#### 1.2.4 Analysis of Price Policy of Nitrogen Fertilizer Industry

Given the extreme importance of urea for nitrogen fertilizer industry, even for the entire fertilizer industry, as the usage of urea accounts for half of total consumption of fertilizer and 45% of the consumption value, the government has over the years exercised government guiding policy for urea products and carried out strict supervision for the sake of protecting farmers' interests and preventing price hikes. Early 2008, NDRC announced the standard median price for the factory price of urea as 1500 yuan/ton. The difference between the factory price and the retail price should not be more than 7%. Later on, all provinces announced their local urea price policy, similar to that of the central government.

However, as the upper reach industries of urea have either been "marketized", i.e. coal, or is in the process of marketization, i.e. natural gas, the surging prices of coal, natural and other raw materials have resulted in the mounting production cost of urea. However, urea price is still subject to government control and cannot be readjusted in keeping with the changes of production cost and market demands, often leading to heavy losses of the industry. In 2008, due to the historical highs of coal price and severe deficiency of supply, urea cost exceeds its factory price. Given the pressure of costs, enterprises have to drastically raise the factory price. In 2008, the price control policy for urea is virtually ignored.

BOABC is of the view that, against the background of marketization of the macro-economy in general, internal ceiling price policy for the nitrogen fertilizer industry on behalf of the government not only obstruct the normal operation of enterprises, but also tend to result in revengeful price rally after the failure of the ceiling price, which is a deviation from the goal to protect farmers' interests. Given the limited validity of ceiling price over the years and the mounting subsidies for farm materials to farmers for years, the government is likely to liberalize the price to a certain extent so that the price automatically finds rational level in market competition. Meanwhile, the government will strengthen subsidies to ensure the steady growth of farmers' consuming capacity of fertilizer.

## 1.6.4 Analysis of Competitiveness of Urea Enterprises from Different Regions

The main determinant of competitiveness of urea enterprises from different regions

rests with raw material supply. Favorable price policy applies for natural gas used for the production of urea. Natural gas-based urea enterprises in the south have cost advantages compared with coal-based urea enterprises in the north. When all other variables are held constant, urea enterprises in the south save the cost by 100-200 yuan/ton.

Among coal-based urea enterprises, enterprises in Shanxi and Henan, where they have coal resources or have ready access to supply from nearby areas, have more secure material supply so that they are more competitive in costs. For the spring of 2008, the average production cost of coal-based urea was 1700 yuan/ton, whereas the average cost of enterprises in Shanxi was just 1500 yuan/ton. Enterprises under Jincheng Group of Shanxi can control the production cost under 1300 yuan/ton. Similarly, gas-based urea enterprises like Sichuan Meifeng and Zhonghai Chemicals, etc. have the production cost below 1200 yuan/ton, whereas the average production cost of gas-based enterprises without natural gas resources is as high as 1500 yuan/ton.

Given the strained supply of coal and natural gas, gas-based urea enterprises in the south are losing their edge against coal-based urea enterprises in the north. Out of coal-based urea, competitiveness of enterprises from coal-rich provinces like Shanxi, Henan and Inner Mongolia will be strengthened further. But most enterprises in Shandong and Jiangsu are not self-sufficient in production materials and their previous edges in export have been undermined by the government restriction policies for export, so their competitiveness has been weakened.

# 2.3.1.2 Impact on Phosphate Fertilizer Consumption from Subsidies on Agricultural Materials

Since its implementation in 2006, comprehensive direct subsidies for grain and cotton farming by the Chinese government have become the fastest growing and the most important agricultural subsidy items. In 2008, if we suppose that phosphate fertilizer consumption accounts for 20% of fertilizer consumption, the subsidy for buying phosphate fertilizer for one hectare of land is around 100 yuan, a year-on-year increase of 50 yuan/hectare.

But the price of phosphate fertilizer surges in 2008. Despite record high subsidies for agricultural materials, its support to the consumption of phosphate fertilizer has been

markedly weakened. If usage remains unchanged, the expenses on buying phosphate fertilizer throughout the year will also see a year-on-year increase of 50-70%. Therefore, expenses for phosphate fertilizer per hectare will reach around 600 yuan, up 220-250 yuan. Subsidies for agricultural materials fall far short of making up the shortfall. The reduction of the use of phosphate fertilizer was popular for fertilizer application in the spring ploughing of 2008.

2006-2008, subsidies for agricultural materials as a proportion of phosphate fertilizer buying expenses will go up from 8% to around 25%. To ensure the steady growth of grain output, the government is expected to further increase subsidies in the future. Therefore, subsidies for agricultural materials will play an ever important role for phosphate fertilizer consumption. It is expected that by 2010, subsidies for agricultural materials as a proportion of farmers' expenditure on phosphate fertilizer will exceed 50%.

#### 3.8.3 Evaluation of the Transport of Potassium Fertilizer in Qinghai

The in kind calculation shows that the annual outbound transport of potassium fertilizer from Qinghai is over 3.50 million tons, still growing at an annual rate of over 10%. But the limited transport capacity between Golmud and Xining of the Qinghai-Tibet railway line is a bottleneck restricting the transport.

Almost all potassium fertilizer enterprises in Qinghai concentrate in Qaidam area. According to the estimates of the Qinghai provincial government, by 2010, outbound cargo transport volume from Qaidam area will reach 23 to 25 million tons, whereas before the completion of the double track railway between Golmud and Xining in 2012, the cargo transport capacity is only 15 to 18 million tons.

Besides, since the completion of the second phase of Qinghai-Tibet railway project in July, 2006, railway transport capacity between Lhasa and Golmud has been around 20 million tons. By 2010, the transport capacity will be lifted to over 30 million tons. The mismatch of the southern part and the northern part of the Qinghai-Tibet railway line has led to the increase in the likelihood that outbound materials from Tibet may compete with those from Qinghai for cargo transport and add up to the difficulties for the outbound transport of potassium fertilizer made in Qinghai.

Due to strained transport capacity, the railway department can only guarantee the

outbound transport of potassium fertilizer made by Qinghai Salt Lake Potassium Fertilizer Co. All other potassium fertilizer enterprises do not have reliable railway transport services. Before the completion of the double track railway between Golmud and Xining in 2012 and the completion of the double track Lanzhou-Qinghai railway, the transport of potassium fertilizer out of Qinghai will be strained for a long period of time.

### 3.10 Feasibility Study for Potassium Fertilizer Enterprises to Set Overseas Production Bases

China's construction of overseas potassium fertilizer production bases mainly concentrates in Laos, Thailand, Uzbekistan and other potassium-rich neighboring countries. In Laos, a 50,000-ton quality MOP demonstration project is under construction. China, together with Uzbekistan and Russia will jointly construct the potassium fertilizer project in Kashkadarya region of Uzbekistan.

Favorable elements for the above-mentioned overseas production bases already built or to be built are as the following:

The average production cost of MOP is normally below 200 dollar/ton. The price edge is obvious. Transport cost from Southeast Asia and Central Asia to China is far below other potassium fertilizer producing regions like Russia, Canada and the Middle East. The Chinese government has agreements with governments of Laos, Thailand on the development of potassium resources. In Uzbekistan, the joint venture project of potassium fertilizer has the permission of a special Presidential decree, which provides the policy guarantee for the project.

However, overseas production bases of potassium fertilizer are under the severe hindrance of detrimental factors, including backward infrastructure, where you should fund the construction of railway lines, power supply, water supply and other facilities, pressure from environmental protection (e.g. the Laotian government demands that there should be no mineral slag residue on the ground in potassium mining. The Thai government delays the issuing of surveying license.), and recent global high inflation, etc. Progress has been slow. The bases cannot achieve stable production in keeping with targets and cannot have much impact on improving the domestic supply of potassium fertilizer. Due to monopoly of world suppliers and constraints of the international environment, the feasibility for China to set up production bases in potassium-rich Canada, Russia and the Middle East is low at this stage.

#### 4.6.4 Restructuring, Merger and Acquisition of NPK Industry

Under the heavy burden of mounting costs, NPK enterprises are divided quickly. Restructuring and M&A of the industry will feature the following:

1. Large enterprises are to acquire and merge with SMEs. Mounting material price on one hand and insufficient purchasing power of downstream dealers and farmers as well as popular practice of open account sales have amplified the weak point of insufficient funding for NPK SMEs, most of which are not sustainable, whereas large enterprises with the output capacity of over one million tons still have sound space for profits given their edges in scale and resources. Against the backdrop of excessive output capacity of NPK, M & A activities led by SinoFert, Stanley Group of Shandong, etc. will be ever more active.

2. With the integration of NPK enterprises with basic fertilizer enterprises, NPK enterprises will avert risks in material supply through the control of some nitrogen, phosphate or potassium fertilizer enterprises. Meanwhile, some large-scale basic fertilizer enterprises producing nitrogen, phosphate or potassium fertilizer, will have the full play of their own resource edges, to take control of or build anew NPK production facilities for larger market shares.

3. To alleviate transport pressure and to save cost, NPK enterprises in the North, like Stanley of Shandong, set up production bases in provinces where fertilizer is in short supply, such as Guangxi. This has become one of the main features of the internal reintegration of the industry.