

Panel Report 2

Community Partnership for Eco-based Local Economy: Experiences and Perspectives from India

Venkatachalam Anbumozhi

Senior Policy Researcher, Business for Sustainable Society Project
IGES Kansai Research Centre



1 Introduction



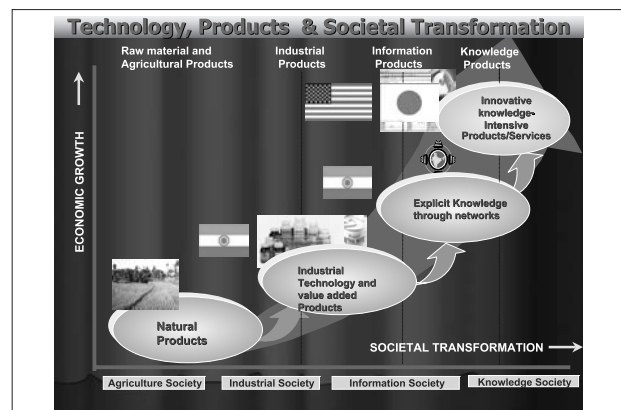
Slide ①

I will be reporting on India's experiences with local community partnerships aimed at local economic development on an environmental base. I will be talking mainly about the following three points.

First of all, I will introduce the PURA business model as an approach that a developing nation can use to ensure connectivity between the environment and development. I will then present the environmental technologies and projects of an example ecotown. Lastly, I will explain how the micro-financing by the local society works in order to show you who provides the capital for development.

2 Technology, Products and Societal Transformation

What was the world like in the days of our great-grandfathers or some 400 years ago? We can safely say that all of society was based on agriculture, right? Then, about 200 years ago, with the start of the indus-



Slide ②

trial revolution, technology began to progress rapidly and industrial products eventually became the center of society. Later, information products became the mainstream of an information-driven society and, nowadays, the importance of knowledge-intensive products and services is growing because of our knowledge-driven society.

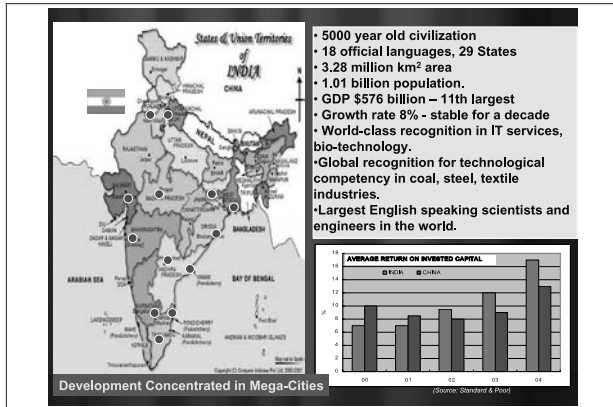
In this post-modern world of today, we do not know whether we should return to the agrarian society of long ago or step into a completely new domain. This also implies that new technologies will be created and wipe out the negative impact on the environment.

In the case of Japan, most people live in an information-driven society, but India, on the other hand, has 30% of its population concentrated in large urban areas, while the remaining 70% lives in rural areas. In other words, there are "dual economies". The same goes for other developing nations; more than half of the people live in rural areas, while only

a small portion of the people lead urban lives.

3 Current State and Issues in India

3.1 Current State of India

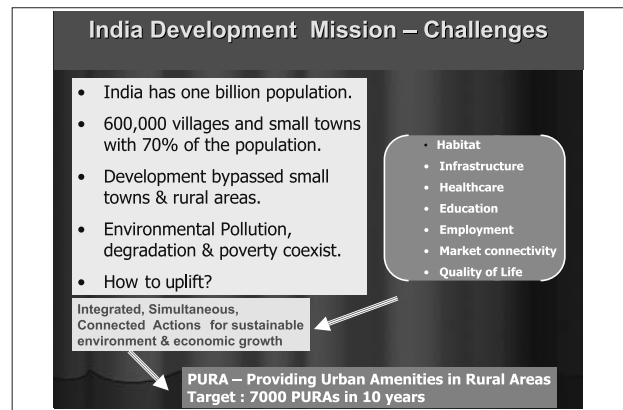


Slide ③

Let me explain the situation in India. Our civilization has a 5,000-year history. There are 18 official languages and 29 states. In an area of 3,280,000 km², there is a population of about 1 billion. The GDP is the 11th largest in the world at \$576 billion and the economy is growing at a rate of 8% per year. We have world-recognized IT services and biotechnology, and the coal, steel and textile industries are thriving. We also have the highest number of English-speaking scientists and engineers in the world. Recently, returns on capital investments have been good and higher than in China, therefore direct foreign investment is growing. However, this investment is limited to mega-cities where development in India now concentrates. And, this is creating site specific environmental problems.

3.2 Issues Concerning Development in India

India is a developing nation and is faced with many problems such as population. There are about 600,000 villages and small towns, but these rural areas are not developed. Worsening environmental problems afflict urban areas, whereas rural areas are faced with poverty. Moreover, homes, infrastructure, healthcare, education, employment, market connectivity and quality of life must be ensured. Integrated, simultaneous



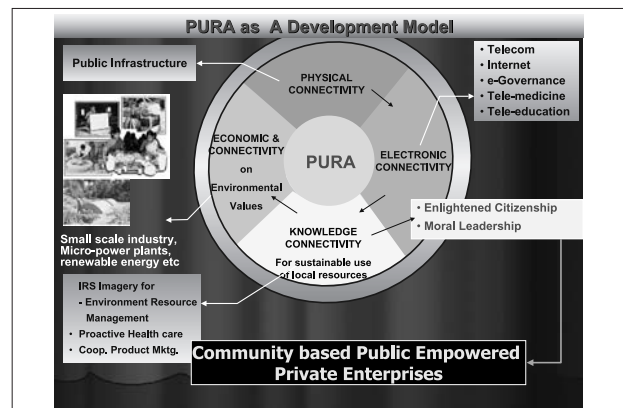
Slide ④

and connected actions are needed to promote a sustainable environment and economic growth. The two cannot be considered separate.

4 India's Local Development Model, PURA

4.1 Overview of PURA

In India, there is a local model development project called PURA, Providing Urban Amenities in Rural Areas. The target is to create 7,000 PURA projects in 10 years.

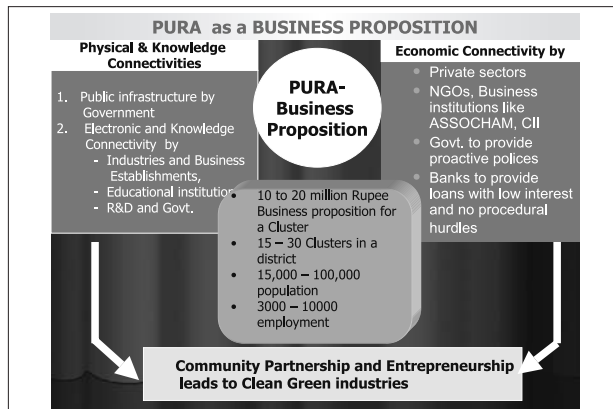


Slide ⑤

This slide illustrates the PURA model. Think of it as a cluster, if you would. To begin with, infrastructure is built to ensure physical connectivity is secured for the specific PURA. Next, the PURA area and the outside world are connected by e-mail and the internet to establish electronic connectivity. Then, education is imparted as knowledge-level connectivity. Once all of this has been established, economic connectivity and environmental protection can be realized.

Small industries spring up and small power plants or biomass projects using renewable energy are conceivably possible. This kind of PURA project is thought of as a private sector project with public support and a community base.

4. 2 PURA as a Business Proposition



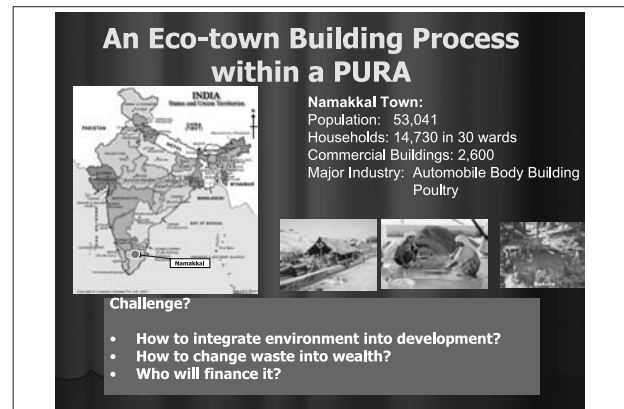
Slide ⑥

When looking at PURA as a business proposition, you first of all see cooperative relations amongst private businesses, government and residents. India is rich in land and labor resources, so this is what residents of local communities provide. Consultants and NGOs offer help in finding what sort of opportunities there are when the local community is planning a new business. Economic researchers and experts provide expert knowledge for improving added-value. There are private businesses and banks handle any necessary financing, so they provide what is necessary for the project. Then, the government participates by providing the policy framework.

On the district level, anywhere between 10 and 20 million rupee of capital are secured per cluster. A single district can have between 15 and 30 clusters, and provide employment for 3,000 to 10,000 persons. India is undergoing marked economic growth and population density is high, so creating jobs is important. So, the idea is to promote clean, green industries via community partnerships and environmental entrepreneurship.

5 PURA Case Study: Namakkal Ecotown

5. 1 Overview of Namakkal Ecotown

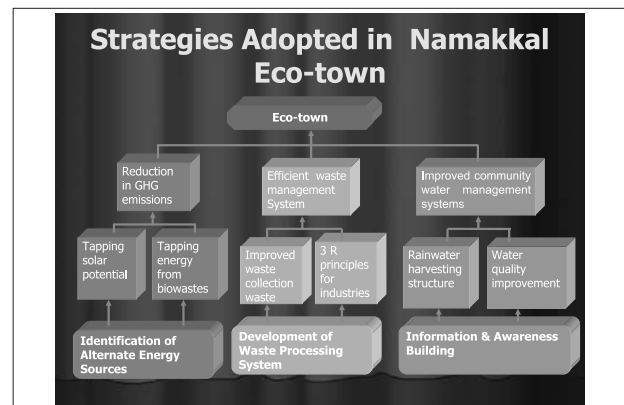


Slide ⑦

I would like to introduce Namakkal Ecotown as a case study of PURA. Namakkal is a small town in the southern part of India. It is in the state of Tamilnadu and has a population of 53,000. There are about 14,000 households in the 30 wards. There are 2,600 commercial buildings. The major industries are automobile body assembly and poultry. Here, they produce a considerably large amount of solid waste at about 21 tons. There are problems with raw waste, old tires and water pollution caused by litter manure from poultry farms.

Three primary issues are being raised with the ecotown project in Namakkal: how to integrate the environment into development, how to change waste into wealth, and who will provide the capital for business.

5. 2 Strategies Adopted in Namakkal Ecotown



Slide ⑧

This slide summarizes the strategies adopted in Namakkal Ecotown. In the second layer raised are three targets; the first is to reduce greenhouse gas emissions, the second is to build an efficient waste management system, and the third is to improve water management systems in communities. The boxes in the bottommost layer show the strategies and specific methods for attaining these targets. To fight global warming, alternative energy sources are to be identified; solar heat and energy from biowaste are to be used. As for waste management, waste processing systems are to be built, waste collection methods are to be improved and the 3Rs (Reduce, Recycle, Reuse) are to be thoroughly applied especially in the automobile industry. And, for water management systems, it is important to compile information and improve awareness as a strategy, and make efforts to improve rainwater collection systems and water quality.

5.3 Environmental Technology and Small Businesses in Namakkal Ecotown



Slide ⑨

Let us now look at the executable environmental technologies on the small business level in Namakkal Ecotown. From the upper-left of this slide, there are solar lanterns, solar driers and solar water treatment module. These are used on the community level for cooling and drying. Then, there are biogas plants and waste collection. NGOs mainly do this. The collected waste is gasified and provided to the industrial sector. The "vermi-culture industry" makes compost from

worms, which is then used in agriculture. Also, agriculture is a big industry in this rural area, therefore the plates used in restaurants are made from palm leaves and used as eco-products.

6 Micro-Service Enterprises in Namakkal Ecotown

6.1 Evolution of Micro-Service Enterprises

	Ward 3	Ward 7	Ward 11
No. of Solar technology servicing Units	2	3	3
No. of sample respondent units	1	2	1
Total investment (Rupees)	32,800	40,500	22,115
Average monthly operational expenditure (Rupees)	1,600	2,100	1,200
Average monthly income from servicing Solar devices (Rupees)	1,900	2,100	900
Average monthly net income (Rupees)	6,200	5,500	3,500
Percent of Solar device servicing income in total income	30.6%	38.2%	25.7%
Average number of workers employed by a unit (in addition to the self-employed)	1	2	1
Received institutional loan assistance	—	Bank	SHG
Level of education of the entrepreneur	X std	XII std	X std

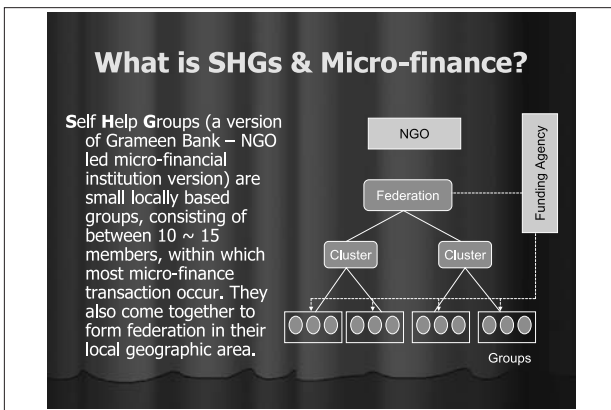
Slide ⑩

Also, in Namakkal Ecotown, you are starting to see people who provide specific services. We call these "micro-service enterprises" because they are done by someone by him/herself or by a family.

Amongst these micro-service enterprises, we surveyed people who provide maintenance and repair service for solar systems. If you look at the Ward 3 column in this slide, you find the answers we got from an operator. This particular operator invested about 32,000 rupee, 1 rupee being worth about 3 yen. And, 30.6% of this operator's income was earned from solar system servicing. A micro-service enterprise is a small business that provides a service, but it is an important source of revenue for the person who performs the work. In Ward 7 of the slide, solar system servicing generates about 38.2% income, while, in Ward 11, it is 25.7%.

So, where do these people who provide the micro-services get the financing? If thought of in Japanese terms, it is not a lot of money, but it is a very large amount of money in a developing country like India and even more so to poverty class persons who are

not blessed with business opportunities. In our survey on whether financing was received or not, the man in Ward 3 responded that "he did not receive any", the man in Ward 7 said he "got it from the bank", while the man in Ward 11 said it "came from a Self-Help Group (SHG)".



Slide 11

6. 2 Self-Help Groups (SHG)

What is a Self-Help Group or SHG in short? You can think of SHG as an Indian-version of the Grameen Bank started in Bangladesh to provide micro-financing. It is an NGO-led micro-financing organization. One group has about 10 to 15 members amongst which micro-financing transactions are done. They form small groups and then the small groups form clusters. Moreover, there is a federation above that. In this way, they provide financing for small organizations and are the core to business activities particularly in rural farming areas.



Slide 12

6. 3 SHG Functional Features and Local Community Partnerships

How do these SHGs or Indian-style Grameen Banks work? First of all, NGOs visit villages and areas to provide social guidance. In other words, their activities are meant to encourage entrepreneurship. When that is done, the people of the area form groups and talk with the government. They explain their business plan to the government and the government ensures an effective policy framework that makes it easy to promote the project and instructs banks to provide flexible financing. Then, after getting the financing from the bank, the group discusses and decides how to invest the money. The truth is that there is no collateral in this set up, but peer pressure from cohorts is believed to act as collateral. The mechanism encourages an entrepreneur to work with others, receive financing together with others and repay loans as a group.

Uniqueness of SHGs/Grameen Bank

- **Decision making:** Collective, participatory decision on thrift & credit, making it responsible borrower.
- **Financial services:** Needed services are delivered to the members at the door step.
- **Quality clients:** Peer pressure within the group is a collateral, low transaction cost and full repayment.
- **No subsidy, dependence syndrome:** No subsidy support from government, only policy support. The issue is build capabilities the individuals as business entities, blending with group cohesion and solidarity through partnership.
- **Social Agenda:** Exclusive focus on absolute have-nots, who have been bypassed by the conventional banks.

Can it become a model for financing environmental business at different scale?

Slide 13

6. 4 SHG Uniqueness

The following five points can be raised as unique features of local SHGs or India's version of the Grameen bank. The first is decision-making. The decision to invest or not is a participatory process done within the group, therefore decisions are made through discussions with everyone, which makes the borrower more responsible. The second is the financial services. The individuals do not go to the bank, but the required services are available at the door step. The third is the high quality of clients. Since

loans are received as a group, complete payoff rate is high. The repayment rate of ordinary banks is about 35%, whereas with this scheme, statistics show it is about 90%. The fourth is that there is no subsidizing, so there is no dependency syndrome. The government provides only policy support; it does not provide subsidies. What is important is to develop the ability of the individual who establishes the business, and to harmonize the solidarity as a group and group strengths through partnerships. The fifth feature is that there is a social agenda. The scheme accepts clients who have absolutely nothing and are often ignored by ordinary banks.

What interests me about this scheme is that it can be used to secure financing for eco-business even if model scale changes. One common point between the eco-business and SHGs is that they both follow a separate course from mainstream business. Another common aspect is that they both have a social agenda, that is to say, they both are for people who have not been targeted for development.

7 Summary

7.1 What Was Learned from Cases in India

Lessons from Indian Experience

- Environmental Business at local level is a result of community partnership - household, NGO and small industries with the State as a facilitator.
- For tangible benefits, environmental goals needs to be integrated with developmental and social agendas of the localities.
- Access to technology, entrepreneurship and innovative financial mechanisms are the instruments for providing growth to eco-based local economy.
- In the community based public empowered private enterprise building process, social guidance is given by the NGOs, flexible financing is provided by private and enabling polices are created by the State.
- Community Project where government participated [Deviating from the old paradigm of government projects in which communities are asked to participate]

Slide 14

I would now like to summarize what has been learned from the Indian experience. First of all, partnerships with and within the local community are important towards the eco-business on the local level. These are partnerships amongst households, local residents, NGOs, small businesses and government,

which acts as a manager. Next, in order to physically see the positives, environmental targets are set by integrating development and social agendas at the local level. And, because there is access to technology, an entrepreneur spirit and an innovative financing mechanism, long-term growth of the local economy can be promoted on an environmental base. Moreover, we can say it is a community-based, public-empowered private enterprise. In this local development model, NGOs provide social guidance, private banks provide flexible financing and the government makes the enabling policies. Long ago, local communities were brought into government projects, but now it is backwards as the government is allowed to participate in local community projects.

7.2 Future Outlook on the Eco-Business

Perspectives on Environmental Business

- **Replicate:** highly successful models
(Grameen Bank models which emphasis on peer support, service to maligned people, local self-sufficiency are replicated in Asia, Africa, introduced even in US & Europe)
- **Innovate:** new technologies, products & services and markets.
(from concept-idea-reality; SHGs in ICT services)
- **Accelerate Growth:** through capacity building, knowledge transfer & Partnerships.
(SHGs tie up with ICICI-the largest private bank in India, first for advising, latter as a partner)

Slide 15

As a final note, I would like to speak on the future outlook of the eco-business. I feel that there are three steps. The first is to spread examples of extreme success to other areas and across the country. In fact, the example of the Grameen Bank has been adopted by more than 100 countries around the world, mostly in Asia and Africa. In US, during his election campaign, former President Clinton promised to "create 100 Grameen Banks in the Mississippi State, if elected". Moreover, this model can be applied to local communities in Europe and particularly Scandinavian countries where immigrant entrepreneurs are large in number.

The second point is that continuous innovation will be needed. New technologies, new products and new services will be needed and markets must be found. Ideas are developed from concepts and then materialized. Right now in India, SHGs are providing information and communication technology (ITC) services. The Grameen Bank of Bangladesh has expanded projects to providing cell phones and internet to local communities.

The third point is that it will be necessary to use skill development, knowledge transfers and partnerships to accelerate growth. SHGs in India are working with ICICI, the largest private bank in India. The bank provides the financing; NGOs do the collection and SHGs implement industrial works. For eco-business, it is additionally important to diffuse this model of partnerships.

Introduction: India - Facts

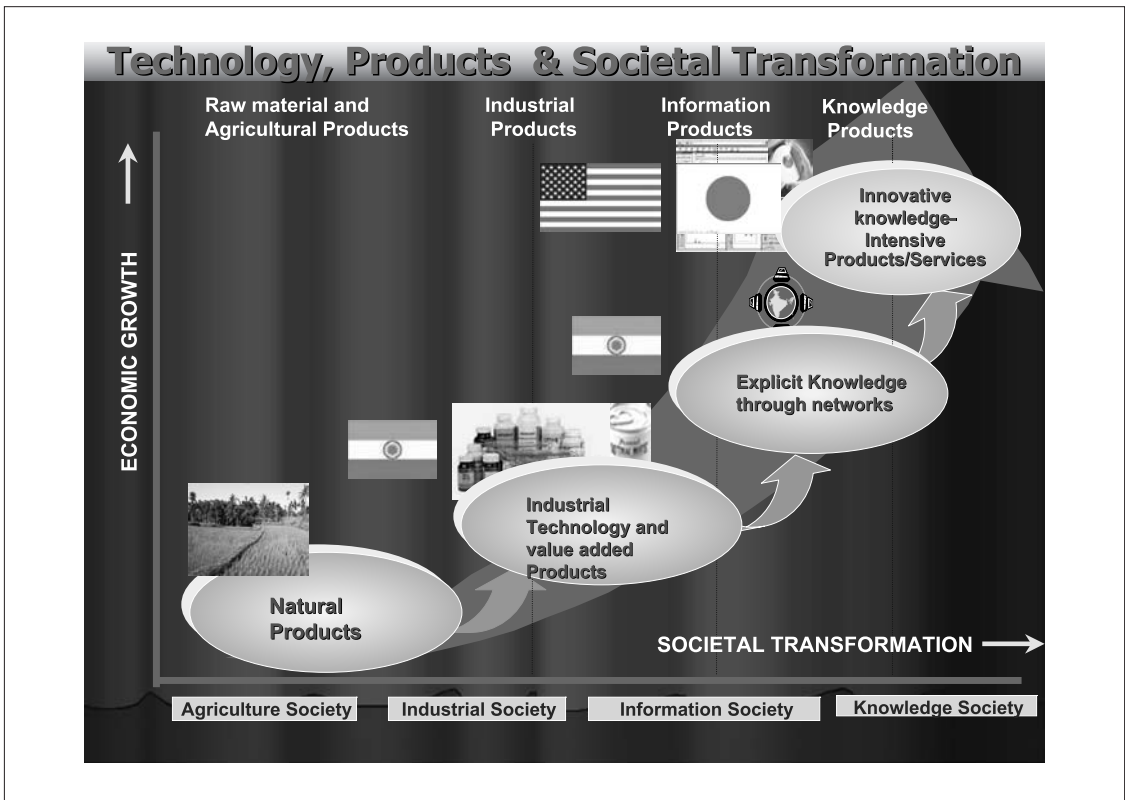
Environment & Development Connectivity: PURA

Eco-Technology & Enterprises: Namakkal

Micro-financing for Community: SHG

Conclusion: Lessons & Perspectives

Slide ①



Slide ②

- 5000 year old civilization
- 18 official languages, 29 States
- 3.28 million km² area
- 1.01 billion population.
- GDP \$576 billion – 11th largest
- Growth rate 8% - stable for a decade
- World-class recognition in IT services, bio-technology.
- Global recognition for technological competency in coal, steel, textile industries.
- Largest English speaking scientists and engineers in the world.

Year	India (%)	China (%)
00	~7	~10
01	~7	~8
02	~9	~8
03	~12	~8
04	~17	~13

(Source: Standard & Poor)

Development Concentrated in Mega-Cities

Slide ③

India Development Mission – Challenges

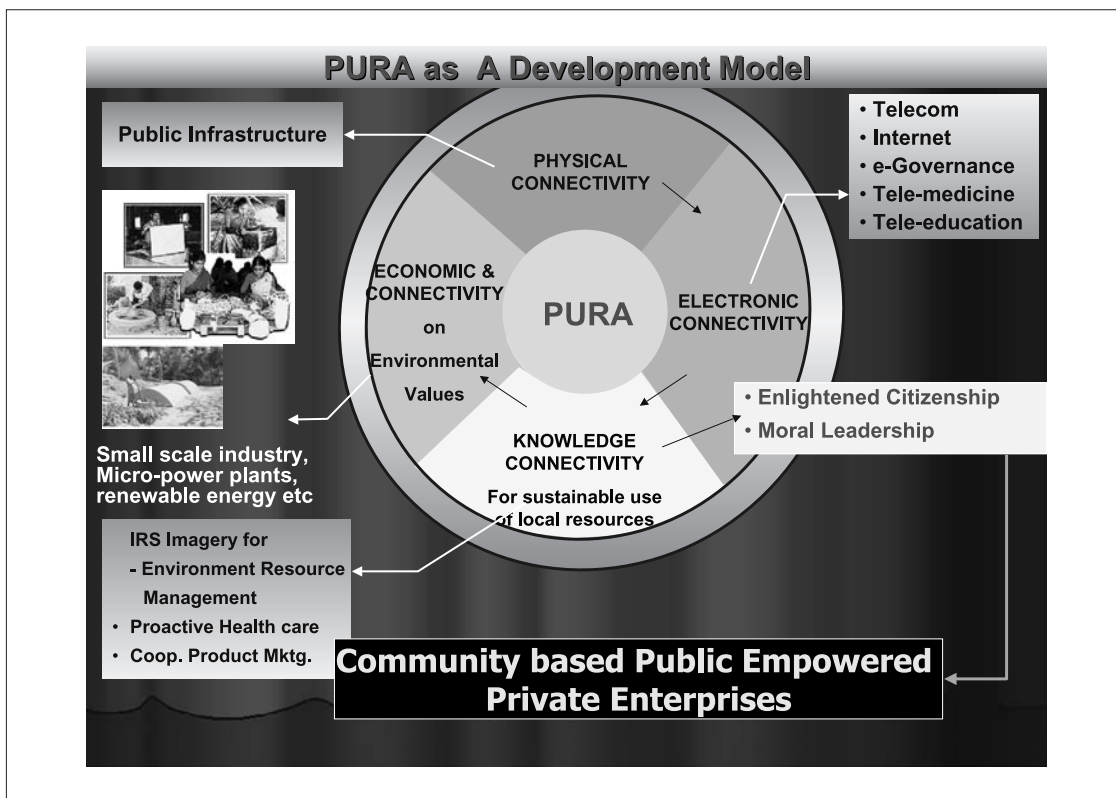
- India has one billion population.
- 600,000 villages and small towns with 70% of the population.
- Development bypassed small towns & rural areas.
- Environmental Pollution, degradation & poverty coexist.
- How to uplift?

- Habitat
- Infrastructure
- Healthcare
- Education
- Employment
- Market connectivity
- Quality of Life

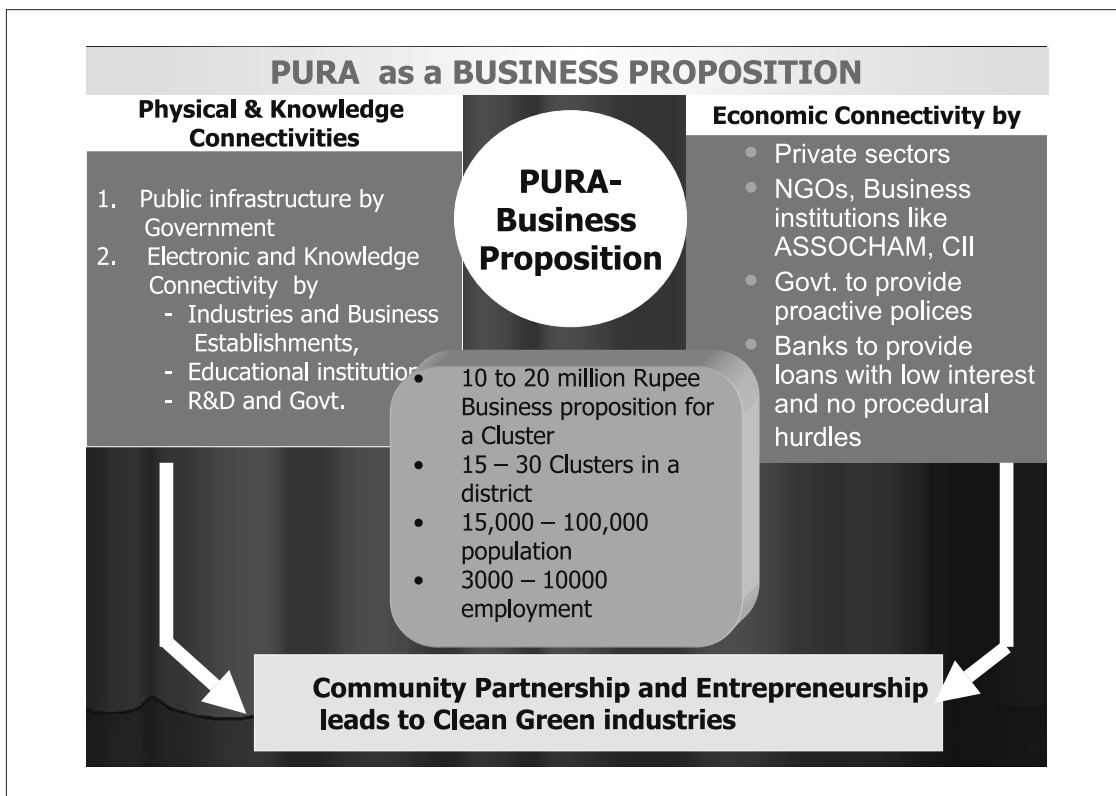
Integrated, Simultaneous, Connected Actions for sustainable environment & economic growth

PURA – Providing Urban Amenities in Rural Areas
 Target : 7000 PURAs in 10 years

Slide ④



Slide ⑤



Slide ⑥

An Eco-town Building Process within a PURA



Namakkal Town:

Population: 53,041

Households: 14,730 in 30 wards

Commercial Buildings: 2,600

Major Industry: Automobile Body Building
Poultry

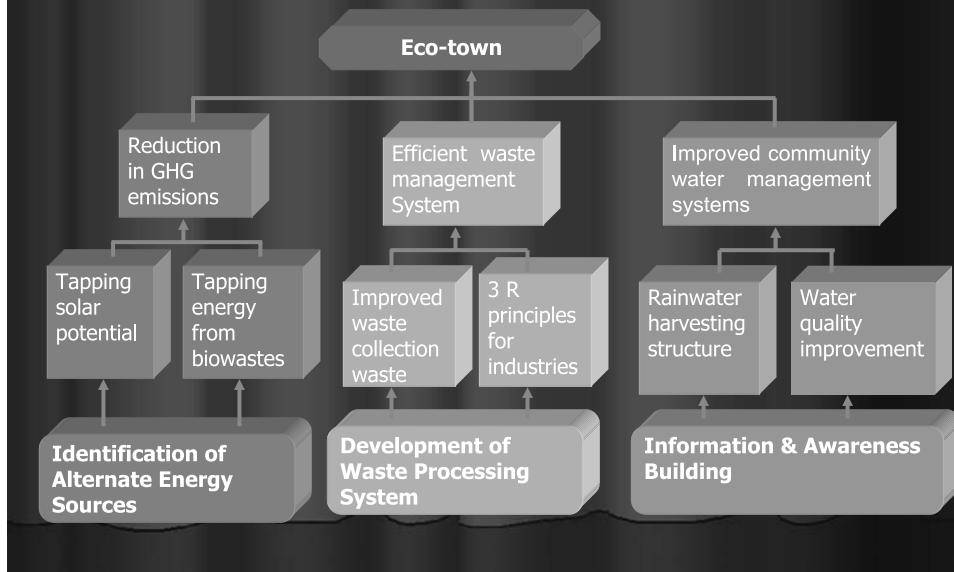


Challenge?

- How to integrate environment into development?
- How to change waste into wealth?
- Who will finance it?

Slide ⑦

Strategies Adopted in Namakkal Eco-town



Slide ⑧



Slide 9

Micro-Service Enterprises Evolved in Namakkal Eco-town

	Ward 3	Ward 7	Ward 11
No. of Solar technology servicing Units	2	3	3
No. of sample respondent units	1	2	1
Total investment (Rupees)	32,800	40,500	22,115
Average monthly operational expenditure (Rupees)	1,600	2,100	1,200
Average monthly income from servicing Solar devices (Rupees)	1,900	2,100	900
Av. monthly net income (Rupees)	6,200	5,500	3,500
Percent of Solar device servicing income in total income	30.6%	38.2%	25.7%
Av. number of workers employed by a unit (in addition to the self- employed)	1	2	1
Received institutional loan assistance	—	Bank	SHG
Level of education of the entrepreneur	X std	XII std	X std

Slide 10

What is SHGs & Micro-finance?

Self Help Groups (a version of Grameen Bank – NGO led micro-financial institution version) are small locally based groups, consisting of between 10 ~ 15 members, within which most micro-finance transaction occur. They also come together to form federation in their local geographic area.

Groups

Slide ⑩

Functional Features of SHG and Community Partnership

Working Model of SHGs/ Grameen Bank

- Social guidance by NGOs** (top-left, with photo of a group of women)
- Enabling policy by Government** (top-right, with photo of a meeting)
- Flexible financing by Banks for Entrepreneurship building** (bottom-right, with photo of a bank counter)
- Collective decision making & peer pressure as a collateral** (bottom-left, with photo of a group of women sitting around a table)

(Photo courtesy: Dhan foundation, Madurai, India)

Slide ⑪

Uniqueness of SHGs/Grameen Bank

- **Decision making:** Collective, participatory decision on thrift & credit, making it responsible borrower.
- **Financial services:** Needed services are delivered to the members at the door step.
- **Quality clients:** Peer pressure within the group is a collateral, low transaction cost and full repayment.
- **No subsidy, dependence syndrome:** No subsidy support from government, only policy support. The issue is build capabilities the individuals as business entities, blending with group cohesion and solidarity through partnership.
- **Social Agenda:** Exclusive focus on absolute have-nots, who have been bypassed by the conventional banks.

Can it become a model for financing environmental business at different scale?

Slide 13

Lessons from Indian Experience

- **Environmental Business at local level is a result of community partnership** -household, NGO and small industries with the State as a facilitator.
- **For tangible benefits, environmental goals needs to be integrated with developmental and social agendas of the localities.**
- **Access to technology, entrepreneurship and innovative financial mechanisms are the instruments for providing growth to eco-based local economy.**
- **In the community based public empowered private enterprise building process, social guidance is given by the NGOs, flexible financing is provided by private and enabling polices are created by the State.**
- **Community Project where government participated [Deviating from the old paradigm of government projects in which communities are asked to participate]**

Slide 14

Perspectives on Environmental Business

- **Replicate:** highly successful models
(Grameen Bank models - which emphasis on peer support, service to maligned people, local self-sufficiency are replicated in Asia, Africa, introduced even in US & Europe]
- **Innovate:** new technologies, products & services and markets.
(from concept-idea-reality; SHGs in ICT services]
- **Accelerate Growth:** through capacity building, knowledge transfer & Partnerships.
(SHGs tie up with ICICI-the largest private bank in India, first for advising, latter as a partner)

Slide 15