Assessment of Project SITA

*S*tudies in *I*nformation *T*echnology *A*pplications (SITA): computer skill training program for low-income women in India

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Introduction

This document presents an assessment of the results and experience of project SITA (Studies in Information Technology Applications: Training in Computer Skills for Low-income Women). The central question addressed by SITA was how to bring socially disabled sectors of society into the mainstream applications of emerging information and communications technologies. SITA's answer was to create facilities, resources and content to train women from low-income families in computing skills as a step into finding employment and, ultimately, improving the wellbeing of their families. The choice of women as the focus of the initiative lied in the belief that "If you teach women, you're changing the future, because women are the natural teachers of the coming generations."[1] The project committed to train 500 "needy" women, developing the operational and content facilities for this purpose, including developing a resource package (print and audio-visual material with multimedia modules) and training a core group of trainers. These women would also receive help in their search for employment that would use their newly acquired ICT skills.

The purpose of the assessment is to look at the SITA experience with the aim of determining its achievements and learning lessons that may be useful for future similar processes and for all the players involved. The data and information comes mainly from the reading of SITA documentation and interviews with some of the key players, including trainers.

The Beginnings and First Year of SITA

The idea of the SITA project was submitted by Prof. Krishna Sane to InfoDev in August 1996. At the time K. Sane was the UNESCO-Nehru Professor at the Jawaharlal Nehru Centre in Bangalore. It took one year and a half before InfoDev gave the go ahead to the project in March 1998, awarding a grant for USD120,000 on condition of:

- Obtaining a No Objection Certificate (NOC) from the Govt. of India
- Finding a facilitator organisation for routing Project funds

The first condition is a normal request to all projects. The second was prompted because K. Sane had decided to leave Bangalore with effect from June 1998 to go to Delhi for personal reasons. This meant the loss of the institutional back up in Bangalore and the need to find an intermediary organisation to facilitate the receipt and transfer of InfoDev funds to the project.

[1] Phrase from Krishna Sane.

K. Sane's solution was to involve the Chennai-based non-governmental organisation (NGO) COSTED (Committee of Science and Technology for Developing Countries), that in May 1998 agreed to be the facilitator for Project SITA and in June 1998 proceeded to request the NOC from the Department of Economic Affairs of the Indian Government. In this request, COSTED explained the rationale for its involvement in the following terms:

> Since S & T education and gender empowerment have a high priority amongst COSTED programmes, SITA fits particularly well with the mandate and the objectives of our Committee …. COSTED feels that (the Project) approach is well suited to the requirements of India and other developing countries and it would therefore like to institutionalise Prof. Sane's pilot attempts in the broad area of S&T education.

The Indian Government's Clearance was issued on June 2, 1999 and the Grant Agreement was finally signed by InfoDev, COSTED and SITA on 4 June 1999 - for a total period of 18 months.

COSTED's proceeded promptly and this allowed the SITA project team to begin work in the preparatory phase within two days of receiving clearance from the Indian Government. This enabled SITA to kick off in earnest on 1st July 1999. The project's first year went according to plan with Phase I (July-Dec 1999) and Phase II (Jan – Jun 2000) going well, even before schedule. Figure 1 shows the evolution of the SITA project during the first year.

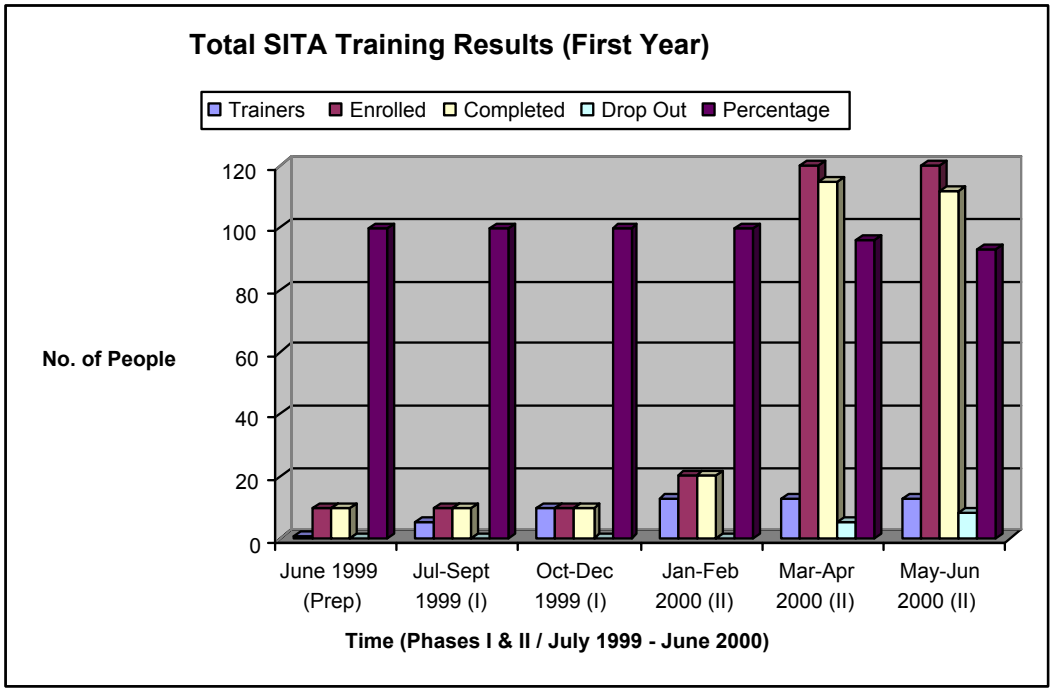


Figure 1. Total SITA Training Results for First Year – Phase I & II (July 1999 – June 2000)

Period (Phase)	Trainers	Enrolled	Completed	Drop Out	Percentage
June 1999 (Prep)	1	10	10	0	100
Jul-Sept 1999 (I)	5	10	10	0	100
Oct-Dec 1999 (I)	10	10	10	0	100
Jan-Feb 2000 (II)	13	20	20	0	100
Mar-Apr 2000 (II)	13	120	115	5	95.83
May-Jun 2000 (II)	13	120	112	8	93.3

It is possible to see that in the first six months (Phase I) the project built up the core of trainers to 10 from the single trainer available in June 1999. All the people who enrolled in the training completed it. During this period SITA also produced the Resource Package to start the training in earnest. This package enabled intensive hands-on computer training based on real life exercises using MS Office 2000. It contained a multi-lingual training manual, audio-visual and interactive multimedia modules for self-learning and other developmental support materials, including an English-Hindi-Urdu dictionary for minimal comprehension of English.

At the beginning of 2000 (Phase II), SITA doubled the number of trainees enrolled and reached 13 trainers, the maximum number. March 2000 marks the full take off of the training programme with 120 people enrolled and a small dropout of 5, giving a completion rate of over 95%. The next two months up to the end of SITA's first year continued this pattern with another 120 trainees enrolled, 8 dropouts, and a completion rate of over 93 percent. By end June 1999 therefore SITA was ahead of target with 277 trainees having completed the training out of a total of 290 enrolled. Wherever possible, trainees were also attached to a potential employer and, at the end of the two-month course, each trainee was required to offer part-time services as an assistant to a trainer. Successful trainees were given a Certificate and assistance in trying to get employment.

For these achievements, SITA received international appreciation in June 2000 as finalist in the world's largest competition of information society projects, the Stockholm Challenge Award.

Characteristics of SITA Trainees

The large majority of SITA trainees clearly had no difficulty to complete the two months training course and obtain their certificates. This was the result of a good combination between the quality of the course and the quality of the trainees. The training was implemented in two regions: Delhi with 276 trainees and The Haryana with 231 trainees, for a total of 507 people trained during the entire life of the project.

The main selection criteria for enrolment of trainees included:

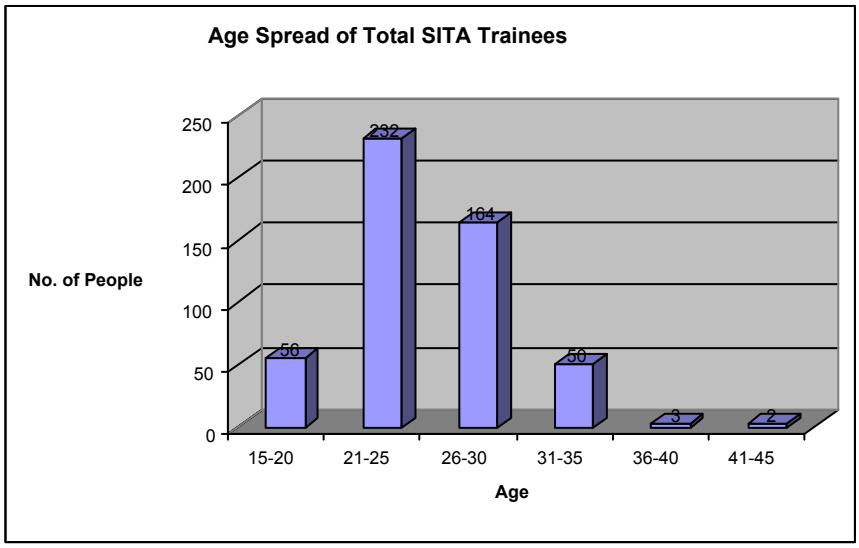
- Complying with the category of "needy" defined as a monthly income *not exceeding* Rs. 2500 per month (about 60 dollars or 2 dollars per day) for a family of *not less* than four members.
- Completing a specially designed pre-registration skill test and aptitude test requiring a working familiarity with (a) using a computer keyboard, (b) handling mouse, (c) the

meaning and spelling of about 500 simple English words, and (d) some elementary computer concepts. SITA provided free facilities and guidance to help candidates to satisfy the requirements to register in the course.[2]

A total of 589 trainees enrolled during the life of the course and, as we know, 507 completed the course to give a completion rate of 86 percent.

Figure 2 and 3 show the age spread and educational qualifications of the total 507 SITA trainees who completed the training both at Delhi and The Haryana. It is possible to see that the age of the large majority of trainees was between 21 and 30 year old. In fact, 396 trainees were between 21 and 30 years old, with an additional 56 trainees between 16 and 20 and another 50 between 31 and 35 year old. Finally only 5 trainees were between 36 and 45 year old, with 2 over 40.

Figure 2. Age Spread of Total Number of SITA Trainees (Delhi and The Haryana)



Regarding the qualifications of trainees, the overwhelming majority, 404 people, were holders of a university B.A. degree (Bachelor of Arts). Another 4 people were holders of a B.Com degree (Bachelor of Commerce), one person held a B.A. and B.ed degrees (Bachelor of Education), and two people held postgraduate degrees, M.A. (Master of Arts) and M.Sc (Master of Science) respectively. Finally, 96 people had no university degree, 54 with O Levels (X) and 42 with A Levels (XII).

[2] K. Sane, *S*tudies in Information *T*echnology *A*pplications (SITA): computer skill training program for low-income women in India, Final Report for InfoDev, Delhi, India, 2002.

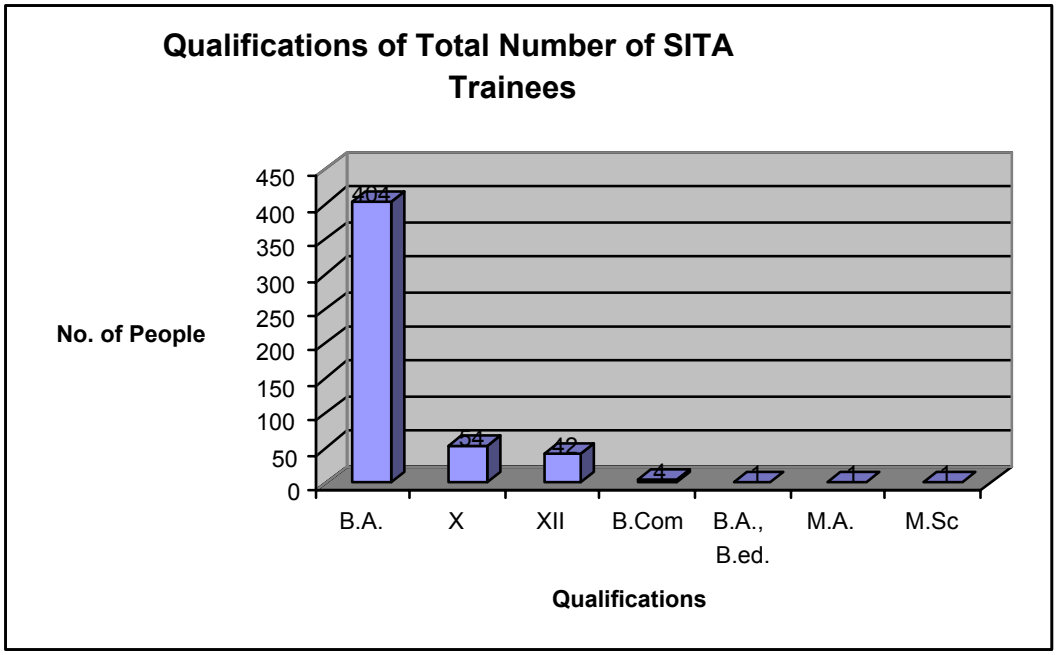


Figure 3. Educational Qualifications of Total Number of SITA Trainees (Delhi and The Haryana)

For all purposes, these levels of trainees' education seem rather high as compared with their low levels of income of 2 dollars per day. The explanation is that most of the degrees have been achieved through Correspondence courses that do not have much value in the labour market and for attracting better paid jobs. The social background of the women did not help either as most of them do not possess a good level of English and face difficult circumstances at home (this is addressed in greater detail below).

On the other hand, the fact that the trainees had taken care of at least achieving a Correspondence university degree demonstrates a motivation to try to alter their present "needy" economic situation. This motivation was certainly a factor in the high rate of completion of the SITA course – about 95% during the first year and 86% of the total trainees even as we include the crises period of the project following it successful first year.

SITA's Difficult Second Year

SITA had completed the first year with a high note as a finalist of the Stockholm Challenge Award. The project participated at the Exhibition in Stockholm showcasing its Educational Resource Package. Indeed, the motivation was such that at one point the target for the total number of needy women to be trained was raised to 800. This was much more than the commitment of 500 made at the start of the project. Unfortunately, this increased amount never materialised, as the project entered a period of difficulties that reached its peak by the end of year 2000.

Figure 4 shows the results for the entire life of the project (Figure 1 contained the first year only). It is possible to see that starting in July-August 2000 right through to September-October 2000 (Phase III), the number of trainees completing the course begins to fall with a consequent increase in the number of dropouts. There is also a fall in the number of trainers. Thus, in September-October 2000, from 120 trainees enrolled, only 70 completed the course and 50 abandoned it (a fall to less than 60% of completion rate). At the same time, the number of trainers fell from 13 to 9, indicating a significant disintegration of the training activity that reached the point collapse in the months of November-December 2000 when no activity took place.

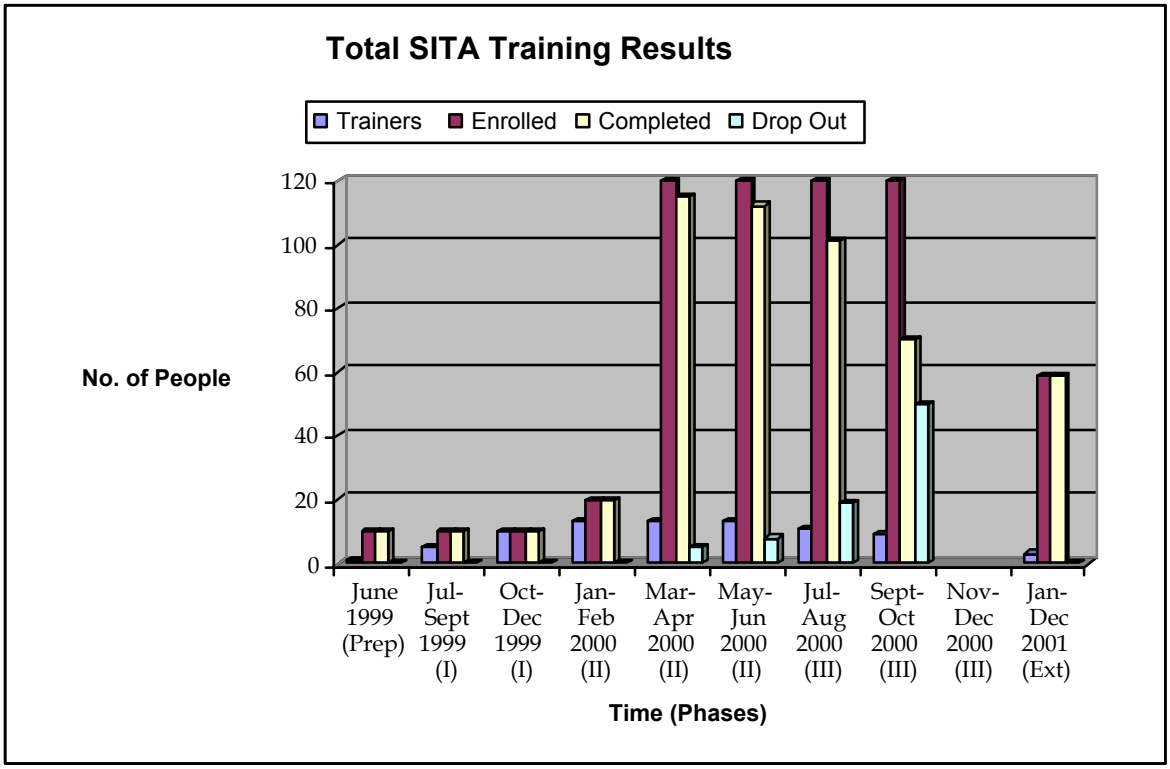


Figure 4. Total SITA Training Results (Full Period of Project)

Jul-Aug 2000 (III)	11	120	101	19	84.16
Sept-Oct 2000 (III)	9	120	70	50	58.33
Nov-Dec 2000 (III)					
Jan-Dec 2001 (Ext)	3	59	59	0	100

What happened during this crises period that led to such a collapse of a valuable activity? How was the crises handled? Let's look at the situation in detail to learn what lessons can be drawn out.

The Crisis of Project SITA

The seeds of the crises go right back to the origin of project SITA when after submitting the project to InfoDev, Krishna Sane moved to Delhi for reasons of *force majeure* and was left without the institutional back up necessary for the signature of the contract and the subsequent handling of the InfoDev grant. As we saw earlier, the solution was the involvement of COSTED as the institutional facilitator of the grant. In addition, COSTED's Scientific Secretary, Dr. G. Thyagarjan, and SITA's Director, K. Sane, agreed on a Gentlemen's Agreement that USD 10,000 would be earmarked for COSTED's participation. This agreement however did not specify how and when the amount was to be given to COSTED. Nor it specified the detailed modality of operating the funds sent by InfoDev to India. Eventually this modality translated into two accounts: a primary account in Chennai under the jurisdiction of COSTED where the InfoDev funds would arrive, and a secondary account in Delhi under the control of SITA where the funds would be transferred for the project's use. The SITA Director could not withdraw funds from the primary account, although all expenditure decisions were to be his prerogative as the scientific leader of the project. In principle, this implied an obligation on the part of COSTED to transfer available InfoDev funds to K. Sane on request.

In practice, this two-account mechanism was not completely shared by the two parties. SITA felt that it gave the control of the cashflow to COSTED, who was supposed to be primarily a facilitator. As a result, as early as July-August 1999, the need for ground rules was felt (i.e. a Memorandum of Understanding defining the respective roles) which would be attached to the Grant Agreement between InfoDev, COSTED and SITA. This however did not materialise and, eventually, the SITA Advisory Committee suggested that since no ground rules were formulated, the two sides should take responsibility for decisions that they have taken unilaterally.

On the face of it, it would have been better that an additional Memorandum of Understanding would have specified in detail the exact roles of the two sides as well as the modality for handing over the USD 10,000 agreed for COSTED's participation. On the other hand, there was no *a priory* reason why the two-account arrangement should not have worked to the satisfaction of the partners. Indeed, this is the message that seems to emerge from Table 1 showing the dates and amounts requested by the K. Sane, the amounts offered by COSTED, and the dates and amounts actually transferred by COSTED to the Project Account in Delhi. It shows that during 1999 the arrangement seemed to work well with the transfer of funds following the pattern of requests by SITA. This changes in January 2000 and in May 2000 reaches a significant difference, almost to the point that the cashflow of the project does not receive a major influx of funds until August 2000, and nothing on October 2000.

Date/Amount requested		Amount offered	Date/Amount transferred	
July 99	100,000	100,000	July 99	100,000
July 99	1,800,000	400,000	July 99	1,800,000
October 99	1,000,000	1,000,000	October 99	1,000,000
Jan. 27, 2K	700,000	500,000	Mar. 7, 2K	700,000
May 2K	300,000	Nil	June 2K	100,000
Aug 2K	800,000	600,000	Aug 2K	800,000
Oct 2K	200,000	Nil	??	??

Table 1. Requests and Transfers of InfoDev Funds between SITA and COSTED (1 USD is approximately equal to Rs. 45).

This new pattern of timings and amounts of money transferred to SITA by COSTED was dysfunctional to SITA and eventually became a source of disruption and conflict that reflected in the performance of the project. This is clearly seen in Figure 4 showing the decline of trainees completing the course and even of trainers leaving the project that set in from July-August 2000 onwards.

K. Sane briefed InfoDev about the unfolding problem with COSTED in January 2000 during an onsite visit by the Task Manager to SITA. He requested the intervention of InfoDev, particularly in May 2000 when he felt that COSTED had taken SITA funds and refused to transfer them back as requested by him for expenses connected with SITA's participation in the Stockholm Challenge Award.[3] This was the beginning of the breakdown in the relationship but, as often happens, the crisis was brought to a 'boiling point' by an unexpected events that would test harshly the suitability and efficiency of the arrangements. In the case of SITA, it was in July 2000 when the cashflow became critical, particularly because on 15 July 2000 a major fire broke out at the Project Training Centre that had been established at the residence of K. Sane. Unfortunately, the wiring of K. Sane's residence was not built to sustain the high loads of current generated by the many computers and other equipment connected to train the women enrolled in the course. K. Sane's commitment to the project had led him to risk his own house in view that the renting of new premises would have added costs that were not envisaged in the original application. And this was not an omission since the original proposal had envisaged using the premises of the institution in Bangalore, but this was no longer available with the move of the project to Delhi.

The fire now meant additional expenditures to try to keep SITA going. This proved a harsh test to the funding arrangement and the relation between SITA and COSTED because the funding was not forthcoming. The explanation of COSTED is that they could not transfer money they did not have since there were delays in the funds transfer

[3] Personal communication with K. Sane, June 2002.

to them. COSTED also felt that after the first year they were entitled to collect USD 5,000 for their services. K. Sane's response was to invest from his own savings about USD 5,000 to avoid the paralysis of the activities. At the same time, he asked COSTED to postpone the collection of their USD 5,000 given the needs of the project. COSTED however had already collected the funds in accordance with their rules so the postponement did not happen. This made the situation unsustainable in a short period of time, resulting in severe disruptions that affected the work and morale of trainers.

To make matters worse about the same time another unanticipated difficulty began to get clear, namely, the inability of the trainees to find stable employment. That is, they got jobs but failed to keep them for various reasons. Amongst them,

- *Poor communication skills particularly in English* given that most of the trainees had studied in government-run Hindi-medium schools serving lower-income groups. Low-income parents also give preference to boys' education.

- *Low confidence levels* caused by a tradition that regarded a girl as a liability. This tradition is no longer strong but it can still be found in the lower middle class.

- *Lack of moral and other type of family support* given that low-income families are not able to afford domestic help, baby sitters, etc. Nor they get assistance from the men in the family as many professional women do. SITA-type women have to do work at home even if they work outside.

- *Other gender-related factors* affecting the stable IT job placement of SITA women, included separated/divorcees women and eligible girls leaving their jobs due to marriage. Other women left their jobs due to pregnancy since in India there is no maternity protection for casual workers. Others left to take care of a member of the family seriously ill.

- *Obstacles and reluctance to search for jobs beyond the neighbourhood.* Indeed, almost all the SITA trainees sought and got initial employment in the neighbourhood, given a reluctance to travel over large distance, due to the greater expense of money, time and energy. In addition, the employers in the neighbourhood had a more favourably attitude as they learnt about the SITA-women through word-of-mouth.[4]

- *Lack of continuity resulting in* nearly 50% of the SITA-women not trying to search for a second round of IT employment. The need to earn carried them back to search for work in traditional areas like sales assistants, home tutors etc. with consequent loss of IT skills given lack of practice.

[4] "The gender difference in attitude of an individual and also of the society is clearly shown by the fact that two male trainees are each earning an adequate amount (i.e. around Rs. 10,000) using the skills they learned under SITA because they were prepared to travel distances, face lay-offs but try again, accept two half-time appointments until they found a more secure environment." (K. Sane, *S*tudies in *I*nformation *T*echnology *A*pplications (SITA): computer skill training program for low-income women in India, Final Report of SITA, Delhi, June 2002.

- *The ups and downs of the market* affecting job opportunities. Unfortunately for the SITA women, they started to come onto the labour market as the global downturn in the ICT industry was forcing employers to close many jobs.

All these factors therefore conspired against the ultimate objective of SITA: to find sustainable employment for "needy" women of poor areas of India on the basis of IT training for jobs. In the end, following contacts with potential employers through placement agencies, newspaper ads, phones and word-of–mouth, about 85% of the trainees managed to find jobs for varying periods of time but more than 70% simply lacked the tenacity to search for alternative IT jobs after the first failure.

This proved wrong the premise that an effective IT training for jobs was enough to enable individuals to find jobs and build their own future. SITA demonstrated that this is inapplicable for most of persons from a disadvantaged background, particularly women. Furthermore, the SITA experience showed that giving these women IT training *alone* may do more harm than good as it breeds frustration through unfulfilled expectations that end up by adding to the alienation and disillusionment.

And this is what happened to SITA during the dark period of July-December 2000. The disruption and disappointment caused by the financial difficulties became compounded by the failure in the achievement of stable employment. The result, as shown above in Figure 4, was the gradual disintegration of the programme as trainees and trainers began to abandon the course in large numbers until a complete stoppage took place in November-December 2000. At this time even such a determined person as K. Sane was ready to give up on the project.

The Come Back of SITA

At the peak of the disappointment a ray of good news broke through the succession of difficulties. From Rome came the news that SITA had been selected as a finalist for the Global Junior Challenge and the presence of SITA was requested at the award ceremony in December 2000. K. Sane travelled to Rome to learn that SITA had in fact won the Work category of the Junior Challenge. He received the award from the hands of the Mayor of Rome and in the presence of the Indian Ambassador to Italy. The days in Rome re-energised K. Sane who came back to India to revive the project and see it through to success.

First, an extension for one year was obtained from InfoDev to overcome the delays and the unanticipated problems that had stopped the completion of the training programme. This period also enabled SITA to carry out an in-depth analysis of the problems and permitted a search for solutions to the problem of sustainability of jobs. In this renewed effort, K. Sane was fortunate to count on the support of D.S. Claire, Principal of Khalsa College (Delhi University) and member of the SITA Advisory Board, who provided the much needed infrastructural support (space, computer centre and facilities) along with staff time that K. Sane estimated at USD 6000 per month. Indeed, Khalsa College

became the new institutional facilitator for SITA at no cost for the entire year 2001 with the agreement of InfoDev. This enabled SITA to organise field trials, trainee survey and, importantly, facilitated the interaction with the UN Asia-Pacific Centre for Technology Transfer (APCTT) based in Delhi and led by Director Jürgen Bischoff. APCTT played an important role in the identification of 'internship' as an intermediate step in the process of securing ICT jobs for SITA "needy" women.

Internship at friendly organisations such as UN APCTT has helped trainees to gather work experience in an environment that is supportive as well as demanding in terms of quality results. The latter is a critical factor since the trainees must work with discipline and results that will truly help enhance their chances to be competitive in the labour market. In this process, UN APCTT has provided staff time in the form of free consultancy, space and facilities for the internship program. K. Sane has estimated the cost of APCTT support at USD 4000 per month.

Putting together the total 'in-kind' contribution from Khalsa College and UN APCTT for the year 2001, we find that SITA benefited from an amount of USD 120,000 donated by these organisations. Most fundamentally, their support had led to identify a path for 'needy" women to build their way into the labour market. In practice, two modalities were identified, namely, the "internship" modality already described and a "subcontracting" modality that operates through commissioning of documentation work to SITA trainees working free-lance from their own homes. UN APCTT has pioneered these two modalities giving confidence, discipline and experience to SITA women and, most importantly, strong references for the high-quality of the work produced by them since the arrangement has been implemented without any sacrifice in terms of quality or cost on the part of UN APCTT. In fact, APCTT has saved on cost while fulfilling one of its purposes, namely, to help with the development and job-creation in a developing country.

This constructive interaction with Khalsa College, UN APCTT and also UNIFEM during 2001 was a long way from the tension with COSTED. Indeed, this tension continued during 2001 and beyond, with K. Sane not able to recover the personal money he had invested after the fire. As a pensioner, he notes that he is hardly in a position to lose a significant amount of money and, *de facto*, subsidise the project, especially when InfoDev money had been withdrawn by COSTED without his agreement. As far as K. Sane was concerned, funds were still available in the InfoDev grant for use in the project. In his view, the total money received by COSTED for concept of the InfoDev grant plus interest was Rs.4,732,959.47 (the equivalent to USD 90,000 for Phase I plus USD 18,000 for Phase II plus interests).[5] In turn, COSTED transferred to SITA a total amount of Rs.4,500,000, thus leaving a difference of Rs. 232,959.47 (about USD 5000) between the funds arriving to COSTED and the funds arriving to SITA. This figure was the focus of much contention and little communication in spite of the various letters written.

For COSTED's Scientific Director, Dr. G. Thyagarjan, the USD 5,000 were retained by COSTED as part of the agreed charges for the facilitation services provided by the

[5] Rate of exchange applied to transfers was between 43 and 44 Rs to the dollar.

organisation for the first year. For K. Sane the charge itself was not in contention but, as indicated earlier, given the project difficulties, he requested G. Thyagarjan to postpone the application of the charge until the end of the project, when they will raise the matter of a much justified over-expenditure given the fire that affected the project. For COSTED, this was not possible because

> "This was an 18th months project and we were in the understanding that we were to receive certain compensation for providing the service and other facilities. Now we retained the money for the first year, but Prof. Sane took the view that: 'you transfer all the money and at the end of the project we will try to get more money from the Bank (InfoDev).' But I cannot do that, according to my organisation, we charge for services in the year that we do the services and do not wait until somebody pays in the future … We are a small organisation, very small organisation, and we do not have the cashflow to accommodate this kind of request"[6]

Thus, there was no agreement on this issue. Then there was the issue of the timings and amounts transferred from COSTED to SITA. Indeed, K. Sane raised the following questions in a letter in November 2000.

- Why the Secondary Account in Delhi did not receive the funds as and when the Project needed it from the Primary Account in Chennai? [See Table 1]
- Why no urgency was shown in formulating the Ground Rules when the need for the same was felt as early as August 1999?
- Why decisions were taken on financial matters like the amount and duration of fixed deposits, without consulting (or at least informing) the Director?

K. Sane did not receive answers to these questions, but COSTED's Scientific Director has an explanation that addresses at least the first and third questions.

> The money was received from the World Bank and it was at the Bank of America here, then it was transferred to an operational account in Delhi. Now receipt of money and transfer of money cannot take place in an hour. People literally transfer the money after it is processed. We cannot give the money before … We were not holding the money except for the part for the service component that we charge. This was agreed earlier. It was for the office, for the papers to receive the money, deal with the bank. We are a non-profit organisation, we do not provide any service for free, we charge for what we provide as help to other organisations. We do not have much money at our disposal.
> Now the other thing that helped in the delay it was the Bank of America. The Bank of America wound up, closed its operations and transferred to something called ABR AMBRO Bank. There was therefore a delay in terms of some days because the Bank transferred all the procedures to the new bank. So this is the kind of things we have on our side. And therefore as we received the money we transferred it in portions, if possible how Prof.Sane wanted and all that we retained so far was the 50% of the service charge.[7]

So there was clearly lack of agreement between SITA and COSTED and this led to an accumulation of tension given that there was no real intermediation by an acknowledged

[6] Interview with Dr. G. Thyagaran, 17 January, 2002.
[7] Ibid.

party, for instance, InfoDev. The World Bank Delhi Office, particularly in the person of Mr. Shashank Ojha, Coordinator, InfoDev projects in India, did play a very supportive role with SITA but it had no jurisdiction on the contract it could not exercise arbitration in the matter. In the end, the problem has been "solved" by the "simple" act of ending the collaboration with effect from end-2001. The matter of the contested money has been passed to the independent financial auditor of the project, and the new facilitator organisation for the year 2001, the period of project extension, became the SGTB Khalsa College. As we have learnt earlier, Khalsa College gave SITA the support and contacts necessary to complete the full programme of training and, also, discover and test the "internship path" to jobs for India's "needy" women.

Looking at Figure 4 we see how between January and December 2001, an additional 59 women enrolled and completed the SITA course with the support of 3 trainers. This closed the work of the project with SITA fulfilling its contractual obligations to InfoDev and, in spite of the problems, achieving a successful ending that has laid the foundations for building future more informed, experienced and, hopefully, sustainable actions. Indeed, among other achievements, SITA has proved that "needy" women have no problem in becoming rapidly acquainted with IT. It has created a tested training resource and methodology that can be expanded to integrate more complex knowledge. It has trained over 500 "needy" women and found jobs for some of them in ways that signal the path to greater success in securing jobs in the future. It has learnt lessons that are informing the formulation of a follow-on project that adopts a path to sustainability through the motto: "learning with earning." It has won international recognition by winning the Global Junior Challenge and reaching the finals of other contests. It has established strong relations with institutions such as Khalsa College, UN APCTT, UNIFEM and others that should facilitate the implementation of the future actions.

Conclusions and Lessons

As said SITA has undoubtedly been a success in spite of the problems. Indeed, K. Sane has already identified how to build on the foundations laid down by the project in the form of the MitraMandal cooperative. The concept of this cooperative however is not covered in this report because it is beyond its purpose of assessing SITA's past performance. Since the main achievements of the project have already been addressed, below I will confine myself to discuss some key lessons I find valuable for future projects of similar nature.

Lesson 1.- *Projects dealing with ICTs to generate stable employment for poor people may underestimate the complexity of the challenge presented by the gulf between a culture of poverty and the requirements of the ICT labour market. The result might be a harmful mis-alignment between the nature of the target problem and the capacity to deliver*

SITA found out that ICT job-oriented training is certainly a necessary but not sufficient condition for "needy" women to find sustainable employment. The latter is more likely to be achieved by adopting a "learning with earning" approach and/or introducing an 'internship' / 'sub-contracting' program as an intermediate step between training and competing in the market. Ultimately, as K. Sane acknowledges: Any programme for training the "have-nots" requires a holistic approach; a fragmented approach like training only will do more harm than good because it generates frustration if the trainees fail to find stable jobs and/or regular income.

Lesson 2. *The challenge presented by the generation of stable ICT employment for poor people through social entrepreneurship projects requires the build up and constant nurturing of multi-party constituencies able to contribute the necessary ingredients for success. This in turn requires the presence of strong constituency-builders who are able to provide leadership and build a competent and motivated team. In short, the entire process becomes the result of local/global alliances of concern, very much like small social movements aligned with the aims of the project.*

SITA found out that "needy" women require "a 'womb-to tomb' approach for economic stabilisation. This in turn needs cooperation from different sectors of society …there should be no illusion that any complex socio-economic problem can be simply dealt with by technology alone; what is needed is a co-operative approach where different sectors of society come together to use their collective strength and wisdom to reduce, if not banish, the curse of illiteracy, poverty, and disease that afflicts a large fraction of world population."[8]

SITA's "small movement" included at one time or another: InfoDev, World Bank Delhi Office, COSTED, UN APCTT, UNIFEM, Khalsa College, the trainers and trainees, some employers, and K. Sane as the constituency-builder leading the project. At one time, K. Sane's constituency was disintegrating due to unanticipated problems; the project was losing trainers and trainees and the relation with COSTED was mis-aligned. By enrolling other constituents however K. Sane was able to save the process, lead it to its successful completion, and lay down the foundations for a more informed and experienced approach for the future.

It is a matter of regret however that COSTED has eventually left the SITA constituency, when in principle the alignment between COSTED's mission and SITA's objectives is very strong. In COSTED's own words in October 1999:

> COSTED's mandate is promotion of S&T in the developing countries with consideration on gender equity. Since Project SITA aims to empower low income women from rural and urban areas through computer training so as to enable them to make a livelihood, the activities envisaged under the project are in line with the objectives of COSTED. Hence COSTED has taken interest in the project by playing a facilitatory role. COSTED considers SITA as a pilot project, the success of which may pave way for initiating similar activities on a wider scale. The experience gained

[8] K. Sane (2002), Final Report.

through this Project in India may be relevant to other countries as well as COSTED will be immensely pleased to disseminate the successful experience outside India.[9]

Thus COSTED could have provided valuable inputs into the global dissemination of the SITA concept with all its lessons. The break down however shows that effective constituency-building is not just a matter of declarations, it is a very human process in which people's communication and an effective governance of the process are of the essence.

Lesson 3. *Often well-conceived projects enter into difficulties because the prevailing governance (i.e., the rules of the game) is inadequate, or because the right rules are not formulated at the beginning, or because they exist but are not implemented effectively. The most critical ingredient for governance is of course 'informal trust', but this is itself strengthened by the right formal governance. Failure to define and implement the right balance of formal and informal governance may leave too much open to mis-understanding, especially when people have come to know each other recently or when the relationship is tested with a crises that tends to mis-align their interests, commonly, concerning money and power.*

The case of SITA shows several specific instances of faulty governance underpinning the crisis of the project from its very beginnings.

- Slow time for the InfoDev grant to become operational.- From the submission of the proposal in August 1996 to the start of the project in July 1999, three years went by. This is a very slow process for a project involving ICTs, even if the move of K. Sane from Bangalore to Delhi may have complicated the process to some extent. Indeed, SITA found out that eventually, "the long gap between formulation and implementation made inadequate some budget provisions (like salaries) because GOI [Indian Government], in the meantime, had issued new guidelines for upward revision of salary structure. This had an adverse effect on SITA because suitable individuals could not be found for some key staff positions."[10]

- Added complication to governance.- This due to the need for a facilitator organisation to sign the grant contract and administer receipt/transfer of funds to the project - compounded by the physical distance between the facilitator in Chennai and the project in Delhi. This generated the two-account system and prevented both: direct access by the scientific leader to the funding of the project, and the opportunity to deal face-to-face as often as required when the crisis begun to test the trust and the original alignment between the leaders of SITA and COSTED.

- Lack of proper provisions in the Memorandum of Understanding (MoU) between SITA and COSTED.- SITA and COSTED did sign a MoU to govern their relationship, but this was insufficient to cover the eventuality of a crisis particularly concerning the handling of the InfoDev funds. This MoU did not specify in detail a

[9] Communication from G. Thyagaran (COSTED) to K. Sane (SITA), October 1999.
[10] K. Sane (2002), Final Report.

"gentlemen's agreement' between the leaders of SITA and COSTED, regarding the payment of USD10,000 to COSTED for the 'facilitating' services provided to SITA. It did not say, for instance, how and when the money should be paid to COSTED. As we know, this became the focus of contention when COSTED proceeded to retain USD 5,000 in accordance with its own rules. SITA rejected this step and requested for the money to be collected at the end since, to keep the project alive after the fire, K. Sane had invested USD5,000 of his own savings. This was in turn rejected by COSTED and the impasse has reached right to the final auditing of the project and the break up of the relationship. If this situation can develop between socially conscious international NGOs and grassroot projects focused on 'poverty alleviation', then successfully facing the challenge of poverty will be more complex and take much longer than we desire.

- Lack of authoritative mediation or conflict-resolution system.- The crises of SITA begun seriously in mid-2000 and soon after it became clear that a conflict had developed between SITA and COSTED that threatened the good performance of the project. However no serious mechanism for conflict resolution existed between COSTED and SITA and the grant-holder InfoDev did not make use of its authoritative position to intervene rapidly in trying to find (or even impose) a solution to the conflict. InfoDev however did grant a one-year extension to the project after SITA had found a new facilitator in Khalsa College, and both COSTED and SITA had reached the conclusion that the best step was to stop their relationship. This extension and the new arrangement were crucial for the successful completion of the project.

Lesson 4. *The previous lessons point to one important overall lesson for all social partners working to make a success of social-entrepreneurship project focused on ICTs and employment, poverty, etc. This is the need for all of us to improve the current practices applied to these projects.*

It is not good practice that social entrepreneurship projects take so long to start, it is not good not to structure the best possible governance at the beginning of a project, it is not good that conflict resolution mechanisms are weak or not applied rapidly when a crises looms in the horizon; it is not good that an international NGO and a project sharing similar interests break their relation when what is needed is more effective alliances of concern to combat poverty. There is certainly room for improvement for governments, international organisations, non-governmental organisations, the private sector, and all other organisations involved, including the grassroot projects themselves. Nobody should feel perfect and everybody should feel responsible for improving the effectiveness of their own contributions, including the effectiveness of the business models of social entrepreneurship projects, especially if the challenge of sustainability within the competitive environment of the market is ever to be won.