Erral Inv # 417

ASRO and Public Private Partnerships (P3s)

Allison Murray

06/15/99

Introduction

Over the past ten years the Centre has seen an increasing emphasis on resource expansion within PIs. This has come about for a variety of reasons, but primarily in response to the decline in budget funding from the Canadian Govemment during this period. POs were requested to examine new ways to attract co-funding opportunities, parallel funding and contract research.

During this same time frame, the Centre has seen the demand for support from IDRC grow and change in focus. The increasing use and demand for Internet networking support in developing countries has spawned new initiatives such as PAN, Acacia, and Bellanet. Projects supported under these PIs often require large capital inputs, due to their heavy reliance on new technologies. In examining the objectives of PanAsia, ASRO found that the particular focus on the provision of Internet access in countries with little or no connectivity would provide a good opportunity to experiment with new forms of revenue generation. It was realized that in order for Internet access to be sustainable the operations would have to be commercial in nature, and could benefit from private sector involvement.

This paper discusses the partnership structures of four Public-Private Partnerships (P3s) under ASRO's PanAsia Networking initiative: PanLanka Networking Pvt. Ltd. (PLN), Pan Mongolia, Pan Vietnam and ADEPT . The first three projects are Intemet Service Providers (ISPs), while the fourth was a proposed joint venture operating company for the delivery of English language Distance Education over the Intemet. A number of lessons and common issues have emerged from these experiences. Efforts by the PBDO to document the Centre's experiences with P3s to date, have led to a more in-depth analysis of the projects that fall under this category at ASRO. It is both timely and relevant to examine what factors have contributed to the varying level of success of each of the initiatives. Almost all of these factors relate to the fact that until recently there has been no clearly defined policy framework for such activities. Each of the initiatives have been individual in nature and therefore, much time and effort has been put in to developing them separately. It appears, however, that the experiences stemming from these efforts have contributed significantly to the formulation of policy on P3s, and can contribute further insight and guidance to the Centre's pursuit of P3s in the future.

Background to Resource Expansion

The roots of resource expansion (earlier termed "revenue generation") activities at the Centre can be found in the history of commercialization of technologies developed through research results from projects. This was not approached in a systematic manner, with commercialization occurring in few cases and mostly on an ad-hoc basis. This changed in 1991 with Keith Bezanson, former IDRC President, examining ways to offset the funding cuts brought about by that year's Federal budget. Interest was shown in examining new ways to attract funds to support the Centre's activities. Concern began to grow over the successive years as budget cuts continued.

Co-funding was the main focus of resource expansion activities in the beginning. This was institutionalized within the BDO (Business Development Office). The push to find matching funds for projects - and for IDRC to manage - came as a response to growing fears about the future of IDRC in light of the on-going funding cuts. There were varying responses to resources expansion within IDRC, with some concern expressed over the Centre's objectives. There was nothing in the IDRC Act that prohibited resource expansion activities in the many forms that were being pursued at the time.

A shift occurred in the Centre's approach to resource expansion with the new President, Maureen O'Neil. The focus was to be more on expanding resources for the benefit of partner organizations, as opposed to supplementing the Centre's funding base. The BDO changed its name to the Partnerships and Business Development Office (PBDO), and efforts were made to examine the outcomes of the resource expansion efforts that were initiated over the past decade. There was a recognition that the Centre needed a concrete policy on how best to approach resource expansion, especially when the private sector is involved. This has led to an overall examination of Public Private Partnerships that have been initiated by the Centre.

ASRO's Approach to P3s

ASRO engaged in various forms of resource expansion activities, primarily co-funding.. With the initiation of PanAsia Networking in 1995, the PO, Maria Ng, and Randy Spence saw the opportunity to experiment with P3s. The initial thrust of PanAsia was to promote networking connectivity in countries that did not have commercial ISPs at the time, or where monopoly conditions existed. The objective was to provide Internet access for the research and NGO communities, while ensuring sustainability of the operation. It was determined that the proposed ISPs would have to be a commercial ventures, where any revenue generated would be put back in to the ISP to ensure continual funding. There was also the idea that surplus revenue could be targeted towards other projects.

ASRO commissioned a number of feasibility studies in various Asian countries to determine the need for networking connectivity and the environment for initiating joint venture P3s. The ISP business was in its infancy at the time, especially in developing countries of Asia. They were seen as requiring low start-up funding (approximately USD$500,000), and appeared to be a feasible business venture at the time. It was estimated that the ISPs could turn a profit with a small user base. After partnerships were initiated, various PanAsia - funded ISPs were started as national-level technical carriers. The projects used the resource expansion model and involved private sector partners to varying degrees.

2. California Model vs. Singapore Model

Discussions over the 1995-97 period with various parties in California and Singapore concerning P3s have revealed two distinct views of such initiatives. In speaking with venture capitalists in California the opinion was that the public partner should have their objectives built into the company, and should then step back and allow the private partner to manage the company. This will allow for more efficient operations as the private partner is the more experienced in business operations. This is in effect the modality that was developed with Pan Vietnam and Pan Mongolia.

Conversely, the 'Singapore view' states that the public partner should retain control of the business for the sake of protecting its development objectives. Various bodies, including the Economic Development Board (EDB), suggested that each partner will instinctively protect its own interests. In effect, should the private partner have full control over the operations, the development objectives will come second to the goal of maximizing profits and will ultimately be eroded. ASRO took the Singapore approach with both Pan Lanka and ADEPT.

Various issues have emerged from these initiatives, and have in some ways have determined their level of success. The following four case studies provide an overview of each of the projects, paying particular attention to the partnership structures. The projects are discussed in terms of the two models above, while identifying the factors that worked that those that did not. Finally, a number of recommendations for operationalizing future P3s are given.

PanLanka Networking Pvt. Ltd.
Case Study 1

Methodology

Research for this case study was collected through personal interviews, examination of past correspondence and filed documents. Interviews were conducted with Randy Spence and Maria Ng of ASRO, Renald Lafond of IDRC Ottawa, Nawaz Faleel of Worldview Colombo, and Helge Selrod and Y.K. de Silva of PanLanka Networking. All attempts have been made to provide a balanced view of the issues involved in this initiative. Due to time constraints the scope of this case study is limited in depth. However, the broad issues presented are those which have been identified as the most relevant to a study on Public Private Partnerships by those involved.

The Context

Of the resource expansion activities pursued by ASRO under PanAsia, PanLanka Networking Pvt Ltd. (PLN) was the most complex in terms of partnership structure. This initiative is in fact a partnership between two different kinds of donor agencies, and one private consultant, creating a private enterprise for the pursuit of development objectives. PanLanka Networking Pvt. Ltd. is an Internet Service Provider (ISP) located in Colombo, Sri Lanka. At the time the project was initiated in 1995, there was only one ISP operating in Sri Lanka, and it was both expensive and low in quality. The PanAsia Networking initiative had recently been launched and was targeting suitable countries for setting up national level technical carriers (ISPs) in various locales[1] . Sri Lanka was identified, among others, due to its weak communications infrastructure, for the facilitation of networking among the research and development communities operating in the country. The company was created under the PAN objectives of facilitating research and development information sharing in a long term and sustainable manner. The ISP would not only provide affordable Internet service to Sri Lankans, but would facilitate the growth of Sri Lankan development based content - much lacking in contemporary media.

At the time discussions began, the ISP market was fairly new and projections for likely future outcomes were difficult to make. Despite a lack of information, it was determined that an ISP was unlikely to survive unless it had a sustainable source of funding. For IDRC to fund a development-focused ISP would mean a new form of project - one that targeted the private sector as a major player - whether as a partner, or as a consumer base. At this time, the Centre was engaging in an increasing number of resource expansion activities. Under the leadership of the former President, IDRC was experimenting with new forms of funding arrangements and partnership agreements, primarily co-funding. These were initiated with the aim of securing funding which could then be ploughed back into the project, or be used to support other development projects in other parts of the world. After considerable ground work it was apparent that here were no qualified Sri Lankan entities (whether an NGO or private firm) who would be suitable to run a development-focused ISP. However, one NGO - Worldview International, and various individuals were identified as possible partners. It was therefore determined that IDRC would have to play a lead role if the project was to meet its dual objectives of sustainability and development impact.

Discussions began looking into forming a joint venture company, with IDRC as a leading partner. This modality had never before been used at IDRC.

Major Partners

[1] At the time the PanLanka Networking project proposal was written, Vietnam, Mongolia and Laos had already received their initial funding for similar initiatives.

Maria Ng visited Colombo in early 1995 to identify possible partners willing to support the ISP concept. In March of that year, Worldview International Foundation (WIF), a Norwegian-funded NGO, with considerable activity in development communication, and located in Colombo, responded favorably. Helge Selrod, then a volunteer with WIF in Colombo, championed the project on their behalf. WIF had initiated several communications-related projects in various developing regions of the world by this time, including Young Asia Television (YA TV), an educational series focusing on development issues. Their funding base is primarily from NORAD. Nawaz Faleel, the director of WIF Colombo, was concerned about widening the scope of their reach in Sri Lanka. He felt that an IT network would allow for a broader impact, involving local people and indigenous units. WIF felt that it was qualified to handing the information services component of the proposed project, but was lacking the technical know-how. WIF was accordingly granted funds by NORAD in 1995 to develop a partnership arrangement. Y.K de Silva was brought in to assist Helge in the formulation of the proposed project due to his local contacts in Sri Lankan institutions and government. Mr. de Silva's background was primarily in private sector marketing.

The Computing Services Centre (CSC) at the Institute of Computer Technology, University of Colombo was also approached as a possible partner. CSC had the technical skills to compliment WIF and was currently setting up a network among Sri Lankan Universities called LEARN. Professor Samaranayka of CSC was highly qualified in this arena and connected to the IT community of Sri Lanka.

After the initial technical assessment of the proposed ISP was made by CSC, Vikkas Aggarwal, an IT expert from New Delhi, was approached to provide consultation on the business and technical aspects of the proposed venture. It was evident at this point that firm knowledge of the IT/ISP industry in Asia was required for this project to be successfully undertaken. Mr. Aggarwal, originally approached as a consultant, soon decided to invest in Pan Lanka, in the form of provision of technical and marketing services/supervision, and become an equity partner.

Netcentre Pvt. Ltd. under Pan Consultant Tommi Chen initially provided advice on the technical aspects of setting up an ISP in Sri Lanka, and discussed becoming a partner, but declined for reasons primarily related to Netcentre's own capacities and priorities.

Lionel Femando, a Sri Lankan public servant was approached to join the partnership due to his extensive experience as a manager of public corporations. Mr. Femando had managed various public corporations over the years in Sri Lanka and seemed like a very suitable choice as a working Chairman of the Board of Directors. It was felt that his managerial expertise would assist the company due to Helge's minimal experience in this area.

CSC, in the end, was not able to participate in the joint ventre due to restrictions contained in it's academic mandate.

The Partnership Process

Various key players have been involved either in the formative stages of the joint venture, or as an equity partner. As mentioned above, the type of partners available for such a project in Sri Lanka were limited. As a consequence, the partnership process was a major factor in determining the modality for this project. ASRO felt that it must be heavily involved as a partner in this project, in order for it to meet its objectives.

In 1995 several feasibility studies were conducted, examining the viability of setting up a development-focused commercial ISP in Sri Lanka. WIF was commissioned to produce a study on the state, quality and emerging plans of the government and private sector in Sri Lanka for Internet services and computer-based information networking. The study was conducted by CSC. In September 1995 Helge Selrod and Y.K. De Silva were commissioned to conduct a more detailed study, including: a survey of the IT networking environment then present in the country; identification of possible partners (both possible business investors and content providers); conduct discussions with the various government bodies, including the Board of Investment (BOI) to ascertain its views on the formation of the entity and to identify the policy and regulatory instruments for setting up a joint-venture ISP of this nature; identify user groups (both non-commercial and commercial); determine the market situation including possible competitors; and prepare a financial analysis of the proposed venture.

The results of both these studies did not present a thorough enough picture of the business environment in Sri Lanka. It was felt that in order for a sound decision to be made on forming such a venture, a more detailed analysis of the business structure, particularly a market analysis, would be required. Maria Ng approached Vikkas Aggarwal in early 1996 to provide assistance in this area, due to his extensive background in IT and business in both Asia and North America. It was becoming increasingly evident at this time that there was not enough business expertise in the partners that were involved at this stage. Mr. Aggarwal's first assessment, conducted in June, 1996 provided much-needed information on start up issues, pricing and infrastructure, and possible partners from the public and private sectors. He also completed a business plan, with a financial analysis of the venture. This served to establish his interest in the ISP. Mr Aggarwal was later approached to become an equity partner, an arrangement which reduced the cash investment required by compensating his services in the form of shares.

By mid-1996, two competing ISPs had set up in the country, requiring a re-assessment of the market environment. Mr. Aggarwal's reports touched on the newly competitive environment, the current pricing structure, and the availability of leased lines. The financial analysis showed that entering the ISP market was still relatively inexpensive in Sri Lanka, at approximately CAD$500,000 for start-up. Considering the market environment at that time, Mr. Aggarwal forecasted a cash surplus in the 3rd year of operation. It was felt by all partners concerned that there was a need to speed the venture along, in order to enter the market at an advantageous time.

Formation of the Partnership

In early 1996 proposals were submitted to both IDRC and WIF for funding. By September 1996 the Sri Lankan BOI granted approval for the formation of the company. The Articles of Association were also being drawn up at this time to be submitted to the Sri Lankan BOI for incorporation of the entity.

Most of the negotiations regarding the partnership structure and incorporation were carried out by Lionel Femando, in conjunction with ASRO and WIF. According to Sri Lankan BOI regulations, in order for a joint venture to be formed, there would have to be a foreign JV partner as a major investor. It was determined that WIF would play this role due to the shares being held in Norway.

By July 1996 it was apparent that IDRC was not prepared to hold equity in a private company at this time. A letter was sent to the Sri Lankan BOI explaining that instead, IDRC would be making a grant to WIF, who would then hold IDRC's equity shares in trust for three years. It was planned that at the end of this time, the shares would be either be held by IDRC, if its Board approved, or transferred to CSC, under Prof. Samaranayka. CSC was providing sound technical advising services to the venture and it was felt that they would be a valuable equity partner in the future. The transfer of equity shares would allow IDRC to ease itself out of the partnership, once it was formed and the company was functioning. The ISP would then be administered by a consortium of Sri Lankan equity partners. However, due to university regulations, it was later determined that CSC could not hold equity shares. As a result, CSC remained a technical consultant, but was not further involved in the partnership. IDRC's equity shares would be held in trust by WIF until a time when the Centre had come to a firm decision on it's participation in Public-Private joint ventures and then either held by IDRC or given to a Sri Lankan institution acceptable to the Directors of the company.

A cash flow projection was submitted to ASRO, estimating that the investment required to start PLN would be USD$289,301. In May, 1996 ASRO agreed to grant CAD$250,000 to WIF Norway as their investment in PLN, to be converted into equity shares and held in trust by WIF. WIF was the primary domestic investor in the joint venture, contributing 54% of the shares, on behalf of IDRC. WIF Colombo contributed CAD$211,680 and retained 46% shares in the company, as the primary domestic investor. The other equity partners, Vikkas Aggarwal and Lionel Femando, would hold one share each (value SLR100) as per the incorporation agreement. Their future in-kind contributions to the venture, would be converted into shareholdings for Aggarwal and for WIF Colombo (for the services of Lionel Femando). Given the committed funding at this time, it was expected that the company could survive for a maximum of 2 years. It was therefore important to continue to seek new partners in the venture in order to ensure its sustainability until the break even period (estimated to be 3-5 years for start-up ISPs at this time).

WIF, as the recipient institution, proposed to place Helge Selrod as Managing Director of Pan Lanka Networking Pvt. Ltd. The other partners agreed with this choice due to Helge's extensive groundwork on the joint venture. Although he did not come from a private sector background, it was felt that his public sector project manager experience, combined with his proven commitment to the venture would make him a reasonable choice for this position. Throughout the development of the venture, Helge acquired sound knowledge of the technical and business aspects of running an ISP in Sri Lanka. He was responsible for writing the proposals to both WIF and ASRO. Furthermore, there appeared to be few other choices, as not many people had a working knowledge of the fledgling ISP market in Sri Lanka at this time. Both Lionel Fernando and Y.K. de Silva, along with Vikkas Aggarwal, would contribute their business knowledge to the running of the business, thus balancing Helge's lack of experience in this area. Y.K de Silva was to assume the position of Marketing Manager for PLN.

Issues emerging during the Partnership Process

It is important to note the various constraints to the formulation of this project that emerged during this period. First, a *large amount of time and effort* was put in to negotiating and working out a feasible partnership and funding structure by the Programme Officers involved. This was the first time ASRO had embarked on a commercial joint venture initiative. Questions posed during the process centered on how to do this as a public sector donor agency. The Centre's policy's on such projects were not formulated at this time. Discussions in both Singapore and Ottawa took a considerable amount of time to work out a means of supporting the project without compromising Centre objectives. Furthermore, it was difficult to secure strong and committed partners to the venture -- partners that would contribute positivity to the development objectives and financial sustainability of the company. Many possible partners, including CSC and Netcentre, were interested in the venture but could not commit as an equity partner for various reasons. Both ASRO and WIF were concerned with he fact that there were no other qualified Sri Lankan entities that could join the partnership. Second, the partnership process revealed *growing tensions* between certain partners. It was apparent that Nawaz Faleel, the director of WIF Colombo and Helge Selrod and Y.K. De Silva were not agreeing on many issues.

Selrod and De Silva also had questions about WIF Colombo's intentions for the partnership; notably its real priorities among developmental and profit/control objectives.

However, it is also important to note that both ASRO and WIF - the two public sector agencies and primary funders of the venture - were encouraged by the development objectives that could be achieved with this project. They both saw the need for increased access to information in the country, and the ability to sustainably finance the project with revenues from the commercial venture. It was for this reason that the joint venture progressed and PLN was officially launched in April of 1997.

Start-Up

There were various factors that combined at the time of start-up of that challenged PLN's footing. First were the *market factors*. The Sri Lankan government decided to open up the market to foreign ISPs in 1996, granting an increasing number of licenses for new ventures. This mean that in mid-1997 there were three competing ISPs already running in the country, including one under Sri Lanka Telecoms, the national telephone carrier. This level of competition was not figured in to the original business plans drawn up in 1996. The move by the Sri Lankan government to grant more ISP licenses was sudden and caught PLN by surprise. As a result of this, competition rose steadily - making customers harder to attract, and leading to a high level of price competition among the ISPs. PLN's original pricing and sales figures were drawn up by gauging the local PC penetration in the country with an estimation of potential dial-up users, combined with general ISP pricing structures in neighboring countries. The new ISPs and price competition that occurred after start-up drove prices and expected market share down dramatically, decreasing the overall projected revenues for the company.

PLN entered the market at a later time than originally expected due to considerable *delays in start-up*. The partnership structure and formation took an extensive amount of time to organize - taking into consideration the development objectives, and need to attract sound business partners. Discussions first began in mid 1995 to form the joint venture. It wasn't until two years later, in mid-1997 that the company was incorporated. At this time the ISP market was (and still is to some extent) new and difficult to predict. Providing Internet service in developing countries was difficult to gage, with government easing regulations on foreign investment. IDRC and NORAD also took considerable time to approve and release the funding. Warnings were sounded several times from consultants concerning the delay in start-up.

Second were the *management issues*. Discussions at the first Board of Directors meeting concerned the issue of contracts and salary for Helge Selrod and Y.K. de Silva. Both had assumed management positions within the company and were asking for salaries in accordance with foreign wage levels in their corresponding position. Helge Selrod asked for a salary of USD$4,000/month and Mr. de Silva, USD$2,000/month. Most members of the board (Faleel and Vikkas in particular) had difficulties approving the requested wages because they did not feel that PLN could sustain such wages and still return a profit in the expected time frame. They felt that the requested wages would put too much pressure on the financial capacities of PLN from the beginning, possibly jeopardizing its market position. ASRO did not take a firm stand on this issue at the time because Helge had been to integral to the formulation of this venture. The board was not united on this issue, further cementing the contentious relationship between Helge and WIF. The salaries were approved at the requested level in the end, with ASRO forced to play the role of mediator in this dispute. The wage issue has remained a point of contention in PLN.

Recurring Issues

Throughout the course of the next year and a half of operation (July 1997 to January 1999), PLN expanded as a business, but under difficult financial and market conditions. Central to these issues is the fact that most of the financial resources were used to stay afloat financially, thus overshadowing the development objectives of the venture. This is not to say that the development objectives were lost completely, but they have had to take a back seat to financial concerns.

From the beginning, and until only recently, PLN has experienced a larger cash flow deficit than was originally projected. This is due to a number of factors. First, the business plans that were originally drawn up did not take into account the increased competition that occurred after start-up. This meant that PLN was underfinanced from the beginning of operations. Second, in order to be competitive, PLN has had to upgrade continuously, purchasing new servers, telephone lines, and hiring new employees. Had PLN not expanded, it may have lost further to its competitors. Third, the high salaries paid to the management has put an expected strain on the budget, taking resources away from other areas. However, it is important to note that both managers went without salary for a number of months in 1998 in order to ease this situation. Payment is still outstanding for their services.

The result has been that both the Centre and WIF have had to provide supplementary funding to PLN in order to keep it operational over the initial three years. To date, IDRC has contributed CAD$136,882 (USD$98,693) supplementary funding, and WIF has contributed CAD$186,275 (USD$134,306) . Shares in PLN have increased as a result. The shares are currently broken down as follows:

Shareholder	**No. Of Shares**	**Value in USD**
IDRC (held in trust by WIF)	163,887	278,946
WIF Norway	171,792	286,930
Vikkas Aggarwal	50,708	79,000
Helge Selrod	7,601	12,000
Y.H.K de Silva	3,800	6,000
Mr. Lionel Fernando	1	--
Mr. Nawaz Faleel	1	--

Note: 1 share = 100 SLR

The Development Objectives

Due to the increase in competition in the ISP market in Colombo, and low capital PLN has had to focus its resources on the commercial aspects of the operation in order to stay afloat during the initial two years. This has reduced its capacities to address the development objectives of the project. Specifically, low staffing has been identified as causal factor, with no staff member having enough time to concentrate on addressing the development objectives. As of November, 1998 the majority of customers were from the private sector, with very few customers from the development/NGO community.

However, it is important to note one major effort which has contributed positively to increasing the communication between Jaffna and the rest of the island. In June, 1998 PLN was the first ISP to create a presence in Jaffna. Residents are now able to send e-mail messages. This is done by delivering a personal message to the collection office, which is then faxed to the head office in Colombo, where it is converted into an e-mail message and sent out to the intended recipient. A number of messages are received and sent on a daily basis. This has had a positive impact on the communications system in a currently cut-off, war-torn region of the country.

According to the management of PLN, the ISP has gained a good reputation in Sri Lanka as a quality service provider. They are known for giving their customers the right type of packages to meet their needs, while assuring technical assistance and service on a regular basis. It may be worth while to study the customer base according to length of time with PLN, to gauge customer satisfaction.

Current Developments

In mid-1998 a shift began to occur in the Centre's policy towards joint venture commercial initiatives. The feeling was that joint ventures consume too much of the Centre's resources (both capital and non-capital, such as PO's time) in order to make them a viable project modality. The decision was made to move away from joint ventures, requiring ASRO to ease itself out of the partnership with PLN. At present, PLN is close to breaking even and the possibility exists for it to turn a profit in the future. The development objectives are becoming possible as well, but both financial/commercial viability and development potential are still highly uncertain at this time, and both new partners and new investors are almost certain to be needed to pull the company from the edge of insolvency onto a solid future basis.

By early 1999, ASRO began negotiations to divest its interests in the company by selling the Centre's equity. The options are to 1) find a local partner to either take on the shares, or to buy PLN outright; 2) sell or give the shares to WIF; or 3) give the shares back to PLN. The last 2 options would both give control of the company to WIF, but the last is preferable in the sense of treating the other shareholders equally. It is currently not clear as to which option will be pursued. Arne Fjortoft is in Colombo at present, looking for suitable partners who can provide missing elements of technologies, contents, applications and management needed to make PLN competitive and capable of pursing development objectives. At this point, both WIF and IDRC have the principal objective of getting PLN the ingredients it needs to survive and develop. The future at this point is very uncertain.

Pan Mongolia

Case Study 2

Methodology

Research for this case study was collected through personal interviews, examination of past correspondence and filed project documents. Interviews were conducted with Randy Spence and Maria Ng of ASRO, and Renald Lafond of IDRC Ottawa. This case study could have been broadened by conducting interviews with staff at Datacom, however the scope of this study has not allowed for this. However, all possible attempts have been made to present a balanced view of the issues involved with this project.

Introduction

Pan Mongolia was originally conceptualized as a model pilot project for setting up national level technical carriers under PanAsia. It is in fact, the only true Public Private Partnership, within the resource expansion activities carried out by ASRO. This project was proposed in 1994, while the PAN PI was still in the planning stages. It was hoped that the lessons learned from supporting Pan Mongolia would provide the framework for future projects of this type. And indeed it has. Of the P3 resource expansion activities carried out by ASRO, Pan Mongolia has achieved the highest success in terms of partnership structure, function and outputs. Many factors converged to make this project a success, much of this having to do with the competency and commitment to development objectives of Datacom, the Mongolian private partner.

The Partnership Process

Datacom Co. Ltd. was originally a state-owned enterprise under the Mongolian governments's former National Informatics Centre, which ran the mainframes for the National Development Board. The Centre was privatized in 1993, becoming an employee-owned company headed by Dr. Dangaawuren Enkhbat. However, Datacom still retained much of its ties to the government through subsides. At the time discussions began with Dr. Enkhbat, Datacom was the only organization providing electronic networking services within Mongolia. It had a small subscriber base of approximately 300 clients located primarily in Ulaan Baatar. The subscribers were mostly from government agencies, private businesses, non-profit organizations and individuals. The services offered included limited e-mail and bulleting board services, international PC-Fax service, and a proposed Internet gateway.

Developing the Project

Discussions began in mid-1994 between Dr. Enkhbat and ASRO looking at the possibility of receiving support for expanding their Internet networking services to include international connection, and for infrastructure building in Mongolia. Although receiving government subsidies at the time, Datacom was hindered in its expansion efforts due to low capacities for capital investment in hardware, software and human resources. Dr. Enkhbat saw increased networking capacities in Mongolia to be a priority due to the remote location of the country and the vast distances between cities. One of the main barriers to increased communication with other countries and information sources - notably the WWW - was the high rates for international telephone calls, driving up subscription rates to the e-mail service. Dr. Enkhbat was particularly interested in pursuing development oriented objectives of increasing access to information in the country, to facilitate national development. He had many contacts int he NGO sector in the country, and was eager to support their work through networking activities. Maria Ng and Paul Wilson (consultant) traveled to Ulaan Baatar to discuss the proposed project.

In October, 1994 the Pan Mongolia PS was approved for CAD $98,000 for one year. The general objectives of the project was to establish a country-level networking pilot-project as a possible operating model for Pan Asia. Specifically, the grant was to upgrade Datacom's technical infrastructure for enhance national level electronic networking services and connectivity to international networks; to establish various forms of linkages and partnerships for future collaboration in research, networking and content building. The grant was under CAD$100,000 and approval was made at the ASRO level.

Project Issues

From October 1, 1994 to October 1, 1995 Pan Mongolia was successfully carried out by Datacom, meeting the project's objectives. A six-month project extension was granted without supplementary funds, with a revised completion date of March, 1996. This was to allow for completion training activities.

In November 1995 a request was made for supplementary funds by Dr. Enkhbat to carry out a planned programme/system of user support and training due to the impending shift from the UUCP dial up line to a 128K leased line and full Internet services. Funding of CAD$30,000 were offered by ASRO to support training activities. However these funds were to be made as an equity investment in Datacom, with the shares held in the name of the Centre. The basis for this decision was the Centre's experimentation with resource expansion activities (actively seeking low-risk, low-cost joint-venture situations with the prospects of good returns), and the opportunity afforded by Datacom/Pan Mongolia as a very low risk investment. Datacom responded positively, and suggested instead, the formation of a joint venture company with the Centre due to Mongolian regulations regarding foreign investment.

The Business Partnership

Questions were raised by the Centre regarding the possible legal consequences of IDRC holding equity shares in a joint venture company, in relation to: non-profit tax status, country agreements, liability, bankruptcy, etc. Serious doubts were raised by the Centre as to whether this was the direction IDRC should be moving towards. What would the implications be from the generation of revenue on the overall IDRC programming goals? However, the general feeling at the Centre was that forming a joint venture partnership with a Mongolian company for the delivery of Internet services and content building would be a positive step for IDRC's experimentation with resource expansion methods. Some believed that the Centre could risk the CAD$30,000 investment for the sake of learning about a new funding modality and for furthering access to information in Mongolia. Furthermore, the revenue generated from the investment would be directed towards funding other development initiatives in the country, allowing for expanded project capacities in other areas of benefit to the country.

It was determined through consultation and analysis that there was nothing in the IDRC Act that would restrict the Centre from generating a profit, own shares, and/or be a member in a non-share capital corporation. The question remained regarding the legal liability of the IDRC directors and officers, should the Centre be faced with litigation.

A proposal was presented to SMC in February, 1996 detailing the proposed equity investment in a joint venture company to be formed between Datacom and the Centre. The company was to be a private limited entity, as to reduce IDRC's liability. Shares in the company were to be split, with Datacom owning 80%, and IDRC owning 20%. The supplementary funding was re-structured to include the creation of a "Multi-media Centre" that would prepare infrastructure and test the methodology for the development of local information resources and dissemination through multi-media forms. As result, the funding was increased to CAD130,000.

Equity

By August, 1996 a decision had still not been made regarding IDRC holding equity shares in a private company. ASRO decided to go ahead with the investment, with Datacom holding the shares in trust for IDRC until a time when a clear position was made by the Centre on this issue. After further discussions, supplementary funds of CAD$130,000 were approved, with an agreement sent to Datacom in February, 1997. The agreement stated that after a 12 month period, Datacom would make an offer to the Centre to transfer CAD$85,000 of the funds into an equity investment in the company. An option was stated for Datacom to hold the equity in trust for up to 24 months pending a decision by the Centre to take up the equity. If after 36 months, the offer was not taken up, then Datacom would be under no obligation to the Centre.

Project Developments

The project successfully went ahead for the next twelve months. In January, 1998 Dr. Enkhbat informed ASRO that the Mongolian government was seeking tenders for Internet service in rural areas of the country. This would be a very large and lucrative contract to secure, and would require financing of approximately USD$1 million over three years. Datacom was seeking external investment and requested a further USD$200,000 (whether as increased equity or soft loan) from IDRC to make the bid. The request was met with positive reaction from the Center, with an immediate response to approve the funding and seek other possible investors for the contract (venture capital, bank loans, etc.). The objective of increasing access to information in the rural areas of Mongolia offered a clear development focus. The research goals would be met through the testing of satellite hardware for rural connectivity in Mongolia. Datacom made the bid and was granted the contract in April, 1998.

At this point, the project supported by the initial funding was nearing its completion date. A decision was required as to whether the CAD$85,000 should be converted into equity. As the Centre had not yet articulated a policy on Public-Private Partnerships, and was becoming more definitely negative on joint-venture participation, ASRO decided not to convert the funds into equity, but rather as a regular grant. The new CAD$250,000 would be developed as Phase II.

Phase II

As the proposal for Phase II was being developed, questions were raised as to whether it would pose a problem to provide 250k as a straight-grant to a private company under IDRC policy. The initial reaction from the Centre was that it should not be a problem to award the grant to a private company, due to the strong development objectives of the project, and the unlikelihood for cost recovery due to the non-commercial nature of the project. IDRC funds would be used for testing experimental satellite technologies for rural connectivity. The funding was approved in August 1998. The MGC was signed soon after

However, during discussions regarding this issue, a Centre resolution was discovered from 1990 that states that when funding is granted to private company, there must be an attempt to generate revenues that would equal the grant or the project must be approved by the Board. This issue was revisited in September, after the funding had already been appropriated.

After looking into the matter carefully, it was determined that as this was a Board resolution it would have to be abided by. The project would therefore, either have to be approved by the Board as an exception, or an amendment would have to be made to the MGC requiring Datacom to invest profits generated from the funding into local institutions up to the amount of the grant. Datacom agreed to amend the MGC, stating that Datacom would repay the grant by providing equipment and services to three scientific institutions in Mongolia. The amendment to the MGC was signed at the end of August, 1998.

Phase II continues to achieve the high results that were evident with the initial project.

Pan Vietnam

Case Study 3

Methodology

Research for this case study was collected through personal interviews, examination of past correspondence and filed project documents. Interviews were conducted with Randy Spence and Maria Ng of ASRO, and Renald Lafond of IDRC Ottawa. This case study could have been broadened by conducting interviews with staff at IOIT, however the scope of this study has not allowed for this. However, all possible attempts have been made to present a balanced view of the issues involved with this project.

Introduction

Pan Vietnam was initiated in 1995 as one of the first projects under the PAN objective of establishing national-level technical carriers in various developing countries of Asia. The objective of this project was to strengthen and enhance already existing ICT networking capacities in Vietnam, targeting the academic and NGO communities. This resource expansion activity focused on the provision of a recoverable grant to Vietnam's Institute of Information Technology (IOIT). The grant was to be repaid in installments with the expected revenues generated from providing ISP services in various cities and remote locations. The project was delayed due to government regulations on the side of the Vietnamese partners.

After three years, this project was re-initiated in late 1998, with funds granted as a recoverable loan. Although this project is not an Pubic Private Partnership (P3), it can provide valuable lessons in working with public sector partners on ISP initiatives in developing countries.

The Partnership Process

Discussions began in late 1994 between ASRO and IOIT, with receipt of a proposal from the latter for supporting Internet infrastructure in Vietnam. IOIT was established in 1993 under the Ministry of Science, Technology and the Environment (MOSTE). IOIT had been receiving support from the Australia National University (ANU) for the connection of a UUCP link for NetNam -- an ISP-type service for the NGO community and private users. NetNam was partially funded by revenues generated through Internet service provision. ANU's funding, the basis of NetNam's capital, was scheduled to end in late 1994. IOIT was therefore actively seeking alternative sources of funding and contacted ASRO in this regard. PanAsia Programme Officers (PanAsia was just being launched at this point)later visited Hanoi to gain a general overview of the various ICT initiatives in the country, and to discuss partnership possibilities with various entities.

Project Development

At the time, and until recently, all ICT networking projects were operated by Vietnamese government departments and bodies. Government regulations did not allow for foreign ownership of ISPs, or non government-sanctioned ISPs operated by the private sector.

The project development stage was quite straight forward. After discussions, a proposal was drawn up by ASRO to provide funding to NetNam for the establishment of an international leased-line, and strengthening of its Internet service by upgrading technical hardware and software (offering dial-up service and UUCP), and extending service to other urban areas and remote facilities. The international leased-line, and other connections, were to be made through a contribution by Australian Telstra. In March 1995, PanAsia offered IOIT a recoverable grant of CAD$278,000 to cover projected costs for the first year of operation, with condition that it be repaid over a three year period from profits generated, with no interest charged. Repayment was only required if there was a cash surplus. There were no restrictions placed on NetNam, through IOIT, for forming any other partnerships to bring in further funding. By the end of April 1995, IOIT accepted the offer of funding and the project was set to go ahead.

This was the first time the Centre decided to use the recoverable grant modality. Discussions with Ottawa began on how to operationalize this into a MGC. The decision was made to use the recoverable grant modality for a variety of reasons. First, it was felt after careful assessment of the financial projections for NetNam, that after a five year period it would be generating sufficient revenue to repay the grant in full. This was following along the Centre objectives at the time of pursuing resource expansion activities.

Centre Issues

Questions were raised by SMC as to the need for IDRC funding when this was expected to be a profitable venture, and why ASRO was not asking for interest to be repaid. The reasons for these requirements was that ASRO felt that without IDRC seed funding to NetNam, Internet development in Vietnam may have been pushed back for some time, hindering access to information in the country. Second, it was felt that the recoverable grant modality would encourage NetNam to focus on generating profit, and thus ensuring sustainability of the Internet service. Third, interest was not charged because if IDRC was to generate profit from interest, this would amount to a entirely new financing modality, one that ASRO at this time was not interested in pursuing. Should interest be paid to IDRC, the funding would be considered a "loan" rather than a "grant". Furthermore, government regulations in Vietnam stated that for a foreign entity to receive profit from any partnership, a joint venture company would have to be formed. As noted earlier, foreigner ownership of ISPs was not legal at this time.

Pan Vietnam was approved by SMC on June 30, 1995. And the MGC was sent to IOIT for their signature in July 1995.

Delays in Project Start-Up

The project encountered problems when an application was made to Vietnam Telecommunications International (VTI) for a 64kpbs line. After discovering that the line would be used for a profit-making venture, VTI announced that they wanted to retain a monopoly on providing telecoms and related value added service. Government clearance could not be granted for the project until a decision was reached. This halted signature of the MGC until further discussion occurred. Randy Spence traveled to Hanoi to discuss this development with the relevant authorities in the Vietnam government ministries. There were various reports and conflicting information released as to the direction of Vietnam's direction for ICT infrastructure development and what bodies would be in charge of its implementation. The Vietnam government did not come to a decision on this issue, with discussions dragging on for over two years. The basis of the delay was that the different interests and viewpoints were competing within the government for control of ISP activities, enormously delaying the process of formulating a national policy. As a result, the recoverable grant to NetNam was put on hold indefinitely.

Communication with NetNam continued over the next three years, keeping ASRO updated on the latest developments on the Vietnamese side. No support in any form was able to be extended to NetNam until government clearance could be granted.

Government Policy Development

By January 1998 the project was about to be terminated as the funds had been appropriated for over three years without expenditure. Just before this was about to happen, the Vietnamese government solidified their position, deciding to allow limited and selected foreign involvement in ISPs. It was decided to go ahead and revise the previously drafted MGC for IOIT's signature.

The original project objectives and substance remained valid. ASRO was confident that this was a solid project worth supporting, due to the ICT needs within Vietnam. It was decided to change the repayment scheme slightly, requiring NetNam to repay 80% of the recoverable grant -- making 20% a straight grant to the recipient. With approval from Ottawa, the project was extended another three months for solidification by both ends.

In June 1998, approval came from MOSTE for the project, granting government clearance. The MGC was signed in early July 1998 and the project went ahead as orignially planned.

A very interesting point to note: in March, 1999 the Vietnamese government decided to privatize NetNam, making it a spin-off ISP company of IOIT. This development in effect makes Pan Vietnam a Public-Public Partnership that turned into a Public-Private Partnership in the end.

ADEPT
Case Study 4

Methodology

Research for this case study was collected through personal interviews, examination of past correspondence and filed project documents. Interviews were conducted with Randy Spence and Maria Ng of ASRO, Renald Lafond of IDRC Ottawa, and project partner, Tony Hung. Initial information was gathered and observations made at the meeting held in Singapore in March, 1998. All possible attempts have been made to present a balanced view of the issues involved with this project.

Background

Distance Education (DE) emerged as a priority from the first Pan Partner's Meeting held in Mongolia, and in consultation with a number of advisors (ICT R&D Committee meetings) in 1997. There are several reasons underlying PAN's development of English language DE initiatives. First, English is identified as a developmental problem of high order in the region because the diversity of Asian languages makes the English language the only language of communication across nations in Asia for education, diplomacy and trade, science and technology. There are concerns expressed by governments and current Asia media that the generally low standard of English proficiency is making it difficult for the young to assimilate and be part of the progress made in science and technology. English is seen as a language of common use between the various ethnic groups that compose Asia. This extends to the research sector, where the acquisition of better English pronunciation and usage can allow researchers to access diverse sources of information on wide-ranging topics[2].

The decision to develop this project as a joint venture operating company was made due to the fact that ASRO saw this as an opportunity for experimenting with both the business partnership arrangement, and a cutting-edge technological project. ASRO also felt that this was an excellent joint-funding opportunity that would possibly lead to the formation of several strategic alliances on several fronts.

Quick market surveys done later - in mid-1998 in 17 countries in Asia by PAN partners - confirmed the initial premise of the need and potential for more and better DE English courses in all countries surveyed, and project commercial viability for a group of 9 countries.

[2]The basis for this case study is derived from a memo on Distance Education, written by Randy Spence. Used with permission.

Initial Partnership(s) and developments

In early 1997, Maria Ng began discussions with the Chinese State Science and Technology Commission (SSTC) regarding the possible interest of Chinese institutions in distance education. They responded positively, indicated that English pronunciation, and scientific English teaching in the universities, were top priorities. As a result, a meeting in Beijing was organized with six major universities and two secondary schools for November 1997.

IDRC brought four consultants to Beijing, familiar with English teaching and distance education technologies. The consultants were Dr. Tony Hung (Linguistics/Distance Education), Andrew Crilly (New Education Media/Technology, Tommy Chen (Internet Networking/Systems Integration) and Chin Saik Yoon (Publishing/Marketing/ Business Development). At this point, each of the consultants had expressed interest in becoming a partner in a proposed distance education venture with IDRC and other partners.

Concurrent to this, ASRO had also been speaking with individuals from the Singapore S-One initiative, in forming a partnership for the delivery of distance education services over the Internet. S-One is a joint effort by a consortium of government boards dealing with IT, Telecoms and business development. The purpose of S-One is to set up an island-wide broad bandwidth network, that allows for multimedia streaming over a broad range of service delivery. Discussions with S-One concerned the development and introduction of distance learning modules aimed at the Asia and Pacific region. It was to initially target China and Bangladesh, as pilot projects. The initial delivery points in the targeted countries would be through the national education system in China, and the informal sector's public access centres in Bangladesh. As discussions proceeded, the Economic Development Board became the potential sponsoring/investing institution in Singapore, and it became clear that the Singapore Government was interested in the initiative only as a commercial venture. This further pushes ASRO in the direction of a commercial P3.

Project development

The meeting in Beijing was to bring together all players at this point, to discuss the project concept and programme. What emerged from the meetings in Beijing, and further developed over the course of the following year, was the formation of a holding company for the delivery of English language DE over the Internet. The end goal of the meetings was to be the development of a business plan, and develop the phonology and phonetics components. Nancy Smyth from the PBDO was also in attendance at the meeting to assess and advise on the partnership prospects.

In October, 1997 Mark Schofield was engaged to consult on various aspects of ASRO's planned English

Language DE activities. This included the preparation of a report detailing the Canadian DE landscape and the latest technologies being used, and the global demand for English language teaching.

The Beijing meeting set in motion IDRC-supported activities - which continue to the present - to complete research necessary for the design of two DE modules - Module 1 on English pronunciation and Module 2 on improving scientific usage of English in Chinese universities. Both modules are targeted for the Internet, but also with CD and other technologies as options. Discussions proceeded with SSTC, and one of its state enterprises - the China International Science Centre (CISC) - on collaborative arrangements for producing and distributing these modules in China, including joint-venture plans.

At this point, the project was beginning to be developed as an operating software/technology company owned by IDRC and the other private partners mentioned above. It would enter into joint venture agreements with national level entities in the Asia-Pacific region. This would allow for country-specific agreements for the development of DE programming.

A second meeting was held in Dhaka, Bangladesh to assess the environment for executing a pilot project in English DE. The meeting was held in conjunction with two universities, and Dr. Muhammad Yunus of Grameen Bank.

Changing Partnership Structure

The original partnership formation with the consultants was disbanded by December, 1997. Tommy Chen left due to the fact that he felt that he did not have the resources to commit to the partnership. Chin bowed out for personal business reasons. After identifying several conflicts with Andrew Crilly, he left the partnership as well. The one partner who has remained in the picture is Dr Tony Hung, who is an internationally prominent professor of linguistics, education and distance learning.

By February, 1998 there was need for a significant re-structuring of the partnership. As the reports on English DE modules over the Internet from both Mark Schofield and Tony Hung provided a very positive projections for this initiative, the decision to go ahead with the project was taken. In Singapore, ASRO delved into what was involved in creating a company to handle the Centre's side of the collaboration - and possibly to adapt and market the modules in other countries, as there appeared to be large potential markets elsewhere. The company would be developed under the name of ADEPT (Asia Distance Education Products and Technologies).

Cable Media Pvt. Ltd, a Singaporean Multimedia company was approached to explore partnership possibilities. The company was a small start-up, but showed significant interest in investing in a joint venture of this nature. ASRO had previously worked with Cable Media on a contractual basis for some of the Pan Asia Networking website development.

An RSA was written in February, 1998, resulting in the appropriation of CAD$150,000 for the development of English language DE activities in China. The funds were to cover the costs of both the formulation of the joint venture partnership, and the language modules.

Business Formation

In March, 1998 a meeting was planned in Singapore to bring together the proposed joint venture partners, including the Chinese SSTC partners, Dr. Tony Hung, Cable Media and IDRC/ASRO. The objective of this meeting was to advance work on course materials (the modules), the technology to support them and the business arrangements. On the advise of Ottawa, Arthur Andersen Business Consulting was contracted to write-up a business plan for the formation of a proposed DE company. The Law firm Stikeman Elliott was engaged for legal guidance.

This meeting proved critical in identifying both possible strengths of the joint venture and potential weaknesses. Discussions revealed divergent opinions on the proposed formation of the business structure from all parties. Issues arose regarding interests and shares in the venture. Other partners felt that Cable Media demonstrated that they did not have enough experience in this area at this time to be a strong partner. In effect, they were pushed out of the venture all together. Critical to the Centre in the partnership discussions was to strike a balance between the development objectives and the commercial nature of the venture. This caused issues to emerge concerning voting rights and division of shares in the proposed ADEPT holding company. However, discussions concerning the course materials and modules were encouraging. All parties attending the meetings were confident that the delivery of English language DE over the Internet was a viable business venture.

An MOU was signed between ASRO and SSTC at the time of the meeting to explore the formulation of a joint venture for delivery in China and for the structuring and testing of the two language modules. ASRO appropriated CAD$41,000 (out of the $150,000) for these activities.

Emerging Constraints to the Partnership

The preparation of the business plan for China dragged on, due to lack of information provision and related mis-communications and difficulties in relationships with Chinese partners. For this reason, low-cost (USD 500) market surveys in 18 Asian countries were commissioned by ASRO through our PAN and other IDRC partners. ASRO had previously talked in depth with colleagues in Bangladesh and Mongolia, resulting in identification of strong DE priorities in English usage and other fields. A shift in emphasis - toward initially pursuing Module 1 (pronunciation) only, and toward a broad Asian market - took place for this reason, and due to PAN budgetary and project development time constraints. These shifts were also incorporated by Anderson. The draft business plan, received in July, 1998 , indicated that Module 1 was a viable proposition based on projected markets in half of the countries surveyed, with the other half being small but useful supplementary markets.

By this time, Centre views on joint ventures had become negative in practice and ASRO was concluding that forming a joint-venture was more trouble than it was worth. SSTC was no longer involved at this point due to weak communication on both the parts of ASRO and SSTC regarding the direction of ADEPT. SSTC expressed some concerns over the involvement of Andersen Consulting, having felt that the partnership arrangements were a matter to be worked out solely between the parties involved. Module 1 had also proceeded to a point where a new technology was required- which was called EVE (enhanced vocalization engine) which generates the sounds and graphics for representation of correct English pronunciation. Another Singapore company, Pandora, was brought in to do a proof-of-concept phase for EVE, anticipating other future applications, and ASRO negotiated very favourable terms on this basis.

At this point all activities were suspended due to concerns expressed by the Centre over the direction of English language DE policy. A review of all Centre related DE activities was called for. Until a firm decision was made in Ottawa, no further actions could be taken regarding ADEPT. A general explanation was provided to most partners (Dr. Hung, Pandora, Andersen, Stikeman, Chinese colleagues).

A detailed document was written up by Randy Spence and Maria Ng setting out the DE activities to date and the issues that are involved. The outcome was a set of proposed guidelines for the future developments of DE and joint venture initiatives by the Centre. Senior Managers discussed these issues in September 1998 and a decision was made to continue with projects involving DE. However ADEPT would no longer be developed as a joint venture operating company. Rather, partnerships would be formed on the basis of contractual agreements for the delivery of DE. This fit in with the direction of ADEPT at this point, as most of the partnership(s) were either weakened or disbanded all together.

At present, Pandora is continuing with the proof of concept phase. The EVE linguistics software has been developed.

Analysis of Case Study Experiences

The previous case studies provide the framework for an analysis of ASRO's involvement with P3s to date. Although the four projects were developed separately, they each raise interesting issues of concern to the Centre's involvement with private sector partners. Analysis of these projects in terms of their "success"[3] can provide some valuable lessons for consideration when developing future projects involving

[3] "Success" is taken to mean the realization of project objectives, which in each case include both development objectives and financial sustainability, the latter including commercial viability where relevant. Experimentation and learning with resource expansion

P3s. Some important questions to answer include: what partnership model proved most valuable in terms of fulfilling project objectives and ease of partnership arrangements?; what were the specific issues that lent to the project's success?; Which factors led to less successful outcomes?; How does this impact on future P3s within ASRO (and the Centre)?

First, it is important to examine each of the case studies with regards to the two models discussed in the introduction.

California Model vs. Singapore Model

There was no clear decision to develop the projects based on either the Singapore Model or the California model. Rather, the models emerged after many discussions with various interested parties as the projects were being carried out. It is clear now, however, that each of the four case studies fit clearly into one of the two models.

The projects falling under the California Model include both Pan Mongolia and Pan Vietnam. In both these cases ASRO incorporated their objectives into the partnership agreement and the private sector partner was left to carry out the project, with little intervention from ASRO. As well, partners emerged that had the capacities to successfully administer the project. This modality worked especially well with Pan Mongolia due primarily to the strength of the private sector partner, Datacom. In the case of Pan Vietnam, the recipient was another public sector partner - albeit a very capable one - and the project helped create a private company for the delivery of Internet service and access provision.

Both Pan Lanka and ADEPT fall under the Singapore Model. These projects saw ASRO playing more of a lead role in the development and execution. ASRO was not only a partner, but followed an active role, taking on decision-making and administrative tasks. In the case of PLN, this was done because there were no available partners at the time who had the capacities to take a lead role in the project. As for ADEPT, the project did not advance past the partnership development stage, where ASRO took on a lead coordinating role in the development of the partnership and business structure. However, the intention was that ASRO would be an active partner because of the dual possibilities of experimenting with P3s and researching Internet-based DE delivery.

The Issues:

In each of the cases, it is possible to determine relative levels of success reached by the project by examining the issues involved. It is important to examine whether the outcomes determine the overall

---

modalities were also clear objectives.

impact of one model over the other. The overlapping issues of each project include:

1) ***The partners involved.*** In the case of Mongolia, Datacom emerged as a very good candidate from the beginning. Datacom is a private company that is clearly focused on development issues. It was therefore possible to allow them to manage the ISP without compromising the development objectives. A similar situation was present with Pan Vietnam, however with a public partner. In Sri Lanka, the partnership situation was much more complicated. Worldview International Foundation (WIF) is a development communication NGO based out of Norway, with funding from NORAD. Although qualified as an information provider, they did not have the technical know-how to carry out the project. The major obstacle to a successful partnership in the case of PLN was a strained working relationship between WIF and the management of PLN. From the beginning ASRO was called upon to play a mediating role between the two. ASRO therefore, became a much more integral part of the operations than originally intended, providing continual guidance and support. As for ADEPT, ASRO planned on playing a more central role in the development and administration of the project, for the reasons mentioned above.

2) ***Development objectives vs. financial sustainability.*** The main impetuous for developing PLN as a private company was to target the business community as a means of generating revenue to offset costs, thus decreasing dependency on funding. This addressed the concern for providing sustainable Internet service to the research and development community of Sri Lanka. The managing director of PLN has a strong development background. However, low capital and high competition has meant that the majority of customers have, to date, been from the commercial sector. As such, the original objective of creating a network for the research and development community in Sri Lanka has yet to be realized. However, it is worth noting that a few larger scale projects, including the e-mail link in Jaffna, have had considerable development impact in the region. Conversely, the recipient and management of Pan Mongolia, Datacom, is a development-oriented private sector company. Pan Mongolia has therefore been very successful in fulfilling the development objectives of the project. As these two cases reveal, development impact is not always determined by the type of recipient, whether public or private.

3) ***Time.*** In most of the cases a very large amount of Programme Officers' time was spent developing each of the projects. This is largely due to the fact that each project has revealed a distinct set of issues. As there was no official policy to guide the development of P3s, a lot of time has been spent on determining the right course to take with each project. This has led with ADEPT, to large amounts of time spent on consultation with the aim of formulating a joint venture company. The partnership formation was in continual flux, thus drawing out the time taken to develop the business structure. In the case of PLN the cost was escalated due to heightened competition. When discussions initially began with WIF there was one operating ISP in Sri Lanka. By the time the company was operational (2 years later), there were 4-5 competing ISPs in Colombo. Heightened competition led to a severe reduction in the pricing structure of Internet service, thus changing the overall projections initially made regarding expected revenue for PLN. In terms of Pan Vietnam, Vietnamese government policy stalled the original project planned in 1996.

The government decided to restrict ISPs with foreign interests until earlier this year. The funds for the project could finally be disbursed only in June 1998.

5) Ensuring the right fit with IDRC objectives. The original intention with ADEPT was that IDRC would set up a private software/technology development company for DE, which would enter into joint venture agreements with national companies or entities in the region. A tremendous amount of time and effort was spent on determining how to do this under the current Centre policy structure and the multiple needs of ADEPT beyond IDRC's own capabilities. Due to the nature of DE and the need to provide sustained operations after the research component is completed, it was felt that this form of business structure would address these issues. In June 1998 the project was halted due to a call from Ottawa for a review of the project's joint venture intentions, and it's relative emphasis on research and technical assistance. In the end it was determined that the project would continue to be developed, although with a modified operational structure. Lessons learned from the ADEPT experience include that often it is not necessary to enter into a joint venture company to ensure an effective P3. The scaled-down project now emphasizes contractual arrangements between partners on a project basis, obviating the need to set up an IDRC operating company.

Other lessons from ADEPT, concerning the suitability of very applied/action and technology-oriented research were written up by Randy Spence for finalization in Ottawa and circulation, but the finalization was never done. This set of issues is one which fans some strong differences of views in IDRC, and is often thus not made highly explicit.

Measuring Success

Returning to the two models for conducting P3s, it is possible to draw some general conclusions based on the findings from the above-mentioned projects. The two projects that have used the California Model have been relatively successful in terms of the partnership, and return on investment. The Phase 2 supplement to Pan Mongolia was converted to a recoverable grant with re-payment in in-kind contributions of services, training and equipment to local development and research organizations. This decision was made due to the Centre policy that for any grant made to a private company, IDRC must attempt to recover the grant in full. As noted previously, Pan Mongolia has been very successful in fulfilling the development objectives of the project. As mentioned, Datacom is the recipient of a large grant from the Mongolian government to develop Internet access in the remote areas of the country. This will no doubt widen the reach of their impact. Although it is still quite early, it is expected that the recoverable grant to Pan Vietnam will be repaid in full with the development objectives met. In both cases, the recipient partner has exhibited both strong business acumen, and a vested interest in ensuring that the development objects are met. This has contributed, in large part to the success of the projects. Pan Vietnam is continuing smoothly and there is every reason to believe that it's objectives will be carried out successfully.

In terms of the Singapore Model, the two projects that have fallen under this modality have met with less successful results. This can be largely contributed to the fact that ASRO and the Centre are at present not set up to meet the challenges of either being an active partner in joint venture company, or initiating an operating company. The Singapore Model is very labor intensive, requiring time to both fully develop the project, and to oversee the operations on an ongoing basis. It also tends to be very finance-intensive as IDRC is a principal funding partner. The Centre policy framework for initiating Singapore Model P3s is becoming more explicit and much more cautious, recognizing that IDRC does not have the resources - notably professional and management time - to support the necessary decision making structure and insolvent in management or direction of initiatives. In terms of ADEPT, the original intention of setting up an operating company under IDRC was abandoned due to complications with the business modality. The project will continue, in a scaled down version. Proof of Concept is now being initiated for the DE technology and software. Future collaboration with national entities in Asia and elsewhere will be on a contractual basis only. Several Asian and Canadian institutions are interested in using the EVE technology, and some resource expansion in the form of royalties or similar arrangements may emerge. PLN has also provided some major challenges for ASRO and the Centre. A large part of this can be contributed to a weak partnership structure. The strained working relationship between the second funding partner and the management has meant that ASRO has had to play a much more involved role than they had originally intended. This, combined with the growing competitiveness of the commercial ISP sector in Sri Lanka has led to questions concerning IDRC's future involvement with PLN. Decisions are pending on the status of IDRC's shares currently held in trust, and the future direction of PLN under IDRC.

Summary of Lessons Learned from PanAsia P3 Experience

1) Carefully determine if a private sector partner is required for the development research initiatives, and the objectives to be achieved by the partnership;

2) Choose the private sector partner very carefully:

a) Those with development objectives and track records are likely to prove better partners;

b) Those with operating businesses and experience will be more reliable;

c) For most endeavors, a needed range of capabilities includes management, technical strength, finance and marketing/distribution;

3) Avoid joint ventures unless this modality is essential or absolutely appropriate - IDRC is generally not set up to design, structure and participate in joint ventures;

4) If a joint venture is the right mode, the 'California Model' is preferable for IDRC - partnering with experienced private partner(s) who manage the venture - apparently because IDRC is not able to provide the resources needed to make the Singapore model work;

5) P3s on a contractual basis, for defined projects, appear in most cases to be preferable, for IDRC, to joint ventures;

6) Both professional staff and financial commitments need to be minimized as much as reasonably possible in P3s ; and

7) P3 policy and operational guidelines will be essential in improving the P3 experience, selection, planning, performance and benefits - and in avoiding unnecessary loss of scarce time and funds.

Project	**Original modality**	**Present modality**
PanLanka Networking Pvt. Ltd.	(1995/7)Joint venture private company formed between two public sector agencies (IDRC/WIF) and a private consultant. IDRC funding turned into equity shares (held in trust by WIF for three years).	(1998)Supplement grant made due to capital problem. IDRC will divest shares. Decision pending on equity recipient.
Pan Mongolia	(1995)Grant made to Datacom Co. Ltd. IDRC has option to turn funding into equity shares. Phase 1 supplement is now a recoverable grant.	(1998)Phase 2 - recoverable grant, re-payment in kind to local development institutions.
Vietnam	(1995)Recoverable grant on hold due to government of Vietnam regulations on foreign ISPs.	(1998) Grant - large portion is a recoverable grant to be repaid in USD - smaller portion is a straight grant.
ADEPT	(1997/98) IDRC discusses forming a operating company to enter into various joint venture agreements with other companies from the region. Centre policy determines that formation of a private company is not possible.	(1998) Grant to develop pre-project, with contractual arrangements governing contributions, IP, returns, etc.