



LKAB International

By Magnus Ericsson

Mining equipment manufacturers and consultants play an important role in a global strategy aiming to guarantee the industrialized countries and the TNCs continued access to natural resources through control of finance and technology. Raw Materials Report has interviewed Dag Bjurström, Managing Director of the Swedish company LKAB International, one of the internationally leading consulting companies in the field of underground mining.

LKAB International started operations in 1977. It is a subsidiary company of LKAB, entirely owned by LKAB. The intention, on the part of LKAB, is to use this consulting firm to profit from its own experience in mining, chiefly iron ore mining. LKAB International has three important areas of activity:

1. Rationalization in already existing mines, including studies, planning and production increases.
2. Technical and economic evaluations of possible new mines, to include geological investigations and laboratory and half-scale experiments with iron ore.
3. Development of processes and methods for enrichment and other metallurgical processes in their own laboratories and experimental stations.

It is a well known fact that LKAB has great experience in rationalization. The consequences of these rationalizations for the people of the Swedish county of Norrbotten are also well known. Against this background, the boasting of LKAB in its international advertising is cynical:

"Efficiency in the mining industry is always a question of managing the activities in the proper modern way... The experience of LKAB in these aspects of mining are considerable and thus consulting work in this field can be carried out efficiently and give practical results."

The ideology of efficiency, against which the workers of LKAB have long waged a hard struggle with some success, is to be exported to the countries of the Third World, among others. Presenting this programme, LKAB International goes into the details of how work in a mine can be "rationalized":

1. Diagnosis, to establish symptoms and reasons for inefficiency.

2. Plan of action for improvements, including the development and testing of new methods, reorganization and training. The training is intended to teach the workers to "function efficiently in their relations with their co-workers and superiors. The goal is to develop a conduct in which the individual's own interests are subordinated to the tasks and problems concerned".

In ordinary language, this means the following: the worker is to work and shut up! These are the results of the experience that LKAB wants to spread through the world.

LKAB International (and before 1977 LKAB itself) has participated in a number of projects both within Sweden and abroad:

- *Algeria*, Société Nationale de Sidérurgie (SNS), the Gara Djebilet iron ore deposit, process development and evaluation 1975-76.
- *Guinea*, Mifergui, the continuation of the Mount Nimba iron ore deposit from Liberia, feasibility study 1975.
- *Argentina*, Hierro Patagónico de Sierra Grande SA Minera (HIPASAM), iron ore mine with dressing and concentration plant, chief consultant on process development and works design 1972-1976.
- *Portugal*, Pirites Alentejanas, complex sulphide ore project, coordinating consultants 1978- .
- *Senegal*, Mifereso, investigation of sulphur containing iron ore of the same type as in Kaunisvaara in northern Sweden 1978.
- *Sierra Leone*, Marampa Mine, study of reopening the mine closed down in 1975 and investigation of ore 1977-1978.

Apart from this LKAB International has had larger projects in *Finland, Yugoslavia, Turkey, Marocco, Mexico* and the *Philippines*.

The interview was made in May 1982, in Stockholm where LKAB International has its head office.

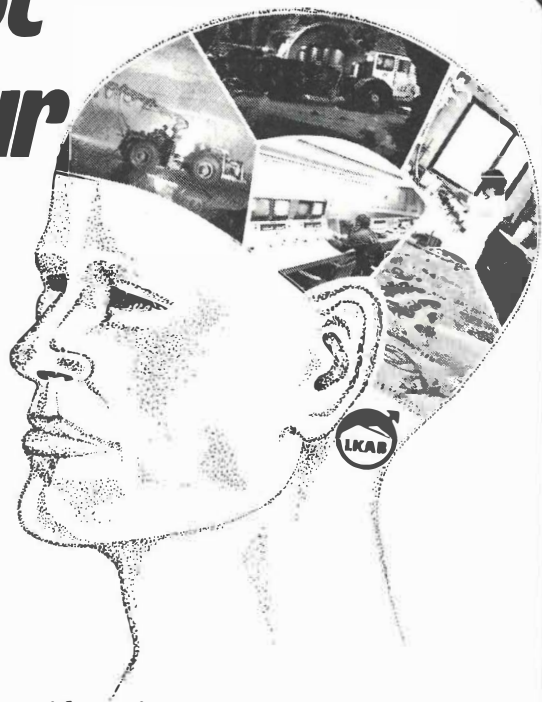
**LKAB International advertisement
from 1980.**

In countries such as Argentina, Senegal and the Philippines the presence of LKAB International is an indirect support to the reactionary and brutal regimes there.

The know-how which miners and mining technicians have built up in LKAB during several decades is now being of-

fered for sale with an ideology hostile to workers and progress, thus contributing to the underdevelopment in the "third world". This know-how ought instead to be able to contribute to building up and developing both a blooming Norrbotten County in Sweden and the countries in the "third world".

Why not pick our brains



we're the world's biggest idea mine

These ideas translate into equipment, methods and processes developed during almost 100 years of mining and ore refining operations under the demanding conditions of northern Sweden, site of the Kiruna Mine.

The world's largest underground iron mine, Kiruna is also one of the most modern. New mining and refining hardware, covered by more than 50 patents, and new methodologies have led to greater productivity and efficiency. Now they are made available to the world mining community through LKAB International, the consultant arm of the LKAB Group.

Several of these products have been presented in these pages, others will be featured in future issues. They include:

- rock reinforcement systems
- scheelite ore processing systems
- integrated underground transport systems
- sampling and grade determination systems

Drawing on the staff resources of the entire LKAB Group, the consulting services available through LKAB International are just as varied and comprehensive. They range from feasibility studies through turn-key mine and plant design to the rationalization of existing facilities.

One of the Biggest in size, we claim we're also one of the richest in ideas. So tell us about your problems and your plans. Our brains are yours for the picking.

LKAB INTERNATIONAL AB · Box 26044 S-100 41 STOCKHOLM SWEDEN

Interview with Dag Bjurström LKAB International

RMR: What projects is LKAB International involved in today and what are the plans for the future?

Dag Bjurström: During 1981 LKAB International carried out projects in 16 countries in 5 continents. Among these a few can be mentioned:

- In *Moncorvo* in northern *Portugal* Ferrominas E.P. will build an iron mine and a concentrator. The ore will be transported approximately 600 km down to Seixal where it will be pelletized and delivered to the steelworks, Siderurgia Nacional, for local use. LKAB International together with Scandiaconsult, a Swedish consulting firm, act as consultants to Ferrominas in this project.

- In northern *Tanzania* LKAB International is supplying managing staff for the only underground mine in the country, a gold mine. With this project, which is financed by the Swedish International Development Authority (SIDA), is also included certain training and educational parts.

- In *Mocambique* we are at present prospecting for iron and coal.

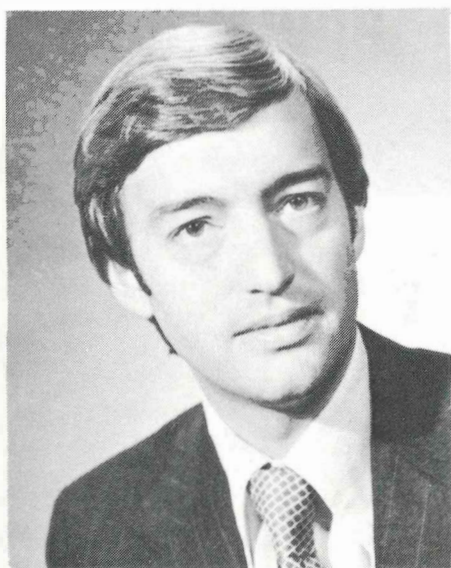
- At the request of *Hungary* we are carrying out concentration tests of iron ore.

- A project which is very interesting for the future concerns tungsten concentration in *Zimbabwe* where we are at present doing a feasibility study which is financed by SIDA.

RMR: Which are your main competitors in the world market? What are your relations to the other two big Swedish mining companies Boliden and Gränges International Mining?

Dag Bjurström: Our competitors could, in a simplified way, be divided into three categories:

- Very big contractors which are primarily delivering turn-key installations, but also occasionally undertake pure consulting jobs.



- A few mining companies with international consulting on their program.
- Small private firms very often started by a professor in the field.

There are many consulting companies specialized in prospecting and geology. Generally speaking the world market for pure mining consulting is relatively small and within this sector we are very competitive and have a comparatively big market share.

Our relations to the Swedish companies Gränges International Mining and Boliden are very fine and competition between us is very rare, on the contrary we often cooperate well.

RMR: How is LKAB International doing economically?

Dag Bjurström: The economic result of LKAB International has been positive during the last two years and in 1981 we came back in the black. The prospects for 1982 are also good.

RMR: How is LKAB International affected by the crisis of LKAB itself?

Dag Bjurström: As long as LKAB can keep a highly qualified technical staff LKAB International has a future as a consulting company. The other way around

the stimulus that the international projects give the staff in Norrbotten helps to keep this qualified staff.

The economic problems of the LKAB group do, however, limit the possibilities of LKAB International to enter into international projects as a joint owner.

RMR: Do you see a conflict between LKAB as an iron ore exporter and LKAB International opening up new iron mines in for example Portugal?

Dag Bjurström: Naturally we have to define our role in the international iron ore market precisely and correctly evaluate if there are any contradictions between selling iron ore and selling our know-how to other ore producers, which would in that case get advantages in the market. So far our strategic studies of this kind have not shown any examples where the two business lines of LKAB could have come into conflict.

RMR: In the new Swedish mineral policy proposed by the government recently, a closer cooperation is suggested between Swedish mining companies and mining equipment industry as well as with Swedish authorities such as SIDA. What is your opinion of these suggestions? Do you cooperate with SIDA?

Dag Bjurström: We find such a cooperation constructive. Sweden has old mining traditions and out of this has grown a prosperous mining equipment industry which is of big importance to Swedish exports.

If we could establish a cooperation between Swedish mining companies with process- and management experience, consultants, constructing companies, equipment suppliers and governmental bodies such as SGU and Swedfund, Sweden would have a unique possibility to undertake big international turn-key projects in the field of mining.¹

Swedish authorities could play a leading role especially in financing, which is often one of the decisive factors when

choosing contractors in international projects. LKAB International has in a number of projects had an exceptionally good cooperation with SIDA, among others in Mocambique, Tanzania and Nicaragua.

RMR: Does LKAB International take part in activities of the Swedish Mining Group?

Dag Bjurström: Yes, the aim of the Swedish Mining Group is that the companies in this branch of industry should support each other in export activities by cooperation and by mutual exchange of information.²

RMR: How do you take into account the political situation in a country where you are planning a project?

Dag Bjurström: When we discuss new projects a number of risks are analyzed. In this analysis we are also evaluating the political situation of the country and the political stability. In certain projects, especially those financed by development agencies such as SIDA, an assessment of the general political effects of the project and its spin-off effects is important.

Otherwise we follow Swedish trade-political practice when judging inquiries.

Notes:

¹ SGU, Swedish Geological Survey. Swedfund, a state authority supporting Swedish investment abroad.

² Swedish Mining Group, SMG, a cooperative body of mining consultants and equipment suppliers operating under the auspices of the Swedish Export Council. ■