Strategic Infrastrucure Business Consultancy Services GmbH

Sustainable Smart Village and Goshala Promoted by Indo-German Joint Collaboration

Sustainable Smart Goshala Village

Concept especially developed for rural development in India

- Renewable energy (Solar/biogas/wind energy)
- Affordable Housing
- Community Center
- Primary Care Hospital
- Vocational training school/college
- Food & Energy Park
  (Hydroponic medical plants/vegetables/hatchery/aquaponics etc.)
- Vitality Porridge and Supplements for Food Relief
- Eco Tourism
- GOSHALA (cow shelter) roof top and biogas plant with CNG production

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INTRODUCTION

Currently there are many opportunities for investing in rural development: One of the most promising opportunities is the Sustainable Smart Goshala (Cow Shelter) village in India.

To solely produce electricity from Solar or Biogas is not viable because of the current PPA (power purchase agreement) is very low (between $0.05-$0.07, varying from state to state) in India. On the other hand, when solar energy is used for captive consumption, it is interesting because the commercial rate is much higher than the PPA and your excess power can be supplied to the owner of affordable housing and other applications.

In the same area where you setup your Sustainable Smart Goshala Village you can cultivate organic agricultural products and medicinal plants, establish a hatchery, fishery and a biogas plant with CNG production and cooking gas in view of creating a sustainable eco-park.

We can set up MSME industries as cluster by providing each household with skill development to become ATMANIRBHAR (self sustained) employed.

Solar power panels can be installed on the roof tops of a cow shelter, a resort farmhouse, an education centre, a hospital as well as affordable housing.

The energy generated can be used to supply the Sustainable Smart Goshala Village and any excess energy can be sold.

These are all additional income sources which make your investment viable.

INTRODUCTION

To receive government subsidy, it is beneficial to offer project based educational skill development and direct employment in different sectors for the locals.

To access government subsidies, a foreign investor/promotor has to establish a j/v company based in India with major shareholding, or a company that is 100% owned under the Make in India program.

In order to initiate and accelerate the project, we already have land bank at our disposal in four states in India: Madhya Pradesh, Bihar Uttar Pradesh, Rajasthan and Chhattisgarh. It is possible to cooperate as a joint venture with the land owner, long term leasing the land or purchasing.

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Affordable houses with electricity, gas, toilet, water, etc. for every family as per dream concept of prime minister Narendra Modi

for 15-25000 families, 35-50 m^2 per unit, depending on the number of family members along with solar roof top

Photo credit: Sunfarming

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

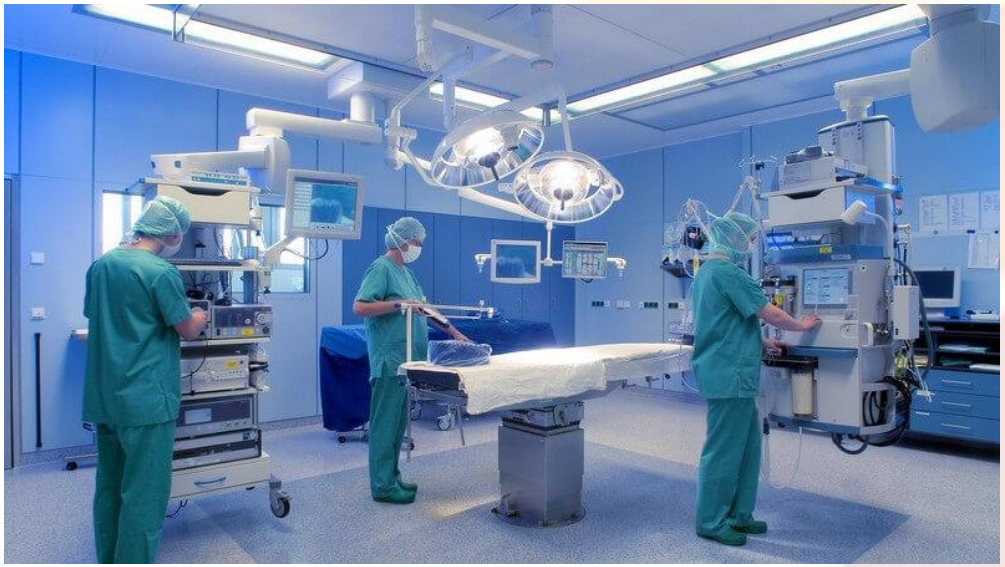
Community Center

Including ceremony hall/community kitchen/guest house with 100 beds for students/iindoor game facilities/day care centre

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Primary Care Hospital

(ca. 200 beds) including an emergency ward, maternity ward, paediatric clinic, operation rooms, etc. along with 4 ambulances



CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Vocational training school/college

Skill development (plumbing/electrics/mechanics/civil/solar/agriculture/ IT/ Management/accounts/marketing & sales/hospitality & restaurant business/medical nursing, care-giving, etc.)

Photo credit: Sunfarming

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Food & Energy Park

Hydroponics/aquaponics /high valued vegetable production for supply to hotel industries/medical plants/cool house/food processing (fish, chicken) & packaging unit etc

Photo credit: Sunfarming

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Vitality Porridge and Supplements for Food Relief

From the harvest of the local crops and medicinal plants of the Smart village, vitality porridge and food supplements can be produced onsite for immediate food relief. One powerful plant is Artemesia Annua: the extract effectively boosts the human immune system and is a great ally in the fight against malnutrition.
Apart from curing Malaria, Artemisia Annua is known for the following:

- Researchers are currently working to develop an anti-Covid-19 virus medicine based on Artemesia Annua
- It exhibits immunoregulatory properties, i.e. it helps strengthen the immune system.
- It helps regulate the nervous system; it alleviates anxiety and irritability.
- It helps improve the respiratory system: it has proven effective in the treatment of bronchitis.
- It alleviates physical and mental fatigue.
- It stimulates kidney and gallbladder function.
- It purifies the liver.
- It alleviates period pain.

Photo credit: Sunfarming

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Eco Tourism

50 to 100 villas along with small gardens & artificial lake (rain water harvesting, floating solar restaurant

Photo credit: Sunfarming

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

GOSHALA (cow shelter) roof top and biogas plant with CNG production

Requirements

- Relaxation area / Sleeping
- Walkways
- Running Yards
- Feed intake
- Drinking
- Calving area
- Pens for sick animals
- Areas for calves and young animals
- Milking parlour
- Storage facilities
- Vehicle depot
- Workshop

Photo credit: ALENSYS

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

GOSHALA (cow shelter) solar roof top – Space requirements

	1,000	5,000	15,000	cattles
Area stable with roof	7,900	39,500	118,500	m²
Total covered area	8,800	70,400	211,200	m²
Area of outdoor facilities (exercise area for animals, minimum)	7,500	37,500	112,500	m²
Area for biogas plant	5,000	15,000	30,000	m²
Amount of manure	39	195	585	to/day
Amount of bedding	9	45	135	to/day
Biogas with 54 % CH_4	4,180	20,900	52,700	m^3_n/day
Biogas upgraded 95 % CH_4	2,375	11,875	35,625	m^3_n/day
Amount of energy	23.7	118.5	355.5	MWh/day

Site 1,000 cattles means

500 cows
600 other cattles (offspring)
1,100 cattles total

or 825 LU (=Large Unit = 500 kg live weight)

Attention: Rough, non-binding estimate to be used as first information only!

If you add more bio waste/substrates, you will get more energy/gas!

CONCEPT
SUSTAINABLE SMART GOSHALA VILLAGE or SMART VILLAGE

Substrates

Bio waste

Market wastes

Kitchen wastes

Organic Fraction of Municipal Solid Waste

Landscaping Materials e.g. grass

WHAT WE OFFER

Even when individuals, companies, and governments have a common objective, if the business chemistry does not match, no consensus can be reached and the project will likely not come to fruition.

We act as a catalysator and interface to ensure the right communication between all stakeholders as we have valuable insights regarding both business strategies as well as the prevailing business culture.

Our excellent team consists of experts in their fields equipped with deep knowledge on industry standards and technical know-how.

WHAT WE OFFER

Project development

- Project formulation and identification of business objectives
- Feasibility Study
- Proposal development
- Detailed Project Report (DPR)
- Contract management
- Setup of joint ventures
- Sustainable Business Development/Carbon credit

Government liaising

- Effective interfacing and establishment of operating mechanisms between the various stakeholders (e.g. governments/institutions/industries/corporations)
- Accelerated approvals from government departments
- Mobilizing government subsidies

WHAT WE OFFER

Project management

- Resource development and management
  financial / manpower / technology / product / vendor
- Support of local legal documents and tax consulting
- Other business-related services
- Technology search, EPC (erection, procurement, commission)
- End-to-end project setup and support
- Solutions for corporate climate action/carbon credit

Marketing

- Setup of a marketing network for the project/products
- Institutional sale of the products
- Conception of a distribution network
- Export market development
- Organizing of buy back

HOW WE WORK

- Familiarization with your range of products, services and/or technologies
- We sign an MOU detailing our cooperation.
- After defining our scope of work, we agree upon a seed capital in order to develop the project.
- We implement sustainable business solutions for high impact carbon reduction and corporate climate action.
- We then assist in getting your company or the j/v company registered with all relevant authorities to receive government subsidies, permits, etc.

TEAM

- Asim Saha – Project Development and Finance Control
- Dr. Anand Singh – Project Management (Smart Grid, Smart Village, Smart Cities)
- Mara Calenic – Project Coordination and Public Relations
- Helmut Muche – Biogas Design Specialist
- Harry Rauch – Solar Design
- Wolfgang Brückner – Sustainable business solutions for carbon credit
- Bridge and Roof – Govt. of India enterprise, multidisciplinary expert in construction

TEAM

Asim Saha – Project Development and Finance Control

- BSc. In Kolkata and MB in International Marketing and Finance in Bremen
- Long-standing experience and expertise in the facilitation of successful business ventures in the Indian subcontinent and Germany
- Recently concluded project: Nagpur Metro. Responsible for the organization of project development, finding technologically equipped partners and financing.
- His company SIBCS acts as the link between various project players, for instance, governments, institutions and corporate industries in order to initiate and help projects come to fruition.
- Close affiliation with financial and governmental institutions like KfW, Euler Hermes, GiZ, etc. and strong working relations with corporations, particularly in the infrastructure sector (e.g. PwC Germany, German Railway (DBI), Thyssen Krupp, Bridge and Roof, etc.) and renewable energy sector.
- As an established musician (artist name: Tri atma) having published fifteen records and over 180 compositions all over the world, Mr. Saha enjoys playing concerts and organising events, for instance, for the India Week Bremen and India Week Hamburg which are both officially supported by the Indian and German government.

TEAM

Dr. Anand Singh – Project Management (Smart Grid, Smart Village, Smart Cities)

• Doctor of Philosophy (Ph.D.) - Smart Cities, School of Technology, PDPU, India (2021), Executive MBA - Energy and Infrastructure, PDPU, India (2012), BE - Information Technology, Rajiv Gandhi Technical University, India (2005)

• Dr. Anand Singh is a multi skilled professional with 15 years of experience in technology, business consulting and advisory in Smart Grid/Smart City/Smart Village domain. Extensive experience in industry and utility with excellent track record in conceptualizing, formulating and executing projects/programs with matchless people management skill.

• Worked with Ministry of Science and Technology and Bureau of Indian Standards to standardize Electric Vehicle standards for Government of India

• Worked with Bangalore Electricity Supply Company Limited for Electric Vehicle Charging Infrastructure planning and rollout for Bangalore City

• Helped organizations in liasoning with government department, tender evaluation, bid preparation, and submission

• Managed solution development and system architecture in various projects for clients based on different geographies

TEAM

Mara Calenic – Project Coordination and Public Relations

• B.A in Social Science at Maastricht University and M.A. Media Studies at Leiden University

• Seasoned copywriter, editorial journalist and translator (German/English, English/German)

• Concept designer and scriptwriter for commercial (image films, investment films, recruiting films) and educational films (2D/3D animation), overseeing the entire production of the film: from first conception, conducting of interviews, to final edit.

• Creates storytelling experiences across multiple media platforms

• Project coordinator for India Week Bremen 2014, India Week Hamburg 2015, 2017 and 2019, organizing cultural and economic events in collaboration with the German and Indian government

• Part of the public relations team Arabische Kulturwochen Hamburg 2016

• Founding member of Forum für Deutsch-Indische Völkerverständigung e. V. (Association for Indo-German cultural understanding)

• Children's educator on the usage and application of medicinal plants

TEAM

Helmut Muche – Biogas Design

- Diploma in chemical engineering at the University of Applied Sciences Lemgo
- process engineering and quality management for biogas plants and waste water treatment plants with over 45 years of experience
- He is an expert in the planning, construction, installation, commissioning of gas treatment plants (desulphurisation units, gas freezing units), gas holders, gas flares, safety devices, biogas plants for agriculture food industry, fixed bed reactors for organic waste, wastewater treatment plants
- He has designed and implemented many biogas plants and waste water treatment in Germany, Russia, Indonesia, Thailand and India.
- Publications:

Helmut Muche/Harald Zimmermann: The Purification of Biogas, in: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) Handbook for the construction of desulphurisation plants for small biogas plants, 1985

Muche, H.; Oles, J.; U. Voß, U.: Biogas-Entschwefelung - Möglichkeiten und Grenzen: In: Buchholz (Hrsg.): Technik anaerober Prozesse, Beiträge einer Veranstaltung des Sonderforschungsbereiches 238 der DFG an der TECHNISCHEN UNIVERSITÄT HAMBURG-HARBURG in Zusammenarbeit mit dem Forschungsausschuß Biotechnologie der DECHEMA e.V, Overview of the state of the art for the desulphurisation of biogas, 1998

TEAM

Harry Rauch – Solar Design

- Certified electrical technician engineer for energy and process automation
- Solar energy consultant for photovoltaic systems
- Certified business economist for Computer Science in Economics
- Deutsche Gesellschaft für Sonnenenergie (DGS) photovoltaic specialist
- TÜV Rheinland authority for photovoltaic
- Many years of experience with maintenance and reconstruction of drinking water supply mains
- Economics knowledge regarding profitability calculations and cost comparison methods
- Experience in the field of energy supply through photo voltaic systems

- He has designed and implemented many solar power plants and solar roof tops in Germany, the Middle East, Russia and the Indian subcontinent
- Management experience, leadership competences; demonstrably experiences in photovoltaics
- Worked many years for Berliner Wasserbetriebe: engineer-related planning, contributing to the inventory taking of the drinking water supply network, as area site manager of a large drinking water supply network in Berlin, implementing a project for the self-sustaining power supply of pressure measuring points, for drinking water mains through the use of photo - voltaic systems and as a project manager
- Since 2009 he is the CEO of ESR GmbH Energieschmiede – Rauch: project development, detailed planning, implementations, acceptance, monitoring and maintenance for renewable energies specialized in photovoltaic

TEAM

Wolfgang Brückner – Sustainable business solutions for carbon credit

• As Managing Director and Owner of Carbonbay GmbH & Co.KG, in Hamburg Germany, he has been involved in the development and management of international emissions reduction project activities in 60+ projects in 12 countries reducing more than 5 million tons of carbon dioxide equivalent.

• Senior expert for international compliance and voluntary carbon markets, actively developing business models for projects participating in compliance and/ or voluntary carbon market schemes applying internationally recognized quality standards as the Clean Development Mechanism, VERRA's Verified Carbon Standard and the Goldstandard.

• Has been involved in the carbon development for project of the following sectors:

- renewable energy from small- and large-scale hydro-, wind and solar power as well as biomass;
- N2O-abatement from nitric acid production facilities;
- Afforestation and Reforestation project activities;
- Energy efficiency projects on household level as improved cookstoves or efficient lighting activities.

TEAM

Bridge and Roof – Govt. of India enterprise, expert in EPC

BRIDGE & ROOF CO. (INDIA) LTD.
(A Government of India Enterprise)
A Miniratna Company

• Bridge and Roof is a Government of India Enterprise. It is a multidisciplinary organization with over 100 years of experience in construction.

B&R is a most versatile construction organization, ready to take on new challenges as dynamic and professional leader in their fields of expertise.

• B and R can provide a single window solution. Right from surveying and executing the entire construction activities consisting of civil, mechanical, electrical work etc.

• The expertise of B and R includes the construction of boundary walls, internal roads, education centers, hotels, resorts along with the necessary infrastructure.

• B and R has in depth knowledge and competence cold storage, greenhouse/biogas plants with CNG production and in all types of industrial foundations, buildings and utilities and power plants.

CONTACT

Strategic Infrastructure Business Consultancy Services GmbH

German Office

Asim Saha
Grandweg 142
22529 Hamburg
Germany

Phone: +49 40 2991500
+49 176 72411016
Mail sahaasim0210@gmail.com
asim.saha@sibcs.de
Website www.sibcs.de

Indian Liaisoning Office