Bangladesh in the New Millennium

"An IT Power House"

Recommendation

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Prepared By:
• AABEA Silicon Valley Chapter
• SBIT2000 Conference Follow-up Committee

Revision History

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List of Acronyms and Definitions

Acronym/ Definition	Description
AABEA	American Association of Bangladeshi Engineers & Architects
BASIS	Bangladesh Association of Software and Information Services
BCC	Bangladesh Computer Council
BCS	Bangladesh Computer Society
GOB	Bangladesh Government
ESL	English as a Second Language
HRD	Human Resource Development
IT	Information Technology
JRC	Jamilur Reza Choudhury
NRB	Non Resident Bangladeshi
RB	Resident Bangladeshi
SBIT	Silicon Bangla Information Technology
STP	Software Technology Park
SVC	Silicon Valley Chapter
US	United States

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1. Executive Summary

This document provides some concrete recommendations from AABEA Silicon Valley Chapter to help Bangladesh gain a foothold in the global IT market. We acknowledge and appreciate the great work already accomplished by the initiatives of the Government of Bangladesh and other RB & NRB organizations. In this recommendation, we hope to provide a more comprehensive, both short-term and long-term road map to achieve success as an "IT Power House".

Our recommendations focus on two areas:
1. Help Bangladesh get ready to take on IT responsibilities by *infrastructure* improvement and *educational* initiatives
2. Gaining *Market share* in the global market

It is important to note that our recommendations are the results of numerous discussions among the NRB professionals and incorporates feedback from executives of corporate America who have lead several companies and have direct knowledge of the state of the industry. We outline four different broad areas where Bangladesh needs to focus on:

1. Export man-power in the IT sector utilizing programs such as the *H1B* visas available in the US
2. Deliver out-sourced *consulting* projects for foreign markets
3. Deliver offshore services, such as *Data Entry*, *Call Center* Processing, etc.
4. Develop and deliver *packaged* software

AABEA SV would like to help in whatever way the esteemed Bangladesh government deems appropriate in these targeted tasks. Here's a summary of the recommendations in five areas.

Resource Development & Planning
- Establish concrete result-oriented guidelines governing current commercial IT courses
- Develop educational programs focused towards market needs with up-to-date curriculum
- Set up resources for industry best practices such as quality certification and project management
- Commission government IT projects to give local developers valuable experience
- Establish Industry partnerships for academic offerings and co-op programs
- Teacher training and utilizing NRBs for technology training

Focused Team
- Set targets for exporting IT professionals and revenue goals for out-sourced software development
- Set up a dedicated team consisting of members from the Govt., RB and NRB
- Set up a dedicated IT ministry

Infrastructure
- Partner with industry giants such as CISCO, AT&T to build infrastructure and software technology parks attractive to customers
- Extend the opportunities of IT to the masses by building publicly available IT resource centers
- Improve communication infrastructure directly connecting to the Internet
- Strive for over-all socio-political and bureaucratic improvements to attract and retain overseas high-tech investment
- Deregulate Telecommunications

Business Promotion & Marketing
- Establish Silicon Valley and overseas presence to lobby multinationals to invest in Bangladesh
- Promote our capabilities by creating appropriate marketing materials and a strong web presence
- Guide Bangladeshi companies to pool their resources in expensive overseas sales and marketing efforts
- Conduct Business conferences, seminars and industry summits in appropriate areas
- Partner with globally renowned consulting houses to build reputation

Funding
- Fund education initiatives by hiring teachers from overseas, education funding & student loans
- Provide rewards and recognition for NRBs who bring their company business to Bangladesh
- Provide appropriate funding for infrastructure and marketing initiatives mentioned above

2. Background

2. 1 Introduction

Dramatic changes in Information Technology (IT) have opened up opportunities for countries at all level of educational and industrial background. IT is the fastest growing industry in the world which anyone can be part of at any time and anywhere. Businesses can be conducted successfully among the geographically isolated parties from different countries via several media of choices (audio, video and data). Companies in the US are looking at low cost, high quality, on time delivery and round the clock (24 hours) support. It makes a great business sense for US companies to do offshore development since the South Asian countries can offer these benefits.

The IT industries of the US have successfully leveraged talents from overseas particularly India by setting up satellite offices, outsourcing to that region and offering H1B (working) visa to the US. This practice has helped the industry to take monumental leaps in high productivity, cost efficiency and time management. Bangladesh can learn from the Indian success stories and transform into the next "IT PowerHouse" in south Asia. A well-focused Government, NRBs and RBs can play a significant role in this great journey.

2.2 SBIT and SBIT2000

Silicon Bangla Information Technology (SBIT) is a forum that was started with the express purpose of helping Bangladesh along this journey. It is a forum for business exchange established and fostered by AABEA Silicon Valley Chapter since July 2000. The forum provides networking opportunities among IT professionals, investors, entrepreneurs and high tech exe cutives. Its primary objective is to help develop business opportunities in the USA for Bangladesh-based IT companies, providing training in how they need to prepare themselves to get the business.

The SBIT forum as organized by AABEA Silicon Valley chapter was responsible for a groundbreaking conference on Information Technology, called SBIT2000 held on Nov. 11-12, 2000. The conference was held in Silicon Valley, the heart of the world's technological universe. This conference created a unique networking experience for the entrepreneurs and business leaders of Silicon Valley, and the emerging breed of IT professionals and entrepreneurs of South Asia.

SBIT2000 conference presented tremendous opportunities to Silicon Valley companies, investors and educators to invest in the future by discovering new frontiers of potential growth. For the visiting participants from Bangladesh, it was a great opportunity to share their capabilities and promote the Bangladeshi IT industry. The companies demonstrated their software and IT service capability to the international audience, by setting up booths as part of the SBIT2000 exhibition. The Bangladesh delegation focused on making fruitful contacts and exploring business possibilities for export of software and IT services from Bangladesh.

This was the first conference that brought together the potential capabilities, issues and success stories of software development in Bangladesh. As background, it should be mentioned that the Bangladesh Embassy in Washington DC, USA invited the AABEA to hold an IT conference in Silicon Valley. The AABEA Silicon Valley Chapter cordially accepted the offer and organized the event. AABEA got tremendous support and encouragement from the community, business leaders, sponsors, co-sponsors and a great team of volunteers to make this conference a great success.

2.3 SBIT2000 Conference Highlight

Enayetur Rahman, President of AABEA Silicon Valley Chapter addressed the conference with official welcome, followed by a video speech by Prof. Mohammad Younus, Managing Director, Grameen Bank, Bangladesh. Mr. Kanwal Rekhi, President TiE (The Indus Entrepreneur) made the opening remarks. Mr. Safi Qureshey, Co-founder AST and Dr. Syed Omar Ishrak, VP/GM, GE Medical Systems delivered the keynote speeches. Other speakers include, Jayshree Ullal, GM of Cisco systems, Ron Case of NEA ventures, Suhas Patil of Tufan Inc., Mr. Abdul Jalil, Commerce Minister, Raj Sirohi, CEO, HCL America, Rafiq Dossani, Stanford University, and Kamran Elahian, CEO of NeoMagic and others.

It is worthwhile to mention that many of the speakers in the conference are high-tech executives in Silicon Valley who have tremendous influence in the high-tech industries. They have been working closely with their South Asian business partners. Many of them have been instrumental in developing IT infrastructure in India, opening development facilities and providing outsourcing business opportunities.

A delegation of over 50 IT entrepreneurs, professionals, and government officials from Bangladesh attended the SBIT2000 conference. The Bangladesh delegation included, among others, the Commerce Minister Mr. Abdul Jalil, Science and Technology Minister Lt. General (Retd.) M Nuruddin Khan, Bangladesh Association of Software and Information Services (BASIS) president Mr. SM Kamal, Chairman of IT standing committee Prof. JR Chowdhury, Secretary of the Ministry of Science and Technology Mr. Fazlur Rahman, Vice-Chairman of Export Promotion Bureau (EPB) Mr. AB Chowdhury, some parliament members, and a good number of businessmen.

The Bangladesh Ambassador to USA and the commercial counselor also attended from Washington D.C. AABEA Chairman Mukhles Bhuiyan and several other AABEA chapter members also attended the conference.

Please visit the web site: http://www.sbit.org for more information on SBIT2000.

2.4   SBIT2000 Survey Report

AABEA-SVC has received ample feedback filled out by conference participants. The conference audience consisted of 80% USA-residents, a majority of which where NRBs. There were about 15% of participants who came from Bangladesh (RBs). Most of the participants were from the high-tech industry and the percentages of their business function were managerial 37%, technical 24%, and both (technical and managerial) 33%.

The primary objective of most of the attendees was networking. There was also a lot of interest shown from the local US participating company executives to assess the capabilities of the South Asian companies and to look for business partnership.   The overall satisfaction level was very high. Based on the participant feedback, it was an outstanding event. More than 90% of the participants were satisfied with the services and value that it offered to them. Please refer to appendix table-3 for more data on the conference survey report

2.5   SBIT2000 Follow-up

On the evening of November 11, 2000, a meeting was held with the AABEA-SVC representatives, SBIT Organizers and delegates from Bangladesh (including Commerce Minister, Science and Technology Minister, BASIS, BCC, and BCS Presidents, JRC). Several action items were discussed, and a follow up contacts were decided. The ministers and other members of the Bangladeshi delegation were impressively open-minded and very receptive to SBIT inputs. A Conference follow-up committee was established in the meeting. This committee was assigned to provide a recommendation to the Govt. of Bangladesh on IT Policy.

This recommendation report is the follow-up to that meeting. It can be used as an independent or a supporting document to JRC Committee report that was presented at the meeting on November 11, 2000 in the Silicon Valley, California.

It is important that the three parties involved (Government, NRBs and RBs) work closely to implement the recommendations outlined in this document to achieve the common goal of helping Bangladesh succeed in the IT area.

3. Current Situation

3.1 Bangladesh

The government of Bangladesh and the business community realizes the importance of Information technology and quite a few initiatives in this regard have already been taken. This includes setting up a sizable fund geared towards IT and the formation of a high-powered committee, including the honorable Prime Minister, to tackle IT-related challenges. In addition, the private industry has jumped into different forms of IT education. Different NRB organizations are also working towards mobilizing NRB energy to help Bangladeshi causes. Nevertheless, there has not been any initiative where NRB, GOB, and RB efforts have come together focusing solely on winning in the global IT market. SBIT and this report hopes to be a first step in that direction, providing a road map to success.

3.2 IT industry

The global IT industry is a very competitive one, where because of the competition customer companies are forced to choose their vendors solely based on merit. This merit does not mean just price, but the quality of service is the most important determinant. For example, even if someone delivers out-sourced software cheaply, if the software has quality issues, such as bugs, then in the long term it can become very expensive for the customer company.

There are different areas in the software marketplace where IT vendors compete. The lowest end of the market is providing manpower, in what is known as 'body-shopping'. This involves close relationships with the customer company. In addition, the reputation of IT personnel from a country plays a pivotal role.

The next rung of the ladder is consulting, where whole projects are handled by the vendor company. The higher end of this market is where very large complex projects are out-sourced. A variation of this consulting model is when a significant part of the development is done offshore. Large Indian consulting outfits such as WIPRO have succeeded in such a model.

The most profitable area in IT is packaged software development, but this requires very strong programming expertise, as well as powerful marketing efforts. The other area in IT that does not require as much technical expertise is outsourced services such as data entry and call-center services. Delivery of these types of services require very strong communication infrastructure. For example, because of Internet connection costs Bangladesh-based data-entry firms are currently not cost-competitive with Indian firms.

To target all of these different areas a key requirement is solid expertise in IT, which cannot be developed by just taking one or two courses. A good educational foundation needs to be built, and we outline some recommendations to address this deficiency in Bangladesh. We also have a significant lack of credibility in the international market. We outline some approaches to overcome this through marketing efforts. In the following section, we outline the different problem areas and provide some concrete recommendations to solve problems in each area.

4. Problem Areas

Every country wants to become IT powerhouse and some of them are way ahead of Bangladesh. Bangladesh hadn't had any opportunity to display its jewels at the world showcase. Perception plays a big role in the international business. Bangladesh has been very slow reacting to create its perception at the international level.

The slow process is a direct result of periodic calamities, political instability, unpredictable educational institute with three decades of old curriculum, loose infrastructures, slow administrative processes, inadequate managers and many others, which are well understood and should not be denied. Finally, there is an IT vision with some plans but no one to execute in a timely manner.

NRBs from the Silicon Valley have identified several problem areas; only five areas will be discussed in this proposal.

- Resource Development
- Focused Team
- Business Promotion & Marketing
- Infrastructure & Environment
- Funding

Active participation and timely execution is the key to see any meaningful solutions to these problems. All the interested parties (Government, NRBs and RBs) need to work diligently utilizing their energy, efforts and funds in the most efficient manner if we are to make genuine progress in the IT arena.

4.1   Resource Development

The first step to participation in the information technology revolution is having a strong resource base of trained and experienced IT personnel. This is not only to export these resources but also to improve the condition of Bangladesh itself. IT today is reshaping businesses and governments worldwide by making them more agile, flexible and competitive. Bangladesh government needs to embrace IT as a way of improving the administration in the country, not just as an export-generating tool. What this will do is create more IT related jobs in Bangladesh that will give much needed experience to Bangladeshi programmers.

To train skilled people, in the short term the different IT-related schools need to be regulated so that trainees are given mandatory project time, doing complex programming exercises. Programming requires lot of experience, and rather than wasting the hard-earned money of our aspiring programmers on theoretical knowledge, practical hands-on experience need to be emphasized every step of the way.

For the long term, the quality of education imparted at our higher learning institutions need to be improved so that when graduates of these institutions are hired somewhere the customers are not disappointed. This includes not just rote-based learning, but also learning how to think. We need to produce not just programmers but thinkers and architects who are in very high demand. The government can encourage self-motivated IT projects by not just running programming competitions, but giving high level problems and giving rewards for well thought-out solutions.

More practical steps such as training in English and training in presenting oneself through a well-written resume, needs to be taken. For our higher learning institutions we need to offer more market-focused programs such as quality control, project management, etc. Different Industry-Academia partnerships such as co-op programs and industry labs would also provide valuable credibility to our graduates.

A team must be created which is comprised of people from the Government, NRBs and RBs to focus on reviewing the present curriculum and advising the changes needed to incorporate some of the solutions described above. This team will outline the acceptance and quality criteria to achieve world-class standard in IT.

Roles and Responsibilities:
Government: Provide incentives to private & public institutes to meet all the requirements set by the team.

RB: Provide regular feedback on their current skill sets and capabilities and future needs to acquire more business.

NRB: Provide consulting services in various aspects of resource development as listed below:
- Hands on training program
- Lab development
- Co-op program between university/institute and industry.
- Quality Control

**Recommendations*:*
- Need to regulate current commercial IT courses enforcing ample project time (50%+) for each course.

- Both private and public institutes must offer certificate, diploma, graduate and post-graduate program in IT.
- The medium of instruction must be in English and special emphasis must be given on teaching English as a Second Language (ESL).
- A world-class education program must be designed for graduate and post-graduate level in IT.
- Fund complex projects that can act as references for Bangladeshi companies applying for overseas work

4.2   Focused Team

A well-focused team is necessary which must include people from the Government, NRBs and RBs to develop IT resources, infrastructure and to promote IT business with a short and long-term vision in mind. This demands a special IT taskforce like other neighboring countries. Each of the IT personnel must have the appropriate IT background. For the immediate need, we recommend an IT division under the Ministry of Science and Technology and an IT Ministry in the future. This division/ministry must play a key role in planning and executing the IT Plans and Policies of the country. RBs and NRBs must be an integral part of the IT ministry. All the decisions must be made collectively and executed in a timely fashion. The role of the focused team is to develop the short and long term goals in this area and set milestones with appropriate performance measures.

Roles and Responsibilities:
Government: The facilitator and must have the execution power
RB: To participate in the planning and execution of these plans.
NRB: To participate in the planning and execution of these plans.

Recommendations*:*
The dedicated IT Team needs to set concrete performance goals, such as
- Setting a target of exporting 5000 IT professionals by the year 2004, or
- 5% of US H1B high tech work visa allocation, or
- Setting achievable revenue goals for outsourced software development.

4.3   Infrastructure & Environment

Adequate Infrastructure is the key aspect to develop the IT framework in Bangladesh. The govt. of Bangladesh needs to take special initiative to develop high speed and reliable data communication, **uninterrupted power supply**, proper computing facility, **stable work place (STP must be a hartal free and crime free environment)**. These parks should be developed in the suburbs area (away from busy city life) to achieve round the clock operation. This is necessary to attract investors, entrepreneurs and multinational companies from overseas to open businesses in Bangladesh and create jobs in the IT area. It will also create domain expertise and enhance software growth significantly. As an example, the structures of the STP (Software Technology Park) in India, Singapore, and similar facilities in Silicon Valley can be visited and replicated for potential benefit. There might be a need for a few such Tech Parks in Bangladesh in various geographical locations that would enable the development of infrastructure and resources in various places of the country. Publicly available computer centers also need to be built so that people who cannot afford computers or Internet connections can take part in IT efforts. This way the whole country can get the benefit of IT revolution and can be an "IT Country".

Roles and Responsibilities:
Government: Provide the resources such as land, office space, data communication facilities and other basic infrastructure needs including good law and order situation. Do lobbying with high tech companies in the US, India and other places to have their development centers established in Bangladesh.
RB: Must take major role in terms helping govt., NRBs and foreign companies to develop the infrastructure and environment.
NRB: Help GOB lobby high tech companies in the US. Also, participate directly in the infrastructure development process.

Recommendations*:*
Concentrate on improving our infrastructure so that potential foreign customers and investors have a level of confidence that their projects can be delivered on time and within budget.

4.4   Business Promotion & Marketing

Silicon Valley, US is the valley of enormous opportunities for high tech business. Many countries became successful in leveraging their resources with their physical presence in this valley. This potentially helped the countries like India and some East European countries to build partnership, secure business, adapt technology, develop infrastructure in their own country, export human resources, and products to the highly demanding market in Silicon Valley and all over the US. This report strongly suggests that Bangladesh Government must consider opening a business office in Silicon Valley for business promotion and marketing initiatives. Through this office and otherwise, the NRBs and GOB have to work very closely to solve the credibility gap that Bangladeshi IT personnel and software companies have when trying to get business.

Roles and Responsibilities:
Government: Should take initiatives and actions to present the country in the best possible manner in terms of foreign investment and businesses. Government should take the lead in making attractive policies for joint marketing and sales distribution channels. At the first phase, NRB of Silicon Valley can assist GOB at the initial phase of its venture. AABEA SV will extend its cooperation to operate an office on a limited basis on the behalf of GOB. It will reduce the cost for GOB at the initial phase and help Bangladesh to introduce in the IT market. Based on the results of the first phase, GOB and EPB can open a business office in Silicon Valley.

RB: Promote their products and quality assurance both inside and outside. Participate in technology seminars in an organized way. Present papers and demonstrate products at the seminars on a regular basis. Learn from the other countries and foreign companies. Create reference accounts for future customers. Provide adequate warranties and establish reputation for meeting the terms and conditions of any written contracts.

NRB: Provide consulting services in the area of marketing and sales. Share the expertise in the area of product positioning, pricing and promotion. Help to duplicate the success strategies that have worked abroad. Create a directory of all the NRB and RB companies, promote business, and play the role of liaison between parties.

Recommendations*:*
- Physical presence of Bangladeshi IT companies in the US especially in Silicon Valley is necessary to develop and secure business. Without this, the chances of being successful will be slim. It is recommended that initially few interested companies can create a joint business forum with NRBs to have Silicon Valley presence. EPB can help in this process to provide basic amenities like renting a place, soft loan for business development, etc.
- The IT team of the Government of Bangladesh should work with seasoned marketing professionals to outline strategies to enhance business opportunities including, promotion, market research, strategic alliances, Road Show, collateral development, etc.
- To gain credibility Bangladeshi companies need to established partnerships with globally renowned companies, such as PriceWaterhouseCoopers, Accenture, or WIPRO, Tata, etc.

4.5   Funding

Nothing will happen without adequate funds to create and promote IT industries in the country. The Government, NRBs and RBs all have several key roles in this area. These members should collect the funds from various sources. These members must jointly make decisions on how the money should be spent in what time frame. In addition, since most NRBs are employed in full time jobs, the government needs to create an incentive structure to motivate more people to be patriotic and give extra time and effort to Bangladeshi causes, by creating appropriate incentive structures. This could be a combination of volunteer recognition and publicity and financial rewards.

Roles and Responsibilities:

Government: Should allocate substantial budget to IT initiatives to attract additional funds from the private sector within the country and overseas.

RB: All the business members should participate and collect funds jointly among themselves to meet certain goals that they cannot meet by themselves. The key members from the Government, RB and NRB will decide all these goals.

NRB: Need to campaign to the overseas lobby to obtain funds. Need to start some joint venture projects both in Bangladesh and overseas. NRB will try to arrange funds for scholarships or for other educational purposes.

Recommendations*:*

Select and provide adequate funding commitments to projects and companies that can improve the overall outlook of the Bangladeshi IT industry.

5. Recommendations List

The following table outlines our recommendations to help Bangladeshi IT business growth.

Table 1: SBIT/AABEA Silicon Valley Recommendations to the Government of Bangladesh

A. Resource Development & Planning				
Item #	*Details*	*Owner*	*Start Date for Task*	*Project End-Date*
RSVR001	*Establish Concrete Guidelines for Commercial IT courses emphasizing project-experience*	*GOB*		
RSVR002	*Develop educational programs focused towards market needs with up-to-date curriculum focusing on problem solving, not memorization:* • ***Major Market Focused Education****: Implement educational program in Software Engineering, Computer Communication, and Multimedia with curriculum that incorporates the latest technology* • ***MS Program*** *(****Course Option****): Emphasize on **MS** program. This will produce graduates on time with better quality.* • ***Bridging IT Program:*** *Design Special 1 year graduate diploma leading up to MS program for the graduates in other science background such as Maths, Physics, Chemistry, etc.* • ***Center for Professional Development****: Create "Center for Professional Development" in five Universities that can offer **Microsoft, CISCO and SUN Certification** Program and other short courses on IT for professional development of people at any level.* • *Strive for **accreditation** of the educational institutions by reputable foreign authorities.* • *Provide **low cost evening certificate programs** to*	*GOB/ RB*		

	accommodate more students. Evening classes should not be affected by political shutdowns.			
RSVR003	*Develop Industry partnerships for academic offerings and co-op programs* • **Industry-Academy Joint Program**: *Establish contact and implement industry academy program like CISCO Academy, Microsoft Institute, HP Labs, Motorola University. Target at least one per year.* • **Co-op program**: *Establish 6 months to one-year co-op program (work experience) between institutes and industries (home and abroad) as part of the degree program.*	***GOB/ RB/ NRB***		
RSVR004	*Set up resources for industry best practices such as quality certification and project management.* • **Quality Institute**: *Establish Software Quality Institute and Software Engineering Institute to facilitate ISO, CMM and Software Process Improvement initiatives.* • *Establish similar institutes for other areas such as complex **project management** for on-time delivery within budget*	***GOB/ NRB***		
RSVR005	*Teacher training and utilizing NRBs for technology training* • **Utilize NRB Resources**: *Get NRBs involved in the educational and HR development process. Like, offering short courses, industry-academy program development, giving real life project/assignments to students, outsourcing works to university students/teachers, donating software, hardware, educational materials, scholarships, etc.* • **Teachers Training Program:** *Implement effective teachers training program to enhance capability to teach advanced IT courses.*	***GOB/ NRB***		
RSVR006	• **Commission government IT projects:** *This will provide local developers valuable experience. An example would be to implement an e-governance project to provide best possible services to public and eliminate administrative and efficiency loss.* • **Run open merit-**based problem-solving competitions which involve both high level technical architecture design and programming sophistication*	***GOB***		

B. Focused Team

FSVR001	*Set up a team consist of members from the GOB, NRB and RB*	***GOB/NRB/ RB***		
FSVR002	*Target of exporting IT professionals and revenue goals*	***GOB/NRB/ RB***		
FSVR003	**IT Division/Ministry:** *An IT division/Ministry must be created to focus on IT business. This ministry must be run by IT people who has the mission and vision to create Bangladesh "An IT Power House" that will enable take fair global market share in the IT business. This ministry should have concrete goals for exporting HR resources and graduating IT professionals (e.g., Table 2) and should be held accountable for meeting these goals.*	***GOB***		

C. Infrastructure

ISVR001	*Communication Infrastructure:* • *High Speed Communication systems with LAN, MAN, WAN projects need to be implemented ASAP* • *Bangladesh needs to be connected directly to the global hub ASAP.*	***GOB/ RB***		
ISVR002	*Seek **help from established companies** such as CISCO, AT&T, Nortel, EDS, etc. to build proper Networking infrastructure to the country.*	***GOB***		
ISVR003	*Build Infrastructure facilities* • ***Software Technology Park** (**STP**): Build STPs, 1 in Dhaka and 1 in Chittagong. Provide ready-made premises to the companies, high-speed data communication facilities, reliable power supply and required amenities for the business to run in world class standard.* • ***IT Resource Center**: Create National IT Resource center in Dhaka and branches to other divisions. This should provide facilities for IT Library, Computing Labs, Internet access and Job search facilities for the public.*	***GOB***		
ISVR004	*Strive for over-all socio-political and bureaucratic improvements to attract and retain overseas high-tech investment*	***GOB***		
ISVR005	***Deregulate Telecomm** sector and open door for private investments and competition to spur innovations in the Bangladeshi IT marketplace.*	***GOB***		

D. Business Promotion & Marketing

BSVR001	*Establish Silicon Valley presence to lobby multinationals to invest in Bangladesh* • ***Silicon Valley Presence:** EPB must open business office in Silicon Valley to promote IT business of BD and help BD IT companies to do business/outsourcing works in North America.* • ***Lobbying Multi-National Companies** to invest in Bangladesh: EPB/IT Ministry will work with NRBs in Silicon Valley for targeted lobbying of high tech companies to create their development centers in Bangladesh, and to provide funds to develop universities and the IT infrastructure in the country. Initial targets can be CISCO, SUN, HP, Microsoft, Motorola, and Nortel.*	***GOB/ NRB***		
BSVR002	*Conduct Business conferences, seminars and industry summits* • ***Business Conference/Seminar:** EPB to sponsor business/marketing conference organized by NRBs in Silicon Valley, USA. Both parties do active follow-up on the action items to develop infrastructure in BD and secure more business in the USA and other countries.* • ***High Tech Executive Summit:** EPB in collaboration with AABEA/SBIT to hold high tech executive summits in Silicon Valley and Dhaka on IT business opportunities for BD.*	***GOB/ NRB***		
BSVR003	*Promote Bangladeshi capabilities by creating appropriate marketing materials and a strong web presence*	***GOB/ RB/***		

	• ***Promote*** *STP in BD to the Silicon Valley companies, benefits, offers, etc. EPB to do road show and media coverage on BD IT resources, STP, investment benefits, cost effectiveness of outsourcing jobs to BD companies.* • *Help in establishing the credibility of Bangladeshi programmers by **marketing the success-stories**.* • ***Create Marketing Collateral:** EPB to (1) Create NRB Resource Database, (2) Create database of IT outsourcing companies, potential customers and make them available to the BD IT companies, (3) Have a resourceful web presence, (4) Create Promotional Materials on Hard copy, CDROM, Video, etc.*	***NRB***		
BSVR004	*Guide Bangladeshi companies to pool their resources in expensive overseas sales and marketing efforts*	***GOB/ RB***		
BSVR005	*To gain credibility Bangladeshi companies need to established partnerships with globally renowned companies, such as PriceWaterhouseCoopers, Accenture, or WIPRO, Tata, etc.*	***RB/ NRB***		

E. Funding

FSVR001	*Provide Funds for all the initiatives mentioned above. This includes:* • *Fund the **marketing** efforts, and the Silicon Valley Business office.* • *Fund both national-level **infrastructure** projects and initiatives in academia*	***GOB***		
FSVR002	*Fund educational initiatives such as* • ***Hiring high quality IT Teachers from the overseas** ASAP to effectively run BS and MS programs in BUET, BITs and other universities.* • ***Establish IT Education Fund:** Education Ministry/Science & Technology Ministry to allocate funds to institutes to achieve the targets as in Section-A on number of graduate to produce, teachers training, lab development and quality improvement.* • *Education Ministry/Science & Technology Ministry should **provide interest free loan/scholarship** to students doing BS/MS in IT.*	***GOB***		
FSVR003	*Provide rewards and recognition for NRBs who bring their company business to Bangladesh*	***GOB***		

Table 2: *Early Target (By year 2005)*

Institute Type	No. Of institutes	Bachelor	Masters
Public*	15+5 (new)	2000	1000
Private	10	1000	500
University College	10	500	200
Total	40	3500	1700

• Universities and BITs

Table (s) 3: *SBIT Feedback*

1. Participants	
USA	79%
Overseas	21%

2. Main Business function of participants	
Managerial	37%
Technical	24%
Both	33 %
Other	6%

3. Goals/Objective to attend	
A. PRIMARY OBJECTIVE	
Networking	44%
Assessment of South Asian IT Capabilities	20%
Looking for business partner in US	17%
Looking for business partner in SA	5%
Market Product to USA	6%
Evaluate companies for outsourcing work	4%
Other	4%

B. **SECONDARY OBJECTIVE**	
Learn from those who have done it	42%
Build liaison for strategic partnerships	41%
Outsource some work	8%
Get some purchase order	5%
Other	4%

5. SATISFACTION LEVEL	Very Satisfied	Satisfied	Neutral	Dissatisfied
Overall conference	53%	44%	2%	1%
Registration process	49%	44%	7%	0%
Helpfulness/Responsiveness	47%	46%	7%	0%
Overall value to you	37%	51%	10%	2%
Hotel/Events/Other Arrangements	41%	47%	10%	2%

Short Term Action Plans:

Objectives:
- Develop world class IT industry and work force in Bangladesh
- Gain access to the Silicon Valley/USA High Tech market to export software, provide services (software/hardware) and human resources
- Provide opportunities to the high tech companies in USA to establish development center in Bangladesh
- Establish entrepreneur, business and marketing network for Bangladeshi IT industries

Item #	Details	Owner	Target Date	Actual Date	Comments
STP001	Commerce Ministry/GOB to follow-up on action-items from SBIT2000 Recommendations	GOB			
STP002	Establish IT and high-tech focused counselor based in Silicon Valley to market Bangladeshi IT resources	6. GOB			
STP003	Organize a high level GOB delegates and Bangladeshi high-tech executives visit to Silicon Valley high tech company executives for lobbying on investment in Bangladesh and providing business to Bangladeshi companies	GOB & AABEA			
STP004	A Silicon Valley Executives visit to Bangladesh to explore various opportunities in Bangladesh	AABEA & GOB			
STP005	Work on opening a TiE (The Indus Entrepreneur)Chapter to establish entrepreneur network among entrepreneurs in Bangladesh and Silicon Valley/USA	AABEA & GOB			
STP006	Holding SBIT2002	AABEA & EPB/GOB			