



**CLUSTER DEVELOPMENT PROGRAMME, INDIA**

**DIAGNOSTIC STUDY**

**SME**

**GUR/KHANDSARI CLUSTER  
UDAKISANGANJ (MADHEPURA)**

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**THE TRAINING PROGRAMME FOR THE CLUSTER DEVELOPMENT  
AGENTS, ORGANISED BY UNIDO CDP NEW DELHI**

**&**

**THE ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA  
(EDII), AHMEDABAD**

**YEAR 2001**

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## MADHEPURA GUR CLUSTER

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## ***MADHEPURA GUR CLUSTER***

### **1. INTRODUCTION**

#### **1.1 THE INDUSTRY SCENARIO**

The new Bihar formed out of the recent political division of the state, sees agriculture and agriculture-based industry as its main economic resource. The state is bestowed with fertile land and manpower but frequent natural calamities give it a sorrowful face. Each year almost two-third of the land area and three-fourth of the population in the state is affected by either a flood or a drought situation. These result in huge losses of human lives and crops. However, there's one crop that remains standing in the most adverse conditions, and in turn serves as the main cash crop for Bihar farmers. This crop is the Sugarcane.

Sugarcane is the main raw material for the production of Gur/Khandsari and it has a capacity to grow in both waterlogged as well as dry areas. The average annual yield of sugarcane in Bihar is 390 quintal per hectare, whereas country's figures stand at 500 quintal per hectare. As a result, the sugar units form a major source of income for farmers and manufacturers here. The state has a potential to increase its sugarcane yield up to 900-1000 quintal per hectare, by adopting the latest agriculture technologies and package systems. This will not only benefit the farmers but also have a direct effect on the per capita income of state.

The sugar industry in Bihar is about a century old. Nearly 5 lacs farmer-families and many thousands of other skilled and unskilled labour were getting direct or indirect employment from this industry. During the period 1904 to 1940 there were around 33 sugar mills operating in Bihar, contributing around 40% of the total sugar production of India. Presently this production rate has come down to 3-4% as only 4-6 private sugar mills are operational.

#### **1.2 THE UDAKISANGANJ, MADHEPURA CLUSTER**

Udakisanganj is a sub divisional town located at a distance of 35 kms from Madhepura and 305 kms from Patna, the capital of Bihar. The Gur/Khandsari industry here is around 60 years old. Earlier there were only three prominent mills operating in the area namely Sri Rameshwar sugar mills, M/s Sheetal Gur mills and M/s Hare Ram Gur mills. The entire trade of Gur/Khandsari was centered on these three mills. Due to a monopoly of these mill owners, the farmers were being exploited and were not receiving a reasonable price for their crop. Many farmers were forced to wait outside the mills for about 3-4 days before they could sell their produce. Viewing these difficulties and hardships of the farmers, an educated farmer Sri Jagdish Prasad Mandal of village Madhuban started his own cane-crushing unit in the year 1969. He motivated the other well-off farmers to set-up their own units as well and manufacture Gur on their own.

Between 70's and 80's, a new sugar mill was established and henceforth the area was declared as reserved area for sugar mills. Due to the Government policies on establishment of sugar mills, there was a slow growth being observed in the Gur/Khandsari sector. A new market was opened especially for sugarcane trade, which resulted in a rise in production.



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However, due to an increasing trend of irregular purchase, payment delays and improper functioning of sugar mills, the farmers were facing problems like spoiling of crops Etc. This discouraged the overall cane production and after a few years the many sugar mills also closed down and eventually the zone was freed from the reserve area category.

The 80's & 90's saw a revival of Gur/Khandsari manufacturing units. At present there are nearly 80 big & small Gur manufacturing units operating in Madhepura district scattered in the radius of 25 kms. Cane crushing units are mostly situated at Udakisanganj. The main ones are located in the villages of Madhuban, Gwalpara, Bisbari, Katharba, Rahta, Laxmipur, Raghbarganj, Uda, Bihariganj, Baghra, Jhellari and Puraine. The total investment in these units is around Rs350 lacs, with an annual turnover of Rs10 crores. Nearly 3000 skilled and unskilled persons are employed in these units.

Madhepura is a natural cluster for sugarcane crushing units. Although the farmers receive a better value for their product if they convert the raw-cane into Gur/Khandsari yet this value-addition culture is very limited. Over and above as this occupation tends to be a seasonal one so many of the units are not working in a planned manner. Initially the cane crushing process was animal driven but now the units are using electric power. During the survey, it was found that the main concentration of such unit is at Uda & Madhuban. However, some small farmers have also set-up small, medium and even large cane crushing units at Madhepura. The detail of the different types of registered units at Madhepura is as follows:

SL No	Types of Unit	Number of Registered unit	Investment in Rs. Lacs	Employment in Nos.
1.	S.S.I.	06	42.66	75
2.	Tiny	1037	448.57	2652
3.	Artisan	1666	31.54	1727

Source: D.I.C. Madhepura

## 2. THE PRODUCTION DETAILS

### 2.1 THE PRODUCT AND ITS USE

Gur is high calorie sweetener and as it contains minerals, protein, glucose and fructose, it is known to be healthier in comparison to white sugar. A good quality Gur contains more than 70% sucrose, less than 10% of glucose and fructose, less than 5% minerals and less than 3% moisture. Gur is known to produce heat and give instant energy to a human body. In many parts of India, there is a tradition of serving a glass of water with Gur to welcome the guests. Gur is also used as a cattle feed, in distillery, medicine manufacturing unit, ayurvedic medicines, ayurvedic sura and ayurvedic health tonics. Recently Gur has also found a place in confectionary items. A usage of Gur is also seen in leather and tobacco industries. Besides, in cement industries and coalmines, Gur is supplied to the workers for in order to protect them from dust allergies. And at the time of natural calamities, the district administration purchases Gur and distributes it to the victims for various health benefits.



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There is a wide market of Gur throughout India. Other than the local markets of Bihariganj, Singheshwar, Gulabgh, Khagaria and Begusarai, the producers sell their product to Bengal, Assam and Delhi. The Gur sold from this area is mainly in a semi-solid state and is packed in tin containers, but a few units produce Gur in the shape of 'chakki' as well. However, in terms of quality the Gur of this area is slightly inferior in comparison to that of U.P. This quality in reality depends upon the quality of sugarcane and its cleanliness.

### 2.2 RAW MATERIAL

The sugarcane is the main raw material of Gur/Khandsari unit and is easily available locally. The production of sugarcane depends on the climate and type of soil. The details of various qualities in sugarcane and their average yield are given below:

S. No.	Types of sugar cane	Qualities	Average yields (in Q/H)	% of Sucrose
1.	B.O.99	Suitable for all types of soils	700	16.5
2.	B.O.102	Production capacity is higher	1000	17.0
3.	B.O.120	Good for early crushing, capacity to grow in drought. Good for quality Gur	820	17.32
4.	B.O.130	Good quality for Gur production	700	17.1
5.	K.P.767	Suitable for dormant soil and low land, good for quality Gur production.	650	17.0
6.	B.O.109	Capacity to bear water logging	780	16.8
7.	B.O.116	Good for high land	700	17.3
8.	B.O.128	Suitable for water logging area and capacity to grow in drought, good for Gur	850	17.5
9.	B.O.91	Suitable for all types of soil and flood effected areas	750	16.7
10.	K-1158	Suitable for all types of soil	620	17.2
11.	B.O.110	Suitable for less irrigated area, good for Gur	780	16.8
12.	K.P.9302	Good for Gur	840	17.2

The average production rate of sugarcane in Madhepura is 45m.t/hect and the area under sugarcane production is around 3603 hectare. For Bihar, the total sugar cane area was around 217333 hectare with an average rate of production at 44.73m.t/hect and a total production of 97.22 lacs metric tons, in 1997-98 (Based on the report 1998-99 of Sugarcane Development Department Government of Bihar). The Madhepura farmers are not practicing a scientific method of sugarcane production. Due to a lack of knowledge and availability of latest variety of seeds, the farmers are generally cultivating B.O.91 variety in waterlogged areas. Although they can grow other varieties, which would give them a better yield yet they prefer to go for their traditional ways.



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The spare parts for the crushing unit are available at Kanpur, Muradabad, Meerut, Sazahapur and are transported by road. There is a small garage and engineering unit located at Udakisanganj and Bihariganj, which does repair, and maintenance work of cane crushing units. The other chemicals required in the production process such as sodium carbonate, sodium bi-carbonate, limes etc are easily available at Bihariganj and also at the local market. Besides the Gur producers have their own plantations of Dewla plant, which is used as a cleaning and purifying material.

### **2.3 THE PRODUCTION PROCESS**

Firstly, the cleaned sugarcane is crushed in a cane crusher mostly driven by a diesel engine. The cane juice thus obtained is screened and collected in a tank and then it is pumped into a heating pan. The Dewla plant is added to it at low heat for purification. After purifying, the cane juice is transferred to another pan where it is boiled and further purified by adding chemicals. Finally it is transferred to a high-heat pan where it is boiled at a temperature of 115<sup>0</sup>-117<sup>0</sup>C. Heating is done till the juice gets concentrated and then it is left to cool down.

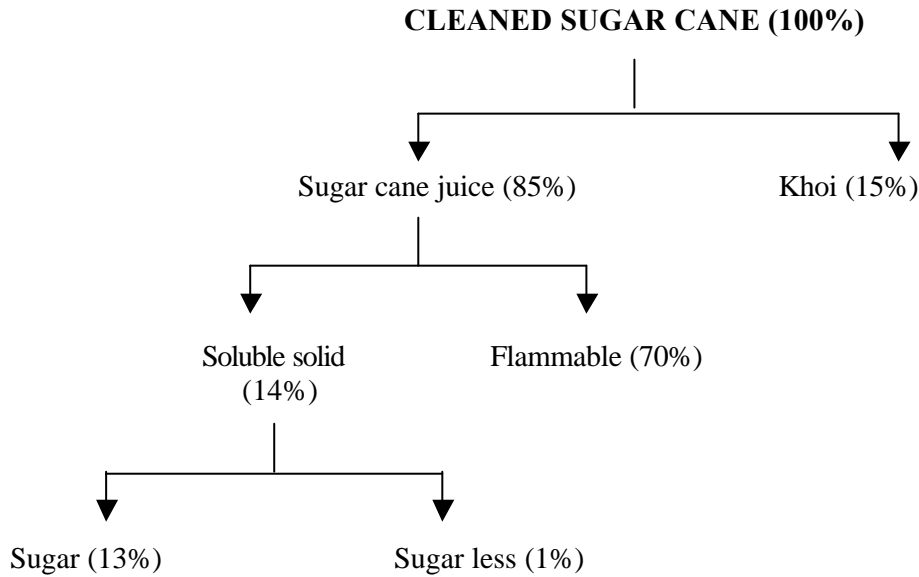
Then the concentrate is packed in a tin container or in a mould for 'chakki' (round-shaped) Gur. In this manufacturing process, the temperature is controlled manually itself. The waste of sugar cane called Bagas is used as a fuel after sun drying. The production process gets hampered in cold and cloudy weather conditions as the sun drying of Bagas are not possible so the stock of fuel is not available .

The use of scientific furnaces or ovens reduce the time taken for heating the sugarcane juice & as a result cuts down on the total time taken for Gur manufacturing. In this cluster only traditional ovens, that are made by the local masons is being used. There is no ISI specification for Gur production so testing instruments are not required. For production of better quality of Gur care should be taken that the sugarcane crop is crushed within 24 hours of it's harvesting. This protects the cane from drying & avoids a loss of sugar. If delay is unavoidable, the crop should be covered by leaves and should be sprayed with water at regular intervals. This can keep the crop safe for 3-4 days. This protection is very necessary because the average amount of sugar derived from a cane is already very low so taking precaution at this stage would avoid losses. The following diagram presents a picture of the average amount of sugar derived from a cane at different stages:



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### AVERAGE SUGAR COMPOSITION IN A CANE



### 2.4 LABOUR

The Gur manufacturing unit is a labour-based industry. There is an easy availability of cheap rural labour in the cluster. Some of the units also hire workers from U.P who are called 'mistry'.

### 2.5 MARKET

The market for Gur is of an increasing nature. Every unit produced in a season is sold out. A part of the domestic demand is met by U.P. producers also.

Presently the units have a cane crushing capacity of 1000 M.T to 25000 M.T per season. The cane crushing starts from October/November and ends in March/April. The unit operates at an average of 5 months in a year and for 20 days per month. A total of 10-12 lac quintals of sugarcane is crushed, which produces 120000 quintals of Gur in a season. The value of this production is estimated at Rs8 to 10 crores as the average selling rate is between Rs. 800-900 per quintal.

There is a huge scope for market expansion for Gur. The analysis reveal that if the cluster is able to produce more then it will be able to fill up the demand gap of local as well as neighbouring states markets. Besides, the producers can look into the export potential of Gur.

(Please refer to Annexure 1 for a Flow Chart of market destination for the cluster)



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### **2.6 FINANCE**

The banks do not prefer to finance the Gur manufacturers due to various reasons. So most of them have injected funds of their own and only a few have taken loans from the banks and that too of very low amounts. Mainly they do business either without or with inadequate amounts of working capital.

Mostly the manufacturer uses the sugarcane produced in his own-farm or purchases it from other farmers on credit basis. Few units who have a good storing capacity use the same to stock their product for sometime and as a result get a good return in the market. But most of the units have to sell out their product immediately and keep content with low profit margins.

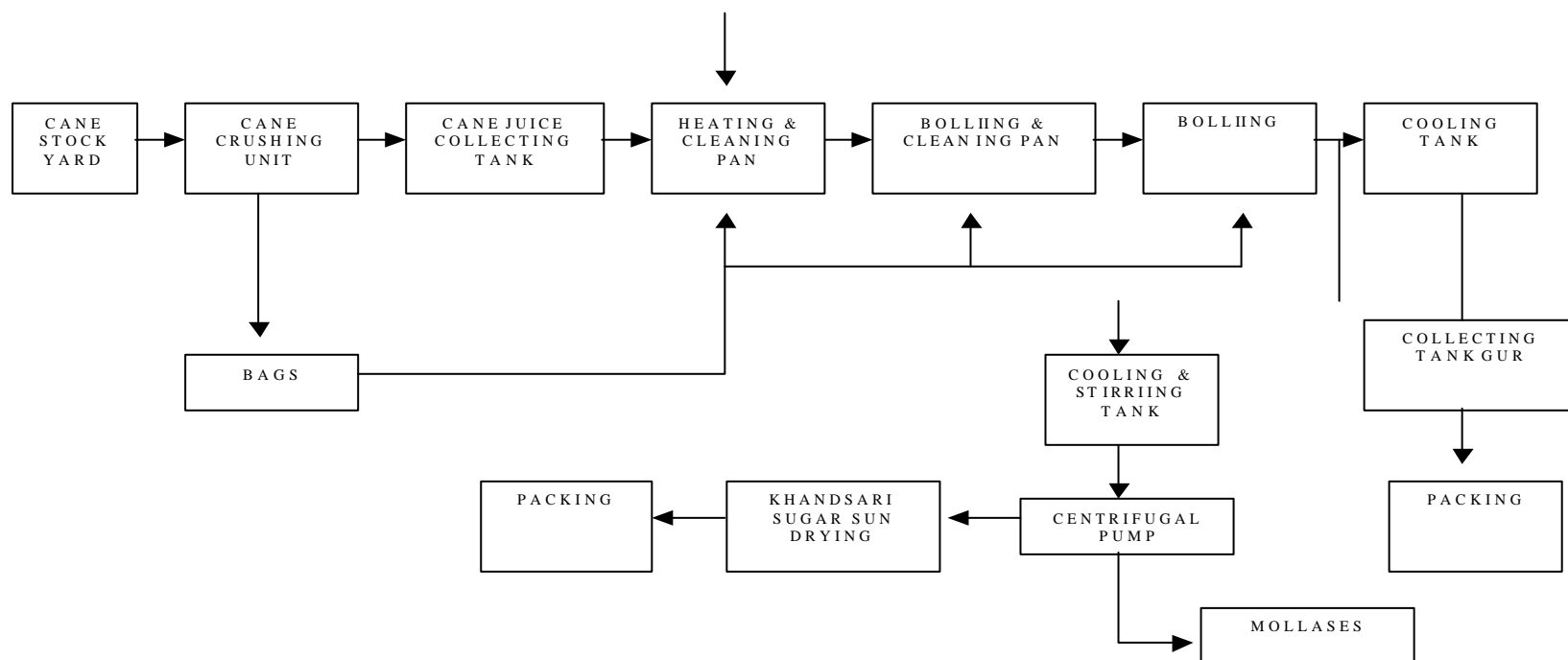
The tax levied by the State Government on purchasing & crushing of sugar cane is at Rs.1 per quintal and 8% on the selling of Gur. However, in the states of U.P. & Bengal there is no tax on such business. Apart from this, the Gur units also have to deal with different Government departments such as cane department, weights and measures department, sale tax department, marketing board, factory inspector, labour department etc. This system makes the units a victim of 'Inspector Raj'.



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### 2.7 GUR/KHANDSARI PRODUCTION FLOW CHART

#### DEWLA & HYDRO





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### **3. SKETCH OF SUPPORT INSTITUTIONS**

There are several support institutions in the cluster that are playing an important role in the development of Gur/Khandsari units:

#### **(A) DISTRICT INDUSTRY CENTER:**

This is a State Government unit functioning at district level for the development of S.S.I. units and providing initial industrial know-how. This office mainly renders the services of registering units.

#### **(B) SMALL INDUSTRY SERVICE INSTITUTE:**

The SISI is a Central Government unit and its major objective is to provide support to small industries in various fields and to organise entrepreneurship development programmes (EDPs) for existing as well as first generation entrepreneurs. This institute is not active in Madhepura.

#### **(C) OFFICE OF THE ASSISTANT DIRECTOR (SUGARCANE DEVELOPMENT DEPARTMENT):**

This is a State Government unit and the main objective of this department is to provide the knowledge base for producing better quality sugarcane. They provide information on latest methods in farming, good-quality seeds, fertilisers and pesticides, through holding demonstrations and organising camps for groups of farmers. They even provide subsidy on purchase of seeds, agricultural implement, pumping sets, tractors etc and provide assistance for Gur development work. There is a special officer deputed in the department designated as the Gur Development Officer.

#### **(D) SUGAR CANE RESEARCH INSTITUTE:**

SCRI is a wing of Rajendra Agriculture University, PUSA, Samastipur. The main objective of this institute is to research for new varieties of sugarcane and promote technology upgradation in Gur/Khandsari/Sugar units. A branch of SCRI was established here in 1990

#### **(E) GNNA PRAJANAN SANSTHAN, COIMBATORE AT MOTIPUR, MUZAFFERPUR:**

The main objective of this institute is to develop proper variety of sugarcane as per the climate & soil conditions of the Bihar state. At National level there is a Sugar Research institute situated at Kanpur.

#### **(F) OFFICE OF THE DISTRICT KHADI OFFICER:**

This is a unit of Bihar Khadhi Board, Patna. The main objective of this office is to look after the welfare of Khadi village industries and to provide financial assistance to Gur/Khandsari & other units in its area of control.

#### **(G) BIHAR STATE EXPORT CORPORATION, PATNA:**

BSEC is an undertaking of Department of Industries, Government of Bihar. Its main objective is to promote export of goods produced in the state and to hunt for new markets. As per discussion with one of the export officer, till now nobody has contacted this office for exporting GUR.



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### **(H) OTHER INSTITUTIONS**

There is an organisation called Sichai Anushandhan Kendra at Madhepura, which works for promoting the latest scientific methods of farming. Other than that there is a body called the Bayapar Sangh, which works for developing common benefits between business groups. But there is no Gur manufacturer association and the units usually solve their problems on individual basis.

### **(I) BANKING FACILITIES**

There are 8 commercial banks functioning at Udakisanganj subdivision. Apart from this there are Gramin Bank, Land Development bank and Central Co-operative bank. These banks mainly give term loans, working capital or cash credit finance. The small-scale units that are unable to provide for the necessary collateral securities and other formalities are generally denied financing facilities. The banks are not interested in providing finance to such type of units due to huge NPAs in their own accounts.

### **(J) BIHAR STATE FINANCIAL CORPORATION**

The BSFC is an undertaking of Bihar Government the main objective of this institution is to finance for long term needs such as land, building and machinery etc. The BSFC has not provided any finance to GUR industries as yet. Presently the financial position of this corporation is not very good.

### **(K) NATIONAL SMALL INDUSTRIES CORPORATION**

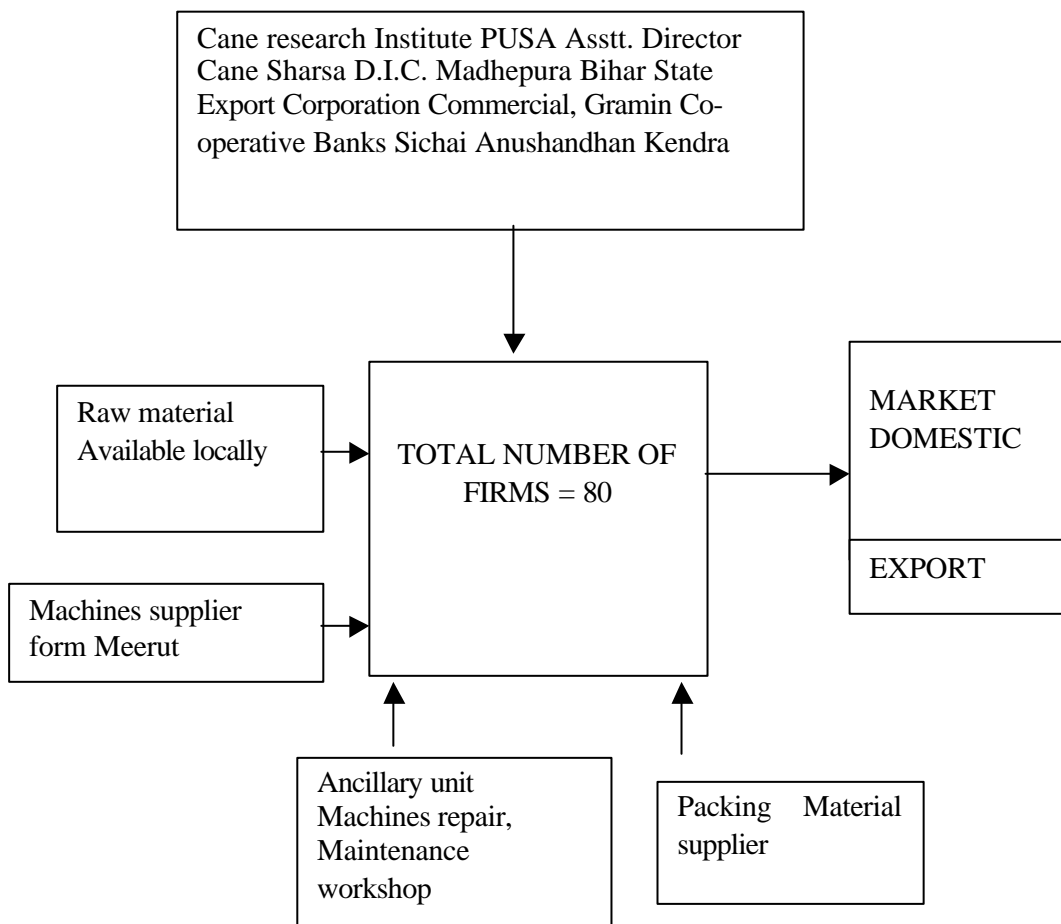
This institution provides long-term financial assistance for purchasing machinery under its several schemes. The machinery is purchased by the units mainly on hire purchase or leasehold basis, however none of the units at Madhepura has been benefited by this corporation as yet.



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### 4. CLUSTER MAP OF CANE CRUSHING UNITS AT UDKISHANGANJ, MADHEPURA

#### SUPPORT INSTITUTIONS





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### 5. COST BENEFIT ANALYSIS

Generally 10-quintal sugar cane produces one quintal of Gur. On an average a unit crushes 150 quintal of sugarcane and thus produces 15 Quintal Gur per day.

Cost of 150 Qtl sugar cane @ -55/= per quintal: -	Rs. 8250
Labour cost per day: -	Rs. 200
Cost of diesel per day: -	Rs. 170
Cost of cleaning materials & chemical: -	Rs. 20
Cost of Repair maintenance per day: -	Rs. 40
Interest on capital: -	Rs. 50
Depreciation on fixed capital: -	Rs. 30
Cost of packing material: -	Rs.300
<hr/>	
<b>TOTAL COST OF PRODUCTION OF GUR</b>	<b>Rs.10060</b>
Average Market Price of Gur =	Rs.800 per quintal
Return from sale of 15 quintal Gur =	Rs.12000
Profit Amount=	12000-10060 = Rs.1940

Hence,

The farmer who chooses to sell raw sugarcane earns Rs.8250

The farmer who processes the sugarcane into Gur earns Rs.1940

Total Value Added by Gur production @ Rs12.90 per quintal



## **MADHEPURA GUR CLUSTER**

### **6. SWOT ANALYSIS**

<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>• Raw material is easily available locally.</li> <li>• Favourable climate and soil for plantation of sugarcane.</li> <li>• Existence of sufficient cane crushing capacity.</li> <li>• Manpower is easily available and at cheaper rate.</li> <li>• Entire production is easily sold in the local and nearby markets.</li> <li>• Gur has manifold uses and there a huge demand exists in domestic as well as industrial sectors like pharmaceutical.</li> <li>• Sugarcane waste i.e. Bagas is used as a fuel.</li> <li>• No middleman in the business.</li> </ul>	<ul style="list-style-type: none"> <li>• It is a seasonal occupation</li> <li>• Delay in crushing of sugar cane and heating of cane juice deteriorates the quality of Gur.</li> <li>• Main fuel Bagas require sun drying, which is difficult in cold &amp; cloudy weather and thus affects the Gur production work.</li> <li>• Low levels of modernization and up gradation of technology.</li> <li>• No active support from the Government and financial institutions.</li> <li>• Erratic power supply in the area.</li> <li>• Lack of awareness about scientific ways of farming, market and quality of Gur.</li> <li>• Clash between sales tax registered and unregistered units, as unregistered unit can sell its product cheaper products.</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• Bihar is mainly dependent on agriculture-based units. So Gur or sugar cane base units have a huge potential to grow.</li> <li>• The sector is of significance for employment generation &amp; economic development in rural sector.</li> <li>• Huge scope for product diversification</li> <li>• Wide national &amp; export market</li> <li>• A separate plant may be established for use of Ethanol mix petrol</li> </ul>	<ul style="list-style-type: none"> <li>• Setting up of mini sugar mill will discourage the growth of Gur mill.</li> <li>• Migration of labour to Delhi &amp; Punjab might create a shortage</li> <li>• The attitude of the Government departments is highly unhelpful. Illegal gratification is demanded which obstructs the development of small industries.</li> <li>• Bad law &amp; order situation in the area.</li> </ul>



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### **7. MAJOR ISSUES & STRATEGIC DIRECTIONS**

- **There is a need for improving the quality of sugarcane in major areas of the district.**

A drive should be launched for massive farming of sugarcane in different pockets of sugarcane growing area. The office of the Assistant Director Cane Saharsa, Sugar Cane Research Institute (PUSA), the scientific Officer of Sichai Anusandhan Kendra Madhepura and the major groups of farmers should be contacted for the purpose. A meeting of farmers and concerned officials, and 4-6 workshops/seminars are to be organised for discussing better methods of sugarcane farming.

- **The cluster lacks associative behavior among Gur manufacturers**

The cluster is static in nature and is scattered. There is a need of a strong Gur manufacturers association. Some meetings of Gur manufacturers from different areas should be organised to form an association based on an affordable membership fees. The members of the association will be able to share their information and discuss their common problems and their solutions, using this common platform.

- **Poor Infrastructure**

The cluster faces a bad law & order situation and poor infrastructure facilities such as road, communication etc. There is a need for canal these facilities to have a better link with the local markets. Meetings with the mukihya & Pramukh (Panchayat heads), the Block Development officer and other officers responsible for the village's development will be organised to take up the issue at higher levels. Development schemes will be discussed and efforts will be made to get them implemented.

- **For a smooth development of the cluster the Gur manufacturers require major support from financial institution and insurance companies.**

Meetings of local Government officials, bank officials and other concerned officials with the Gur manufacturers will be organised to solve their financial and licensing problems. It requires 2-3 meetings and 2-3 workshops at different places.

- **Use of traditional technology**

Cluster lacks the knowledge of quality control, improved furnaces and alternate sources of energy. Quality control is carried out only by eye estimation. There is a need of technology upgradation and use of improved furnace, which will reduce the consumption of fuel and increase the rate of production. Seminars & workshops will be arranged in consultation with the scientist, researchers and Gur Development officer of the State Government. Demonstrations of improved furnace and quality of boiling pans will be discussed in the seminars and workshops. 5-6 seminars and workshops will be required at different manufacturing units. The CFTRI, Mysore and the National Chemical Laboratory, Pune will be contacted for information on latest technology & machines.



## ***MADHEPURA GUR CLUSTER***

- **Cluster lacks market awareness**

Seminars & workshops will be organised on multiple uses of Gur and its market. One workshop will be organised on export of Gur. The Bihar state export co-operation officer will be contacted to explore the export markets for Gur. The marketing personals of user companies will be contacted for new market. 5-6 seminars will be organised with the concerned people.

- **No contact with the final consumer**

Presently the Gur manufacturers sell their product to the wholesale dealers and are not at all in contact with the final consumers. Different methods of linking produces and users will be chalked out. Awareness and utility of Gur will be popularised. Two to three seminars will be organised on packing etc. Possibility of Gur packing in poly pouch of different weights will be discussed.

- **Intermediate product cane juice is raw material for distilleries and Ethanol mix Petrol.**

Seminars & workshops will be organised with different consultants and entrepreneurs for establishment of new units. Possibility of adding preservatives in Gur is to be explored. If that is possible then Cane juice ready-to-drink plant may be set-up. A cold storage may be very useful in this area. A workshop will be organised on diversification of product with the consultation of food research institute & food experts.



## MADHEPURA GUR CLUSTER

### 8. ACTION PLAN FOR RESTURCTURING OF GUR THE CLUSTER

S. No.	Activity	Objective	Duration	Budget	Contribution
1.	3-4 workshops at different places with farmers, scientific officer of Rajendra Agriculture University PUSA Asstt. Dir. Sugar cane, Dist. Agri. Officer & others.	For better sugar cane farming and availability of quality sugar cane seeds.	30 Man-days	Rs.25,000/-	NABARD/D.R.D.A.
2.	3-4 meetings with Gur mill owners and main dealers.	General awareness and formation of association.	30 Man-days	Rs.8000/- (Traveling)	IND.DEPT/NABARD/I NISTRY OF Food processing.
3.	Exposure visit of Gur mill owners to similar cluster at Kolhapur, Maharashtra & other places.	To give there good exposure for better quality and good mfg. process. (20 persons)	60 Man-days	Rs.50, 000/-	NABARD/Ministry of Food processing.
4.	3-4 meetings with Mukhiya, Pramuk, B.D.O., D.D.C.	Local infrastructural development (Repair of road to Gur mill)	30 Man-days	Rs.8000/- (Traveling)	Industries Department./NABARD/ Ministry of Food processing.
5.	4-6 workshops with Gur mill owner Scientist of sugar cane research institute PUSA, KANPUR, CFTRI MYSORE, National Physical Laboratory PUNE, Gur Development other officers.	For Technology upgradation and quality improvement.	180 Man-days	Rs.150, 000/- (For T.A. to experts, Honorarium, fees, Refreshment etc.	NABARD/Ministry of food processing.



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6.	Two seminars will be organised on packaging of Gur and new market for such as cane juice, Gur in pouch, small Gur cubes in rappers like toffee with consultation of food experts ad marketing consultants and Technical consultants	For market research and packaging system so that new users may be created. For establishment of cane juice Rum and Ethanol mix petrol plant.	180 Man-days.	Rs.50, 000/-	NABARD/Ministry of Food processing.
7.	3-4 Seminars will be organized with local and state level financial institution for credit flow and making marketing consortiums. (Finished product storage) one E.D.P. will b organised to provide managerial input to SME's.	For providing financial and managerial inputs to Gur will owners and have a better credit facility.	90 Man-days	Rs.30, 000/-	NABARD/Ministry of food Processing.

ESTIMATED PROJECT COST: Rs. 3,21,000

Source of fund- 1. Department of Industries, Government of Bihar: Rs.16000  
2. NABARD/Ministry of food processing: Rs.305, 000

Total Man-days- 600 days

BENEFITS (a) Production/Turnover of cluster will be raised from Rs10 crores to 16 crores  
(b) Quality of Gur will be improved  
(c) New market and new product  
(d) Employment will be generated

VISION- Image of Madhepura will grow by producing more & more Gur by 2004.

B.M.LAL DAS,  
G.M.D.I.C. MADHEPURA



## MADHEPURA GUR CLUSTER

### ANNEXURE 1

#### MARKET FLOW CHART

