

## Article

# Indigenous or global knowledge for development: Experiences from two NGOS in Bangladesh

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Accepted 23 March, 2012

**There is a crucial debate whether indigenous knowledge (IK) or global knowledge (GK) is more important for a country's social development. This is widening over time and it is now recognised that IK is much more essential for sustainable development. This paper looks this issue with two communities- blacksmiths and goldsmiths of the two NGOs in Bangladesh. This paper finds that IK in Bangladesh is very valuable, but the quality of IK among the blacksmiths and goldsmiths is very poor that needs to modernize through liquefying GK for social development.**

**Key words:** Indigenous knowledge, global knowledge, NGOs, globalization, Bangladesh.

## INTRODUCTION

It is argued that NGOs' interventions in developing countries such as Bangladesh are now focused on social development. Currently, majority of NGOs in Bangladesh work to create opportunities and resources, such as education, skills, social networks, and employment. The NGOs use many interventions and the most important is 'knowledge'. Both indigenous knowledge (IK) and global/scientific knowledge (GK/SK) are now considered as an important aspect of development intervention for NGOs. The research considers an appropriate paradigm to review such knowledge approaches, where NGOs' interventions can work towards sustainable community development in Bangladesh.

## INDIGENOUS KNOWLEDGE FOR DEVELOPMENT

Indigenous knowledge (IK), also known as 'local' or 'traditional' or 'rural peoples' knowledge' is not easily or simply defined (Rouse, 1999:1). It is a diverse concept, in anthropology; it refers to the original inhabitants of a specific geographical area, a land which may have been occupied subsequently by migrants or colonists (Morgan, 2005). In view of the marginalisation process, IK today means 'non-western' or 'anti-western' knowledge. IK

includes the way people observe and measure what is around them, how they set about solving problems, and how they validate new information. Recently, the term indigenous knowledge has been used in different disciplines, such as sustainable development, environmental studies, agriculture, rural development, aqua-culture, animal husbandry, social sciences, health science, cultural studies, language and linguistics, and many other branches of social sciences. At present, IK has been developed as an indigenous knowledge system (IKS). IKS means the combination of knowledge systems encompassing technology, social, economic, philosophical learning/educational, legal and governance systems.

IK covers numerous components and aspects, which make it wide and complex. It includes: agriculture and horticulture, astronomy, forestry, human health, traditional medicines and healing, knowledge of animals, fish and ecological systems, sustainable use of natural resources and the environment, traditional classification systems for living, learning systems and oral traditions, spirituality, symbols, traditional arts and culture, designs, symbols, scientific and ecological methods, crafts, music, dance, songs, stories, foods, medicines and wellness (or disease-prevention), and products (Brascoupe and Mann,

2001:3; Hoppers, 2004:3). Such knowledge systems are cumulative, representing generations of experiences, careful observations, and trial and error experiments. It is more widely shared locally than specialised scientific knowledge (Sillitoe, 2002). It is a mixture of knowledge created endogenously and acquired from outside, but then absorbed and integrated within the society by 'trial and error'.

There has been little critical examination of the ways in which IK has been included in the development process (Briggs and Sharp, 2004:661). IK has been used since the dawn of civilisation, but it was first formally recognised as invaluable to sustainable development at the Rio Conference: 'Our Common Future' in 1987. Since then, many institutions have shown increasing interest in it and numerous international conferences have taken place concerned exclusively with IK (Ahmed 1994:3; Warren et al., 1993).

Bangladesh achieved its independence in 1971, but has deep rooted traditions and cultural practices (UNESCO, 2001:45). Bangladesh took the inspiration for an independent state from the historic language movement of 21st February 1952, which remains a milestone and a red letter day for the people of Bangladesh, who had fought long and hard to achieve democracy. The People's Republic of Bangladesh has been a parliamentary democracy since 1991. As a developing country, Bangladesh is progressing gradually, though many of the Millennium Development Goals (MDGs) are not yet achieved, partially due to its high population growth rate (World Bank, 2005). As the Malthusian theory (Malthus, 1798) suggests, the country is struggling with the contest between population control and depleting resources. Largely, due to the limitations of the government initiatives, the NGO is increasingly becoming a necessary sector for community development in Bangladesh (Devine, 2003:228).

The IK in Bangladesh is an integral, valuable resource based on deep rooted traditions. Craft persons, such as blacksmiths and goldsmiths, have acquired various skills, developed through the wisdom and experience of successive generations (UNESCO, 2001:1). The research enquired into how such knowledge, culture, skills, and practices may be woven into development, most of them being established through a process of trial and error, which underpin their ontological and epistemological basis rather than through scientific research. However, the author argue that they do have some scientific principles behind them, though such principles may appear somewhat obscure or even immersed in knowledge bases which are not at present fully recognised as scientific approaches. However, I believe that the practitioners and other beneficiaries of this indigenous and traditional knowledge and these technologies are not fully aware of the scientific principles behind them, due to illiteracy, ignorance and lack of social education.

## **GLOBAL VERSUS INDIGENOUS KNOWLEDGE: A WIDENING DEBATE**

There is an intense debate about global/scientific versus indigenous/traditional knowledge (IK/TK). It is important that attitudes to IK amongst those in the Western and developing worlds alike 'run the entire gamut from pride in traditional methods, and rejection of new knowledge to admiration for new ideas and embarrassment about older practices' (Rouse, 1999:3). Western societies have not, in general, recognised any significant value in traditional knowledge, nor have any obligations associated with its use (Correa, 2001:3). It is observed that there has been a temptation to over-exaggerate the value of IK amongst its patrons. It is important to recognise its very real shortcomings, as well as strengths, compared with Western science. An important question is: what is the attitude of Western societies to their own local or traditional knowledge? Equally, however, some persist in giving IK less than its due (Agrawal, 1995:424). Scientists with a modern education are influenced by Western culture; they follow urban lifestyles that distance them, either consciously or subconsciously, from the heritage, culture and traditions of rural people. Chambers (1980:2) argues that IK systems are 'associated with low prestige rural life', and 'even those who are its bearers may believe it to be inferior'. In recent years, the status and legitimacy of IK has improved. It is extensively acknowledged and positioned as an important part of sustainable development (Rouse, 1999). For example, Kothari (2007) argues that it has stronger critical insights and practices to offer to a sustainable community than modern science.

Appleton et al. (2001) argue that IK can be termed as science, because it is generated and transformed through a systematic process of observation, experimentation, and adaptation. They again argue that IK systems differ fundamentally from those based on modern science and technology in that they are managed by the users of the knowledge, and they are holistic. Although, both 'bodies of knowledge' (traditional and modern) are structured by systems of classification, sets of empirical observation about local environments, and systems of self-management (Johnson, 1992). In general, a knowledge system differs according to local peoples' capacity to deal with local problems, and to the degree in which it is accessible to them in the social context charged with resource management and production (Appleton et al., 2001). Lieber (1994) puts forward a different opinion in this regard. Western knowledge may be considered as indigenous because of its common sense, which is essentially culturally particular (Purcell, 1998:5).

Kroma (1995:2) argues that despite its proven usefulness, IK is threatened in the developing countries by inadequate, inaccurate and inappropriate conceptions of knowledge, and the propagation of these conceptions in educational practice. In this connection, Briggs

**Table 1.** Common differences between indigenous and scientific knowledge.

Area of comparison	Indigenous knowledge (IK)	Scientific knowledge (SK)
Relationship	Subordinate	Dominant
Dominant mode of thinking	Intuitive Holistic Mind and matter considered together	Analytical Reductionist Mind reduced to matter
Communication	Oral, storytelling, singing, dance Subjective	Literate Objective
Instruction	Learned through observation or hand in experience	Got taught and learned in a situation usually separated from the applied context
Effectiveness	Slow Inconclusive	Fast Conclusive
Data creation	Based on personal observation, trial and error, and synthesis of facts Data generated by resource users	Based on experimentation and systematic, deliberate accumulation of facts Data generated by specialised cadre of researchers
Data type	Qualitative Historical (long time-series one locality)	Quantitative Statistical (short time-series over a large area)
Explanation	Spiritual Moral	Hypothesis, laws Mechanistic Value free
Classification	Ecological	Generic and hierarchical

Source: Wolfe et al. (1992) and Berkes (1993).

(2005:9) states that Western science and IK are represented as two different and competing knowledge systems. These systems are characterised by a binary divide, a divide arguably evolving out of the epistemological foundations of the two knowledge systems (Mohan and Stokke, 2000). Although, a number of observers have suggested that this divide may indeed be false, or at least not as marked as might be supposed (Briggs et al., 1999), the binary notion still persists. Western science is seen to be open, systematic and objective, dependent very much on being a detached centre of rationality and intelligence, whereas IK is seen to be closed, parochial, un-intellectual, primitive and emotional (Agrawal, 1995; Warren, 1991). Consequently, whereas Western knowledge systems are part of the whole notion of modernity, IK is part of a residual, traditional and backward way of life in low and middle-income countries. Briggs (2005:9) further argue that the term 'indigenous' almost invites an oppositional 'us and them' scenario between the two knowledge systems.

The main difference between a scientific knowledge

system (SKS) and a traditional knowledge system (TKS) is their format (Rahman, 2000:2). The SKS is essentially in explicit format - can be articulated using formal language, including grammatical statements, mathematical expressions, specifications, manuals, and so forth. The format of IKS is mostly tacit – hard to articulate through formal language. Agrawal (1995:1) states that a dichotomy between IKS and SKS may be made on: substantive grounds, because of differences in the subject matter and characteristics of traditional and scientific knowledge, and methodological and epistemological grounds. It is because these forms of knowledge employ different methods to investigate reality and contextual ground, and traditional knowledge is more deeply rooted in its environment (Chambers, 1980:2; Warren, 1990:1). The Tables 1 and 2 show some common differences and comparisons between indigenous and scientific knowledge.

Knowledge systems are dynamic; people adapt to change their environment, and absorb and assimilate ideas from a variety of sources (Warburton and Martin,

**Table 2.** Comparisons between indigenous and scientific knowledge styles.

<b>Indigenous knowledge</b>	<b>Scientific knowledge</b>
Lengthy acquisition	Rapid acquisition
Long-term wisdom	Short-term prediction
Powerful prediction in local areas	Powerful predictability in natural principles
Weak in predictive principles in distant areas	Weak in local areas of knowledge
Models based on cycles	Linear modelling as first approximation
Explanations based on examples, anecdotes, parables	Explanations bases on hypothesis, theories, laws
Classification: a mix of ecological and use in on hierarchical differentiation includes everything natural and supernatural	Classification: based on phylogenetic relationships hierarchical differentiation excludes the supernatural

Source: prepared by author.

1999:3). It is true that rural societies are not totally isolated from 'Western' or any other types of knowledge systems. Within each society there are multiple sources of innovation. It may be possible to recognise a knowledge system which can be considered 'traditional', that is a discrete stock of knowledge generated at some (unspecified) time in the past. However, in most rural areas the use of the term 'traditional' knowledge to differentiate from 'modern' knowledge is deceptive, as it tends to imply a static, unchanging system (Warburton and Martin, 1999:3).

The above discussion makes clear the position of IK and SK. My argument is that local and scientific knowledge are neither completely different, nor entirely the same. My view is that the difference between IK and SK is a complex issue, though there are some clear-cut differences. The distinction depends on how one defines the scientific method and its object(s). My observation is the same as Dutfield (2001), who argues that some IK is, at least to some degree, scientific, even if the form of expression may seem highly unscientific to most of us.

## METHODS

This paper is based on qualitative approach, which was influenced also by the ethnographic approach, considering different interacting social and cultural factors, such as people's attitudes, norms, values and practices in their day to day life. The field work was carried out in the two communities from two NGOs: Proshika and Practical Action Bangladesh (PAB) and from two core projects such as the Markets and Livelihoods Programme (MLP of PAB) and the Small Economic Enterprise Development (SEED) Programme (of Proshika). One community was urban (Mirpur (1) Market for Proshika) and another rural (Mostofapur Bazar (market) for PAB), and data were obtained from the two indigenous occupations: the goldsmiths and blacksmiths, respectively. The other stakeholders were NGO staff members and community leaders.

A number of qualitative data collection methods such

as participatory rural appraisal (PRA), social mapping, participant observation, in-depth study, focus group discussion (FGD) and documentation survey were employed. The study uses twelve sets of research questionnaires/ guidelines and data were collected from forty two respondents (community people, local leaders and NGO staff members) of two NGOs and two communities. It includes one set of questionnaire from head and area/ field office staff members for two NGO (total four respondents); two sets of PRA (participatory rural appraisal) and participant guidelines from two communities (total four respondents); three sets of in-depth case study questionnaires for NGO staff members (head and area office), community leaders and community people (total sixteen respondents); four sets of focus group discussion (FGD) guidelines for NGO staff members (head and area office), community leaders and community people (total eight group of respondents); and two documentation guidelines from head and area office (total four respondents).

The data collection procedure was considered as a triangulation approach. One of the principal reasons to use triangulation is to avoid the limitations of a single method. It also helps to increase the reliability and validity of data. Data were analysed based on thematic approach which offers opportunities to expand the already established horizons of knowledge. What is learned may reveal something that has been unknown, or it may correct or expand what is already known. By revealing both personal and structural aspects of experience, a harmony is achieved, transcending the opposition and bridging the gap between personal and collective knowledge (Kidd, 1992:1). All sorts of data were carefully managed and the ethical issues were taken into account, which required extensive preparation

## Case studies of two smiths' communities

The blacksmith (in Bengali Karmakar) and the goldsmith (in Bengali Swarnakar) (swarna means gold and kar means worker) are two indigenous occupations in

Bangladesh, which are basically controlled by the minority Hindu community. The blacksmith manufacture da (billhook), kodal (spade), kural (axe), shabal (pickaxe), bati (fish cutting instrument), perek (nails), chhuri (knife), chimta (longs), and hata (a big, spoon-like instrument). On the other hand, a goldsmith is a metal worker, who specialises in working with precious metals, usually to make jewellery, valuable flatware, platters, goblets, decorative and serviceable utensils, as well as ceremonial or religious. They produce innumerable silver or gold ornaments (gahana), such as churi (bangle), bajuband (armlet), har (necklace), hansuli (ornament for the neck), sinthipati (ornament put on the head in the parting of the hair), dul (earring), kanpasha (ear ornament), nolak (nose-ring), nath (big nose ring put on the nostril), *nakchhabi* (small star-shaped ornament put on the nostril), and mal (anklet).

### **NGOs' interventions for smiths' communities**

Initially, this section clarifies the indigenous knowledge (IK) and global knowledge (GK) approaches used by the two NGOs, and then specifies the particular interventions and their impacts, which were provided to the blacksmith and goldsmith communities. It was seen that the use of IK and GK approaches of the NGOs was equal (fifty percent), though the trend to use the GK approach was increasing over time. The staff members of both NGOs said that they had to offer their interventions, such as GK approaches, on the basis of the producers' indigenous knowledge. Then the NGOs tried to bring them to the global/scientific knowledge. To consider the overall activities of the NGOs, it was found that both NGOs were using the IK approach in mainly three areas: agricultural knowledge (traditional cultivation capacity, food production, food processing, and use of local fertilisers); non-agricultural knowledge (pottery, blacksmith, animal husbandry, textile skills, fishing, and local forestation); and social knowledge (local business knowledge, group formation, local management, leadership, good observation capacity, local technological knowledge, and local market knowledge). PAB and Proshika applied non-agricultural and social knowledge as prime IK approaches to the blacksmiths and goldsmiths respectively. The smiths in both communities acquired these indigenous skills through observation and practise over several generations, largely from family members (father and elder brothers), friends, and neighbours, and some from their local institutions. Here IK was embedded in a dynamic system of life in which spirituality, kinship, local politics, and other factors were tied together and influenced one another (Langill, 1999:2).

Both NGOs also used a wide range of GK approaches, which were classified under four main headings: policy and planning, programmes and project based interventions, training, and management. At the policy

level, they used a number of modern concepts, frameworks, development models, and theories (such as sustainable livelihood approach (SLA), sustainable livelihood framework (SLF), social capital approach (SCA), and community empowerment approach (CEA). PAB used the 'market channel network' approach to work with the local producers, where the global knowledge approach was integrated. This NGO incorporated modern and technological supports, including group formation, participatory plan, 'knowledge transfer' techniques, 'target-based' development strategies, advocacy, counselling and campaigning.

Both NGOs also used GK in their programmes and projects. For example, PAB had a number of projects, such as fashion and textile, agricultural development, pottery, blacksmith, energy, shelter, transport, water, food production, agro-processing, manufacturing and disaster mitigation, where a certain level of GK approach was used for increasing production and its quality. On the other hand, Proshika used a number of scientific approaches, such as: credit assistance, training, universal education, environmental protection, and health infrastructure building. Both NGOs had short and medium term projects management training facilities. Proshika had a big training centre in the Manikganj district, and their head and local offices had a wide range of training facilities on: business planning, accounting, banking system, and leadership training. PAB provided project-based technological as well as entrepreneurship and business training. This NGO's intermediate and small industry based training is well-known world-wide. As a part of the management procedure, SEED used modern software to maintain their accounts including loan service and loan recovery and they recruited a range of experienced, skilled and qualified staff.

Both NGOs also had modern monitoring, supervision, and evaluation systems, as the staff members used the 'assessment framework' to assess their producers and staff members' performance. Both used a wide range of modern research and data collection methods, such as PRA, social surveys, and FGD to assess the community situation as well as to verify and justify their project impacts. They both also used a modern communication system that is internet, e-mail, land phone, mobile phone, and fax for their office management. They conferred with local and central offices by mobile and land phone and e-mail to the local producers.

### **PAB interventions for the blacksmiths**

PAB is a well-known international organisation which provides intermediate technology support to the poor people in Bangladesh. Training; social education including information and knowledge sharing; community awareness, and monitoring and supervision are the principal interventions of PAB. It delivers these mainly

through building partnerships with the government organisations and with the local NGOs. PAB also had some projects operated directly by their management. PAB emphasises the use of local resources as much as possible to provide training. In this way, PAB uses local trainers from the particular group and community through the cascade training procedure.

PAB provided training and technology support in a number of areas: food production (fertiliser, pesticide, poultry, fisheries, etc.), agro-processing (food colour, preservatives, raw materials, process and packaging, etc.), small enterprises (screen-printing, food-processing, chalk-making, candle-making, nursery, etc.), and light engineering (fabrication, welding, blacksmithing, foundry work, etc.).

Blacksmithing is one of the traditional trades in Bangladesh. There is no evidence to show exactly when this trade started in the region. Indeed, it is difficult to say when it started in the world, although Grant-Jones (undated) claims that it probably began in what we call the 'Iron age'. However, it is assumed that this trade started with the dawn of civilisation. There were a number of reasons why PAB chose to work with the blacksmiths. According to the staff members, PAB found that there was room for improvement through technology and training that could improve the blacksmiths' output and increase their market potential. PAB always ensured that training sessions could produce practical tools through 'hands-on learning'. Haque and Islam (undated) argue that the learning process of blacksmiths takes place in various ways: learning by doing; learning by seeing; learning through informal exchange of ideas; and learning through training. The main areas of capacity building for blacksmiths were enhancing knowledge to select appropriate materials, treat metals, and finishing techniques. This 'icing on the cake' allowed the blacksmiths to compete, not only in their local market, but also to benefit from imported tools.

PAB started to work with the blacksmith group at Mostofapur Bazar in June 2004, through its partner NGO, named Gono Unnayan Prochesta (GUP). First, the NGO established basic information through the community survey and provided the training in October 2004. PAB arranged this two-day training programme on 30 to 31 October 2004 and was held at Nabapalli, Kadambari, Faridpur. The total participants were fourteen blacksmiths. This training was conducted under the Light Engineering Unit of PAB, Faridpur area and the local NGO-GUP implemented this programme as a partner organisation. The staff members of PAB said that economic and social issues, such as community awareness, health and hygiene, and information and knowledge sharing were also included within this training intervention. After training, PAB continued its supervision

and monitoring supports. After accomplishment of their training, the trainees delivered it in turn to the rest of the blacksmiths through 'cascade training'.

The objectives of this training programme were to:

- (a) Improve the quality of blacksmiths' products by increasing skills,
- (b) Diversify the range of products made by the blacksmiths,
- (c) Facilitate access to markets by responding to tenders for tools, and
- (d) Improve social awareness about their lives and business.

PAB, Faridpur (2004) conducted an opinion survey in December 2004 about the impacts of this training. According to the finding of this report, initially the blacksmiths did not have good expectations about this training, but they revised their opinions after getting their training. The blacksmiths said that they improved their confidence in their skills and they were more efficient in knowing about the types of irons they used. In traditional methods, they had to put more physical labour to hit and melt their iron ore. They said that after training, partially, they got rid of this kind of physical labour. The whole process suited them as trouble-free to hit and melt their iron ore. It saved them time and labour. They could avoid some other risks and difficulties, including improving safety and security. They also said that this kind of training should be arranged in the future. They also said that this training was helpful from the financial aspect, as they had to buy kacha (raw) iron per kilogram at Tk. 20 and pucca (workable) iron at Tk. 40. However, they could save Tk. 15 in each kilogram. Moreover, the pucca iron was not available all the year round in the market, and they could not make product during that time. The blacksmiths were also able to take extra orders and made some additional products for future sale. They found that the whole procedure was helpful to improve their skills, income, and job security.

After one year, the PAB, Faridpur (2005) conducted another survey about the impact of this training intervention and found significant changes in the blacksmiths' socio-economic conditions. The PAB, Faridpur (2005) noted the following impacts:

### **Social**

The blacksmiths were working as one group, especially to produce large quantities of supplies. They improved their social dignity and status, more acceptances, and improved their social contacts.

### **Physical**

The blacksmiths as a society lobbied the government and

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\* Cascade training means the training that the trainers provide to the trainees, informally and generally through their own working settings.

local agencies, and were trying to gain a piece of land on which to build their workshop. Some of them built better workshops and houses.

### **Human**

The blacksmiths improved their confidence, trust and skills through knowledge generation. They were able to build relationships and contact with other institutions and NGOs.

### **Financial**

All the blacksmiths raised their income by producing new goods and by improving the quality of their products.

The PAB, Faridpur (2007) conducted another impact survey from their monitoring cell after three years and found that the blacksmiths had expanded their businesses, and that their per-capita income increased on average from Tk. 5000 (£46) to Tk. 7000 (£64). They also improved the design, and quality of tools, and their individual capacity to overcome socio-economic and cultural barriers. The project assessments were as follows:

- (i) The blacksmiths met and worked together, and agreed to support each other in technical training, management training, access to credit from other NGOs, raw materials and shared equipment, including power generator.
- (ii) Most blacksmiths were able to produce varieties of key tools and equipments. Over sixty new tool kits were produced with the help from PAB.
- (iii) The blacksmiths learned to do participatory assessment and tool design; valuable skills for sustainable business.
- (iv) After training exercise, a large numbers of agricultural tools were manufactured and distributed to farmers.

This report also stated that the trained blacksmiths gained income that helped to purchase food and cloths, meet household needs, pay health and education expenses and improved their families' livelihoods.

### **Proshika interventions for the goldsmiths**

The SEED of Proshika is a well-known programme in Bangladesh for improving enterprise development among the disadvantaged rural and urban people. The ultimate objective of this programme is to improve people's capacity, skills and use of their local resources toward poverty alleviation. SEED had a number of interventions, which include financial assistance (micro-enterprise loan), training, technological assistance, business

counselling, marketing extension supports and social education to the entrepreneurs.

As stated earlier in this chapter, the training was the principal intervention of SEED. It had mainly five types of training interventions, such as producer development, business management, business development support (BDS), Training of trainers (ToT) techniques and legal documentation, and loan allocation for the producers and staff members. Table 3 gives an outline of SEED's training contents. To review the whole range of training manuals, the research assessed that Proshika developed a number of scientific techniques and measurements that were helpful to provide and assess quality of training interventions. These included the methodologies to develop good trainers, strategies to deliver good public speaking, indicators to become good trainers, questionnaires of producers' personal characteristics, correction forms and details of producers' personal characteristics, producers' evaluation forms, indicators of training demands, principles of communication, learning strategies, techniques of memorising capacities, experienced-based learning-circle, visual aids of training, principles of group learning, and performance and negotiation sheets.

Proshika started to work with the goldsmith group at Mirpur (1) Market in January 2004 under the SEED programme. First, the NGO established basic information through a community survey, and then provided a number of interventions, such as loan support, training, community awareness, social scheme, and legal support. SEED provided the training intervention in April 2004. It also started a social scheme with the goldsmiths. This scheme covers insurance, loan facility with low interest, job facilities for the children of SEED members, etc.

Again SEED provided a two-day BDS training to the goldsmiths, which covered different aspects of business, including basic accounting tools, profits of products, business plan including social enterprise and social aspects, market and profits, and business management. One of the important aspects of this training intervention was to provide knowledge about social enterprise and social aspects of goldsmithing, including health hygiene, use of safe drinking water, wages and holidays, and working environment. On the other hand, the staff members of SEED for blacksmith community received a four-day training described as producer development training. This included a wide range of business areas, such as objectives of training, SEED elements and activities, characteristics of producers, strength, weakness, opportunity and threat (SWOT), loan procedures, business planning and financial analysis, and loan allocation.

SEED (2006) conducted an impact study in December 2005 (after one and a half years of the training) based on survey opinions. This survey included a number of the socio-economic conditions of the goldsmiths. The survey shows that the goldsmiths under SEED interventions

**Table 3.** Training courses provided by SEED.

Name of training	Contents of training
Producer development and business management training (for staff members and producers)	<ul style="list-style-type: none"> <li>-SEED and its activities (basic concepts, objectives and programmes of SEED activities; terms and conditions of loan of SEED)</li> <li>-Knowledge about enterprise (definition, objectives and importance of enterprise)</li> <li>-Producers and characteristics of producers</li> <li>-Analysis of different aspects of SWOT</li> <li>-Marketing (objectives and techniques of marketing; expansion and importance of marketing; different aspects of selling including relationships and communication of customers)</li> <li>-Business planning (objectives and importance, preparation of a good budget)</li> <li>-Accounting (objectives and techniques of accounting, discuss with some cases)</li> </ul>
Business development support (BDS) training (for producers)	<ul style="list-style-type: none"> <li>-Accounting (objectives, rules of accounting, examples of mini cases)</li> <li>-Pricing and profits of products (objectives, analysis of pricing techniques and profit)</li> <li>-Business plan (objectives, organisational structure, analysis of SWOT)</li> <li>-Idea about market (objectives, knowledge about marketing)</li> <li>-Identify of strategies (objectives and knowledge about business process)</li> </ul>
ToT techniques and legal documentation training (Staff members and producers)	Speaking, adult education, personal qualifications of producers, principles of communication, principles learning, visual aids, market management, market information, accounting and math.
Training on loan allocation for producer development training ( for staff members)	Selection of business enterprise, application of loan, project appraisal, loan allocation (temporary and continuous), agreement of loan, selection of witness, agreement letter/deed, demand process note, stamping of documentation, loan distribution, loan collection techniques, security of witness, loan rejection, loan management and monitoring and supervision.

Source: Different office files of SEED (2001 to 2007).

**Table 4.** Impacts of SEED's training and behaviour package.

Social indicators	Before training (%)	After training (%)
First aid kids available	>10	90
Safe drinking water supplied	50	95
Sanitary latrine used	40	80
Soap used after toilet	50	95
Used and improved child care facilities in the family	50	90
Maternity leave provided	50	90
Improved working environment	50	60
Increased of wages of the workers	50	90

Source: SEED (2006:6).

increased their income, as they improved their skills in the areas of accounting, business management and business planning. The report stated that about 98% of the goldsmiths followed the formal accounting tools/techniques; which had been below 20% before the training. The goldsmiths felt more confident and comfortable about using the business tools, which they had received from the training courses. This finding was confirmed by the participant observation of the

researcher. However, the goldsmiths claimed that very few of them got such training. Some of them stated that SEED was more interested in providing loan support rather than training. But most of the goldsmiths agreed that the overall impact of the training intervention was encouraging.

Table 4 shows that SEED's interventions were successful in most of the social indicators, except improving working conditions. The goldsmiths agreed that

SEED staff members provided advice about these social aspects through supervision and monitoring systems. The staff members of SEED said that the social scheme was helpful to provide social security to the goldsmiths. But most of the goldsmiths claimed that they did not know about this scheme. On the other hand, the goldsmiths agreed that SEED's behaviour package was also helpful to achieve these successes. During discussion with the goldsmiths, it was seen that they were more confident about expanding their social networks with other shops and institutions. The workers performed better than before specially their dealings with customers, which improved a lot.

## CONCLUDING REMARKS

The description of the two case studies (two communities of the two NGOs) shows the Mostafapur Bazar (for blacksmith community) was worse than the Mirpur (1) market (for goldsmith community). Considering the overall circumstances of both communities, it was found that there are significant differences between the rural and urban communities in terms of geographical location, capital investment for trade, ownership patterns, division of labour within trades, nature of works, amount of earning, trade management, and the types and nature of interventions by the NGOs. The nature of the relationship between the owners and workers was a serious problem among the goldsmiths. In terms of the range of interventions, PAB provided only training intervention, including some social aspects, whereas Proshika provided a bigger package of interventions, which included loan supports, training interventions, social schemes, and community awareness programmes. The findings of this paper, which highlights the impact of these interventions (both indigenous and global knowledge of both NGOs), shows that the users (producers) of the both communities could not achieve maximum benefits from IK, GK, or the mixture of the indigenous and global knowledge approaches. According to the findings, it indicates that it is now important to the NGOs to develop a new knowledge paradigm with the mixture of two knowledge systems. The paper, based on the findings, suggested the following techniques, which could be important to develop such kind of new knowledge paradigm:

- (a) To build-up community awareness,
- (b) To build up community capacity building so that local people can cope new ideas and thoughts,
- (c) To build-up social networks and partnership with GOs, NGOs, donor agencies, local institutions, and local bodies,
- (d) To arrange frequently dialogues between NGOs-GOs and NGOs-donor agencies,
- (e) To provide available information, knowledge and technology to the local people,

- (f) To give ownership of knowledge to the local people.

## ACKNOWLEDGEMENT

This paper is based on my PhD work. The author would like to acknowledge to Professor Dr. W. John Morgan, Director, UNESCO Centre for Comparative Education and Research, School of Education, University of Nottingham, England for his valuable guidance.

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