American Institutes for Research

Academy for Educational Development

Aga Khan Foundation

CARE

Discovery Channel Global Education Fund

Education Development Center

International Reading Association

The Joseph P. Kennedy, Jr. Foundation

Juárez and Associates, Inc.

Michigan State University

Sesame Workshop

Save the Children Federation, USA

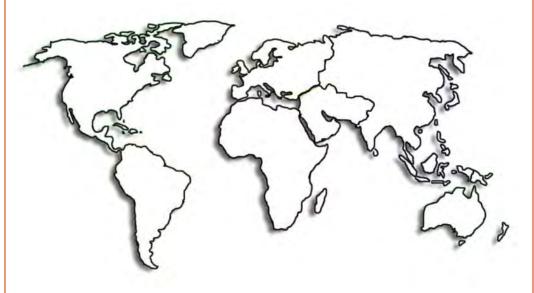
University of Pittsburgh

World Education





Two Case Studies in Public-Private Partnerships in Education in Rajasthan, India



Prepared by:

American Institutes for Research under the EQUIP1 LWA

With: Juárez and Associates

June 2010

U.S. Agency for International Development Cooperative Agreement No. GDG-A-00-03-00006-00

Two Case Studies in Public-Private Partnerships in Education in Rajasthan, India

by Kjell I. Enge Amit Kumar Arpana Luthra

Juárez & Associates

JUNE 2010

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	1
LIST OF ACRONYMS	2
EXECUTIVE SUMMARY	3
KEY FINDINGS	4
RESEARCH & METHODOLOGY	
Introduction	7
PUBLIC-PRIVATE PARTNERSHIPS (PPPS) IN EDUCATION IN RAJASTHAN, INDIA	8
EDUCATE GIRLS GLOBALLY (EGG): CHALLENGES AND LESSONS LEARNED	
CISCO NETWORKING ACADEMY (NETACAD): CHALLENGES AND LESSONS LEARNED	15
LESSONS AND RECOMMENDATIONS	20
CONCLUSION	22

ACKNOWLEDGEMENTS

The funding for these case studies was provided by USAID under an EQUIP1 Leader Award. Numerous individuals generously offered the Juárez & Associates' research team their time and help in introducing the team to various people, and explaining the complex operations of the participating institutions and the dynamic relationships between all parties involved. The following individuals made these case studies possible:

Educate Girls Globally

- Mr. Lawrence Chickering, Executive Director
- Ms. Safeena Hussain, Executive Director
- Ms. Yasmin Halim, Project Director
- Ms. Ajaa, Project Officer
- Ms. Meena Bhatti, Assistant Project Coordinator
- Mr. Lalit Kishore, Additional District Project Coordinator, Pali
- Mrs. Bhagwati Devi, Field Coordinator
- Mr. Tulsa Ram Devasi (member of SDMC)

Headmasters and Teachers: Mr. Govind Singh; Mr. Heera Ram; Mr. Gilbe Ram; Smt. Shobha; Mr. Chela Ram; Mr. Goma Ram; Mr. Praveen Kumar; Mr. Chawan Singh; Mr. Bheema Ram; Mrs. Sushma Deval; Mr. Hanumant Singh; Mr. Kishan Singh; and Mr. Tara Ram

Panch and Ward Panch: Mrs. Maithi Devi and Mrs. Pani Devi (Anganwari worker)

Government Officials

- Mr. B.R. Baawal, Additional District Project Coordinator, Pali
- Mr. Mukesh Gupta, BRCF
- Mr. Rajendra Singh Rathore, President, Teachers Union
- Mr. Mahendra Prajapath, CRCF
- Mr. Arun Kumar Purohit, Additional District Magistrate
- Mr. Mahendra Singh Lakhawat, District Program Officer, SSA
- Mr. O.M. Sharma, BEO, Sumerpur
- Mr. Vijendra Kumar, Additional DEO, Ajmer
- Mr. Om Prakash Sharma, DEO, Ajmer
- Mr. Madhu Soral, DD, Secondary Education
- Mr. Gunjan Soni, (OSD, REI)
- Mrs. Amarjot Kank, Assistant Director, REI

Information and Communication Technology

- Mr. Alex Wong, World Education Forum, Director Global Education Initiative
- Mr. Pial Islam, World Economic Forum, New York, NY, USA
- Mr. Nitesh Mathur, Project Manager, CISCO Networking Academy, Jaipur

DCEC Instructors: Kota – Ms. Pratibha Choudhary, Ms. Ayesha, and Mr. Yeetesh Kumar; Ajmer – Mr. Manoj Kumar Panwar; Bikaner - Mr. Rajeev Srivastava; Udaipur – Mr. Lokesh Vyas, Mr. Julfikar Hussain, and Mr. Manoj Pathak; Jaipur – Ms. Toolika Dani and Mr. Bhanwar Choudhary

LIST OF ACRONYMS

BEO Block Education Officer

BS Bal Sabha

CATC CISCO Academy Training Centre
CCNA CISCO Certified Network Associates
CCNP CISCO Certified Network Professionals

CDMA Code Division Multiple Access
CII Confederation of Indian Industries

CSO Civil Society Organization
CSR Corporate Social Responsibility
DCEC District Computer Education Centre

DEO District Education Officer

DM District Magistrate EGG Educate Girls Globally

EQUIP Education Quality Improvement Program
GeSCI Global e-Schools and Communities Initiative

GSS Gram Shiksha Samiti

ICDP Integrated Child Development Program
ICT Information and Communication Technology
IIIT Indian Institutes of Information Technology

IT Information Technology J&A Juárez & Associates

KGAV Kasturba Gandhi Awasiya Vidhyalaya

KGBV Kasturba Gandhi Residential Schools for Girls

LAN Local Area Network MOE Ministry of Education

MoU Memorandum of Understanding NGO Non-Governmental Organization

PPP Public-Private Partnership

RCPE Rajasthan Council of Primary Education

REI Rajasthan Education Initiative

SC Scheduled Caste

SDMC School Development Management Committee

SIC School Information Campaign

SSA Sarv Shiksha Abhiyaan

ST Scheduled Tribe

UEE Universalization of Elementary Education

UNESCO United Nations Educational, Scientific and Cultural Organization

USAID United States Agency for International Development

WEF World Economic Forum

WSDP Whole School Development Plan

EXECUTIVE SUMMARY

This study is a review of two distinct Public-Private Partnerships (PPPs) in education in the state of Rajasthan, India. The study aims to garner information on the challenges and best practices of PPPs in education in order to help organizational funders and development practitioners become more effective in designing and implementing education PPPs. Specifically, the study will examine how PPPs are formed, how they function over time, some challenges they might face and common pitfalls to avoid.

The first case study in our review is the PPP between Educate Girls Globally (EGG) and the Rajasthan Ministry of Education (MOE), a partnership implemented under the Rajasthan Education Initiative (REI). Through this PPP, EGG aimed to increase enrollment and retention of out-of-school girls in 50 schools in two districts of Rajasthan over two years. The PPP called for close collaboration among various levels of MOE personnel, EGG staff, teachers, students, parents, and other community members. The review describes the problems that the PPP faced during the design and implementation phase. It goes on to share the lessons learned and best practices that resulted in a successful relationship and a further expansion of the program from 50 to 500 schools.

The second case study in our review is the PPP between CISCO Networking Academy (NetAcad) and the Rajasthan MOE, a partnership also implemented under the REI. The goal of the PPP was to introduce Information and Communication Technology (ICT) training at government secondary schools, specifically providing ICT training in 33 government District Computer Education Centers (DCECs). By training both students and teachers in ICT, NetAcad hoped to provide students and teachers skills to make them more employable, so they can advance in their careers and improve their overall quality of life. Due to the success of NetAcad's training program, the Rajasthan MOE expanded the scope of their relationship with NetAcad to include training teachers in computer education at 196 residential schools for girls.

KEY FINDINGS

A clear strategy for bringing visibility and recognition to private sector companies is important in convinving these companies to partake in a PPP. Although private sector companies are likely to be more concerned with profits than social development projects, a positive public image is critical to company viability and success. Therefore, visibility and recognition are important in ensuring private sector companies' investment and sustainable commitment. Because private sector companies value clear and tangible indicators of success, they are more readily disposed to participate in a PPP that defines attainable goals and outlines expected tangible results.

Understanding and respecting the local socio-cultural dynamics is critical to the successful implementation of PPPs. This includes engaging local staff in the implementation of a program. Although it is not always easy to find qualified local staff, they are vital, because local individuals belong to the very community they are serving and have earned the trust there that an outsider might not automatically possess. Moreover, local community members understand the socio-cultural environment and speak the local language. As a result, they are generally in a better position to advise on what will or will not work within the community.

Positive and active community participation in partnerships is one of the key elements of success for the sustainability of a project. While the *community* may not be a direct member of the partnership, successful outcomes are often dependent on community participation. It is important to involve all groups in the community, with a particular emphasis on the inclusion of women and other marginalized groups. The sooner community participation is established, the better it is for the long-term success of the project. A positive and active community is an empowered community.

Strong communication and mutual respect among stakeholders, including private partners and government representatives, are important for the success of PPPs. Communication strengthens the partnership by allowing all parties to share in the latest news regarding partnership activities, and also serve to minimize misunderstandings and disagreements. Keeping lines of communication open is essential to building good relationships. Good relationships are established by private partners' ability to strengthen existing infrastructure, rather than creating parallel structures. Using and strengthening current infrastructures is essential for winning the confidence of the target population and for ensuring the best use of available local resources.

Rationale for Case Studies

In response to a general lack of information about what exactly PPP are and what the role of the private sector should be in them, particularly in regards to education, we will be providing information about key experiences and sharing lessons learned to assist development funders and implementers with the start-up and monitoring of a PPP.

Over the past two years, numerous studies¹ were published classifying and describing different types of PPPs in education, including steps that should be taken to evaluate PPPs.² Furthermore,

¹ Brady, Kristin and Kirsten Gallison, *Dynamics of Private Sector Support for Education: Experiences in Latin America*, Academy for Educational Development, March 2008.

Draxler, Alexandra, New Partnerships for EFA: Building on Experience, UNESCO-IIEP and The World Economic Forum, 2008.

the World Economic Forum (WEF) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) have jointly designed a new digital sharing platform³ dedicated to partnerships in education. This platform is designed as a database to reinforce the collaboration between private sector companies, governments, United Nations partners, and civil society to achieve the 'Education for All' objectives. It promotes the exchange of expertise and information on multi-stakeholder partnerships in education among practitioners, private sector stakeholders, governments, and civil society, while reinforcing the capacity of institutions, industries and civil society by providing resources, tools, and models to help partnerships be implemented efficiently.

A meeting of the Partnership for Education Technical Advisory Group⁴ held at UNESCO in March 2008 identified the need to populate the database with information on existing partnerships. Juárez & Associates (J&A) was invited to join the Technical Advisory Group in 2007 and participated in several meetings on the design and management of the database.

Driven by the need to know more on how PPPs in education are formed and implemented, J&A carried out the following case studies in Rajasthan, India. The two case studies collected information on key experiences and lessons learned, providing greater detail on combined public and private sector strategies in terms of formal agreements, governance of activities, roles of leadership, and inherent challenges.

Lee, Suezan, Public-Private Partnerships for Development: A Handbook for Business, Office of Education, USAID,

Independent Evaluation Group, Sourcebook for Evaluating Global and Regional Partnership Programs: Indicative Principles and Standards, The World Bank, 2007.

The PfE database can be accessed at www.pfore.org and interested parties can register to gain complete access to view data and to upload information on PPPs in education.

⁴ Juárez & Associates has been a member of the joint UNESCO-WEF Technical Advisory Group since May 2007.

RESEARCH & METHODOLOGY

The research methods used by the J&A team were primarily ethnographic, consisting of in-depth interviews with both individuals and small groups of project participants. The individuals interviewed in both case studies included project personnel, teachers, students, parents, community residents, private sector and government officials. The intent was to acquire as many points of view as possible to enhance the understanding and analysis of how the PPPs developed from a formal series of agreements and into fully functional programs. As often occurs, there were unforeseen challenges in each case and how parties met these challenges should give development practitioners and funders some insight into what can be expected during the process of design and implementation of PPPs.

The research questions for the first case study, EGG, were as follows:

- How did various stakeholders that formed this PPP come together?
- What were the successes and challenges of coming together?
- Was EGG able to form a strong relationship with government staff at all levels?
- What role did local staff play in community engagement and participation?
- How was EGG able to accomplish its enrollment and retention objectives through a PPP?
- How did the formation of a PPP help EGG succeed?
- How sustainable are the achievements made by EGG interventions?

Answers to the questions above can be found in the *Educate Girls Globally (EGG): Challenges and Lessons Learned* section.

The research questions for the second case study, NetAcad, were as follows:

- How did the various stakeholders that formed this PPP come together?
- What were the successes and challenges of the stakeholders coming together?
- Was NetAcad able to reach its target audience?
- Have the appropriate skills been taught to the participants?
- Exactly what role has the Ministry of Education played in the operation of NetAcad?
- What problems surfaced regarding upkeep/maintenance of the education centers?
- Is the methodology employed in the PPP sustainable?

Answers to the questions above can be found in the CISCO Networking Academy (NetAcad): Challenges and Lessons Learned section.

INTRODUCTION

The case studies presented in this report are the result of earlier desk studies of PPPs in basic education; this section provides a brief description of the previous efforts and reasons why the case studies of two distinct partnerships in Rajasthan, India were selected and carried out.

As part of the Educational Quality Improvement Program: Classrooms, Schools and Communities (EQUIP1), in 2006, J&A identified and performed research on projects and initiatives that formed PPPs in basic education. These partnerships have included Civil Society Organizations (CSOs), private companies, Non-Governmental Organizations (NGOs), and governments. The goal of the research was to gain information about successful PPPs and to identify the type of partnerships that contribute to the strengthening and sustainability of education initiatives. To reach this goal, J&A conducted a comprehensive literature review, created and distributed questionnaires, and carried out face-to-face interviews with NGOs, private corporations and staff from the United States Agency for International Development (USAID). Completed in early 2007, a report⁵ based on these findings showed how the PPPs in the case studies were formed and how interventions were designed and implemented, as well as the contractual and financial relations and the monitoring and evaluation components.

Our extensive analysis of literature, literature reviews, project reports, and interviews confirmed the findings from the First Regional Conference on Secondary Education in Africa held in Kampala in 2003⁶, which stated, "There is scant information about PPPs, so there are few websites that a corporation, school or ministry of education can access. The absence of widely known models, summaries of key experiences and shared lessons learned makes the start-up and monitoring of these partnerships more challenging." Insights into how PPPs are formed and function were lacking, and the information that was readily available tended to be general overviews of partnerships with little or no data on how the partnerships were monitored or evaluated.

In order to better understand the operation of PPPs in education, J&A recommended that more detailed case studies be carried out that involve site visits and personal interviews with project personnel at all levels of the organizations involved in the partnerships, both public and private. This report is a culmination of the original case studies and subsequent field research. Recognizing the need for more information on PPPs in education in particular, with this examination we hope to further prepare development practitioners and organizational funders for the successful design and implementation of PPPs.

Concept and Definition of a Public-Private Partnership (PPP)

PPP describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. As part of PPPs, corporations, and CSOs play an increasingly important role in initiating, implementing, and

⁵ Enge, K., Patel, J. & Shields, V. "Public Private Partnerships in Basic Education: Explorations in Formation, Function and Sustainability." Juárez & Associates, Inc., January 26, 2007.

⁶ The conference formed part of a major multi-year (2002-2005) work program on "Secondary Education in Africa" (SEIA) conducted by the Human Development Department of the Africa Region of the World Bank with the purpose to present initial findings from studies conducted under the SEIA work program, and to initiate a discussion among African policy makers, stakeholders from civil society, and development partners on options for addressing the wide variety of issues faced in secondary education in Sub-Saharan Africa.

scaling-up basic education initiatives. Through the use of PPPs, governments can utilize the technical expertise of the private sector to expand education services and improve their overall quality.

PPPs have the ability to provide financing far exceeding what governments can contribute. In addition to funding, the private sector has been supplying books and educational materials, refurbishing schools, providing Internet connections, participating in training sessions with teachers and principals, assisting with the overall administration of schools, and tracking impact through carefully designed monitoring systems and periodic evaluations. Furthermore, the private sector makes valuable contributions that include expertise in human resources, administration, logistics, and research. Benefits to the private sector include increased company visibility and recognition and the access to new markets for products or services.

The private sector also brings business discipline, leadership, creativity and specialized knowledge in a particular field. However, private entities may have difficulty not only ensuring the sustainability of projects, but also preserving transparency and accountability, maintaining coordination with other project partners, and developing trust within their respective communities. This report uses case studies to share key experiences, successes, and lessons learned setting up and monitoring a PPP.

PUBLIC-PRIVATE PARTNERSHIPS (PPPS) IN EDUCATION IN RAJASTHAN, INDIA

Sarv Shiksha Abhiyan (SSA) is the Government of India's flagship program for achievement of Universalization of Elementary Education (UEE) in a time-bound manner, as mandated by the 86th amendment to the Constitution of India for free and compulsory education to children in the 6-14 year age group. SSA is being implemented in partnership with state governments to cover the entire country to meet the needs of 192 million children in 1.1 million communities. The program seeks to open new schools in areas which do not have schools and to strengthen existing school infrastructures by providing additional classrooms, toilets, and potable water, and maintenance and improvement grants. Existing schools with inadequate teaching staff are provided with additional teachers, while the capacity of existing teachers is being strengthened by extensive training, grants for developing teaching and learning materials and increased academic support at cluster, block, and district levels. SSA seeks to provide quality elementary education including life skills with a special focus on girls' education, children with special needs, and technology.

As a response to the SSA Program, the state of Rajasthan launched the Rajasthan Education Initiative (REI) in 2005 to improve learning skills. Directed by Rajasthan's MOE and supported by the activities of the core partners, including the Confederation of Indian Industries (CII), the Global e-Schools and Communities Initiative (GeSCI) and the World Economic Forum, the REI focuses on girls, rural children, urban underprivileged children, and children with special needs, through ICT interventions.

The REI has significantly contributed to the fulfillment of SSA goals and different facets of educational development in Rajasthan, including widening access, promoting efficiency, enhancing the quality of learning and teaching, and improving infrastructure and management systems. The REI has engaged with major global and national partners from the private sector, foundations and NGOs by signing 26 Memorandums of Understanding (MoUs) with various organizations since its launch in 2005.

To meet SSA goals, the REI adopted two basic approaches:

- 1. The use of community mobilization to enroll underprivileged and marginalized children, especially girls; and
- 2. The use of ICT with a focus on vulnerable children.

These two interventions have been designed to work in tandem but are administered and implemented independently. The objective of the EGG and NetAcad case studies was to examine how these PPPs contributed to the SSA goals through REI's two basic approaches.

Background: Educate Girls Globally (EGG)

Educate Girls Globally (EGG), a San Francisco, California based non-profit organization has been working in the area of girls' education since 2000. EGG has developed a scalable and sustainable model to improve existing government schools for girls' education, growth and development. EGG highlights parental and community participation as the key to getting girls back in school and preventing them from dropping out of school. It works with local governments to improve the quality of education by reforming schools to focus on creative teaching, life skills, work competencies, and also creating a political constituency to support and sustain the reform of primary and secondary schools. EGG's emphasis on community participation results in local self-governance and a better overall educational environment.

EGG currently has projects implemented through PPPs with the MOE in two states in India: Rajasthan in the west and Uttarakhand in the north.

Educate Girls Globally (EGG): a PPP in Education

EGG signed an MoU with the Rajasthan MOE to increase the enrollment of girls in schools to reach the overall goal of having no 6-14 year-old girls out of school. As part of the partnership between EGG and the Rajasthan MOE, EGG conducted a pilot project in the state of Rajasthan, co-sponsored by the Government of Rajasthan, Global e-Schools and Communities Initiative (GeSCI) and the World Economic Forum. EGG implemented the project in 50 schools in two districts, Jalore and Pali, serving about 15,000 children.

Under the two-year project, the MOE agreed to establish a gender unit in the Rajasthan Council of Primary Education (RCPE) to be composed of senior officers and experts from EGG. The unit was monitored by EGG and consisted of two collaborative managerial bodies; one was responsible for strategizing and decision-making, and the other one was responsible for interventions at the grass-roots level. The MOE agreed to fund the establishment and operation of the gender unit, train the MOE staff, provide office space, facilities, equipment, records, and transportation, and perform an evaluation of the project. Furthermore, specific individuals were identified to serve as the primary contact between EGG and the MOE.

In the first six months of the program, community mobilization and participation led to the identification of 550 drop-out girls. Close to 200 village meetings have been conducted to mobilize communities to make girls education a priority; 352 girls have been re-enrolled into government schools.

Background: CISCO Networking Academy (NetAcad)

CISCO is an international company headquartered in San Jose, California, which manufactures networking gear such as routers and switches, and offers IT solutions to both the private sector and governments. In 1997, its Corporate Social Responsibility (CSR) branch, CISCO Networking Academy (NetAcad), began focusing on building the capacities of individuals in ICT to provide opportunities for career advancement through lifelong E-learning.

It started by offering certificate courses to individuals in hardware basics, which was later followed by advanced courses in computer hardware and applications. The NetAcad team designed course content with the help of renowned IT professionals and set up rigorous guidelines for the courses. Today, the courses offered by NetAcad are available in 167 countries. NetAcad has set up regional academies at the national level and local academies at state and municipal levels. In India, it started its CISCO Academy Training Centre (CATC) in 2000 at Indian Institutes of Information Technology (IIIT), Hyderabad, and today has over 185 local academies spread across India, one of which is in Rajasthan.

CISCO's first PPP was with the Government of Jordan to run basic courses in computer hardware for all secondary school students. Due to encouraging results from the partnership, CISCO signed similar MoUs with the governments of Egypt and Palestine.

CISCO Networking Academy (NetAcad): a PPP in ICT

During a meeting in Jordan in 2005 organized by the WEF on the Global Education Initiative, the Chief Education Minister of Rajasthan learned about NetAcad's ICT program. Impressed by the positive results of the program, the Minister invited WEF to replicate the program in the state of Rajasthan. In 2005, after a few rounds of initial discussions, WEF and many IT companies, including CISCO, Microsoft, and INTEL, signed Memorandums of Understanding MoUs with the Rajasthan MOE and became partners in the ICT component of the REI.

NetAcad signed a MoU with the Rajasthan MOE under the REI to support the introduction of ICT training for students and teachers at government secondary schools. NetAcad specifically offers an online training curriculum known as IT Essentials⁷, which consists of 16 lessons that cover such topics as hardware assembly, maintenance, equipment repair and networking. After the successful completion of the course, students are able to describe the hardware components of a computer, assemble a computer system, install an operating system, and troubleshoot using system tools and diagnostic software.

As part of the partnership between NetAcad and the Rajasthan MOE, NetAcad planned to implement the IT Essentials curriculum in 33 DCECs benefiting both secondary and senior secondary class students. The objective was to help Rajasthan build a sustainable pool of talent equipped with critical IT skills, while paying special attention to disadvantaged and hard-to-reach

⁷ Since its start, CISCO has developed a variety of programs at different levels of difficulty, namely:

[•] IT Essentials (computer assembly and troubleshooting) – this program is offered to secondary school students and ITI (Industrial Technical Institutes) students.

[•] CCNA (CISCO Certified Network Associates) – this program is offered for Engineering, MCA and Polytechnics students.

[•] CCNP (CISCO Certified Network Professionals) – this is the advanced program and is meant for professionals.

children. In addition, NetAcad focused specifically on empowering girls to prepare them for an increasingly technologically sophisticated job market.

At present, NetAcad is running the IT Essentials curriculum at six DCECs in Rajasthan – each of which is equipped with 35-40 desktop computers and printers. From each district, three to five teachers are selected to attend the training program.

EDUCATE GIRLS GLOBALLY (EGG): CHALLENGES AND LESSONS LEARNED

Partnership with Government Stakeholders

The Government of the State of Rajasthan in India has implemented almost two decades of intensive education programs aimed at 6-14 year-old children. Concerted efforts of enrolling out-of-school children have paved the way for increased child enrollment. Nonetheless, difficult-to-reach and vulnerable children remain underserved. Through a project implemented via a PPP, EGG helped provide educational opportunities to these difficult-to-reach and vulnerable children. The MoU between EGG and the Rajasthan MOE aimed to develop and test a replicable and sustainable model for identifying critical needs for girls' education, reducing gender disparity amongst students, increasing enrollment and retention of girls, and enriching the lives of out-of-school girls.

The partnership between EGG and the Rajasthan MOE is the first PPP between the government of Rajasthan and an NGO. Due to earlier failed efforts by NGOs, skepticism prevailed amongst government and education officials on EGG's long-term commitment and ability to reach and penetrate rural areas and communities. The collaborative spirit between EGG and SSA helped alleviate some of the skepticism.

EGG's project complemented the efforts of the SSA by developing mechanisms to enroll girls, which involved community participation in the education of their own village girls and ownership of the school education program. SSA helped EGG's local integration by mobilizing communities and provided logistics support to the EGG team, including sharing survey reports and attending Gram Shiksha Samiti (GSS)⁸ meetings.

EGG learned the critical importance of receiving full cooperation from the government to make the partnership a success. EGG received strong support from top senior officials in the Rajasthan MOE, mainly because of the signed MoU between the two parties. However, EGG collaborated mostly with more junior and localized government officials, including District and Block Education Officers (DEOs and BEOs, respectively). EGG's ability to effectively collaborate with these officials was largely due to a clear mandate by top senior officials, encouraging local officials to fully collaborate with EGG. After signing the MoU for the pilot project, the State Education Department informed the DEOs and SSA, who in turn sent out the appropriate information to BEOs and participating school headmasters. All were asked by top officials to provide full cooperation with the EGG team.

Two Case Studies in Public-Private Partnerships in Education in Rajasthan, India

11

⁸ The GSS is the modified form of School Development Management Committees (SDMCs). It includes all members of SDMC and most importantly, all parents whose daughters have been re-enrolled in the schools, as well as identified natural leaders from among the communities.

SSA officials appreciated EGG's ability to make scheduled visits to schools not being visited by SSA, as well as random visits to schools already being visited by SSA. Government officials provided full cooperation and support to EGG's community mobilization efforts by accompanying EGG staff to villages and making introductions to village leaders, which helped EGG's entrance and gradual acceptance in the villages.

It is very uncommon for a government department to officially accept data collected by NGOs, especially survey data, because it can contradict the authenticity of the data collected and endorsed by the government. During the initial survey, EGG staff found some discrepancies between village data provided by school headmasters and data collected by EGG staff. Because of the trust and legitimacy the partnership established between EGG and the government, EGG was comfortable openly discussing the data discrepancies with the SSA district office. Official government data was ultimately updated as a result.

While the Rajasthan MOE was successful in increasing enrollment rates, EGG helped the government improve school retention rates, especially for girls. EGG was also able to reach vulnerable children the government was struggling to reach. EGG's ability to build on and complete the government's education efforts contributed greatly to a successful relationship between the two parties.

Overall, EGG significantly improved the education system in Rajasthan through its partnership with the Rajasthan MOE. In light of this success, the MOE is continuing and expanding its partnership with EGG. In phase two of the pilot, EGG has been given 500 schools, and of these, 100 are located in remote areas dominated by tribal populations. SSA hopes to continue to improve its enrollment and retention records with the help of EGG.

Partnership with Community Stakeholders

The following community-based activities were critical components of EGG's intervention, as they helped establish good-working relationships with the local communities. These activities included: School Information Campaigns (SICs), GSS meetings, and Whole School Development Plans (WSDPs).

SICs served as a primary medium for collecting vital information, helping to "establish" reliable data, assessing the education situation system and related socio-economic parameters, and identifying critical needs. In 2006, EGG conducted SICs in all 50 schools, collecting data on the state of girls' education. The data revealed that the key challenges surrounding girls' education were high drop-out and retention rates and low attendance. EGG estimated that 10-15% of school-age girls (6-14 years) dropped out of school or were never enrolled. Out of the 85-90% of children enrolled, only 50- 60% attended school regularly. So, at any given time, 40- 50% of girls were not in school.

EGG created groups and held GSS meetings in each of the 50 schools where it was implementing the pilot program. GSS are a modified form of School Development Management Committees (SDMCs)⁹. It includes all members of SDMC, all parents whose daughters have been re-enrolled

⁹ SDMC – The School Development Management Committees have been set-up in all government primary and upper primary schools. Their purpose is to oversee the management and proper functioning of the school. Each SDMC comprises of 13 members – School Headmaster as the President, two school teachers, one ward panch, one student

in the schools, jati panches (opinion leaders), the village Anganwari worker 10, and other influential community leaders.

GSS meetings are conducted in villages to mobilize communities and encourage community members to become active participants in their schools and work together to improve the situation of girls' education. With the government's support, EGG motivated members not only to attend the monthly meetings but also to participate in WSDPs, formulated action plans designed to tackle problems associated with girls' education.

The success of GSS across villages varied. In some villages, GSS showed extraordinary success. In others, GSS took longer to get started or remained inactive. However, GSS is central in bringing sustainability to EGG's efforts and in creating ownership among the communities, as it gives a voice to the people. It is important to note that the process requires time and consistency to be successful.

Understanding the Economic, Social and Cultural Context

It is critical for those designing and implementing a PPP to understand the economic, social and cultural context of the locations in which it is operating in order to be successful. In EGG's case, understanding these contexts was instrumental in overcoming important challenges.

Overcoming economic, social and cultural barriers to girls' education was the single most time-consuming and demanding issue faced by EGG. With the government's help, EGG overcame a considerable number of obstacles to its program implementation, particularly in relation to Scheduled Tribal (ST) and Scheduled Caste (SC) populations of the Pali and Jalore districts.

The main form of social organization and residential unit amongst the ST is the joint family, and due to the poor economic and rural conditions, all family members typically contribute to the family income. Children, especially girls, are an asset to the family from early childhood by adding to family income either directly or indirectly. Girls as young as eight years of age take complete care of household chores, including cooking, fetching water, washing and sibling care. Once the girls attain puberty, they start going out with other family members to earn wages. In this demanding lifestyle, the possibility of attending school is remote. Boys are mostly free of all family responsibilities, so most attend nearby government schools. The main incentives for families to send their sons to school are the free uniforms and the free mid-day meals.

Due to the pastoral and migratory character of some of the ST population, some children, both girls and boys, are unable to receive even a primary education. Children are engaged in grazing cattle and migrate with their family in search of grazing areas and water for their animals. The percentage of dropouts from primary education is highest in this community due to their migrating pastoral activities. However, because of an increasing shortage of grazing land in Rajasthan, more and more tribal families are expected to give up their migratory lifestyle and settle permanently. This means that in order to survive economically, formal education will have

representative, five parents, one village leader, and two retired teachers, if available, in the village. The SDMCs, along with other powers, have the power to propose the budget and spend money on school development.

Anganwari worker – Integrated Child Development Program (ICDP) is a national level program by Ministry of Women and Child Welfare, under which one anganwari center for children in the age group of 0-6 years has been set up in each village. The center has an anganwari worker supported by a helper.

to become a priority, especially for girls. Sensitizing tribal groups on the importance of education and encouraging the enrollment of both boys and girls were some of the challenges tackled by EGG.

Despite much poverty, local communities are often very charitable, especially charity in the name of religion. This cultural practice was well exploited by the GSS and SDMCs to improve facilities at schools. Examples of such contributions included chairs and tables for teachers, filing cabinets for school records, mats for children's seating, podiums for children's activities, drinking water facilities, construction of school boundary walls, and electrification of schools. To acknowledge these contributions, schools honored donors during the school annual celebrations and painted donors' names on materials donated.

Traditional child marriage is no longer practiced in its original form in rural Rajasthan. Although arranging betrothals while the children are still young (10-12 years old) is still quite common; the marriage itself is actually delayed. Different communities have different customs related to marriage, only one of which directly affects the desire of parents to cease their daughters' education beyond the primary level. In this particular SC, the dowry is usually pre-arranged between the bride and groom's families, although occasionally it is left up to the wishes of the bride's parents. The higher the status of the groom's family, the larger the dowry must be. If the daughter has more education, the parents will have to look for a suitable match whose family may then demand a larger dowry.

Overcoming Barriers through Community Mobilization

When EGG started working in the select villages, the caste system emerged as one of the major obstacles for community mobilization. In some villages, the problem was so intense that upper caste and lower caste people did not look at each other, and, as a result, one GSS was not formed in a school. Often times, only upper caste people attended meetings or just lower caste people, but not both together. Even in local schools, children from different caste groups did not sit by each other or talk to one another.

The EGG team recognized that the caste problem was a major barrier to forming GSS in villages and for bringing together different caste groups on the same platform for the betterment of the girls in their villages. Through its strong partnership with the government, EGG was able to involve the community enough to overcome this problem. EGG used motivational strategies to empower parents to send their daughters to schools, such as engaging religious and opinion leaders and caste heads of the community, holding separate meetings with mothers of girls, and consistently following-up with parents on their daughters' education.

In general, parents were hesitant to send their daughters to school because they didn't truly understand the benefits of educating girls. Moreover, parents thought it was best for their daughters to stay home to manage the household, keep their dowry obligations low, and protect them from harm. To counter these notions, the EGG team shared examples of educated girls and women from the communities and showed how education has helped them in their lives.

Eventually most parents recognized that if their daughters knew how to read and write they would have better opportunities to get jobs or to set up their own enterprise to earn money. Parents also recognized that, once married, their daughters would be better able to improve the condition of

their in-laws and, in the absence of their husbands, would be able to take care of the house and children. In addition to attending and participating in GSS meetings, parents began to take a more active role in their daughters' education by meeting one-on-one with school teachers, buying books and school supplies, and providing an atmosphere at home for their daughters to be able to study during exam time.

Partnership with Teachers

Teachers appreciated the important role played by EGG in the planning and implementation of WSDPs in the GSS meetings.

To encourage children's participation on matters affecting them, EGG trained teachers on forming and managing Children's Groups (Bal Sabha) in the 50 pilot schools. Bal Sabhas are committees comprised of six to ten 7th and 8th grade girls that aim to create role models out of these girls. Every Bal Sabha has a president and five secretaries, each with a specific portfolio, including health, culture, literacy, administration, and sports. Both students and teachers welcomed Bal Sabhas as an effective tool to engage children in their schools. The girls participating in Bal Sabhas emerged as strong leaders, demonstrating their capabilities to organize health checkups at schools, improve girls' enrollment and retention rates, showcase talents of peer students during cultural activities, and improve conditions of school facilities. Bal Sabhas helped girls build confidence and become more vocal and motivated parents to continue sending their daughters to school.

The government-funded Bridge Course Camps, managed by EGG, were set up for girls who had dropped out or never attended school. The six-month camps provided girls academic, work and life skills training. Upon completion of the camp, girls are eligible to join regular schools in grade 6 or to attend Kasturba Gandhi Awasiya Vidhyalayas (KGAV) schools. KGAV are free residential bridge schools for girls offering schooling from 6th to 8th grade to provide a secure and congenial learning environment. To make KGAV more attractive in the communities, vocational training was offered along with regular studies. KGAV provided girls a smooth transition from the Bridge Course Camps to the formal schooling system.

CISCO NETWORKING ACADEMY (NETACAD): CHALLENGES AND LESSONS LEARNED

Partnership with Government Stakeholders

In a PPP, keeping lines of communication open is essential to building a strong relationship. To maintain adequate communication, the REI Project Director holds meeting with all ICT partner representatives once a week. During such meetings all partner representatives provide updates on approved action plans as well as any future plans for the following month. Partner representatives can also use this time to discuss problems, such as the need to send memos to district offices, naming teachers for training, or the necessity of the installation of a broadband connection for a DCEC. These weekly calls help not only to inform government officials about the achievements and successes of ICT partner organizations, but also serve to keep government officials abreast of their challenges on the ground.

In turn, NetAcad regularly invites government officials to training sessions at the DCECs to keep them involved in the NetAcad training programs and invites them as honored guests to the graduation ceremony of students. The involvement of government officials in NetAcad activities helps officials be aware of progress, obtain feedback from students, and share information about NetAcad with the general public via news coverage of visits.

Through CISCO's partnership, the government has gained confidence and strength in its commitment to ICT in education. However, for government officials at the district level, the NetAcad program under the REI is an additional obligation because it is outside the purview of SSA. For government officials, deliverables and achieving set targets are key. Thus, unless the DEO where the school is located is interested in the program, NetAcad takes a back seat to standard school activities. A lack of interest by government officials at the district level has affected the NetAcad training program in many ways, including:

- Shortage of qualified teachers for NetAcad instructors' training;
- Lack of available instructors;
- Insufficient interest by DEOs to suitably equip DCECs with broadband connections to facilitate NetAcad training programs; and
- Lack of interest by district headquarters in pushing DCEC directors to prepare action plans for promoting NetAcad training programs to potential beneficiaries.

In light of these problems, the NetAcad team had to go beyond normal bureaucratic channels and build personal relationships with government officials at all levels to ensure that the training programs ran smoothly. As a result, most government officials agreed that ICT interventions added value to government schools and that it was a major step towards bringing government schools on par with private schools in IT instruction. Moreover, officials felt that there was no better way to maximize the use and impact of DCEC facilities.

The slow expansion of the NetAcad program can be attributed to some extent to the frequent bureaucratic reshuffle and the relative levels of interest of transferred government officials into the NetAcad program. Every time government officials are transferred, the NetAcad representative has to meet with and brief the new officer and build a relationship with them.

At the ground level, some of the teacher instructors for the NetAcad training program were temporarily transferred from schools to the DCECs rather than regular transfers. This created a constant pressure from their school principal to send them back to their school, especially when the absence of the teacher contributed to a shortage of teaching staff. In such situations, there was a constant conflict between the DEO and the school principal over the placement of the teacher. Furthermore, when new DEOs were named, the issue of reversing teacher transfer orders resurfacedfor the new DEO to answer the request of the school principal. This left the training course instructors in very uncertain situations preventing them from concentrating fully on the training program. Occasionally, training programs had to be cancelled, as there were no teacher instructors at these affected centers.

A common challenge for private sector companies when working with the government is the lengthy approval processes and chains-of-command. This bureaucratic structure is necessary for the government to ensure that there is proper accountability at each level and to maintain transparency in the system. However, it often negatively affects the smooth functioning of programs on the ground. Many DCECs experienced a slow response to expense requests for

computer and facility maintenance as such requests had to travel up and down the chain-of-command for approval.

Regardless of the problems that occurred, NetAcad has trained 54 teachers and 650 students since the beginning of their partnership with the government. Out of the total trained students more than 40% were females. In response to requests from teachers and students, NetAcad also translated the IT Essentials curriculum from English into Hindi, creating greater access for everyone in the community. The cost of NetAcad training is Rs.6000 (US \$150) per teacher and Rs.3000 (US \$75) per student.

Through its discussion with students, NetAcad noticed that most of the participating students had approached DCECs on their own will to inquire about the computer training program. Students signed up for the course because of their interest in computers and a desire to make a career in IT enhance their image among peers. Students were excited about NetAcad because it was an online training program that provided hands-on computer networking, software installation, troubleshooting, and assembly training.

In 2008, based on the success of the IT Essentials program, the Rajasthan MOE under the REI signed another MoU with NetAcad to train teachers at 196 Kasturba Gandhi Residential Schools for Girls (KGBV) in the basics of computer education.

Partnership with Teachers

Through its partnership with the government, NetAcad was able to identify the best people for its training program. NetAcad not only trains teachers on IT Essentials but also provides 24/7 technical support aimed at troubleshooting problems and fixing computers rapidly.

The availability of this technical support from NetAcad has resulted in well-maintained DCECs and a decrease in the transfer of DCEC directors to other places. In Rajasthan, inter-district transfers of school teachers take place frequently, which negatively affects the students and their studies. However, equipped with enhanced computer skills, DCEC directors were not transferred in most of the DCECs where NetAcad training programs were held.

The NetAcad program intervention targeted secondary school teachers from grades 9-12 and focused specifically on training in hardware assembly, troubleshooting and networking. CISCO's faculty from their India CISCO Academy Training Centre (CATC), located at Amrita Vishwa Vidhyapeetham, Coimbatore, provides an eight-day training to the selected teachers in groups of 20. Upon completion, the teachers are placed at DCECs as a regular trainer until the group completes the training program. After the training program, the teachers go back to their respective schools where they were assigned for the NetAcad training program. If a teacher is required to return to his or her school during the training program, an alternate teacher is selected for the course from the group of teachers already trained by NetAcad. The teachers receive their monthly salaries from the school to which they belong.

Through its experience in Rajasthan, NetAcad realized the critical importance of working with computer literate teachers during the implementation of the ICT training program. Of the five out of six DCECs visited by the J&A team, it was very clear that the computer instructors were serious about their work. Except for one, all instructors had a background in computer education,

and the IT Essentials training program had given them even more confidence by providing considerable hardware troubleshooting and networking skills.

In one case in which a non-computer literate teacher was selected to be trained as an instructor, it took longer for the teacher to feel confident using computers, and thus, passing along that information to students. However, it is important to note that just because a teacher is computer illiterate does not mean he or she will fail. In this particular case, the instructor was able to apply his past experience as an accounting clerk in a management role at the DCEC. Because he had the motivation to learn and take ownership in the program, he was ultimately successful.

The training of teachers extended beyond the IT Essentials course. The training built teachers technological know-how and confidence. For instructors, the training increased their capacity for troubleshooting, including formatting, software uploading, anti-virus installation, and networking. Instructors gained increased browsing capabilities by training teachers online. Additionally, instructors' experiences made them better equipped to set up and manage computer systems and other forms of technology.

In order to encourage teacher instructors to remain engaged in teaching IT-related programs, NetAcad constantly recognized their contribution by awarding them a certificate and letter. In addition, NetAcad organizes two national-level conferences every year where teachers and trainers from all over the country are invited to attend, and the outstanding participants are officially recognized and given awards.

Partnership with District Computer Education Centre (DCEC) Directors

Prior to the PPP formed between NetAcad and the Rajasthan MOE, a budget was approved by the government for setting up DCECs in all 33 districts in Rajasthan, India. The Rs.45 lacs (US \$112,500) budget included construction of spacious rooms for installing computers and funds for purchasing 35-40 desktops at each DCEC. The stated purpose of the DCECs was to provide freevocational training opportunities to school students free of cost, introduce IT skills to students at a young age, and provide computer education opportunity to government school students, especially those with no computer labs in their schools.

Each of the DCECs was registered as an autonomous body and comprised of nine officers. The District Magistrate (DM) and the District Education Officer (DEO) were President and Secretary of the DCEC, respectively. The DCEC was proposed to be set up in the government senior secondary schools of the respective districts and the respective school principal was made the caretaker of the DCEC. Besides the capital budget, each DCEC was allocated an annual budget of Rs.1 lakh (US \$2,300) to meet the recurring expenses such as electricity, water, cleaning, and internet charges, in addition to the computer instructor's contract salary of around Rs.5,000 (US \$100) per month.

The driving force behind the six operational DCECs is the persistent effort made by NetAcad in the management of the program and the relationship with the DEO. For the time being, once a program starts, the DEOs have only supervisory responsibilities for running the course at the DCEC, while the actual implementation of the program lies with NetAcad. The real litmus test for the program's sustainability will be made when NetAcad withdraws from the program. This kind of program needs a full-time dedicated staff to ensure continuity; and with the limited

budget and limited staff, DEOs may or may not be able to give priority to the NetAcad programs even with the best of intentions. Moreover, most DEOs are on the verge of retirement and do not want to take on the extra burden of starting a new program in their district. Further, some DEOs are luddites, and thus, have no interest in implementing the program.

Ensuring that DCECs were fully equipped and had all infrastructure facilities necessary for the NetAcad training program to run was a major undertaking. With the support of teachers, NetAcad carried out an initial assessment of the hardware, software and networking facilitates available at the DCECs. In two centers, broadband connections were not available, so the NetAcad team assisted the DCEC in getting the suitable connections for these centers. In one case, NetAcad went out of its way and negotiated with Qualcomm (a CDMA technology giant) to provide free broadband connection at the center. At present this is running on a pilot basis, and, if it succeeds, NetAcad plans to implement such free services at other DCECs as well.

Even fully set up DCECs were unable to became functional immediately mainly due to great difficulty procuring computer instructors at such low salaries. In some of the districts where the DM, DEO, and school principals were receptive, they went out of their way to identify computer-literate teachers from among their own school staff and gave them the additional task of directing the DCEC. In some cases where a computer-literate teacher was not available, the clerical staff of the school was given the additional task of running the DCEC. As a result, in a few districts, the centers started to function but could not continue for long because managing the DCECs was a full-time job.

Because of their personal interest in the centers, DCEC directors were able to contribute to the growth of their centers in a variety of ways, including:

- Creating publicity for courses via press releases, local cable network experts, and letters to schools;
- Requesting government support for expanding the variety of training courses to make DCECs more popular among a wider range of students;
- Preparing budgets for additional free courses to give poor students the opportunity to participate; and
- Ensuring that all six of the operational DCECs were fully functional.

The NetAcad training has helped all DCEC directors build up their reputations as computer experts in their own schools and with local government, including the district headquarters. Except for Jaipur, all other district headquarters are in small cities with few, if any, computer experts. Under such circumstances, when no computer expert is available, district offices rely on the DCEC directors to solve any problems, which has helped the DCEC directors earn recognition and a good reputation for themselves among the government departments. Some DCEC directors took pride in their centers by making sure they looked welcoming; they properly organized seating arrangements for maximum comfort, provided ergonomically correct furniture, ensured computers were functional, and supplied proper lighting in order to be on par with private institutes offering similar courses.

LESSONS AND RECOMMENDATIONS

While not exhaustive, the following lessons and recommendations include key strategies that PPP stakeholders should follow in order to maximize the success of a partnership.

Clearly define attainable goals and outline expected tangible results. The PPPs presented in this review were able to garner the investment and long-term commitment of private sector companies because the goals and expected tangible results were clearly defined at the outset of the project in the form of a MoU. EGG's program resulted in increased enrollments and retention rates for girls, while NetAcad's program resulted in a number of teachers and students trained in IT essentials. It would be useful to the government of Rajasthan to show how both EGG and CISCO are benefiting from the partnership in terms of visibility and recognition in order to continue these and building new relationships.

Understand the local economic, social, and cultural context. By engaging local staff, EGG was able to overcome many economic, social and cultural barriers regarding girls' education, resulting in the project's success. EGG explained the objectives of their program to the local project staff who, in turn, used their skills to communicate the objectives to the local people in a way that they could understand. The local staff helped educate the community, specifically parents, on the importance of enrolling or re-enrolling their daughters in government schools. In NetAcad's case, it is important to understand that many teachers, especially women, are uncomfortable working with technology and a certain amount of training and support will have to take place before IT Essentials courses are embraced by the schools.

Build strong relationships among private partners and the government. In PPPs, it is necessary to develop effective communication strategies to reduce political risk, foster transparency, build trust and direct all parties to achieving a common goal. As highlighted in the case studies, government departments issued memos to field offices requesting their full cooperation with partners. Furthermore, government officials held regular meetings with partners to share updates on work and address any problems. Similarly, private partners submitted timely reports and feedback on a regular basis to government officials. In addition, private partners invited government officials to central events that highlighted the project's progress and any important gatherings to keep them in the loop.

Involve government in follow-up activities. In EGG's case, program activities required more intensive efforts by the government, such as a government public campaign on girls' education reinforced through various local, state, and nation-wide media networks. A one-time effort is not enough. Continued efforts of enrolling and retaining out-of-school girls in schools have to occur in order to empower the community to rally around the cause. In regards to NetAcad, only six of the 33 DCECs were functional due to a shortage of staff in schools, non-availability of computer literate teachers, and non-availability of internet connections or the requisite infrastructure at the DCECs. These constraints indicate that the government can and should assist NetAcad in ensuring that all of the DCECs are functional by helping to provide necessary human resources and required infrastructure.

Strengthen existing government infrastructures and avoid creating parallel structures. Working within existing structures is often critical in winning the trust of the target population and for ensuring best use of available resources. For example, NetAcad utilized existing DCECs for its IT

Essentials training program, which saved both time and money. Likewise, EGG used government schools as a point of contact via GSS – a modified version of the pre-existing SDMC – meetings to reach out to parents and the wider community to promote enrollment of out-of-school girls.

CONCLUSION

PPPs need time to nurture and grow if they are to become sustainable. PPPs work on a large scale involving many organizations, both public and private, and consist of multiple stakeholders; this magnitude requires sufficient time for the program to get started and to show quantifiable results. The positioning of a PPP project within the education bureaucratic structure with the purpose of strengthening the existing education programs, as is the case with the two PPPs outlined in this paper, takes a considerable amount of time to establish. As shown in both case studies, EGG and NetAcad needed time to integrate their own interventions and project activities into ongoing local education programs.

EGG is pleased that in less than two years, they connected with community members, subdued the caste-based division in the villages, and empowered communities to promote girls' education. Though NetAcad only instituted ICT training in less than one-fifth of the originally estimated number of DCECs in government schools, these trainings made a positive difference in the lives of the students and teachers at the DCECs in which they were present. By training both students and teachers in ICT, NetAcad was able to provide students and teachers skills to make them more employable, advance in their careers, and improve their overall quality of life.

In terms of sustainability, EGG believes that a two-year period is too short for a model to become sustainable; in their case they were unable to solidify the relationships they created or to ensure that such mechanisms as GSS would continue in their absence. On the other hand, NetAcad's transition was easier because the company was in operation for more than three years before EGG's program started. They already had time to build the relationships and trust that are critical to a PPP's success. To ensure that NetAcad training programs are sustainable in Rajasthan, it created a set of guidelines for setting up the DCECs and provided a username and password to students and instructors, welcoming them as lifelong members of the NetAcad family.

Both partnerships with the government were successful based on the fact that EGG expanded its program from 50 schools to 500 schools, and NetAcad expanded the scope of its program to include training teachers in ICT at 196 residential schools for girls. Looking forward, EGG should continue to focus on creating a replicable and sustainable model to increase enrollment of girls in schools and to prevent girls from dropping out, with a particular emphasis on girls in rural areas and those that are not in traditional schools. NetAcad should create a strategy to integrate students into the workforce after the completion of the computer training program, carry-out awareness activities among students on the benefits and importance of computer training programs, and provide students with more hands-on experience on assembling hardware. They should also focus more specifically on the use of ICT in girls' education.