

Gypsum Marketing in Pakistan – Its Problems and Prospectus

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ABSTRACT

Salinity and/or sodicity are the major problems being faced by our agriculture. Huge amount in billions was spent on different reclamation projects but reasonable results were never achieved. Engineers thought that installation of tubewells and digging of drains was the only solution to control salinity/sodicity, which no doubt lowered water table but severity of salt remained as such and in some cases, these tubewell waters further intensified the salinity problem. Keeping the importance and severity of the problem in view, Government of Pakistan supplied gypsum on subsidized rates but this facility was availed only by a limited and resourceful group of farmers. The gypsum product was supplied on very cheaper rates but was of poor quality resulting in adverse effects on soil. Subsidy was withdrawn at later stages which became an obstacle in the agricultural use of gypsum. Education part of gypsum efficiency other than reclamation was never explained in detail to the farmers. Soil problems of normal lands would have never increased if good quality products were recommended for marginal waters and soils. Mostly the growers had understanding to use gypsum only on seriously sick/deteriorated soils. In Pakistan, farmers mostly use it for reclaiming sodic and or saline-sodic soils. With the advancement in technology /information, now scientists call gypsum as a fertilizer also. Problems and prospects of gypsum use in agriculture of Pakistan have been discussed in the paper.

Key Words: Sodic soil; Gypsum; Marketing; quality

INTRODUCTION

Salinity and/or sodicity are the major problem of our soils. In spite of huge amount in billions spent on salinity Control and Reclamation Projects (SCARPS), Left Bank Outfall Drain (LBOD)/ Right Bank Outfall Drain (RBOD) projects satisfactory results were never achieved. Engineers/consultants had misconception about soil reclamations process. They thought that installation of tubewells and digging of drains was the solution to control salinity/sodicity, which no doubt lowered water table but severity of salt remained as such and in some cases, these tubewells further aggravated soil problems. Importance of soil scientists was never felt till the time that farmers started pulling/damaging SCARP tubewells in Sheikhpura District and there was big hue and cry in newspapers also. These tubewells instead of improving soils further deteriorated their lands. In these SCRAP projects, allocation of budget for gypsum was never thought due to lack of knowledge to understand phenomenon of soil reclamation. Keeping the importance and severity of the problem in view, Government of Pakistan decided to supply gypsum on subsidized rates and reasonable amount was allocated to provinces. This facility was availed only by a limited and resourceful group of farmers but subsistent and small farmers, who represent nearly 93% of the total farming community and cultivate about 61% of total farm area, were deprived of this facility. On the other hand, product supplied on very cheaper rates almost $\frac{1}{4}$ th of the total landed cost was of poor quality resulting in reverse effects on soil. However, subsidy was withdrawn at later stages and major organizations like Punjab Agricultural Development and Supplies Corporation (PAD & SC) and Sind Agricultural Supplies Organisation (SASO) were wrapped up and left

over stocks were handed over to Punjab Seed Corporation for disposal. Education part of gypsum efficiency other than reclamation was never explained in detail to the users. Soil problems of normal lands would have never increased if good quality products should have been recommended for marginal waters and soils. Mostly, the growers had understanding to use gypsum only on seriously sick/deteriorated soils. In Pakistan, farmers mostly use it as reclaimant for sodic and or saline-sodic soils. With the advancement in technology/information, now scientists call gypsum as a fertilizer also. This paper describes problems and prospectus of gypsum marketing in Pakistan.

DISCUSSION

Severity of soil problems pushed the government to make this useful product available through two major agencies like PAD & SC and SASO in Punjab and Sindh, respectively. PAD & SC started gypsum marketing in 1983 with full fledged setup, added by managing directors, regional managers, deputy regional managers and store inspectors with a huge team of staff members all over Punjab. A wide network of stores nearest to farmers mostly at Tehsil level was established. Information on its usefulness was provided by agricultural extensionists on earthen structures with an urdu slogan with the following meaning. **Use Gypsum, reclaim your salt-affected soils.** A bag of gypsum was sold at Rs. 7.00 although empty PP bag was purchased between Rs. 6.00 to 6.75 and a huge subsidy in millions was borne by Federal Government. Farmers were not informed about its landed cost at stores. However, on a whole, Provincial Government charged about 20% of the total price of this delivered product and the rest of the amount was borne by the Federal Government. Majority of

the gypsum was lifted from plants installed in Salt Range areas and product quality was with a question mark. As mentioned earlier, this facility was availed by resourceful segment of the farmers because supply permit was issued on soil analysis reports. So, poor or medium farmers did not have access to this procedure/system.

Details of the plants and their supply are given below:

<u>Location</u>	<u>No. of plants</u>
D.G Khan	3
Mianwali	4
Khewra	2
Kohat	5
Quaidabad (Salt range)	13
Jauharabad-(Salt range)	4
Total No. of plants:	31

From 1983 to 1997-98, Government of Punjab sold 5,59,800 MT of gypsum. This does not include SASO supplies made from Sindh area and their landed product cost would definitely be higher than Punjab. SASO had similar organizational setup as was in Sindh. Distribution of gypsum was made through main and small stores located throughout Sindh.

Price of gypsum in 1972 was Rs. 60.00 per ton, which was subsequently revised to Rs. 80.00 to 160.00 per ton and finally went up to Rs. 300.00 per ton when these Govt. organizations were at the last legs of winding up. However, one of the private fertilizer organizations like Fauji Fertilizer Company (FFC) also distributed 1200 tons @ Rs. 500.00 per ton in early eighties. They had to stop marketing because of low profitability and tuff marketing competition with government agencies.

MAJOR PROBLEMS IN GYPSUM MARKETING

1. Raw material cost. The price of raw material from source to plant site has tremendously increased due to inflation in labour, explosive and transport charges due to heavy increase in diesel, tractor and truck prices as compared to 1998-99.

2. Cost of plant and crushing. If we compute installation cost of plant with the price of crusher, cyndicator, transformer and electricity bills, they are almost five times more than in mid nineties. However, per ton labour cost has increased by 150%. Government of Punjab in their letter written to Federal government in 1997-98 requested for additional budgets because the landed price of gypsum had gone to around Rs. 35.25. This clearly indicated the share of subsidy borne by the state four years back.

3. Awareness of the product. Major emphasis on product quality and its functions was not given at a desired level especially to small and medium growers, which hindered

its marketing at large scales. Only limited number of growers could be benefited.

4. Credit facilities. Farmers, especially smaller ones did not have credit facilities to buy this product like those as in fertilizers and pesticides by Banks and Cooperative Societies. This segment of farmers have low purchasing power. They could not reclaim their soils due to paucity of funds and heavy doses of Gypsum needed for complete reclamation.

5. Private sector. Considering the growth in urea to more than 40 million bags, similar growth in gypsum could not occur due to lack of interest of private sector due to lack of marketing and profitability. Considering $\frac{1}{3}$ rd salt-affected area of total irrigated land, gypsum requirement would be around 30 million tons (@ 40 bags acre⁻¹) and as a fertilizer component its annual cost is @ 10-15 bags acre⁻¹ would come around 25 to 37 million tons annually.

6. Storage capacities. Insufficient storage and other capacities were the major hurdles in proper distribution. This factor discouraged the private sector because of high investments on storage and low rate of return, which still exist in the present situation of gypsum marketing.

7. Transportation charges. The ex-factory product prices some times become lower than the transportation charges because of high increase in diesel and trucks charges. This factor becomes a major constraint in gypsum distribution.

8. Packing cost. High rate of W.P.P. bags contributed to the higher price of the product.

9. Profitability. Low profitability in this business does not attract the dealer/investor.

10. Product quality. Due to low margin of profitability, mostly manufacturers prefer to produce low quality gypsum by adding more dolomite instead of calcium sulfate. The cost of later one is obviously higher than dolomite.

PROSPECTS

Agriculture is the only sustaining industry and majority of our population is dependent on it. Availability of land is becoming a limiting factor due to its shrinkage and serious damages by salinity/solidity. Population growth does not match with our production levels and mostly we are in crises like shortage of wheat, sugar, edible oil etc. and therefore, agriculture resources are to be seriously exploited for our prosperity and sustainability.

Present severe shortage of surface water has totally shattered our economy and scope of agriculture growth seems to be bleak. It is big challenge for the planners and agricultural scientists to provide guidelines to reclaim problematic soils and make use of marginal water through application of gypsum.

Soils should be given **PRIORITY NO. 1** as given by our neighboring country in this millennium. Gypsum has manifold functions in addition to reclamation part. It improves Water Use Efficiency and makes it possible to use

low quality of irrigation water. It enhances fertilizer use efficiency and manipulates the value of other inputs and increases the stability of soil organic matter. Due to its low price and high rate of return, it is always advisable to incorporate gypsum in our normal agriculture so that the prospects of gypsum usage are brightened in Pakistan.

SUGGESTIONS

1. Major emphases should be on quality of gypsum.
2. Extensionists and scientists should aggressively work on its awareness.

3. Govt. should take drastic action to curb adulteration.
4. Seminars, workshops may be arranged in areas where farmers should have maximum participation.
5. More educational material on use of gypsum should be printed.
6. Manufacturers with agriculture background and ethical approach should be encouraged.
7. Plants should only be installed in the areas where raw material above 70% purity exists.

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