survey led this researcher to the legal sources for safety and health in the mines of post-independent Ghana.(4) Altogether, these legal sources are an advance on the situation in the colonial times when no legal framework for safety and health on the mines existed. Despite this, the legal sources all fail to give a pride of place to workers' role in implementing safety measures at the work place. This is, however, central to I.L.O's Conventions and Recommendations on the matter.(5) The existing legal framework gives all the powers for enforcing safety regulations at the work place to the employer. This is not counter-balanced by any checks on the employer, should he fail to provide safe working conditions on the mine.(6) It was found that substantial sections of the regulations are not being implemented by the T.G.L. mine management. The labour force as a whole were also found to lack

knowledge of basic issues in the laws.

The survey on the concrete working conditions led to a number of findings. The underground labour force worked under stressful conditions. The underground climatic conditions are harsh - high levels of humidity coupled with the existence of poor ventilation facilities. The workers thus experienced high dehydration rates, whilst the mining authorities at T.G.L. failed to provide "wholesome drinking water underground," in violation of provisions of the Mining Regulations, 1970.(7) The survey found that protective apparata against hazards resulting from underground gases and dust were insufficient, thus exposing the work force to easy injury.

A number of outfits were however found at T.G.L. that took care of aspects of safety and health on the mine.(8) But all these lacked an important co-ordinating point - a health and safety unit, with a trained Health and Safety Officer (as in the Obuasi and Akwatia gold and diamond mines). Related to this is the work load of the two doctors at the mine hospital. The work load on them is too much. This has led to a situation where the preventive aspect of safety and health is largely sacrificed.(9)

The survey also found grave dissatisfaction among the labour force over the manner of payment of compensation to injured persons. By law, a worker ought to be paid compensations within three months of his injury. However, at T.G.L. it sometimes took seven months; in one particular case (cited in Chapter 3), it took over ten years (1979-1989).The dissatisfaction were around the time

it took to make payments which eroded the real values of the compensation, and suspicions of evasions by the T.G.L. management, which were confirmed by interviews with officials of the Labour Department at Tarkwa (cited in chapter 3).

5.1.2 Mine Compound Conditions

On the six (6) mine compounds of the T.G.L. a number of findings were made.(10) First of all, some of the housing units on the compounds had been declared uninhabitable by the medical authorities on the mine; yet they were still being occupied by some workers.(11) Those considered habitable have many problems about them. Many have no verandas, thus exposing the occupants to pools of water during the rainy season. This endangered workers property as well as creating fertile grounds for the breeding of mosquitoes and other water-borne vectors on the compounds. Secondly, the rooms have no ceilings, exposing occupants to the high temperatures of the day and the low temperatures of the nights. Bathing, cooking and defaecating facilities were found to be far-flung and insufficient. This has led to the construction of unauthorised structures on the compounds.(12)

Thirdly, the compounds lacked incinerators, leading to the indiscriminate disposal of refuse. The weeds were overgrown, thus creating conditions for 'black cobras' to invade workers rooms in the compounds (reported in chapter 4). The medical authorities of the mine agreed that the poor sanitary conditions on the compounds accounted largely for the high figures of communicable diseases found in the records of the mine hospital.

The survey found that issues related to improving conditions of safety and health and mine compound conditions were not among those uppermost in the considerations of T.G.L management. There appeared to be a tendency for opting for increased production first before any improvement in mine and compound conditions. The management are not to blame for this attitude however. They are managing an extractive industry, whose future prospects are always uncertain, and over the marketing of whose produce they weild no control. This makes decisions on improvements in social conditions of labour difficult.

Finally, to conclude the section on findings, a picture painted by an ex-General Secretary of the Ghana Mine Workers Union (of the Trades Union Congress of Ghana) on the problem of housing in the mining communities of Ghana is worth quoting :

> The first of these is the acute housing problem facing the mining towns. Irrespective of the fact that mining ranks second in fetching us foreign exchange...all the mining towns have been neglected in all amenities including housing. The problem of housing in the mining towns and <u>especially within the mining community is so appalling to the extent that in some cases, a family of ten or twelve occupy one chamber; as a result of which the mother and father feel</u> completely relieved when the children above the age of thirteen start to find their own ways to put into practice what they have seen ....in that chamber; which in actual fact is the cause of high immorality in the mining towns. In some of the mining towns some of these boys and girls pass the night in kitchens and some under market sheds. <u>The available buildings are so fully occupied to the extent that every morning the mine hospitals are flooded with patients as a result of overcrowding.This in itself is a contributory factor towards our low productivity</u>. (13) (My emphasis)

5.2 RECOMMENDATIONS

The first recommendation is that labour policy makers in

Ghana need to bring all labour laws regarding safety and health at work places into step with I.L.O Conventions and Recommendations. Particularly, the Mining Regulations, 1970, dealing with mine safety and health in Ghana is still deficient in many important respects. The mine labour movement, the Ghana Mine Workers Union (GMWU), needs to set up a safety department with a safety officer to handle the education of rank and file miners on safety laws and practice.(14) This recommendation is also important for the T.G.L. The company needs a safety and health department, separate from the training school, to perform the important task of co-ordinating all safety activities on the mine. The T.G.L. mine management must ensure that protective apparata for miners are provided in sufficient quantities to reduce hazards of accident and disease on the mine. The G.M.W.U. must regularly monitor safety and health conditions and alert management to the provisions of the regulations.

Secondly, the medical department of the mine needs to be strengthened in terms of the number of medical officers, and hospital facilities. This will enable the department to give adequate pre-employment and periodic medical attention to the mine labour force.(15) Related to this is the recommendation that the T.G.L., and indeed mine policy makers in Ghana need give greater attention to measures aimed at preventing mine related ailments than is being done at present. In this connection it is recommended that the Silicosis Centre at Fanti Mines near Tarkwa, in the Western Region of Ghana, set up jointly by the I.L.O and the Ghana

government in the 1960's and abandoned after the 1966 coup d'etat, be rejuvenated (Reference appendix 6).(16) Further, it is recommended that mineworkers identified as silicotics be given permanent medical attention after being paid their compensations and repatriated from the premises of the mines. This is because as an incurable ailment, experts hold that permanent medical attention prolongs the life of the sufferer.(17)

Further, housing in the mine compounds of the T.G.L. need to be improved. The dwellings declared by the health authorities to be uninhabitable should be demolished. The conditions in the environs of the compounds must be improved by the provision of incinerators, cleaning the drains, and regularly clearing the weeds.(18) The rooms need permanent ceilings, as well as verandas for those without. More bathing and defaecating facilities for the compounds are recommended, as well as the provision of recreational facilities such as playing grounds. The issue of housing must regularly feature in the negotiations of the G.M.W.U. with management, since the membership of the union are the most affected.

Finally, the T.G.L. must give serious attention to systematic records keeping regarding all activities of the mine. The mine may consider engaging qualified statisticians and archivists to put their records into more organised shape.

In short, a break from the colonial approach to mining is recommended. Mining enterprises in Ghana are advised not just to concern themselves with the tonnage of ore mined (as was the case

with colonial mines), but more importantly, they must take on board the human factor in the development of the enterprise. The economic recovery programme (E.R.P) of the Provisional National Defence Council (PNDC) government has opened the door for private (local and foreign) equity participation in the mining sector. This has brought many local and foreign gold mining concerns to the Tarkwa area in recent times.(19) It is recommended that the Ghana government's negotiations with the foreign companies commit them (the companies) to ensuring safe working conditions, and the provision of good housing for the work force. This is to correct errors of the past. The local small scale miners need be alerted to the hazards in mining with a view to ensuring the practise of safety measures. All the above recommendations, it is hoped, will in the long run :

> ...make the working place of the worker in the mining industry safe in all respects so that he may reasonably expect to leave his place of work not only at the end of each day, but after a full working life, suffering no ill effects resulting from his work.(20)

Then it is hoped, will industrial relations in the mines improve; then shall we witness steady increases in the tonnage of ore mined; and then shall our national political independence become more meaningful to the mine worker.

NOTES ON CHAPTER FIVE

1. Refer to map of Ghana (at the beginning of the study) showing area of study.

2. Gunnar Myrdal, The Asian Drama : An Inquiry into the Poverty of Nations, N.Y : Pantheon, 1968 pp 1531 - 1619.

3. Wallace Johnson (General Secretary, West African Youth League), Report on the Living & Other Conditions of African Workers Engaged in the Prestea Mines. Addressed to the Colonial Secretary, 1937. (Reference : Appendix 5)

4. The Sources are :

   (i) The labour Decree, 1967 (NLCD 157);

   (ii) The Mining Regulations, 1970 (L.665);

   (iii) The Constitution & Bye-Laws of the Ghana Mine Workers'Union, 1983;

   (iv) The Workmen's Compensation Law, 1987; and

   (v) the Collective Agreement Between The State Gold Mining Corporation (S.G.M.C.) and the Ghana Mine Workers' Union (G.M.W.U.) 1987.

5. International Labour organisation (I.L.O)

   (i) Convention on Occupational Safety & Health Convention No.155, Geneva, 1982;

   (ii) Recommendation on Occupational Health Services, Recommendation No. 171, Geneva, 1985.

6. These considerations have led a mine ventilation specialist

(Dr. Newton Amegbey) to express the view that " The regulations were lifted almost verbation from the South African Mining Regulations. It is now time for us to make changes to the regulations to give it the human touch".

7. Ministry of Lands & mineral resources, Mining Regulations, (L.I.665), Ghana Publishing corporation, Accra, 1970 op. cit.

8. The outfits are the training School, the mine hospital, the first aid posts, and the Public Health section of the Welfare Department.

9. No wonder the data on accidents and silicosis rate (1973 to 1987) showed fluctuations of rises and falls from one year to another; an indication of the absence of a consistent approach to preventive measures on the mine.

10. This part of the findings is reported bearing in mind the World Health Organisation's (W.H.O.) definition of housing for workers as "shelter as well as facilities and services that make for physical and mental well-being of the individual".

11. A report of the health authorities of the mine described these dwellings as "prison cells without windows".

12. The health authorities on the mine explain that these unauthorised structures apart from obstructing ventilation, pose threat to life and property in terms of the susceptibility of the material used in the construction to fire hazards.

13. L.K. Williams (Ex-General Secretary, G.M.W.U.), Speech at Quadrennial Conference of G.M.W.U., 1976, quoted in S.A.K. Forson, Family Health & The Quality Of Life, (Conference on Health & Safety

of Miners in English Speaking Africa), Kitwe, Zambia, 1976.

14. This may well prepare the union to raise mine safety issues in addition to others in negotiations with management. The new consciousness to be gained by workers may well give grounds for the institutionalization of workers role in safety and health.

15. Periodic Medical attention to the miners enable the detection of silicosis at an early stage.

16. The equipment for chest x-rays and other operations of the set up are still housed in a building at Fanti mines near Tarkwa, looked after by a locally trained technician. Official interest has not been shown in this project for more than two decades now.

17. Currently, silicotics are paid their compensations, ejected from company premises and repatriated to their home villages where most die in misery.

18. The public health department of the mine currently under a competent head needs to be strengthened in terms of personnel to carry out this task well.

19. The new mining concerns that have suddenly invaded the Tarkwa area with the introduction of PNDC's E.R.P are -

- the Ghana - Australian Gold Mines;
- the Canada - Bogoso Resources Co.
- the Teberebe Goldfields;
- The Aboso Goldfields etc etc.

There are still others yet engaged in prospecting. In all there are currently about forty (40) foreign mining groups engaged in gold prospecting in the Western Region of Ghana.

20. THOMAS J. SHEPICH, "Mine Safety", in Occupational Health & Safety of Mine Workers, Pan African Conference on Occupational Health in African Mines, Courtesy of Nchanga Publishers, Kitwe, Zambia, 1976 pp 78-79.

B I B L I O G R A P H Y

A. PUBLISHED BOOKS

1. CRISP, JEFF, The Story Of an African Working Class (Ghanaian Miners' Struggles) ; 1870-1980, London, Zed Publications, 1984.

2. CRONJE, S.,LING, M., & CRONJE, G., Lonrho-Portrait of A Multinational, Penguin Books, London 1976.

3. BURAWOY, M., The Colour Of Class on the Copper Mines, Lusaka, University of Zambia, Institute for African Stidies, 1972.

4. BATES, R.H.,Unions, Parties & Political Development: A Study Of Mineworkers in Zambia, Yale University Press, 1971.

5. LANNING, GREG & MUELLER, MARTI, Africa Undermined : Mining Companies & the Underdevelopment of Africa, Penguin Books Ltd., Harmonsworth, England, 1979.

6. GUTKIND, P.C.W., & WALLERSTEIN, I.(Ed.), Political Economy of Contemporary Africa, Beverly Hills London, 1976.

7. KILLICK, TONY, Development Economics in Action - A Study of Economic Policies in Ghana, London : Heinneman, 1978.

8 PEIL, M., The Ghanaian Factory Worker, Industrial Man in Africa, Cambridge University Press, 1972 (African Studies Series 5).

9. PEIL, M., Social Science Research Methods : An African

Handbook, London : Hodder & Stongton, 1982.

10. RODNEY, W., How Europe Underdeveloped Africa, Bogle-L'Ouverture Publications & Tanzania Publishing House, London & Dar-es-Salaam, 1972.

11. THORBURN, JOHN, Multinationals, Mining & Development - A Study of the Tin Industry, Gower Publishing Co., Hampshire England, 1981.

12. OCHOLA, SAMUEL A., Minerals in African Underdevelopment, London : Bogle - L'Overture, The Red Sea Press Inc.,1975.

13. CHIRONIS, NICHOLAS (Ed.), Training Mannuals for miners (volumes 1 & 2), Mc Graw-Hill, N.Y. 1980.

14. WILSON, FRANCIS, Labour in the South African Gold Mines: 1911-1965, Cambridge University Press, 1972.

15. MYRDAL, GUNNAR, Asian Drama : An Inquiry into the Poverty of Nations, Cox & Wyman, London 1977.

B. STATURORY DOCUMENTS & REPORTS

16. Ministry of Lands & Mineral Resources, Mining Regulations (L.I.665), Ghana Publishing Corporation, Accra, 1970.

17. P.N.D.C., workmen's Compensation Law, Ghana Publishing Corporation, Accra, 1987.

18. G.M.W.U., Constitution & Bye-Laws of the Ghana Mineworkers Union, Ghana Publishing Corporation, Takoradi, 1983.

19. Ministry of Social Welfare, The Labour Decree, (NLD 157) Ghana Publishing Corporation, Accra, 1967.

20. S.G.M.C., Collective Agreement Between S.G.M.C and G.M.W.U., Ghana Publishing Corporation, Accra, 1987.

21. International Labour Organisation (I.L.O.),

- Convention on Occupational Safety & Health Convention No. 155, Geneva, 1981.
- Recommendation on Occupational Health Services, Recommendation No. 171, Geneva, 1985.
- Protection of Workers' Health Recommendations, 1953 No. 97.
- Working Environment (Air Pollution, Noise & Vibrations Convention No. 156, 1977.

22. Forson, S.A.K. (Chief Medical Officer, T.G.L.), Report on Environmental Hygiene & Sanitation Problems of the Compounds of the T.G.L. & Their Solutions, Tarkwa, 1973.

- Report on Visit/Inspection to the Green & Old Compounds - Environmental, T.G.L. Addressed to the General Mines Manager, T.G.L. dated 3/4/86 (T.G.L. Hospital Files).
- Memorandum on Spraying the Compounds, to the Chief of Personnel & Administration, T.G.L., 20/9/87 (Mine Hospital Files).

23. Baidoo, R.P. (Senior Health Inspector, T.G.L.), Report on Inspection, To The Senior Personnel Officer (welfare), T.G.L., Tarkwa 20/3/84.

- Labour Force, Tools & Equipment : Sequel of Report on

Inspection, to the Senior Personnel Officer (welfare) & The Chief Medical Officer, T.G.L., dated 20/3/84.

24. Wallace Johnson (General Secretary, West African Youth League), Report on Living & Other Conditions of African Workers Engaged in the Prestea Mines, To the Colonial Secretary, Accra, 14/1/37 (NAG : File C.S.O.7/6/33 SF1).

25. Nowacki, J.C. (Dr.) (I.L.O. Expert on Occupational Health), Silicosis in Ghana (A Report), Accra, March 1965 Labour Department files, Tarkwa.

26. Baidoo, R.P. Report on Disinfestation of Underground Toilets, T.G.L., dated 4/12/86 (T.G.L.; dated 4/12/86 (T.G.L. Welfare Department files).

27. Atitsogbey, E.K.A., Report on Appalling State of Fanti Underground Toilets, T.G.L., dated 21/2/82.

28. General Mines Manager, T.G.L., Responses to I.L.O. Questionnaire on Safety & Health, Tarkwa, 1982 (Records of the G.M.W.U.).

C. JOURNALS / NEWSPAPERS

29. Thomas, R., Forced Labour in British West Africa : The case of the Northern territories of the Gold Coast : 1906 - 1927, Journal of African History 14(1), 1973, p 79-103.

30. Kilby, P., African Labour Productivity Reconsidered, Economic Journal, 71, 1961, pp 273-91.

31. Gold Coast Independent (newspaper), "Factory Legislation wanted," 30/3/46 (NAG file : C.S.O. 716 SF.1).

32. Ghana Chamber of Mines, "A look at Ghana's Mines," Peoples' Daily Graphic, 20/11/86, pp 6-11.

D. UNPUBLISHED THESIS / ARTICLES

33. Tuffour-Kwarteng, K., Silicosis & Silico-Tuberculosis Among Workers in a Mine, M.Sc. Thesis, London School of Hygiene & Tropical Medicine, University of London, 1988.

34. Amegbey, Newton, A., Investigation into the Human Factors with Special Reference to the Health & Environmental Conditions of Ghanaian Underground Mines, Ph.D. Thesis, University of Berlin, 1987.

- "Health as a Limiting Factor in Underground Gold Mines within the Tropical Rain Forest Zone of Ghana", in Proceedings of the 4th U.S. Mine Ventilation Symposium, Littleton, Colorado, 1989.

35. Mensah, J.J.T., The History of the Development of the Gold Mining Industry in West Wassa, B.A. Desertation, (History Department), University of Ghana, Legon, 1977.

APPENDIX ONE

TARKWA GOLDFIELDS LIMITED

PRODUCTION TRENDS FOR 1970-1987

YEAR	TONS MINED	TONS MILLED	OUNCES PRODUCED
1970	379,558	370,006	64,844
1971	331,880	267,124	43,871
1972	330,377	252,116	53,910
1973	339,526	269,532	55,832
1974	344,168	275,532	54,370
1975	353,390	294,956	57,466
1976	342,760	294,096	58,319
1977	345,489	303,416	56,271
1978	358,532	298,010	52,931
1979	277,991	423,449	39,210
1980	186,612	232,100	38,996
1981	135,699	192,320	32,528
1982	94,021	166,420	31,184
1983	63,137	96,310	16,155
1984	74,687	102,950	14,437
1985	97,599	98,640	13,414
1986	81,695	81,160	15,493
1987	129,658	119,960	18,259

APPENDIX TWO

JOB DESCRIPTIONS FOR MINE PRODUCTION CREW

TARKWA GOLDFIELDS LIMITED

1. Shift Boss : Usually an underground worker with long working experience. Responsible for ensuring the implementation of the Mining Regulations Underground, during his shift. His work is supervisory, therefore he does a lot of walking underground. At the end of every shift, he records in the mine log book, observations made in the work of the shift in the interest of safety for the next shift.
2. Blastmen : Responsible for blasting operations by means of explosives. He gets to the work place earlier than anybody else to release down all loose material, and erect temporary supports when necessary. He marks holes for the machine driver to drill and supervises the drilling operations. Usually with long experience; must always be the last to leave the work face after the blasting operations.
3. Machine Driver : Carries out the drilling of holes in the rock underground by means of a hand held pneumatic drill of about 35 kg. in weight. He daily experiences noise and vibrations from the machine.
4. Spannerman : Offers assistance to the machine driver in his drilling assignments. He normally he holds the drill against the work face and holds the hole director in position while drilling goes on. He performs his duty in a kneeling posture

and is normally totally watered by the water sprayed out of the drilling machine.

5. Shovelman : He carries out shovelling of muck piles in the working faces usually assuming a bent over posture.

6. Loco Driver : He is the driver and the maintainer of the locomotives used for tramming purposes (loading and conveying of ore to a place where they are normally conveyed to the surface).

7. Timberman : Errects supports and barricades to make the roof of the stope safe.

8. Mill Crushers : The main task here is for the workers to fill the crushing equipment with the ore making sure that unwanted materials like wood, metal pieces and other debris are removed before the ore gets into the crushing plant. The atmosphere here is very dusty, and the machines are noisy.

Extracted from : K. Tuffour-Kwarteng, (1988).

APPENDIX THREE

TARKWA GOLDFIELDS LIMITED
DISEASE BY LENGTH OF SERVICE
1973-1987

LENGTH SERVICE (YEARS)	PURE SILICOSIS	SILICO-TUBERCU-LOSIS	TOTAL	PERCENTAGE OF TOTAL
5-9	2	1	3	2%
10-14	7	6	13	10%
15-19	25	10	35	28%
20-24	33	7	40	32%
25-29	17	3	20	16%
30-34	2	4	6	5%
35-39	2	-	2	1.5%
40-44	1	1	2	1.5%
OTHERS	5	-	5	4%

Source : T.G.L. Hospital Records.

APPENDIX FOUR

SUMMARY : TABLE OF ACCIDENTS, SILICOSIS & COMPENSATIONS PAID (1973 - 1987)

SOURCE : LABOUR DEPARTMENT, TARKWA

	TOTAL ACCI	REPORTED DENTS.	TOTAL ALL-SI	REPORTED LICOSIS.	TOTAL COMPENS	ATIONS
YEAR	NO.OF CASES	(%)TAGE OF TOTAL	NO. OF CASES	(%)TAGE OF TOTAL	TOTAL ANNUAL PAYMENTS.	(%) OF TOTAL.
1973	41	6%	15	12%	43,570.30	0.85%
1974	49	7%	13	10%	22,856.82	0.39%
1975	43	6%	5	4%	34,985.89	0.60%
1976	59	8%	13	10%	55,437.31	0.95%
1977	41	6%	12	10%	46,656.80	0.8%
1978	34	5%	4	3%	85,441.03	1.46%
1979	25	4%	3	2%	80,331.93	1.37%
1980	43	6%	5	4%	134,884.06	2.3%
1981	48	7%	9	7%	133,297.20	2.28%
1982	65	9%	15	12%	444,390.66	7.59%
1983	34	5%	5	4%	169,910.52	2.9%
1984	58	8%	4	3%	401,472.97	6.86%
1985	46	7%	4	3%	600,076.28	10.28%
1986	61	8%	5	4%	1,610,846.58	27.53%
1987	56	8%	14	12%	1,981,750.02	33.87%
TOTAL	703	100%	126	100%	5,851,908.37	100.0%

APPENDIX FIVE

COPY

14th January, 1937.

The Honourable,

The Colonial Secretary,

Victoriaborg - Accra,

Gold Coast.

Sir,

RE LIVING AND OTHER CONDITIONS OF AFRICAN WORKERS ENGAGED IN THE PRESTEA MINES

I am directed to forward for the information of Government and whatever action may be considered necessary to take in connection therewith, the attached copy of a communication which the League has addressed to the Manager of the Arison Gold Mines (1929) Ltd:, Prestea, as a result of a very careful investigation of the living and other conditions of African workers engaged by the Mining Company in its Prestea operations, recently instituted by the League.

2. I am to express the deep regret of my Executive at the fact that it seems obvious that this serious state of affairs as found to be in existence in the Prestea mining area, would have been better improved had government been manifesting the interest it should on the protection of the rights and privileges of mine workers and other employees engaged by Mining Companies in

operation in the country. But since the Acting Colonial Secretary in para 8 of his letter No. 451/30/s.3/207, dated 15th August, 1935, addressed to the League, had expressed the opinion that "labour is entirely voluntary and there is no compulsion on any labourer to engage himself for work in the mines, " it seems evident that the authorities of the various Mining Companies in operation in the country hold the mandate of Government to treat African mine workers and other employees in whatever way they consider to their (the Mining Companies) best advantages, regardless of the sufferings of the African Workers.

3. Finally, I am to draw the attention of Government to para: 7 of the Acting Colonial Secretary's letter referred to in para: 2 of the communication in which the League was informed inter alia "that a Workmen's Compensation Bill, which apply inter alia to mine labourers and electricity workers, has been under consideration for some time and will be introduced into the Legislative Council in due course," and to request information as to whether this Bill has since been introduced into the Legislative Council and if not, how soon Government proposes to make the introduction.

4. Your favour in an acknowledgement is humbly solicited and obliged.

I am,

Your humble Servant,

(Sgd) Wallace Johnson

Secretary,

Executive Committee, W.A. Youth League.

14th January, 1937.

The Manager,

Ariston Gold Mines (1929) Ltd.,

Prestea - Gold Coast.

Dear Sir,

RE LIVING AND OTHER CONDITIONS OF AFRICAN WORKERS ENGAGED IN THE PRESTEA MINES

In the interest of the protection of lives, privileges and other rights of the African working class towards which the above named League has pledged itself, and in continuation of the League's special interest in the working and other conditions of African mine workers and other employees engaged by the Ariston Gold Mines (1929) Ltd., (Prestea operations), and as a result of repeated complaints which the League has been receiving since the disaster of June 5th, 1934 occurred which complaints, to say the least, do not speak favourably of the Mining Company as far as interest in the working and other conditions of African employees and workmen should be concerned, my Executive recently arranged for a very careful investigation of the general working and living conditions of African workers in the mining area, and in accordance with the report furnished, I am directed to write as follow :-

The League's representative found out that

PAYMENT OF WAGES AND SALARIES OF WORKMEN On completion of 30 days' labour or a month's work, each workman has to work 6 days extra before the payment of the month's salary or wages is made. Should the sixth of these extra days fall on a Monday, the workman is made to contribute another 6 or 7 more days before he receives the salary or wages due him for the month that had been completed. Thus many workmen had to wait for 12 or 13 full days after a month's labour had been performed before receiving the wages or salaries due to them.

BUYING OF LIGHTS Every underground workman is made to buy or pay for the supply of a Carbide Lamp at 7/6 (seven shillings and six pence) from the Mining Company for carrying on work underground and extra burners whenever his burner becomes worn out or spoiled.

MINERS UNSHOD Mine workers go underground bare footed. Thus a lot of them suffer from swollen ankle etc., due to their compelled to remain underground for 8 hours daily and sometimes longer in water that is at times ankle deep.

NO HOLIDAYS Miners and African workmen in the mine area both clerical, technical and mechanics, are made to work every day in the year but one; i.e., Christmas Day, without rest; and even for the Christmas Day that rest is given, they are not paid any wages

or salaries whatsoever. Should a miner or workman happen to be absent for a day either through illness or any pressing circumstance, his pay is forfeited. Miners and workmen are made to suffer loss of wages in the event of their being ill and taken to hospital or being wounded by accident during the course of the performance of their duties and retained in hospital.

SUNDAY WORKING On Sundays working hours are 6.30 a.m. to 3 p.m. without any break for meal. Europeans have a break from 8 to 9 a.m. But Africans have no rest whatsoever.

RATE OF PAY -- MACHINE DRIVERS Machine Drivers down below receive wages ranging from 1/9 to 2/3 per diem instead of 6/6 to 7/6 as hitherto. This particular work reduces a man to an invalid within a very short while. Most of the men who perform this kind of work, it is reported, suffer, as after effect, from consumption and other diseases of the lungs due to the fact that while on active service, they were constantly inhaling the dust being drilled from rocks down below.

WORKING HOURS The daily hours of working are from 6.30 a.m. to 12 noon and from 1 p.m. to 5 p.m. The distance between the mine area and the native village is about 15 minutes walk; thus a Surface workman could hardly return home for a good meal during this break. Underground workmen are made to remain down below from 7 a.m. to 3 p.m. without break. Thus for 8 good hours a miner could

hardly get a good food to eat and at the same time lives on artificial air.

WAGES OF SURFACE WORKMEN Surface labourers who were receiving originally, wages ranging from 1/9 to 2/6 per diem, at present receive 1/- per diem and yet fines ranging from one day to ten days pay are invariably inflicted on a poor labourer for a single offence.

WAGES OF TRUNK AND SHOVEL BOYS The wages of Trunk and Shovel Boys who are engaged for full 8 hours of every day without break is only 1/3 per diem each instead of 2/3 as hitherto.

WAGES OF TIMBER BOYS For this most dangerous of all underground work, the boys receive only 1/9 per diem each, instead of wages running from 2/6 to 3/6 per diem as hitherto.

NO LEAVE OF ABSENCE No leave of absence is granted to any African workman engaged by the Mining company. A miner or workman, be he technical, mechanical or clerical, who goes on leave for any purpose whatever --- regardless of the length of service he may have put to the Company --- receives no pay whatever for the period he may spend on leave and worse of all, may likely not get the same pay he was receiving before he left on leave, when he returns, if at all he is re-engaged.

MEDICAL CONDITIONS Hospital accommodation for African workers was found to be in very bad condition. No beds whatsoever are provided for sick patients. Only hard sleeping boards in the form of tables with no pillows. This makes it impossible for any patient to rest with any comfort whatsoever especially in cases of accident.

The general treatment to patients in hospital is complained of, to be the worst in experience in any mining area in the country.In one instance the doctor in charge, it is reported, forced a patient in hospital to go aweeding with the result that the patient's condition became worse and he had to bolt away from the hospital and but for the prompt attention given him by his fellows, would have lost his life. As a result, he was dismissed from his job and driven out of the area.

NO COMPENSATION FOR ACCIDENTS No compensation whatsoever is granted to an African miner or workman who may be disabled for life or rendered incapable to earn a living through accident or any injury received while in the service of the company, regardless of the length of time he may have served. In all such cases the injuerd person is barely paid up to the day of his injury and after a partial recovery, is dismissed from the service of the company and ordered to leave the mine area immediately.

NO PENSION OR GRATUITY FOR LONG SERVICE No kind of pension or

gratuity is granted to any African workman. Be he a miner, machinist, technical or clerical worker, even if he were to put in fifty years service. As an instance, the League's representative was informed of the case of a mine worker named Willie Moore who died in active service of the company during the course of the last year. The deceased, it is understood, had been in regular service of the company since the year 1903. No compensation whatsoever has been given to the service he rendered the company.

DOMESTIC ACCOMMODATION Housing condition was found to be very deplorable. One of the cement block houses provided for African employees is divided into four apartments each of a dimension of not more than 6ft. square. In one of these could be found a man and wife and several children hoarded up; which situation renders living condition very unhealthy and yet a fee of 5/- (five shillings) per month and 2/6 (two shillings and six pence) for sanitation is collected by the Mining Company from every occupant of one of these unhealthy ramshackle.

SWISH HOUSES The swish houses which are supposed to be for the free use of mine labourers were found to be very unsightly. Most of them are in dilapidated and vermin-stricken conditions. They are more also very badly lighted and ventilated. the walls of some of these houses which are situated on high ground are not more than 3 ft. in height and the windows between 6 inches and 1 foot square -- the largest. In many cases the windows are not more than 3 or 4

inches from the level of the ground. To say the least, the whole area occupied by these houses is most insanitary and unhealthy and therefore unfit for human habitation.

WATER SUPPLY Drinking water supply for the African township is most inadequate. Only one small tank is provided for the whole inhabitants and this is situated right in the centre of the town. This rank is fitted with about six taps but the majority of these are very often kept closed and thus no less than a hundred persons are to be found constantly in waiting -- particularly in evening -- for the purpose of procuring drinking water.

PUBLIC CONVENIENCES Only one public bath room is provided for the whole African community which is also at the centre of the town and thus to some of the workmen and their families, this place of public convenience is about half a mile distance and yet it is insisted upon that every resident of the township should go therein for bathing purpose. Should any one being unable to travel to such a distance to obtain a bath, tries to contrive a private bath room, he is invariably prohibited from doing so except he is prepared to set up a private building and for which he must also be prepared to pay ground rent. Any one found bathing any where other than the public bath room is taken to the village Master who imposes a fine of not less than 5- for a first offence.

FINING OF WORKMEN According to reports received by the

League's representative, fining and deducting of the wages of workmen is a very common thing in the mine area and this is carried out by any European in the service of the Company without any question being raised. A workman is sometimes fined a whole day's pay and should he raise a protest he is immediately dismissed and deported from the township.

STREET LIGHTING The Street lights in the African township are inadequate. One actually walks from one street light until he emerges into thick darkness before he catches a glimpse of the other light.

ROADS AND STREETS The roads and streets in the African township were found to be in very bad conditions at most. There is no proper road leading from the African Township to the Railway Station which is situated about a mile and a half distance.

2. I am to state that such conditions of living which African workers are subjected to within the Prestea Mining Area, in the opinion of the League, is worse than slavery in any light that they could be viewed and require the most immediate consideration and attention.

3. In connection with the pay of African miners and workmen especially technical and mechanical employees, the League cannot appreciate any reason that could be given by the Mining Company for the reduction of their wages to such a miserably low margin, as the depression that had been in existence within the past few years

could not be said to have had any effect upon the production of the Mines or to have minimised the labours of the workmen. Since however, the position has now changed for the better, my Executive hopes the Mining Company will now see a way to grant a sort of relief to these workmen by a return to the former rate of pay or something more appreciable for African miners and mechanical and technical workmen engaged in the Prestea Mines operations.

4. In support of the above recommendation, I am directed to subjoin the following extract from the speech of Mr. Joseph Jones, President for the campaign for more wages of 2/- per diem that was launched out in June 1935. Speaking at St Helens, Mr. Jones is reported to have made, inter alia, the following statements :-

> "The knowledge that men who have to face the perils of the pit and who provide the country with the basis of her material prosperity receive an average wage of about £2 a week must surely cause pain and a anxiety to all who have any pride in their country.
>
> I feel that such a wage is a disgrace to those who pay it and an insult to those who receive it.
>
> All thoughtful people will agree that life on such a wage is hardly tolerable.
>
> It is but a miserable, comfortless existence, without joy, without hope -- a mockery of our intelligence, a

blight on our national life".

5. In support of the above, I am to state that the League maintains that despite the fact that the life and mode of living of an African mine worker could not be brought in comparison with that of an European mine worker, the fact still remains pregnant that for a human being to be made to face the perils of the pit for the procuring of Gold -- such a valuable product -- for an average pay of 1/3 (one shilling and three pence) per diem and to be made to work continuously without break for a whole year at an average of no less than 9 hours a day and worse of all to procure his own tool at his own expense, is more than a disgrace to those who pay such wages and not only an insult to those who receive the wages but the dignity and integrity of African labour in general. In fact, to say the least, such a rate of pay in the opinion of the League, for an African miner, represents the existence os a system of slavery in personification.

6. Re the delay in the payment of wages and salaries of the workmen which constituted the gravest complaint placed before the League's representative, I am to state that my Executive is unable to reconcile itself with the attitude of the authorities of the Mining Company in this direction as there can be no excuse whatever that could be offered for a big establishment as the Arison Gold Mines (1929) Ltd. not paying their wages and salaries due them immediately the month expires. I am therefore to register the League's strong protest against this unnecessary delay of the payment of wages and salaries of mine labourers and other workmen

engaged by the Ariston Gold Mines (1929) Ltd. of Prestea.

7. Re the buying of lamps by miners, my Executive fails to see the reason why such an added burden should be laid upon the shoulders of underground labourers and workmen. When consideration is given to the fact that without light, operations down below are impossible, it must be admitted that lamps are one of the essential instruments with which miners should be provided. My Executive therefore hopes that the authorities of the Ariston Gold Mines (1929) Ltd. would see their way to relieve the poor miners and workmen of this particular hardship.

8. Re the housing condition of African miners and workmen, my Executive is of the opinion, that a single room is absolutely inadequate, considering the size of each room, and a fee of 5/- a month rental for each of these, highly exorbitant. In the interest of the protection of the health of the miners and workmen, it is recommended that two of these rooms be allotted to a workman with a passage between so that they could be used as a hall and chamber and for this a fee of 2/6 a month as rent is considered quite equitable, if any rent whatsoever is necessary to be charged. The League is also of the opinion that the fee of 2/6 a month which is collected from every workman for sanitation is an unnecessary burden.There is no reason why the Mining Company could not carry out a proper sanitation within the mining area without laying the burden upon the poor African.

9. Re the swish houses, the League is of the opinion that these are to be done away with or a better type of building erected

with better ventilation for the free use of mine labourers.

10. In connection with the water supply, as it is understood this is drawn from a stream or rivulet not very far away, and there is the possibility of its being extended. I am to submit that further extensions be made to other sections of the African township in order to minimise the sufferings of the workers and their dependants for water supply.

11. Re public place of convenience, I am to state that the League is shocked at the information that only one public bath room is provided for the whole population of the African township and regrets to observe that the authorities of the Ariston Gold Mines (1929) Ltd. have not up to the present, been able to realise the seriousness of the reflection that such a neglect might have upon the moral and social dignity of the Company in the eyes of a discerning public. My Executive however, hopes that now that a light has been cast upon the situation, immediate attention would be given to convenience within the African township for the inhabitants therein, and so save or minimise their sufferings in this particular respect.

12. Finally, I am to reiterate that the action now taken by the League as portrayed in this report or communication is a continuation of the Special interest being manifested by the youth of the country and West Africa in general, in the struggles of African workers and labourers and that the League is determined to leave no stone unturned in its efforts to see that a fair and humane treatment is meted to African labourer and workmen engaged

in the above mines and that better recognition and respect is given to African labour in general by Mining Companies.

13. The subject of pension and gratuity for mine workers and other employees engaged by Mining Companies operating in the country is receiving the special attention of the League and I am to state that a further communication will be sent you in due course in relation thereto.

14. Copies of this communication, I am to state, are being circulated to the Mine Secretary, Tarkwa, the Honourable, the Colonial Secretary, Gold Coast Colony, Accra, and to the League's representative, London, for whatever action they may consider necessary to take in connection therewith.

15. A copy of each of the League's communication to the Honourable Colonial Secretary, Accra and to the Secretary for Mines, Tarkwa, is also attached for your information.

16. Your favour in an early acknowledgement would be greatly obliged.

I am,

Yours faithfully,

(Sgd.) Wallace Johnson

Secretary,

Executive Committee, W.A. Youth League.

Source : National Archives of Ghana : File No. Mines C.S.O. 716/33

APPENDIX SIX

NEWSPAPER RELEASES ON SILICOSIS CENTRE IN GHANA

1. "Centre To Fight Mine Disease is Now Open

A silicosis medical centre for mining employees has been opened at Fanti Mines, near Tarkwa in the Western Region.

The Centre established by the Labour Department has already x-rayed sixty-one (61) miners. It is expected to handle twenty thousand miners within eighteen months (silicosis is a disease caused by inhaling dust in mines).

In an interview with the Graphic, 'Mr. L.C. Baker, an expert of the International Labour Organisation (I.L.O.) said, the disease which normally attacked the lungs might be cause by various mining processes such as blasting and drilling in gold mines.

The disease, he warned, could develop into tuberculosis (T.B.) if not checked in time.

Mr. Baker said the main function of the centre was to identify miners suffering from this disease.

A mobile x-ray unit from the centre would tour all mining centres outside Tarkwa to examine miners.

Mr. Baker is working at the centre with two other I.L.O. officials now on loan to the Ghana Government. They are Dr. J.R.Sen and Mr. G.T. Samuel.

Daily Graphic, July 30 1963 p3.

2. "I.L.O. Health Centre For Miners Here."

The regular programme of the International Labour Organisation (I.L.O.) has established an industrial health centre at Tarkwa for Ghana's gold mining areas.

This project is one of several health schemes the I.L.O. has initiated in Africa.

Informed sources stated here today that the centre aimed at establishing an industrial health scheme for the detection and enumeration of PNEUMOCONIOSIS (Silicosis), a disease caused by habitual inhaling of mineral or metallic dust considered injurious to the lungs.

The centre --- recommend a scheme of pre-employment periodic medical examinations for gold miners to help reduce the incidence of Pneumoconiosis and to evolve a dust and workmen's compensation programme.

The sources pointed out that the experiences and information gained during the implementation of this project would be used to extend this facility to other industries thus assisting efforts to raise the level of public health in general in the country.

The sources expressed the hope that the project would lead to the establishment of a social security scheme.

Ghanaian Times, June 26, 1964 Report by Nortey Alema.

APPENDIX SEVEN

ENVIRONMENTAL HYGIENE & SANITATION PROBLEMS OF THE COMPOUNDS OF THE TARKWA GOLDFIELDS LIMITED AND THEIR SOLUTIONS

At a meeting of the Heads of Departments of the Tarkwa Goldfields Limited held on 21st February, I was charged by the General Mines Manager to conduct a general survey of the public and environmental health problems of the compounds and to report.

SUMMARY:

In a nutshell manpower for environmental sanitation is grossly inadequate, and some of the Sanitary Labourers have outlived their usefulness; transport essential for supervision are either non-existent or at best antiquated, and in most of the compounds lack of elementary forms of disposal of refuse, drainage systems, public baths and conveniences plus overgrown weeds expose the workers and their dependants to serious diseases like malaria, gastro-enteritis, diarrhoea and dysentery and other forms of communicable diseases. Moreover, the unhygienic and dangerous houses and the overcrowding of some of the places visited, render them uninhabitable by any stretch of imagination.

It is suggested that tipper trucks as opposed to dumpers should be provided to convey refuse and other forms of wastes for disposal.

2. Accompanied by Mr. Mfodwo, the Senior Welfare Officer and the appropriate Health Inspector and the Village Clerk, the following area were visited :-

1st Visit:- was on the 7th March to A.V.S. Compound, Zongo compound and Model House.

2nd Visit:- was on the 16th March to Mantraim Compound and Tamso Compound.

3rd Visit:- was on the 22nd March to Fanti Compound Nos. 1, 2, 3 and Huni Camp.

4th Visit:- was on the 23th March to Akoon Old Compound and Drivers Compound, New Compound (Green Compound), Police Line, Keymen and Cooks/Steward Compound and finally Akoon Village - (Private Houses).

After these formal visits, I had a series of meetings with the Senior Welfare Officer and some of his men in order to highlight some of their problems encountered in the execution of their duties and the solutions to them.

3. FINDINGS:-

The parameters within which we surveyed the various compounds, from the point of view of environmental health and sanitation, were as follows :-

i. Culverts and Drainage systems and stagnant pools.
ii. Latrines, Toilets and Urinals and their disposal.
iii. Refuse collection and disposal incinerators.
iv. Public Bathrooms.
v. Water supply and pipe-borne systems.
vi. Housing, Public Kitchens and Markets.
vii. Playing fields and recreational halls.
viii. Overgrown weeds, unauthorised structure and farms which are

hazardous to health.

ix. Sanitary and welfare personnel, transport, protective clothing and boots for sanitary men.

The list is by no means complete.

1st Visit - A.V.S. Compound:-

Two bathrooms each for males and females are available to 378 rooms, and 16 rooms to each kitchen. The bathrooms need replastering and cleaning. Walls are needed to the corridors in front of the rooms to prevent flooding during the rainy season. The drains and culverts need to be dredge and properly constructed. Many of the culverts are blocked and provide suitable media for the breeding of mosquitoes and other carriers of disease. The bathrooms need replastering and cleaning. Many of the cisterns of the lavatories are broken down and need to be repaired and replaced. Because of this, faecal matter is all over the place inviting vectors which are a danger to health.

The slime from the Mill has submerged some of the lower buildings leading to flooding of some of the rooms. The flooded rooms are blocked and they provide breeding grounds for mosquitoes and other pests. There is no outlet for the slime and action is needed to avoid further menace to health and life. The submerged buildings have to be demolished.

The weeds are overgrown and there is a need for a permanent gang of able-bodied men to constantly clear them.

Refuse disposal system is very poor and there is a very offensive smell permeating to the rooms close to the dump. There is

a need for the collected from various sites are sent to for disposal.

The market need fencing and roofing to avoid flooding during the rainy season.

The Model Compound and the Zongo Compound :-

The views expressed earlier hold good in these compounds.

The pipes which carry water are blocked, the cisterns of the lavatories are broken down, the showers in the bathrooms are defective and the kitchens need to be renovated.

Transit Compound & Zongo Senior Compound :-

Sanitation is within acceptable standards in these areas.

2nd Visit - Mantraim Compound :-

There are only 3 casual Labourers for a compound consisting of 192 rooms and 6 houses of Senior Quarters. It is imperative that areas for farming should be demarcated, because it was observed that there are many unauthorised farms and structures. There is no incinerator and refuse is disposed by burning which to my mind creates an offensive and repugnant smell and invites scavengers and disease-carrying pests to the area. The kitchens are inadequate and far-flunged. The weeds were overgrown, the cisterns of the toilets have broken down and need replacements, there are no verandas to the rooms which expose the dwellers to rains, winds and inclement weather. There are only three standpipes for the whole compound.

Tamso Compound :-

Though the bucket latrines are well-kept, it is strongly recommended that sewerage disposal system should be constructed.

This will make unnecessary the employment of latrine boys - a very undignified job. There are no recreational grounds, and the disposal of refuse is by burning. The need for incinerators is highly recommended. The drainage system is very poor leading to stagnant pools which harbour vectors of diseases. There is a need for the provision of sieve around the market which is filthy and an eyesore.

There are 274 rooms and three blocks of aluminium flats each comprising of 16 rooms. The ventilation in them is very poor and they are overcrowded. This means that 'crowd' diseases like tuberculosis, measles, rheumatism etc. can be easily transmitted.

There is a small section called the Green Compound of 48 rooms to 1 kitchen, toilet and bath. The water supply in this section is from a bore hole which is frequently dry during the dry season. It is strongly suggested that the pipe-borne water should be extended from the Tamso Compound to this compound without delay. Drainage in this compound is also inadequate.

3rd Visit - Fanti Compound :-

There are three separate compounds comprising of 408 rooms. There is only one Sanitary Labourer in compound '3' comprising of 80 rooms without verandas, there is no incinerator, only one standpipe with no platform, one bathroom each for males and females, the culverts are blocked and the stagnant water is very offensive and flooded with vectors of diseases. There is no electric light in this area and the bucket-system latrines should be replaced by sewerage system. The overgrown weeds in this area

and the other compounds have contributed to the high incidence of snake bites in these areas.

The need for permanent weeders in No.2 Compound cannot be over-emphasised. The Sanitary Labourers are very few and some have outlived their usefulness. They need to be provided with boots and gloves (especially the latrine boys). The communal kitchens are very poor indeed.

There is a need for the immediate demolition of the corrugated-iron walled baths and lavatories in the No. 2 Compound. They are a danger to health and an eyesore and they need to be reconstructed.

Huni Camp :-

There are two communities comprising 308 rooms many of them empty because the camp is very far from the areas of work. Three Sanitary Labourers and latrine man are working in this camp. Water supply is from a stream since there is no pipe-borne water supply. Little wonder that water-borne diseases are highly prevalent in this area. There are standpipes but no water is coming from them. No electric lights are in this area, bucket latrines are provided and the weeds are overgrown. I was given to understand that the electric power plant has broken down. The foundation for males and females latrines has been laid, but no building has been constructed yet for over two years. The rooms are flooded during the rainy season because of lack of verandas, the drainage system is inadequate and the culverts are blocked.

4th Visit - Green Compound :- 174 Rooms

Police Line :- 42 Rooms

The disposal of excreta is in pits and this provide breeding grounds for vectors of disease, moreover the area is very offensive and un-hygienic. It is strongly suggested that the old structures for the 'burning' of excreta should be renovated and reactivated. Incinerators for refuse disposal should also be provided since they are more hygienic. There are two bathrooms each for females and males. The drainage system is poor and blocked. The water closet type of toilets are antiquated and need to be changed. Moreover the toilets are too close to the houses. Most of the kitchens are without chimneys and they leak during the rainy season, the verandas to the rooms are exposed and many rooms are flooded during the rainy season.

The Sanitary Labourers have outlived their usefulness and are few. The weeds are also overgrown and there are only two standpipes in the compound.

Sub-Compounds :-

Bawry Compound :

There is no communal kitchens, the rooms lack ventilation and not up to standard. the Bawry swish buildings, which number 32 rooms, are low and not safe for humans.

Akoon Old Compound & Drivers Compound :-

- 161 Rooms
- 32 Rooms at Drivers Compounds.

The swish buildings are not fit for human dwellings and should be immediately demolished. In fact, some 'Keymen are staying in

some of them. They are very dangerous, and eyesore and some of them look like cells without windows and corridors. How these inhuman structures have been allowed to stay, beats my imagination. Many of the buildings are old, leak and may come down in a violent rainstorm.

Many unauthorised structures and farms were found in these areas, the culverts and drainage systems are not up to sanitary standards. The toilets and baths are used by the employees and by other people in the village.

In the Drivers Compound the corrugated-iron walled bucket-system latrines should be replaced. The culverts need to be reconstructed.

A firm decision should be made to hand over the Akoon Villages to the Ministry of Local Government so that the Ministry may take care of the environmental sanitation of the area. The market is in a very poor state and may come down at any time.

Recommendations & Suggestions :-

Before the suggestions are given, perhaps it might be appropriate to refer to :-

i) Memo of Senior Welfare Officer to Managing Director, dated 7/7/70.

ii) Letter from Managing Director dated 8/7/70, and

iii) the letter from the Ministry of Health dated 29/8/67.

The opinions stated such as health committees for the various compounds and competitions for cleanliness still hold good even today.

I have deliberately repeated myself about the environmental health problems of areas visited in order to emphasise them. admittedly, the costs involved to the Company will be high, however a well programmed policy will go a long way to minimise the health hazards to which the workers and their dependants are exposed.

There is a need to employ an experienced and qualified Senior Health Inspector to instil discipline and to maintain standards in the various compounds. It has been mentioned earlier that some form of transport, such as scooters, should be provided for the Health Inspectors in order to aid them in the supervision and surveillance of their work. Protective clothing, boots and gloves should be provided to the Sanitary who able-bodied and efficient. Sanitary work is <u>not</u> for weaklings or for workers who have been declared unfit for underground work.

Tipper trucks should be provided for the collection of refuse as opposed to dumpers. Incinerators should be constructed on the various compounds. The Welfare Department should be provided with a van for the efficient performance of their duties.

Finally, with the presence of a Medical Officer, the Senior Medical Officer should be able to liaise, co-ordinate and supervise the work of the Health Inspectors.

It is no gainsaying that if the total health care of the workers, and for that matter their dependants, is properly maintained, the benefits obtained include the increase in productivity and the boosting of morale in the enterprise.

(SGD.)

(DR. S.A.K. Forson),

SENIOR MEDICAL OFFICER I/C.

SAKF/KKAH :

cc : The General Mines Manager.

The Senior Welfare Officer.

APPENDIX EIGHT

GENERAL INFORMATION GUIDE FOR THESIS ON

THE SOCIAL CONDITIONS OF GOLD MINES IN THE

TARKWA GOLDFIELDS : 1957 - 1987

INFORMATION REQUIRED

1. HEALTH/SAFETY

i) What is health and safety ?

ii) Under what laws of Ghana is it operatable ?

iii) Brief historical sketch of development of health and safety facilities in the mines (from the colonial times to date): in other words, has political independence changed health and safety conditions significantly from the position in the colonial times ?

iv) Current state of health and safety at T.G.L. (including statistics of accidents underground, and rate of ailments, resulting from mining hazards).

v) Your own experiences of

(a) Management's / mine company's attitude,

(b) Workers'/Labours' attitude towards health and safety precautions in Ghana's Gold Mines (TGL especially).

vi) Any other recommendations for a fresh student of Ghana's mining conditions.

2. COMPOUND CONDITIONS

Brief historical sketch of the various compounds of Tarkwa

Goldfields - reasons behind their establishments; any changes in quality of housing (if any) after independence ?

i) The number of rooms/units in each compound.

ii) The total number of individual households in each compound.

iii) The existence of facilities-toilets, bathhouses, drinking water, recreational facilities in each compound.

iv) The proportion of employed workers household.

v) Any other information on compound conditions before and after independence :

(a) Sanitation : any sanitary outfit (department) ?

(b) Hazards : any effects of mining conditions on conditions of health on the compounds ?

(c) How often are compounds renovated ? Statistics (if any) would help here.

(d) Current conditions of the compounds (structurally and socially).

(e) Any recommendations for bettering compound conditions ?

APPENDIX NINE

UNSTRUCTURED QUESTIONNAIRE SCHEDULE FOR MINEWORKERS AT THE TARKWA GOLDFIELDS LIMITED

1. How are conditions underground generally ?
2. what are the main hazards you face working underground ?
3. Are you provided with respirators and masks to prevent dust and smoke underground.
4. How true is it that most underground workers do not like using the masks/respirators provided them ?
5. How many hours do you underground ?
6. Are you provided with potable drinking water underground ?
7. Are regular courses run by the company to teach you health & safety safeguards underground ?
8. Have you witnessed or been involved in an accident underground before ?
9. What in your view are the main causes of accidents underground ?
10. Who are to blame for accidents underground ?
11. Have you ever suffered from silicosis or tuberculosis ?
12. What should be done, in your view, to eradicate the causes of silicosis from the mine ?
13. What is your opinion about compensations paid to silicotics ?
14. Are you satisfied with the services provided mine workers by the mine hospital ?

15. How regular are you underground workers examined at the hospital ?

16. Are you occupying a unit in the company's mine compound ?

17. How large is your family ?

18. How many housing units have you been given to house your family in the compound ?

19. Why, in your view, is production at T.G.L. always falling ?

20. Do you think the company is capable of improving the conditions of work and life at the mine generally ? How ? Why not ?