

IMPACT OF FLOOD ON SUGARCANE INDUSTRY OF PAKISTAN

SYED MURTAZAIN RAZA ZAIDI

DEPUTY MANAGER, HABIB METROPOLITAN BANK LIMITED, CE OFFICE, HEAD OFFICE, I. I. CHUNDRIGAR ROAD, KARACHI OFFICE

DR. AHMED SAEED,

RESEARCH METHODOLOGY, HAMDARD UNIVERSITY, MAIN CAMPUS, KARACHI, PAKISTAN.

SYED MUHAMMAD SHAHID

MANAGER FINANCE, AL-NOOR GROUP OF INDUSTRIES, 96-A SINDH MUSLIM SOCIETY HOME ADDRESS: R-84, SECTOR 7/D-1, SHADMAN TOWN, NORTH KARACHI.

MR. NAJABAT ALI

RESEARCH STUDENT, HAMDARD UNIVERSITY, MAIN CAMPUS, KARACHI, PAKISTAN.

**Hamdard Institute of Education and Social Sciences
HAMDARD UNIVERSITY**

Abstract

During the current season 2010-11 most of the Sugar Mills of the Sindh started crushing late October-2010 and up to 31st December, 2010 Crushed 2,165,625 metric tons of sugarcane as against 2,691,769 metric tons crushed in the same period last year. The sugar produced was 167,159 metric tons as against 224,626 metric tons last year and same situation in other provinces. A major issue pertains to sugarcane crushed is more or less the same but production of sugar decreased due to reduction in the recovery percentage. During the current period recovery percentage was 7.72 as against 8.34 % last year. The main cause of reduction in the recovery rate was the excess water due to devastating flood in the country and rain. As a result excessive water was absorbed by the sugarcane crop which reduced the sugar contents in the cane and increased in the weight of the same. This result in dual loss to the mills in the shape of more payments to the growers and less recovery.

JEL CLASSIFICATION: D24, O16, L11

KEYWORDS: CAPACITY, ECONOMIC DEVELOPMENT, PRODUCTION

1. INTRODUCTION

The Economic development of Sindh largely depends on the research and development for improvement and growth of agronomy portion. The province contributes ominously towards overall national agriculture production in major crops: Nationwide production of 32 percent in Rice, 24 percent in Sugarcane, 12 percent in Cotton and 21percent in Wheat Production. Our country is the fifth leading state in the world in terms of area under sugarcane cultivation, eleventh by production and sixtieth in yield. Sugarcane is the most important primary raw material for the production of sugar. Since independence, the area under cane cultivation has increased more rapidly as compared to any other major crop. It is one of the major crops in Pakistan, cultivated over an area of around one million hectares. Sugar Industry of Pakistan has sustained profoundly well-known by the business community but during the last twenty to thirty years formation of mills by people enjoying political clout and supremacy, the growers were forced to sell their produce to these mills.

All the mills were established in prime sugarcane growing areas where the operating mills had spent resources to educate farmers in achieving healthier yields and had arranged short-term credits for the farmers for the procurement of seed fertilizer and agricultural implements.

The increase in number of sugar mills during mid of 1980's, in such unplanned manner resulting shortfalls in sugarcane availability and underutilization of capacity of sugar mills, coupled with regular enhancement in its support price fixed by the government have been factors responsible for the increase in cost of production of sugar. Since the nature of production is cyclical and consumption remains throughout the year, the financial cost incurred on carrying for over six months squeezes profit margins or increases amassed fatalities of the mills. Sugarcane produces abundant and valuable byproducts Molasses by which produce Ethyl alcohol used by pharmaceutical industry and as a fuel, Bagasse used for paper and board manufacturing and also burning sugar mills furnaces, and press mud used as a rich source of organic matter and nutrients for crop production.

Low yield and production has become stagnant for the last two decades due to scarce resources and other unavoidable factors. Main reason for lower cane yield is lack of high potential varieties, limited irrigation resources and technology. Self-sufficiency in sugar is a goal, but one that to date

has proven illusive. Sugarcane production could never be improved until and unless promising varieties and technologies are adopted on large scale.

Main purpose of this paper is to study the effects of flood in Pakistan of flood on crops and cultivating areas affected during 2010-11. Specifically noticeable purpose of this paper is to find out the flood and rain impact on crops in the country; Main element pertains to the impact of flood in various districts of provinces having causes to sugarcane crop mostly damaged and affect due to excessive water increased the weight of the cane comparatively it is not reduced the sugar contents in the cane. The major cause of reduction in the recovery rate was the excess water due to devastating flood in the country and rain. As a result excessive water was absorbed by the sugarcane crop which reduced the sugar contents in the cane and increased in the weight of the same. A major issue pertains to sugarcane crushed is more or less the same but production of sugar decreased due to reduction in the recovery percentage.

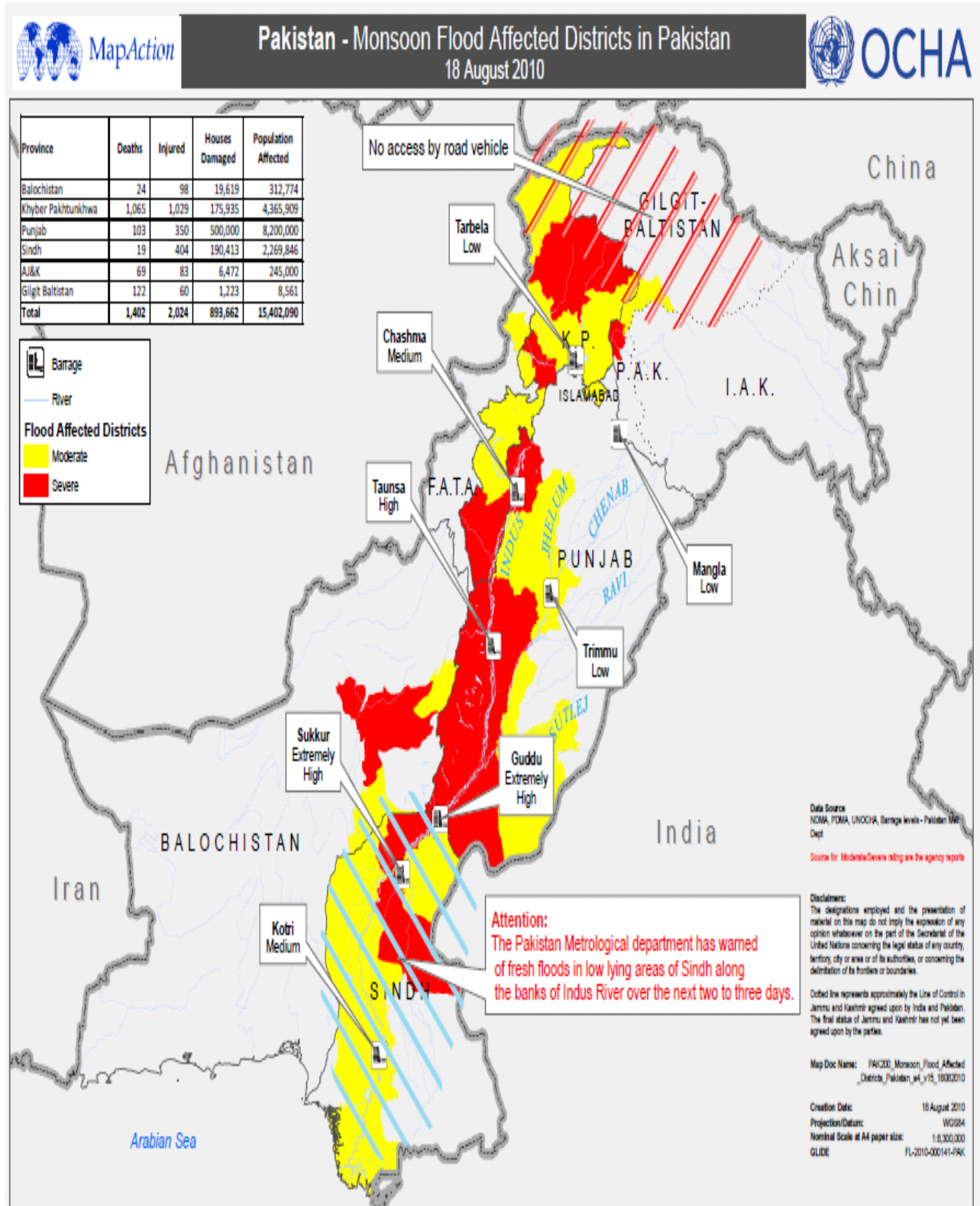
PAKISTAN FLOOD IMPACT

The monsoon persuaded flooding in Pakistan constitutes an embryonic crisis on an unprecedented scale. The impact of flood in flatter areas, such as the Punjab contributed the greatest to national economy of Pakistan and is a central fertile rich agricultural region and the Sindh districts tropical edge northern and higher elevated region, riverine flooding has been a slower inception but economically very destructive phenomenon affecting densely populated and cultivated areas, with one of the most highly irrigated agricultural landscapes in the world.

Punjab Province also had the highest total number of people affected by floods. In lower Sindh Province, by contrast, the slow onset riverine flooding phenomenon may have longer lasting effects: the flatland and delta topography will cause soils to be saturated and unusable for agriculture for a longer period than in the Punjab. Agricultural production was heavily impacted with losses in standing crops, land, livestock and agricultural inputs and assets. The destruction of crop land underlies these expected income losses.

Almost 60 percent of households did cultivate land before the onset of the flood. The mean area planted was 9 acres (median was 5 acres). The area planted was generally higher in Sindh however the average is skewed by a number of very large land holdings in the sample. Reported crop loss was highest in Sindh where more than 95 percent of people's standing crop was destroyed. The quicker drainage of the water in the more mountainous areas resulted in less crop losses (45% in

KPK). Between 60 and 88 percent of the farming households reported losses of more than 50 percent of their major crops: rice, vegetables, cotton, sugar and fodder. These households were mostly located in Punjab and Sindh.



Source: http://www.ndma.gov.pk/Documents/flood_2010/map.pdf

Sugar Production & Recovery % 2008-09
SINDH

Sr. No.	Name of District and Sugar Mills	No. of Working Days	Sugarcane Crushed Tons	Sugar Production Tons	Recovery %	Molasses Production Tons	Recovery %
1	Ansari	104	491,346	3,868	7.88	24,450	4.98
2	Army Welfare	94	267,162	26,814	10.06	13,046	4.88
3	Bawany	70	134,539	12,940	9.61	6,555	4.87
4	Dewan Khoski	72	140,980	15,080	10.70	6,765	4.80
5	Mirza	89	176,738	18,000	10.18	8,198	4.63
6	Pangrio	86	123,413	11,950	9.66	5,575	4.52
7	New Dadu	84	147,039	11,825	8.06	7,131	4.85
8	Ghotki	94	552,646	62,484	11.30	22,250	4.00
9	Bachani	Under Installation					
10	Faran	123	685,778	63,473	9.26	33,984	4.96
11	Matari	111	433,714	42,108	9.71	21,421	4.94
12	Mehran	113	538,930	55,678	10.33	24,532	4.55
13	Seri	96	169,185	14,487	8.51	10,158	5.96
14	S. Abadgar's	98	267,402	25,000	9.31	14,800	5.53
15	T.M.K.	84	121,500	10,537	8.60	7,071	5.81
16	Khairpur	119	262,459	22,578	8.06	11,464	4.36
17	Ranipur	124	308,707	27,415	8.88	13,696	4.44
18	Naudero	94	121,111	12,211	10.08	5,180	4.28
19	Al-Abbas	115	513,887	52,850	10.28	26,390	5.13
20	Digri	87	384,316	38,484	10.01	17,850	4.65
21	Mirpurkhas	114	435,690	46,235	10.61	22,508	5.16
22	Tharparkar	138	244,241	22,403	9.20	12,450	5.10
23	Najma	75	67,769	5,569	8.48	3,495	5.16
24	Al-Noor	106	736,420	66,495	9.03	35,528	4.83
25	Habib	120	780,578	77,051	9.87	35,368	4.53
26	Sakrand	134	330,553	27,555	8.33	15,850	5.38
27	Sanghar	132	597,111	57,308	9.58	30,279	5.25
28	Kiran	Not Operated					
29	Al-Asif	85	191,744	19,672	10.25	9,550	4.98
30	Dewan	80	272,256	27,019	9.92	13,204	4.85
31	Larr	68	169,223	16,823	9.97	97,652	5.78
32	Shahmurad	83	482,166	47,690	9.85	24,560	5.09
33	Thatta	Not Operated					
	Total	--	1,115,389	111,204	10.00	57,079	5.17
	Average	79	278,847	27,801	10.00	14,270	5.17

G. TOTAL 2008-09
AVERAGES
2007-2008 SEASON

--	101,489,603	976,420	9.57	493,079	4.78
105	1,014,860	97,642	9.57	49,308	4.78
125	16,737,003	1,561,378	9.33	889,566	5.31

SUMMARY

	2008-09	2007-08
AVERAGE WORKING DAYS	125	125
NO. OF OPERATING MILLS	30	29
CANE CRUSHED (TONS)	10,148,603	16,737,003
SUGAR PRODUCTION (TON)	976,420	1,561,378
RECOVERY %	9.62	9.33
RAW SUGAR PRODUCTION	-	-
TOTAL SUGAR CANE + RAW	976,420	1,561,378
MOLASSES PRODUCTION	493,079	889,566
RECOVERY %	4.78	5.31

Source : PSMA Annual Report 2009

Sugar Production & Recovery % 2008-09

PUNJAB

Sr. No.	Name of Sugar Mills	No. of Days Operated	Sugarcane Crushed Tons	Cane Sugar Production Tons	Recovery %	Molasses Production Tons	Recovery %
1	ABDULLAH	-	184,994	14,828	8.06	10,110	5.46
2	ABDULLAH (YOUSAF)	-	183,103	15,875	8.66	9,925	5.42
3	ADAM	103	256,030	24,835	9.47	12,060	4.65
4	ASHRAF	117	440,358	42,502	9.65	19,861	4.51
5	BABAFARID	93	219,035	17,306	7.91	10,885	4.98
6	BROTHERS	109	409,378	36,277	8.88	20,530	5.02
7	CHANAR	111	468,292	42,818	9.14	22,556	4.82
8	CHAUDHRY	112	413,261	36,162	8.75	18,382	4.44
9	CHISTIA	93	280,164	24,419	8.70	13,616	4.86
10	COLONY (PHALIA)	105	305,445	25,687	8.41	14,270	4.67
11	COLONY (PUNJAB)	130	382,585	39,049	10.22	1,709	4.47
12	CRESCENT	106	182,317	14,404	7.90	8,329	4.57
13	ETIHAD	108	539,555	57,650	10.69	18,646	3.46
14	FATIMA	114	732,309	68,014	9.29	34,335	4.69
15	PECTO	99	411,435	32,940	8.00	17,993	4.37
16	G. SAMMUNDRI	93	124,140	9,051	7.50	6,828	5.50
17	HAMZA	108	1,665,064	170,351	10.23	64,295	3.87
18	HAQBAHU	117	295,145	28,190	9.55	13,116	4.44
19	H. WAQAS	-	162,502	12,270	7.60	8,800	5.47
20	HUDA (FAUJI)	95	194,641	16,525	8.47	8,972	4.6
21	HUNZA	102	566,664	49,695	8.75	27,500	4.84
22	HUSEIN	108	428,961	36,919	8.60	20,215	4.71
23	INDUS	95	498,386	52,631	10.56	19,006	3.81
24	ITTEFAQ	107	366,514	31,962	8.72	17,813	4.86
25	J.D. W-1	107	1,488,463	165,968	11.15	62,002	4.16
26	KAMALIA	104	975,579	101,356	10.39	43,584	4.47
27	KASHMIR	108	450,751	42,307	9.37	21,267	4.71
28	KOHINOOR	117	318,959	29,163	9.14	15,742	4.93
29	LAYYAH	111	803,900	75,273	9.36	33,591	4.81
30	MADINA	105	453,039	41,961	9.24	21,888	4.80
31	NATIONAL	97	209,876	17,028	8.11	10,074	4.80
32	NOON	98	358,130	30,965	8.65	17,838	4.98
33	PATTOKI	118	612,972	55,255	9.00	26,000	4.24
34	RAMZAN	106	376,331	36,743	9.78	16,935	4.50
35	SAFINA (TIC) Ph-Wali	99	338,769	30,328	8.95	16,633	4.91
36	SHAHTAJ	103	700,063	65,089	9.30	31,582	4.51
37	SHAKARGANJ(I)	104	360,758	33,878	9.37	14,980	4.15
38	SHAKARGANJ(II)	103	387,372	34,695	8.96	16,075	4.15
39	SHAKARGANJ(III)	50	35,926	3,027	8.54	2,015	5.64
40	SHEIKHOO	115	904,501	78,910	8.72	41,892	4.63
41& 42	TANDLIANWALA-I&II	-	808,550	77,579	9.59	39,714	4.91
43	JDW-II(UNITED)	103	595,765	67,044	11.25	23,395	4.02
Non- Member		-	-	-	-	-	-
44	MACCA *	122	87,107	7,030	8.27	4,225	4.85
45	R.Y.K.*	-	700,000	70,000	10.00	33,950	4.85
TOTAL 2008-09		105	20,677,089	1,963,957	9.50	928,514	4.49
AVERAGE		105	469,933.85	44,635.39	9.50	21,202.59	4.49
TOTAL 2007-08		138	33,063,564	2,952,784	8.93	1,607,042	4.86

SUMMARY		
	2008-09	2007-08
AVERAGE WORKING DAYS	105	138
NO. OF OPERATING MILLS	45	42
CANE CRUSHED (TONS)	20,677,089	33,063,564
SUGAR PRODUCTION (TON)	1,963,957	2,952,780
RECOVERY %	10	9
MOLASSES PRODUCTION	928,517	1,607,043
RECOVERY %	4.49	4.86

Source : PSMA Annual Report 2009

Sugar Production & Recovery % 2008-09

Khebarpakhtoonkhwa

Sr. No.	Name of Sugar Mills	No. of Days Operated	Sugarcane Crushed Tons	Cane Sugar Production Tons	Recovery %	Molasses Production Tons	Recovery %
1	AL-MOIZ	98	463,719	40,885	8.81	23,187	4.99
2	CHASHMA	100	680,677	56,392	8.28	32,002	4.70
3	CHASHMA (EXPANSION)	101	370,129	28,841	7.88	17,200	4.65
4	KHAZANA	76	119,405	11,596	9.71	5,160	4.32
5	PREMIER	75	88,612	8,006	9.20	3,393	3.85
6	TANDLIANWALA(ZAMAND)	106	497,761	40,652	8.17	29,135	5.85
7	NON-MEMBERS BANNU	59	93,422	7,396	7.93	4,243	4.55
TOTAL 2008-09		88	2,313,725	193,768	8.37	114,320	4.94
AVERAGE		88	330,532.00	27,681.00	8.37	16,331.00	4.94
TOTAL 2007-08		118	2,976,356	226,751	7.62	164,596	5.53

SUMMARY

	2008-09	2007-08
AVERAGE WORKING DAYS	88	118
NO. OF OPERATING MILLS	7	7
CANE CRUSHED (TONS)	2,313,725	2,976,356
SUGAR PRODUCTION (TON)	193,768	226,750
RECOVERY %	8	8
MOLASSES PRODUCTION	114,320	164,596
RECOVERY %	4.94	5.53

**PROVINCEWISE TOTAL PRODUCTION OF PAKISTAN
SUMMARY 2008-09**

PROVINCEWISE POSITION	CANE CRUSHED	RAW UTILIZED	BEET SLICED	SUGAR PRODUCTION			TOTAL SUGAR	MOL C+R+B
				(CANE)	(RAW)	(BEET)		
PUNJAB	20,677,089	NIL	NIL	1,963,957	NIL	NIL	1,963,957	928,514
SINDH	10,148,603	NIL	NIL	976,420	NIL	NIL	976,420	493,079
KHYBERPAKHTUNKHWA	2,313,725	NIL	9,301	193,768	NIL	947	194,715	114,739
TOTAL 2008-09	33,139,417	NIL	9,301	3,134,145	NIL	947	3,135,092	1,536,332
TOTAL 2007-08	52,776,922	6,000	64,095	4,740,913	5,929	5,532	4,752,374	2,663,780

Source: PSMA Annual Report 2009

PSMA has recorded the historical fact that during the low sugarcane production years the percentage of sugarcane supply to the mills drop drastically by as much 20 percent and vice versa, during the high crop years supplied to the mills is in high proportion.

This phenomena always mislead the sugar production estimates, and so is the case with MINFAL;s estimate that are devoid of facts i.e., requirement of seed and fodder depends on a basic required quantity and not on a certain fixed percentage i.e. usually taken as 15% of the crop size 63 million tonne and of the crop size 42 million tonne brings a large difference. Hence assuming 80% utilization of sugarcane by mills is optimistic and is designed to blame mills showing low production.

Furthermore during low sugarcane harvest, farmers supply sugarcane filled with trash as a result, around 0.10% of the sugarcane recovery is consumed by the trash and burned in the boilers, this year around 35,000 tonne of sugar lost in trash has been burnt by the mills.

The given chart shown historical demonstration of low sugarcane production of cane by the mills al-through the squat crop size years allied to disparaging weather cycle.

LOW SUGARCANE PRODUCTION YEARS

Years	1995-96	1996-97	1999-00	2000-01	2004-05	2005-06	2008-09	2009-10 Est.
Plantation Area Ha	964,500	1,009,800	960,000	966,600	906,980	906,980	1,029,400	951,500
Sugarcane Prod.	42.23	42	42	43.59	43.53	44.29	50.05	48.62
Mills Cane Utilization	28.15	27.35	28.98	29.41	32.1	30.1	33.73	34.03
% age of utilization	62.24	65.13	69	67.47	73.74	67.94	67.41	70.00

Source: PSMA Annual Report 2009

On the divergent during the sugarcane high production year’s considerable proportion of the sugar of the sugarcane is supplied mills for instance: -

HIGH SUGAR PRODUCTION YEARS

Years	1997-98	1998-99	2001-02	2002-03	2003-04	2006-07	2007-08
Plantation Area Ha	1,056,200	1,155,000	999,700	1,099,700	1,074,700	1,029,000	1,241,300
Sugarcane Prod.	53.1	55.19	48.04	52.05	53.8	64.67	63.92
Mills Cane Utilization	41.06	42.99	36.71	41.79.	43.66	40.48	52.78
% age of utilization	77.32	77.9	76.33	80.28	81.15	73.78	82.54

Source: PSMA Annual Report 2009

In the same way diversion towards Gur is more well-paid during the short size crop, a sturdy leverage used by the growers to push the sugarcane price up to maximize the benefits of the low production.

SUGAR PRODUCTION 2008-09

During 2008-09 the year under review, as forecasted, the sugarcane and sugar production ended far below the projected estimate for annual consumption. According to MINFAL;s data plantation

area under sugarcane was reduced to 1,029,400 Ha in 2008-2009, against 1,241,000 Ha for 2007-2008 which was a record bumper crop year that established a bench mark production of sugar at 4.471 million tonne. The sugar price prices remained depressed for the past three years due to high production and low global prices. Lack of policies of the government, converted the huge harvest 2007-08 to economic disaster and did not bring any jubilation to the growers of sugarcane and the millers, that resulted in 17% reduction in the plantation area depicting preference to the other cash crops.

The capacity utilization of the sugar mills and season working days was very low comparing the past two seasons. The below mentioned data is self-explanatory:

PROVINCE	2007-08(days)	2008-09(days)
PUNJAB		
Shakarganj	174	104
Hamza	168	105
Indus	168	95
Haq Bahu	167	117
JDW	165	107
SINDH		
Sanghar	180	132
Habib	171	120
Khairpur	171	119
Larr	170	68

Source: Pakistan Sugar Mills Association, Sindh Zone (PSMA-SZ) Annual Report 2009

The low capacity utilization of the mills affected the production cost of sugar, the overall capacity utilization of the mills was 39.40 percent as compared to last year's 64 percent. The production during 2008-09 ended at 3.19 million tonne short compared to previous year's production i.e. 32.7 percent. While the crop itself was lower by about 14 million tonnes, the crop utilization by the mills was further reduced because of commercial manufacturing of Gur which has become a lucrative business in the Peshawar-Mardan Valley of Pakistan and being exported tax-free to Afghanistan and onward to Central Asian Republic. Despite the sugar shortage in the country, exports of gur was allowed in violation to the commitment made by GOP in the Supreme Court that there would be a complete ban on its exports.

Sugarcane crop dropped to 50.046 (63.891) mln tons dropped by 21.67% on Pakistan level, Sindh 13.304 (18.793) mln tons less 29.21%, Punjab 32.295 (40.306) mln tons short by 19.88%, NWFP 4.409 (4.792) mln tons fell by 2.17%.

Yield hectare/ton was 49 (54) dropped by 9.26% on Pakistan, 50 (61) fell 18.03% on Sindh, 49 (49) on Punjab and 45 (46) declined to 2.17% on NWFP levels.

Sugarcane crushing on Pakistan level has been 33.733 (52.623) mln tons dropped by 36.02%. In Sindh it was 10.148 (16.737) mln tons short by 39.36%. Punjab sugar mills crushed 21.271 (33.010) mln tons declined by 35.56%. In NWFP sugarcane crushed was 2.314 (2.976) mln tons less 22.26%.

Sugar production has been far lower than the previous season. 3.189 (4.727) mln tons sugar was produced in Pakistan. It was short 1.538 mln tons i.e. 32.55%. Sindh produced 0.976 (1.561) mln tons 37.46% short. Punjab 2.018 (2.939) mln tons lower 31.33% and NWFP produced 0.193 (0.226) mln tons fell by 14.44%.

Keeping in view the above sugarcane crop and operational results, the government should give priority attention to increase sugarcane area, crop yield in order to increase sugar production instead of spending billion of rupees on import of sugar from other countries.” (Pakistan Sugar Mills Association Sindh Zone, Annual Report 2009 p.4)

SUGGESTION

The Government should facilitate improved varieties of sugar cane having higher sucrose recovery through Agriculture Research Institutes and more effective measures required for disease control and better pesticides used. Availability of adequate supply of water, appropriate use of fertilizer and proper spraying of insecticides & pesticides can improve yield per hectare. Improvement required in procurement and storage to reduce wastages. Other than sugar we can diversify and produce Ethanol which has been proved to be very helpful in developing economies and ease our import bill. Sugar industry has a potential to achieve heights in Pakistan if major steps are taken into consideration in this regard.

Conclusion

No industry can flourish without promotional support of research and development. It has been initio exist. As a result, potential of the sugar industry stayed dormant. This area demand attention.

Since it is not possible to increase area under sugarcane cultivation the suggested second step is to undertake efforts to develop new varieties offering higher yield and recovery. This will result in higher sugarcane production and better returns to the growers without increasing support prices, improved capacity utilization by the mills, larger sugar production, reduction in cost of production per kilogram of sugar, more revenue for the government, stable prices for the consumers and better dividend to the shareholders of public limited companies.

The main cause of reduction in the recovery rate was the excess water due to devastating flood in the country and rain. As a result excessive water was absorbed by the sugarcane crop which reduced the sugar contents in the cane and increased in the weight of the same. A major issue pertains to sugarcane crushed is more or less the same but production of sugar decreased due to reduction in the recovery percentage.

References

- Pakistan Sugar Mills Association Sindh Zone (PSMA SZ) Annual Report 2009
- Newspaper Business Recorder, Karachi, (October 21, 2010)
- Pakistan & Gulf Economist, Feb 7 - 13, 2011, VOL. XXX, No.6. Pakistan Oldest Business / Financial Magazine.
- Economic Survey of Pakistan, 2008-09, 2006-07 & 2004-05.
- Government of Pakistan, Ministry of Food, Agriculture Livestock, Economic Wing, Islamabad.
- All Pakistan Sugar Mills Association 2008-09, 2007-08, 2006-07 & 2005-06 Annual Reports.
- Govt. of Pakistan. 1988. Report of National Commission for Agriculture, Islamabad, Pakistan.
- State Bank of Pakistan, The state of Pakistan's Economy, Agriculture Finance Schemes.
- Government of Pakistan 2003-04. "Economic Survey, Economic Advisor's Wing Finance Division - Ministry of Finance, Islamabad.
- Agricultural Prices Commission (A.P.Com) 2002.03 "Support Price Policy". Reports on Sugar- cane, Agricultural Prices Commission, Islamabad.
- <http://www.statpak.gov.pk/fbs/sites/default/files/other/NL-January-2011> i.e. Federal Bureau of Statistics.