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GRAMEENPHONE REVISITED: INVESTORS REACHING OUT TO THE POOR

This document on the GrameenPhone Initiative in Bangladesh is submitted to the POVNET for INFORMATION.

Some of the key findings were presented at the First Workshop of the Infrastructure for Poverty Reduction Task Team, 29 march 2004, as part of its agenda item "Innovative Components for Effective Poverty Reduction: Project Examples" (Room Document No. 4).

This document is also available via our ICT website (www.oecd.dac/ict).

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Note to the readers

The data used in this report was publicly available at the time of the research (September 2003 – March 2004).

Due to the rapid development of mobile phone business, the readers are strongly encouraged to check the most current data through information sources listed in this report.

ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
ARPU	Average revenue per user
ASEAN	Association of South-East Asian Nations
BDT	Bangladesh Taka (ISO currency code)
BTRC	Bangladesh Telecommunication Regulatory Commission
BTTB	Bangladesh Telegraph and Telephone Board
CBF	Capacity Building Facility
CDC	Commonwealth Development Corporation
CDMA	Code Division Multiple Access
CEO	Chief Executive Officer
CIDA	Canadian International Development Agency
CTO	Commonwealth Telecommunication Organisation
DAC	Development Assistance Committee
DOI	Digital Opportunity Initiative
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GNP	Gross National Product
GSM	Global System for Mobile Communications
IDRC	International Development Research Centre
IFC	International Finance Corporation
ICT	Information and Communications Technology
<i>InfoDev</i>	World Bank's Information for Development Program
IT	Information Technology
ITU	International Telecommunication Union
JBIC	Japan Bank for International Cooperation
JETRO	Japan External Trade Organization
JICA	Japan International Cooperation Agency
MDG	Millennium Development Goal
MFI	Micro-finance institution
NGOs	Non-Governmental Organisations
NORAD	Norwegian Agency for Development Cooperation
NORFUND	Norwegian Investment Fund for Developing Countries
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
POVNET	OECD's DAC Network on Poverty Reduction
RPU	Revenue per unit
TMC	Telenor Mobile Communications AS

SME	Small and Medium-sized Enterprise
SPC	Specific Purpose Company
USD	United States Dollar
VoIP	Voice over the Internet Protocol
WSIS	World Summit on the Information Society
WTDR	World Telecommunication Development Report

EXECUTIVE SUMMARY

4. GrameenPhone is a joint-venture telecom company set up in Bangladesh by Grameen Bank – with capital from the Norwegian company Telenor and loans from donors¹ – to provide mobile telephony to its subscribers. Its “Village Phone Programme” provides a remarkable example of how innovative private-sector initiatives can work to stimulate development even in conditions of considerable poverty.

5. Since 1997 the Village Phone Programme has provided some 45,000 telephones to 39,000 villages in Bangladesh, bringing access to the telephone networks to some 70 million people.

6. The formula is simple: a subscriber – usually a woman, hence the label “Village Phone lady” – borrows around \$350 from Grameen Bank and repays the loan by selling phone services to her fellow villagers who, usually for the first time, can enjoy the economic and social benefits of telecommunication contact with the outside world.

7. The Village Phone Programme produces fair returns on GrameenPhone’s investment: although Village Phone operators account for only 3.5% of the company’s total subscriber base (of over 1.3 million) they provide 15% of its total gross revenues.

8. With 700 base stations GrameenPhone already offers coverage to 49 of the 64 districts which make up Bangladesh. The company proposes to expand the number of base stations to 800 so that it can offer coverage to the entire country.

9. In 2002 GrameenPhone was the largest source of FDI in Bangladesh; as of May 2003 the company had invested over US\$ 230 million in the Bangladeshi economy. GrameenPhone is the second-largest corporate taxpayer in Bangladesh, having paid US\$ 284 million in taxes between its inception in 1997 and May 2003.

10. The Village Phone model has now been replicated in Uganda, with a like degree of success (with usage 25% higher than initially predicted, well above a sustainability baseline or break-even point). Studies are now underway to see where else a similar Village Phone programme could help meet development objectives.

11. The “marriage” of FDI and ODA in initiatives such as the Village Phone Programme meets the objective of global partnership as expressed in Target 18 of the Millenium Development Goal 8: “In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technologies”. It is also a near-ideal illustration of the mandate of the DAC Network on Poverty Reduction (POVNET) to bring economic growth to developing countries, not least through involving public-private partnerships to deploy information and communication technology that helps stimulate the move towards a knowledge-based economy.

¹ . For the ease of reading, donors in this report include bilateral development agencies and international finance institutions (IFIs).

INTRODUCTION

All stakeholders have an important role to play in the Information Society, especially through partnerships.²

12. Since 1997 the widely acclaimed “Village Phone Programme” of GrameenPhone – a joint-venture telecom company, set up by Grameen Bank, with foreign (Norwegian) capital³ – has provided telephones to 39,000 villages in Bangladesh, bringing access to the telephone networks to some 70 million people. This extraordinary achievement is rightly cited in the development literature as a success, an innovation which managed to bring the Information Society to the remotest and most unlikely places of the country.

13. Most studies of the initiative have focussed on the socio-economic benefits that new technology such as cell phones can bring rural communities, giving the impression that the programme is philanthropic in intention, presenting GrameenPhone as a not-for-profit organisation devoted to providing connectivity for the poor. This assumption does not reflect reality. GrameenPhone is above all a business. The company provides a good example of a multi-stakeholder partnership, as recommended in the Plan of Action of the World Summit on the Information Society (WSIS) held in Geneva in December 2003.⁴ It highlights the role of the private sector not only as a market player but also as an effective and dynamic stimulator of development.

14. This case-study aims at presenting the various stakeholders involved in GrameenPhone, identifying their respective role, responsibilities and interests, briefly analysing the way these different institutions interact, and assessing how much the experience can be replicated in other countries to bring similar benefits there.

² World Summit on the Information Society, Plan of Action, 2003:
www.itu.int/ws/s/documents/doc_multi-en-1161|1160.asp.

³ GrameenPhone is therefore classified as an FDI (foreign direct investment) project in the Bangladeshi national accounts.

⁴ *Loc. cit.*

BUILDING A STRATEGIC PARTNERSHIP

Background: The Telecommunications Sector in Bangladesh

15. Bangladesh continues to have one of the lowest telephone penetration rates in the world: the “teledensity” rate (the number of fixed-line connections and cellular handsets per hundred of the population) was 1.32% in 2002, well behind most of its neighbours in Southern Asia (Table 1; Figure 1).⁵ That figure is a national average: the situation is even worse in the countryside. Non-Dhaka and rural teledensity was estimated to be only about 0.19% in 2000 – and approximately 80% of the population lives in rural areas.⁶

16. The dominant operator, the Bangladesh Telegraph and Telephone Board (BTTB), cannot keep up with demand: the start-up cost of a fixed line is the highest in South Asia, and the average waiting-time for installation can be between five and ten years. Although local calls are charged at an unusually low rate, prices for long-distance and international calls are high. Bangladesh has competition only in the local loop: internal long-distance and international calls remain a monopoly of BTTB.⁷

17. There are five nationwide telephone operators in the country, the state-owned fixed-line telephone operator (BTTB) and four mobile-phone operators: GrameenPhone, Aktel and Sheba, which operate GSM networks, and CityCell, which has a CDMA network.

18. Between 1995 and 2002, the share of the Post and Telecommunications sector in Bangladeshi GDP almost doubled, from 0.68% to 1.30%.⁸ Yet difficulties remain. One of the worst bottlenecks of the telecommunications sector is the lack of interconnection capacity to the main fixed network run by BTTB. That has forced mobile operators to offer only mobile-to-mobile services, which gives a majority of their customers access to other cellular operators. A second bone of contention is the unsettled issue of revenue-sharing between the mobile operators and BTTB.

19. In October 2002 the Ministry of Science and Information & Communication Technology formulated a National ICT Policy to help the country in its transitional phase from an agricultural to a knowledge-based economy.⁹ The achievement of this ambitious objective will require further reform in the telecommunications sector – a fact the government of Bangladesh demonstrated it recognised with the establishment of the Bangladesh Telecommunication Regulatory Commission (BTRC) in January 2002. The reforms will include the restructuring of BTTB, whose current low performance is seen as a central hurdle in the implementation of the National ICT Policy. The government has also launched a number of

⁵ ITU (2003).

⁶ *World Telecommunication Indicators 2000/2001*, ITU, Geneva, March 2001; and *2001 World Development Indicators*, The World Bank, Washington D.C., April 2001.

⁷ J. Camp and B. L. Anderson (1999).

⁸ Government of the People’s Republic of Bangladesh, Ministry of Finance (2003).

⁹ Details are available online at www.bccbd.org/html/itpolicy.htm.

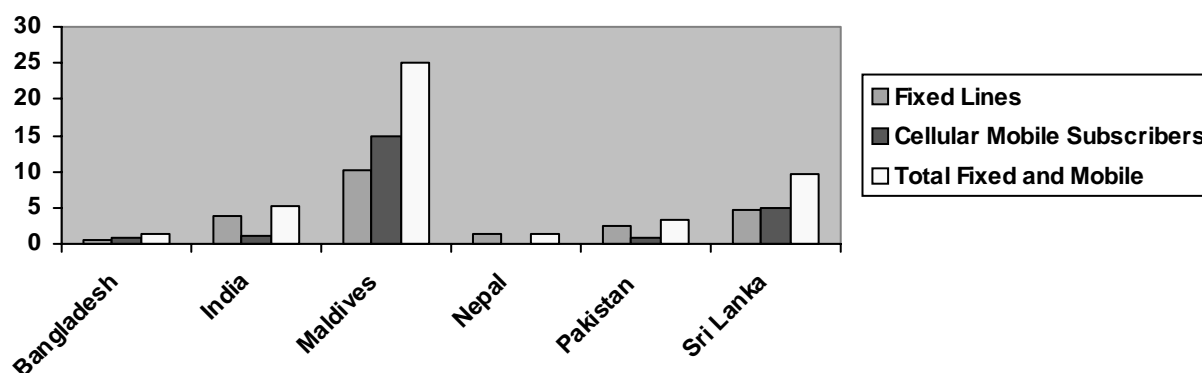
initiatives to build a strong mass of ICT-skilled professionals to develop the software and ICT-enabled services market.

Table 1. "Teledensity": Fixed Lines and Cellular Mobiles per 100 Inhabitants, 2002

Country	Fixed Lines	Cellular Mobile Subscribers	Total Fixed and Mobile
Bangladesh	0.51	0.81	1.32
India	3.98	1.22	5.20
Maldives	10.20	14.91	25.11
Nepal	1.41	0.09	1.5
Pakistan	2.5	0.85	3.35
Sri Lanka	4.66	4.92	9.58

Source : World Telecommunication Development Report, ITU, 2003.

Figure 1. "Teledensity" in Southern Asia, 2002



Source : World Telecommunication Development Report, ITU, 2003.

GrameenPhone's Strategy and Rapid Expansion

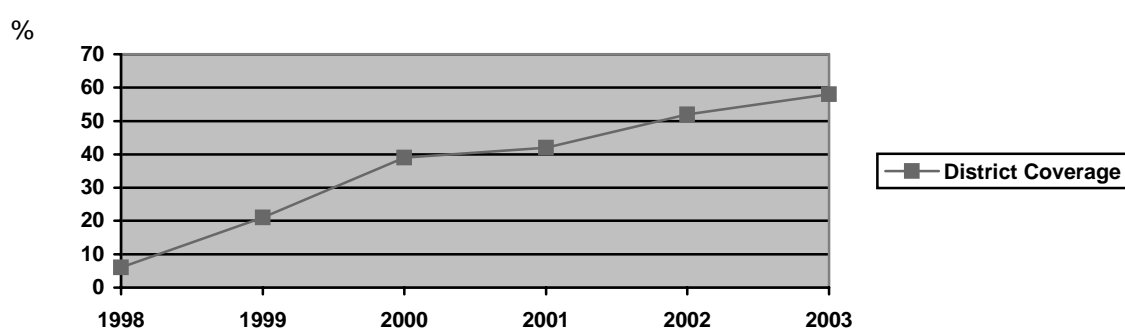
GrameenPhone expansion

20. Grameen Bank is a micro-credit finance institution founded in Bangladesh in 1976 by Professor Muhammad Yunus. It is known around the world for its success in generating micro-enterprise start-ups by extending small amounts of credit to poor entrepreneurs thought by more traditional banks to be uncredit-worthy ("grameen" means "village" in Bangla).¹⁰ At the initiative of Grameen Bank, two telecom companies were created: Grameen Telecom, a not-for-profit company which administers the "Village Phone Programme", and GrameenPhone Ltd., a for-profit telecom-operator company which was awarded a nationwide GSM mobile-phone license. Grameen Telecom holds 35% of GrameenPhone Ltd. and is also its official dealer.

¹⁰ For more information, cf. Professor Yunus' autobiography, *Banker to the Poor*, University Press, Dhaka (also Aurum Press, London, and Public Affairs, New York), 1998, and the website of the Grameen Bank, www.grameen-info.org.

21. GrameenPhone has a dual purpose: to make an economic return on its investments and to contribute to the economic development of Bangladesh by providing connectivity to both urban and rural areas.¹¹ In an attempt to attain these ambitious objectives, GrameenPhone has since its inception focused on ensuring a wide and high-quality coverage across the country, well beyond urban areas (Figure 2). In 1997, GrameenPhone took the lead over its competitors when the company signed a long-term agreement with Bangladesh Railway to lease and rehabilitate the 1,800-kilometer fibre-optic “backbone” network spread across the country.¹² Furthermore, the company has continuously expanded and strengthened its network of base stations (Figure 3).¹³ This rapid expansion of the network has largely contributed to the success of GrameenPhone, which with more than 1.3 million subscribers has become the largest national provider of telecommunication services, well ahead the 700,000 fixed-lines provided by BTTB (Figure 4). GrameenPhone’s fast development is also reflected in the constant growth of its personnel (Figure 5).

Figure 2. GrameenPhone, District Coverage, 1998–2003 (%)



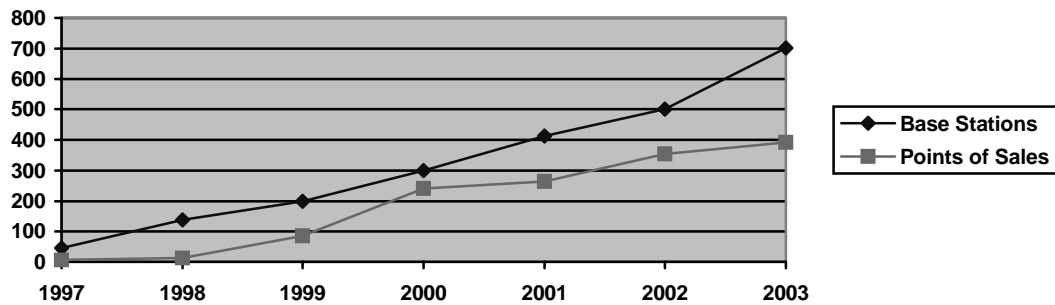
Source : GrameenPhone, *Annual Reports*, 1998–2002; GrameenPhone, Presentation to the Investors’ Forum, Kuala Lumpur, 8 January 2004 (www.telenor.com/ir/presentations/gp).

¹¹ *Annual Reports*, GrameenPhone, Dhaka, 1998–2002.

¹² This network, originally financed by NORAD, could potentially be extended to 2,600 km.

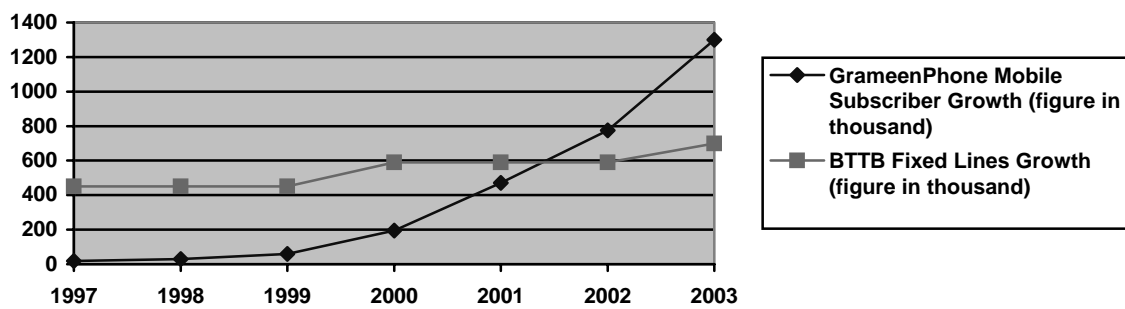
¹³ Cf. Annex 2, p. 30 or an indication of GrameenPhone’s coverage in 2002.

Figure 3. GrameenPhone Base Stations and Points of Sale, 1997–2003



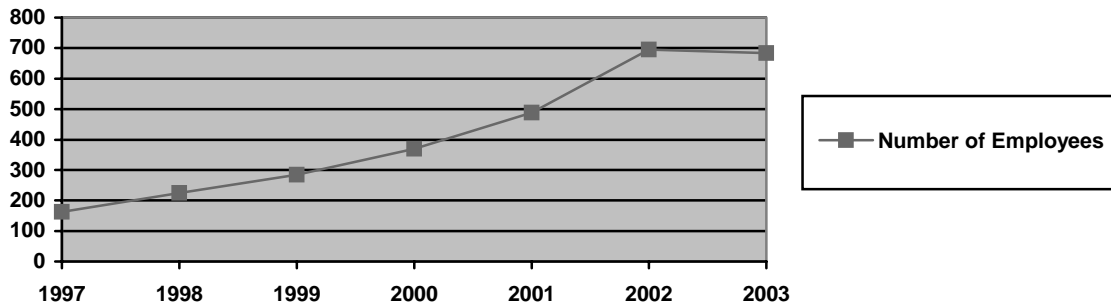
Source : GrameenPhone, *Annual Reports*, 1998–2002; GrameenPhone, Presentation to the Investors' Forum, Kuala Lumpur, 8 January 2004 (www.telenor.com/ir/presentations/gp/).

Figure 4. GrameenPhone Mobile Subscriber and BTTB Fixed-Line Growth, 1997–2003



Source : GrameenPhone, *Annual Reports*, 1998–2002; GrameenPhone, Presentation to the Investors' Forum, Kuala Lumpur, 8 January 2004 (www.telenor.com/ir/presentations/gp/).

Figure 5. GrameenPhone, Number of Employees, 1997–2003



Source : GrameenPhone, *Annual Reports*, 1998–2002; GrameenPhone, Presentation to the Investors' Forum, Kuala Lumpur, 8 January 2004 (www.telenor.com/ir/presentations/gp/).

Phones Mean Business

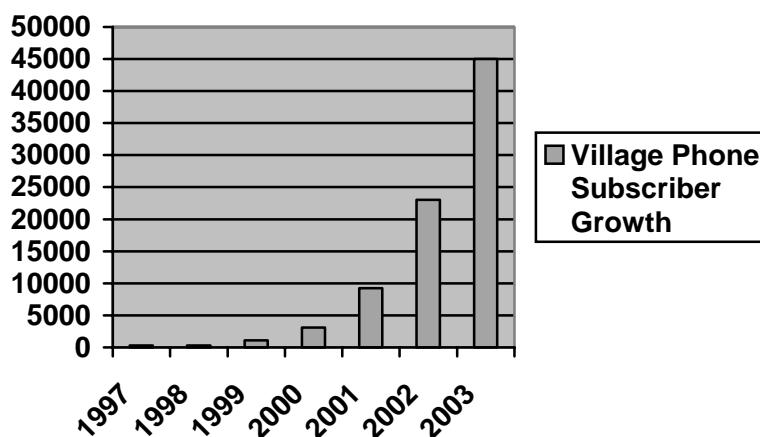
22. The Village Phone Programme combines the widely acclaimed approach of micro-credit with the latest telecommunication technology. The formula is simple. A person – usually a woman, hence the epithet “Village Phone lady”¹⁴ – purchases a cell phone with a loan of about US\$350 from Grameen Bank. She then sells telephone services to villagers, both making a living and paying off her loan. The scheme thus creates an opportunity for self-employment while giving telephone access to all the inhabitants of the village.

23. A number of studies have concluded that the programme is a profitable business for the Village Phone operators, who on an average earn a net daily profit of US\$2, more than double the per capita income in Bangladesh. The average revenue per user (ARPU) of Village Phone subscribers is double than that of the average business user. The telephone has become the first item for which Grameen Bank members take out micro-enterprise loans, way ahead of loans for milk-cows or for rickshaw-making and -repairing. Furthermore, experience has demonstrated that the phone has had a positive socio-economic impact on the entire community.¹⁵ The phone allows villagers to check market prices, arrange bank transfers, consult doctors in distant cities or contact friends or relatives living in Bangladesh or abroad (more than five million Bangladeshis live in the Middle East and Malaysia, for example). All Village Phones have access to the international grid – a rare privilege in Bangladesh, given the lack of interconnections with BTTB. By the end of 2003, there were more than 45,000 Village Phones in operation in some 39,000 villages around the country, providing telephone access to more than 70 million people (Figure 6).

¹⁴ Some 95% of the micro-entrepreneurs borrowing money from the Grameen Bank are women.

¹⁵ For details, cf. Bayes *et al.* (1999); Richardson *et al.* (2000); Aminuzzaman, S. M. (2002).

Figure 6. Village Phones: Growth in Subscriptions, 1997–20



Source : GrameenPhone, *Annual Reports*, 1998–2002.

GrameenPhone's Results

24. The phenomenal rate of growth of GrameenPhone from 1997 has generated some impressive statistics:

- GrameenPhone is the market-leader in telecoms in Bangladesh, with more than 1.3 million subscribers.
- In 2001 EMC, the London-based mobile-phone market-research firm, identified GrameenPhone as the fastest-growing and largest mobile company in South Asia.
- GrameenPhone is one of the largest private investments in Bangladesh, with more than US\$ 230 million as of May 2003.¹⁶
- GrameenPhone is the second-biggest corporate taxpayer (contributing US\$ 284 million since its inception to May 2003), just after British American Tobacco Bangladesh Ltd.
- The 45,000 Village Phones spread across the country reflect GrameenPhone's commitment to the socio-economic development of rural Bangladesh.
- GrameenPhone has built the largest cellular network in the country, covering 49 out of the total of 64 districts (with more than 700 base stations all over Bangladesh).¹⁷

¹⁶ www.boibd.org

¹⁷ Annex 7 (p. 35) gives some further statistics on the impact of GrameenPhone on the Bangladeshi economy.

Building GrameenPhone

History of a Strategic Partnership

25. In 1994 Iqbal Quadir, a Bangladeshi investment banker living in New York, returned to his homeland with a fixed idea in his mind: that the time was ripe to invest in telecommunications in Bangladesh, and that ICT could empower people with possibilities unthinkable in the past. The government of Bangladesh had announced that they were deregulating the telecommunication sector and Mr. Quadir was convinced that bringing mobile phone services to the poor was a sound investment. He approached Professor Muhammad Yunus, the founder and Managing Director of Grameen Bank, to convince him that his Bank should apply for a licence and create a telecom company. Iqbal Quadir knew that the Bank – with its expansive rural network and extensive understanding of the economic requirements of the rural population – was a key component of his scheme.

26. The next essential step was to identify a partner who could bring the necessary technological expertise into the future telecommunications company. Although a deal was nearly struck with the Swedish telecom company Telia, the partnership never materialised: the government had to postpone the licensing process for two years because another company had launched a legal case, ultimately unsuccessful, in defence of a claim that it had been granted a monopoly by the government.

27. In the end, the newly created telecommunications company, GrameenPhone, signed the licence agreement with the government of Bangladesh on 11 November 1996 – and by that time Telia had invested in India and was no longer interested in a partnership with GrameenPhone. The search for partners therefore had to start all over again. Many companies – from countries as different as the USA and Thailand, with some big names among them – expressed interest in joining; finally, it was the Norwegian company Telenor that brought technological and business experience into the partnership. Professor Yunus was looking for a telecom company which could share in the Grameen group's goal of social responsibility (providing phone services to the rural poor). Iqbal Quadir served the company as a consultant and then as external-relations manager before leaving in 1999, although remaining involved through the participation of Gonophone Development Corporation in GrameenPhone's capital. The last partner, the Japanese trading company Marubeni, joined at a later stage.

A Unique Joint Venture: Four Companies from Four Countries

28. GrameenPhone is a unique joint venture, uniting four companies from four countries in three continents (Figure 7):

Telenor Mobile Communications AS (TMC)¹⁸ – with a holding of 51% of GrameenPhone – is a division of Norway's largest telecommunications group, Telenor AS. Telenor has played a pioneering role in the expansion of cellular communications – particularly, but not exclusively, Global Systems for Mobile Communications (GSM) technology¹⁹ – developing advanced solutions in mobile telecommunications for its domestic market before exporting the technology to the international market. Telenor's primary strategic focus, both in Norway and abroad, is on the development of mobile operations in growing markets. Telenor's internationalisation outside the Nordic region is driven

¹⁸ www.telenor.com

¹⁹ 'GSM as a mobile cellular standard is set to reach the milestone of one billion users during the first quarter of 2004. In absolute terms, the Asia Pacific region drove GSM's growth during the year adding more than 70 million new users, according to a company press release' – quoted in Commonwealth Telecommunications Organisation (CTO), Information and Communication Technology (ICT) Development Agenda: www.ictdevagenda.org/frame.php?dir=07&sd=10&sid=3&id=559.

essentially by mobile communications but within limited geographical areas: central and eastern Europe, and South-Eastern Asia. The company is the twelfth-largest GSM operator in the world, with 25 million clients in the three Scandinavian countries, Russia, central and eastern Europe, Bangladesh, Thailand and Malaysia. Telenor was active in more countries in the past but as its strategy is to seek to achieve financial and operational control, the company decided to dispose of its interests in countries where this control could not be established. Both GrameenPhone's Managing Director and Technical Director are seconded from Telenor, which has also three representatives among the six members of the Board of Directors.

Grameen Telecom²⁰ – which holds 35% – is a specialised non-profit organisation established by Grameen Bank to administer the Village Phone Programme. The organisation is a Specific Purpose Company (SPC). In British or Bangladeshi law it is known as a non-stock, non-profit company limited by guarantee. Grameen Bank and Grameen Telecom are two independent organisations. Grameen Bank thus has no direct ownership of GrameenPhone. Grameen Telecom borrowed money from the Open Society Institute²¹ to buy its 35% of GrameenPhone shares. This loan was paid off in early 2004 and replaced with a loan from a local bank (Standard Chartered Bank) for which the Institute continues to provide a guarantee. (The fact that the current head of Grameen Telecom is also a staff member of Grameen Bank is purely coincidental and a temporary arrangement until a new Managing Director can be identified.)

Marubeni, one of Japan's leading trading companies,²² with 9.5%, is involved in operations encompassing import, export and off-shore trading, as well as the development of material resources and retail marketing of finished products. Marubeni has major investments in numerous developing countries throughout Asia, Africa and Latin America. In the rapidly industrialising ASEAN countries, Marubeni is investing particularly in infrastructure projects, including telecommunications and resource development.

Gonofone Development Corporation, with 4.5%, is a New York-based investment firm established by Iqbal Quadir in 1994. Unlike the three other partners, Gonofone is not a member of the Board of Directors.

29. Although GrameenPhone is currently owned by these four shareholders, the company is discussing the possibility of opening its capital to the public when the time is right.²³

30. In July 1999 GrameenPhone signed a financing package agreement of US\$55 million with the Asian Development Bank (ADB), International Finance Corporation (IFC) and the Commonwealth Development Corporation (CDC), a British government-owned institution dedicated to investing in private-sector projects in developing countries. The agreement provided for a loan of US\$ 16.67 million and a preferred share investment of US\$ 1.57 million for 3% of the company, each from the ADB, IFC and CDC. Under the industrial and commercial facilities of the Norwegian Agency for Development Cooperation (NORAD), loans and guarantees were also provided for GrameenPhone: a grant of US\$ 5 million plus a loan agreement of US\$ 7.5 million in support of the Village Phone Programme (Table 2).

31. Presently, GrameenPhone is re-negotiating the loans along commercial financing terms with more convenient conditions. This new structure will enable the company to borrow additional funds as and

²⁰ www.grameen-info.org/grameen/gtelecom/index.html

²¹ www.soros.org

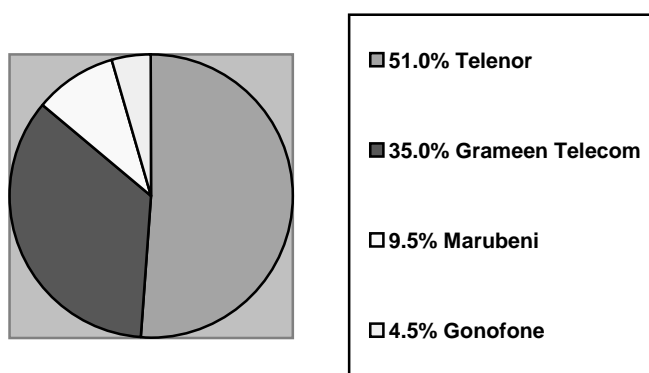
²² www.marubeni.com

²³ An organigramme of the current internal structure of the partnership can be found as Annex 1, p. 29.

when required, after fulfilling certain terms and conditions. In December 2003, the IFC approved a second loan of US\$ 45 million to fund the expansion plans of the company, enabling GrameenPhone to cover all 64 districts of Bangladesh. In addition to this second loan from the IFC, GrameenPhone is also planning to take fresh loans from both the ADB and Norwegian Investment Fund for Developing Countries (NORFUND), which will be parallel to the IFC loan. The total amount of investment required will depend on the future requirements of the company.²⁴

32. In 2002 and 2003, the financing requirements of the company for investment were met by internally generated free cash flows.

Figure 7. GrameenPhone Equity Capital Structure, 2002



Source : GrameenPhone Ltd., *Annual Report 2002*.

²⁴ . In June, 2004, IFC/ADB and Norfund committed a US\$60 million corporate loan facility to GrameenPhone Ltd. to expand its network to all 64 districts in Bangladesh and refinance the existing IFC and ADB debt. IFC committed a US\$30 million loan and arranged parallel loans of \$20 million and \$10 million respectively from ADB and Norfund. The current project supports the expansion of rural connectivity through GrameenPhone's participation in the Village Phone program, administered by Grameen Telecom.

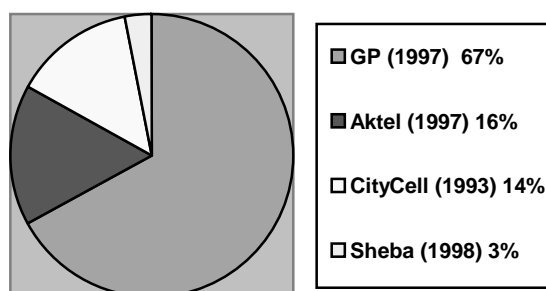
Table 2. GrameenPhone Capital Structure, 2002

US\$ 136 Million	
Share Capital US\$ 56 Million	
EQUITY (ORDINARY SHARE): US\$ 51 MILLION	
Telenor Grameen Telecom Marubeni Gonofone Development Corp.	
EQUITY (PREFERENCE SHARE): US\$ 5 MILLION	
International Finance Corporation (IFC) Asian Development Bank (ADB) Commonwealth Development Corporation (CDC)	
Total Debt Financing: US\$ 80 Million	
LOAN FROM SENIOR LENDERS: US\$ 60 MILLION	
IFC ADB CDC Norwegian Agency for Development Cooperation (NORAD)	
LOAN FROM SHAREHOLDERS: US\$ 20 MILLION	
Telenor (US\$ 18 Million) Marubeni (US\$ 2 Million)	

Source : GrameenPhone Ltd., *Annual Report 2002*.

Figure 8. Market Share of Mobile Telephony in Bangladesh, September 2003

Total mobile market in Bangladesh: 1.56 million subscribers



Source : GrameenPhone, Presentation to the Investors' Forum, Kuala Lumpur, 8 January 2004.

Shareholders' Motivations

Our shareholders contribute their unique, in-depth experiences in both telecommunications and development from four corners of the globe. International shareholders bring technological and business expertise while the local shareholder provides a presence throughout Bangladesh and a deep understanding of its economy. All are dedicated to Bangladesh and its struggle for economic progress and have a

*deep commitment to GrameenPhone and its mission to provide affordable telephony to the entire population of Bangladesh.*²⁵

33. Even if all shared the same ultimate goal, each partner joined GrameenPhone with a particular motivation that is a key ingredient of the partnership's success.

Telenor Mobile Communications AS (TMC)

34. With the saturation of the Scandinavian market in the early 1990s, Telenor started looking for new business opportunities. The capacity for growth lay in internationalisation, but Telenor did not have the financial and human capacity to enter markets as big as China or India. It was at that time that Iqbal Qadir and Professor Yunus approached the company. The former Telenor CEO, Tormod Hermansen, was a socially motivated person who liked the idea of using the phone as a “weapon against poverty”, and in their quest for partners, Professor Yunus and his colleagues – who were concerned that a large company might use the Grameen name and network for activities which did not accord with the core mission of the organisation – were looking for a relatively small company that could understand and respect Grameen Telecom's social mission. When GrameenPhone was created, Telenor was entirely owned by the Government of Norway, and so the focus of the company was on providing telecommunication services, not solely on the financial return on investment. The Annual Report of Telenor in 2001 clearly states that “the company's objective is not just financial, but also to contribute to the development of the country” (i.e., of whichever country they were operating in).²⁶ Telenor and Grameen Telecom were a perfect match.

Grameen Telecom

35. The only justification Grameen Bank required to enter the telecommunication sector was the idea of putting telephones in the hands of poor people. Iqbal Qadir's mission – to connect the poorest people to the latest, most sophisticated technology – was obviously attractive, but it raised a number of questions.

36. First, could these telephone networks reach out to rural people? Professor Yunus knew that if technology could be brought to the rural people, the financing mechanism the Bank had developed would allow poor people access to it.

37. The second question was whether the user would generate enough business to pay back the loan. Professor Yunus suspected that the local communities would want to communicate or acquire important economic or social information and would thus give the owner of the phone plenty of business. As matters then were, with no telecommunication channels in place, information had to be physically carried to villages, patently a costly and time-consuming process. And if people could make money by exchanging information, Grameen Bank would have a sound enough reason for getting involved in telecommunication services. Traditional telecommunications companies did not dare enter this market because they feared the costs of administration – selling the handsets, collecting the bills, providing maintenance services, etc. – would outweigh the returns. However, because Grameen Bank was already providing services to 2.3 million borrowers all over the country, the costs of administering this additional telecommunication service was very low: Grameen's extensive institutional infrastructure gave it an enormous competitive advantage over any other institution.

38. Since Grameen Bank is a financial institution, not a telecom company, it set up two independent companies: GrameenPhone, intended to be profitable, and the not-for-profit Grameen Telecom. Thus,

²⁵ *Annual Report 1997*, GrameenPhone, Dhaka, 1998, p. 8.

²⁶ *Annual Report*, Telenor, Oslo, 2001, p. 26.

Grameen Telecom can look after the interests of the future owners of the company: when GrameenPhone goes to the stock-market, Grameen Telecom will sell its 35% holding to a fund, the Grameen Mutual Fund, from which interested Grameen Bank borrowers will be invited to buy shares – since Professor Yunus’ ultimate goal is to give the Village Phone ladies the chance to become not only users but also owners of the company.

Marubeni

39. Marubeni was brought into the partnership by Grameen Telecom. As Grameen Telecom had no experience with telecommunication, it wanted to involve a company, preferably Asian and already present in Bangladesh, with some expertise in the telecom sector that could help negotiate with Telenor. At that time, Marubeni identified Grameen Bank as a competent business partner in Bangladesh and also was interested in joining an ODA-supported project in the telecommunications sector. “Marubeni’s investment in GrameenPhone is part of the company’s overall aim of becoming a value creating company dedicated to making Bangladesh a significant contributor to the growth of the global economy.”²⁷ Marubeni recognises the role of mobile phones as effective tools to develop a telecommunication infrastructure where fixed-line infrastructure is initially poor.

Gonofone Development Corporation

40. This investment firm was created by Iqbal Quadir to help implement some of his principles for fostering socio-economic development: first, whether you’re in a modern office or in an underdeveloped village, “connectivity is productivity”, and increased connectivity could be used to alleviate poverty in rural Bangladesh; second, the digital revolution had been reducing the costs of telecommunications, bringing such facilities within the reach of poorer economies even on a large scale; third, Grameen Bank had an extraordinary network of borrowers which could be leveraged to deliver connectivity to rural Bangladesh.

Donors

41. The IFC, ADB and CDC have supported GrameenPhone in expanding access to telecommunications services, improving the quality of services and providing connectivity to rural areas, which will further support and promote economic development in rural Bangladesh. Improving the telecommunication infrastructure is seen as a central component of the strategy of promoting and attracting further private-sector development. Bangladesh is one of the main recipients of Norwegian development assistance. The support received from NORAD was clearly earmarked for the Village Phone Programme in order to foster socio-economic development in rural areas. Both the Canadian International Development Agency (CIDA) and NORAD supported research on the socio-economic impact of the Village Phone Programme.

Operational Set-up: Who Does What

42. Grameen Bank provides the financing mechanism to enable the borrower, and future phone-operator, to purchase the handset from Grameen Telecom. Grameen Telecom is in charge of the daily administration of the Village Phone Programme. GrameenPhone builds, expands and maintains the telecommunication network. Grameen Telecom purchases air-time from GrameenPhone at a discounted rate (50% discount). This discount provides the margin to cover the costs of running the Village Phone Programme and allow the local operator a profit. GrameenPhone is also responsible for all interaction with

²⁷ *Annual Reports*, GrameenPhone, Dhaka, 1998–2002.

the government: regulatory framework, interconnections, etc. Loans received from donors and shareholders supported the company's initial network roll-out and continued expansion.

43. Grameen Telecom argues that GrameenPhone does "good business" with the Village Phone ladies as they use much more airtime than an urban user. In spite of the discount given to Grameen Telecom, GrameenPhone receives good earnings from the Village Phone Programme, for two main reasons: first, Village Phone operators account for only 3.5% gross of all subscribers of GrameenPhone but provide 15% of GrameenPhone's total revenues; second, Grameen Telecom in co-operation with the Grameen Bank community network takes care of all individual transactions with the operators.

44. GrameenPhone's current Managing Director, Mr. Ola Ree, disputes the claim that the Village Phone operators generate above-average revenues for GrameenPhone. The revenue per unit (RPU) among Village Phone operators is US\$ 100 per month but a large part of this sum consists of international calls, both incoming and outgoing. Once the international component and interconnection costs are removed, the net RPU of Village Phone operations is approximately US\$ 20 per month which is basically equivalent to the net RPU of regular post-paid subscribers (bearing in mind that regular subscribers' net RPU – at US\$ 16 – is lower only because regular subscribers cannot interconnect with the international grid).²⁸

45. For Mr. Ree, the Village Phone Programme is part of GrameenPhone's corporate effort to show social responsibility. Village Phone represents a small part of GrameenPhone's overall business, with only 3.5% of its overall subscriber base (45,000 Village Phone ladies out of 1.3 million GrameenPhone subscribers). GrameenPhone's business success hardly hangs on the Village Phone Programme, but the fact that it provides regular fixed earnings to the company and contributes to the branding of the company is uncontested – and some of GrameenPhone's major branding efforts go into building an image, drawing attention, creating a lobby in favour of the company and ensuring favourable media coverage. And the Village Phone Programme has brought GrameenPhone and its various stakeholders an enormous amount of international visibility and recognition.²⁹ The Village Phone Programme has demonstrated with striking success that "good development is good business". Furthermore, as detailed in numerous studies of the Village Phone Programme,³⁰ one of the most striking characteristics of the programme is its role in empowering rural women in Bangladesh.

Success Factors

*To be the leading provider of telecommunication services all over Bangladesh with satisfied customers and shareholders, and enthusiastic employees.*³¹

46. GrameenPhone places a lot of importance on operational efficiency and excellence. That entails a number of mutually reinforcing ingredients: quality services – including a 24-hour customer hotline – to satisfy existing customers and appeal to new ones; competitive pricing; expanded and reliable network coverage to meet the growing subscriber demand; and enthusiastic employees.

47. Employee satisfaction is a central priority for the company, as is demonstrated by the training programmes conducted by experts from within the company, Telenor or Ericsson, which is one of

²⁸ The tariff discount system is explained in Annex 4, p. 32.

²⁹ Visits by President Clinton, Mrs. Clinton and Queen Sophia of Spain among others are good demonstrations of this international recognition. Without its innovative rural component, GrameenPhone would probably not have attracted such attention.

³⁰ Cf. Richardson *et al.* (2000).

³¹ The GrameenPhone "corporate vision", announced in the *Annual Report 2002*, GrameenPhone, Dhaka, 2003, p. 2.

GrameenPhone's main suppliers of equipment. These programmes include in-house training, courses intended to develop managerial skills, team-building workshops, overseas training, etc. Employees are also invited to participate in regular Employee Satisfaction Surveys. The 2001 *Annual Report* notes that "employees know in their hearts that GrameenPhone is more than phones" and that this ideal has given them the "dedication and the drive" to produce, in about five years, the largest mobile-phone provider in Bangladesh.³²

48. According to Ola Ree, two factors were instrumental in the creation of GrameenPhone. First, Telenor provided strong support during the start-up period, with more than 40 Norwegian staff members contributing to the early days of the company. Second, right from the beginning, GrameenPhone has enjoyed a good financing situation through the loans extended by shareholders and multilateral donors. These two inputs are seen as vital factors in the launch of a company in a country "where nobody knows about mobiles, where there is no existing industry".³³

49. Two further ingredients have been decisive in the development of the company. First, GrameenPhone has always managed to take advantage of arising opportunities in a strategic and timely manner – as is demonstrated by the leasing of the Bangladesh Railway's fibre-optic "backbone". Second, the company has demonstrated a degree of flexibility that allows it to adapt to difficult situations and problems. Faced with the lack of interconnections, for example, it decided to introduce a service without connections to the main network (mobile-to-mobile), which proved very successful.

50. From an operational point of view, the success of the Village Phone Programme results from the synergy of two networks: first, the broad technological network set up by GrameenPhone with funding from shareholders and donors; second, the extensive and deeply rooted community network developed by Grameen Bank since its creation in 1976.

Future of GrameenPhone and the Village Phone Programme

According to a market survey, the present total demand for mobile phones services in Bangladesh is estimated to be 24 million, with the average monthly household income level of a subscriber ranging from BDT 1,000 (USD 17)³⁴ to over BDT 15,000 (USD 260). However, taking into consideration the current start-up cost, it is assumed that the lower income segment ranging from BDT 1,000–6,000 (USD 17–104) (which accounts for 65 percent of the estimated market) will be unable to afford start-up cost ranging from BDT 8,000–9,000 (USD 139–156). Thus, the current addressable mobile phone market in the country is estimated to be around 8.6 million subscribers, with a household income ranging from BDT 6,000 (USD 104) to over BDT 15,000 (USD 260).³⁵

51. Pending approval by its shareholders, GrameenPhone could well decide to increase the current coverage from 35% of the population to 50% in an attempt to double the number of subscribers. This expansion would require an expansion of the number of base stations from 700 to 800. Although teledensity in Bangladesh remains low and there is still room for growth, a number of obstacles could obstruct GrameenPhone's development:

³² *Annual Report 2001*, GrameenPhone, Dhaka, 2002, p. 5.

³³ Interview with Mr. Ola Ree, Dhaka, 5 February 2004.

³⁴ Average conversion rate for 2001: US\$1 = 57.68 Bangladesh Taka (BDT).

³⁵ *Annual Report 2001*, GrameenPhone, Dhaka, 2002, p. 34.

- persistent lack of interconnection capacity (land-line and international);
- changes in the regulatory environment providing uncompetitive advantages to a possible future mobile phone service run by BTTB;
- socio-economic turbulence – especially foreign-exchange fluctuations, since the loans are borrowed in foreign currency (US\$);
- unfavourable changes in fiscal policies such as increased import duty on mobile-phone handsets.

52. For Professor Yunus, the future progress of the Village Phone Programme depends on the expansion of the network coverage. The current target is to double the number of Village Phone ladies in 2004. As one might expect, the high demand for phones has resulted in competition inside villages, so that the phone operated by the Village Phone ladies is no longer the only one available: entrepreneurs buy their own, or new ladies establish a new phone business. Indeed, Ola Ree fears that the Village Phone Programme could be in danger in the future from the continuing rise in teledensity. Professor Yunus rejoins that the success of the Village Phone Programme has laid the foundation for future IT services like e-commerce, e-healthcare, e-literacy, e-education, e-jobs, and so on.

53. Village Phones that fall into the wrong hands pose also a threat to the viability of the entire programme. Some businessmen have offered large amount of money to Village Phone ladies in order to acquire and use their phones. Other Village Phones are used in urban areas, putting the business of official GrameenPhone dealers in jeopardy. These illegal practices are monitored and addressed by Grameen Telecom using a variety of means, including a complaint-management system and the disconnection of illegal subscriptions.

54. Finally, the introduction of the Voice over the Internet Protocol (VoIP) by BTTB would drastically reduce the costs of international calls and could do severe harm to the Village Phone Programme since a majority of customers use the Village Phone to call relatives abroad.

IMPACT OF THE GRAMEENPHONE MODEL

A Model for Development Elsewhere?

55. According to Professor Yunus, the Village Phone Programme could work anywhere: “There are no anthropological factors or cultural differences involved. It’s business”.³⁶

56. But although numerous organisations have come to visit Grameen Telecom to see how the Village Phone Programme might be replicated elsewhere, the only country where the model is currently being reproduced is Uganda. The Grameen Technology Center, an initiative of the Washington-based Grameen Foundation, established a 50-50 partnership with MTN Uganda,³⁷ the dominant telecommunications company there, to create a new company called “MTN villagePhone”. Since its formal launch in November 2003, the company has deployed 200 phones in co-operation with nine micro-finance partners, with a goal of reaching 5,000 operators in five years. In fact, usage has already proved to be 25% higher than predicted, well above a sustainability baseline or break-even point. Unlike the Village Phone Programme in Bangladesh, the Uganda project uses a prepaid approach, which eliminates most of the administrative costs. In order to set up the replication model, the World Bank extended a loan to Grameen Foundation, which was used to fund research on operational specifications for replication and provide a start-up investment to MTN. IFC provided some grant through its SME Capacity Building Facility (CBF), whose mandate is to help transfer good models of small-business development from one country to another. Donors do not provide any subsidy to the micro-finance institutions (MFIs), to MTN or the village-phone operators. Airtime rates are not subsidised and the Uganda model is completely sustainable.

57. The Grameen Foundation USA received some funding from the World Bank Information for Development Program (known as “*infoDev*”) to establish and validate a general replication model, and disseminate this information to the commercial telecommunications sector and the worldwide development community in order to establish a global Village Phone Movement. Although the Foundation recognises the importance of customising the approach to the local prevailing environment, the objective is to identify some common denominators and core elements that could be brought across different countries.³⁸

58. MTN Uganda has the option of buying Grameen out at the end of a three-year period. As Tim Wood, the Technical Project Manager at the Grameen Technology Center, notes,³⁹ the first step in starting a replication project is to identify a telecommunication partner who has the infrastructure and who understands that it makes sense to offer a discount rate. Convincing the MFIs that the scheme would be profitable initially proved difficult. In Uganda, the regulatory framework was not an issue; indeed, the government was very supportive. The Uganda experience is proving to be a “win-win” model because

³⁶ Interview, Dhaka, 4 February 2004.

³⁷ MTN is a South African company launched with backing from Cable and Wireless in the United Kingdom and Southwestern Bell. MTN Uganda’s website: www.mtn.co.ug/.

³⁸ A presentation of the general replication model is available on the Foundation’s website at: <http://tech.gfusa.org/ReplicatingVillagePhone.pdf>. Grameen Foundation also received funding from individual donors for the Village Phone project in Uganda.

³⁹ Interview, Brussels, 9 February 2004.

everybody involved is making money: the private sector, the MFIs and the borrowers. The Grameen Foundation is exploring the possibility of replicating the project in another country with or without the co-operation of MTN. Potential countries include Indonesia, the Philippines, Morocco and Nigeria. The Foundation is looking for places where there are a large number of micro-finance borrowers and a strong telecommunication infrastructure already in place – building the requisite infrastructure solely for a Village Phone programme would be prohibitively expensive.

Replication Initiatives: What Donors Could Do

59. According to Ola Ree,⁴⁰ the conditions (such as strict subscriber targets) imposed by senior lenders – the IFC, CDC, ADB, NORAD (NORFUND) – hampered GrameenPhone's expansion considerably, forcing the company to re-negotiate granted loans along commercial financing terms with more flexible conditions. According to Professor Yunus and Mr Ree, the donor community could adopt an approach which avoids these constraints by sharing knowledge and resources with telecommunication companies willing to launch a replication of the Village Phone model, bringing a social dimension to business plans by covering the potential risks of serving the poor. They could also help companies explore new business opportunities in new countries or in untapped segments of the consumer pyramid.

60. The success of GrameenPhone and its Village Phone Programme demonstrates the high potential for development of strategic partnerships involving a number of stakeholders. The model revolutionises the way long-existing, apparently intractable problems of the poor can be addressed. It reviews some of the myths surrounding the poor, their needs and their capacity to address them (Table 3).

Table 3. Bringing Telecom to the Rural Poor: Myths and Facts

Myths	Facts
Phones cost too much.	Costs of telecommunications have been declining, as part of a larger trend in IT.
Phones have to be subsidised if they are to serve the poor.	The poor often pay a higher price for making calls by having to travel long distances before reaching a phone (costing more time and money).
Phones follow wealth. After a country becomes richer, its people can afford more phones.	Wealth follows phones. The ITU estimates that Bangladesh, with a per capita annual income of US\$ 275, could raise its GNP by an annual US\$ 6,000 with one additional phone.
One should aid the poor, not profit from them	Phones are profitable and thus prove their usefulness, irrespective of whether they are used by the rich or the poor
Phones serve secondary needs. The focus should be on the primary needs of the poor.	If the poor are empowered or enriched through phones, they can assert their own requirements and better meet their primary needs.

Source : GrameenPhone, *Annual Report 1998*.

61. C. K. Prahalad, Professor of Corporate Strategy and International Business at the University of Michigan, and Stuart L. Hart, Professor at the Kenan-Flagler Business School, University of North Carolina, and at Cornell University Johnson School have long argued that the world's poorest four billion

⁴⁰ Interview, Dhaka, 5 February 2004.

people could provide vast and unexploited market opportunities.⁴¹ They question the usual assumption whereby the rich will be served by the corporate sector and governments or NGOs will protect the poor and the environment, and they call for radical innovations in technologies and business models. Their analysis points to a number of the forces that underpin the emergence of a market for goods and services at the bottom of the pyramid. Professors Prahalad and Hart describe in detail the required ingredients for such an innovative approach to work. Creating buying power and increasing the income-earning potential of the poor are underlined as priorities. By giving access to credit, micro-finance brings purchasing power to the poor.⁴² Professors Prahalad and Hart also underline the importance of forging new alliances among a range of institutions: government, NGOs, local communities, local firms, financial institutions, and so on.

62. GrameenPhone provides a living example of a company that has been able to drastically rethink usual business plans and adapt to, even create, new markets, as three of their products and services illustrate:

- The Village Phone Programme is a good example of a business model designed for a specific, and unusual, customer segment and validates the strategy developed by Professors Prahalad and Hart. The programme is built on an innovative partnership between the private sector and a non-profit organisation. Micro-credit enables the poor to buy a telephone and sell phone services to pay back their loan and make a living. Aggregate airtime compensates for discounted rates. The model has proved to be an effective business strategy. In addition to being commercially viable for both local operators and GrameenPhone, the model also benefits local communities.
- The mobile-to-mobile service was introduced to overcome the lack of interconnection with the state-owned fixed-line telephone network of BTTB. Providing mobile phone services without access to the fixed-line network had not been tried anywhere else in the world – as Ola Ree notes, it was “a gamble”.⁴³ In the event, it proved to be a very successful exercise, proving wrong the numerous sceptics who questioned the viability of such a model. This success is the result of a well-designed strategy: Low start-up costs of subscription and an attractive tariff-structure combined with low infrastructure costs enabled GrameenPhone to penetrate the lower segment of the market. The service proved very successful and accounted for over 90% of all subscribers in 2002. The service is now being replicated in several developing countries.
- Another popular product offered by GrameenPhone, is the “Easy” pre-paid service (that is its brand name). The service provides connectivity to customers with low purchasing power while reducing the administrative costs of the company.

63. The GrameenPhone partnership gives a good example of how to “align stakeholders’ strategic objectives and unleash the potential of new collaborative alliances and strategic compacts to harness the power of ICT for development”, as the Digital Opportunity Initiative⁴⁴ recommends in its 2001 report,

⁴¹ *Strategies for the Bottom of the Pyramid*, World Resources Institute, July 2000; available online at www.digitaldividend.org/pdf/0203ar02.pdf.

⁴² Participants at a session of the Annual Meeting of the World Economic Forum in 2003 concluded that the poor required access to micro-credit and technology that will help them become active producers and consumers:
www.weforum.org/site/knowledgenavigator.nsf/Content/When%20Markets%20Fail,%20Who%20Responds%3F_2003?open.

⁴³ Interview, Dhaka, 5 February 2004.

⁴⁴ The Digital Opportunity Initiative (DOI) is a partnership between the United Nations Development Programme (UNDP), Accenture and the Markle Foundation, which developed a framework for action on information and communication technologies (ICTs) and development within the context of the G8 Digital Opportunity Task Force (“G8 Dot Force”) process.

which prescribed the engineering of “win-win” situations as “critical to securing lasting commitment from all necessary parties”.⁴⁵

64. The success of the GrameenPhone partnership is built on the complementary strengths of its shareholders:

- Telenor – the socially motivated private partner contributes its technological and business expertise. Telenor demonstrated willingness and interest in creating new business models to adapt to local socio-economic conditions.
- Grameen Telecom – the local partner brings sound, deeply rooted knowledge of rural Bangladesh gained by its parent organisation, Grameen Bank, over nearly thirty years of micro-credit activities in the country.
- Marubeni and Gonofone have not only brought funding; they have also showed commitment and enthusiasm to make the operation succeed.

65. Through the variety of its stakeholders and its social commitment, GrameenPhone fulfils the objective of global partnership as expressed in Target 18 of the Millennium Development Goal (MDG) 8: “In cooperation with the private sector, make available the benefits of new technologies, especially information and communication technologies”.⁴⁶ GrameenPhone’s achievements also confirm the leading role of the private sector “in the development of information and communications networks in the information society” emphasised by the Okinawa Charter on Global Information Society.⁴⁷

66. The history of GrameenPhone underscores the important role of the state in creating an enabling environment to support the activities undertaken by the different partners. It echoes the Okinawa Charter, which states that “it is up to governments to create a predictable, transparent and non-discriminatory policy and regulatory environment necessary for the information society”.⁴⁸

Key Lessons Learned

67. The programme provides a number of lessons that could be instrumental in the future of development programmes, the role of ODA and the potential synergies between ODA and FDI:

- more attention should be paid to maximising synergies among existing resources and using aid strategically as a catalyst for private investment;
- the local partner must show strong leadership and have a clear sense of “ownership” of the programme;
- there can be synergies between business objectives and development goals: good business is good development;
- there are good market reasons for the private sector to target the low bottom of the pyramid;
- the poor have purchasing power;

⁴⁵ *Creating a Development Dynamic*, Digital Opportunity Initiative, New York, 2001, p. 6; available online at www.opt-init.org/.

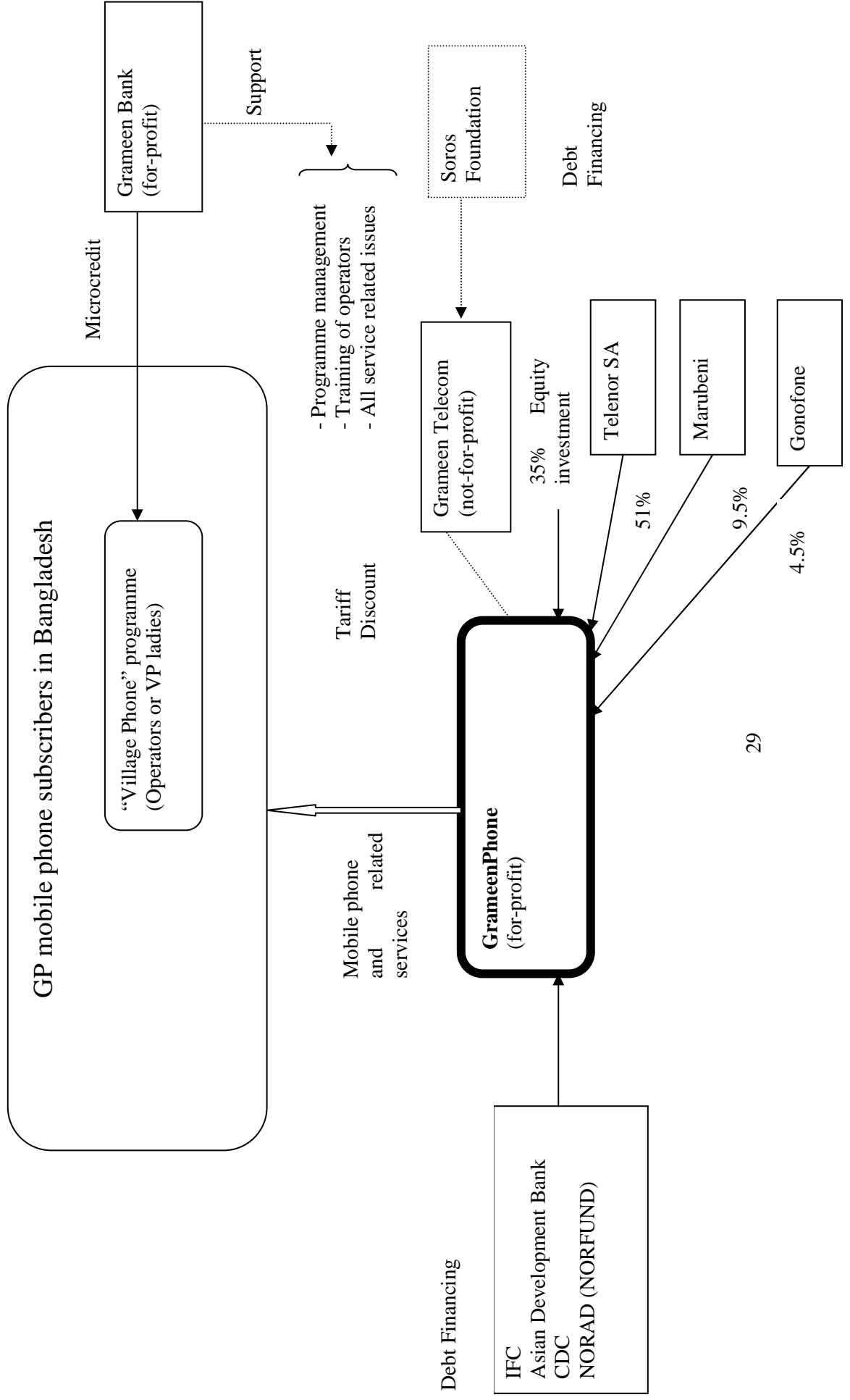
⁴⁶ UN Millennium Development Goals (MDGs), September 2000, available online at www.un.org/millenniumgoals

⁴⁷ The Okinawa Charter on Global Information Society, July 2000, available online at www.g8.utoronto.ca/summit/2000okinawa/gis.htm.

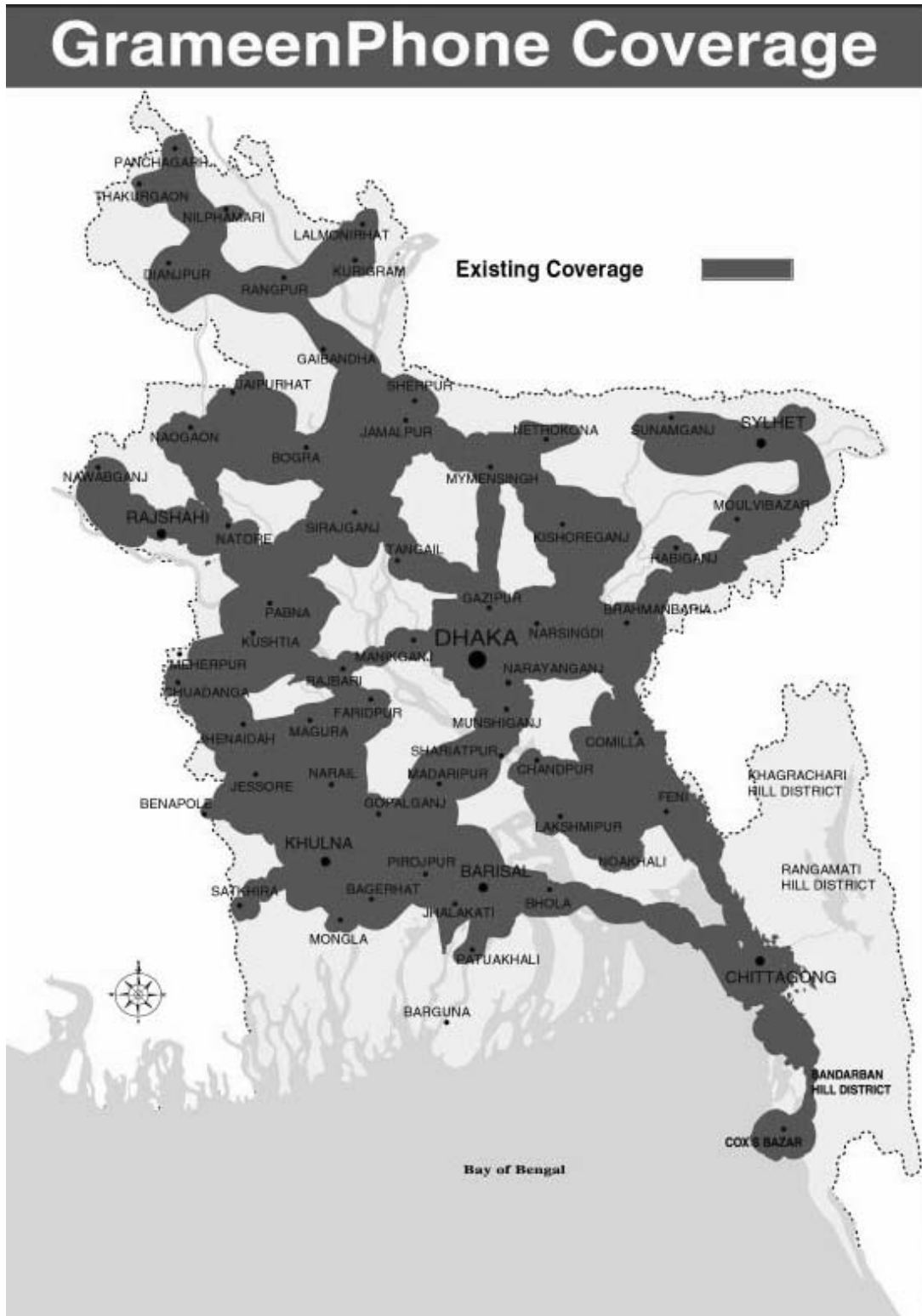
⁴⁸ *Ibid.*

- the right combination of micro-credit and technology can help the poor become active producers and consumers;
- creative partnerships between open-minded, complementary, committed shareholders can produce efficient models to expand infrastructure services beyond the more obviously profitable areas;
- “win-win” situations can be created so that all partnership stakeholders benefit;
- identifying a knowledgeable, well-established local partner is a key ingredient to build viable partnership models while securing investments;
- an imaginative, inventive approach can turn external constraints into business opportunities;
- donors could share initial business risks by providing financial guarantees and advice, improving working conditions for the private sector, and supporting the social component of the partnership’s mission to ensure that client targets include the poor;
- loan conditions should remain flexible to accommodate the potential for expansion and avoid any obstacles to company development;
- good ideas need strong commitment for their implementation; sound plans must be complemented and followed by operational excellence;
- business stimulates motivation – the prospect of earnings encourages illiterate people to learn how to use advanced technologies;
- similar partnership could be replicated virtually anywhere as long as the right partners can be identified and an efficient synergy can be built.

**ANNEX 1
PARTNERSHIP STRUCTURE OF GRAMEENPHONE LTD.**



ANNEX 2
GRAMEENPHONE COVERAGE, 2002



Source: GrameenPhone, *Annual Report 2002*.

ANNEX 3
INNOVATIVE POVERTY REDUCTION MECHANISMS IN THE VILLAGE PHONE
PROGRAMME OF GRAMEENPHONE LTD.

1. Availability of micro-credit to give purchasing power to the poor

A person, usually a woman, buys a telephone handset and a subscription from Grameen Telecom with a loan secured from Grameen Bank's micro-credit facility. Micro-credit is characterised by: 1) an absence of collateral; 2) a predominance of poor people (especially women) among its customers; 3) payment is made by frequent instalments.

2. Use of special purpose organisation

The Village Phone Programme is administered by one of GrameenPhone's shareholders: the not-for-profit organisation Grameen Telecom, set up by Grameen Bank. Grameen Telecom assures the programme management, training of operators (subscribers), and all service-related issues, with substantial support provided by Grameen Bank's national community network and the Bank's family of organisations.

3. Tariff discount system beneficial to all actors

For the telecom-service operator, GrameenPhone, the benefits include: guaranteed revenue without any cost of bill collection, no requirement for investment for sales/billing network in rural areas, etc.

For Grameen Telecom, its administrative cost for the programme is secured without any subsidy.

For the Village Phone operators, the system provides a business opportunity through mobile-phone services.

Users are spared lengthy and costly journeys to the cities where telephone services are available; they also benefit from the market rate rather than having to pay add-on premium rates.

4. Programme Management Policy

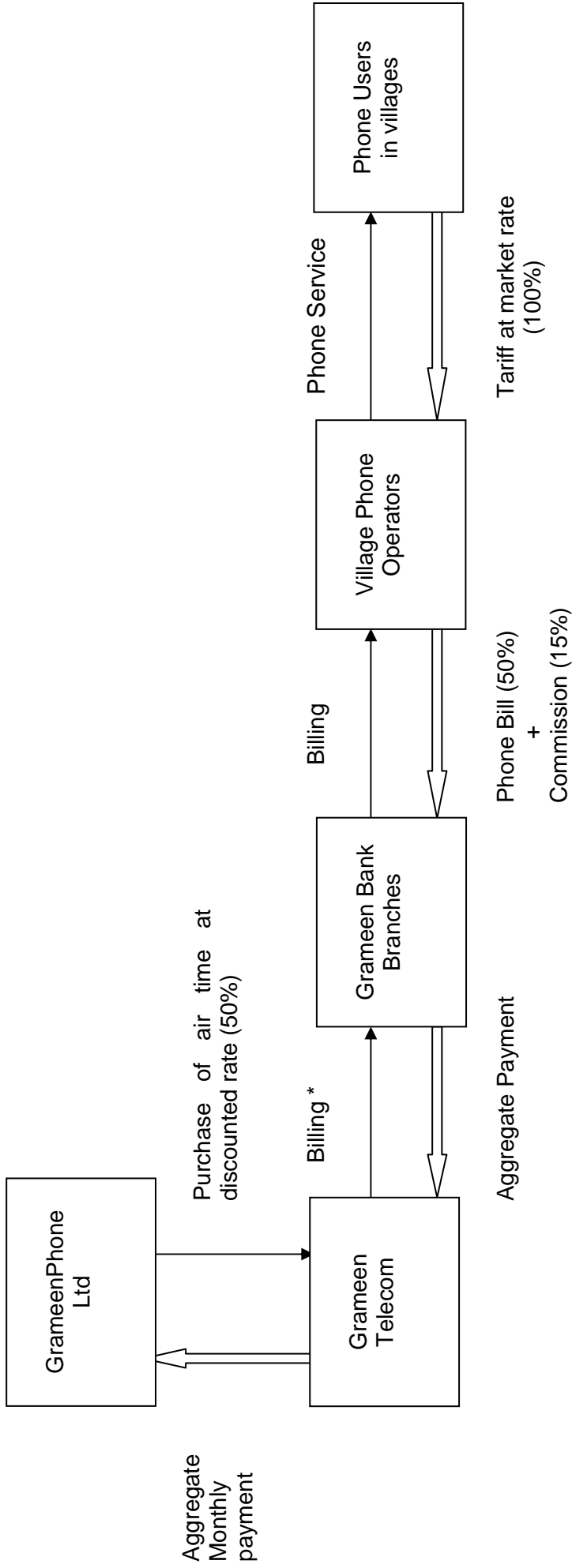
- Strict rules of the programme: criteria for the selection of operators (shop owner/central area in the village/credit history), no misuse of the programme benefits (when misuse is found, the subscription is immediately terminated), etc.
- Sequential approach (moving from monopoly to competition) in villages: When a mobile phone is introduced in a village, the operator is granted a monopoly, with competition being carefully introduced in due course.

5. Expansive coverage guaranteed by GrameenPhone to reach the villages (35% of the country)

- Lease of the Bangladesh Railway's 1,800 km fibre-optic "backbone" network spread across the country, financed by NORAD in the 1980s.
- Increase in the number of base stations.

Other telecom operators only provide services in big cities.

**ANNEX 4
TARIFF DISCOUNT SYSTEM**



45,000 operators in approx. 39,000 villages
70 million people in rural areas have access

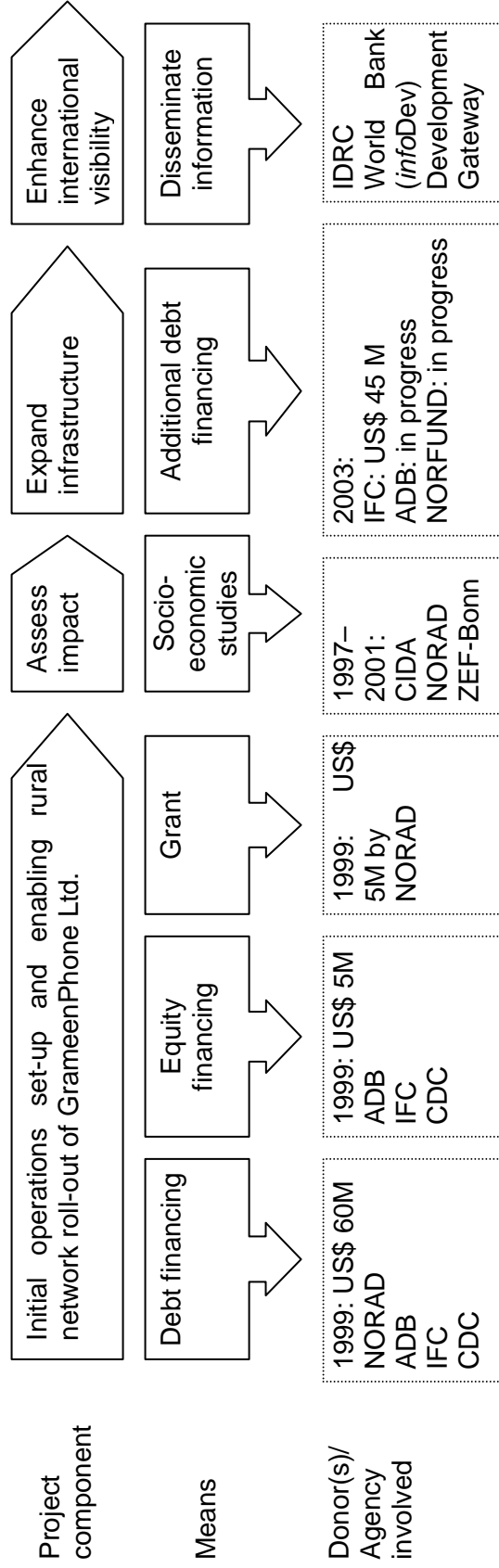
* Invoices are translated into Bangla by Grameen Telecom

ANNEX 5
COST STRUCTURE FOR VILLAGES PHONE OPERATOR *

Cost /Profit	Phone bill paid to Grameen Telecom (50%)	Commission paid to Grameen Telecom (15%)	Marginal Profit (35%)	
			Instalment to Grameen Bank	Net profit
Revenue	<p align="center">Phone User → Village Phone Operator</p> <p align="center">Tariff at Market Rate (100%)</p>			

* This table was prepared with information gathered through interviews.

ANNEX 6
DONORS' ROLE IN THE GRAMEEN VILLAGE PHONE PROGRAMME



Main roles:

Donor, in particular through loan-financing, helped in the creation and development of GrameenPhone by:

- sharing the initial business risks by providing financial guarantees and advice
- supporting the social-responsibility component of the partnership's mission to ensure that client targets include the poor
- providing valuable socio-economic impact assessments which are not generally private-sector priorities.

Further considerations relating to donor participation in future similar private sector-led projects are that:

- loan conditions should remain flexible (avoiding conditions that are too constraining) to enable timely expansion and not represent an obstacle to development⁴⁹
- backbone communications should be integrated in infrastructure projects such as railroads or electricity networks
- business plans should include a social dimension by covering the potential risks of serving the poor.⁵⁰

⁴⁹ Interview with Ola Ree, Dhaka, 5 February 2004.

⁵⁰ Interviews with Professor Yunus and Ola Ree, Dhaka, 4 and 5 February 2004.

ANNEX 7

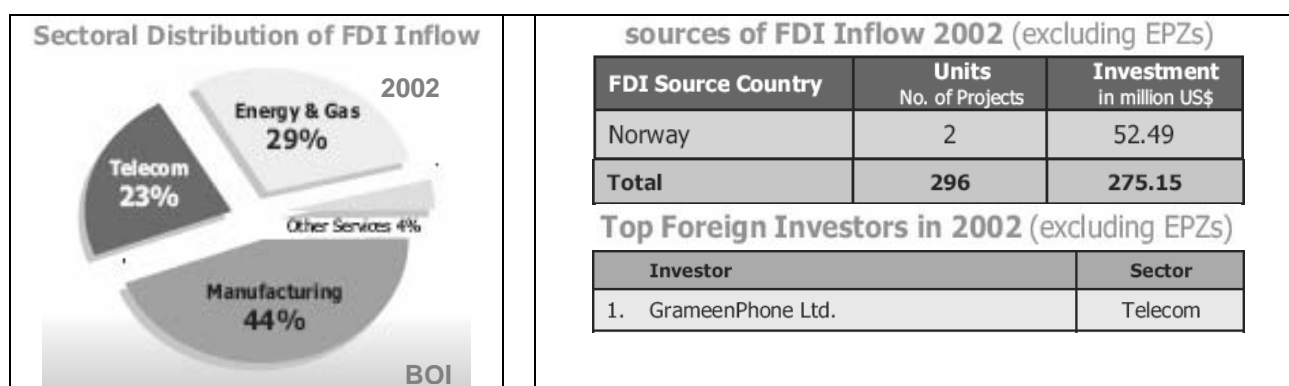
SOME KEY FIGURES ON THE IMPACT OF GRAMEENPHONE ON INVESTMENT IN THE BANGLADESH ECONOMY

GrameenPhone is one of the largest private investments in Bangladesh, and contributes significantly to the economy of Bangladesh, including through its large and sustained investments, valuable infrastructure services, employment generation, fiscal contributions and its role in rural development.

- GrameenPhone has invested over US\$ 230 million in Bangladesh⁵¹
- GrameenPhone is the second-largest corporate taxpayer (after British American Tobacco Bangladesh Ltd), having contributed US\$ 284 million in taxes to Bangladesh between its inception in 1997 up to May 2003.

Foreign Direct Investment (FDI) Inflows to Bangladesh

- **Total FDI** inflow was US\$ 322.8 million for year 2002, and US\$ 287.7 million over the first six months of 2003⁵²
- The **telecommunications sector** accounted for **23% of FDI in 2002** (US\$ 82.8 million), and 13.4% (US\$ 38.5 million) of FDI over the first six months of 2003
- **Norway** was the principal investor in Bangladesh in 2002, accounting for 19% of total FDI; Norwegian investment was mainly in the telecommunications sector.
- **GrameenPhone** was the largest foreign direct investor in Bangladesh in 2002.
- **Re-investment**, especially by GrameenPhone, has been high in Bangladesh, accounting for about 31% of total FDI in 2002 and 34% over the first six months of 2003. Re-investment (the portion of earnings that are re-invested into the local economy rather than repatriated by direct investors) is crucial, since it signals the importance that foreign investors give to expanding the local economy and the trust they have in its potential, and it encourages local job-creation.



⁵¹ As of May 2003 (www.boibd.org/).

⁵² The first gathering of credible data on actual FDI inflow to Bangladesh was conducted through surveys in February 2003, covering the year 2002, by the Board of Investment of Bangladesh (BOI). Data for 2003 were also gathered in 2003, though they currently cover only the six months from January to June. The data in this annex were extracted from the two BOI surveys of 2002 and 2003.

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