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Local sourcing, a success story

A Namibian cement producer boosts development by realizing local and national resource and employment potential

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KFW DEG

This report is a result of DEG's evaluation work regarding development effectiveness. DEG's monitoring and evaluating team checks at regular intervals whether the transactions it co-finances help to achieve sustainable development successes and points to ways of making further improvements for DEG and its customers. To ensure the independence of evaluation results, external consultants support the work of the team.

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Steward Redqueen is a specialised consultancy that works across the globe advising organisations on impact and sustainability.

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EXECUTIVE SUMMARY

Ohorongo Cement provides a good example of DEG's contribution to the successful expansion of a German company (Schwenk Zement), while at the same time supporting the establishment of a new African company. It also exemplifies DEG's long-term partnership with clients, as DEG remains financing partner of Ohorongo, providing a portion of the corporate loan which was agreed in 2015 to replace the first project-based funding. From its state-of-the-art plant in northern Namibia, Ohorongo Cement has within four years established itself as a major producer and reliable supplier of high quality cement to Namibia. Ohorongo has considerable development effects, notably by providing direct and indirect jobs in a structurally weak region and by offering nationally produced high quality cement. It is also pioneering through the use of woodchips as fuel for its production process.

INTRODUCTION

Company background

Ohorongo Cement (PTY) Ltd. ("Ohorongo") is a cement manufacturing company located near Otavi in northern Namibia. It is the first and currently only cement producer in Namibia. All raw materials required for the production process are sourced in Namibia and the entire value chain takes place within the country. Ohorongo holds a significant market share in Namibia and also produces for export to clients in the southern Africa region.

Ohorongo was initiated and founded by Schwenk Zement KG ("Schwenk"). Schwenk is a family-owned business with 160 years of experience in cement production. It currently is one of the large cement producers in the German market, operating four plants. Schwenk also holds stakes in plants in Hungary and Bosnia-Herzegovina and is a leader in the use of alternative fuels.

Overview of the Ohorongo production plant

In 2008, Schwenk decided to invest in Namibia. The construction of the plant started in 2009 and was completed in a record period of less than two years, with the first cement produced in December 2010. The plant was developed and constructed by German company Polysius (today ThyssenKrupp Industrial Solutions) with which Schwenk has a long-standing relationship. A value of approximately 12% of the total investment was spent on infrastructure (buildings, roads, etc.), constructed by local, Namibian companies.

Local sourcing of limestone, shale and marl next to the Ohorongo plant

The location of the plant was chosen due to the deposits of limestone, shale and marl which are adjacent to the production site. Under the current production capacity, the limestone deposit yields sufficient raw material to produce cement in this factory for another for 300 years. The plant is directly connected with a railroad track, offering the opportunity to transport cement within Namibia but also to the port city Walvis Bay for export.

With the construction of the plant, Schwenk took a long-term view. It ensured that Best Available Technology was used, despite the fact that this increased construction cost. As a result, the Ohorongo plant is now considered one of the most modern cement plants in Africa. In addition, it has a pioneering programme to use alternative fuel for thermal energy in the production process.

THE INVESTMENT

Background

The total investment sum for development and erection of the plant was EUR 249.8 million, of which EUR 131.8 million was earmarked to be financed with long-term bank loans. The rest of the financing was arranged through shareholder equity and a subordinated construction facility loan by the shareholders to cover start-up costs and as contingency.

Schwenk initially was the sole shareholder, but sold part of the shares to international, but also regional and national development banks to give local shareholders the opportunity to participate. The shareholding structure now is the following: Schwenk (70%), the Industrial Development Cooperation (IDC, 16%), the Development Bank of Namibia (DBN, 9%) and the Development Bank of Southern Africa (DBSA, 5%).

While Schwenk also spoke to commercial banks for the long-term financing, it had a preference to acquire finance from development banks due to the political support they could provide as well as their experience in doing business in Africa. After a first meeting between the chairmen of DEG and Schwenk in 2007 there was a lengthy negotiation process, and it took almost two years until the loan agreement was completed and the first disbursement took place.

The deal

In 2009, DEG provided EUR 31.5 million financing in conjunction with EIB (EUR 82.3 million) and DBSA (EUR 18 million). The loan had a maturity of 10 years plus 3 years of capital grace. As part of the deal, Ohorongo was obliged to employ 50% of excess cash flow for mandatory prepayment of the long-term loans. The security package was solid and included mortgages/pledges on shares, land, buildings, the plant, all movable and non-movable assets, the mining licence as well as guarantees by the shareholder (Schwenk). DEG was mandated to coordinate the consortium of long-term lenders as facility agent.

The Ohorongo head office at the plant

At the end of 2013, Ohorongo repaid a substantial part of the initial project finance loan by EIB, DEG and DBSA to provide the basis for a corporate loan that would better suit the operating challenges compared to the previous rigid project loan funding. In 2015, DEG agreed on a new corporate loan with Ohorongo, replacing the first project finance loan. Through this loan, DEG provides EUR 30 million with a maturity of 7 years and remains a long-term lender to Ohorongo, alongside Namibian Banks.

Rationale for investment

DEG decided to finance the project as it matched several of DEG's strategic goals. Through its financing, DEG supported a medium-sized German company in its international expansion, while at the same time enabling the establishment of a new African company. With regard to Ohorongo's role in development, DEG's planning data listed the following development effects:

- *Create jobs*: 300 direct jobs and another 300 indirect jobs (realized were 2,700) in a structurally weak region of Namibia;
- *Import substitution*: conversion of Namibia from a cement importing into a cement exporting country;
- *Macro-economic effects*: being the largest industrial investment in Namibia outside the mining sector, positive effects are visible for the state budget and the trade balance;
- *Technology transfer*: transfer of Best Available Technology.

This case study shows that Ohorongo achieved or exceeded these planning data.

COMPANY PERFORMANCE

As a result of the state-of-the-art facilities and quality raw materials, Ohorongo was able to produce cement of consistently high quality. It also proved to be a reliable and rapid supplier. The excellent feedback from individual customers and industry associations helped to establish a good reputation for Ohorongo right from the start. A challenging start-up phase from a sales point of view, especially during the first two years, could be resolved. Missing export markets could be offset by higher sales within the Namibian market.

Domestic market

Prior to the establishment of Ohorongo, the Namibian cement market was mainly supplied by South African cement producers and imports from overseas (Asia). A large proportion of the demand is generated in the greater Windhoek area, Walvis Bay, Swakopmund and northern parts of the country. Given the distance from production plants, it was challenging for the producers in Asia and South Africa to deliver cement to these markets.

Ohorongo's cement quality and competitive prices forced the South African cement producers to gradually retreat from the Namibian market. However, other importers increasingly targeted the Namibian market, offering cement at lower prices. In the beginning, Ohorongo expected to be protected against imports through the Infant Industry Protection Act (IIP), a tariff agreement by the Namibian authorities to support domestic industries. However, although the IIP was confirmed for the Namibian Industry (that Ohorongo is part of) and an import duty was imposed, it has until now not been enforced due to a pending court case.

Three main types of cement are available in bags and bulk

A strong growth of the domestic market supported the economic development of Ohorongo, as the demand for cement increased by more than 60% from 2010 to 2014. The increase resulted from a stable political and economic climate (5% annual GDP growth since 2010), increased government spending on infrastructure (e.g. new port development near Walvis Bay), rapid growth of commercial real estate and major industrial investments (e.g. development of a new gold mine near Ohorongo's plant).

Export market

Ohorongo's business plan also relied on export markets, of which southern Angola was the main one. Other potential export markets include north-western Botswana, south-western Zambia and exports to markets further away through the port of Walvis Bay. Whereas the domestic market developed favourably, Ohorongo faced unanticipated severe difficulties in penetrating international markets.

Export is possible by road and railroad

This was particularly the case in Angola, where cement production almost tripled since Ohorongo became operational, predominantly as a result of a new production line of the China International Fund (CIF) cement plant in Luanda that became operational in 2014. Therefore, compared to the original business model, exports to Angola were much lower than planned.

While there is some export to other countries (Botswana, Zambia and the new airport on St. Helena), the situation in Angola has a significantly negative impact on Ohorongo's export business. Instead of an anticipated 55% export quote, Ohorongo now exports only around 10% of its cement.

Environmental and social aspects

Ohorongo is classified within DEG as B+ (environment), B+ (social) and G0 (gender) based on an external environmental and social impact assessment. An action plan has been agreed with the company. Ohorongo obtained ISO 9001:2008 (quality management system) and ISO 14001:2009 (environmental management system) certifications in October 2013. Different regular internal and external audits are performed to ensure adherence to the standards as well as to identify opportunities for improving the company systems and processes.

As the cement sector alone is responsible for 5% of worldwide carbon emissions resulting from human activity, it is crucial that plants are built as environmentally-friendly as possible. The Ohorongo plant is designed with several features of Best Available Technology:

- *Mills*: the use of roller mills instead of ball mills leads to a higher efficiency of the grinding process (up to 30% electricity savings compared to ball mills);
- *Precalciner*: air staging and meal splitting in the precalciner reduces mono-nitrogen oxides (NOx) emissions by up to 50% compared to traditional cement plants;
- *Cooling process*: the use of air quenching instead of water conditioning to cool down the waste gas saves up to 220m³ water per day;
- *Filters*: the most modern bag house filter technology minimizes dust emissions;
- *Clinker cooler:* a better efficiency of heat recovery is realized with the installation of a roller crusher between the recuperation and cooling zone.

Raw materials being burned to clinker

The use of a roller mill saves energy

Ohorongo applied for carbon credits (CERs) for the emission reductions achieved through the construction of the cement plant. Up to today, the applications were rejected following the argumentation that there had been no baseline for the improvement. This argument has been irritating to Ohorongo, as the company provided best available technology right from the start of operations, including the use of alternative fuels (see next section on woodchips).

Energy for Future Programme

Ohorongo is pioneering with a unique alternative fuel initiative. Under the name Energy for Future (EFF), the company is running a programme to use woodchips as alternative fuel for the kiln. Generally, the plant is equipped to replace up to 80% of coal, the original provider of thermal energy for the kiln. EFF is set up as a separate company and has raised attention in different parts of the world. A notable example was the invitation to present EFF at the Rio+20 conference held in Brazil in 2012.


The rotary kiln at the Ohorongo plant

As alternative fuel, woodchips from bushes of farms within an economically reasonable distance of the plant are used. This scheme offers shared value for Ohorongo, the environment and local farmers. For Ohorongo, it presents an alternative fuel for its kiln. At the same time, using woodchips is beneficial for the environment, as it replaces coal, which emits more CO2.

In addition, it increases the productivity of land for farmers. The woodchips are made from encroacher bushes. These bushes are a major problem in Namibian agriculture, as their presence leads to a drastic fall in the agricultural potential of the land. Debushing increases the productivity of rangeland by restoring grazing potential, increasing ground water availability and thereby improves beef production. There are strict rules to keep larger bushes/trees intact in order to provide natural protection for animals.



Coal and woodchip supplies at the Ohorongo plant. EFF enables Ohorongo to replace coal by woodchips

CHALLENGES

Ohorongo faces five main challenges in consolidating and expanding its success:

- *Retaining a leading position in the domestic market*: Ohorongo established itself as a reliable producer and supplier of high quality cement in Namibia. However, if importers are able to further lower their prices, this might pose a threat to the company. The upcoming court case on the Infant Industry Protection Act will be important in this regard;


Ohorongo's production process requires qualified workers

- *Expanding exports*: cement demand is currently at a high level in Namibia, but it is uncertain if it will remain at this level. Ohorongo's dependence on the Namibian market is risky and the company's current priority, therefore, is to expand its exports;

- *Retaining workforce*: due to the large mining industry and relatively low level of education in Namibia, there is a high demand for qualified technical workers. It is therefore challenging to retain the workforce in this competitive environment;

- *Power supply:* even if an emergency power supply was installed, a continuous and sufficient power supply at adequate prices is essential;

- *Optimising debt*: the long-term loan with DEG, EIB and DBSA was a heavy burden for Ohorongo. The relatively high margins and obligation to use excess cash flow for repayment restrained the further development of the company. The main shareholder therefore decided to repay a substantial part of the loan and replace the project finance loan by a corporate loan which better reflects Ohorongo's going-concern situation.

DEVELOPMENT IMPACT

Ohorongo has substantial positive development effects, with a particularly large impact on the Otavi region and additional benefits for Namibia and the wider southern Africa region.

Otavi region

The Otavi region is one of the structurally weak regions in Namibia, with a lack of employment opportunities and infrastructure. The establishment of Ohorongo has realised several important development effects:

- *Direct jobs*: Ohorongo directly created 331 permanent jobs, 286 of which are located at the plant and 45 at the headquarters in Windhoek (excluding the EFF programme);

- *Indirect jobs*: the company estimates that it supports around 2.700 additional jobs in third companies. Ohorongo has actively helped to establish several SMEs as suppliers, for example a pallet business, a personal protective equipment (PPE) manufacturer and a gypsum producer;

- *Income*: both the direct and indirect jobs have increased the purchasing power in the region, substantially improving the local economy;

Local businesses benefit from Ohorongo's presence

- *Technology transfer*: only new equipment was installed and together with the use of Best Available Technology at the cement plant, Ohorongo can be considered one of the reference projects within the whole Southern African region. In addition, there was an employee training programme at Ohorongo in which the company invested heavily, for instance by arranging internships for 60 workers at one of the four Schwenk plants in Germany during the construction phase of the plant. During operation, a well-established employee training programme remains in place;

- *Healthcare*: Ohorongo has an own doctor on-site and financially supports a hospital;

- *Ohorongo Otavi Community Trust*: the company established a trust fund with the purpose of contributing towards the wellbeing of the community of Otavi. Concrete examples of activities include a sports development programme, exchange of medical knowledge, training of teachers and support for people with disabilities;

- *Debushing*: the EFF assists local farmers in increasing the productivity of their land.

Namibia

The project is the largest industrial investment in Namibia outside the mining sector and realised substantial positive development effects for the country:

- *Macro-economic*: Ohorongo is estimated to contribute at least 1% to the Namibian GDP;
- *Import substitution*: the company changed Namibia's 100% reliance on cement imports to become an almost self-sufficient producer of cement;
- *Whole added value process within the country:* not only raw material production but also the whole manufacturing process takes place within Namibia, with all corresponding positive effects for the country.

DEG's CONTRIBUTION

Contribution to/during first investment

DEG had an important role in the establishment of Ohorongo, as it provided part of the funding required to construct the plant in a risky market just after the 2008 financial crisis. However, the long arrangement phase and the financing terms in the end proved to be rather strict and a heavy burden on the development of the company. Despite the securitisation of all its assets and the corporate guarantee by Schwenk, the consortium of lenders demanded a margin which Ohorongo considers too high. The company felt it was forced to accept the terms, as the construction contract with Polysius was already signed and it was a difficult lending climate (right after the collapse of Lehman Brothers in 2008). DEG did fulfil an important role as facility agent on behalf of the consortium of long-term lenders.

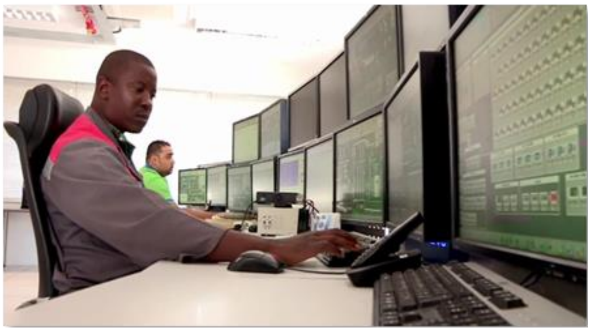
Second loan

DEG played a active role in facilitating the transition from a project loan to a corporate loan. These efforts, along with DEG's signalling function and ability to provide technical assistance led Ohorongo to conclude a portion of the new corporate loan with DEG in 2015. This means that DEG remains a provider of long-term finance to the company.

DEG's added value

DEG provided two important contributions to Ohorongo:

- *Network:* DEG was able to support through its connections and the long lasting relationship with Namibian institutions;
- *Technical assistance*: DEG currently finances up to 50% of the construction and establishment of a simulation and training centre. The training of supervisors and control room operators is a major challenge, as Ohorongo is currently the only cement producer in Namibia, and the skills and knowledge – also needed by other companies like mines – can only come from a combination of simulation and on-the-job training. The training programme helps the company tackle one of its most pressing challenges, while also transferring knowhow to local workers.



Control room operators at the Ohorongo plant

Less tangible, but also important to note is that Ohorongo's management sensed that DEG on several occasions put in efforts to soften the strict position that its co-lenders held on the terms and conditions of the project finance loan.