Energy Efficiency + Sustainable Energy
Ecosystem for Healthcare

SELCO Foundation

What is the ecosystem?
Any sector, especially in the development space, needs an ecosystem in order to deliver the appropriate services to the poor in the most effective and impactful manner. Using the analogy of the internet as the eco-system upon which all web-based companies leverage, survive and profit today, there needs to be a similar ecosystem developed for energy+health service providers to be able to scale high impact solutions in a sustainable manner. This ecosystem needs to be built by a variety of stakeholders for the common good of the selected sector. A strong and stable eco-system, is the only way, the poor can avail all essential services in the most affordable and democratic manner.

ENABLING FACTORS

TECHNOLOGY & DESIGN

What's missing in the Ecosystem? Who can fill the gaps?

Sustainable and affordable delivery of health services at the doorstep of the poor, needs maturity of the various critical parts for its own eco-system. These range from trained human resources to highly efficient appliances. By bringing in sustainable energy as a catalyst, it could disrupt in a positive manner many of the existing delivery models, thus benefitting many more people at the bottom of the pyramid.

EFFICIENT APPLIANCES

- Manufacturers, vendors, suppliers, innovators, incubators/accelerators, Govt. R&D departments
  - Lack of R&D for efficient and need-based appliances for low-resource contexts
  - Supply chain and servicing

- Training Govt. and NGOs that provide capacity building for health care, health staff/medical officers at the healthcare service point
  - Incorporation of new efficient and innovative equipment as part of healthcare training programs

- Public health care points, NGOs bridging last mile delivery in health
  - Lack of innovative delivery models to ensure democratized health access to last mile populations

- Private procurement institutes, Govt. certification and procurement agencies
  - Affordability and incentives for adoption of efficient appliances

- Multilateral/international development health agencies (public and private), national and state level health depts, incubators/accelerators
  - Weightage to efficiency parameters in selection of health appliances

RENEWABLE ENERGY SYSTEM

- Clean energy enterprises, last mile electricians or similar work force, health staff/medical officers at the healthcare service point
  - Lack of last mile human resources to audit, design, install and service the systems
  - Appropriate and need-based (health and end user focused) system designs

- Energy Enterprises/service providers, Health staff / Medical officers at the healthcare service point
  - Capacity of energy and health stakeholders to own the energy systems at a local level

- Large multilaterals or development agencies or banks
  - National and state level health depts, community/health committees in charge of managing health points
  - Capital and maintenance costs

- National and state level health departments, private service providers for last mile healthcare
  - Lack of convergence/incorporation on planning of energy for health

BUILT ENVIRONMENTS

- Architects, masons, contractors, civil engineers
  - Lack of efficiency and sustainability in building designs (usability, natural lighting and ventilation and passive heating and cooling)

- Training institutes for public building constructions, Local Masons
  - Awareness and capacity of stakeholders at various levels to incorporate green building technologies and designs

- National and state level health depts., public works department
  - Incentives and mandates for green building guidelines

- Multilateral/international development health agencies (public and private), national and state level health depts
  - Weightage to efficiency parameters in selection of health appliances

Get in touch!

SELCO Foundation
www.selcofoundation.org
info@selcofoundation.org
What can we do moving forward?

**EFFICIENT APPLIANCES**
- Problem validation, Market + User Research, testing and piloting the efficient technologies.
- Defining opportunities for efficiency in health devices and developing efficiency benchmarks for appliances.
- Connect health tech entities with public health experts/ mentors etc.

**RENEWABLE ENERGY SYSTEM**
- Building process for health-energy audits, toolkits for system design and quality control.
- Guidelines for monitoring, servicing and maintenance.

**BUILT ENVIRONMENT**
- Setting guidelines and parameters for different climatic typologies on incorporating green building design to reduce the energy load.
- Develop new specialized built environments for further decentralizing healthcare.

**TRAINING & SKILLS**
- Training modules on usage and maintenance of efficient/innovative appliances.
- Build technical capacity in Assessing and evaluating renewable energy systems.
- Installation, servicing and maintenance of renewable energy systems.

**SERVICE & DELIVERY**
- Demonstration of delivery models that further decentralizes health care by using sustainable energy and energy efficient innovative technologies as a catalyst.
- Cost benchmarks based on energy savings and decentralisation benefits (increase in number & quality of services) for efficient appliances.

**FINANCE & OWNERSHIP**
- Procurement guidelines inclusive of efficiency while purchasing large quantities.
- Incentives and support systems to encourage energy efficiency/ decentralization as parameters for health tech designs.

**POLICY**
- Policy guidelines on powering health for different needs and typologies in health care provision (auditing, assessment, tendering, deployment and maintenance).
- Policy guidelines on green building for different needs and typologies in health care provision (auditing, assessment, tendering, deployment and maintenance).

**TECHNOLOGY & DESIGN**
- Demonstration of delivery models that further decentralizes health care by using sustainable energy and energy efficient innovative technologies as a catalyst.
- Cost benchmarks based on energy savings and decentralisation benefits (increase in number & quality of services) for efficient appliances.

**INNOVATORS / MANUFACTURERS**
- GE - Health
- Godrej Appliances
- Remidio
- Phillips
- Lifelabs
- Janitri
- InnAccel

**INCUBATORS / ACCELERATORS**
- iSP
- PATH
- Social Alpha
- Villgro
- HealthStart

**ENERGY ENTERPRISES**
- Mangaal
- Mukti Energy
- Energy
- Boond
- SELCO Solar Light Pvt. Ltd
- Sun Farmer
- ENVO Business Solutions
- TATA BP Solar

**GOVERNMENT DEPARTMENTS**
- National Health Mission
- National Health Systems Resource Centre
- State Health Systems Resource Centres
- National Accrediation Board for Health
- Ministries of Health
- Ministries of New & Renewable Energy
- Ministries of Science & Technology
- Department of Health Research

**ENERGY+HEALTH FUNDERS**
- Gates Foundation
- TATA Trusts
- Good Energies Foundation
- Lemelson Foundation
- DOEN Foundation
- IKEA Foundation
- Efficiency for Access Coalition

**POLICY & ADVOCACY**
- World Health Organisation
- International Renewable Energy Agency
- United Nations Foundation
- Clean Energy Access Network
- World Resources Institute
- Council on Energy Environment & Water
- SOCHARA
- Institute of Public Health
- Public Health Foundation of India

**HEALTH CARE PROVIDERS**
- Karuna Trust
- C-RES
- Doctors without Borders (MSF)
- Saastha Health
- Nisreal Saastha
- ACCGO
- Tribal Health Initiative
- Jan Saastha
- Doctors For You
- Catholic Health Association of India
- International Health Association
- Karma Healthcues
- WISH Foundation
- International Committee of the Red Cross
- Aravind Eye Care

**UNIVERSITIES**
- Centurian University
- IIT Madras
- IIT Delhi
- IIT Bombay
- Manipal Institute of Technology
- IIM Ahmedabad - CIIE