Collaborative Learning for Ecosystem Services in the Context of Poverty Alleviation
A Case from India

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Abstract

Unplanned and unregulated urbanisation and industrialisation has led to large-scale degradation of the environment, including that of water bodies in India (Mukherjee, 2009). Communities and governments have, over time, tried innovative approaches to the development and management of water bodies. Often, these approaches are focused on physical restoration, ignoring the human component – especially the dependence of people on the water body for their livelihood and sustenance. The ecosystem services for poverty alleviation (ESPA) approach seeks to tie together the various social and environmental requirements in a holistic manner and, in the process, recognise the interdependence between humans and nature. The Supporting Urban Sustainability (SUS) Programme focuses on an ESPA approach in urban settings using the methods of collaborative learning.

The purpose of this article is to illustrate how an emerging theory, ESPA, can be institutionalised through a collaborative-learning process. The research is qualitative in nature. It explains the local Ahmedabad case study in order to provide insight into the SUS Programme activities, and then takes a broader view of collaborative learning across the other participating cities in the SUS Programme. The data for the case study on Ahmedabad city was collected during the implementation of the SUS Programme at the site, while the data on collaborative learning was collected from city team members engaged in the SUS Programme across a number of SUS Programme sites through a survey questionnaire. The latter data was then analysed by grouping narratives with reference to various aspects of collaborative learning from the participants' points of view. The outcomes could thereafter be used to support the development of collaborative-learning projects elsewhere, and would also be useful for further developing the work done during the Ahmedabad case study.

Background

Globally, the number of people living in cities has now surpassed the population in rural areas. In India, urban dwellers represent 31.16% of the total population (Census 2011), which is less than the world average of 52.1% (UN, 2012). Cities are facing major challenges in maintaining and restoring the environmental ecology on which they depend. Communities and governments have, over time, tried to find innovative approaches to the development and management of water bodies that provide ecosystem services for cities. The Ministry of Environment and Forests (MoEF) of the government of India formulated a National Lake Conservation Plan (NLCP) in June 2001. The objective of the scheme was to restore and conserve the urban and semi–urban water bodies of the country. The activities covered under the NLCP were primarily concerned with physical and infrastructural development – diverting the sewage discharge, solid–waste

management, water-body cleaning, strengthening of bunds, and so forth (Bansal & Bharti, 2012).

Development and management of water bodies in Indian urban contexts, as at the Bhoj Wetlands, cannot always be effectively solved through conventional approaches, which are expert-driven and not participatory by nature (Mukherjee, 2009). What is needed are context-specific collaborative approaches leading to greater sustainability where stakeholders can evolve solutions after constructing a shared understanding of the situation. The SUS Programme attempts to develop an alternative approach to development by adopting the ESPA approach.

Supporting Urban Sustainability (SUS) Design and Development

The SUS Programme was initiated in 2010 by the Swedish International Centre of Education for Sustainable Development (SWEDESD) in cooperation with the Centre for Environment Education (CEE), India, and the Southern African Development Community's Regional Environmental Education Programme (SADC-REEP).

While dealing with urban sustainability in a holistic manner, the SUS Programme is focused on using the ESPA approach in urban settings. The ESPA approach aims to improve the lives of poor people in developing countries by filling knowledge gaps that currently limit the understanding of how ecosystem services can contribute to the alleviation of poverty. The approach is based on a 'theory of change', which emphasises the importance of dialogue with stakeholders, acknowledging multiple viewpoints and the recognition of power relations, and recognising the political, social and environmental realities in the context (Vogel, 2012). People are at the centre of all ESPA projects and the approach stresses the sustainable alleviation of poverty as a central goal of sustainable ecosystem management. It seeks to tie together, in a holistic manner, various requirements with reference to social and environmental issues, in the process recognising the interdependence between humans and nature.

The objectives of the SUS are twofold: firstly, to understand how ESPA can contribute to sustainability in urban settings; and, secondly, to initiate an ESPA project in various cities. The first objective is related to capacity-building and knowledge creation within the cities as well as in the organisations supporting the Programme. The fulfilment of this objective requires learning at individual level (in the short term) and at the organisation level (in the medium term). The second objective is concerned with concrete change on the ground in the participating cities in terms of a medium- to long-term time frame.

The key elements of the SUS Programme were as follows:

- *Collaborative approach:* The SUS Programme was built on collaborative learning. This key concept was introduced naturally to the participants through 'learning by doing'.
- *Strategic inquiry:* Each city was required to develop a 'strategic inquiry' addressing a situation related to the objectives and content of the Programme. The development of a 'strategic inquiry' is a process whereby participants learn through investigation to inform a proactive problem-solving approach in order to effect change in existing practice. In the SUS Programme, the 'strategic inquiry' was developed by providing support for scientific practice (knowledge-sharing and case studies) and by the creation of a culture

of inquiry (including open communication and the evaluation of case studies). The strategic inquiry was intended to address an issue of shared concern that needed to be explored and resolved.

- *Cyclical process:* The learning process in the SUS followed a cycle of: planning in workshops; action in the cities; and assessment, reflection and adapted planning in subsequent workshops and discussions. This cycle was continued until the concept was internalised by all team members.
- *Multistakeholder set-up:* Teams were formed of members representing various organisations, including local government, civil society, the private sector and academia.

Phase 1 of the SUS Programme was introduced in six cities: Ahmedabad, India; Arusha, Tanzania; Dhaka, Bangladesh; Makana/Grahamstown, South Africa; Malmo, Sweden; and Mangaung/Bloemfontein, South Africa. Cities were selected on the basis of existing partnerships involving SWEDESD, the CEE and the SADC–REEP.

Collaborative Learning

Collaborative learning is defined as an instructional method whereby stakeholder teams work together on an assignment (Diaz, Salmons & Brown, 2010). Collaborative learning, in contrast to cooperative learning, may be an unstructured activity and is thus organic in nature. As discussed by Selin and Chavez (1995), environmental managers need new skills to move from their expert–opinion role in traditional environmental management to an empowerment role as a mediator, catalyst or broker in the new order. They further state that managers comfortable with the hierarchical decision-making processes of public agencies are finding it difficult to cope with the lateral decision-making approaches needed to sustain effective collaboration. Environmental practitioners therefore need to move beyond their comfort zones and adopt more flexible organisational policies and procedures in order to facilitate collaborative solutions to urban challenges. There is no set model or pattern as to how collaborative practices develop (Courtney, 2007).

Collaborative learning is considered to be a critical tool for capacity-building among stakeholders in order to address complex situations. Moreover, it is essential to have diversity in terms of stakeholders for the purpose of collaborative learning. This enables the pooling of different forms of expertise and the establishment of platforms where divergent views can be considered and where the partners can engage in rich, intense and stimulating exchanges with one another. The key elements of effective collaboration include the designation of roles and structures to enhance collaboration and parity, as well as the systematic recognition and celebration of joint work and the contribution of each partner. The critical factors which are important for collaborative learning include the development of 'working relationships', 'organisational structures', 'a common purpose and goal', 'open communication', 'clear roles', and active participation in, and contribution to, planning, implementation and evaluation of the programme (Kuter & Koc, 2009). At the same time, it is very important to create conditions conducive to collaborative learning so as to overcome boundaries among stakeholders.

Practitioners and scholars in the field of collaborative learning argue for open-ended, interactive and reflexive design processes, thereby allowing space for mutual inquiry between designers and participants (Gotland University, 2011). Reflective studies of collaborative learning for urban development projects are relatively uncommon.

Objectives

The purpose of this article is to illustrate how an emerging theory (ESPA) can be institutionalised through a collaborative-learning process. The article places in perspective the learning about ESPA gained through the collaborative approach as attempted by the SUS Programme, from the 'participants' point of view, in order to share the experience so that such initiatives can be replicated within other urban development projects. The learning from such collaborative processes is expected to help resource managers, practitioners, researchers, policymakers, academicians and government officials gain a better understanding of the challenges faced in seeking local solutions to local problems.

Methodology

This research was carried out in order to examine the collaborative dimension of the SUS Programme in using the ESPA approach for urban development projects and was essentially qualitative in nature. To obtain in-depth and meaningful data, the study firstly sought to describe one case study of the SUS Programme, namely the Ahmedabad city case, to show how the Programme was set up and what some of the results were (see also Westin, Hellquist, Colvin & Kronlid, this volume). Secondly, it aimed to provide a broader perspective on collaborative learning as experienced by all the participants within the boundaries of the wider SUS Programme (i.e. all the participating city teams). The participants in all six city teams were contacted through group emails, followed by personal emails. After considerable follow-up, responses were received from nine participants, covering three cities (out of the six cities in the Programme). The local city team members (Ahmedabad team) were contacted telephonically, followed by a personal interview which enriched the database and the perspectives on collaborative learning. The pretested, semi-structured, open-ended questionnaire addressed the participants' views regarding various aspects of collaborative learning, including: formation of the teams; responsibilities; areas of conflict; agreements and disagreements; processes followed for identification and development of strategic inquiries; prior knowledge of ESPA; internalisation of learning from this Programme; post-programme use of the skills developed; and what were perceived as the benefits of collaborative learning. The data was analysed through grouping of the narratives with reference to various aspects of collaborative learning. To maintain confidentiality, the participants have been numbered as P1 to P9. The responses received have been analysed and are reported in later sections.

The SUS Ahmedabad team consisted of professionals from: the Ahmedabad Municipal Corporation (AMC), the urban local body responsible for city governance; the Centre for Environment Education (CEE) working in the field of environment education; CEPT

(Center for Environmental Planning and Technology) University, an academic institution; the Environmental Planning Cooperative (EPC), a consultancy organisation working in the field of urban planning, policy research and advocacy; and the Self Employed Women's Association (SEWA), an organisation supporting self-reliance and full employment for women.

The Ahmedabad Case Study

Ahmedabad, located in western India, is the seventh-largest city in the country and the commercial capital of Gujarat State. It has a population of 5.57 million (Census 2011), of which about 35% live in slums according to a 2003 study (CEPT University, 2003) – unfortunately more recent data are not available. It lies in an arid climatic zone with sandy soil. The mean temperature ranges from 41.3 °C in summer to 26.3 °C in winter. The city receives an average annual rainfall of 782mm. Though relatively flat, the city is dotted with a number of water bodies holding rainwater. Many slums in Ahmedabad are located around these water bodies. These settlements often have poor sanitation and infrastructure provision, which leads to further deterioration of the water bodies. The number of water bodies decreased from 200 to 210 in 1960 to 81 in 2002 (Dhulia, 2003). Of the latter number, 48 currently exist within the Ahmedabad city boundary. Most of the water bodies in the AMC area are shallow, with depths less than 3m. As the city is located in a hot, arid zone, these water bodies dry up prior to the arrival of the rainy season. Large numbers of these water bodies are being used for the disposal of sewage, for the dumping of solid waste, and for open defecation in the surroundings, thus leading to a deterioration of water quality.

Profile of water body

The Saijpur water body is located in the Saijpur Bogha Ward (administrative unit) of Ahmedabad in the north-eastern part of the city, in a predominantly residential area. It is flanked by Naroda Road to the west and National Highway No. 8 to the east. This rain-fed water body is spread across an area of approximately 11 000m^2.

The water-quality tests carried out by the AMC for the Saijpur water body showed that the water was highly degraded, with a biochemical oxygen demand (BOD) as high as 45mg/l[1], a chemical oxygen demand (COD) at 187.49mg/l[2], and a fecal coliform concentration at 900MPN/100ml[3]. As the water quality was extremely poor, there was no evidence of the biodiversity that would normally be expected to be associated with such a water body. From comparison of the Google images for March 2005 and May 2010, it was observed that the size of the water body in 2010 was approximately less than half its size in 2005. The main reasons for this were encroachment by informal settlements (having low access to water and sanitation) and a decrease in surface run off reaching the water body due to construction and other physical developments in the neighbourhood. During site visits by the Ahmedabad team, it was observed that the banks of the water body were steep and eroded. Moreover, the surroundings of the water body were being used for open defecation by the residents living in the vicinity. In addition, the local area lacked the presence of green areas, recreational areas, community space and children's play areas.

Most of the households in the neighbourhood did not have any permanent source of

employment. The focus-group discussions revealed that the men from the households surrounding the water body were generally employed in nearby industries as casual workers. Some of the women worked as domestic help and some as street vendors. A few were engaged in home-based activities like embroidery, tailoring work and handicrafts, and used the open land around the water body for domestic and economic activities. Elders in the surrounding communities did not have any livelihood options, as they could not commute long distances to work.

Stakeholders

Many groups had a stake in the restoration of the water body: the community living around the water body; the Ahmedabad Municipal Corporation (AMC), the local urban body responsible for providing amenities for, and for the civic needs of, the population living within its jurisdiction; the architecture agency hired by the local body to prepare the design for the development of the water body; non-governmental organisations (NGOs) (like SEWA) working for the economic development of the women in the neighbourhood; and the SUS team, which wanted to build an ESPA component into the water-body restoration plan.

Conceptual plan

The conceptual design evolved after a number of discussions among the team members, local communities, the officials of the local body and the consultant hired by the AMC. The interventions suggested by the team can be grouped under five main headings: Physical interventions; Ecological development; Social development; Livelihood aspects; and Operation and management (three of which are discussed below). Each of these aspects could be treated as a separate component, but were closely integrated with the others.

Physical interventions

The physical interventions included de-silting of the water body, the diversion of storm water towards it, the construction of groundwater recharge wells, the diversion of the sewerage system away from the water body, the upgrading of water and sanitation infrastructure for the surrounding communities, the creation of parking areas and the reservation of space for informal business.

Ecological development

Ecological development included the introduction of native vegetation, fruit trees and nesting trees, as well as the introduction of aquatic species in the water body.

Social development

Social infrastructure included the development of walking trails, green spaces, a children's play area, a community space for senior citizens and the preservation of the existing temple. To develop income-generating activities for the urban poor living in the vicinity of the water body, it was suggested that they be involved in the operation and maintenance of the water body through community-based organisations (Bansal & Bharti, 2012).

Significant achievements and current status

The significant achievement of the concept plan is that no informal settlers will be evicted when the water body is restored using the ESPA approach. This is different from the conventional resettlement and development approach adopted for water bodies in the city. At Saijpur, it is proposed that the surrounding communities be included in the maintenance of the area, thereby creating a sense of ownership of the asset and developing livelihood opportunities. The local government body has made budgetary provision for the redevelopment and tenders have been called for in respect of the restoration of the water body. During the regional-level workshop to monitor the progress of the SUS Programme, the concept plan for development of this water body as per the ESPA approach was presented and was accepted by the various stakeholders present. This shows the significant outcomes of the India case study, which were achieved through collaborative-learning processes promoted by the SUS Programme.

The Inquiry into Collaborative-learning Processes

Through the above summary of the Ahmedabad SUS case study, the authors wish to place before readers the history of the development of a conceptual plan addressing strategic inquiry in an urban setting in an Indian context, using the ESPA approach and collaborative learning. As this strategic inquiry was developed under the SUS Programme through the collaborative-learning approach, the reflections on the process of collaborative learning, and not just the outcomes of the strategic inquiry, are important. To assist us to reflect on collaborative learning in the Ahmedabad case context, it is helpful to reflect on collaborative learning in other case contexts, for which responses were received from P1 to P9 via the email communications. These are reported on below.

   The research therefore not only documents aspects of the Ahmedabad case (above), but also focuses on collaborative-learning processes in other city teams in the wider SUS Programme, where the strategic inquiry was taken up as part of the SUS Programme. An attempt has been made to analyse and relate the responses from all the city teams, although these cannot be generalised. Based on this relational analysis, the authors have suggested certain initiatives that are required to be taken in order to internalise collaborative learning in the ESPA approach at case study sites. These insights are helpful for developing the work on the Ahmedabad city case further.

Team dynamics

Team formation

The Ahmedabad city team was formed after an open invitation to many individuals and institutions. This led to the establishment of a committed, small group of professionals with diverse backgrounds who were interested in experimenting with the ESPA approach. The other city teams also aimed to have members from different backgrounds. The views of the participants about team formation are quoted below:

P4: 'The Environmental Management Office of the Municipality has a working relationship with the University (Environmental Learning Research Centre) and I was nominated on behalf of my center. Two other team members from departments in the Municipality, directly related to ecosystem services, namely agriculture and horticulture, were nominated. The fourth member was from a local NGO working with communities on vegetable gardens and a fifth person was nominated to represent the voice of the local youth.'

P8: 'I was nominated (by the University where I work) for the city-level meeting, organized by the local partner. It was only in the later meetings that the core working team [was] formed.'

Formation of the city teams was achieved through a process of selection and filtration based on the interests of the institutions, on time commitments, and on the personal interests and commitments of the individuals nominated. Having members from different organisations with varied experience and exposure led to the desired diversity by the teams for the purpose of collaborative learning.

Team strength

Since teams were formed of individuals having different skills and experience, this led to groups of individuals with a range of core competences. As some of these team members had not interacted with one another at a professional level prior to the SUS work and were complete strangers to one another, it took considerable time in some cases for them to be able to work together as a team.

P4: 'Determining the strength of each member was rather difficult at the beginning. Yet another process of learning… .'

P9: 'Yes, each member represented a strong institution with the relevant role in the team.'

Though, initially, the teams took longer than expected to start working together, frequent team meetings helped each individual to get to know their partners better, to appreciate the strength of other team members, and to work together towards the common objective. This, however, made the whole process a little slow.

Team conflicts

Personal differences, as well as differences in approach and in previous experience, often led to considerable debate and, sometimes, to conflict within the teams, temporarily slowing down the learning process. As the strategic inquiries were developed and discussed at various team meetings, a sense of ownership and commitment to reach the common goal emerged.

P4: [As the process unfolded], 'huge personality differences played out, almost causing a rift in the team. At times it felt like the strong ones were running with the ball, and carrying others. Most of the strong areas were realized when the project was actually happening; people with practical skills stood out.'

P2: 'Got to know team members over time … ground rule followed was to give time to all to talk.'

P6: 'We had several conflicts where we tried to act [by] listening and talking about our different point of views. We had some small meetings, [and walked] around, [during which] we tried to reflect on the process.'

P1: 'Lots of discussions and sometimes frustration, but always understanding and/or compromise in the end.'

P9: 'Points of conflicts, if any, were negligible since there was a general consensus on the goals of the inquiry.'

In such conflict situations, adhering to the ground rules, that is, respecting everybody's opinions, giving time to all to voice their concerns, listening to everyone, interchanging the responsibilities, and keeping records of the meetings and of the decisions taken, and so forth, helped to defuse the conflicts. Building the team is no doubt the most important part of collaborative learning. For the team to work together, it needs to appreciate its collective and individual strengths. This is a slow process and needs to be built into the design of any collaborative-learning process. The identification of clear, shared goals helped some city teams in staying together.

Responsibilities

Some teams were able to achieve a clear division of responsibilities among the team members, while in other teams it was difficult to assign responsibilities. For some teams, the responsibilities changed as the need arose, which is evident from the following:

P3: 'In different activities the responsibilities changed, usually quite [clearly] each time.'

P9: 'The responsibilities were very flexible; however, as the team was very versatile and multidisciplinary, it did not matter.'

P8: 'Responsibilities were distributed as per the capacity of each member.'

P1: 'As all team members were busy in their individual daily work, the SUS Programme added more responsibilities, which were sometimes difficult to complete.'

Some teams adopted a flexible approach to the sharing of responsibilities at each stage. Teams that had been able to identify and allocate clear responsibilities, and follow them through, were able to reach the goal that the team had defined for itself.

Learning process
As indicated above, the SUS Programme was designed to facilitate learning, through the ESPA approach, by encouraging the participants to arrive at a strategic inquiry in the context of their local environment.

Knowledge-building
The participants, coming as they did from diverse academic backgrounds, work responsibilities and different levels of exposure to innovative approaches, had in some cases absolutely no prior knowledge of ESPA, while others reported being aware of the ES (ecosystem services) and PA (poverty alleviation) components, although not necessarily as combined in ESPA. During the SUS Programme, the ESPA approach was introduced to the participants through a series of workshops, discussions, study tours and inspirational visits.

> P5: 'Was not aware at all about ESPA – directly landed [in] it.'

> P1: 'I had not thought much about the connection between ES and PA in cities, only in the countryside. I had worked and studied both ES and PA but never the combination – I still think it's quite revolutionary! In all its simplicity, I think it's an important part of our planet's future challenges.'

> P9: 'These were good introductory sessions to the concept of ESPA, [but] more in-depth deliberations would have been useful.'

At the beginning of the Programme, the objectives that the SUS Programme sought to achieve were not very clear to most participants. Some participants found it difficult to understand what an ESPA approach meant or how strategic inquiry is to be indentified and developed. However, over time, the objectives became clear. The study tours and inspirational visits were highly appreciated. The fact that the larger SUS team consisted of subteams from different cities helped in the understanding of issues related to ecosystem services in diverse socio-economic and geopolitical contexts through the reflection sessions following each activity.

> P3: 'In the initial phase of the Programme, it was rather difficult to understand. But as the programme proceeded, further clarity was [achieved] through interaction among team members and teams from other cities, and through interacting with programme facilitators.'

> P4: 'At the beginning I was a bit confused, but as I started working with my team, reflecting [on] the notes from the workshop and through the interaction, things started to fall in place.'

P8: 'We were learning by doing.'

The site visits and study tours were much appreciated. However, some participants felt that it would have been beneficial to increase the amount of time spent on understanding the theoretical components of ESPA through case studies. The participants and the teams found that the knowledge-building workshops had a high impact on learning.

Cross-learning

The SUS Programme was designed in such a way that the participants constantly worked on the development of their 'strategic inquiry' and presented these developments to other city teams. During the workshops, frequent regrouping with participants from other teams helped the participants to develop a sharper understanding of their own strategic inquiries. Each team was given an opportunity for professional interaction with all other city teams, one by one, during the workshop by presenting their strategic inquiry, scope and methodology. This process was further strengthened by having critical inputs from other city teams. The pairing of each city team with another city team, which was to act as an evaluator, helped in restructuring the inquiry, targets and methods which each team had outlined. Each team's 'critical friends' from other teams would provide comments on the project development based on their understanding and experiences in similar contexts elsewhere. To quote the participants:

P1: 'Always good to know what others are thinking … interesting and rewarding … . Made us transform loose ends into [a clearer] common objective.'

P3: '[Having] critiques from friends was innovative and helpful in identifying gaps in the strategic inquiry and sharpening further.'

P6: 'It was one of the highest learning points in the entire programme where critical reflections from other teams helped us [sharpen] our strategic inquiry.'

P9: '… among international teams, these were useful in discussing commonalities in strategies and situations.'

Teams often used anecdotes from their own work environments and learning to review the work of other city teams. This led to better understanding and development of the strategic inquiries and the goals of each team. This process was valuable and was welcomed by the participants. It also helped to develop close peer bonding and encouraged learning across and between the teams.

Learning together

Regular follow-up meetings (post-workshops) among the city team members helped to build the necessary support and comradeship within the local teams. The SUS Ahmedabad team attended meetings according to team members' availability (for all the participants, the SUS

was an extra work responsibility). Local members attended these meetings because of their personal interest therein, because of their commitment to the learning process and because of the pleasure of exploring a new field – and this despite the fact that most of the meetings (e.g. of the Ahmedabad team) were held late in the evenings, with site visits being held on public holidays. Clearly, the participating institutions and members were not all able to find time for the SUS activities during regular working hours.

> P3: 'Given varied schedules, unforeseen tasks and health issues, I did miss around 3–4 meetings.'

> P2: 'Lack of availability for group meetings was due to other urgent demands. Also, sometimes I could not attend the group meetings, as they were held late in the evening and far away from my home. [There was] no compensation for extra time and work.'

> P8: 'Sometimes other personal work needs to be attended to; it is very difficult to commit time at the cost of my family… .'

> P1: 'Availability of members was an issue – [there were] major time constraints. It was difficult to meet, as everyone had their work responsibilities.'

The city institutions participating in the SUS had not really committed to the Programme. The formal role of the city intuitions was not clear at all. Also, the ownership of the projects (which were being developed for the benefit of the cities) by the city governments was low. For example, in Ahmedabad, and parallel to the SUS activity, the city government had identified a local consultant for the development of this water body, who had adopted a far more conventional approach and one very different from ESPA.

Strategic inquiry – the maze

Each city team developed a 'strategic inquiry' by building on the understanding it had about the city (see Westin *et al.*, this volume), the important issues in the city, and the issues that required intervention and had relevance from the environment and poverty-alleviation perspective. Most of the city teams struggled to identify this strategic inquiry. This was partly due to the fact that the city team was required to develop its strategic inquiry very early in the Programme. At this stage, the teams were not clear about the objectives of the SUS Programme or of the ESPA concept, nor were they clear about the targets for their specific strategic inquiry. With reference to the clarity of objectives for development of a strategic inquiry, one of the participants commented as follows:

> P1: '[The] formulation of [the] strategic inquiry went back and forth.'

Further, as regards clarity concerning the development of the strategic inquiry, it was mentioned:

> P3: 'Not so clear … at least not in the beginning.'

That participants struggled to define their strategic inquiry can be inferred from the following:

P2: 'Low clarity … new field … .'

P9: 'Gradually the intentions became clear.'

Another participant mentioned that the development of 'strategic inquiry' was a gradual process and attributed the final understanding of the process to the inspirational visits to Sweden. As the teams initially had low clarity of what was expected as an outcome of the SUS Programme, some of the teams initially designed over-ambitious strategic inquiries, as reflected by the following:

P8: 'We were working on our strategic inquiry, which included the conceptual-stage design. However, midway we realized that there [were] no resources available to translate the concept into an implementable project. This disheartened some team members and they lost interest.'

After the strategic inquiry was developed and the conceptual proposal to address it was submitted to the city government, there was no clarity on whether, or how, the city government would take this further. Given these uncertainties and limitations in terms of the procedures available to them, there was apprehension among city team members that this project would remain a mere academic exercise. It was stated by one participant:

P7: 'We have no control [over] what the local body does with the concept prepared and presented by our team … though the concept was very much appreciated during the meeting.'

The struggle to identify a common 'strategic inquiry' was partly due to the fact that each team member came from a different organisation having a different work environment and varied organisational goals and responsibilities. The potential and the boundaries of strategic inquiry need to be defined in the introductory phase of the Programme. Despite the fact that, in Ahmedabad, the final concept was presented to the stakeholders and the city government, and was appreciated by the local body's representatives, the local body and the consultant appointed remained free to develop the Saijpur water body in line with their own understandings and priorities, without recourse or reference to the ESPA-derived conceptual plan developed through the SUS Programme. This points to institutionalisation issues associated with collaborative-learning initiatives aimed at social–ecological changes.

Long-term gains
The SUS Programme had developed a timeline for pursuing the strategic inquiry in each city. This was developed by the team members in each city, depending on what they wanted to achieve and how they wanted to achieve it. Some team members believed that, although they had limited opportunity to implement ESPA in the short term, the exposure to ESPA through

the collaborative exercise was useful and helped them build a firm knowledge base. To quote team members:

P9: 'The gain was very subtle and could go unnoticed by an external agency.'

P8: 'Though the team did not have a chance to implement the proposal in totality, it managed to sensitize the local officials and professional community.'

The development of the project using the ESPA approach, and following it through, was in some cases a gain for the city government. Areas of the cities which were not in focus previously have now emerged into prominence, as a lot of attention has been focused on such areas as a result of the project. As mentioned by participants:

P5: 'The eastern part of the city has gained, … . People in that area have gained as new developments are proposed.'

P4: 'The experience gained from the program has broadened my outlook in identifying issues related to urban sustainability. It has provided an insight [into] the process to be followed for an action-oriented approach to bring about positive change in the development process of the city. The process also introduced me to various subject experts, which helped me further enhance my knowledge and understanding.'

Evidently, there has been professional gain at individual level and also at the city level. However, to internalise the gains, the pilot projects need to be implemented on the ground. For the gains of the SUS Programme to be visible, the Programme needs to have clarity on the implementation strategies.

Role of the facilitator
Teams which had the support of a hands-on facilitator, where the facilitator would organise the meetings, provide updates and generally hold the team together, seem to have achieved the targets that they had set for themselves. Facilitating open communication and keeping morale high among team members were important. This is very evident from the achievements of the Ahmedabad team, where the team was able to arrive at a conceptual plan for implementation using the ESPA approach, which was then submitted to the AMC. Facilitators' contributions can be judged from the comments that the teams made about them:

P7: 'The facilitators played an integral role in the process of inquiry and in arriving at the conclusion. Their patience was admirable, and also the effort to motivate individuals to be involved throughout.'

P9: 'Hats off to the facilitators for all the facilitations in working towards maintaining cohesion in the group and playing the role of prodding the team members towards the finish line.'

Conclusion

Through the case study, and the analysis of collaborative learning across sites, this study argues that cross-sectoral and cross-cultural collaborative learning is potentially a strong tool for the introduction of new approaches, like ESPA, into sustainable urban development projects in diverse socio-economic, political, environmental and climatic contexts where multiple stakeholders are to be involved. Particularly in projects which have a component of exposure through site visits and study tours, learning takes place at an accelerated pace and the participants are able to apply the new approaches to challenges in their local environment. A committed team with members coming together with different professional backgrounds and experiences can help to develop a shared and profound understanding of the new approach. However, such teams are also challenged by different viewpoints and experiences, which have the potential to give rise to conflict situations. Such diverse teams also potentially have a heightened ability to apply the learning to their local environment. The respective roles and expectations among the team members, although not always clear at the beginning, may start unfolding as professional trust and confidence in one another are established over time. This needs to be constantly reinforced by way of open communication among the team members. The various city teams also learn from the experiences and contexts of the other teams.

Nevertheless, to internalise ESPA as an approach to sustainable urban development projects, more officials from urban development agencies and municipal corporations should be encouraged to take up the twin issues of ecosystem services (ES) and poverty alleviation (PA) in a comprehensive and combined (ESPA) manner. The key to successful, long-term changes in approaches to urban development lies in involving a wide range of professional and other interests in local development debates and in forming large, coherent city teams so that colleagues from different backgrounds learn, plan and implement innovative approaches together, with a key emphasis on the role and responsibility of the city in enabling sustained implementation of group-based ideas.

The key stakeholders in any city-based change initiative need to clearly define and develop a common understanding of what they want to achieve through the collaboration. This collaboration then needs to be formalised by way of a formal agreement that attends to the issues of institutional buy-in, prioritisation and longer-term implementation support if they are to be fully implemented and sustained. In order to internalise and replicate these collaborative-learning methods using new approaches for sustainable urban development projects, it is necessary that the projects are implemented on the ground and that the outcomes are visible and are appreciated by all stakeholders. Awareness of such initiatives and their benefits needs to be publicised to encourage the take-up of the approach by others in different contexts.

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Endnotes

1., 2. and 3. In India, the water quality criteria are based on the designated-best-use of water body. This particular water body is not to be used as a source of drinking water, therefore, it should comply with the following criteria:
   1. BOD should be less than 3 mg/l.
   2. COD standards are not defined.
   3. Total coliform organisms should be less than 500 MPN/100ml.

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