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**Centre of Science and Technology For Rural
Development - COSTFORD**
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Contents

<i>General Information</i>	3
<i>Organisation Structure</i>	3
<i>Activities</i>	4
<i>Projects</i>	6
<i>Areas of operation</i>	6
<i>Target groups/beneficiaries</i>	6
<i>Strengths</i>	7
<i>Funding</i>	9
<i>Philosophy and Approaches</i>	9

Centre of Science and Technology For Rural Development - COSTFORD

Name of the organisation : Centre of Science and Technology for Rural Development, COSTFORD

Type : Nonprofit making voluntary organization

Status : Registered as a society in 1984

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Organisation structure

Background

COSTFORD is a voluntary organization, which provides technological assistance for rural development. It was founded in 1984 by Dr. D. R. Chandradutt, Dr. K.N. Raj an economist and the then Chairman of the Center for Developmental Studies, Mr. Achutha Menon, the former Chief Minister of Kerala and the Master Architect Laurie Baker. The idea of COSTFORD took roots when Mr. Achutha Menon showed interest in the alternative building technologies promoted by Mr. Laurie Baker. The design and construction of the CDS campus building by Mr. Baker, against the approval of the Public Works Department brought about the entry of appropriate building technologies in the government building programmes.

Structure of the organization

COSTFORD was registered as a non-profit voluntary organization in 1984 and started its construction activities in 1986. The head office of COSTFORD is situated in Thrissur. It operates form another 13 sub centers, 12 all over Kerala and 1 in Gurgaon.

The focus of COSTFORD is to empower and enable the weaker sections of the society to improve their living conditions by the application of appropriate and people friendly technologies. It has a taskforce of people from different disciplines such as architects, engineers, economists, geo-physicists, scientists, advocates, accountants, doctors and medicinal practitioners, industrial consultants, educationalists and social workers.

Mr. Laurie Baker is the Chairman of COSTFORD. At the Head office, there is also a Super body, which is a committee of 10 directors, a governing body of 45 members and a main general body. Besides this there are two main committees, the financial management committee and the office management committee. Overall it has 500 members form different professions. Each sub-center has a coordinator, an accountant and a team of engineers and architects. There are no strictly defined roles and all the employees work collectively helping each other.

The office of the Trivandrum sub-center is headed by Mr. Sajan and his wife Mrs. Shailaja, who is an architect. They are assisted by a team of architects, engineers and trainees along with the administrative staff who look after the accounts and the normal functioning of the office.

Activities

General activities of COSTFORD

COSTFORD, in general, has two main focii of activities, namely, social activities and construction activities using appropriate building technologies.

Its main activities are advocacy, empowering poor communities, research and development, local level development and planning, multi-disciplinary technical support teams, transfer of technology, human resource development, studies and dissemination of information among other things. They also have a strong focus on training and have trained many masons, students, and professionals in appropriate building technology.

Advocacy

They undertake advocacy for issues dealing with devolution of more funds from Centre to State and from State to Local Governments, people friendly policies, access to credit for the 'unbankable', responsive and effective administration, the right to information, recognising housing as a fundamental right, health and total sanitation and environmental issues such as prohibiting sand mining in the rivers etc.

Empowering poor communities

They empower poor communities by forming self help groups, facilitating composite credit mechanism, disseminating information, skill development and skill upgradation, motivating and encouraging people to attend Grama Sabhas, the village level meetings to presenting grievances and felt needs, building up capacity of poor people to generate ideas and to influence development process, increasing their access to and involvement in management of resources and institutions, encouraging participation which will lead to changes in knowledge and attitudes and skills to improve livelihoods, enabling to have access to resources and expansion of knowledge.

Promoting local level development

They promote local level development and planning by exploring, identifying and diagnosing urban and rural conditions with active involvement and participation of people at the local level, by designing, implementing, monitoring and evaluating projects with people's participation by developing, extending and transferring location specific technology, by facilitating in policy formulation and decision making, by promoting participatory planning by involving people in identification of activity, decision making and planning, sharing costs, implementation, receipt of benefits, monitoring and evaluation.

Construction

COSTFORD has a very large program of construction, which includes many projects, government as well as private construction work. They have carried out massive rural development projects of Central and State Government agencies. They take up projects in which the client allows them to apply the principles of construction that they believe in. Currently, they also have a water and sanitation program.

COSTFORD in Trivandrum

The COSTFORD office in Trivandrum is perhaps the closest in contact with Mr. Baker and hence focuses more on architectural aspects than the rest. Collectively COSTFORD has been able to realise about 20,000 buildings in Kerala.

Projects

In 1986, after their formation, COSTFORD undertook a socio-economic survey in 3 different panchayats in Kerala and realized that there was a need for cost-effective housing. Hence, in 1987, they took up the housing scheme that was launched by the then district collector, which was a full subsidy scheme for the construction of core houses within a budget of 9200 rupees per house for beneficiaries who were below the poverty line. This scheme was completed entirely using the alternative technologies promoted by Laurie baker and paved the way for COSTFORD for acquiring further such projects.

Since then, COSTFORD has come a long way with numerous buildings of all types including institutional buildings, housing schemes, private residences etc. to their credit.

5 years ago, in 1996, the state government launched the decentralized planning scheme under the name of the People's Planning Campaign. COSTFORD was selected to implement the total housing scheme in the district of Thrissur, along with the Nirmiti Kendra and in Trivandrum along with Habitat Technology group and the Nirmiti Kendra. Till date COSTFORD has been able to construct 15,000 building through this project. Some of the project areas include the tribal hills of Attapady where they are in charge of 5 hamlets, the Thankasheri fishing village with 158 houses, all constructed with different plans and the rehabilitation of Chengal Chulah slums, the biggest slum in Trivandrum.

COSTFORD has been one of the most important organizations that has popularized the alternative building movement in Kerala that began with the efforts of Mr. Laurie Baker, not only through their structures but also through the numerous architects, engineers, supervisors, masons and common people that they have trained, influenced and sensitized and who in turn have gone and

spread the movement far and wide.

Area of intervention _____

Most of COSTFORD's project areas are in Kerala. However they have also taken up projects outside Kerala through their sub centers, employees and friends. They take up construction activities for all kinds of clients as long as they subscribe to the philosophy of using alternate building technologies.

Target groups/beneficiaries _____

COSTFORD has been formulated, mainly for the development of rural communities and most of their target group are the poor and the marginalized village communities. Through the years they have, however, diversified by taking up projects for the upliftment of the urban poor too. They also take up the private commissions, the profit from which, they utilise for sustaining other COSTFORD activities. Their clients come from diverse backgrounds such as government bodies, local communities, institutions, and individual clients.

Strengths _____

Techniques/ technologies

COSTFORD uses all the Baker construction systems such as Rat Trap Bond walls, Filler Slab roofing, exposed brickwork. They have extensively used the Laurie Baker vocabulary in most of their constructions such as brick jali or latticework used along verandahs, around courtyards or as compound walls with concrete or stone copings and brick gateposts, patch-pointing, brick corbelling, etc.

COSTFORD strongly believes in preservation of the environmental resources and, hence, promotes the use of energy-efficient materials, which minimize the use of high-energy consuming materials such as cement and steel. They use natural stabilizers such as lime instead of cement. They do not favor the use of stabilized mud blocks, as they believe that a greater amount of cement gets consumed in the production of stabilized mud blocks, than in constructing masonry with fired bricks. Instead they stabilize the mud blocks with rice-husk and lime.

They also experiment with renewable building materials such as bamboo, which they use as reinforcement for the foundations with lime concrete or for slabs where they use bamboo as an exposed form with concrete on top.

COSTFORD believes in truthfulness in the use of materials and so they put together the materials used for erecting the structure in a manner, which is aesthetic and naturally pleasing and which negates the need for any further separate and costly finishing.

Human resources

COSTFORD has a multi-disciplinary technical support teams which providing assistance and guidance. These people are from diverse fields such as architects and engineers, scientists and researchers, economists and analysts. These people provide technical assistance by suggesting cost and energy effective science and technology solutions for the various development programmes such as housing, micro enterprise etc.

Moreover, COSTFORD has also been able to train various people and organise them in team, which forms COSTFORD's task force.

Research and studies

They undertake research and development activities on topics such as identification and documentation of location specific vernacular architecture and building materials, innovations and improvements in traditional systems and materials for building construction, development of cost an energy effective techniques and materials for building construction and participatory local level development.

Moreover, they have also been conducting a series of studies on topics relating to Local Level

Training capacities

COSTFORD undertakes Skill development and upgradation programmes in the field of housing and construction. They have trained a large number of masons, students, engineers and architects. They do not use any specific tools for training. They have produced a set of 60 CDs, which talk about the technology mooted by Ar. Laurie Baker. They use it to sensitise the participants. They strongly believe in a practical hands-on, on-the-job approach for training, supported by theory, which is explained through lectures and discussions.

They believe in a participatory construction process and hence, wherever possible, they try to train and sensitise their clients in the construction techniques. Their technology transfer efforts can be seen in the design and construction of houses for Tribals and Weaker sections, public building like Panchayat offices, agricultural offices, primary health centres and other public building, institutional buildings, energy saving devices and drudgery reduction devices.

Moreover, they conduct training of Panchayathi Raj functionaries in the topics of participatory rural appraisal and Panchayat level resource mapping, cost-effective options for location specific problems and issues, gender issues and participation of women in all programmes, responsive and effective administration with transparency at all levels, and good governance and management.

R&D / cataloguing / publications / dissemination of information

COSTFORD had published many manuals, booklets and handbooks for the promoting the appropriate techniques that they believe in. They have also conducted many workshops, seminars and exhibitions for popularising the same. They have also published a set of books hand-written by Laurie Baker, which give guidelines for constructing different kinds of buildings in various rural and urban contexts, using local materials and skills.

However, Mr. Sajan feels that COSTFORD has been so involved in the construction activities that they have not been able to give much importance to documentation of their works. Moreover, being strongly influenced by the life and thinking of Mr. Laurie Baker, like him, they do not put an emphasis on self-publicity and believe in popularity that is gained through their work and through the word of mouth.

Funding _____

For their core activities, COSTFORD is supported by The Department of Science and Technology, Govt. of India; the department of Rural Development Govt. of India; the department of local Self Government, Govt. of Kerala and Housing and Urban Development Corporation (HUDCO). For activities such as training they get funding from the State Department of Science and Technology. They are a non-profit making organization and, hence, all the money they earn as consultancy fees is utilized to run the organization. They charge for architectural consultancy based on the kind of client. For the people BPL, and projects costing less than 75,000 rupees, they do not charge any architectural fees. For Government works they generally charge 2.5% of the project cost. For big commissions from private clients they charge the 10% architectural fees as stipulated by the Council of Architecture if they are completely in charge of the project or 5.5% if they are not involved in the money management of the project.

Philosophy and Approaches _____

COSTFORD strives to change the social, economic and political position of the poor, the deprived, the oppressed and the weak. They believe in empowering and enabling the poor and weaker sections of the society to improve their living conditions by the application of appropriate and people friendly technologies adopting participatory, democratic, transparent and gender-sensitive processes.

COSTFORD believes in promoting non-commercial building practices, which discourage the

necessity of a middleman and the commissions he takes in the process of construction. They believe in doing so by enabling the people themselves to understand the activities involved in the construction process, which breaks the architect-builder-material supplier nexus.

They believe in bringing a culture of truthfulness and transparency in the field of architecture, where all work gets completed as per the stipulated specifications and is not made deliberately cheaper quality or using a lesser quantity to earn a personal profit, as is usually the case with a contractor.

In all their endeavors they encourage people's participation, be it the planning or the construction process. They believe in designing spaces, which are context sensitive and take the inhabitants and their needs into consideration rather than applying a standard design to every household. In all their projects they try to work out as many different plan options as possible. They do not make very elaborate drawings. Most of the construction is based on sketches and not on pre-determined, elaborate designs made by Laurie Baker who prefers to allow innovations on-site made by the labourers. They even make models to explain their designs to the people if they do not understand plans sketched on paper.

Appropriate Architectural Practice