



Sankalpa Research Center  
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**SANKALPA WHITE PAPER**

# Sankalpa Research Center Projects

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**Keywords:** Student Charter, village-based sustainable and appropriate technologies, information and communications technology, systems approach, networking, monitoring and evaluation, sustainability, spirulina, community radio, mobile health clinics, telemedicine.

... And always, we learn from Nature

# 1 Introduction

The projects at SRC-Nadia are primarily based on the **Sankalpa Pyramidal Model** for village-based development shown on the right, which is based on the Pareto Principle that 80% of the ‘global’ villagers’ needs can be met if we comprehensively address the following three core issues (which are assumed to constitute 20% of the ‘total’ number of issues), or the ‘primary colors’ of rural development:

- a) ‘Sustainable Livelihoods’;
- b) ‘Sustainable Energy’ and
- c) ‘Sustainable Shelter’.

According to our research of village-based systems, these three approaches—held together by ‘Sustainable Information’—as shown in the pyramidal model on the right, are sufficient to promote ‘Total Empowerment’ or ‘Sustainable Development’ of the rural masses.

At a higher level of abstraction, we have the “Total Rural Development” (TRD) model for village-based development, in which the three primary colors are ‘mixed’, to provide three additional categories: “Health’, ‘Agriculture and Environment’ and ‘Advanced Technologies’.

With the level of funding that we have mobilized so far, the projects that are being pursued at SRC-Nadia can therefore be classified into the following categories shown on the right: (Please visit [<http://www.sankalpacmfs.org/src/>] for details.)

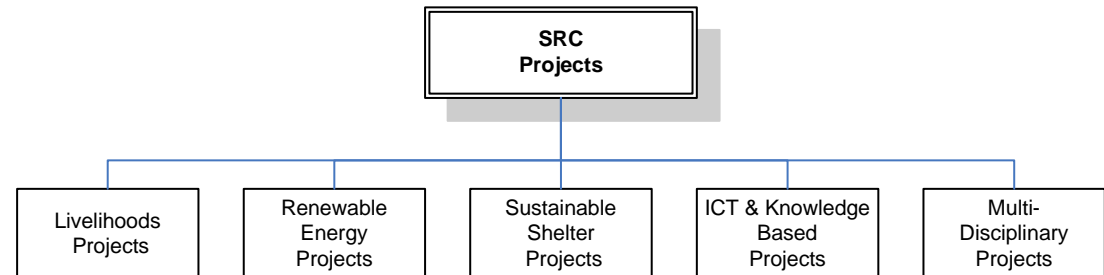
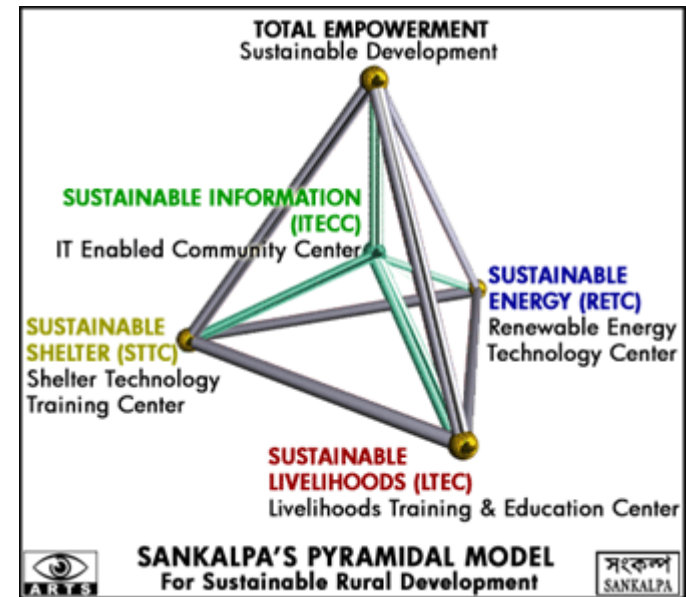
Details of the projects in each category with a brief description are listed in the following pages.

## WE NEED YOUR SUPPORT:











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To donate to the project of your choice, please note the code number(s) of the selected project(s), and enter into the space provided for donor feedback in the Pay Pal application, so that your donation can be recorded appropriately. In the event of a single donation being applied to several projects, the apportionment will be equally made, unless the donor makes that pre-determination explicit in the feedback. Thank you.













## 2 Livelihoods Projects

Code No:	Project Title/Reference Doc.	Brief description
SRC.LIV01.LTEC 	<b>Livelihoods Training &amp; Education Center (LTEC)</b> <a href="http://www.sankalpacmfs.org/src/01liv/ltec.pdf">http://www.sankalpacmfs.org/src/01liv/ltec.pdf</a> [~282 kb]	The objective of the <b>LTEC</b> is to promote rural creativity based on the principles of the Sankalpa Pyramid Model and determine the appropriate transformation processes that should be adopted, by evaluating the multidimensional relationships between the past historical constraints and those of modern ‘sustainable’ livelihood strategies. We need your support to build and implement the LTEC Proposal.
SRC.LIV02.PA 	<b>Precision Agriculture (PA)</b> <a href="http://www.sankalpacmfs.org/src/student/pa.pdf">http://www.sankalpacmfs.org/src/student/pa.pdf</a> [~127 kb]	Develop the means to enhance farm-based and site-specific crop management systems, taking local conditions into account. Of particular interest is the impact of PA on the reduction of Green House Gas (GHG) emissions. We need your help and support to develop and implement the project.
SRC.LIV03.SPI 	<b>Spirulina Workshop</b> <a href="http://www.sankalpacmfs.org/src/wp/spirulina_flyer.pdf">http://www.sankalpacmfs.org/src/wp/spirulina_flyer.pdf</a> [~123 kb]	The objective of the workshop on <b>Spirulina</b> is to promote and develop capacity building/training programs for SHGs, change agents and entrepreneurs for enabling the growth of Spirulina as a micronutrient food supplement, in urban poor and/or village-based communities. We need your help and support to conduct the workshops and then to develop and implement the spirulina project.
SRC.LIV04.HMPP 	<b>Handmade Paper Products (HMPP)</b> <a href="http://www.sankalpacmfs.org/bazaar/bus/hmpp.html">http://www.sankalpacmfs.org/bazaar/bus/hmpp.html</a> <a href="http://www.sankalpacmfs.org/src/wp/manual_carrybag.pdf">http://www.sankalpacmfs.org/src/wp/manual_carrybag.pdf</a> [~86 kb]	Handmade paper products are eco-friendly, bio-degradable, 100% wood-free product which have a recycling value as it is made up of cloth rags and agricultural wastes, thus contributing in saving trees, and preserves ecology. It has long product life; unique in texture; high tensile bursting, tearing and double fold strength as compared to mill made paper, and does not turn brittle due to aging. The download link provided is a <a href="#">sample manual for making simple HMP carry bags</a> . We need your help and support to develop and implement the project.
SRC.LIV05.BAMH 	<b>Bamboo Handicrafts</b> (To be added)	As in HMPP above, bamboo handicrafts are made from natural products. We have worked in the past with Professor A. G. Rao of IIT Bombay, who has established one of the finest R&D establishments on bamboo products. We need your support to develop an operational program for promoting bamboo handicrafts.






Code No:	Project Title/Reference Doc.	Brief description
SRC.LIV06.JUTH 	<b>Jute Handicrafts</b> (To be added)	There is a wide variety of materials and resources as well as access to design and production expertise available with us for making <b>jute handicrafts</b> . We need your support to develop an operational program for promoting jute handicrafts..
SRC.LIV07.MFI 	<b>Micro-enterprises and Micro-finance institutions (MFIs)</b> (To be added)	Micro-enterprises promote the market creation approach. The Society for Development Initiatives (SDI), Bangladesh has agreed to provide its expertise to the Sankalpa Group in the development of Microfinance Institutions (MFI), so that we may approach leading institutions, such as Plan International and other project development resources, for system development programs and for raising finances. We need your support to develop the MFI program
SRC.LIV08.SOAP 	<b>Handmade soap products</b> (To be added)	This project to make <b>handmade soap</b> is linked with the <b>handicrafts</b> and the ' <b>Direct-to-Home vegetable distribution service</b> ' reviewed in Section 6. We need your support to develop an operational program for making and distributing handmade soap products.


### 3 Renewable Energy Projects

Code No:	Project Title/Reference Doc.	Brief description
SRC.REN01.RETC 	<b>Renewable Energy Training Center</b> <a href="http://www.sankalpacmfs.org/src/02ene/proposal_retc.pdf">http://www.sankalpacmfs.org/src/02ene/proposal_retc.pdf</a> [~298 kb]	The proposed ' <b>RE Training Center</b> '—which is in the planning stage, as part of our ongoing participatory village development program at Village Baidyapur, Nadia—will disseminate information and help to build capacity, especially for <b>Distributed Energy Paradigms</b> . We need your support to build the RETC. We need your support to build and implement the RETC Proposal.
SRC.REN02.PFBD 	<b>Plug Flow Biogas Digester (PFBD)</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#4">http://www.sankalpacmfs.org/src/02ene/02ene.html#4</a>	The process of trapping <b>methane</b> , a significant <b>greenhouse gas</b> , and using it for a productive purpose—such as (a) generation of electricity; (b) fuel for industrial processes and (c) domestic applications in homes for cooking—will not only help to stimulate economic development with resulting social benefits, it will also have a significantly positive impact on the local and global environment. We need your support to operate the 60Nm <sup>3</sup> installation at SRC-Nadia.
SRC.REN03.FTBH 	<b>Floating Type Biogas Holders (FTBH) &amp; Waste Management</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#5">http://www.sankalpacmfs.org/src/02ene/02ene.html#5</a>	This simple device is very convenient to use, handle and maintain, and is possibly the most cost-effective solution for treating domestic kitchen waste and waste vegetable products in a distributed paradigm. We are collaborating with SINTEX for developing integrated waste management systems, involving FTBHs and street collection/door-to-door collection of waste. We need your support to develop an adequate model of the proposal and implement the project.
SRC.REN04.BAPP 	<b>Biogas Applications and Use Cases</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#6">http://www.sankalpacmfs.org/src/02ene/02ene.html#6</a>	A major objective of producing methane through the PFBD or FTBH biomethanation strategies is to use methane as a valuable clean energy source. We need your support to procure and distribute (a) <b>biogas lamps</b> ; (b) generate electricity from biogas using <b>biogas generators</b> ; and (c) <b>biogas cookers</b> .
SRC.REN05.BGBPP 	<b>Biomass Gasification Based Power Plant (BGBPP)</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#7">http://www.sankalpacmfs.org/src/02ene/02ene.html#7</a>	<b>Thermochemical gasification</b> involves pyrolysing <b>biomass</b> without sufficient air for full combustion, but with enough air to convert the solid biomass into a gaseous fuel. The intended use of the gas and the characteristics of the particular biomass (size, texture, moisture content,) determines the design and operating characteristics of the gasifier and associated equipment. We need your support to operate the <b>20kWe installation</b> at SRC-Nadia.






Code No:	Project Title/Reference Doc.	Brief description
SRC.REN06.CREM 	<b>Biomass Gasifier Crematorium</b> <a href="http://www.sankalpacmfs.org/src/02ene/bg_crematorium.pdf">http://www.sankalpacmfs.org/src/02ene/bg_crematorium.pdf</a> [~230 kb]	About 8 million people are cremated every year in India. About <b>600 kg of fuel wood</b> is needed to completely burn an average body. Hence, the national consumption of fuelwood is about <b>five million tonnes per year!</b> The BGC can reduce this massive consumption of firewood by about <b>75%!</b> We need your support to disseminate the biomass gasifier crematorium concept, in both semi-urban and rural areas.
SRC.REN07.VPIP 	<b>Pot-in-Pot Vegetable Cooler (PIP)</b> Concept Note: <a href="http://www.sankalpacmfs.org/src/wp/pip.pdf">http://www.sankalpacmfs.org/src/wp/pip.pdf</a> [~107 kb] <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#9">http://www.sankalpacmfs.org/src/02ene/02ene.html#9</a>	This <b>innovative absorption cooling system does not use electricity.</b> It consists of two earthenware pots of different diameters, one placed inside the other. The space between the two pots is filled with wet sand/moist medium; the evaporation process automatically causes a drop in temperature of several degrees, cooling the inner container, destroying harmful microorganisms and preserving the perishable foods inside. We need your support to disseminate the concept.
SRC.REN08.HSDRY 	<b>Hybrid solar thermal-biogas drier</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#10">http://www.sankalpacmfs.org/src/02ene/02ene.html#10</a>	We have initiated a project to develop a <b>hybrid solar thermal-biogas drier</b> for fruits, vegetables, fishes and food products, in general. We are requesting our supporters and well-wishers to donate liberally, in order to complete the prototype fabrication, which could serve as an important model for demonstrating an effective use of biogas for commercial use and for generating rural livelihoods. We need your support to develop a prototype of the model.
SRC.REN09.BRIQ 	<b>Briquetting technologies</b> <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#12">http://www.sankalpacmfs.org/src/02ene/02ene.html#12</a>	<b>Briquetting technologies</b> use efficient energy conversion devices to transform waste biomass such as Prosopis, Lantana and Ipomea into densified energy briquettes, which can be used in a variety of situations, starting from domestic cooking fuels to industrial applications. We need your support to disseminate the concept.
SRC.REN10.SOLCK 	<b>Solar cooker</b> <a href="http://www.sankalpacmfs.org/src/wp/solar_cooker.pdf">http://www.sankalpacmfs.org/src/wp/solar_cooker.pdf</a> [solar_cooker.pdf] ~286 kb <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#12">http://www.sankalpacmfs.org/src/02ene/02ene.html#12</a>	The simple, ' <b>home-made</b> ' <b>Solar Cooker</b> developed by Dr. Steven E. Jones of Brigham Young University (BYU), USA is an example of a design that can be made locally in homes, so that the indigent people may turn away from burning fuelwood for domestic cooking. We need your support to disseminate the concept.



## 4 Sustainable Shelter Projects

Code No:	Project Title/Reference Doc.	Brief description
SRC.SHE01.STTC 	<b>Shelter Technologies Training Center (STTC)</b> <a href="http://www.sankalpacmfs.org/src/03she/proposal_sttc.pdf">http://www.sankalpacmfs.org/src/03she/proposal_sttc.pdf</a> [~471 kb]	The proposed <b>STTC</b> will generate in the village-based community (a) <b>livelihood options</b> for shelter products and services, in general and fired brick manufacture and distribution, in particular; (b) the <b>financial and management structures</b> needed to run the public funded Eco Kiln, as a hands-on training center facility. We need your support to build and implement the STTC Proposal.
SRC.SHE02.VSBK 	<b>Eco Kiln (VSBK) Project</b> <a href="http://www.sankalpacmfs.org/src/03she/03she.html#8">http://www.sankalpacmfs.org/src/03she/03she.html#8</a>	The <b>Eco Kiln (VSBK) Project</b> is a model for demonstrating the effectiveness of the <b>continuous process technology for firing bricks</b> . Join us to raise funds for operationalizing the model Eco Kiln and in the development of capacity building and training programs, not only for the Eco Kiln, but in other sustainable shelter projects.
SRC.SHE03.MCRT 	<b>Micro-concrete Roofing (MCR) Tiles</b> <a href="http://www.sankalpacmfs.org/src/03she/03she.html#4">http://www.sankalpacmfs.org/src/03she/03she.html#4</a>	The <b>TARA Tile Maker</b> produces <b>MCR Tiles</b> that can resist cyclonic, high wind velocities. The MCR mix consists of 1 part cement, 2 parts of graded sand, and 1 part of stone grit, smaller than 6 mm in size. The mix requires a water-cement ratio between 0.45 and 0.5. With a labor force of 4 persons, a production rate of upto 200 tiles a day per vibrator is easily achieved. We need your support to disseminate the concept.
SRC.SHE04.FCDW 	<b>Ferrocement Doors and Window shutters (FCDW)</b> <a href="http://www.sankalpacmfs.org/src/03she/03she.html#7">http://www.sankalpacmfs.org/src/03she/03she.html#7</a>	<b>Prefabricated FCDW</b> are (a) easy to manufacture, (b) they are strong and durable, (c) resistant against water and (d) requires little maintenance afterwards. Since manual labor is the main activity in manufacturing FCDWs, it is ideal for providing employment opportunities in rural environments and a rural enterprise can be started with a low investment. We need your support to disseminate the concept.
SRC.SHE05.CEB 	<b>Compressed Earth Blocks (CEB)</b> <a href="http://www.sankalpacmfs.org/src/03she/03she.html#3">http://www.sankalpacmfs.org/src/03she/03she.html#3</a>	<b>CEB Technology</b> offers a cost effective, environmentally sound masonry system, suitable for a variety of applications in walls and roofs to make strong and durable buildings. The inputs needed are human and sunlight energy and ordinary soil as the raw material. We need your support to disseminate the concept.

Code No:	Project Title/Reference Doc.	Brief description
SRC.SHE06.CHUL 	<p><b>Improved <i>chulha</i> (IISC Bangalore design)</b>  <a href="http://www.sankalpacmfs.org/src/02ene/02ene.html#8">http://www.sankalpacmfs.org/src/02ene/02ene.html#8</a></p>	<p>The simple but <b>improved <i>chulha</i> developed at IISc-Bangalore</b> has a constriction in the flow of hot gases, essentially a Venturi effect, which causes an induced draft that draws smoke away, through the chimney, to the outside, virtually eliminating indoor pollution, while almost doubling the fuel conversion efficiency. We need your support to disseminate the technology.</p>

## 5 ICT & Knowledge Based Projects

Code No:	Project Title/Reference Doc.	Brief description
SRC.ICT01.ITECC 	<b>IT Enabled Community Center</b> <a href="http://www.sankalpacmfs.org/src/04ite/04ite.html">http://www.sankalpacmfs.org/src/04ite/04ite.html</a>	The <b>IT Enabled Community Center (ITECC)</b> disseminates knowledge and information requirements to its target rural community through <b>participatory</b> design and implementation programs, thereby contributing to the overall development of village-based communities. They are typically equipped to provide, <b>telemedicine services, educational and training programs and knowledge services for asset-based programs and market creation approaches</b> . We need your support to build and implement the ITECC Proposal.
SRC.ICT02.TELEM 	<b>Telemedicine services</b> <a href="http://www.sankalpacmfs.org/src/01liv/01liv.html#1">http://www.sankalpacmfs.org/src/01liv/01liv.html#1</a>	<b>Telemedicine</b> is based on medical informatics, involving two or more actors in collaboration, often in interdisciplinary teams; application of computers, communications and information technology and systems to all fields of medicine—medical care, medical education and medical research. Telemedicine is an overall concept to refer to both <b>corrective and preventive health measures</b> presented through the use of ICTs. Help us to disseminate this concept.
SRC.ICT03.MCLIN 	<b>Mobile health clinic</b> <a href="http://www.sankalpacmfs.org/src/01liv/01liv.html#10">http://www.sankalpacmfs.org/src/01liv/01liv.html#10</a>	Our network partner for delivering reliable and inexpensive health care for our rural development programs is <b>Dr. Jacques Verré</b> , Dental-Surgeon, Auroville, who has perfected a new universal concept called “ <b>Zero Concept</b> ”, applied in dentistry. We propose to introduce the service at Nadia, as soon as we can procure funds. We need your support to disseminate the concept.
SRC.ICT04.RADIO 	<b>Community Radio</b> <a href="http://www.sankalpacmfs.org/src/01liv/01liv.html#9">http://www.sankalpacmfs.org/src/01liv/01liv.html#9</a>	‘ <b>Community Radio</b> ’ describes the local/community radio as broadcasting that is for, by, and about the community, with ownership that is representative of the community, pursues a social development agenda, and above all, is run as a non-profit. We need your support to develop village-based ‘Community Radio Studios’.
SRC.ICT05.MGIRL 	<b>Multimedia Center for the girl child</b> <a href="http://www.sankalpacmfs.org/src/wp/multimedia_gc.pdf">http://www.sankalpacmfs.org/src/wp/multimedia_gc.pdf</a> [~265 kb]	<b>Children</b> and the <b>girl child in particular</b> will have access to a <b>multimedia studio</b> facility with the concomitant benefits and advantages that accrue from such a vibrant and interactive educational program. The studio will <b>empower</b> the children of this community - <b>especially the girl-child</b> - and promote <b>self-confidence, self-expression and assertiveness</b> amongst that segment of society which is intrinsically one of the most disadvantaged. We need your support to disseminate the technology.

<p>SRC.ICT06.CBT</p> 	<p><b>Computer-based Training Programs (CBTs)</b> (To be added)</p>	<p>We develop <b>CBTs</b> to disseminate <b>appropriate technologies</b>, which are the most cost-effective tools for propagating distance education programs, and to promote e-learning strategies in the villages. We need your intellectual inpts and financial support to design, develop, produce content, maintain and disseminate appropriate CBTs.</p>
<p>SRC.ICT07.USAB</p> 	<p><b>Usability and design of rural IT Enabled Services</b> (To be added)</p>	<p><b>Measurement and identification</b> of factors that <b>inhibit the proliferation</b> of rural ITES systems and to determine the appropriate content development strategies that will be most relevant for rural and indigent populations in India, which will address the socioeconomic, sociocultural and sociotechnical factors from an integrated viewpoint. We need your support to disseminate the concept.</p>

## 6 Multi-Disciplinary Projects

Code No:	Project Title/Reference Doc.	Brief description
SRC.MDP01.UTRD	<b>Micro TRD Project</b> <a href="http://www.sankalpacmfs.org/trd/wp/micro_trd.pdf">http://www.sankalpacmfs.org/trd/wp/micro_trd.pdf</a> [~447 kb]	The <b>Micro TRD Project</b> —a one-year project with a budget outlay of Rs 2.4 crores—is the smallest subset of the <b>global TRD Project</b> [trdglobal.pdf] ~1,618 kb, which seeks to develop a <b>participatory</b> approach for <b>empowering target beneficiaries</b> to: (a) <b>Overcome local barriers</b> to socio-economic development using an <b>asset-based and market creation approach through PPPs</b> , with the help of <b>knowledge-based products and services</b> as tools for social empowerment; (b) Use these assets to provide for the sustainability of the program; (c) Use process oriented and scientific approaches for community building; (d) Adopt a <b>reusable and modular structure</b> for an <b>object oriented</b> software driven approach for realizing the change processes; and (e) Promote the growth of <b>ethics</b> and <b>morality</b> throughout the program.
SRC.MDP02.ATLIB	<b>Appropriate Technology (AT) Library</b> To be added	We propose to develop a <b>wikimedia-based AT Library</b> that provides an <b>editable database</b> for <b>Sankalpa SRC Projects</b> , which will address the need of providing solutions that fit the village resources and goals within the local culture. “ <b>Appropriate technology</b> is the <b>skills, knowledge</b> and <b>procedures</b> for making, using and doing useful things, while making optimum use of <b>human, natural, and person-made resources in the village</b> —with ‘optimum’ determined on a village-specific basis by the villagers themselves.”
SRC.MDP03.COM	<b>Community Development</b> To be added	<b>Community Development</b> is community-based and people-centered. It is <i>for</i> the community <i>by</i> the community and <i>of</i> the community—towards a shared vision with a broad base of community support. We propose to develop an ‘ <b>object-oriented</b> ’ process whereby a group of people in a community can quickly reach a decision to initiate a social action process to change their economic, social, cultural or environmental situation.
SRC.MDP04.PPSD	<b>Workshop: Participatory Practices for Sustainable Development (PPSD)</b> <a href="http://www.sankalpacmfs.org/src/wp/ppsd_course.pdf">http://www.sankalpacmfs.org/src/wp/ppsd_course.pdf</a>	This three-day appreciation course (two-day classroom plus one-day field visit) will (a) cover the <b>theory and practice of sustainable community-based development</b> , which are based on a participatory, bottom-up approach to development; (b) engage the participants in participatory practices for assessing the community situation, developing a strategic plan and monitoring the development efforts to improve performance. We need your active participation and help to institutionalize this course.
SRC.MDP05.IEHP	<b>Integrated Energy and Health Project</b> <a href="http://www.sankalpacmfs.org/src/wp/spirulina_flyer.pdf">http://www.sankalpacmfs.org/src/wp/spirulina_flyer.pdf</a>	We propose to develop a sustainable and integrated village-based health, waste disposal and energy generation system, which can: (a) produce methane fuel from bimethanation of agricultural, livestock and domestic waste; and (b) produce spirulina and fish through appropriate aquaculture practices, by utilizing the large amounts of CO <sub>2</sub> present in biogas.

Code No:	Project Title/Reference Doc.	Brief description
SRC.MDP06.DTH	<b>Direct-to-Home vegetable distribution service</b> <a href="http://www.sankalpacmfs.org/src/wp/d2h_procedures.pdf">http://www.sankalpacmfs.org/src/wp/d2h_procedures.pdf</a> [~ 46 kb]	<b>Empower farmers and rural artisans to directly market their village-based produce</b> , products and services in metropolitan areas, with innovative Information & Communications Technologies (ICT) to control and coordinate the placement of daily orders and payment collection systems; and Just-In-Time (JIT) methods for supply chain management, to minimize inventory carrying and spoilage costs. This will eliminate middlemen and provide: (a) global access to the village entrepreneur; (b) home-delivered, farm-fresh quality products at lower prices to city folk; and sustainable employment to migratory villagers. We need your active support and membership of a cooperative structure, in order to implement this critically important social enterprise.
SRC.MDP07.PUB	<b>Sankalpa Publications</b> <a href="http://www.sankalpacmfs.org/pub/index.html">http://www.sankalpacmfs.org/pub/index.html</a>	We aim to provide a <b>platform on the internet</b> for anybody who has something worthwhile to say, to come right out and publish their thoughts and work, unencumbered by protocol and free of economic concerns. The media of discourse will include: (a) <b>eBooks and electronic publications</b> ; (b) <b>White Papers and knowledge-based</b> products & services; (c) <b>Newsletters</b> ; (d) <b>Digital imaging</b> products and services; and (e) <b>Paperback</b> and bound books.
SRC.MDP08.AFPW	<b>Arsenic-free potable water</b> To be added	We propose to experiment with (a) Central Glass and Ceramic Research Institute-Calcutta (CGCRI)'s <b>'Ceramic Membrane' Technology</b> ; and (b) the <b>'Electrochemical Arsenic Remediation'</b> technology developed by Dr. Ashok Gadgil at Environmental Energy Technologies Division, <b>LBNL, University of California, Berkeley</b> —for the removal of arsenic and iron from groundwater, which will then be supplied as potable water to the local rural community, and for setting up a chain of sustainable livelihood activities.
SRC.MDP09.LIB	<b>Village library services</b> To be added	We propose to provide <b>internet-enabled library services</b> for the children of the tribal community in Baidyapur Village, SRC—Nadia. The <b>American Center Library at Calcutta</b> has kindly donated a large number of back issues of social, management and photo journals for starting the library. We need your support to buy communications and infrastructural equipment to set up the library.
SRC.MDP10.SOFC	<b>Biogas and Solid Oxide Fuel Cells (SOFC)</b> To be added	The objective of this project is to optimize the usage of <b>biogas</b> in <b>solid oxide fuel cells (SOFCs)</b> by (a) developing techniques to control the anaerobic digestion process to <b>inhibit the formation of trace gases</b> while enhancing methane yields; (b) develop cost-effective <b>biogas cleaning processes</b> and (c) demonstrate the transformation of <b>upgraded biogas into electrical energy in SOFCs</b> . The non-technical objectives of the project are to: (a) conduct <b>economic feasibility studies</b> and (b) develop <b>public-private partnerships</b> for market driven implementation strategies.

## 7 Technology Transfer Projects

We provide the following services for technology transfer:

- Consultations
- Seminars and Workshops
- Events
- Research Dissemination

Please contact us for details

## 8 Institutional contact details:

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