

Yara International is a leading global fertilizer company with sales of fertilizer to about 150 countries globally. As part of Yara International's overall upstream strategy, the company is exploring for suitable raw sources that can be developed and used as a source to Yara International's global fertilizer production and directly as finished product in its product portfolio.

The potash resource in the Danakil Depression (Ethiopia) has been known for many decades and is, from a resource perspective, considered to represent a potential high grade resource base for the production of Sulphate of Potash (SOP).

3.1 DEMAND FOR SOP

As is mentioned in *Chapter 2*, the proposed Project will produce a potash type known as Sulphate of Potash (SOP), which has certain agronomic advantages (such as a low chlorine concentration) that are necessary in the application to certain high value cash crops (mainly fruits and vegetables), which are sensitive to high levels of chlorine.

As a result, SOP is valued in the market as a premium potash product, and therefore achieves price premium over MOP (Muriate of Potash, KCl). However, this said, the extent that SOP can be used as a substitute for MOP will depend on future price differences between these two products. Yara, with its global marketing and distribution division, will be targeting these high value crop segments in Africa, Asia, South Europe and South America.

3.2 GLOBAL POTASH SUPPLY AND DEMAND BALANCES

Estimated global consumption of potash in 2013 was 56 million tons and more than 90% of this consumption was covered by MOP. In the same year, only 8% of global potash consumption was supplied by SOP (approximately 4.5 million tons).

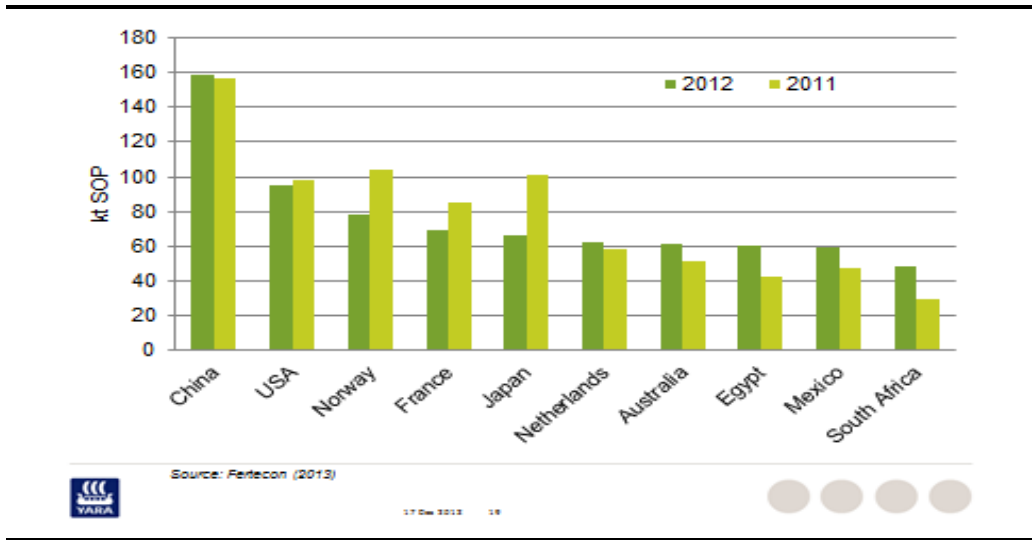
The reason for this is that the production of SOP is secondary to that of MOP – essentially SOP is produced by the Mannheim Process by dissolving MOP in sulphuric acid, a much more costly process. Furthermore, about 50% of global SOP production is located in China with low utilization rates due to inland climatic conditions and logistical costs hampering exports.

About 80% of global production and sales of SOP is managed by 4 companies. Fertecon (2013) (cited by Yara International 2013) is estimating a global SOP production of approximately 7 million tons by 2020, implying an annual

growth of approximately 7%. The estimated growth rate will depend on numerous factors, including the extent of substitution of MOP by SOP.

Approximately 40% of global SOP production is exported. China, in spite of its position as a main producer of SOP globally, is also the main importer of SOP. Furthermore, import volumes are relatively moderate and relatively evenly distributed between a large number of countries globally (refer to *Figure 3.1*), thus indicating that SOP is mainly used for high value segments of agriculture.

Figure 3.1 *Largest SOP Importing Countries Globally*



3.3 FINANCIAL FEASIBILITY OF THE PROPOSED PROJECT

A comprehensive financial feasibility evaluation of the proposed Project has not yet been completed ⁽¹⁾; however, preliminary economic evaluations carried out in the early stages of the Project have indicated that the proposed Project will be financially feasible. Feasibility will be refined as the project develops and will be concluded as part of the Definitive Feasibility Study (DFS), scheduled for completion in January 2015.

Key factors influencing Project feasibility include availability of sufficient quality water, verification of the solution mining technique proposed, processing plant design, the provision of electricity from the Ethiopian national grid, development of the product transport route, the finalisation of the Port of Tadjoura and establishment of a financially feasible and safe logistical chain to the Port of Tadjoura.

(1) **Please Note** - the financial feasibility evaluation for the proposed Project will be completed and lodged with the Ethiopian Ministry of Mine (MoM) on the same date as the Final ESIA

Ethiopia is the second most populated country in sub-Saharan Africa with a population of about 95 million in 2012. The economy has experienced a strong and broad based growth over the past decade, averaging close to 11% per year. The economic growth has been the basis for being on track in meeting the targets set out in the Millennium Development Goal (the Millennium Development Goal is discussed in more detail in *Chapter 5*). In line with Ethiopia meeting their economic and social objectives, the proposed Project will be a source of infrastructure development in the Danakil Depressions (*viz.* roads and power supply).

The proposed Project will be an important source of foreign currency inflows and taxes, and will create direct and indirect employment in regions such as the Afar National Regional State (ANRS). Also, large mining projects in the ANRS will require a wide range of competencies presently not available in the region. As such, should large mining projects in the region go ahead, they will act as a catalyst for development of the regions' education system and practical skills development.

As a result of the above potential long term benefits to the Ethiopian economy, the Ethiopian Federal Government has shown a strong interest and commitment to support the proposed Project. This is evident in that the government has commenced with the development and construction of roads in the Project Area, has improved the level of security in the greater area and has provided the investor companies operating in the Project Area with exemptions on certain taxes and duties including import duty taxes.