

Techno-social Integration (TSI) in Brick Sector: The Case of East Uttar Pradesh

1.0 Introduction

Just three districts of Uttar Pradesh house 150,000 firemen in the brick sector. This large concentration of firemen migrate each year for 5-6 months to brick kilns operating in different states like Punjab, Haryana, J&K, Madhya Pradesh, Gujarat, Chhattisgarh, Jharkhand, West Bengal, Bihar and other districts of Uttar Pradesh in search of livelihood, leaving behind the hapless families. It is in this region that a major initiative was undertaken by TERI and its partners (PEPUS and LOKMITRA, based at Allahabad and Rae Bareilly respectively) in the year 2001-02. It was to empower this working population through new forms of solidarity initiatives and up-gradation of their knowledge and skills. In addition, efforts were made to promote entrepreneurship amongst firemen community through firemen owned small-scale brick making enterprise based on efficient Vertical Shaft Brick Technology (VSBK). These efforts have touched the lives of about 18,000 firemen and 2000 master-firemen in about 300 villages in districts of Pratapgarh, Allahabad and Rae Bareilly. Both PEPUS (Paryavarn Evam Prodyogiki Utthan Samiti) and LOKMITRA through their efficiency, imagination and perseverance have brought people into one common fold and reached out to various corners.

TERI's interaction with brick sector started in 1995, when with support from Swiss agency for Development Cooperation (SDC), TERI started work on improving energy efficiency and environment performance of brick kilns. During work in North India, it came to know about the existence of large concentration of firemen (originating from East UP) having rich traditional knowledge and skills in firing of Bull's trench kilns¹. For generations these firemen are engaged in brick firing without any scientific assistance. This local knowledge is generally embedded in the society, is genuine, older and has its own significance, which is often not recognized. In other words, it is not inferior or less important. In the overall design and conception of the intervention, the local knowledge or traditional knowledge of firemen community was considered as an important asset. Recognizing knowledge as a major source of strength, led to a significant departure in terms of drawing a different worldview and designing an innovative dialogic process among these firemen community. It prompted one to get into reorganization of these strengths up to the point of delivery. Bringing such knowledge into fore enabled in retaining focus on firemen with an assumption that it would help develop their skill sets on better operation/production of bricks as well as build solidarity among them and create opportunities for empowerment.

¹ Main brick firing technology in North India. There are estimated to be 25-30,000 BTKs in North India.



2.0 Background: Larger concerns in small and micro enterprises

In project mode, TERI continues to address technological and social dimensions in several small and micro enterprise clusters/sectors². The issues being addressed include – inefficient utilization of energy, environmental pollution, occupational health hazards and poor working conditions. Uttar Pradesh, India's largest and most populated state is grappling with intense poverty, illiteracy, gross inequalities and other basic inadequacies in public life. TERI is engaged in making a difference in various small and micro-enterprise sectors like brick and glass industries in the state. When one looks at the larger reality by drawing lessons from all these sectors, the magnitude of the problem appears mind-boggling especially after observing the way communities are grappling with huge disruptions in life. Reversing this, is a tall order but it indeed provides sufficient basis for a scientific community like TERI and its partners to team up, to capture various human and institutional development aspects associated with poverty, environment and sustainable development questions. More specifically, acceptance of energy efficient and cleaner choices and its implications on the target population in particular and society at large are issues of importance. Besides, consequent changes in value system, ethics, mode of production and business models of entrepreneurs, a technological choice brings in its wake are other issues of significance. Other related issues are local aspirations, mindset of entrepreneurs, users and beneficiaries and existing policy regime within which several systemic and institutional changes are visualized and various external factors that can inhibit/accelerate the change processes.

It is worth mentioning here that collaboration with partner agencies was possible as larger concerns of TERI match with local NGOs. In the process a large mass base is mobilized and a platform has been created to engage in a dialogue on a continuous basis. This further widened the scope of work to take into consideration human and institutional development processes and created an opportunity for moving towards a comprehensive worldview and practice. Convictions of project teams got strengthened regarding the realities at the lower end comprising, local priorities, strengths and initiatives, deprivations, inequality, apathy at the institutional levels, injustice and gross violation of human rights and so on.

At this point of time, it is also important to look at some of the changes occurring on the larger social and economic front, which also have a direct bearing on strategies for initiation of social change processes. The industrial society is said to be changing into knowledge based society; national and international economies have developed strong new pressures which are changing welfare economies into market ruled

² The sectors in which TERI is presently active are: grey iron foundries, glass and bangle making, brick kilns, puffed rice making and several biomass using micro enterprises e.g. silk reeling.



economies; the ideal and reality of large industrial units is giving way to the ideal and reality of small and household industrial units; the industrial working class is getting dismantled and in place is appearing a new artisan class, the process being accompanied by a breakdown of the world of wage labour and the trade unions making way for the emergence of the world of skills 'waiting' for its value and the new organization. All this perhaps assists the development of a new entrepreneurial class whose members may be less independent than before as entrepreneurs but this class as a whole may have a much larger role now than before. Thus, the capitalist-worker frame is changing into an entrepreneur-artisan frame. This ought to have great effect on conceptions of social change and welfare. For example, dialogues with the entrepreneur to persuade him to see the social stand point on the one hand and on the other knowledge and skills of the workmen may become important factors in social change strategies.

3.0 Concerns of the Indian brick sector

The Indian brick industry is primarily an informal and unorganized sector, comprising of more than 100,000 brick kilns located in rural and peri-urban areas. While in the peninsular India, the brick enterprises are smaller in size³ and use clamp as the firing technology, in the Indo-gangetic plains, the brick making units are much larger⁴ and use bull's trench kiln for firing bricks. The production process comprising of clay preparation, moulding, drying, material handling and firing processes, rely on manual labour and as a result it is estimated that the sector directly employs around 8 million workers. Environmental regulations introduced during 1990s has had some impact on the brick sector and has forced the moving chimney bull's trench kilns to close down and to be replaced by fixed chimney BTKs of appropriate height to comply with the emission norms prescribed by the State. The brick sector seems to be entering an era of transformation, primarily due to introduction of environmental regulations, rapidly increasing demand for bricks and shortfall in the supply of skilled workforce. All in all, these changes seem to have set a new stage for introducing new technologies as well as planning social action.

The main objective of the India Brick Project, sponsored by SDC, in which TERI was a partner, was to introduce a new technology of firing bricks in India, called as Vertical Shaft Brick Kiln (VSBK). The VSBK technology was originally adapted from Chinese model and redesigned in the project to suit local conditions in India. The major considerations were: energy efficiency of the firing process, environmental pollution, the working conditions at the kilns and the condition of the working population. The major driver was large-scale improvement in energy efficiency and

³ Producing few thousand to up to 2 million bricks per year

⁴ Producing upwards of 1.5 million bricks per year



environmental pollution and alongside initiation of a social change process for the improvement of the conditions of work and the life processes of the working population on the kilns. In fact the characteristic patterns of VSBK in terms of scale, investment, environmental advantages etc. provided an enabling context for initiatives in the Social Component of the project. VSBK technology, a people centric technological solution is geared towards enhancing the quality of life of the stakeholders at the lower-end. With such a newer technological choice or production process, new sets of values, patterns of working and production relations emerge. This essentially means a life style change and has an implication on its immediate as well as larger social system.

Started in 1995 the project went through the phases of action research, adaptation to Indian conditions, standardization and pre-dissemination phase that continued till 2004. The pre-dissemination phase started in 2000 which also marked the beginning of the Social Action Component during which along with pilot action, dialogic mode of interaction with institutions, stakeholders continued. During this phase, concerted effort has been made in addressing social aspects and initiating a process of social campaign.

This was the concrete context in which TERI with LOKMITRA and PEPUS initiated a relatively imaginative process in the bed of the fireman households. Imaginative because it constituted an incessant struggle to fuse into one the technical and social initiative, which could lead to an all-round empowerment of the firemen community.

Partner's mandate vis-à-vis their work

The chief concern of PEPUS relates to technology and environment from the point of view of uplift of the people. Apart from training and development programmes in the rural areas of Allahabad, PEPUS has to its credit long-term intervention among the tribals of Naugad (remote southern areas of Varanasi district) for people's organization, food security, education, women's empowerment, in one word integrated rural development of the area. The inclination and competence of the team gelled well with the concerns to be addressed among the firemen community.

LOKMITRA had broader interest in experimenting in human and institutional development in which marginalized people have collective voice to alter gross inequities that cause adverse policy formulations and faulty implementation. Though LOKMITRA had primary interest in basic education of all children, local governance, women's concerns and local knowledge were cross cutting issues. When methodological approach of LOKMITRA in education sector was evolving, it was thought that an interface with similar work with a strong focus on local knowledge and Sangathan will bring synergy to LOKMITRA's work.



4.0 Techno-social integration (TSI)

The brick sector provides a challenge and an opportunity to the conception and application of TSI. Variation in technology in BTK, clamp and VSBK, conditions of work, background of the working classes and strengths of the working classes could not be clubbed in a single framework of TSI and what was forthcoming was evolution of a TSI perspective which could weave the ideas of scale, knowledge, gender, market, ownership and solidarity into a dynamic approach which was pro-poor. This provided a distinct space to bring into fore the knowledge and skills of workers and their families which often go unnoticed or ignored and a ground to sow the seeds of sustainable social change. In other words, small scale technology, local knowledge, local market, ownership by the poor who are often alienated by the larger market driven forces and solidarity among the workforce are the major thematic areas of discussion in the present context. Activities of the NGO partners in east Uttar Pradesh also revolved around these thematic areas.

In the discussion of TSI it is crucial to acknowledge that it relates to social structure, social relationships, community-based initiative and social change processes. TSI is all encompassing and has a holistic orientation. It dwells upon technology and its impact, empowerment, participatory processes, solidarity promotion, capacity building and networking, gender, equity, externalities and so on.

TERI with its grassroots partners initiated experiments in downscaling of VSBK by locating it in the context of ownership by a master fireman and a technical knowledge dialogue among the workers who have knowledge on firing. The technical dialogue was considered the main instrument for bringing together such knowledge. This process was assisted by the organisation of the fireman families from the point of view of social embedding and also partly finance, market and management. VSBK ownership could be seen as a feasible option. According to the requirement of this new form of ownership, finance, market, management, production of green bricks etc. had to be planned. In fact, the issue of the market is combined with the issues of downscaling and ownership. The gender perspective in the present context means the perspective with a focus on the most disadvantaged and exploited and their plight and extern condition of women.

In the entire initiative the debate and discourse on VSBK, its feasibility, the interrelationships among the local knowledge, ownership, local market and its operations took the team closer to an understanding of the inseparability of technological dimension, finance and social structure and relationships.



4.1 Case study I: Engaging with firemen community: Experience of Lokmitra

Lokmitra had been looking for synergy around promoting peoples organisation and local knowledge for empowerment of marginalised community. So when the opportunity came to work with firemen community, it adopted an approach that has evolved amidst ambiguity in earlier stages. Slowly it has taken shape with lesser degree of ambivalence. As of now a confident move has been made with the emergence of a larger level federal body of Firemen families, presently called “Bhatta Karigar Takniki Samaj Sangh”, representing about twenty thousand firemen of about 200 villages of ten Blocks of Pratapgargh and Raebareli. External linkage of this body with Trade Unions has got rooted and there is possibility for this Sangh to get in dialogue with government as one of the party in Brick Sector for safeguarding its right. With strong support of Sangathan, experimentation with Clamp has moved to successful operation of one VSBK by firemen entrepreneur family. Downscaling and financing of VSBK is still a moot question, while issue of local market has been found favourable. Strong initial leadership of women has enabled that they are still in leadership along with men and gender issues continue to get due attention in local initiatives. Focus on Knowledge promotion by exchange and interface with formal knowledge through training on technical aspect and social leadership has got systematically initiated on firmer ground and needs to be further taken forward while it has to be taken care that external knowledge doesn't get superficially implanted. In this way effort will further move towards strengthening a sustainable change from within to take up the challenge of improving the living and working condition of firemen families.

Local context of firemen community

Initial contact with firemen was initiated around Lalganj Ajhara, a subdivision in the north of Pratapgargh district, at tea shops and in villages. This was a new work area for Lokmitra, it being based at Raebareli, about 60 Km away. A small fulltime team of four persons, two women with no work experience and two men with some experience of NGO work was constituted that worked under the regular guidance & support of the head of the organisation. One staff had the background of belonging to the family of master firemen, himself having worked as firemen. Only orientation the team had was to go with an open mind and adopt dialogue process, not any structured tool of enquiry or intervention. A field office at Lalganj enabled easy assess to nearby villages.

In the initial stage of the project (Sept to Dec 2001) it was understood that we have to establish rapport with firemen community, understand their living and working condition. Initiating dialogue with tem itself was a clear approach, but without any focus on future direction as we were not sure of task at hand. First workshop on



traditional knowledge appears to be important as it gave a new meaning to traditional knowledge, it being systemic, not to be looked in part, and rooted in social milieu. While not much work could be done in terms of documenting the traditional knowledge, it sufficiently enabled project team to appreciate the traditional knowledge of firemen. This further helped in strengthening rapport with them. But up to that time our interaction got limited to men.

Conceptual rooting of the work

Subsequently in early 2002 workshop on Strength and Initiatives of people as basis of change and the meeting on gender dimension took place. This happened in the backdrop of the idea of the need to promote some form of organisational base of Firemen. The idea of JWVS (Jalai Wala Vikas Samiti) was thought in simple terms, without giving consideration to specific content or future scope of work. The workshop sensitised us on the idea of initiating change process, building on people's strength and initiative. And as a corollary to that we understood that new forms of association should be based on existing form of association and solidarity for sustainability.

Following this we got the space and time to further understand the firemen community by preparing the case study of their strength and initiative. With the realisation that we should be considering the status of women and gender relation as an important dimension of our effort and that of societal development, we also documented the struggle of women from strength perspective. While we could generally identify cases of individual strength and initiative, we directly explored the existing forms of solidarity like caste Panchayat, Kisan Union, women wage workers' affinity group. These cases not only highlighted people's strength and improved their morale, but also further enhanced project team's faith in people, their traditional knowledge, and values. Simultaneously at the project level boundary was being stretched. We were not required to focus only on firemen. Accordingly emerging SANGATHAN for our understanding was given the name of "Bhatta Parivar Vikas Samiti". The project team got comfortable with project processes and outcome in which they are not providers, but just facilitators of a social change processes in which collective leadership among women is being promoted based on their strengths and initiatives.

Up to this stage while we were preparing base for the emergence of BPVS, we were also toeing with the idea of initiating experimental developmental initiatives, not only to ameliorate the existing condition but also give a push to SANGATHAN promotion effort. We specifically considered child-care centre, education at Kiln site in this regard. The idea of SHG was considered from the point of taking small collective step towards a broader SANGATHAN and not as ameliorative activity.



Sangathan promotion as direct approach

First coming together of women (called Rural Camp) of eight villages in May 2002 proved to be path breaker, which helped us to decide to drop the developmental approach and directly work for promoting SANGATHAN. The second rural camp a few months later with women and men jointly, further enhanced our confidence for the promotion of women's organisation with men in supportive role. This arrangement was expected to take care of gender concern as well as the practical problem of men being out to kilns for six months. It was expected that for kiln related issues, men will naturally take lead in SANGATHAN.

Dialogue in villages continued with better understanding of objectives, possible structures of BPVS and steps involved in its promotion. Interaction with Chaudhari of Biradari Panchayats (leaders of Caste groups) of firemen community grew to solicit their interest and support for Sangathan with leadership of women. These leaders were also brought together at one platform. Emerging leadership among women was supported by giving opportunity to interact with other such women at cluster level at regular interval and takes respective role in emerging SANGATHAN. They have been encouraged to approach gram Panchayat and local officials for improving local condition. By this time Firemen and women were able to concretise kiln related issues to be undertaken by SANGATHAN. In two instances firemen made effort to take benefit of SANGATHAN for kiln related problem.

TSI modeling and ownership of small brick kiln

Towards second half of 2002 Project Team got the opportunity to conceptualise its work through a simple graphical sketch (modelling) of its work. This led to use of modelling exercise to understand the integration of Technical and Social aspect, their relatedness. It was realized that looking at issue of energy and environment only from technological perspective will not serve the social concern to serve the interest of firemen. This was deliberated through TSI committee in the background of action in various locations of India. Simultaneously it was brought to the intellectual realm of the team that Gender as tool to enquire unequal power position of women in society undermines other reasons of inequity and injustice especially prevalent in cast and religion dominated Indian society. So, the concept of 'Sahjeevan', focusing on fraternity and justice among all was deliberated to bring to focus major socio-economic-political factors producing misbalance in social fabric. All these ideas got woven around ownership of VSBK by Firemen Families, men and women of families working together on their own kiln, using their traditional knowledge and solidarity. Given the financial position, downscaling of VSBK was considered a major issue. It was understood that local knowledge could be effectively mobilised for this purpose. In March 2003 for the first time Firemen and Master Firemen of the area got exposed to VSBK at Varanasi and they were encouraged to come with some ideas of



downscaling VSBK and look beyond the quality parameter set by vested interest so as to be assured of the market VSBK bricks.

Meanwhile the idea of IQRARNAMA among Firemen, Master Firemen & Kiln owner started emerging and taking shape as a tool to take-up Kiln related working condition issues. This had implication for the choice of technology, fuel, firing practices so the impact on environment and energy. This took place in the background of continuous dialogue to understand the working condition and working relation in the socio political reality. Visits were made to Clusters of BTK in Muradabad and adjoining areas (first in June 03) to interact with MF and Firemen. We could take-up the issue of working condition and technology improvement and VSBK. But this mode of interaction was not found to be feasible due the difficulties in collecting firemen and due to cost & distance.

Spread of Sangathan and its consolidation

Sangathan work had slowly spread to about 25 villages. A total of 2100 families of Firemen had been mobilised and out of these 900 families of brick workers had taken membership, 90 families had taken Sangathan identity card by depositing annual membership fees Rs.50/-. Out of 28 villages, women in 20 villages are organizing meetings themselves. In this background it was found appropriate to move to higher level of mobilisation. On the occasion of Gandhi Jayanti on 2nd October 2004 a formal effort was made to promote the Regional Sangathan so as to consolidate the effort and give greater strength to grassroots mobilisation. It was understood that if Sangathan has to influence the working condition in BTKs spread over North India, we need a kind of Firemen's Sangathan that represent most of them spread in four districts or so. Organization building effort in Lokmitra and Pepus project area will have to spread and come together to have collective and common strategies. But it was also understood that both NGOs have to evolve their own approaches. To equip the team with these larger tasks, an exercise in preparing a broader design of Sangathan was attempted and worked up. This proved to be useful as initial guideline.

This first event called Foundation Day was to chalk out Sangathan objectives, membership, rules and membership fee. This programme provided opportunity to different village Sangathan to interact with each other as well as discuss and finalized the ways to solve local and kiln related problems. It was called by the name of "Ghuisarnath Bhatta Parivar Sangathan" (GBPS) with its office at Ghuisarnath at (Lalganj). Thirteen prospective leaders, including seven women emerged in the process to take forward the Sangathan work through four committees which are 1) Chhota Bhatta Malikana Samiti, 2) Sarkari Suvidha Adhikar Samiti, 3) Samta Samiti



and 4) Sangathan & Iqrarnama Samiti. Monthly meetings of leaders started in which Sangathan related issues such on Iqrarnama, management and information etc were discussed. A 29 points Iqrarnama was developed and one year later it was fine-tuned to 15 point (fig.1.0).

Common understanding between artisans and kiln owner has reached on some points like providing shelter, kerosene, soap, Gur, filling of dry bricks and monthly payment system. Workshop, training programme, use of posters and pamphlets, Mahila Diwas programme were taken up as additional ways of facilitating the process. Initiatives both for local issues as well as for Kiln related issues grew. Pressures were brought upon Panchayats, local officials for better delivery of government services.

Understanding on mutual agreement 'IQRARNAMA' for fare working condition grew.

A revised draft of it was sent to about 300 BTK

owners and Association of Kiln owners. But no formal reply was received. Women further moved up in leadership position with the extra opportunity provided to them.

Expansion of mobilisation work for Sangathan and VSBK

Towards the end of 2004, a planning process for next phase of intervention was initiated under which a broad survey of sample villages in clusters of different blocks

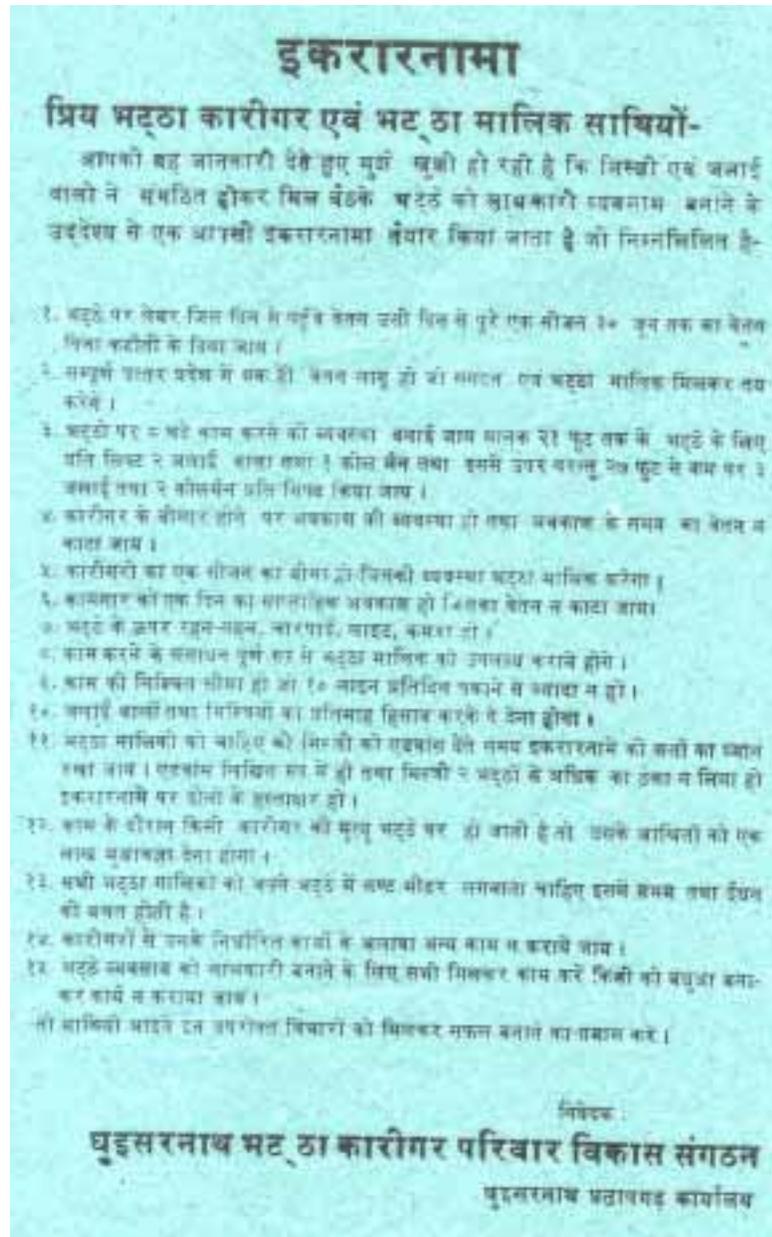


Fig1.0 Iqrarnama pamphlet



of four districts was done so as to prepare the ground for large scale intervention leading to promotion of a Broader Sangathan in near future. Otherwise it was estimated that firemen communities from the initial intervention areas will lose interest as larger questions of fair working condition will not get addressed in absence of broader solidarity. Larger area coverage was expected to throw more prospective VSBK entrepreneurs from Firemen. But due to resource constraint scaling up of mobilisation effort couldn't be possible, still project team that had meanwhile grown to six got divided into two teams and two new Blocks of Raebareli were taken for mobilisation in 2005. In a short span of six months much mobilisation could be done. This prepared the ground for developing new approach of mobilisation in campaign mode where no elaborate field work is done. Message is spread through weekly markets, pamphlets and quick round of village contacts. This was followed by meeting in villages and clusters, there identification of prospective leaders, providing support and leadership training to them.

VSBK entrepreneurship with firemen

While Sangathan work was continuing, idea of firemen becoming owner of small Kiln like that of VSBK was found to be an empowering idea and conducive to Sangathan. In absence of any firemen forthcoming for VSBK, in year 2003 Lokmitra took the opportunity to promote entrepreneurship and downscaling by identifying and encouraging Firemen to experiment with improvised Clamp. This was also hoped to build capital the firemen entrepreneur for costly VSBK.



Fig 2.0 Fireman owned VSBK

Later on east UP was surveyed for enterprising Clamp Firemen. Meanwhile two more events, installation of VSBK in Akhrajpur by a master fireman initiated by PEPUS and another deliberation on technical and social aspects among and with selected firemen and women at Allahabad (July 2004) paved way forward. Experiments with two Clamps were not encouraging, either technically for promoting entrepreneurship. But by the end of Project period, three prospective VSBK entrepreneurs from firemen could be identified & a Fireman from Pure Kalandhar could be selected for VSBK construction (fig.2.0) as second best choice. He in partnership with his relative with experience in furnace work agreed to provide semi built house and material and some cash totalling to about hundred thousand rupees. Project agreed to provide rest three fourth. It was understood that downscaling with involvement of firemen will be effective only if there are a few VSBK in operation in the region of Firemen concentration.



All these development took place without any progress in downscaling. Background of Sangathan and understanding of local market, as well as possibility of family involvement were enabling factors. No proper dialogue among various parties involved in design, construction and firing could be organised due to the foremost concern of let basic construction with test model of VSBK get done in time.

VSBK construction was over by May 2005 and it successfully operated for about 20 days. Firemen entrepreneur family successfully took over the operation of VSBK. Family adjusted to continuous operation, everyone contributing its bit, either in brick loading unloading or general management. So when VSBK operated in next year for more than hundred days, entrepreneur needed hardly any support in regular operation. Support in technical snag was provided. Managing finance had been problematic due to specific situation of firemen and it is expected to reduce. Sangathan was actively engaged in each stage of operation and dialogue on downscaling. Entrepreneur tried some approaches for effective operation of Kiln. Experimentation with fuel, cooling of Brick, and soil mixing and change was tried.

Sangathan and its linkage with fraternal groups

Second Annual Congregation of GBPS on 2nd October 2005 was equally successful and moved a step forward as major responsibility for the management of the event was taken by Firemen & MF and women leaders. They also mobilised some resources to meet the cost of the event. During this period effort was made to further push IQRARNAMA by getting in formal dialogue with BTK owners in a few districts. In discussion with Raebareli BTK Owner Association, design of one such meeting was attempted to combine technical input session with IQRARNAMA issue. But owners seemed to be less receptive regarding Iqarnama issue. Later meeting couldn't take place and no further effort could be made in this direction.



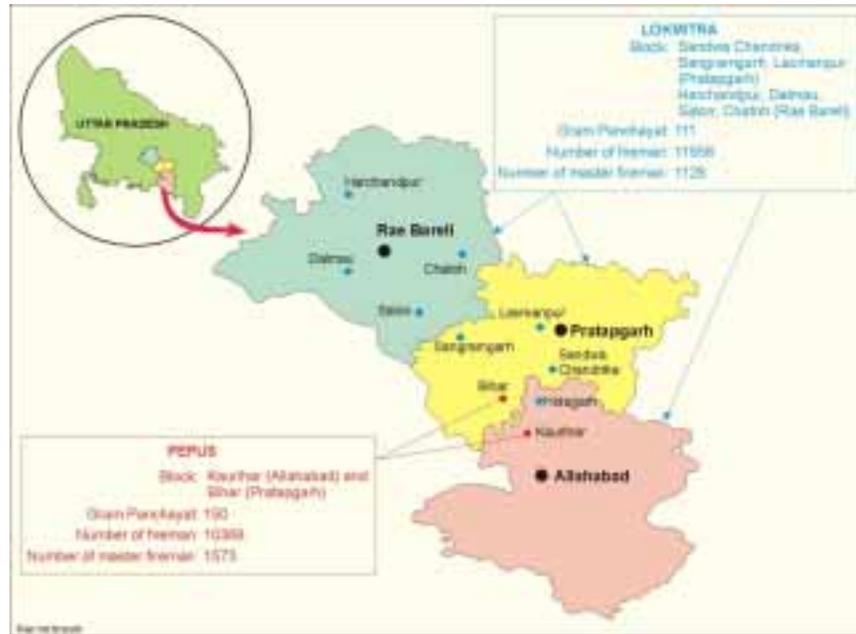
Fig 3.0 Annual convention of Sangathan

Year 2006 was eventful as worked jumped from four blocks to ten blocks, in spite of less number of organisers at work. This has increased our confidence in organisation building. Mobilisation in new area proved to be successful when we saw the active participation of firemen community in planning and conducting the event for launching of a federal body of regional Sangathan of Bhatta Parivar on 11th October 2006 at Ghuisarnath (fig. 3.0). This event also saw the participation of important leaders of various Trade Unions of Uttar Pradesh which led to mobilising their support for taking this work forward to larger political canvas.



4.2 Case study II: Engaging with firemen community: Experience of PEPUS

Since 1st September 2001, PEPUS started working with Firemen Community inhabited in Kaurihar Block of Allahabad District. In the initial stages PEPUS studied the traditional knowledge and the life processes of the Firemen Community.



TERI and PEPUS started unearthing the facts related to Firemen Community (their traditional knowledge and life processes) in *Kaurihar* block of Allahabad district and after some time the research was extended to *Bihar* block of Pratapgarh district. Initially the work was confined to 8 villages and later on it was extended to 20 villages of Kaurihar and Bihar blocks and currently it is extended upto 100 villages of Kaurihar and Holagarh Block of Allahabad District and Bihar Block of Pratapgarh District (fig 4.0). (During study it was found that the Firemen Community has to work under very harsh conditions at Kilns. Exploitation of Firemen in the form of late or under payment of wages, non payment of compensation in case of accidents, unavailability of medical and other facilities, etc, is also prevalent.) The people of the target community belong to Pasi and Chamar (Schedule caste) with some poor, backward and general caste. Along with some poor labor class families and marginal farmers, a large number of brick worker families inhabit the target area. Male members of the family virtually migrate and go for work on brick kiln spread over north India from Bihar to Punjab, for 6-8 months every year. The monthly income of the firemen is an average, 2000 /- per month and they earn it for only 6-8 months. Rest of the months they remain unemployed.

Economic and social condition of the firemen community is poor they are generally landless people or are small farmers having very small land holdings. Land holding

pattern of the target group lies within .5 to 1 bigha. Most of the women are illiterate and education level among girls is very low (women literacy rate in Kaurihar and Bihar blocks is 17% and 7% respectively).

The project area consists of 100 villages of Kaurihar block and Holagarh Block of Allahabad district and Bihar block of Pratapgarh district. The proposed villages are located within the distance range of 35-60 Kms and are 40-60 Kms away from the district head quarter Allahabad.

Main thematic areas of work

Equipped with understanding about the community the work moved on two perspectives – **Social** and **Technical**. Basic strategy adopted for initiating the process that may help them to organize into one unit to change prevailing conditions so as to make these more favorable to them.

Initial dialogue conducted under social perspective work help to identify a host of problems faced by community which were categorized into three types – Kiln based issues like exploitation of workmen, late and under payment, poor working condition, lack of other facilities, etc., village based issues – lack of development of roads, wells, schools, unavailability of govt. facilities and women specific issues.

Work under technical perspective focused on traditional knowledge of firemen and introducing them to new technology of brick manufacturing called Vertical Shaft Brick Kiln (VSBK) a low cost environment friendly brick kiln with an intend of developing small scale production in which firemen may have greater stake in ownership.

The process of work was started with study on traditional knowledge and life process of firemen community through continuous interaction and dialogue with the community and found out the actual needs of work which form the main thematic areas of work, i.e. formation of Sangathan of firemen community, working on gender aspect, promoting ownership of firemen, establishing new technology, VSBK etc.

Study on traditional knowledge and life process of firemen community

During 2001 and 2002, through continuous interaction and dialogue with firemen community, an attempt was made to ascertain the traditional knowledge and life process, family structure, socio-economic status, internal and mutual relationships, traditional customs and health status. Along with the study some other assessments were also done like –

- *Assessment of training needs of firemen* – The first step towards starting the programme was identification of trainees, trainers were also identified and mobilized.



- *Study on health of firemen & mother and child health* – Under this activity interaction with local doctors was done for identifying health status of firemen and for collecting relevant information. Crucial factors were to be identified determining the health of firemen.
- *Study on local market and Biradari Panchayat*

On the basis of the outcomes of studies, PEPUS tried to prepare a base for subsequent interventions among the community.

Sangathan

After the completion of the initial phase of study the project entered into another phase and during this phase firstly, a process of dialogue was initiated with the aim of formation of village level Sangathan, initially called 'Parivar Vikas Samiti' of men and women both in some villages and scope of these Sangathan were also seen in other villages too. In the third year the project entered a new phase with the goal of "Organizing firemen community for fighting discrimination and initiating process to bring decentralization in brick sector". Initiating process for forming Bhattaha Parivar Vikas Samitis in group meetings with firemen, master firemen and their families on issues concerning their lives like participation in Panchayats, unavailability of government's sanctioned facilities, health problems of firemen and their families' economic problems etc. A consensus was brought out of opinion among the community people to tackle these issues through Bhattaha Parivar Vikas Samitis. Meetings were conducted among BPVS to discuss issues like:

- endeavour to enhance participation in Panchayat (both men and women).
- Endeavor to enhance education status of the community, especially of girls.
- Discussion on traditional knowledge of firing hold by firemen.
- Encouraging men and women both to form SHGs for bringing economic stability so that they may be in bargaining position as and when need rises.

Village level Bhattaha Parivar Vikas Samitis were provided opportunities of collective dialogue to enable them to identify and analyze common issues of target villages on which they could work collectively and organize themselves into a 'Sangathan' of firemen families of these villages to take initiatives on common issues. A charter of Sangathan was made according to which Sangathan will work.

Later on a few events were organized to form and strengthen Block level Sangathan i.e. 'Bhattaha Parivar Vikas Sewa Sangathan'. Firstly, orientation training was organized of Bhattaha Parivar Vikas Samiti representatives to develop understanding about membership and functioning of Sangathan. Secondly, workshops were organized time to time on formation of Regional (Block) level Sangathan to bring consensus of opinion to work on common issues and process of management of



Sangathan. In Aug. 2004 a major event was organized at Pepus i.e. Bhattaha Parivar Vikas Sammelan with an objective of evaluation of work done in the project so far. During the year 2005-2006 the primary focus was strengthening of Bhattaha Parivar Vikas Sewa Sangathan through formation of defined structure and organizing meetings of General body, Governing board, keeping proper records and opening of an office of Sangathan and regularizing sitting of Sangathan representatives in the office the Sangathan.

Besides, the Sangathan have been regularly facilitated to solve their problems related with brick kiln as well as village level problems. Information were disseminated about Sangathan in a wide area (three adjacent blocks, Holagarh, Kaurihar and Bihar) and enhancing members list of the Sangathan through issuing identity cards (fig 5.0), membership receipt, brochure of Sangathan etc.

Fig 5.0 Identity card

The consequences were seen after formation and strengthening of Sangathan. In the initial phases of the program firemen community was unorganized but continuous meetings and discussions could bind them in a common thread, achieve consensus from varied opinions and brought them on a single platform. Initially they were not able to articulate their problems at the village level as well as problems faced by them while working on kilns but now they themselves identify their problems and have started taking initiatives to solve these through Sangathan. Firemen who go for work on Brick kiln in other states now started discussing about Iqarnama (an agreement between brick workers and brick owners about fair working conditions) with their brick kiln owners. In the year 2005, Iqarnama have been prepared in Kaurihar Block among the master firemen (9) and firemen (34) and in 2006, Iqarnama have been prepared among 13 master firemen and 40 firemen. The process of Iqarnama between master firemen and brick owner have been also initiated and two Iqarnama were prepared in this context so far.

The active role of Sangathan could be seen now as the people are approaching the leaders with their problems and the leaders are planning and initiating efforts to solve their problems as for example –

- a) Sangathan have solved problems related with wrong electricity bill to a member of Sangathan in Patna Uperhar.



- b) Sangathan have solved a social problem of marriage of girl and boy belonging to the same caste but both came from the same village, i.e. Sapatua.
- c) Sangathan is trying to solve a problem of non payment of worker of local brick kiln.
- d) Sangathan have solved a problem of right of a woman, Shakuntala to her own property which her husband did not want to give her. By the effort of Sangathan Shakuntala got whole right on her husband's property as he left the place, deserted her and re-married.

Gender

Gender is one of the main focuses since inception of the project. With the interaction of the firemen PEPUS also came into contact with their family especially with the women of the family. Women also showed their curiosity and interest in the project. It was observed by PEPUS that men being outside for 6 months, women of this community have to manage all house hold activities alone, and they are doing it since years but still they somewhere lack



Fig 6.0 Gender training

confidence. As a result of regular meetings, discussions, workshops and trainings (fig 6.0), the hidden quality of leadership and management capacity of women have emerged.

Initially a study on strengths and initiatives of the women of firemen community was carried out. In this study, PEPUS interacted with other women headed organizations and women activists like, Mahila Samakhya, Ms. Chitra Sahsrabudhey and rural women of other areas to find out the sources of 'Mahila Shakti'. Case studies were prepared on women displaying individual and collective power. The conclusions of study were:

- In our society the decision making power rests with men only
- It is very difficult for a woman to snatch her right from her own family
- Men and women both should be sensitized equally for gender balance.

Some additional events have been organized based on women's strengths. *Mahila Shakti workshop* and *Mahila Shakti Sammelan* were organized in 2004. The sammelan served the purpose of floating the idea of 'Sahjeevan' that emerged from *Mahila Shakti* workshop in a large canvas. Besides, some other developmental activities were also conducted on the basis of the requirement observed in the area



like, training of traditional birth attendants (TBAs) of the village so as they perform their task effectively, information dissemination regarding mother and child care through TBAs, formation of SHGs of women and mobilizing them to start income generation activities. For promoting girl education a pilot activity was initiated under which some families were identified where girl child was not attending school. These families were mobilized and motivated for developing interest towards girl education by the local lady worker.

Efforts were made to involve women in all the project activities for mainstreaming gender equality. Gender training was organized for awareness and sensitization of community towards 'Sahjeevan'. A *Mahila Shakti* workshop and *Mahila Shakti Sammelan* focusing on 'organizational development through women leadership'. *Mahila Shakti Sammelan* organized in February 2004 was a major event in which about 600 women came from two blocks, Kaurihar and Bihar. In the same area, PEPUS also formed a regional federation of women i.e. *Swayam Sahayata Samooh Mahasangh* to strengthen economic status of women. Through this federation the members provided loan at very low rate of interest to get them free from the trap of *Mahajan's* mortgage and enhance women's self confidence.

Technical aspects (VSBK)

Work under technical perspective focused on traditional knowledge of firemen and introducing them to a new technology of brick manufacturing called VSBK – a low cost environment friendly brick kiln with an intent of developing small scale brick production in which firemen may have a greater stake in ownership for construction of VSBK with community a technical dialogue along with other activities was conducted which are –

- I. Exposure visits on VSBK.
- II. Discussion on VSBK cost with prospective VSBK installers.
- III. Meetings for technical dialogue with firemen, master firemen and entrepreneurs on VSBK installation.



Fig 7.0 Technical training

Towards enhancing ownership of firemen a VSBK has been constructed in Akhairajpur village with involvement of Mr. Hari Sharan and Mrs. Manorama in the year 2003. Initially the VSBK was run under management and leadership of Manorama Devi.



PEPUS has seen the whole belt of Allahabad and Pratapgarh as a reservoir of technical knowledge. Although this technical knowledge has been passed on through generations which has its importance and significance but considering today's new technological challenges up gradation of their existing knowledge appears a prerequisite. In this context a series of technical trainings for firemen has been designed. The first such technical training (fig 7.0) was organized in this year at PEPUS. It is one of the important events which were well received by the firemen.

Lessons learnt

In order to sustain their traditional knowledge in the present era of technological changes and market competition the firemen community also needs to upgrade and improve their traditional knowledge. Through the process of dialogic mode of knowledge based interactions, it is found out that the artisanal knowledge of firemen community should be more skilled and modernized and also VSBK related issues and other local issues related with the firemen community should be more focused and continued in future. It is also seen through the process of Sangathan that the capacity building of leaders is required.

A strengthened Sangathan needs well-defined structure, responsible and committed leaders, right and proper facilitation, activities which would provide direct and immediate benefit to the members of Sangathan. Greater and greater space needs to be provided for gender focused, gender sensitive and gender contextualized conceptions and activities. Hence, it has been felt that for the women of the firemen community a separate programme could be conceived.

