



# PKLS INDUSTRIES PVT LTD

(Renewal Energy & Waste to Energy)

AN ISO 9001:2015 COMPANY

CIN : U45309UP2017PTC094651

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Head Office: Office No 316-17, 1<sup>st</sup> Floor, Sector-D, Shopping Square 2, Sushant Golf City,  
Sultanpur Road, Lucknow (U.P) -226030. (M) +91-9575058348 / +91-7504575555  
E-mail: [MD@pklsgroup.com](mailto:MD@pklsgroup.com)/[profpklsingh@gmail.com](mailto:profpklsingh@gmail.com) Website: <https://www.pklsgroup.com>

## 2. INTRODUCTION OF THE PROMOTORS

### 2.1 The Company

**PKLS Industries Pvt Ltd** is a company incorporated under Companies act, 1953 in 2017. It has its corporate office at No 316-317, 1st Floor Sushant Golf City, Sultanpur Road, Lucknow (UP), INDIA, Pin 226030.

The PKLS Industries Pvt Ltd (PKLS Group) is a diversified holding company, active in a wide range of industries and businesses mainly in Uttar Pradesh (UP) & Madhya Pradesh (MP), INDIA. PKLS Group is backed by a team professional with a solid experience and track record of successfully setting up and running large companies in India and abroad. PKLS Group is focused on developing business by capitalizing on the potential of INDIA's rapid economic growth.

PKLS Industries Pvt Ltd. is a company working on **Renewable Energy & Waste to Energy** Projects in UP & MP, INDIA. It is planning to venture into manufacturing and marketing of **Renewable & Waste to Energy** projects of (CBG) Compressed Bio Gas, Bio Ethanol, Bio Coal/white Coal/Bamboo farming and its bi-products. It is also planning for backward integration into dairy, poultry, piggeries, bamboo & Napier grass farming to ensure self-sufficiency in **raw** materials for un-interrupted and smooth operations of bio fuels projects. At **PKLS**, we have strong factors which would be of **immense benefit & interest to any investor to** partner in our growth together. These factors include but not limited to the following:

- Manufacture of CBG (Compressed Bio – Gas)
- Manufacture of Bio Fuel (Bio Ethanol)
- Manufacture of Bio Coal/White Coal
- Bamboo/Napier Farming.
- Setting up of Solar power farms
- Providing engineering & contracting services
- Education Division operating under auspices of **M/s PKLS Social welfare Trust**

### 2.2 Details of the company

S. No.	Particulars	Details
1	Name of the applicant (Promoter)	PKLS INDUSTRIES PRIVATE LIMITED
2	GST	09AAJCP2385N1ZU
3	PAN	AAJCP2835N

4	Incorporation Details	CIN- U45309UP2017PTC094651
5	Type of Company	Private Limited
6	Mobile/Tel No	9575058348
7	Email of the Company	MD@PKLSGROUP.COM/ Profpksingh@gmail.com
8	Place of Registration	Uttar Pradesh
9	Date of Registration	07-04-2017
10	Income Tax No.	AAJCP2835N
11	Contact Person	Dr. L S Singh / Dr PK Singh
12	Designation	MD / Director

## 2.3 The team behind PKLS



### **Dr L S Singh – MD & CEO (Founder / Promotor)**

Dr L S Singh is a seasoned & matured professional having multiple qualifications –**BSc** (Chemistry), **MA** (Economics), **LLB. (Labour Law & Taxation ) WTM** from IIMM, **GDMM & PGDMM** from IIMM, **MBA, Lead Assessor** for ISO 9001:2000 from **RINA Egypt**, Research Fellowship/(Doctorate) (**Ph.D.**) in **ERP –Systems**.

He has 42 years’ rich experience in the field of Overall management as Business Head/CEO/COO/ED/MD for Automobiles, Steel, Cement, Power & Construction Industries.

He has worked with market leaders in India viz. Jaiprakash Associates (**JAYPEE-Cement**), **JSW Steel (Jindal Group)**, **Birla group**, **Lanco Power** and also in Senior/Top management roles abroad in steel manufacturing companies.

**Dr Singh** is a man with a mission & vision who mentors & guides the team and makes efforts to convert companies’ dreams into reality.

### **Ashim Kumar Mukherjee (Chief Advisory Officer)**



He is a former bureaucrat from National External Wing (RAW) with a distinguished service career before taking voluntary retirement and then switched over to corporate sector in 2009. He has over 32 years’ experience in corporate regulatory affairs, governance, comprehensive due diligence, business intelligence, strategy, compliance and government liaison. He is highly networked with govt institutions. He was CEO of Eisen Industries Ltd, Mumbai from Oct 2019- Dec 2020.

Currently he is engaged in advisory role under Make in India mission. He is working as advisor and senior consultant to many reputed companies.

He is with us as **Chief Advisory Officer** to the Board of Directors of our company for taking up liaison and approval of the projects with the authorities.

### **Dr P K Singh (CEO)**



He is MSc, PhD (Chemistry) from Rajasthan University, Jaipur. He has worked in public and private sector at various positions for over 40 years, mostly in cement industry. Later he joined an engineering university as a professor and superannuated from the position of Dean (Academics & Research) recently. He is a very mature and seasoned person having vast theoretical & practical experience and knowledge. He is working with us as CEO. He will look after all **green energy** projects of the company.



### **Er. M E Pawar (CTO)**

He is a Graduate Engineer having over 24 years of experience, He is very sound techno-commercially and a dynamic person. He worked with **JSW group** at senior positions in various factories of the group such as Steel, Power, Cement. He did a stint at their corporate office too. He looked after planning and execution of several projects of the group. He is our CTO.



### **Ajay Kumar Singh (Executive Director)**

He is a Graduate **Engineer and an MBA**. He is a dynamic person with 14 years' industrial experience in Cement and Steel sector in India and abroad. He is whole time Director and working as **Executive Director** to take care of day to day operational issues and planning for future strategy of entire operations our group companies.



### **Mr Harinder Singh (CFO)**

He is a Cost & Management Accountant (**CMA**) having over 35 years' experience in companies engaged in production of soaps, detergents, cooking oil, white goods, wheat flour, steel D bars, chemicals, glass, sugar, alcohol, paper and power from natural gas. He has looked after finance and accounts function from planning stage till start of commercial operations and thereafter for many projects. He will lead the team for accounts, finance, commercial and compliance functions of the group company.

## **3.EXECUTIVE SUMMARY**

### **3.1 BACKGROUND – NAPIER GRASS FARMING PROJECT**

#### Features of Napier Grass

- Napier grass is one of the important perennial tropical forage crop belongs to family Poaceae. It is also called Uganda grass or elephant grass. It is native to Africa but is now grown in many tropical countries. The grass grows tall and forms large clumps like bamboo.
- Napier grass (*Pennisetum purpureum*) is a popular crop for bioenergy production due to its high biomass yield and fast growth rate. The grass can be used as a feedstock for a variety of bioenergy technologies, including biogas production and biofuels.
- Biogas production is a common use of Napier grass for bioenergy. The grass is harvested and then fed into an anaerobic digester, where it is broken down by

bacteria to produce biogas. Biogas can be used directly as a fuel for cooking or lighting, or it can be upgraded to produce biomethane, which can be used as a transportation fuel.

- Napier grass can also be used to produce biofuels such as ethanol and biodiesel. The grass is harvested and then processed to extract the sugars or oils, which are then converted into biofuels through fermentation or transesterification.

### **Varieties of Napier Grass**

King Grass,

Common Napier,

Red Napier,

Taiwan Napier,

Uganda Napier,

Indian Napier,

Dwarf Napier,

Dwarf 'Mott' Napier

Australian Dwarf Napier and

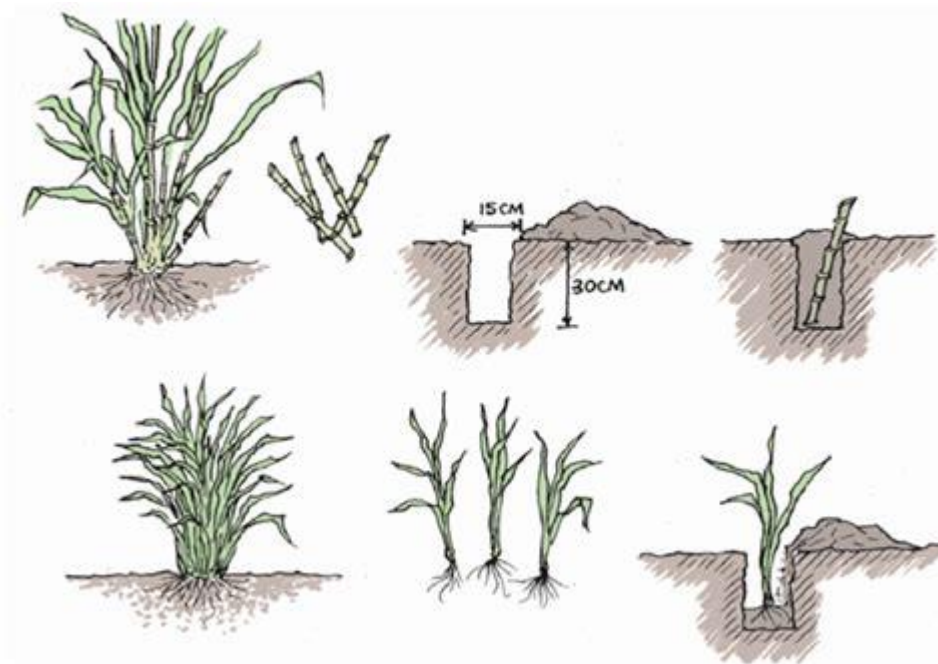
Super Napier.

**Keeping in mind of our geographical location and land quality we shall be farming mainly Super Napier variety.**

### **STAGES OF NAPIER GRASS FARMING**



## Land preparation and planting



1. **Land preparation:** Before planting, the land should be ploughed and harrowed to a fine tilth. This helps to create a good seedbed and allows for better seedling emergence.
2. **Planting:** Napier grass can be planted either by seed or by vegetative propagation (i.e., stem cuttings). When planting by seed, the seeds should be sown at a depth of 1-2 cm in rows spaced 60-75 cm apart. When planting by stem cuttings, the cuttings should be planted at a depth of 10-15 cm and spaced 30-45 cm apart.
3. **Fertilization:** Napier grass requires regular fertilization to maintain high yields. In general, the crop responds well to nitrogen, phosphorus, and potassium fertilizers. The fertilizer rates should be based on soil fertility levels and crop requirements.
4. **Irrigation:** Napier grass requires regular irrigation, especially during dry periods. The crop is sensitive to water stress and can suffer from reduced growth and yield if water is limited.
5. **Weed control:** Weeds can compete with Napier grass for nutrients and water, and can reduce crop yields. To control weeds, farmers can use either manual or chemical methods, depending on the local conditions and regulations.
6. **Harvesting:** Napier grass can be harvested at different stages of growth, depending on the intended use of the crop. For animal feed, the grass can be harvested when it reaches a height of 1.5-2 m. **For biogas production, the grass can be harvested when it reaches a height of 2-3 m.**

## Uses of Napier Grass

There are many uses of Napier grass out of which a few are listed here.

- **Fodder for cattle:** Mainly used as fodder crop. Generally, it is fed directly to cattle or made into silage or hay.

- **Pest management:** Napier grass is also used in integrated pest management strategy as pull crop mainly in maize and sorghum producing areas. Napier grass is grown along maize or sorghum (in rows or in borders) to reduce the stem borer population.
- **Reduce soil erosion:** Napier grass is planted in marginal lands and slopes to increase soil fertility and to reduce soil erosion. It is also commonly grown in borders of many crops as windbreak and firebreak.
- **Pulp and paper:** It is also the main source for paper production in many regions.
- **Biomass for bio gas or bio coal:** It produces huge biomass and can be harvested multiple times in a year making it a good raw material for biofuel production. This gas is commonly known as bio gas and when compressed, Compressed Bio Gas (CBG). **Our main objective to farm Napier grass to use it as a feedstock in our own upcoming Bio Gas projects to become self-reliant in feedstock or to convert Napier grass bio mass into bio coal/briquettes.**

### 3.4 Site Location:

S. No.	Particulars	Details
1	Name of the Industry	PKLS INDUSTRIES PRIVATE LIMITED
2	Village	Chhataini,
3	Tehsil	Hanumana
4	District	REWA (MP)
5	Graphical Co-ordinates	Latitude: <b>24°49'00.9"N</b> Longitude: <b>81°52'22.5"E</b>
6	Climate Conditions	Files attached
7	Humidity	Max: 83% (August) Min: 25% (April)
8	Temperature	Max: 40.5°C (May) Min: 9.1°C (January)
9	Seismic activity:	None
10	Rainfall	Max: 308 mm (July) Min: 5 mm (April)
11	Nearest Village	Chhataini
12	Nearest Town	Mauganj, 17 KM, REWA, 87 KM - District town and headquarters



13	Land Area	1000 Acres
14	Soil Type	Alluvial Soil
15	Nearest Water Bodies	1. Gorma river 2. Tudyari river
16	Nearest Highway	NH 135 highway to Rewa (MP).
17	Interstate Boundary	7km, Uttar Pradesh
18	Nearest Air Port	Name: Allahabad Airport Distance from site of the Project: 110 kms

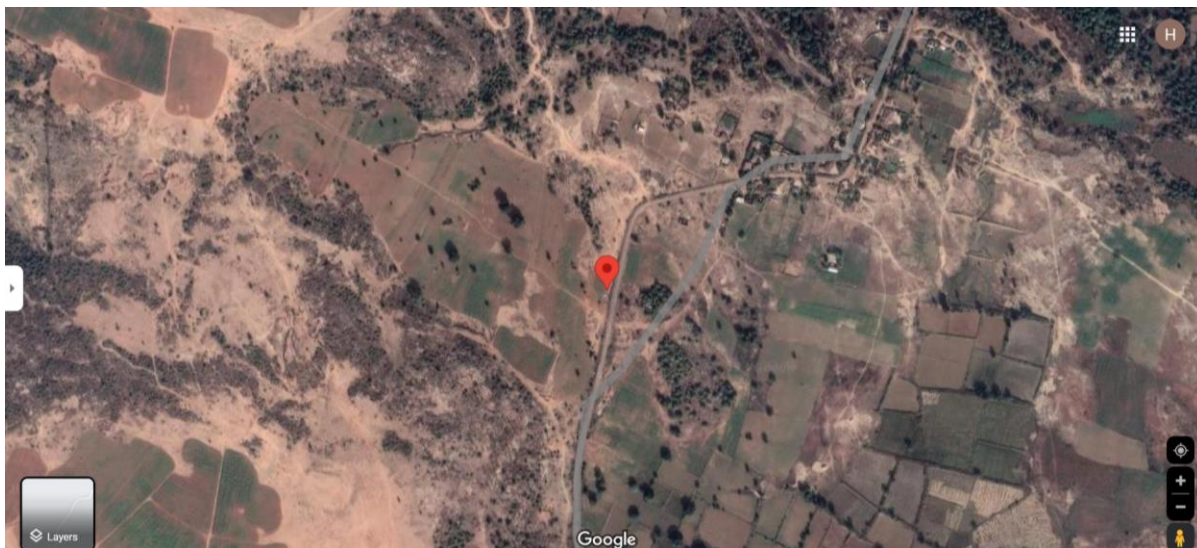
### Source of Water

Sufficient rain fall is available in the area along with ground water. This provides sufficient ground water charging in the region. We will use bore hole water for our operations after necessary approvals.

### Advantages of Location

The proposed location offers several advantages in terms of availability of labour, availability of civic amenities and availability of ground water. The project has good revenue potential.

### PROPOSED SITE LAND PLAN/MAP:



## 4. Statutory Clearances Required

Since this is mainly an agricultural activity, no statutory clearances are required except for sanction of power connection for bore wells for farming and some other minor clearance at the local level.

## 5. ESTIMATED COST OF THE PROJECT

DETAILS OF PROJECT INVESTMENT (NAPIER GRASS FARMING)	
SECTIONS	AMOUNT IN INR LACS
<b>PLANT &amp; MACHINERY AND UTILITY VEHICLES</b>	
BOREWELLS (10 Nos.) @ Rs 1 lakh per borewell	10
HARVESTOR AND OTHER ATTACHMENTS FOR TRACTORS, PICKUP	125
DRIP IRRIGATION SYSTEM @ RS 25K FOR 1000 ACRES	250
<b>TOTAL PLANT &amp; MACHINERY AND UTILITY VEHICLES</b>	<b>385</b>
LAND & DEVELOPMENT (1,000 Acres @ RS 10 LAKH PER ACRE)	100,00
ALL CIVIL WORKS INCLUDING INTERNAL ROADS, FENCING, DRAINAGE, SUMPS, LAGOON	111
WORKING CAPITAL MARGIN	111
INTEREST ON TERM LOAN DURING CONSTRUCTION	753
PRE OPERATIVE EXPENSES @ 1% OF PROJECT COST	
<b>TOTAL LAND AND DEVELOPMENT</b>	<b>102,75</b>
<b>TOTAL PROJECT INVESTMENT</b>	<b>113,60</b>
<b>FUNDING PLAN: DEBT 75% EQUITY 25% - 5 Year Debt with 1 year Moratorium</b>	

## 6. IMPLEMENTATION SCHEDULE

- 100 acre land has already been purchased and registration is in progress. Approval for power connection for bore wells will be taken immediately after registration. Land development work including fencing and laying of drip irrigation system will start at the same time.

- We expect that napier grass can be planted within 6 months of the registration of land.
- Irrigation and weeding activities etc will be continuously take place throughout the year like any other agricultural activity.
- Harvesting for napier grass will start between 4<sup>th</sup> and 6<sup>th</sup> month after planting.

## 7. ENVIRONMENTAL ACTIVITIES

### Green Belt Development

Even though napier grass itself is a very environmental friendly plant, we have planned a green belt as well to mitigate air pollution. Plants generate oxygen, serve as a sink for pollutants, act as a barrier to break the wind speed as well allows the dust and other particulate to settle out there. Green belt will be created along the fence of the plantation.

### Water conservation and management

Water conservation and development measures shall be taken including all possible potential for reuse and recycling of water. Water source development shall be practiced by adoption of scientifically design rainwater harvesting system. The water is being used for recharge of aquifers. Rainwater harvesting promotes self-sufficiency and fosters an appreciation for water as a resource. Minimizing Water Consumption is being minimizing by a combination of water saving devices like drip irrigation system. Storm Water Management: Storm water available at the farm will be harvested for ground water recharge. The run-off water will be directed and collected into a pond suitably located for this purpose on the farm.

## 8.PROJECTED FINANCIALS

A separate PDF file containing detailed financials has been attached for this project.

***NOTE: Financial projections do not Include Incentives and subsidies available to such projects.***

***The financials do not include revenue generated through intercropping.***

## 9. CONCLUSION AND RECOMMENDATION

### Conclusion and Recommendation:

Financial Analysis clearly indicates that farming of napier grass on commercial scale is Environmentally friendly as well as economically a viable and profitable project. Keeping in mind the environmental impact and self-sustainability of the project, it is strongly recommended that the project should be executed in the right earnest at the earliest.

The internal rate of return of the project is high with a payback period of almost one year only make It financially viable project In every respect. Hence it is essential to execute the project as soon as possible.