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Feed Mills Competitive Assessment



Inma
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Program Assumptions

The entire “feed mills – vouchers” program has been built on some assumptions and one main expected result.

Main assumptions:

- A. Selected feed mills can become more efficient and reduce their costs if they were more sophisticated about their procurement and blending of poultry and fish feeds;
- B. Key to price reduction for poultry and fish feeds are international procurement of raw material and purchase in bulk;
- C. Pelletized feed (in the poultry sector) has a much better cost/benefit than mash/crumbs feed and should be enhanced through investment support for pelletizers equipment.

Main expected result:

- D. The program will lower the cost of feed, foster competition and lead to lower prices of feed for farmers in the market;

The following paper focuses on reviewing these assumptions and the expected impact of the program based on additional information, on grains imports in Iraq, extracted from studies of FAS and the Iraqi Poultry Producers Association (IPPA) and data provided by the shortlisted feed mills.¹

Executive Summary

The proposed program has the potential of generating cost savings in the range of \$70-\$80/MT cutting two layers of intermediation into the existing procurement value chain for poultry and fish feed. *Inma* Program support will allow selected feed mills to link directly with Syrian grain traders bypassing Iraqi wholesalers.

The expected cost savings are more likely to be passed on onto farmers in the poultry industry where competition is bigger than in fish sector. Prospected cost savings are also likely to improve credit conditions to farmers reducing their needs for working capital. Improved credit conditions and “vouchers” will allow the entry of new farmers into the industry providing the required working capital to restart a new cycle of production. A dramatic reduction of feed costs (higher than the prospected \$70-\$80/MT) will only be possible with Iraqi feed mills “pooling” resources to achieve critical mass and dealing directly with grain sellers as opposed to trader or wholesaler. Further logistic savings are currently hampered by the fact Basrah port (Umm Qasr) has high effective transaction cost in the range of \$55/MT as opposed to \$8-\$10/MT in other regional ports.

¹ *Inma* team has conducted discussions on the business plan with the companies: Vano Group (Poultry), Al Furat Feed Mills (Fish feed), Middle East (Fish feed) and The Iraqi Grandparents Company – IGPC (Poultry).

Premises and Background

Fish and poultry use different forms of feeds: Steamed or extruded Pellets for fish; mash, crumbs or pellets for poultry. (Crumb feed is currently not used in Iraq).

The fish and poultry sectors have different characteristics with regard to competition. The fish sector is characterized by high geographical concentration and little competition,² the sector operate basically in a regime of duopoly.³ The poultry sector is, on the contrary, very fragmented with little regional competition among industrial feed mills (each area dominated by only one player) but high competition moved to the industrial mills from in-farm hammer mills.

Most of the grains imported by feed mills in Iraq enter the country through Syria. In theory, Iraqi importers should be able to move grains inland to its storage facilities/feed mills for \$40-\$50/MT. In the real world, grains importers in Iraq quote an import transaction cost at \$125-\$150/MT with grain trading hands three times on average to reach the first Iraqi. At this stage the grain is either in the hands of an end user – or a grain wholesaler. If it is a grain wholesaler – he will be selling in truckload quantities and be marking up according to whatever the market can bear.⁴

The international procurement of feed ingredients in Iraq typically implies a multilayer supply chain consisting of an a) International Grain Company, b) Regional consolidator (usually from Jordan or Dubai), c) An Iraqi importer, d) One or more Iraqi local distributors or wholesalers.

Challenging the Assumptions and Expected Impact of the Program

- A. Selected feed mills can become more efficient and reduce their costs if they were more sophisticated about their procurement and blending of poultry and fish feeds;***

Fish

Main Iraqi feed mills show little inclination to procure internationally mainly for the lack of financial resources and low competitive pressure.

Pelletized fish feed manufactured in Iraq is competitive in price with imported (on a Crude Protein – CP - comparable value). Iraqi mills have a cost advantage on animal protein, foreign manufacturers on soy protein.

² An estimated 75% of the aquacultural ponds are concentrated in Babil.

³ Two companies, Al-Furat and Middle East basically control the market of fish feed and fingerlings.

⁴ Typically an Iraqi importer is buying only a partial shipment from a Syrian Grain merchant who has a consignment from the actual buyers (regional consolidator), the merchant buys from a commodity trading Company (Cargill i.e.).

Poultry

A reduced and fragmented demand usually limits the number of industrial feed mills operating in each area and fosters the proliferation of in-farm hammer mills. Typically competition among industrial mills is limited or non-existent since, most of the industrial mills in Iraq, enjoy an almost monopolistic position in their areas. The real competition in place is between industrial mills and local in-farm hammer mills. On average local hammer mills have a cost advantage over industrial feed mills in the range of \$50-\$60/MT for mash feed and up to \$100/MT crumbs/mash feed compared to pellets. Their competitive advantage is based on local procurement of grains in bulk, minimization of transportation costs and non-profit operation.⁵ Farmers using their own hammer mills also have the advantage of controlling the crude protein level (CP) of the feed, as opposed to the product purchased in the market with no guarantee of real CP value. Industrial feed mills tend to compete with hammer mills not on price (as a low cost producer) but on product differentiation (pellets with higher nutritional value and better feed conversion than mash and crumbs feed)⁶ and service (credit and technical assistance).

On the other hand, both industrial feed mills and hammer mills in Iraq are exposed to international competition (pellets) in years when commodities' prices in the international market are lower than in Iraq (as it happened since last quarter 2008). Based on Mahmoudiyah 2009 data, cost for pelletized feed delivered in Iraq (DDP) is on average \$50 cheaper when bought in Jordan.⁷ According to the IPPA (Iraqi, Poultry, Producers, Association) during 2009 the percentage of feed manufactured by producers at farm went down to 50% (vs. 2008) and many poultry producers start purchasing imported manufactured feed (especially pellets).

B. Key to price reduction for poultry and fish feeds are international procurement of raw material and purchase in bulk;

Fish

Major industrial mills in the market are not currently pursuing international procurement of the raw material mainly for lack of appropriate financial resources and low competitive pressure.

Poultry

Industrial feed mills lack financial strength and critical mass to operate a real international procurement (buying directly from Grain Trading companies at the source of the raw material). Realistically, in a typical procurement value chain characterized by three intermediations before the first Iraqi (International Grain trade Company selling to a regional consolidator – consolidator selling to a grain trader in Syria - Syrian trader selling to an Iraqi wholesaler) feed mills in Iraq dispose of financial resources only

⁵ Small hammer mills are integrated to the poultry house and function as a cost center providing feed at cost.

⁶ All the interviewed mills work on the assumption pelletized feed has a positive cost/benefit vs. crumb or mash.

⁷ With decreasing international price for commodities, and in particular grains, and a growing gap with prices of grains in Iraq, finished feed (pelletized) in neighboring country usually procure raw material more efficiently than in Iraq and have advantages in transportation cost, transporting pellets (less volume) rather than raw material in mash or crumbs.

enough for “bypassing” Iraqi wholesaler(s) and buy directly from a Syrian (or from any other bordering country) grain trader. This means an estimated cost savings in the range of \$30-\$40/MT, or up to \$70-\$80/MT in a long supply chain characterized by more than one wholesale trader in Iraq.

C. Pelletized feed (in the poultry sector) has a much better cost/benefit than mash/crums feed and should be enhanced through investment support for pelletizing equipment.

Fish

Interviewed fish feed company discard the possibility of producing mash or crumb feed. No data were provided on a cost benefit analysis of pellets vs. extruded feed. Data provided by Brazilian Embrapa and CODEVASF shows no technical or economic reason to prefer one vs. the other with the exception of transportation costs (pellets is cheaper) and the fact that some species seem to prefer floating feed (extruded) to pellets.

Poultry

The advantage of pelletized feed over mash or crumbs is a highly controversial issue with literature on both ways.

Vano Company is a strong advocator of the advantage of replacing mash and crumbs with pellet feed in the poultry sector based on cost/benefit analysis).

Data collected from leading poultry companies in Brazil ⁸ show nevertheless negative cost/benefit analysis in replacing mash with pellets (modal value \$25/MT benefit with additional costs for \$42/MT) but positive results in replacing crumbs with pellets. (\$79/MT benefit with \$42 for additional costs). ⁹

Conclusions

D. The program will lower the cost of feed, foster competition and lead to lower prices of feed for farmers in the market;

This scenario is more likely to occur in the poultry sectors rather than in fish:

Fish feed mills: Current high concentration in the industry coupled with low competition and low capitalization is not fostering the pursue of aggressive cost savings through international procurement. *Inma* intervention through the program is more likely to strengthen the current existing regime of duopoly. Possible cost savings derived from international procurement may not be necessarily passed on onto farmers but more

⁸ Study conducted and updated by Embrapa on behalf of Sadia and Perdigao Poultry Companies.

⁹ Embrapa agronomists periodically compare pellets, mash and crumb feed for poultry to measure on a cost/benefit analysis. Impact is measured comparing the feed savings occurred to reach the same weight at the end of the cycle and the additional cost of pelletizing as opposed the other forms of feed. Pellet higher nutritional value (leading to a chicken increase in weight of 75g/cycle) and better feed conversion with pellets (+2.5%) that are considered as benefits are offset by more than proportional increase in costs directly attributable to pelletization. As a matter of fact Brazilian producers, unlike USA, do not use pellets in the growing phase of the cycle (21 to 44 days). Higher nutritional value of pellets is also achieved only through an optimal pelletization process, something unlikely to happen in Iraq where pellets equipment is outdated and pellets manufacturing techniques quite basic and unsophisticated.

likely to be utilized as a source of capitalization by the feed mills or converted into more generous terms of payment for the pond farmers. The voucher scheme is likely to increase the number of pond in the market, recapitalizing pond farmers currently with idle ponds.

Poultry feed mills: Industrial feed mills betting on pelletization are in delicate competitive situation: in years with commodities' price higher in the international market than in Iraq they cannot compete in costs with in-farm hammer mills. In a scenario of commodities price lower in the international market than in Iraq they get attacked by finished imported product. In both scenarios industrial feed mills in Iraq have little influence on setting the price in the market and have no interest in unleashing a competition based on costs. Possible cost savings due to international procurement of the raw materials are nevertheless significant (\$30-\$40/MT up to \$70-\$80 in a long supply chain) and likely to be passed onto the poultry farmers to make domestically produced pellets more competitive with imported products. On the other hand the voucher scheme, as a stand-alone program, may achieve the important goal of widening the number of chicken farm operating in the country providing a valuable working capital through the feed (70% of the cost).

More in general a possible reduction of fish and poultry feed in Iraq involves more than buying in bulk and "bridging" one step (the wholesalers in Iraq) of the procurement value chain commonly in place. A dramatic impact will only happen with Iraqi firms "pooling" resources to achieve economies of scale and dealing directly with the seller as opposed to a "trader" or wholesaler. This requires the adoption of a different business model, maritime transportation huge storage capacity and significant financial strength to procure a vessel-cargo.

Current storage capacity of traders in Iraq usually do not exceed 1,000MT, feed mills currently store raw material for one month sale and have storage capacity (500MT to 1,000MT for the biggest feed mills).

Maritime transportation to Umm Qasr, just inland the Gulf could represent an alternative to Latakia in Syria. But currently bulk grains shipment carry a war risk premium of around \$25/MT and private entrepreneurs complain other effective transaction costs are as high as \$55-\$60/MT when they should not exceed \$8-\$11/MT. This solution would require a complete overhaul of the way of doing business in the Port of Umm Qasr that is still ranked by private entrepreneurs as unfriendly and not transparent.

The sheer size of a vessel-cargo (possibly 30,000MT net tonnage) is potentially a barrier in Iraq where feed mills are fragmented; undercapitalized and main commercial mills currently procure a quantity of soy meal in the range of 40MT/80MT per month.