Preamble:-

The average yield per hectare of sugarcane in Pakistan stands falls below the potential line if compared with other sugarcane-producing countries of the world. The domestic requirement of sugar and the demand for sugar is expected to rise in times to come, mainly on account of the fact that as growth-rate rises, urbanization takes place and that industrial & domestic use of sugar will automatically increase. So to cope with the increasing demand, domestic production should also increase. Sugarcane is basically a tropical crop in nature which requires a suitable high temperature, a lot of sunshine and rainfall ranging from 1250-2500 mm for its growth and yield, relatively speaking; there is an intensive use of water as compared to other crops. Sugar industry in Pakistan, is the second largest agro based industry after Textiles. Pakistan is a cane producing country and is ranked almost fifth in world in respect of cane acreage and 9^{th} in sugar production. The share of sugar industry in value added of agriculture and GDP is more than 3.2 percent and 0.7 percent, respectively. The sugar sector constitutes almost 4.2 percent of manufacturing and it employs over 1.5 million people, including management experts, technologists, engineers, and financial experts, skilled, semiskilled, and unskilled workers. But in spite of this, the average yield of sugarcane is still very low as compared to other countries of the world, such as Egypt, USA, Brazil and India. Water has been one of the crucial factors affecting the production and productivity of sugarcane.

Goals/Objectives of the Policy:-

In the past, the Pakistan's sugar industry has commendably tried to keep pace with the growing domestic sugar demand. As a result, the Pakistani domestic market became significant with respect to its volume. Thus having established itself as a key sugar producing geography, it now aspires for greater frontiers. The sugar industry hopes to continue to service the domestic demand, while it also aims to enhance the value addition from sugarcane by focusing on emerging by-products through integrated sugar complexes. However, the entire value chain of the sector i.e farm side, mill side and market side is confronted by significant hurdles and regulatory challenges. Many of these challenges not only impact the sugar business but also impair the high potential byproducts' businesses. The sector, thus, requires a comprehensive road map to guide it towards achieving its potential. The study aims at drafting such a sector road map, which will identify requisite business and regulatory initiatives for unlocking the sector's potential over the next ten years. The sector road map for future will comprise business and regulatory roadmaps. Business roadmap for future output is guided by the sector's shared vision. It aims at evaluating transformation opportunities, identifying business imperatives for realizing the opportunities, incorporating learning from other industries that have undergone similar transformation and visualizing the appropriate policy environment.

Regulatory roadmap highlights regulatory modifications in prevailing sugar related regulations for creating the required policy environment thereby facilitating the successful implementation of the business roadmap. It also captures the status of sugar regulations in key international sugar geographies. The regulatory roadmap presents the implementation plan, incorporating the prerequisites, risk mitigation measures and phases of implementation for ensuring minimum adverse impact on the sector during the transition period. The business roadmap focuses on opportunities related to by-products and identifies the policy imperatives, while the in depth regulatory analysis has been restricted to sugar related regulations.

Reasons of better Sugar industry:

The first crucial reason in sugar industry is the amount of sugarcane under cultivation which in turn is highly dependent on the quality of sugarcane crop. If the yield from sugarcane is low, then the unit cost is of production increases for the sugar manufacturing units and directly impacts their profitability. Success of Sugar industry in Pakistan also depends highly on the local and international supply/demand scenario. The industry should be strong on the supply side so that it can fulfill the local and international demand and also take advantage if there is an international supply shortage. Successful sugar companies have very good management quality and they are very active in reacting to different market situations. If all the units working in the industry have good management strategy, then it plays a very important role in the success of industry.

Factors responsible for the growth of Sugar industry:

-More area should be brought under cultivation due to economic returns received by the growers.

-This resulted in better sugarcane availability and hence more sugar production.

-Timely availability of resources encouraged the farmers to grow more sugarcane crop.

-Relatively better sugarcane varieties as compared to previous years.

-Better price of sugarcane as compared to other crops that has lured many other agriculturalists over the year to grow sugarcane.

General Comment:

The government is continuously undertaking research studies in light of the recent trends of organic agriculture, bio-fuels (based on Sugar), BT Cotton, changes in crop growing patterns, and climate changes etc. In light of the SCP judgment, the government has utmost defend its right of granting permissions to the sugar mills, and is ensuring that such rights are not conferred onto any Feudals who may then lock the farmers and dominate and abuse them, in form of a modern Arty. Free market competition will not only give better service and decreased operational/computational costs to the farmers, but will also help the sugar mills improve their efficiency to cater to the competition. This may also result in the sugar mills' improving their electricity generation through bagasse, which will have positive effects on the economy of the country. The Government is seriously observing the following:-

I. The powers/decisions to permit new sugar mills or expand the existing sugar mills is a policy matter and falls within the exclusive domain of the Punjab Government and the superior Courts of this Country have always decline to interfere within the policy matters of government.

II. The report of Agriculture Department regarding encroachment of sugarcane on wheat and cotton crops of 20 concerned districts shows that although the areas under crops are shifting, yet the overall balance amongst the proportion is less affected. A vacuum was observed in efforts to increase the per acreage production of sugarcane due to related market dynamics of sugarcane industry. The introduction and adoption of BT Cotton seed has reflected the reverse trend, Furthermore; the non-conventional cotton growing districts like Mianwali, Khushab and Bhakkar have become the most attractive destinations for cultivation of cotton. The pulling factors are climatic like lesser humidity, non-prevalence of the hostile pests, besides cheap labour. The new seed varieties, improved sowing techniques have even revived the cotton is some of the districts of central Punjab. Reports also shows that initially planting of cotton was affected due to rise in water table but now almost all the Punjab is fit for cotton, barring water logged areas. .

Laws relating to sugar industry:

I. The Sugarcane Act 1934
II. The Sugarcane control order 1961
III. The west Pakistan Sugar Factories control Act 1950
IV. The Punjab Sugarcane control order 1972
V. The Sugar Factories control Rules 1950

VI. Punjab industries (control on establishment & enlargement) ordinance 1963
Industries in the Province of Punjab are regulated under the provisions of "Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963". In exercise of powers conferred under section 11 read with section 3 of the Ordinance *ibid.*, Government vide Gazette Notification No.AEA-III.3-9/91 dated 17.9.2002 exempted industries and areas from the provisions of section 3 of Punjab Industries (Control on Establishment and /Enlargement) Ordinance, except the clauses regulating negative areas for establishment of industries (Clause 1 to 4) and others. The same are reproduced below:

i) No industrial unit mentioned in Schedule of this Notification or industrial unit exceeding a total cost of Rs. 100.00 million (Rs. One hundred million) shall be set up within ten miles (16 Km) of the International Border.

ii) No industrial unit shall be set up in areas affected by flood flowing transversely in the strip of one mile of either side across the Grand Trunk Road, from Shahdara Town to Muridke Town without prior permission of the Provincial Government.

iii) No sugar mill shall be set up and no existing sugar mill be enlarged in the Districts of Multan, Sahiwal, Vehari, Khanewal, Pakpattan, Lodhran, Bahawalpur, Rehimyar Khan, Bahawalnagar, D.G Khan, Rajanpur, Layyah, Muzaffargarh and Okara (Clause 3 has been amended and substituted as under vide Notification No.AEA-III.3-5/2003 (Vol-III) dated 6.12.2006 (Annex-I):

> **"No new sugar mill shall be set up and no enlargement in capacity of the existing Sugar Mills is allowed in the Province".**

iv) Each District Government may declare "negative area" for industry. Such negative area be determined by a District Committee after consultation with all stake holders in light of general policy guidelines to be issued by the industries Department and exemptions allowed under Schedule 'B' of this Notification.

v) No industrial unit mentioned in schedule 'C' of this Notification shall be set up any where in the Punjab without approval of the Government.

i). The Government reserves the right to refuse establishment / enhancement of any industrial undertaking which is in contravention of public interest, ecology or any other law / rules for the time being in force.

vii) The Government may relax any of the provisions of this Notification in case of a particular unit or industries.

The area-wise restrictions, mentioned in clauses Nos. 1 to 4 of the Notification *ibid* reflect the "Location Policy" of the Punjab Government. From time to time provincial government under Clause 3 of the notification ibid regulates/promulgates negative areas in the province for establishment of sugar mills, in the best economic interest of the country, in consultation with other Departments. The rationale behind this restriction is that since cotton is the backbone of our economy. It ensures economic security as its value added products contribute 60% to foreign exchange earnings. Proliferation of Sugar Mills in the Province, would adversely affect production of cotton. Government of the Punjab constituted and notified a Location Policy Committee headed by the Chief Secretary, Punjab to deliberate upon the policy of Government regarding establishment of new Sugar Mills to maintain a balance between production of sugar and protection of cotton growing areas of the Province, in the public interest. The Committee after due deliberation, imposed a complete ban on establishment of new Sugar Mills and enhancement of capacity throughout the province vide Industries Department's Notification No. AEA-III-3-5/2005 (Vol-III) dated 6-12-2006. The whole province was declared as "negative area" for the installation of new sugar mills.

Various notifications were issued from time to time restricting/permitting various industries/areas from the provisions of the Ordinance. The government through Notification, dated 01.04.2004 imposed ban for establishment of new sugar mills in the Districts of Multan, Sahiwal, Vehari etc. Existing sugar mills can be enlarged except in the Districts of Sahiwal, Pak-pattan& Toba Tek Singh which was replaced vide Notification, dated 12.10.2004. Thereafter, a Notification was issued on 15.07.2005 in which the clause 3 of the Notification, dated 17.09.2002 substituted with the establishment of new sugar mills upto the capacity of 16,000 TCD was allowed in the province. Later on, the implementation of the Notification, dated 15.07.2005 lifting the ban on the establishment of new sugar mills was ceased forthwith.The Government of the Punjab has imposed a complete ban on establishment and enlargement of sugar mills of any capacity and category, throughout the Province under Act vide Notification No. AEA-III.3-5/2003 (VOL-III) dated 6-12-2006.

Section 3 of thePunjab Industries (Control on Establishment& Enlargement) Ordinance, 1963, empowers the Government of Punjab (Government) to grant permission, on reasonable restrictions, for establishment of any industrial undertaking or enlargement of the existing undertaking within the province while section 11 empowers the government to grant exemption to the industry or class of industries from any or all the provisions of the Ordinance.

Government has been regulating industries under the Ordinance through industrial location policies notified from time to time. As already stated, the previous Industrial location policy was notified on 17.9.2002 and the last amendment therein was made vide Notification dated 6.12.2006, whereby ban was imposed on establishment of new sugar mills and enlargement in capacity of existing sugar mills throughout Punjab and this ban is still intact. The Government has also notified a location policy on 4.12.2015 (Policy 2015) to allow the relocation of a functional sugar mill within the district and from one district to another district. The Government on the recommendation of the appropriate committee mentioned in clause 10 of the policy 2015 may, in public interest, allow the relocation of a functional sugar mill subject to fulfillment of certain criteria and conditions.

The IC&I Department, in the larger interest of the nation and to maintain the competitiveness in the Sugar Mills, felt it necessary that there should be a specific, clear and unambiguous policy regarding shifting and relocation of Sugar Mills. Even it is worthwhile to mention here that the Ordinance as well as the industrial location policy dated 17.09.2002 and the notification dated 6.12.2006, were silent regarding relocation or shifting of functional industrial undertakings including sugar mills.

Keeping in view the above situation, IC&I Department requested the Chief Minister, Government of Punjab for constitution of a Cabinet Committee to deliberate upon the intended policy on relocation/shifting. Accordingly, a Cabinet Committee was constituted and the

Committee held several meetings and examined the following major issues:

a) **STRUCTURE AND DYNAMICS OF THE SUGAR INDUSTRY IN THE COUNTRY AND POLICY FRAMEWORK THAT CULMINATED INTO THE SUGAR MILLS INDUSTRIAL LOCATION POLICY IN THE PUNJAB**

The Committee felt the need for increasing the competitiveness of the sugar industry in the Province and prescribed the following way forward:

i) Reducing the overall crushing capacity of the Province i.e. to eliminate the idle capacity, which is adding cost to the economy and cost of production, while maintaining a moratorium / ban on establishment of new sugar mills or enlargement of their crushing capacity;

ii) To encourage existing sugar mills to surrender the idle capacity, for which they may be allowed to move to more sucrose content rich sugarcane areas with permission to bring in new efficient technologies and mergers to the extent of already existing and running crushing capacities to gain economies of scale.

b) PROVISIONS IN THE EXISTING LOCATION POLICY / LAW FOR ACCOMMODATING THE ISSUE OF SHIFTING / RELOCATION

The outcome of the deliberations of the Committee on this issue was that:

i) Since promulgation of the Punjab Industries (Control on Establishment and Enlargement Ordinance, 1963, there exists no provision which could specifically attend the issue of relocation/shifting of sugar mills;

ii) In some cases, besides force majeure there may be many genuine market based compelling factors for the shifting of the existing units;

iii) The developed perception that there is no need to seek NOC for relocation of any sugar mills, especially in the absence of any express or mandatory provision in the Punjab Industries (Control on Establishment and Enlargement Ordinance, 1963.

c) IS RELOCATION TANTAMOUNT TO ESTABLISHMENT OF NEW SUGAR MILLS?

The Committee observed that the basic objective of the Federal and Provincial Governments was to keep the number of sugar mills and their crushing capacity under a ceiling. The Committee was of unanimous opinion that shifting/relocation neither adds to the number of sugar mills nor the crushing capacity of the overall sugar industry.

d) THE HISTORICAL DEVELOPMENTS AND SCIENTIFIC DATA THAT CHALLENGE THE STASIS IN THE POLICY?

The Committee examined reports by Cane Commissioner, DG Agriculture, Directorate of Land Reclamation and a report of a High Powered Technical

Committee, dated 08.04.2011 on current industrial Location Policy which acknowledged the need for the periodic review. The Policy Note of the Comreport Commission of Pakistan, dated 08.06.2012 was also examined. Besides, international best practices were also examined.

The Committee examined the legal regime, ground realities and the market dynamics and noted that the Location Policy requires periodic review as per the developed situation to legitimately accommodate the de facto market and climatic dynamics. The Committee synthesized its conclusion, during the course of series of meetings into following points: -

i) The relocation of sugar mills is inevitability as per the market dynamics as experienced by different countries of the world, passing through different evolutionary stages of sugar industry;

ii) The governments initially allow the installation of sugar mills for economic purposes, which later on gives way to political cost of decisions regarding keeping the local population satisfied at the cost of larger economic benefits for the overall economy;

iii) In the transitory phase different countries responded to the issue as per their overall economic model like scale of free market economy;

iv) Some countries totally relied upon the market forces to determine the installation or relocation of the sugar mills;

v) Where controls were exercised over the shifting of sugar mills, the changing climatic conditions have rendered many mills out of business;

vi) The industry shall tend to follow the economies of scale, efficient running costs, tapping of better technologies and installation of allied processing technologies to keep the overall production cost competitive.

The Cabinet Committee after thorough deliberations recommended two committees i.e Intra District Committee and Inter District Committee to consider and process requests for shifting / relocation of existing sugar mills and recommended the following eligibility criteria to consider the applications of functional sugar mills desirous for shifting / relocation:

i) There shall be no outstanding financial liabilities against the applicant unit / concern, in the local economy (Farmers & Government), desirous for Relocation/Shifting;

ii) The applicant unit must be in continuous functional/running condition for the last 5 years prior to submission of such application;

iii) The applicant unit shall submit properly documented justifications for proposed Relocation/Shifting with requisite Environmental, ecological and spatial planning feasibility and NOCs from concerned Government Departments / agencies;

iv) The application shall be accompanied with Relocation/shifting fee amounting to Rs.500,000/- (Non-refundable);

v) The proposed shifting shall not enlarge the approved crushing capacity of the Industrial concern thus shifting nor shall it alter the composition of its ownership after up to three years of its shifting;

vi) Merger can be allowed subject to above mentioned conditions with surrendering of idle capacity of participating units;

The Committee also examined the issue of enlargement beyond approved production capacity of some Sugar Mills without authorization, which is resulting in tax evasion and deceptive production targets. Therefore, a Review Committee was recommended for assessing the situation, on case to case basis, on the basis of the statistics made available, with recommendation of the corrective measures, comprising of the following: -

i. Divisional Commissioners concerned;
ii. Administrators / DCOs concerned;
iii. Rep. of Industries Department;
iv. Cane Commissioner;
v. Any Co-opted Member.

Additional TORs of the proposed Committee, of the bordering districts of the Punjab with other provinces, included to assessing impact of the escape of sugarcane to other provinces, having big monitory repercussions in terms of lost sugar cess.

During the deliberations on the Relocation Policy, the following issues were also subsequently examined:

I. Whether, and if so, how relocation of a Sugar Mill is likely to affect the overall sugar production in the Province?

The analysis of production of sugar over the last five years (2010-11 to 2014-15) indicates that sugar production during last three years (2012-13 to 2014-15) has remained almost stable at around 5 MM tons:

Sr. No.	Crushing Season	Sugar Production (MT)	
		Punjab	Pakistan
1	2010-11	2,576,615	4,137,724
2	2011-12	3,116,348	4,403,330
3	2012-13	3,172.408	5,030,129
4	2013-14	3,352,795	5,587,568
5	2014-15	2,965,696	5,124,477

As per statistics of Sugar Advisory Board, Ministry of Industries & Production, Islamabad the requirement of sugar per person per annum is 20 Kg. Thus for the Punjab population of around 100 million, the sugar requirement is approximately 2MM tons per annum and the population based sugar requirement of Pakistan is approximately 4 MM tons per annum. The projected sugar production of Pakistan for the year 2015-16 is around 5.1 MM tons. This implies that there would be a surplus of about 1MM ton sugar in Pakistan during the year 2015-16.

The analysis by Food Department points to the fact that in the Relocation Policy under consideration, the existing capacities of sugar mills desirous of shifting have been capped. Moreover, in case of merger, they will have to surrender their idle capacities. Therefore, relocation of a sugar mill from one location / district to another location / district will not affect overall sugar production in the province.

II. a) Whether, the water tables are generally going down in all Districts of the Punjab?

Water table of any place/district depends on consumption / extraction of groundwater for domestic, commercial and industrial purposes and its corresponding recharge (through rainfall, floods, seepage from canals etc.) Groundwater pumping / extraction depends on the quality of groundwater cropping pattern and surface water supply in the area. The quantum of use of water and its corresponding recharge in a reservoir determines increase or decrease in water table.

In general, water tables are going down in fresh or sweet groundwater areas, independent of district boundaries. Groundwater over-exploitation has also been observed in fresh groundwater areas irrespective of the sugar industry.

b) Whether and to what extent re-location of a Sugar Mill is likely to further aggravate this situation?

Analysis of available data on Ground Water Levels in Punjab, during last 9 years (2006-2014), indicates that there is a slightly rising trend of water table in 12 districts having 29 sugar mills with total crushing capacity of 231,000 TCD. Similarly, in 12 districts having no sugar mills, there is a mixed trend ranging from declining or slightly declining water tables to no change or even slightly rising or rising water tables. Moreover, there are 6 districts having 12 sugar mills with total crushing capacity of 75,700 TCD which show declining trend in water tables. In addition, in 2 districts having 5 sugar mills with total crushing capacity of 34,200 TCD, there is no significant change in water table. The available groundwater data and pattern observed during 2006 to 2014, therefore, indicates that water table is not directly affected by presence or absence of sugar mills. The impact of re-location of sugar mill(s) on the groundwater situation will depend on many factors like location of the area where the mill is being re-located, groundwater quality, groundwater pump age, groundwater recharge, cropping pattern and cropping intensity of the area.

c) What is a likely adverse effect, if any, on cropping – pattern in case of relocation of a Sugar Mill.

The analysis by Agriculture Department reveals that although the areas under crops are shifting, yet the overall balance is less affected. The non-conventional cotton growing districts like Mianwali and Bhakkar have become the most attractive destinations for cultivation of cotton. The pulling factors are favorable climatic conditions, non-prevalence of the hostile pests, besides cheap labour. The new suitable seed varieties and improved sowing techniques have even revived cotton in some of the districts of Central Punjab. As per analysis of Agriculture Department, the planting of cotton had been affected due to rise of water table but now almost whole of Punjab is fit for cotton, barring water logged areas. However, reduction in cotton cultivation areas is attributed to the non-availability of standard quality BT cotton seed, more profitability from other competing crops and vulnerability of cotton to abiotic and biotic stresses.

a. If before relocation, sufficient sugarcane crop is already available in that zone to feed the relocation mills and existing sugar mills;

b. Crops already planted in relocated area have good market prices and farmers are satisfied with existing crops;

Further, at present there is at present no restriction to procure sugarcane from mill area and relocated mills can procure sugarcane from anywhere. Sugarcane crop cannot possibly encroach into core cotton areas to replace cotton and other competing crops, if technologies for exiting crops are available to face the ensuring threats of climate change impact and biotic stresses to produce profitable cotton and other kharif crops.

The above recommendations of the committee and deliberations were submitted to the Chief Minister for approval. However, the Chief Minister, on 17.10.2015 expressed his concerns over likely effects of shifting of sugar mills on sugar production in the province, decline in water tables and aggravation (if any) in the prevailing conditions. He also inquired about the likely adverse effects of shifting of sugar mills (if any) on cropping pattern. The concerns of the Chief Minister were addressed highlighting the reports of experts.

In the light of the directions of the Chief Minister, Punjab, a Summary was submitted before the Provincial Cabinet members for consideration / approval in terms of Rule 25(1) (b) of the Punjab Government Rules of Business, 2011.

The Policy was approved by the Cabinet through circulation on 01.12.2015 and it was accorded final approval by the Chief Minister on 03.12.2015 and thereafter the Policy 2015 was notified on 04.12.201.

It has been observed internationally that Brazil is ranked as number one sugar producing country and there after India. Even in India the sugar mills are relocated from one place to another particularly in Uttar Pradesh and Bihar which were once considered to be top sugar producing states; however now they have lost their position to states such as Maharashtra and Tamil Nadu. Similarly the sugar industry of India is gradually shifting from north India to peninsular India because of several better conditions prevailing there; such as the tropical climate of Peninsular India results in higher yield per unit hectare of land higher sucrose content in peninsular cane; Long crushing season in south. In North India, it lasts from November to February (4 months); while in South it lasts from October to May or even June (nearly 8 months) The mills in peninsular India are larger. Though Uttar Pradesh has more sugar mills than Maharashtra, yet Maharashtra's sugar mills are larger in size & Capacity. Further, the mills in cooperative sector in south are better managed therefore relocation of the sugar mill is an international phenomena and cannot be curtailed in any country.

Relocation Policy:

I. That it is to be noted the permission of the relocation is subject to various pre-conditions and criteria, the sugar mill before any relocation has to comply with the requisite documentations and to apply to an appropriate committee who may recommended relocation of functional sugar mill after the fulfillment of following criteria and conditions:

a) The applicant-mill has cleared all the outstanding amount due to the government and the farmers; and, for the purpose, a certificate to this effect

b) issued by the Cane Commissioner, Punjab shall be annexed with the application.

c) The applicant-mill has continuously been in operation for last five years immediately before the submission of application.

d) The application for the purpose of relocation shall:

i) contain complete details and justification for the proposed relocation; and be accompanied by the requisite documents, including environmental, ecological and spatial planning feasibility and NOCs from the Government departments or the agencies concerned, and the original receipt of the deposit of non-refundable process fee of rupees five hundred thousand.

e) The applicant-mill, on relocation, shall not in any manner whatsoever, enlarge the crushing capacity of the sugar mill.

f) The ownership of a relocated mill shall not be changed or altered for at least three years from the date the mill starts functioning at relocated site.

The government may also after recording reasons refuse the establishment or enlargement of an industrial unit if it is in derogation of public interest, ecology or environment or contravenes any law or rules for the time being in force.

Legal Position:

The Honorable Supreme Court of Pakistan, vide its recent judgment titled Tariq Khan Mazari vs Government of Punjab, has given full powers to the government to make any policy on Sugar. In fact, it has given finality to the inherent power of Section 3 of The Punjab Industries (Control on Establishment and Enlargement) Ordinance, 1963 whereby Government can allow, ban on any sugar mill anywhere in the province.