

THE EFFECTS OF COARSE SUGAR ON THE PRODUCTION OF REFINED SUGAR: A CASE ANALYSIS FROM 1980-81 TO 1998-99

*Agha Riaz Hassan**
*Muhammad Ayoob Shaikhi***

The crop of sugarcane has gained considerable importance in Sindh since the last 42 years. It has now become one of the most important cash crops, not only for the growers of Sindh but also for other cane growing areas of Punjab, NWFP and Balochistan. There has been phenomenal increase in its acreage: 1957-58 sugarcane was planted over an area of 398608 hectares in our country, out of which 15378 hectares were grown in Hyderabad Region of Sindh province. Against those figures, in the year 1998-99 the area of sugarcane in Pakistan had touched a figure of 1155.1(000) hectares and Sindh's share out of it was as high as 250(000) hectares. The growers are now assured of floor price fixed by the Government and there are bright prospects for the further extension and development of his crop.⁽¹⁾

Record shows that sugarcane was being cultivated there even during the 16th century. However, this crop was not a major crop. Before the advent of Loyed Barrage in 1932, an area of 1259 hectares was being grown in Sindh. The area was mainly concentrated in Sukkur, Hyderabad and Karachi, due to better and assured irrigational facilities. In Sindh there were no indigenous species of cane but was mostly of chewing type, the great bulk of which was used for chewing purposes and only a small fraction was converted into some what inferior type of coarse Sugar or Gur.⁽²⁾

The varieties that were commonly grown were Lahori Pondia; Sukkur white and Hyderabad Waxy Red. The first introduction of improved combatore strains was done in 1928. The

* Associate Professor, Department of Commerce, University of Sindh, Jamshoro.

** Associate Professor, Department of Commerce, University of Sindh, Jamshoro.

seed of CO-213 was obtained from Shahjahanpur (U.P., India) and was tried at Sakrand. This variety was found to grow very vigorously and stand in a wide range of conditions.

In the year 1932, more varieties of sugarcane, the coimbatore canes were of 200 and 300 series from these 32 varieties COF270 was selected as it was found to be a heavy yielder giving an average at 600 mounds per acre.⁽³⁾

In the year 1932 the Sukkur Barrage was formally opened and with its opening the colonization of the Sukkur Barrage lands started. In the cropping pattern of the Sukkur Barrage sugarcane was not included. The main cash crop was kept cotton. But in the colonization of the barrage land many settlers came from the then province of Punjab. At that time CO-312 was the main improved variety of sugarcane in Punjab, so, the settlers brought this strain from Punjab and grew it on their lands. CO-312 had not got much yield potential. Although the department had selected CO-270 as the best variety.

As a matter of fact till 1960 sugarcane was considered to be an unimportant crop and its know-how was very little known to the local people. Sindh used to import the bulk of its requirement of coarse sugar or gur from U.P., Peshawar and Punjab. It is a recorded fact that in 1936 in Nawabshah district a land lord of Sinjhor Mr. Satiram Das Raliram made some coarse sugar or Gur which he could not dispose off even in 1938 due to its being of inferior quality. For such reasons the department of Agriculture launched a coarse sugar or Gur making demonstration scheme in 1939. Coarse sugar or Gur experts were procured from Billari U.P., India and were sent on tour to the important cane growing centers for teaching coarse sugar or Gur making.⁽⁴⁾

While sugar industry began in subcontinent in 1784, but in areas now comprising Pakistan it started as late as 1930 in Sindh a small sugar mill under the name of Pioneer Sindh Sugar mill and

the second sugar mill established in Punjab, the Rahwali sugar mills, district Gujranwala, started in 1936, and third sugar mill in the Peshawar valley, the Frontier sugar mills was established in 1938 at Takht Bhai in Mardan district. In the year 1946 Sindh pioneer sugar mill was closed. At the time of partition there were only two sugar mills in the area which now includes in Pakistan. The foundations for the development of a domestic sugar industry were laid in the 1950s with the establishment of four sugar mills in this way number of sugar mills increased and reached to 67 in the year 1994-95.⁽⁵⁾

The Sugar Factories Control Act (1950) and the accompanying Sugar Factories Control Rules regulate the marketing of cane by growers to mills. According to Act of (1950), mills were allocated zones from where they were required to procure a specified proportion of their cane requirements. This proportion varied among provinces. It was 80% in the Punjab, 65% in the NWFP, and 100% in the Sindh. In turn growers in mill zones were obliged to supply sugar mills a similar proportion of their cane production. Utilization of cane for other purposes was restricted by regulations such as section 144 which prohibited growers from making coarse sugar or Gur beyond a certain minimum to meet their domestic needs. So, zones for each mill were fixed annually by provincial cane commissioners based upon their estimate of cane requirements. Mills were required to keep a growers register and make an estimate of the cane production of each grower.⁽⁶⁾

The cabinet in its meeting held on 20th May 1987, on the basis of summary submitted by the Ministry of Food, Agriculture and Cooperatives Islamabad on the subject Sugar Policy for 1987-88, has taken the decisions that the zoning system should be modified on the following lines:

- a. The present restriction on coarse sugar or Gur making in the mills zones may be removed;

- b. The restriction on sugar cane growers to supply sugar cane within their zone be removed and the growers be left free to sell sugar cane to any mill;
- c. The mills and growers should be encouraged to enter into voluntary contract under which the growers supply sugarcane to mills in return for a package of facilities like credit, seed and fertilizers.

According to this policy that the adoption of improved technology for Gur making and for standardization of the Gur making machinery is important and essential.⁽⁷⁾

It is clear from the following table-1 that production of coarse sugar or Gur increased more after 1987-88, but when number of mills increased in Sindh and Punjab then production of coarse sugar or Gur declined year after year in Punjab. The data pertaining to the production of coarse sugar or Gur in Pakistan during the period from 1980-81 to 1998-99.

Table-1
Production of Coarse Sugar or Gur in Pakistan
(000 tons)

Year	Punjab	Sindh	NWFP	Pakistan	% (+) % (-)
1980-81	539	71	223	1833	-
1981-82	1451	11	207	1669	-8.9
1982-83	1257	14	236	1507	-9.70
1983-84	1252	62	248	1562	3.64
1984-85	1012	24	229	1265	-19.01
1985-86	979	-	267	1246	-1.50
1986-87	930	-	271	1201	-3.61
1987-88	695	-	203	898	-25.22
1988-89	828	-	220	1048	+ 16.7
1989-90	673	5	288	966	-7.82
1990-91	460	45	375	880	-8.90
1991-92	530	14	279	823	-6.47
1992-93	361	-	265	626	-23.93
1993-94	76	7	272	355	-43.29

1994-95	447	84	292	823	131.83
1995-96	586	134	307	1027	24.78
1996-97	432	83	337	852	-17.03
1997-98	139	-	291	430	-49.53
1998-99	230	-	219	449	4.41
Total	13877	554	5029	19460	
Av:	730.368	46.166	264.68	1024.21	
Share of each Province	71.31	2.846	25.84	100	

Source: Agricultural Statistic's of Pakistan 1998-99, Government of Pakistan, Ministry of Food, Agriculture and Livestock Economic Wing, Islamabad, Pp.254-255.

It is evident from the above table that average coarse sugar or Gur production in Punjab Province ranks at the top when compared to Sindh and NWFP. It was averagely 730.368(000) tons in Punjab province, where it was 44.166(000) tons in Sindh, and 264.68(000) tons in NWFP during the year 1980-81 to 1998-99.

It is also clear from the above data that Pakistan's total coarse sugar or Gur production was 1833 (000) tons in 1980-81, which reduced and reached to 449 (000) tons in 1998-99. Thus there was an overall decline of 75.50 percent in 1998-99 when compared to 1980-81. It is also evident from the above table that in the Sindh province coarse sugar or Gur was produced only in 12 years and maximum was produced in 1995-96 and minimum was produced in the year 1989-90.

Out of the total production of coarse sugar or Gur in Pakistan, Punjab shared 71.31 percent, Sindh 2.846 percent, NWFP 25.87 percent. The analysis of the data given in the above table-1 also reveals that production of coarse sugar or Gur in Punjab decreased by 85.05 percent and in NWFP production of coarse sugar or Gur declined by 1.79 percent in 1998-99 when compared with production of coarse sugar or Gur during 1981, The standard deviation occurs 408.66 during the above study period.

The diversion of huge quantities of cane in Punjab and NWFP towards coarse sugar or Gur production has also been noted. This is an inherently inefficient process which nearly half the extractable sucrose in the cane cannot be recovered due to the crude Gur manufacture technology utilized in the villages. This results in a huge national loss. Also, while the government imposes an excise duty on the production of refined sugar in the mills, the Gur makers pay no taxes/duties. The cane diverted to Gur manufacture is lost to the sugar mills, resulting in lower production of sugar and, in turn lower revenues for the government.

The veracity of the above statement is amply borne out by a study on Gur manufacturing in villages in Pakistan and Bangladesh carried out by Dr. Ron Brooks and Geoff Bentley of Davy Agro, Melbourne, Australia, and presented at the 1986 convention of Pakistan Society of Sugar Technologist.

The study concluded that only about half the available sugar in the cane are extracted, the remaining half are left in the fiber, which is burnt to heat and evaporate the juice to make coarse sugar or Gur. Compare this low extraction with an average of 93% extraction in the sugar mills. In the three years preceding the study, some 10 million tons of cane was processed into Gur each year in Pakistan, which if processed in a sugar factory, could have yielded nearly 1.1 million tons of refined sugar.

It is evident from the utilization of sugarcane for sugar that even if 45% cane is diverted from coarse sugar or Gur manufacture to the sugar factories, the gap between current production and demand for refined sugar could be easily bridged, the wastage of immense amount of foreign exchange avoided, and government revenues hugely augmented due to excise duty leviable on sugar (but from which Gur is exempted) in addition it would allow better utilization of the installed capacity of the sugar

mills in the country. Currently 2.9 million tons, i.e. 50 percent of the installed capacity of above 5 million tons per annum.

It is also noted that the growers are using their crop for making Gur due to attractive returns. According to informed sources, coarse sugar or Gur is also being smuggled in bulk quantity to Afghanistan and some Central Asian states, as a large number of population in these states relish the taste of Gur, especially in tea and other kinds of prepared food.⁽⁸⁾

CONCLUSIONS

In the light of above study it is concluded that the production of coarse sugar or Gur declined year after year. The people of Sindh are now using more sugar at the place of coarse sugar or Gur. Gur is used in rare cases in rural areas of Sindh province, but in urban areas of Sindh there is very less use of coarse sugar or Gur, which is brought from NWFP and Punjab. It is also clear from the above table that the production of Gur is in fluctuated trend and there is more use of coarse sugar or Gur. The NWFP utilized 75% of sugarcane for coarse sugar or Gur making and Punjab now utilizing only 15% of the sugarcane for Gur making due to big number of sugar mills. Sindh is utilizing 10% of sugarcane for Gur making.

Thus finally it is concluded that if Government wants to have double production of sugar and double excise duty and provide more job opportunities to the peoples of the country than government urgently needs to re-think its priorities to ban the manufacture of Gur and the import of sugar in this way 2 million tons of sugar may be got surplus and government can earn huge amount of foreign exchange.

During the survey of the literature it is noted that the people of Sindh have changed their habits and now they like only sugar at the place of Gur. Even poor people take their breakfast with a cup of tea. And they use sugar in place of Gur. Coarse sugar or Gur is

now consumed by very poor people living in hilly areas, and some people use it in their traditional dishes. It is also noted from the above study that each mill was assigned a zone from which it was required to procure a specified percentage of its cane requirement this percentage varied by provinces. It was 80% in the Punjab, 65% in the NWFP and 100% in the Sindh province. The use of cane for Gur was prohibited in mill zones except for small amounts to meet immediate house hold needs. But after 1987-88 the growers were free to sell their sugarcane to any mill, or they make Gur from their sugarcane so after 1987-88, the sugarcane supply system has become irregular. From that time it has become unruly, irrational haywire and causing the rise in the cost of transport.

REFERENCE

1. *Agricultural Statistics of Pakistan (1998-99)*, Government of Pakistan, Ministry of Food, Agriculture and Livestock Economic Wing, Islamabad, Pp.27-28.
2. Rajper, G. K. "*Provincial Sugarcane Seminar*", Hyderabad, 22nd February (1969), issued by Directorate of Agriculture, Hyderabad Region, Hyderabad, Pp.1-3.
3. Khan, Mustafa Ahmed (1969), "*History and Development of Sugarcane Cultivation*", *Agronomist*, Agricultural Research Institute, Tando Jam.
4. *Ibid.*, Pp.7-8.
5. Government of Pakistan, *Agricultural Statistics of Pakistan (1995-96)* and various other issues, Ministry of Food, Agriculture and Live Stock Economic Wing, Islamabad, Pp.256-57.
6. Lodhi, Kamil (1988) "*The Pakistan Sugar Industry: An Economic and Policy Analysis*", Special Report Series No.8, Islamabad, Pp.99-100.
7. Information collected from the Chairman, Pakistan Sugar Mills Association, 329-Alfalah Building 3rd Floor, Shahrah-e-Quaid-i-Azam, Lahore (1990).
8. *Agricultural Statistics of Pakistan (1998-99)*, Government of Pakistan, Ministry of food, Agriculture and Live Stock Economic Wing, Islamabad, Pp.254-255.