



# Some future challenges for South African mining

by B.P. Gilbertson\*

In her wonderful book, *'The Guns of August'*, historian Barbara Tuchman tells us that the French war plan for 1914 was dedicated entirely to an offensive strategy, not a defensive one. Plan 17, as it was called, concentrated everything on a French advance to the Rhine, leaving the French left virtually unguarded. This strategy could only be justified by the fixed belief that the Germans could not deploy sufficient manpower to extend their invasion around through western Belgium and the low provinces; and this in turn was based on the belief that the Germans would never use reserve troops in the front line. All evidence to the contrary was ignored. But when the war came, the Germans followed Count Von Schlieffen's plan; they did use reserves in the front line and they did come the long way around on the west. The result—as you know—was a protracted war, with fearful consequences for the rest of our century.

I relate this piece of history to remind you that humans are not very good at anticipating the challenges that lie ahead. There is a great deal of evidence that military generals always prepare their armies to win the previous war, not the next one. And so you should view with a healthy degree of scepticism any prognostications about what will be critical to future success, particularly when that prognostication comes from anyone over the age of 30, or from anyone who's job title does not include the word 'junior'.

Mindful of these risks as I pondered the topic of my speech, I thought it wise to canvass a few knowledgeable industry observers on the critical challenges facing our industry in the years ahead. The replies provided a wide range of views. I found a share of French generals (though my innate courtesy precludes me from now recording views that might be recognised). But there were also a number of Von Schlieffen's, who referred to matters such as the Reconstruction and Development Programme (RDP), the need for global competitiveness, and the question of mineral rights ownership.

Eventually, I chose, from the wide range of answers that I had received, a short list of only four broad issues which reflect my personal concerns, and which I am sure will pose challenges for our future mining leaders. This is perhaps a somewhat unusual list, for none of the issues lend themselves to purely technical solutions. The first three I have grouped under the general heading of 'putting our own house in order'. The fourth relates to competing in the international arena.

Perhaps, before going through the list, I should make it clear that, by referring to 'challenges' I am signalling to you that I do not have any simple solutions to suggest—perhaps not even a road map to indicate the way. But I hope that by highlighting them, I shall manage to avoid becoming ensnared in the French General Joffre's camp.

My first challenge is that of safety on our mines. In 1993, nearly 500 men died in accidents on mines that are members of the Chamber of Mines (COM); another 8500 suffered reportable accidents—and as you well know, a reportable accident is one that could very easily have been fatal. These figures are simply too high, and they have over the years remained high despite intensive safety efforts and programs undertaken by the individual mining houses, and by the COM. So I think we have to accept that our past efforts have not been successful in bringing about fundamental change, and we need to ask ourselves whether there is a new initiative—a 'Von Schlieffen' plan for safety—that will succeed where others did not.

The Commission of Enquiry into Safety and Health in the Mining Industry is clearly an important initiative in this regard, drawing together for the first time the combined insights of the mining industry, of the mining unions, and of Government into a comprehensive common review. I shall not try to anticipate the specific findings of the Commission, though I have little doubt that we shall see sound proposals, and that these will contribute significantly to improving the Safety and Health statistics.

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But I am afraid that I cannot silence a nagging concern in the back of my mind, that there are very complex social issues involved here, and that these will not easily be overcome by processes, by systems, and by regulation and legislation.

On the rare occasions that I have taken my bicycle down Jan Smuts Avenue at 5:30 or 6:00 on a weekday afternoon, I have been very much aware that I have moved out of the normal week-end cycling environment, with which I am familiar, and in which I feel safe. Cars and Combi taxis whiz by me, and as I hit 60 km/h past the zoo, the slightest error or distraction—perhaps a brush from a Combi—can spell disaster. Similarly, when I make what is these days a rare underground visit, I enter unfamiliar terrain. And I find that the mine manager and his team—my hosts and my minders—watch over me very carefully, for they know that I do not have their training and experience to keep me from doing stupid things.

It is easy to conclude the obvious from these two examples:

- keep away from unsafe situations in unfamiliar terrain
- ensure there is adequate supervision
- training and experience are important.

But this is not the whole story, and I believe that there are important social issues that impact on the situation, and that real progress will require that these issues be addressed. I shall return shortly to the social issues, for they affect all three of my 'own-house-in-order' challenges.

The second challenge is to bring about a material improvement in the living standards of our black workers. The Gencor mission statement entrenches as one of its objectives 'an identity of interest with our employees'. In a sense, this echoes a vision of cohesive, supportive mining community that was expressed as long ago as March 1907, by Mr Samuel Evans at the first Annual General Meeting of the great Crown Mines:

'I do not think we shall be satisfied until, at any rate, all the married men in our employ who wish to be housed on the property can be comfortably housed. We intend to make it possible for competent workmen who desire to make the Crown Mines their permanent home to do so and we shall do what we can to enable them to live under healthy and pleasant conditions, to have facilities for educating their children and opportunities for the rising generation to learn useful, skilled occupations.

'As far as it is in our power we shall make the conditions such that no boy brought up on Crown Mines will be likely to go to swell the ranks of the army of unskilled casual labourers who in this country cannot hope to earn enough to support families in decency and comfort'.

But I have to say to you, in all honesty, that even after all these years, this is an area in which progress has been quite unsatisfactory. Too many of our workforce, particularly those from neighbouring countries, are still effectively in the migrant labour category. They come from distant rural areas, and live away from their families in high density, single-sex hostels. There is no prospect of them becoming integrated into the mine's social support systems. Such living circumstances are not conducive to promoting 'the identity of interest' to which we aspire, let alone to improving safety and productivity statistics.

My third and final 'own-house-in-order' challenge is the effective use of the labour force. At one time or another, each one of us has marvelled at the productivity achievements of the Japanese, or of certain European nations, or of the 'tigers' around the Pacific rim. So high are the outputs of the former two that the competitive disadvantage of high wage rates are completely offset. And then in the same breath we bemoan the supposed low productivity of our own workers. Now we can observe with considerable justification that deep level gold mining is a uniquely South African activity, so that few international comparisons can validly be drawn. Yet I am again not persuaded that this is the whole story. Over the past few years, we have seen huge productivity improvements in some of our mining operations as we have got the basics right. For example, we today produce almost the same quantity of gold as we did 5 years ago, but with half the labour force. Further, a number of our collieries are today able to compete on all productivity statistics in the 'first-league' of world producers. A third example, at Gencor's small Alusaf aluminium smelter, the output per man is on a par with the world's best for equivalent technology.

Legend abounds with stories of workers, being offered the opportunity of leaving the work-face once the day's tonnage target has been reached, doing so in a fraction of the time normally required. And therefore it seems to me that there is nothing inherently wrong with the innate ability of our workforce. Instead we need to look carefully at the way the task is structured and managed. We need to consider how we might build efficient and motivated working teams. Part of the process will be for the individual worker to understand his contribution to the entire mine production effort, to understand what constitutes good performance on his part, and to be rewarded appropriately for such good performance. Revised bonus systems might play an important role in all of this. You know as well as I do that the workers have not come to the mine because they particularly enjoy:

- working in a dark, wet, hot stope, 80cm high, for 8 long hours a day, or
- because they want to share a small room in an impersonal hostel, or
- because they like being separated from their families for much of their lives.

The main motivation is to earn money, and so the best performance should follow if the reward system for the individual is aligned with production goals. I suspect this means that a bigger proportion of total income should be in the form of bonuses, and that the bonus system should be carefully matched throughout the production chain: for example, excellence at the stope face will be eroded if tip assistants and winch drivers do not also do their share. This might well be an important future research area for social and organizational scientists.

Having now identified my 3 challenges—safety, higher standards of living, and improved labour efficiencies—I would like to revert to the complex social issues that are likely to render progress slow and difficult. Consider some of these:

- The lack of a common language makes it difficult to engage in much beyond basic communication. Even only moderately sophisticated concepts—relating to safety, motivation and the like — become huge stumbling blocks in Fanagalo.

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- ▶ A second complicating factor is the great difference in educational background across the mining hierarchy. It often comes as a surprise, particularly to overseas visitors, when I tell them that half the people that work for me can neither read nor write. But here there is hope. Massive literacy programmes are making good progress, and the schools, technikons and universities are producing increasing numbers of well-educated black men and women. So, for example, about one half of the graduates from the Wits Mining School will this year be black.
- ▶ A third factor is the rural background of many mining employees. This background does not provide a psychological affinity for an environment of large moving equipment, or for the difficult underground conditions of a deep level mine. The need for effective training and induction programmes is thus greatly increased.
- ▶ And finally, I cannot omit a reference to the racial divisions imposed by our history. These divisions are still reflected in the hierarchical structures of our mines, and can lead to a 'we-they' view of the management—worker relationship. This will change gradually as the new generation of black mining graduates appear in executive posts. But these racial divisions are also reflected in the hostel system, and in the consequent lack of community integration to which I have already referred. As workers are housed with their families, as those families are integrated into the mining community, so too I believe we shall see substantial improvements in the safety consciousness, in living standards, and in productivity.

I come, finally, to the fourth challenge, that of competing in an international mining arena. I do not need to remind you that South Africa is one of the world's great mineral provinces, with huge reserves of almost every metal and mineral of importance to man. For more than a century, South African mines have demonstrated their skills in exploiting those reserves, and in the process, we achieved leadership in many aspects of world mining. However, we shall do ourselves a great disservice if we fail to recognize that important reserves also occur in many other parts of the world. And so, if we are to compete for the 'yellow jersey' of world mining leadership, we will have to internationalize our mining businesses. We will have to operate where the best reserves occur.

Unfortunately, operating overseas is something that is almost impossible for South African companies to do under the present system of exchange controls. These regulations have effectively put South African mining groups—if I may extend my cycling analogy—into the Tour de France of world mining on a 1950 vintage Raleigh. The consequence has been that we have not participated in almost any of the important mining discoveries of the past three decades—the great ore bodies of South America, around the Pacific Rim, and in Australia and North America. In the early 1970s, South Africa produced 80 per cent of the western world gold output. Today, that proportion has fallen to below one-third; more importantly, South African companies were unable to participate in the growing international production, despite the head start that we had from a century of gold mining. Today we are seeing the same trend in sea-borne steam-coal; unless we are able to internationalize our coal production, we shall within a decade or two become minor players on the world stage.

Even the full international exploitation of our technical breakthroughs are frustrated. For example, Gencor's BIOX technology, which permits the efficient recovery of gold from the refractory ores, has now been proven on 6 operating mines, 5 of them outside South Africa. Yet full international exploitation of this competitive advantage is effectively limited to licensing agreements. Direct participation in the mining operations that are established by the use of our technology, cannot be funded from South Africa. Can you conceive of a Japanese entrepreneur, with a successful product, having to content himself producing only in his own back yard?

Let I be accused of seeking to pursue offshore opportunities instead of local ones, I must remind you that my group is committed to huge new domestic projects, and in the process, become one of the largest investors in South Africa's future. We are investing much more here than we can contemplate investing offshore. And we shall continue to make local investment decisions whenever we can possibly justify them.

But if South African mining is to prosper in the long term, we have to be able to operate wherever good reserves are found. And the benefits of such operations will ultimately flow back to our home country as the cash flows are realized.

So I do not think I am exaggerating when I say that Exchange Control is the single factor that most restricts South African mining groups from building world-class businesses. Needless to say, I look forward to the day when those restrictions are lifted.

Mr Chairman, that ends my personal short-list of future challenges. Of course, like General Joffre, I have probably missed out the one that will prove to be decisive but fortunately, our mining men have shown themselves—over many decades—to be a resourceful lot, well up to the tasks of our industry. When I looked through your list of delegates last night, I was struck by the number of young people who have come to your Congress. I congratulate you on achieving this. There could hardly be a clearer signal that the future generation of South African mining leaders are already preparing themselves for the challenges that lie ahead. ♦